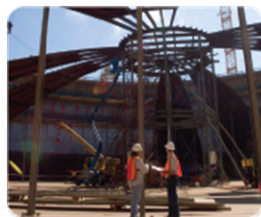


BUILDING A WORLD OF DIFFERENCE®



The Empire District Gas Company

Depreciation Accrual Rates Final Report

April 2009



April 30, 2009

Ms. Laurie Delano
Controller, Assistant Secretary & Assistant Treasurer
The Empire District Electric Company
602 S. Joplin Avenue
Joplin, MO 64801

Dear Ms. Delano:

We are enclosing our Report on Depreciation Accrual Rates for The Empire District Gas Company. The findings, conclusions, and recommendations that we present in the report are representative of plant activity as of December 31, 2008. In the report, we have provided discussions relative to depreciation accounting, the processes utilized and historical information relied upon, the determination of appropriate depreciation expense rates, as well as a review of the adequacy of current depreciation reserves. The Executive Summary of the report summarizes our major findings and recommendations.

We appreciate the opportunity to be of service in this matter and wish to thank you and your staff for the cooperation and assistance provided us in the completion of the report.

Very Truly Yours,

BLACK & VEATCH CORPORATION

Thomas J. Sullivan

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EXECUTIVE SUMMARYTHE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY**1.0 EXECUTIVE SUMMARY**

This report describes the analyses conducted and the results obtained for the gas utility property of The Empire District Gas Company (“EDG”) with respect to its depreciation expense rates. The report is based on plant activity through December 31, 2008. The depreciation rates recommended in this report are considered appropriate for use in the near future. We recommend these rates be reviewed at least every five years. Ultimately the appropriate level of depreciation expense rates is a management decision taking into account various factors.

EDG’s current rates went into effect in January 1, 2004 as a result of the Missouri Public Service Commission order in Case No. GR-2004-0072. If the Company concludes that a change in depreciation expense rates is appropriate in the next rate filing, we recommend the Company implement the depreciation expense rates based on the analyses set forth in Sections 4 and 5. Recommended rates are summarized on Table 5-4, column Q. Implementation of these rates will increase annual depreciation expense by approximately \$106,000 annually, based on December 31, 2008 plant balances.

The individual accrual rates that we recommend for each account recognize average service lives and reflect the results of actuarial analysis, reserve analysis, and our experience with similar utility property. We recommend changes to average service life (ASL) for the following accounts:

Account	Description	Existing ASL	Recommended ASL
367	Transmission Mains	60	65
369	Transmission Measuring and Regulating Station Equipment	44	45
378	Distribution Measuring and Regulating Station Equipment	44	50
379	City Gate Station Equipment	44	50
380	Services	45	43
385	Industrial Measuring and Regulating Station Equipment	44	45
391	Office Furniture and Equipment	22	15
393	Stores Equipment	27	25
394	Tools, Shop and Garage Equipment	27	30
395	Laboratory Equipment	29	30

EDG is currently required to record an annual expense for net cost of removal of up to \$90,163. EDG is further required to book the amount of net cost of removal incurred less \$90,163 against the accumulated reserve for depreciation annually. We recommend increasing the annual net cost of removal allowance allowed in customer rates to \$183,600, and that the entirety of gross

EXECUTIVE SUMMARYTHE EMPIRE DISTRICT GAS COMPANY
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salvage and cost of removal be booked to the depreciation reserve. Our recommended net cost of removal allowances per account are:

Account	Description	Recommended Cost of Removal Allowance
367	Distribution Mains	\$32,900
380	Services	\$130,300
381	Meters	\$1,300
383	House Regulators	\$20,600
385	Industrial Measuring and Regulating Station Equipment	\$600
390	Structures and Improvements	\$900
392	Transportation Equipment	-\$1000
396	Power Operated Equipment	-\$2,000
	TOTAL	\$183,600

The scope of this report includes a discussion of the practice of depreciation accounting (Section 3), the type of information examined in our analysis, the methods applied, and the results of the analyses conducted (Section 4), and a discussion of the Company's depreciation reserve, and development of our recommended accrual rates (Section 5).

