

CALIFORNIA PUBLIC UTILITIES COMMISSION
Water Division

DETERMINATION OF WORKING CASH ALLOWANCE

Standard Practice U-16-W

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DETERMINATION OF WORKING CASH ALLOWANCE

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It should be recognized that not all of the utility's bank deposit transactions involve funds for operations. Some banks require compensatory balances of about 20% of a revolving credit. This credit is ordinarily used to finance construction before completion. The amounts in the revolving credit will fluctuate until such time as management considers it favorable to convert short-term debts into long-term financing. The cost of these construction monies is more properly considered in arriving at an allowable rate of return and should not be included in cash balances considered in the operational cash requirement. Special Deposits	1-5
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Chapter 1

A—HISTORY

1. This Standard Practice was originally prepared under Utilities Division Work Order No. S-1181 by engineers of the Valuation Section under the supervision of Mr. Clarence Unnevehr, Valuation Engineer. This practice was accepted for use by the Utilities Division at the Division Conference on February 28, 1956 (Doc. Mgmt. #271137).

B—INTRODUCTION

2. This report describes present staff practices and serves as a guide to the staff engineer or analyst (analyst) in determining the working cash allowance.

B—PURPOSE

3. The purpose of this Standard Practice is to assist staff engineers in analyzing and determining a proper working cash for use in the rate base portion of results of operation reports.

4. This report covers the suggested procedures the analyst should be familiar with before undertaking a working cash allowance study. Two methods are set forth: A simplified basis, and a detailed basis. Deviations to this standard practice are acceptable but must be approved by the Project Manager.

C—NEED FOR WORKING CASH ALLOWANCE

5. The need for working cash was first recognized in *Smyth vs. Ames*, 169 US 466-547, in 1898. Mr. Justice Harlan stated that among the matters to be considered in determining the value of property used was "the sum required to meet operating expenses." Therefore, from the beginning of the "property devoted to public use ..."

doctrine as a basis for fixing rates, working cash has generally been recognized as a proper item to be included in the base on which the utility is entitled to earn a return.

D—WORKING CASH COMPONENT OF RATE BASE

6. The working cash allowance is a component of rate base. It can be positive or negative.¹ Its purpose is to compensate investors for funds provided by them which are permanently committed to the business for the purpose of paying operating expenses in advance of receipt of offsetting revenues from its customers and in order to maintain minimum bank balances. Cash held for construction, for purchases of stock, for payment of dividends and interest on funded debt, and link purposes does not qualify for inclusion in cash working capital.²

7. The analyst should recognize that management policies may affect working cash, and these policies should be considered when arriving at conclusions as to the reasonable allowance. The actual operating conditions of the utility in procurement of, and payment for, services, receipt of revenues, and accounting procedures are easily ascertained. Changes in operating conditions in the near future may be considered in the development of the working cash allowance, such as changes in tax rates and payment schedules which may affect the amount of working cash available to the utility.

2. First, determine the operational cash requirement and then subtract from the operational cash requirement such amounts as are available to this utility in forms

¹ The Pacific Telephone and Telegraph Company Decision No. 67369 62 Cal. PUC 775, 821 (1964) upheld by the California Supreme Court in S.F. 21788, April 28, 1965 where the Commission disallowed \$6,800,000 (which Pacific termed “negative working cash”) from Pacific’s claimed rate base for the test year. The Commission found that where the funds supplied to Pacific by others than investors are greater than the amount required for working cash, the excess amount should be deducted from rate base. The Court commented “This view appears sound and fair, the decision sets forth detailed findings on the subject, and no error is shown.” Cited in Subj. Ref. H-9, June 9, 1966. see also:

The Pacific Lighting Gas Supply Company Decision No. 63706 59 Cal. PUC 610, 625 (1962) D.84-02-052, February 16, 1984, In the Matter of the Application of SAN GABRIEL VALLEY WATER COMPANY, a California corporation, for authorization to issue and sell not exceeding \$4,737, 500 aggregate principal amount of its First Mortgage Series M, 12-1/2% Bonds Due February 1, 1999, to execute and deliver an Eighteenth Supplemental Trust Indenture and to purchase and retire all of its outstanding Preferred Stock at 23.

² AT&T Co., et al (Private Line Cases) 34 FCC 244, 271 (1961)

of tax accruals or other funds not supplied by the investors.³ The operational requirement is made up of working funds in the form of cash, special deposits and other current assets which the investor is required to supply to the utility in order for it to perform its day-to-day operational requirements efficiently and economically. On the other hand, the amount subtracted from the operational cash requirement represents a source of interest-free working funds available to the utility due to the fact that revenues are collected prior to the payment of employees' wages, taxes and the utility's creditors. The net amount then represents the allowance for funds supplied by the investors.

3. For practical reasons, the method of determining the working cash allowance varies with the size, nature and the operation of the utility. For utilities not large enough to justify a detailed study, or when a detailed study would be impractical from a work-time viewpoint, a simplified basis may be used to develop a working cash allowance. For major utilities, a detailed method is used based upon the so-called "weighted-average or lead-lag" study. In the final analysis the amount of working cash to be included in the rate base must rest upon the analyst's judgment. The amount of working cash allowance in the end result is essentially a judgment amount based upon what the analyst believes to be fair and reasonable for the operations of the utility but within limitations dictated by the size of the utility and staff policy.

4. This regulatory concept of working capital must be distinguished from the accounting definition of working capital. Accountants define working capital as the difference between current assets and current liabilities. The regulatory concept, on the other hand, defines working capital as an allowance for the amount of money which the utility has furnished from its own funds for the

³ "If through the availability and use of tax accrual moneys or other funds supplied by the subscribers, the investors are required to supply a smaller sum, their compensation should be proportionately less." T.P.T. and T. Co., Decision No. 41416, 48 CPUC 1, 22 (1948)

purpose of enabling it to satisfy ordinary requirements for minimum bank balances and to bridge the gap between the time expenses of rendering utility service are paid and the time revenues from the same service are collected. This definition includes both materials and supplies and working cash in working capital. Since the category of materials and supplies is already included in rate base, this Standard Practice is concerned only with the working cash allowance to be included in the rate base for rate-fixing purposes.

E—WORKING CASH ALLOWANCE - SIMPLIFIED BASIS

10. The Working Cash Allowance for small utilities as developed for results of operation studies has generally been derived on a simplified basis. The method provides that working cash "requirement" be based upon a certain number of months' expenses for fuel and/or commodity purchases, and a certain number of months of operating expenses, excluding taxes, depreciation and uncollectibles. The number of months usually depends on the type of billing and rate schedules by which the utility collects its revenues. The selection of the number of months of operating expenses used in the simplified method is based upon earlier Commission decisions commencing with Decision No. 2947, dated November 30, 1915, wherein the Commission stated that "The Commission ordinarily allows for working capital an allowance equivalent to cover two months operating expenses."⁴ In later decisions the Commission, in ruling on working capital, separated the working capital into working cash allowance and materials and supplies, and also deducted from the working cash capital an amount equivalent to a percentage of certain tax accruals which were held by the company for tax payments to be made in the future.⁵

⁴ Pacific Gas and Electric Company, Case Nos. 477 and 550, Decision No. 2947, 8 CRC 566, 569 (1915).