INTRODUCTION

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

2.0 INTRODUCTION

This report presents the results of our analysis of the depreciation expense requirements for the gas utility property of The Empire District Gas Company (Company or EDG). The analysis is based on plant activity through December 31, 2008. We understand that the Company desires this report for an impending general rate case filing before the Missouri Public Service Commission.

The Empire District Gas Company acquired the natural gas properties of Aquila, Inc. in June 2006. The current depreciation rates were ordered for Aquila, Inc. d/b/a Aquila Networks–MPS and Aquila Networks–L&P (“Aquila”) in case number GR-2004-0072. Aquila was also ordered to book a provision for net cost of removal as expense in case number GR-2004-0072. The current depreciation rates and the provision for net cost of removal were effective January, 1, 2004.

The rates recommended in this report reflect consideration of the results of actuarial analysis, depreciation reserve analysis, and our experience with other utilities.

Section 3 of this report briefly discusses the practice of depreciation accounting. Section 4 discusses the type of information examined in the analysis and the methods applied to develop the depreciation rates. Section 4 also discusses the results of the analyses and the recommended average service lives. Section 5 discusses analysis of the Company's existing depreciation reserve and develops our recommended accrual rates.

DEPRECIATION ACCOUNTING

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

3.0 DEPRECIATION ACCOUNTING

Depreciation is 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 considered 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 (FERC Uniform System of Accounts).

Depreciation accounting provides a method whereby charges for the loss in service value are made against current income. By properly charging depreciation, the cost of depreciable plant less estimated salvage value (or plus estimated cost of removal) is distributed over the useful life of the asset in such a way as to equitably allocate it to the period during which service is provided through the use and consumption of such facilities.

3.1 *Annual Depreciation Expense*

The annual depreciation expense represents the annual charge against income associated with the loss of service value of utility equipment. Historically, a number of different methods have been used by gas utilities to determine the level of depreciation expense to be charged against current income. Among the more common are:

1. A percentage of the investment in depreciable property.
2. A direct appropriation by management.
3. An amount equal to the original cost investment retired during the year.
4. A percentage of revenues.

The company's current practice is to calculate annual depreciation expense through the application of straight-line depreciation rates to the respective plant investment account balances. In essence, the annual depreciation expense rate is a percentage figure which, when applied to the dollar balance of investment in plant, yields a depreciation expense level that is expected to amortize the Company's investment over the life of the property.

The existing depreciation rates are based on those approved by the Missouri Public Service Commission for Aquila Inc. in 2004 in Case No. GR-2004-0072. In that case, Aquila and the Staff of the Missouri PSC entered a Stipulation and Agreement concerning depreciation rates, average service lives, and a provision for annual net salvage expense. With respect to depreciation rates, the authorized average service lives and straight line depreciation rates are shown in Table 4-1. With respect to accounting for net salvage, the Commission ordered up to \$90,163 of such cost is to be recorded as an annual expense. Any actual annual net salvage expense that is more or less than \$90,163 is to be recorded in the accumulated depreciation reserve.

3.2 *Depreciation Reserve*

The depreciation reserve account is a balance sheet item which reflects accumulation of the activity related to annual depreciation expense and retirement accounting. Under the FERC

DEPRECIATION ACCOUNTINGTHE EMPIRE DISTRICT GAS COMPANY
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Uniform System of Accounts, depreciation reserve is shown on the balance sheet as "Accumulated Provision for Depreciation."

The depreciation expense charged annually is accumulated in depreciation reserve. The original cost of investment in property retired during the year is deducted from the depreciation reserve. A further adjustment to the reserve is made by adding the salvage value credit and deducting the cost of removal associated with property retired. The use of proper annual depreciation rates to amortize investment over its useful service life will result in accruals to the depreciation reserve which equal the total investment ultimately retired, as adjusted for salvage value and cost of removal.

An illustrative example follows:

Line No. Depreciation Reserve Balance

		\$	\$
1	Beginning of Period		1,000,000
2	Depreciation Charges		
3	Depreciation Expense	100,000	
4	Depreciation Charges to Clearing Accounts	10,000	
		110,000	
5	Subtotal		1,110,000
6	Deductions		
7	Original Cost of Plant Retired	75,000	
8	Cost of Removal of Retired Plant	10,000	
9	Salvage Realized from Retired Plant	(5,000)	
10	Total Deductions	80,000	
11	Depreciation Reserve End of Period		1,030,000

HISTORICAL INFORMATION AND PROCEDURES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

4.0 HISTORICAL INFORMATION AND PROCEDURES

The determination of a reasonable annual depreciation expense rate is dependent on average service life, cost of removal, and salvage of the property in question. Ideally, the determination of average service life begins with analysis of Company records which show additions by year of installation (vintage year) and retirements by vintage year. We refer to this type of analysis as an actuarial method. Where historical data is not sufficient to produce reliable results using actuarial analysis, data may be sufficient to use a simulated plant balance approach. Both of these two analytical methods provide measures of historically experienced service lives. In order to reflect the prospective nature of depreciation, we consider past, present and anticipated future economic and environmental conditions; and sound engineering judgment. As a final step, the adequacy of depreciation reserve balances must be evaluated and the indicated depreciation rate adjusted so that total investment is recovered over the asset's life.

4.1 *Actuarial Analysis*

To prepare a sound and credible survivor curve analysis, a sufficient history of retirement data must exist. Based upon historical plant activity (retirements), a survivor stub curve explains the percent of original placements remaining in service by age. Using a least squares analysis technique, we compare this experienced survivor stub curve to general survivor curve types to identify the best fitting curve type and service life based on historical retirements. These curves provide an estimate of the average service life predicted based on historical retirements. Using this method, and relying on general survivor curves, we can estimate average service life of property which has only been partially retired.

EDG maintains its continuing property record in several files. Historical depreciation data was obtained from Aquila with vintage records dating to 1924 and transaction details from 1960 through May 2006. EDG has maintained depreciation data since acquiring the gas system in June 2006. We find EDG's depreciation database is sufficient for actuarial analysis.

4.2 *Recommended Average Service Lives*

In Table 4-1, we summarize the average service lives underlying EDG's existing depreciation rates (Column C), and the average service lives we recommend for the purpose of this report (Column E). We use recommended average service lives to develop our recommended accrual rates. Based on actuarial analysis and our experience with gas (and other) utility property, the following discussion explains in further detail the basis for recommending change in the average service lives for certain accounts:

- Account 367 – Transmission Mains. We recommend increasing the average service life from 60 to 65 years. A lack of retirement activity over the last several years justifies the service life extension.
- Account 369 – Transmission Measuring and Regulating Station Equipment. We recommend increasing the average service life from 44 to 45 years.
- Account 378 – Distribution Measuring and Regulating Station Equipment. We recommend increasing the average service life from 44 to 50 years. A lack of retirement activity over the last several years justifies the service life extension.

HISTORICAL INFORMATION AND PROCEDURES

THE EMPIRE DISTRICT GAS COMPANY
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- Account 379 – City Gate Station Equipment. We recommend increasing the average service life from 44 to 50 years. A lack of retirement activity over the last several years justifies the service life extension.
- Account 380 – Services. We recommend decreasing the average service life from 45 years to 43 years. A 43 year average service life is the statistical best fit for all of Iowa curve types.
- Account 385 – Industrial Measuring and Regulating Station Equipment. We recommend increasing the average service life from 44 to 45 years.
- Account 391 – Office Furniture and Equipment. We recommend decreasing the average service life from 22 to 15 years. We find a 15-L2 Iowa curve to be the best fit of the data.
- Account 391C – Computer Equipment. We find a 6 year average service life to be the best fit of the data, however due to the average age of survivors and current reserve ratio we do not recommend a change from 7 years.
- Account 393 – Stores Equipment. We recommend decreasing the average service life from 27 to 25 years.
- Account 394 – Tools, Shop and Garage Equipment. We recommend increasing the average service life from 27 to 30 years.
- Account 395 – Laboratory Equipment. We recommend increasing the average service life from 29 to 30 years.
- Account 397 – Communications Equipment. This account is no longer used by EDG.