⁵ Great Western Power Company of California, Application No. 5585, Decision No. 11466, 22 CRC 814, 830 (1923).

Chapter 2

WORKING CASH ALLOWANCE –SIMPLIFIED BASIS

1. The working cash allowance for small utilities as developed by staff engineers for results of operation studies has generally been derived on a simplified basis. The method provides that working cash “requirement” be based upon a certain number of months’ expenses for fuel and/or commodity purchases, and a certain number of months of operating expenses, excluding taxes, depreciation and uncollectibles. The number of months usually depends on the type of billing and rate schedules by which the utility collects its revenues. The selection of the number of months of operating expenses used in the simplified method is based upon earlier Commission decisions commencing with Decision No. 2947, dated November 30, 1915, wherein the Commission stated that “The Commission ordinarily allows for working capital an allowance equivalent to cover two months operating expenses.”¹ In later decisions the Commission, in ruling on working capital, separated the working capital into working cash allowance and materials and supplies, and also deducted from the working cash capital an amount equivalent to a percentage of certain tax accruals which were held by the company for tax payments to be made in the future.²

Determination of Operational Cash Requirement

2. The first step in calculating a working cash allowance on the simplified basis is to obtain the operational cash requirement for the operation of the utility. It should be noted that the operational cash requirement should be for operation

¹ Pacific Gas and Electric Company, Case Nos. 477 and 550, Decision No. 2947, 8 CRC 566 (1915).

² Great Western Power Company of California, Application No. 5585, Decision No. 11466, 22 CRC 814, 830 (1923).

and not for new construction or replacement of plant.³ The procedure to develop the operational cash requirement is as follows:

- a. For electric, gas, and water utilities:
 Operational cash =
 Average monthly operating expenses, excluding taxes,
 depreciation and uncollectibles, multiplied by a certain number of
 months.
 Less: One month's average purchased power expense and/or
 commodity of water and/or gas and/or electricity billed after
 receipt.

The number of months used as the foregoing multiplier is determined from the utility's billing practice as follows:

	No. of Months
Description	Average Expenses
Monthly billing at meter rates	2
Monthly billing at flat rates	1
Bimonthly billing at meter rates	2 1/2
Bimonthly billing at flat rates	1/2
Annual or seasonal billings in lump sums - gross requirement is determined by special study	Judgment

Where utilities have more than one billing procedure, expenses should be allocated to each type of billing and service in proportion to total operating revenues received under each.

³ "Any construction cash capital needed is an element of a cost of capital and is not includible in rate base." Pacific Gas and Electric Company, Decision No. 43368, 49 Cal. PUC 107, 117 (1949).

In determining expenses for purchased power and/or commodity, the following accounts should be considered:

Electric	Class A and B	501, 518, 536, 547 and 555
	Class C	501, 531, 539 and 545
	Class D	501, 521, 531 and 540
Gas	Class A and B	717, 723, 728 and 807
	Class C	701, 730 and 731
	Class D	701 and 730
Water	Class A, B and C	704, 723 and 726
	Class D	704 and 726

- b. For telephone utilities, the requirement is equal to the average monthly operating expenses, exclusive of taxes and depreciation, multiplied by a certain number of months. Expenses should be allocated to toll service and local and miscellaneous service in proportion to total operating revenues received under each.

Since exchange service is normally billed in advance and toll service is generally billed in arrears, the number of months used for monthly billing as the foregoing multiplier is set forth as follows:

<u>Monthly Billing</u>	<u>No. of Months Average Expenses</u>
Toll Service	2
Local and Miscellaneous Service	1

3. In the selection of the number of months for electric, gas and water utilities where annual or seasonal billing is made by lump sum, an evaluation should be made of the extent to which revenues are received in advance of payment of operating expenses. In many instances, the revenues so collected in advance of payment of expense may result in a zero working cash requirement.⁴

Deduction from Operational Cash Requirement

4. The second step in the development of working cash allowance on a simplified basis is to deduct from the operational cash requirement an amount

⁴ Inverness Water Company, A-44221, Exhibit 8, Staff Report No. S-1653, Chapter 10, Paragraphs 2-5.

which is available to the utility in the form of tax accruals or other funds not supplied by the investor. Normally for small utilities "other funds not supplied by the investors" are not large enough to be significant and therefore are not considered in the study. Tax monies available to the utility as a source of working funds are normally federal income tax accruals. State income taxes are not considered primarily because they do not appreciably affect working cash requirement. If ad valorem taxes are accrued on a calendar-year basis, that is, preceding the local government's fiscal year, one half of the annual amount should be included in the tax accruals available to meet working cash requirements.

Determination of Appropriate Federal Income Tax Accrual to Use in Working Cash Determination

5. In determining the deduction from the operational cash requirement, it is necessary to determine an approximate level of earnings on which the federal income tax accrual will be developed. In most rate proceedings, the net taxable income at present rates is obviously on the low side. Often it is found that the taxable income at rates proposed by the applicant is on the high side. Since the rates the Commission will authorize are not known at the time the engineer is preparing the report, it will be necessary that he exercise judgment as to the level of earnings to be used in computing the federal income tax accrual available to meet working cash requirements. The level of earnings may be arrived at by applying a rate of return, recommended by the staff rate of return expert, to the rate base (excluding working cash allowance) which will give an approximate level of earnings after taxes. With the developed earnings after taxes, the amount of federal income taxes may be determined. Table 2-C sets forth the procedure in developing the income tax calculations for an incorporated utility.

6. For utilities operated by individuals or partnerships, a deduction for income tax accrual is not appropriate, inasmuch as the individuals or partners must pay income taxes on substantially a current basis. Therefore, for such utilities the operational cash requirement is acceptable as the working cash allowance. A sample calculation for this type of utility is shown in Table 2-A.

7. For utilities operating as corporations, the practice in the past has been to deduct from the operational cash requirement one half of the adjusted total annual federal income tax accrual because of the availability of these funds due to the lag in payment of the taxes. Where the tax accrual was greater than the operational cash requirement, the deduction has been limited to one half of the operational cash requirement. This deduction was made because the tax accrual was available for working cash as a result of the lag in the payment of the first \$100,000 of estimated taxes.

8. In 1968, changes were made to the federal income tax code as it related to estimated income tax payments for corporations.¹ It eliminated, over a 10-year period, the exemption of the first \$100,000 of corporate tax liability from the requirement of payment on a quarterly estimated basis. Formerly, the Code allowed the payment of the first \$100,000 of estimated taxes to be made in equal installments on March 15 and June 15 of the following tax year. The Code's new estimated payment schedule altered the previous estimated tax payment schedule so as to phase out the \$100,000 exemption from the quarterly estimated tax payment over two 5-year transitional periods. At the end of the first of these periods (1968-1972), corporations will be paying current installments on all of their estimated taxes with the exception of the first \$5,500. The \$5,500 exemption will remain in effect only in 1972, and then will be phased out over the next 5-year transitional period (1973-1977). The new system will require small utility

¹ See Subject Reference N62, dated July 8, 1968, "Computation of Federal Income Taxes for Incorporated Utilities."

corporations with less than \$100,000 of estimated federal income taxes to pay estimated taxes on the current basis program.