HISTORICAL INFORMATION AND PROCEDURESTHE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

Table 4-1
The Empire District Gas Company
Recommended Average Service Lives and Associated Accrual Rates

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
Acct. No.	Account	Existing		Recommended		Change in	
		Average Service Life	Life Accrual Rate	Average Service Life	Life Accrual Rate	Average Service Life	Life Accrual Rate
		Years		Years		Years	
			1 / [C]		1 / [E]	[E] - [C]	[F] - [D]
	Transmission Plant						
366	Structures	45	2.22%	45	2.22%	0	0.00%
367	Mains	60	1.67%	65	1.54%	5	-0.13%
369	Measuring & Regulating Stations	44	2.27%	45	2.22%	1	-0.05%
	Distribution Plant						
375	Structures	45	2.22%	45	2.22%	0	0.00%
376	Mains	45	2.22%	45	2.22%	0	0.00%
378	Measuring & Regulating Stations	44	2.27%	50	2.00%	6	-0.27%
379	City Gate Stations	44	2.27%	50	2.00%	6	-0.27%
380	Services	45	2.22%	43	2.33%	-2	0.11%
381	Meters	40	2.50%	40	2.50%	0	0.00%
383	Regulators	40	2.50%	40	2.50%	0	0.00%
385	Industrial Meas/Reg Equip	44	2.27%	45	2.22%	1	-0.05%
387	Other Equipment		0.00%		0.00%		0.00%
	General Plant						
390	Structures & Improvements	45	2.22%	45	2.22%	0	0.00%
391	Furniture & Equipment	22	4.55%	15	6.67%	-7	2.12%
391	Computer Equipment	7	14.29%	7	14.29%	0	0.00%
392	Transportation Equipment	12	8.33%	12	8.33%	0	0.00%
393	Stores Equipment	27	3.70%	25	4.00%	-2	0.30%
394	Tools Shop & Garage Equipment	27	3.70%	30	3.33%	3	-0.37%
395	Laboratory Equipment	29	3.45%	30	3.33%	1	-0.12%
396	Power Operated Equipment	16	6.25%	16	6.25%	0	0.00%
397	Communication Equipment	29	3.45%		0.00%		-3.45%
398	Miscellaneous Equipment	23	4.35%	23	4.35%	0	0.00%

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

5.0 DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

After developing our recommended average service lives, we then look at any adjustments that need to be made within the accounts for net salvage and amortization of depreciation reserve, before developing our recommended accrual rates.

5.1 *Net Salvage Allowance*

The traditional approach for incorporating allowance for net salvage is to compare annual net salvage (salvage minus cost of removal) to the original cost of the plant retired during that year over a representative historical period. The traditional approach assumes that the ratio of net salvage dollars to the original cost dollars of the retirements is representative of the allowance that will ultimately apply to all plant in service over that life of that asset. In a whole life depreciation calculation, this allowance is then added to (for a net cost of removal) or deducted from (for a net salvage) one in the numerator and then divided by the average service life.

This approach provides reasonable results where there are modest amounts of salvage or cost of removal or where the amounts are fairly consistent (such as for unit property or general plant). However, cost of removal for some natural gas distribution plant can be as much as or more than the original cost of the plant retired especially if natural gas lines that are under streets need to be relocated. In these instances, it may not be reasonable to assume that this experience applies to all plant.

Problems may result (especially with mains and services) if the net salvage allowance is large and a relatively small amount of plant is being retired. A large depreciation reserve may be accumulated in anticipation of cost of removal expenses that may or may not occur. In the 1998 Laclede case, the Missouri Public Service Commission Staff believed that this was at the root of large differences between actual and theoretical reserve. The Staff proposed removing net salvage from the depreciation calculation and treated salvage and cost of removal as a separate expense (or revenue requirement). In case number GR-2004-0072 a stipulation and agreement was reached by all parties whereby EDG (formerly Aquila) is required to record an annual expense for net cost of removal of up to \$90,163. EDG is further required to book the amount of net cost of removal incurred less \$90,163 against the accumulated reserve for depreciation annually.