9. The change in the estimated tax payment schedule results in reduced tax accruals available for working cash. Therefore, it is recommended, that commencing with the test year 1968 through 1974 and subsequent years thereafter, the percent deduction from operational cash requirement for utilities having various tax liabilities be as follows:

Percent Deduction from Operational Cash Requirement							
Tax Liability	Test Years						
	1968	1969	1970	1971	1972	1973	1974
\$ 0 - \$ 5,500	50%	50%	50%	50%	50%	30%	0%
5,501 - 10,000	50	50	50	30	30	0	0
10,001 - 30,000	30	30	0	0	0	0	0
30,001 - 200,000	0	0	0	0	0	0	0

The deductions recommended in the above tabulation are based on the average availability of federal tax accruals for the test year and two future years.

10. Tables 2-B and 2-C set forth the suggested procedure for the development of working cash allowance. For utilities paying more than \$200,000 in federal income taxes, it is recommended that the detailed basis covered in Chapter 3 be used in the determination of the working cash allowance.

TABLE 2-A

SIMPLIFIED BASIS
DETERMINATION OF WORKING CASH ALLOWANCE

(A utility operating as an individual or partnership
using monthly billing at meter rates)

	<u>Estimated Test Year 1969</u>
1. Operating Expenses, Excluding Taxes and Depreciation	\$ 6,030
2. Purchased Power and/or Purchased Commodity for Resale*	1,890
3. Two Months' Average Operating Expenses (1/6 x Line 1)	1,005
4. One Month's Average Purchased Power and/or Purchased Commodity* (1/12 x Line 2)	157
5. Average Tax Accruals Available	--
6. Working Cash Allowance (Line 3 - Line 4 - Line 5)	848
7. Use	850

* Electric power, gas or other fuel purchased for pumping and or purchased water or gas or electricity for resale billed after receipt (metered).

TABLE 2-B

SIMPLIFIED BASIS
DETERMINATION OF WORKING CASH ALLOWANCE
(An incorporated telephone company)

	<u>Estimated Test Year 1969</u>
<u>Determination of Operational Cash Requirement</u>	
1. Annual O&M Expenses	\$120,700
2. Toll Revenues	128,000
3. Local Revenues	79,000
4. Miscellaneous Revenues	4,300
5. Total Revenues	211,300
6. Ratio - Toll Revenues to Total Rev. (L.2 + L.5)	60.6%
7. 1/6 x Line 1 x Line 6	12,191
8. 1/24 - Line 1 x (100% - Line 6)	1,981
9. Operational Cash Requirement (L.7 + L.8)	14,172
<u>Estimation of Federal Income Tax</u>	
10. Federal Income Tax at Present Rates	600
11. Federal Income Tax at Proposed Rates	4,800
12. Federal Income Tax, Judgment Basis	3,800
<u>Determination of Working Cash Allowance</u>	
13. Deduction to be made from Operational Requirement #	1,900
14. Working Cash Allowance (Line 9 - Line 13)	12,272
15. Use	12,300

Since Federal Income Tax Accrual, Judgment Basis (line 12), does not exceed the Operational Cash Requirement (line 9), the deduction from the Operational Cash Requirement (line 13) for the test year 1969 is 50% of the Judgment Basis Federal Income Tax Accrual (line 12) rather than 50% of the Operational Cash Requirement. (See paragraph 9 for percent deductions to be used for subsequent test years.)

TABLE 2-C

SIMPLIFIED BASIS
DETERMINATION OF WORKING CASH ALLOWANCE

(An incorporated company)

	<u>Estimate</u> <u>Test Year 1969</u>
<u>Determination of Operational Cash Requirement</u>	
1. Operating Expenses, Excl. Taxes, Depr. & Uncollect.	\$290,900
2. Purchased Power and Purchased Commodity for Resale*	143,300
3. Meter Revenues - Bimonthly Billing	325,900
4. Other Revenues - Flat Rate Monthly Billing	198,900
5. Total Revenues (3 + 4)	524,800
6. Ratio - Flat Rate to Total Revenues (4 / 5)	37.9%
7. $5/24 \times \text{Line 1} \times (100\% - \text{Line 6})$	\$ 37,332
8. $1/24 \times \text{Line 1} \times \text{Line 6}$	4,594
9. $1/12 \times \text{Line 2}$	11,942
10. Operational Cash Requirement (7 + 8 - 9)	29,984
<u>Estimation of Federal Income Tax</u>	
11. Rate Base Excluding Working Cash	1,396,000
12. Judgment Factor to be Applied to Line 11	7.0%
13. Result of Applying Judgment Factor to Line 11 (11x12)	\$ 97,720
14. Net Revenue at Present Rates	22,600
15. Increase in Net Revenue Needed to Give Result of Applying Judgement Factor (13 - 14)	75,120
16. Federal Income Tax at Present Rates	17,523
17. FIT Applicable to Increase in Net Revenue $0.9231 \times (15)**$	69,343
18. FIT Resulting from Applying Judgment Factor (16 + 17)	86,866
<u>Determination of Working Cash Allowance</u>	
19. Deduction to be made from Operational Requirement #	0
20. Working Cash Allowance (Line 10 - Line 19)	29,984
21. Use	30,000

* Electric power, gas or other fuel purchased for pumping and/or purchased commodity for resale billed after receipt (metered).

** Basis of calculating Line 17. (See Appendix I, page i, for derivation.)

- (a) If Line 16 is less than \$5,500, use $0.2821 \times \text{Line 15}$.
- (b) If Line 16 is less than \$5,500, but result of step (a) is greater than \$5,500, use $(\$5,500 + 2.273 \text{ Line 16}) + 0.9231 (\text{Line 15} - \$19,500)$.
- (c) If Line 16 exceeds \$5,500, use $0.9231 \times \text{Line 15}$.

Since Federal Income Tax Accrual (Line 18) is greater than \$30,000, no deduction from the Operational Cash Requirement (Line 10) is made. (See paragraphs 8 and 9).

.

Chapter 3

WORKING CASH ALLOWANCE - DETAILED BASIS

A—HISTORICAL BACKGROUND

1. The detailed basis of determining working cash allowance is normally referred to as the "weighted average or lead-lag days" method. Fundamentally, the same principles apply for the detailed basis as for the simplified basis, that is, first the operational cash requirement is determined and then amounts of monies available through tax accruals and other funds not supplied by the investor are deducted from the operational requirement. The term investor as used herein is defined as one who invests (to lay out money or capital) in business with the view of obtaining an income or profit; to convert into some form of wealth other than money, as securities or real estate, with the expectation of deriving income¹. Basically, the procedure is to determine, by analyzing certain current assets balance sheet accounts, the operational cash required by the utility and then deducting from this amount the average working cash available as the result of collecting revenues in advance of paying expenses.
2. The detailed basis is a modification of a study first developed and introduced in evidence in 1928 before the Interstate Commerce Commission by Arthur S. Field, Ph.D.² Dr. Field's study generally outlined a method which was applicable in determining both materials and supplies and working cash. The method consisted essentially of the determination of allowances by consideration of average weighted periods of time during which a company has money invested in the business for the purpose of paying operating expenses. Dr. Field's method was used primarily in connection with railroad valuations.