We believe however, that the goal of matching actual cost of removal expenses and cost of removal allowances can be accomplished within the calculation of depreciation rates. To achieve this goal, we analyzed EDG's salvage costs and cost of removal over the five year period 2004 through 2008 and found the annual net cost of removal allowance allowed in customer rates should be increased to \$183,600. Our recommended cost of removal allowance per account is shown in Table 5-1, Column K. To incorporate the cost of removal allowance into the depreciation rate, we divide the annual cost of removal allowance by the plant in service balance for each account. This percentage, shown in Table 5-2, Column G, is then added to the accrual rate related to average service life. Table 5-2, Column H shows the adjusted whole life depreciation rates.

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
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Some may view this annual allowance approach is an “impure” application of the whole life method because it is based on a rather short term analysis of activity. As plant ages and retirement activity increases, we expect that the annual allowance may increase. Insufficient depreciation reserve might be accumulated if the annual allowance is not reviewed on a regular basis. However, in Missouri, depreciation rates are reviewed every five years as required by Commission rule. This frequency will allow for future adjustment of the annual net salvage allowance to reflect changes in activity, if necessary.

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

Table 5-1
The Empire District Gas Company
Summary of Recommended Cost of Removal Allowance

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]		
Acct. No.	Account	Depreciable Plant 12/31/2008	\$	Historical Gross Salvage less Cost of Removal							Recommended Cost of Removal Allowance	\$
				2004	2005	2006	2007*	2008	Total	5 Year Average		
Transmission Plant												
366	Structures	10,880	0	0	0	0	0	0	0	0		
367	Mains	6,803,691	0	0	0	0	0	0	0	0		
369	Measuring & Regulating Stations	412,130	0	0	0	0	(152)	(152)	(30)	0		
Distribution Plant												
375	Structures	98,669	0	0	0	0	0	0	0	0		
376	Mains	40,882,215	(36,840)	(71,771)	(30,844)	0	(24,980)	(164,435)	(32,887)	32,900		
378	Measuring & Regulating Stations	636,217	0	0	0	0	0	0	0	0		
379	City Gate Stations	932,939	0	0	0	0	0	0	0	0		
380	Services	23,733,563	(81,220)	(137,728)	(90,580)	0	(342,062)	(651,590)	(130,318)	130,300		
381	Meters	5,233,634	(27)	(123)	(152)	0	(6,140)	(6,442)	(1,288)	1,300		
383	Regulators	3,111,493	(47,191)	(42,094)	(13,732)	0	0	(103,016)	(20,603)	20,600		
385	Industrial Meas/Reg Equip	583,501	(193)	(2,797)	15	0	0	(2,975)	(595)	600		
387	Other Equipment	5,472	0	0	0	0	0	0	0	0		
General Plant												
390	Structures & Improvements	653,583	(4,444)	0	0	0	0	(4,444)	(889)	900		
391	Furniture & Equipment	153,532	0	0	0	0	0	0	0	0		
391	Computer Equipment	304,345	0	0	0	0	0	0	0	0		
392	Transportation Equipment	1,213,917	0	1,011	850	3,129	0	4,990	998	(1,000)		
393	Stores Equipment	29,019	0	0	0	0	0	0	0	0		
394	Tools Shop & Garage Equipment	761,155	0	0	0	0	(38)	(38)	(8)	0		
395	Laboratory Equipment	98,267	0	0	0	0	0	0	0	0		
396	Power Operated Equipment	425,081	0	9,979	0	0	0	9,979	1,996	(2,000)		
397	Communication Equipment	0	0	0	0	0	0	0	0	0		
398	Miscellaneous Equipment	82,094	0	0	0	0	0	0	0	0		
Total		86,165,397	(169,914)	(243,522)	(134,443)	3,129	(373,372)	(918,123)	(183,625)	183,600		

* During the acquisition transition period, gross salvage and cost of removal activity that occurred in 2007 was posted in 2008.