¹ Webster's New Collegiate Dictionary : (G & C Merriam Co., 1959)

² North Hampton and Bath Railroad Company, 149 ICC 244, 263

3. In 1933, F. T. Mylott, consulting accountant and later commissioner for the New York Public Service Commission, broadened the application of the weighted average or dollar days "lead or lag" method for general utility companies' use. The detailed basis was first introduced before the California Commission in 1947 in a staff exhibit wherein the staff determined the working cash required by the American Telephone and Telegraph Company for the furnishing of services to license companies.³ Since 1947 numerous working cash allowance studies using the detailed basis have been introduced in evidence before the California Commission for electric, gas, water, and telephone utilities.⁴

4. The working cash allowance included in the rate base for major utilities is normally developed by the detailed basis. The following are the most recent detailed studies prepared by the staff for major utilities' rate proceedings:

<u>Company</u>	<u>Study Number</u>	<u>Application or Case No.</u>	<u>Exhibit No.</u>
California Water Service Company	J-1196	A-49225	8
General Telephone Company of California	J-1215		
Pacific Gas & Electric Company	S-1545	A-42225	54
Pacific Lighting Gas Supply Company	S-1612	A-43670	22
San Diego Gas & Electric Company	S-1572	A-42887	19
San Jose Water Works	J-1147	A-48795	9
Southern California Edison Company	S-1342	A-38382	37
Southern California Gas Company	S-1524	A-41860(Amd)	50
Southern Counties Gas Company of California	S-1523	A-41859(Amd)	51
Southern California Water Company	J-1195	A-49420	7, 8
The Pacific Telephone and Telegraph Company	J-1177	A-49142	61, 77
	S-1660	C-7409	2

5. Before commencing a study using the detailed method, the engineer should familiarize himself with the operations of the utility, its accounting procedures for accruing expenses, payment procedures and schedule, and management's

³ The Pacific Telephone and Telegraph Company, A-28211, D-41416, 48 Cal. PUC 1, 22 (1948).

viewpoint of working cash needs. Without this information, the engineer would not be knowledgeable enough to be able to request the pertinent facts from the utility in the preparation of the data to complete a detailed study of working cash allowance.

6. Table 3-A, Sheets 1 through 5, illustrates the technique and format to be used in developing a detailed study.

B—DETERMINATION OF OPERATIONAL CASH REQUIREMENT

7. The operational cash requirement for working cash capital is evidenced by amounts included in certain current asset accounts in the balance sheets. These accounts are:

- a. Cash
- b. Special Deposits
- c. Working Funds
- d. Notes Receivable
- e. Prepayments
- f. Other Deferred Debits

8. The amounts included in most of these accounts are dependent on management's judgment as to the level of working capital required by a particular utility. Therefore, the appropriate working cash capital will vary not only between different types of utilities, but between different utilities of the same type. The fact that the amounts appear on the books of the utilities is not necessarily a satisfactory indication that the funds are used economically and efficiently to serve the customers. Therefore, analysis and evaluation of the reasonableness of these current asset accounts are required of the engineer to be able to develop the reasonable amounts to be included in the operational cash requirement.

9. Except for cash, the amounts used in determining operational cash requirements for a given period are the average of month-end balances. Cash should be the average required minimum bank deposit. Table 3-A, Sheet 1 of 5,

⁴ For more detailed early history see unpublished paper "The Determination of Working Cash Capital Allowance for Public Utility Regulatory Purposes" by Carol Towers Coffey, July 29, 1950, Univ. of California Library, Berkeley

illustrates the recommended format in the development of the operational cash requirement. Included therein are some of the selected balance sheet accounts which make up the operational cash requirement, as well as the deductions therefrom to obtain the working cash allowance. Some of the factors to consider in the analysis and evaluation of the reasonableness of the current assets accounts are discussed in the following paragraphs.

Cash

10. This balance sheet account includes the utility's current cash monies on hand and bank deposits except those classed as petty cash or other working funds. The largest portion in this account will generally be actually working, such as cash on hand to pay expenses prior to the receipt of payments from consumers. Other amounts of each may be on hand to pay dividends, debt interest or costs for construction purposes. The account fluctuates with regular frequency depending upon anticipated large cash outlays such as accrued taxes, bond interest, dividends, and construction expenditures. The problem, therefore, is to separate cash items which should not be included in the working cash from those amounts which are necessary for the utility "to operate economically and efficiently".

11. In determining the cash requirement, the only amounts which should be considered are the required minimum bank deposits that must be maintained and reasonable amounts of working funds. The determination of the amount of money required to pay expenses in advance of receipt of revenues is made by the lag study. If funds were to be allowed in the cash requirement, over and above the minimum bank deposits for payment of certain operating expenses, it would have the effect of providing for payments of the same cost twice, once as determined in the lag study and once again in determining the operational requirement. It must be remembered that the cash requirement is not a measure of funds that the utility maintains for all purposes, such as for construction or for payment of dividends and interest. It is the amount that must be maintained for day-to-day operations. When the ratepayer pays his bill, he has compensated the investor

for the interest on construction funds and a return on the investor's capital; therefore construction cash, interest and dividends are not included in the cash requirement.

12. In previous staff studies, the determination of the working cash portion of the operational cash requirement started with the "cash" balance sheet account with deductions made therefrom for construction funds, bond interest and other adjustments. The Commission has ruled that both construction funds and bond interest should be excluded from the "cash" balance sheet account.

13. In most recent staff studies, both before the California Commission⁵ and the Federal Communications Commission⁶, the staff has adopted the procedure of "building up" the operational cash requirement which, therefore, does not require adjusting for construction funds or bond interest. This procedure includes only those cash items, furnished by investors, which are actually needed for operations and consist of minimum bank deposits and working funds.

14. Commercial banks normally require utilities to maintain a minimum balance on deposit in commercial accounts. If this minimum is not maintained, the banks will charge a fee. The minimum balance and the cost for such other services rendered by the banks are usually negotiated between the banks and the utilities. The procedure to determine the reasonable level or average daily bank balances has been explained in detail in an exhibit presented in a rate proceeding before the Commission.⁷ There are other published papers which may also be of assistance.⁸

It should be recognized that not all of the utility's bank deposit transactions involve funds for operations. Some banks require compensatory balances of about 20% of a revolving credit. This credit is ordinarily used to finance construction before completion. The amounts in the

⁵ TPT&T Company, A-49142, Exhibit Nos. 61 and 77, dated July 13, 1967 and August 8, 1967.

⁶ AT&T Company, Docket No. 16258, Cal. PUC Exhibit No. 2, dated October 17, 1966.

⁷ Exhibit No. 11, Southern California Gas Company, Application No. 30299 (1950).

⁸ Pacific Coast Gas Association Proceedings -

Vol. 45 - S. M. Gilliland, So. Counties Gas Co. - "Looking Ahead - Short term Phase".

W. D. Morningstar, Pac. Lighting Gas Supply Co. - "Looking Ahead - Long Term Phase".

A. E. Mason, So. Calif. Gas Co. - "Bank Balances, How Much is Enough".

Vol. 48 - W. Karns, San Diego Gas & Electric Co. - "Keeping Your Money at Work".

revolving credit will fluctuate until such time as management considers it favorable to convert short-term debts into long-term financing. The cost of these construction monies is more properly considered in arriving at an allowable rate of return and should not be included in cash balances considered in the operational cash requirement.⁹

⁹ PG and E Company, Decision No. 43368, 49 Cal. PUC 107, 117 (1949). See also 51 Cal. PUC 130, 137 (1951).