DEVELOPMENT OF RECOMMENDED ACCRUAL RATESTHE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

Table 5-2
The Empire District Gas Company
Recommended Life Rates, Cost of Removal Rates and Depreciation Rates

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
Acct. No.	Account	Depreciable Plant 12/31/2008	Recommended					
			Average Service Life	Life Accrual Rate	Cost of Removal Allowance	Cost of Removal Rate	Whole Life Depreciation Rate	Depreciation Expense
		\$	Years	1 / [D]	\$	[F] / [C]	[E] + [G]	[C] * [H]
Transmission Plant								
366	Structures	10,880	45	2.22%	0	0.00%	2.22%	242
367	Mains	6,803,691	65	1.54%	0	0.00%	1.54%	104,777
369	Measuring & Regulating Stations	412,130	45	2.22%	0	0.00%	2.22%	9,149
Distribution Plant								
375	Structures	98,669	45	2.22%		0.00%	2.22%	2,190
376	Mains	40,882,215	45	2.22%	32,900	0.08%	2.30%	940,291
378	Measuring & Regulating Stations	636,217	50	2.00%	0	0.00%	2.00%	12,724
379	City Gate Stations	932,939	50	2.00%	0	0.00%	2.00%	18,659
380	Services	23,733,563	43	2.33%	130,300	0.55%	2.88%	683,527
381	Meters	5,233,634	40	2.50%	1,300	0.02%	2.52%	131,888
383	Regulators	3,111,493	40	2.50%	20,600	0.66%	3.16%	98,323
385	Industrial Meas/Reg Equip	583,501	45	2.22%	600	0.10%	2.32%	13,537
387	Other Equipment	5,472		0.00%	0	0.00%	0.00%	0
General Plant								
390	Structures & Improvements	653,583	45	2.22%	900	0.14%	2.36%	15,425
391	Furniture & Equipment	153,532	15	6.67%	0	0.00%	6.67%	10,241
391	Computer Equipment	304,345	7	14.29%	0	0.00%	14.29%	43,491
392	Transportation Equipment	1,213,917	12	8.33%	(1,000)	-0.08%	8.25%	100,148
393	Stores Equipment	29,019	25	4.00%	0	0.00%	4.00%	1,161
394	Tools Shop & Garage Equipment	761,155	30	3.33%	0	0.00%	3.33%	25,346
395	Laboratory Equipment	98,267	30	3.33%	0	0.00%	3.33%	3,272
396	Power Operated Equipment	425,081	16	6.25%	(2,000)	-0.47%	5.78%	24,570
397	Communication Equipment	0		0.00%	0	0.00%	0.00%	0
398	Miscellaneous Equipment	82,094	23	4.35%	0	0.00%	4.35%	3,571
Total		86,165,397			183,600			2,242,531

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

5.2 Depreciation Reserve

After developing indicated accrual rates, we evaluate the adequacy of the depreciation reserve balance (Table 5-3). In order to correct any imbalances in the depreciation reserve accounts, we first determine a theoretical level of where depreciation reserve should be. We calculate this based on the weighted age of the assets in each account, relative to our recommended average service lives. Without adjustment, to the extent that calculated reserve, Table 5-3, Column I, is greater than or less than the book reserve, Table 5-3, Column D, the Company will under- or over-recover, respectively, its depreciable plant investment. Differences between the calculated theoretical reserve and the book reserve can be attributed primarily to changes in life characteristics or historical rates which have not properly reflected life characteristics or changes in life characteristics. These changing life characteristics and the degree to which these changes are recognized and reflected in the depreciation rates directly affect the book reserves.

By subtracting the actual depreciation reserve from calculated depreciation reserve, we determine the reserve deficiency, Column J. Any amounts that have been over- or under-recovered should be amortized over the remaining life of the asset group. We calculate a reserve deficiency of \$1.4 million at December 31, 2008. We believe that this under-recovery is not material enough to require an amortization at this time.

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

Table 5-3
The Empire District Gas Company
Analysis of Accumulated Depreciation Reserve