Special Deposits

16. Special deposits may include cash items that have not been reflected in operating expenses but which nevertheless are required for the operation of the utility. These include items such as encroachment permits, street repair and repavement permits, and deposits for Workmen's Compensation Insurance. They may also include items associated with the initial construction of plant (viz., deposits with realtors for purchase of land or architect's fees) that have not been included in rate base or in interest-bearing construction work in progress. All of those deposits represent cash supplied by the investor needed in the day-to-day operations and for which he should be compensated.

Working Funds

17. This account includes cash advanced to officers, agents and/or employees of the utility for petty cash purchases or advances for expenses. These funds are recognized in most instances as investors' funds necessary for the economical and efficient operation of the utility.

Notes Receivable

18. The amounts of notes receivable that should be included in the requirements will depend upon the extent to which they are interest bearing. Those notes resulting from utility operations that do not bear interest may be included in the requirement.

Prepayments

19. This account includes prepayments for rents, insurance, taxes, group annuity premiums for pensions, and other items where the actual expense has not been accrued to operating expenses. Analysis should be made of this account to determine those items that are to be included in the lag study. The remainder (e.g., an unaccrued balance of a prepaid triennial premium of an insurance policy) are funds that are supplied by the investors and should be considered in the operational cash requirement.

Other Deferred Debits

20. This account includes those debits that are in the process of amortization and which are not included in the other current asset accounts. These expenses may include abnormal expenses which are being amortized to operating expenses and uncleared amounts from the clearing accounts.

C—DEDUCTIONS FROM THE OPERATIONAL CASH REQUIREMENT

21. As indicated on the lower portion of Table 3-A, there is deducted from the amount of current assets accounts certain current liabilities which represent monies provided from sources other than the investors for the operation of the utility. These accounts may include monies already derived through rates to offset a future liability which the company has not incurred, monies received from customers for the procurement of services, and amounts withheld from employees. These amounts are intermingled in the cash balances or invested in the plant accounts. Therefore, if these amounts are not excluded, the investors in effect would be compensated for funds which they have not supplied. The following current liabilities accounts should be considered as deductions from the operational requirement.

Customers' Deposits

22. This account represents monies advanced by the customer as security for the payment of utility bills. Only noninterest-bearing customer deposits are to be considered.

Insurance Reserves

23. This account included funds allowed by the Commission to be accumulated through charges to operating expenses in anticipation of some future or deferred liability. The adjustment may be either made in the working cash determination or deducted from rate base proper.¹⁰

¹⁰ Southern Counties Gas Co. of Calif., Decision No. 48833, 52 Cal. PUC 645, 652 (1953). See also Exhibit No. 19, San Diego Gas & Electric Company, Table 14-B, page 14-5.

Deferred Credits

24. This account represents monies which will be spent in the future, and for which provision has been made through charges to operating expense in prior years or which represents funds and receipts slated to be used to reduce expenses.

Accrued Vacation and Sick Leave

25. These amounts represent monies accrued through operating expenses for future liabilities which the utility has available until payments to employees for vacation and sick leave are made.

Amounts Withheld from Employees

26. This amount includes monies withheld from the employees and which are available to the utility until such time as payments are required. They include withholdings for income taxes, U.S. Savings Bonds, other state and federal payroll taxes, premiums for group insurance, and contributions to pension plans.

Taxes Accrued

27. The available working cash of the unpaid operating taxes accrued and credited to this balance sheet account has been considered in the expense lag study. The amounts of accrued but unpaid "excise" and/or "service users" taxes, associated with telephone service and collected from the ratepayers, are also credited to this account. These latter amounts represent a source of interest-free working cash supplied by the ratepayers and therefore should be deducted from the operational cash requirement.

Accounts Payable

28. The expense lag study includes a determination of the availability of unpaid operating expenses for working cash that are credited to this account. This account also includes amounts currently due for materials and supplies and equipment received but not paid for. The lag study considers the voucher items included in operating expenses that are credited to this account. The balance of these amounts is accounted for either as a debit to materials and supplies, as interest-bearing construction work in progress, or as a plant account. These

amounts are a credit extended by the suppliers, and provide capital from a source other than that of the investors. Since these amounts are included in rate base or are receiving interest during construction, they also should be deducted from the operational requirement. This adjustment is consistent with the staff's most recent working cash allowance study before the California Commission and the Federal Communications Commission.^{11 12.}

Revenue Lags and Expense Lags

29. Revenue lags arise when the utility has extended credit to customers and, under accrual accounting, that credit is shown on the balance sheet as accounts receivable. Similarly, expense lags arise when the utility has received credit and, under accrual accounting, that credit is shown on the balance sheet as accounts payable. Also under accrual accounting, operating taxes which have not yet been paid are included in the balance sheet as accrued taxes rather than accounts payable.

30. The detailed basis first measures, from the midpoint of the month, the weighted average days of lead or lag of payment of expenses by analyzing each expense component to determine how many days on the average before or after a reference point the payment is made. This procedure measures, on the average, the number of days the utility has available the amount of the expense before its payment. A similar analysis of weighted average days is made of revenues by classes of customers to determine the average number of days that the utility has extended credit to its customers for the cost of service supplied by the utility.

D—COST METHOD VS. RETAIL METHOD

31. The Commission in a 1930 decision stated, "the allowance for working cash capital differs from the company's claim in this case principally in that it is based upon the cost rather than the retail value of the service which at all times has been rendered, but on account of the lag in monthly meter readings and

¹¹ And

collections has not been paid for by the consumers."¹³ The cost method has been used consistently since this decision and it assumes that the utility advances the operating expenses incurred in rendering service to the customer the instant the service is rendered. The utility must wait until the customer pays his bill before it is reimbursed for the cost of this service plus a profit. In turn, the cost of rendering service is advanced to the utility by the utility's suppliers and employees and by taxing agencies. As the average lag in payment of a utility's expenses is generally longer than the lag in receiving revenues, the utility has funds which are not supplied by its investors available for its use.

32. The retail method assumes that the utility advances to the customer both the expenses incurred in rendering service and the return the utility will earn as a result of rendering service. Since the return is considered to be advanced by the investor to the customer, it follows that it should be deducted from the amount of cash available as a result of collecting revenues in advance of paying expenses.

33. To counter the argument that profit is advanced by the investor to the customer, it is proposed that it is the customer who actually pays the profit. To deduct the profit in determining cash available would have the compounding effect of requiring the customer to pay an additional return on the portion of his payment that constitutes the return. The only out-of-pocket expense required of the utility is the cost of rendering the service. The only amount which the utility has advanced in supplying service to the customer is the "cost" of service to the company, not the "price" at which it is billed to the customer.¹⁴ Chart 3-A shows a graphical comparison and explanation in support of the cost method.

E—DETERMINATION OF LAG DAYS FOR REVENUES

34. Lag days of revenues measure the length of time that the utility has extended credit for the cost of service rendered to its customers. There are two techniques to measure the time lag of payment of the cost of service as measured

¹² See footnote 4 on page 3-2 and footnote 5 on page 3-5.

¹³ Los Angeles Gas and Electric Company, Case No. 2747, Decision No. 23102, 35 CRC 443, 453 (1930).

¹⁴ See footnote 13 on page 3-11.

by receipts of revenues. One is the "statistical sampling" method, and the other is the "ratio of accounts receivable to credit sales" method. The "statistical sampling" method takes a representative sample of customers by classes and geographical locations and measures the time from the midpoint of the period during which the service is rendered to the date that the revenue is received for the service.

(insert Chart 3-A here)

35. For the "ratio of accounts receivable to credit sales" method, the engineer must first ascertain from the utility whether or not the accounts receivable include unbilled sales to customers. If accounts receivable do not include unbilled sales, the revenue lag days are determined by dividing the total annual sales into the sum of: (1) the unbilled sales, i.e., the product of customer sales to the period of time measured from the midpoint of service rendered to the date of billing; and (2) the accumulation for the full year of each daily accounts receivable - billed customers which reflects the dollar days lag measured from the date of billing to date of payment. The quotient thus arrived at results in a composite revenue lag days. But, if accounts receivable include unbilled sales, the "accounts receivable" method of developing revenue lag days is obtained by dividing the total annual sales into the accumulation for the full year of each daily accounts receivables for all customers. This method was used by the staff in a recent rate proceeding.¹⁵

36. If appropriate accounting records are maintained and readily available from large utilities, the "accounts receivable" method should be used in preference to the "statistical sampling" method for the development of lag days in future working cash studies. The "accounts receivable" method will yield a more representative lag experienced by the utility for the entire year which will not be subjected to any sampling variability. However, if appropriate accounting records are unavailable, the "statistical sampling" method may be used.

37. Table 3-A, Sheets 3 through 5, illustrates the two methods of determining revenue lag days. The "accounts receivable" method, depending on whether accounts receivable exclude or include unbilled sales, is set forth in Sheets 3 and 4, respectively. For illustrative purposes, the "accounts receivable" method shown was developed to result in the same number of lag days as the "sampling" method on Sheet 5. This may not be true in an actual study.

38. It should be noted that accounts receivable of certain types of utilities may include charges for flat rate water service or telephone exchange service which

¹⁵ The Pacific Telephone and Telegraph Company, C-7409, Exh. No. 2, S-1660, January 11, 1963, Chapter 15, Table 15-B, Sheet 4a of 5.

are normally billed in advance of rendering service. In the case of a telephone billing to a customer, both exchange service (billed in advance) and message tolls (billed in arrears) are credited to accounts receivable. In determining a composite revenue lag under the "accounts receivable" method, all advance billings should be deducted from accounts receivable.

F—DETERMINATION OF EXPENSE LAG DAYS

39. Expense lag arises when the utility receives credit for the various costs of rendering service which have been advanced to the utility by its suppliers, employees, and taxing agencies. The total cost of rendering service reflected in operating expenses, taxes and book depreciation, from which the average day lag of credit is determined, is that amount set out in the summary of earnings chapter. The expenses used to develop lag days are separated into their basic components, such as purchased commodities, company labor expensed, types of employee benefits, types of taxes, depreciation, materials, goods and services.

40. The methods of accruing expenses and dates of payment of expenses can be ascertained by the engineer in the review of the company's accounting techniques and practices. For purchased commodities, the number of lag days is the time from the midpoint of the monthly expense accrual to the date of the payment. For company labor, the number of lag days is the time from the midpoint of the pay period to the date of payment. For taxes, the number of lag days is the time from the midpoint of the monthly expense accrual to the date of the payment. Utility-contributed employees' benefits are ordinarily prepaid amounts and may be reflected in the operational cash requirement portion of the study as the average amount of the prepayment account. In that case, the expense lag will be zero lag days. If, on the other hand, prepaid employees' benefits are to be included in the lag study, the number of lead days is the time from the midpoint of the expense accrual date to the date of payment. Since book depreciation expense is occurring uniformly day by day and accumulated depreciation is deducted from the rate base, the practice is to include depreciation provisions at zero lag days.

41. Some companies pay their employees and some of their suppliers by commercial drafts rather than by a bank check. When a draft is used, no entry is made in the balance sheet accounts until the draft is returned to the utility to be exchanged for cash. Therefore, when a company used draft for remittances, the draft lag should be taken into account in the lag study.

42. There are instances where payments for expenses, such as state automobile licenses and state corporation franchise taxes, exceed the amounts that had been accrued to operating expense as of the date of payments. In such cases, the computation of lag days taken from the midpoint of the monthly accrual to the date of payment would be a negative lag day, or a "lead" day. Until such time as the accrued expense clears the deficit in the particular account, the days will be "lead" days.

43. The dollar amounts of goods and services (sometimes called "voucher items") are obtained by subtracting from total operating expenses all items of purchased commodities, company labor and benefits, taxes, depreciation and materials. The net balancing amount is taken as the goods and services. The determination of the lag days for this amount is determined by analyzing the disbursement journal for payments for the goods and services received.

44. The summation of the product of each operating expense and its respective number of lag or lead days equals the total dollar-day lag. Dividing the summation obtained above by the total expenses will result in the weighted average days of lead or lag of credit for the cost of service rendered and advanced by the utility's suppliers, employees, and taxing agencies. Table 3-A, Sheet 2 of 5, illustrates the proper format in the development of the lag days.

Federal Income and State Corporation Franchise Taxes

45. For utilities which have used accelerated amortization to reduce income taxes, the Commission, in fixing rates, has permitted normalization of the income tax expense, thereby offsetting the reduction in the tax, but has deducted from the rate base the average accumulated deferred taxes due to accelerated amortization. Therefore, for those utilities where rates have been set on this

procedure, the lag days for the offsetting amount due to accelerated amortization should be zero. The reason for this is that the adjustment is already included in the rate base, and to assign the same lag days as for the actual income taxes would in effect be doubling the deduction from working cash.

46. As stated in Chapter 1, Paragraph 7, one working cash allowance at both present and proposed rates should be used in the test year. The state and federal corporation income taxes should be the estimated tax accruals that would result based upon the rate of return recommended by the staff's rate or return expert.

47. Table 3-A, Sheets 3 through 5, illustrates the procedure in developing amounts available to the investor as a result of collecting revenues in advance of paying expenses. This procedure, based on the "cost method" explained in Chart 3-A, results in monies being available on a daily average basis. This amount is then deducted from the operational cash requirement as shown in Table 3-A, Sheet 1 of 5. Should the end result indicate that there are excess funds not supplied by the investor, this amount should be deducted from the rate base.¹⁶

48. Table 3-B has been included to assist the engineer in evaluating the effect of changes in working cash items on the working cash allowance.

G—MULTI-DEPARTMENT AND/OR DISTRICT UTILITIES - DETAILED BASIS

49. The procedure to determine the working cash allowance for multi-department and/or district utilities is basically the same as that for a single company. First, the operational cash requirement is developed, and then the amount of monies resulting from the collection of revenues in advance of paying expenses and taxes and accruing depreciation is deducted from the operational requirement.

50. The operational cash requirement is analyzed for those items such as working funds and special deposits which can be assigned directly to the

¹⁶ "In an application for an increase in gas rates, it is equitable both to applicant's stockholders and to the ratepayers to deduct from rate base the average amount of working cash applicant has on hand not supplied by stockholders." Pacific Lighting Gas Supply Company, A-43670, D-63706, 59 Cal. PUC 610, 625 (1962).

particular department and/or district. The remainder of the items not directly assignable are then allocated to the respective departments and/or districts on the four-factor basis.

51. For multi-departmental utilities, the amount deducted from the allocated operational cash requirement as a result of collecting revenues in advance of paying expenses and taxes and accruing depreciation, is developed by analyzing the experienced lag or lead of revenues and expenses of the particular department.

52. Multi-district utilities pose a problem because of the different makeup in operating expenses and the different types of billing procedures followed by the various districts of a utility. For instance, not all districts incur a water replenishment assessment or purchase water for resale. The billing procedure of one district may be completely on a flat rate schedule while another district may be on a bimonthly metered basis. The following steps set out the recommended procedure to determine the working cash allowance for a particular district:

- a. Develop the average lag in payment of expenses and taxes and accrual of depreciation for the total company or department as shown in Table 3-A, Sheet 2 of 5
- b. Group the total company or department expense items in the above table to correspond with classifications used in the summary of earnings chapter of the district results of operations report and determine the expense lags for the grouped items as illustrated in the following tabulation:

<u>Expense</u>	(Refer to Table 3-A, Sheet 2 of 5) <u>Days Lag (Composite)</u>	<u>Item Nos.</u>
Purchased Power or Commodity	33	1, 23
Franchise Requirements	230	9
Federal Income Tax	27	10
Income Taxes Deferred Due to Accelerated Amortization	<u>0</u>	11
Federal Insurance Contribution Act	<u>(10)</u>	12
Federal Unemployment Insurance Tax	213	13
Miscellaneous Federal Taxes	<u>0</u>	14
State Corp. Franch. Tax	<u>(275)</u>	15

Also, The Pacific Telephone and Telegraph Company, C-7409, C-67369, 62 Cal. PUC 775, 821 (1964).

State Unemployment Ins. Tax	76	16
State Use Tax-Paid Directly	76	17
State Use Tax-Paid to Vendors	<u>29</u>	18
State Auto. License Fees	(150)	19
Miscellaneous State Taxes	0	20
Ad Valorem Taxes	18	21
Miscellaneous Local Taxes	0	22
Depreciation	0	24
Other Operating Expenses*	19	2 to 8

(Lead)

* Includes operation and maintenance expenses, administrative and general and miscellaneous expenses but excludes purchased power or commodity.

c. Determine the composite expense lag for the district, using the district's operating expenses as set out in the summary of earnings chapter and the corresponding grouped lag days as developed in the preceding subparagraph.

d. Develop the composite revenue lag based on the district's revenue collection experience.

e. Apply the excess of expense lag over revenue lag to the total district's operating expenses and divide by 365 days to obtain the average amount of working cash capital available as a result of collecting revenues in advance of paying expenses and accruing depreciation.

f. Deduct the amount derived in the above step from the operational cash requirement as allocated to the particular district on the direct and four-factor bases to obtain the working cash allowance.

TABLE 3-A
Sheet 1 of 5

Detailed Basis

California Light, Power, Gas & Water, Inc.

Electric Department

DETERMINATION OF AVERAGE AMOUNT OF
WORKING CASH SUPPLIED BY INVESTORS

<u>Item</u>	<u>Test Year</u>	
	<u>Total Company</u>	<u>Electronic Department</u>
Operational Cash Requirement <u>Indicated by Certain Balance Sheet Accounts</u>		
1. Average Minimum Bank Deposit	\$15,000,000	\$ 7,500,000**
<u>Average Month-End Balances</u>		
2. Miscellaneous Special Deposits	1,700,000	850,000**
3. Working Funds	-	250,000
4. Miscellaneous Receivables	220,000	110,000**
5. Prepayments	360,000	180,000**
6. Deferred Debits	<u>900,000</u>	<u>450,000**</u>
7. Total Operational Cash Requirement	18,180,000	9,340,000
 <u>Deductions from Operational Requirement - Average Amounts Not Supplied by Investors</u>		
8. Amounts Withheld, Primarily Employees' Income Taxes, Social Security Taxes, And Disability Insurance Contributions	-	600,000
9. Deferred Credits	1,800,000	900,000**
10. User Taxes *	-	373,000
11. Average Amount Available as Result of Collecting Revenues in Advance of Paying		<u> </u>

	Expenses and Taxes, and Accruing Depreciation * -	<u>(6,568,000)</u>
12.	Deduction from Operational Requirement	<u>(4,695,000)</u>
13.	Working Cash Allowance (7-12)	14,035,000
14.	USE	14,035,000

(Red Figure)

* Based on an assumed 7.0% rate of return for the Electric Department operation.

** Allocated by four-factor percentage.

TABLE 3-A
Sheet 2 of 5

Detailed Basis

California Light, Power, Gas & Water Inc.

Electric Department

DEVELOPMENT OF AVERAGE LAG IN PAYMENT OF EXPENSES AND
TAXES AND ACCRUING DEPRECIATION

Test Year

Item	Expenses, Taxes and Depreciation (1)	Avg. No. of Days Lag (2)	Thousands of Dollar- Days Lag (3) = (1) x (2)
1 Purchased Power or Commodity	\$ 2,500,000	45	112,500
2 Company Labor	24,100,000	15	361,500
3 Goods and Services	8,200,000	37	303,400
4 Materials Issued from Stores	1,500,000	0	-
5 Pension Provisions	500,000	15	7,500
6 Group Life Insurance	300,000	8	2,400
7 Injuries & Damage & Other Insur. Provisions	350,000	0	-
8 Provisions for Uncollectibles ^{a/}	175,000	0	-
9 Franchise Requirements ^{a/}	750,000	230	172,500
10 Federal Income Tax ^{a/}	18,300,000	27	494,100
11 Income Taxes Deferred Due to Accelerated Amortization	1,100,000	<u>0</u>	<u>-</u>
12 Federal Insurance Contribution Act	300,000	<u>(10)</u>	<u>(3,000)</u>
13 Federal Unemployment Ins. Tax	50,000	213	10,650
14 Miscellaneous Federal Taxes	1,000	<u>0</u>	<u>-</u>
15 State Corporations Franchise Tax ^{a/}	1,650,000	<u>(275)</u>	<u>(453,750)</u>
16 State Unemployment Ins. Tax	250,000	76	19,000
17 State Use Tax - Paid Directly	40,000	76	3,040
18 State Use Tax - Paid to Vendors	200,000	<u>29</u>	<u>5,800</u>
19 State Automobile License Fees	120,000	<u>(150)</u>	<u>(18,000)</u>

20	Miscellaneous State Taxes	1,000	0	-
21	Ad Valorem Taxes	13,000,000	18	234,000
22	Miscellaneous Local Taxes	5,000	0	-
23	Fuel	9,500,000	30	285,000
24	Depreciation	13,000,000	0	-
	Total	<u>95,892,000</u>		<u>1,536,640</u>

$$\frac{1,536,640,000}{95,892,000} = 16.0 \text{ Days}$$

(Lead)

^{a/} Based upon an assumed rate of return of 7.0% for the Electric Department operations.

TABLE 3-A
Sheet 3 of 5

Detailed Basis

California Light, Power, Gas & Water, Inc.

Electric Department

DEVELOPMENT OF AVERAGE LAG IN COLLECTION OF REVENUES
RATIO OF ACCOUNTS RECEIVABLE
(NOT INCLUDING UNBILLED SALES)
TO CREDIT SALES METHOD

Test Year

1. Total Sales ^{a/}	\$129,050,000
2. Lag Days Service to Billing ^{b/}	20 days
3. Total Dollar Days of Unbilled Sales - (Lines 1 x 2)	2,581,000 Thousand Dollar-Days
4. Summation for 365 Days of Accounts Receivable - Billed Customers	2,710,050 Thousand Dollar-Days
5. Deduct Advance Billing & Payments ^{c/} for 365 Days	-
6. Net Accounts Receivable - Billed Customers (Lines 4 - 5)	2,710,050 Thousand Dollar-Days
7. Total Dollar-Days (Lines 3 + 6)	5,291,050 Thousand Dollar-Days
8. Average Number Revenue Lag Days ^{a/} (Lines 7/1)	41.0 Days

AVERAGE AMOUNT OF CASH AVAILABLE AS RESULT OF
COLLECTING REVENUES IN ADVANCE OF PAYING
EXPENSES AND TAXES AND ACCRUING DEPRECIATION

1. Average Lag in Payment of Expenses and Taxes and Accruing Depreciation ^{a/}	16.0 Days**
2. Average Lag in Collection of Revenues ^{a/}	41.0 Days
3. Excess of Payment Lag Over Collection Lag	<u>(25.0)</u> Days

4. Total of Expenses, Taxes and Depreciation	\$95,892,000**
5. Average Amount of Working Cash Capital Available as a Result of Collecting Revenues in Advance of Paying Expenses, Taxes and Depreciation	
<u>(25.0)</u> x \$95,892,000	\$ <u>(6,567,643)</u>
365	

(Red Figure) USE (6,568,000)

** See Sheet 2 of 5 for development of these amounts.

- a/ Based upon an assumed 7.0% rate of return for the Electric department operation.
- b/ Assumes for the purpose of this example that the unbilled lag is the same for all classes of customers.
- c/ Applicable to flat rate water service and telephone exchange service which are normally billed in advance and are included in accounts receivable.

TABLE 3-A
Sheet 4 of 5

Detailed Basis

California Light, Power, Gas & Water, Inc.

Electric Department

DEVELOPMENT OF AVERAGE LAG IN COLLECTION OF REVENUES
RATIO OF ACCOUNTS RECEIVABLE
(INCLUDING UNBILLED SALES)
TO CREDIT SALES METHOD
Test Year

1. Total Sales ^{a/}	\$129,050,000
2. Summation for 365 Days of Accounts Receivable - Customers	5,291,050 Thousand Dollar-Days
3. Deduct Advance Billing & Payments ^{b/} for 365 Days	-
4. Net Accounts Receivable - Customers (Lines 2 - 3)	5,291,050 Thousand Dollar-Days
5. Average Number Revenue Lag Days ^{a/} (Lines 4/1)	41.0 days

^{a/} Based upon an assumed 7.0% rate of return for the Electric Department operations.

^{b/} Applicable to flat rate water service and telephone exchange service which are normally billed in advance and are included in accounts receivable.

TABLE 3-A
Sheet 5 of 5

Detailed Basis

California Light, Power, Gas & Water, Inc.

Electric Department

DEVELOPMENT OF AVERAGE LAG IN COLLECTION OF REVENUES
STATISTICAL SAMPLING METHOD

Test Year

Class of Service	Annual ^{a/} Revenues	Avg. No. of Days Lag	Thousands of Dollar- Days Lag
	(1)	(2)	(3) = (1) x (2)
1 Domestic	\$48,100,000	42	\$2,020,200
2 Agricultural	9,400,000	50	470,000
3 Commercial	27,200,000	38	1,033,600
4 Industrial	32,000,000	38	1,216,000
5 Public Authorities	8,300,000	53	439,900
6 Railways	1,100,000	36	39,600
7 Resale	2,250,000	36	81,000
8 Miscellaneous	700,000	15	10,500
Totals	129,050,000		5,310,800

$$\text{Average Lag} = \frac{5,310,800}{129,050} = 41.0 \text{ Days}$$

^{a/} Based upon an assumed 7.0% rate of return for the Electric Department operations.

TABLE 3-B

EFFECT OF CHANGES IN WORKING CASH ITEMS ON
WORKING CASH ALLOWANCE

Changes in Working Cash Items	Effect on Working Cash Allowance
1 An <u>increase</u> in Balance Sheet Current Assets A <u>decrease</u> in Balance Sheet Current Liabilities	Increase Decrease
2 <u>If payment lag days of an expense item are lead days, zero or less than the composite average expense lag days</u>	
An <u>increase</u> in dollar amounts of an expense item A <u>decrease</u> in dollar amounts of an expense item	Increases Decreases
3 <u>If payment lag days of an expense item are greater than the composite average expense lag days</u>	
An <u>increase</u> in dollar amounts of an expense item A <u>decrease</u> in dollar amounts of an expense item	Decreases Increases
4 <u>If collection lag days of a particular revenue class are greater than the composite average revenue lag days</u>	
An <u>increase</u> in dollar amounts of a revenue class A <u>decrease</u> in dollar amounts of a revenue class	Increases Decreases
5 <u>If collection lag days of a particular revenue class are less than the composite average revenue lag days</u>	
An <u>increase</u> in dollar amounts of a revenue class A <u>decrease</u> in dollar amounts of a revenue class	Decreases Increases
6 <u>If composite average expense lag days</u> Increases Decreases	Decreases Increases

7 If composite average revenue lag days

Increases
Decreases

Increases
Decreases

Chapter 4

PREPARATION OF STAFF REPORT

1. The working cash allowance is included in the table in which the rate base is developed in a results of operation report. An explanation of the basis used to develop the allowance should be included in the text of the rate base chapter.
2. The following paragraph on working cash is suggested for inclusion in the staff report where the determination of the allowance has been made on the simplified basis:

An allowance for working cash is included in order that the investors may be compensated for moneys which they have supplied for the operations of the utility over and above the investment in tangible and intangible property. The working cash allowance is a judgment amount which gives effect to a certain number of months' average operating expenses, based upon the manner in which the utility's expenses and revenues are billed¹ and to the offsetting effect of average accruals available because of lag in the payment of taxes.

3. Where the determination of the allowance has been made using the detailed basis, it is suggested that the following paragraph be included in the staff report:

An allowance for working cash is included in order that investors may be compensated for monies which they have supplied, over and above investment in utility property, and for funds provided by them which are committed to the business for the following purposes:

1. Payment of operating expenses in advance of receipt of revenues from its customers.
2. Maintaining working funds and minimum bank balances.
3. The incurrence of certain deferred debits and credits not included in the income statement.

¹ For utilities operating as individuals or partnerships, the paragraph will end here.

4. The engineer in explaining the basis of developing the working cash allowance should include references to Commission decisions which set the precedent for the basis in developing the working cash allowance. Chapters 2 and 3 of this Standard Practice cite some of the more important decisions which would be useful as references.

APPENDIX I

(Referred to in Table 2-C)

Derivation of Basis for Calculating Federal Income Tax Applicable
To Increase in Net Revenue for Incorporated Companies

(insert graph here)

(insert abbreviations here)