[A] Acct. No.	[B] Account	[C] Depreciable Plant 12/31/2008 \$	[D] Accumulated Depreciation Reserve 12/31/2008 \$	[E] Reserve Ratio %	[F] Recommended Average Service Life Years	[G] Weighted Age Years	[H] Calculated Reserve Ratio Based On Weighted Age %	[I] Calculated Depreciation Reserve \$	[J] Reserve Deficiency \$
				[D] / [C]			[G] / [F]	[H] * [C]	[I] - [D]
Transmission Plant									
366	Structures	10,880	9,595	88.19%	45	24.79	55.09%	5,994	(3,602)
367	Mains	6,803,691	5,014,628	73.70%	65	38.37	59.03%	4,016,271	(998,357)
369	Measuring & Regulating Stations	412,130	155,020	37.61%	45	16.81	37.36%	153,953	(1,066)
	Total Distribution Plant	7,226,700	5,179,243	71.67%			57.79%	4,176,218	(1,003,025)
Distribution Plant									
375	Structures	98,669	64,727	65.60%	45	30.22	67.16%	66,261	1,534
376	Mains	40,882,215	15,056,283	36.83%	45	19.73	43.84%	17,924,580	2,868,297
378	Measuring & Regulating Stations	636,217	332,581	52.27%	50	20.94	41.88%	266,448	(66,134)
379	City Gate Stations	932,939	436,162	46.75%	50	20.54	41.08%	383,251	(52,911)
380	Services	23,733,563	12,276,976	51.73%	43	19.79	46.02%	10,922,959	(1,354,018)
381	Meters	5,233,634	2,292,624	43.81%	40	22.72	56.80%	2,972,704	680,080
383	Regulators	3,111,493	845,249	27.17%	40	17.39	43.48%	1,352,722	507,473
385	Industrial Meas/Reg Equip	583,501	164,180	28.14%	45	13.07	29.04%	169,475	5,295
387	Other Equipment	5,472	5,472	100.00%					
	Total Distribution Plant	75,217,704	31,474,256	41.84%			45.28%	34,058,400	2,589,616
General Plant									
390	Structures & Improvements	653,583	28,446	4.35%	45	8.23	18.29%	119,533	91,087
391	Furniture & Equipment	153,532	32,545	21.20%	15	3.48	23.20%	35,619	3,075
391	Computer Equipment	304,345	185,107	60.82%	7	5.66	80.86%	246,084	60,977
392	Transportation Equipment	1,213,917	575,635	47.42%	12	5.54	46.17%	560,425	(15,210)
393	Stores Equipment	29,019	9,715	33.48%	25	8.68	34.72%	10,075	360
394	Tools Shop & Garage Equipment	761,155	649,673	85.35%	30	16.33	54.43%	414,322	(235,351)
395	Laboratory Equipment	98,267	89,299	90.87%	30	22.54	75.13%	73,831	(15,467)
396	Power Operated Equipment	425,081	369,963	87.03%	16	11.45	71.56%	304,199	(65,764)
397	Communication Equipment	0	0	0.00%					
398	Miscellaneous Equipment	82,094	43,687	53.22%	23	12.40	53.91%	44,260	573
	Total General Plant	3,720,993	1,984,069	53.32%			48.60%	1,808,349	(175,721)
	Total Depreciable Plant	86,165,397	38,637,567	44.84%			46.47%	40,042,966	1,410,871

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

5.3 Recommended Accrual Rates

Table 5-4 summarizes the Company's existing and recommended accrual rates and the annual depreciation accrual incurred when each of these rates is applied to the depreciable plant balance at December 31, 2008.

We show in Table 5-4 that when our recommended average service life related accrual rates in Column I are applied to depreciable plant balances as of December 31, 2008, annual depreciation expense would increase by approximately \$13,000 over levels produced by existing rates (Column O). Our recommended life related portion of depreciation expense is shown in Table 5-4, Column J. Our recommended cost of removal rate and associated cost of removal accrual are shown in Table 5-4, Columns K and L respectively. Our annual net cost of removal recommendation is an increase of approximately \$93,000 over the existing allowance.

We propose the use of whole life depreciation rates that include both the average service life accrual and the net cost of removal accrual. We show our proposed depreciation accrual rates in Column Q of Table 5-4. Using our proposed depreciation rates, all of the actual incurred cost of removal will be booked to the depreciation reserve, and there will not be an expense allowance.

DEVELOPMENT OF RECOMMENDED ACCRUAL RATES

THE EMPIRE DISTRICT GAS COMPANY
DEPRECIATION STUDY

Table 5-4
The Empire District Gas Company
Summary of Recommended Depreciation Accrual Rates

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]
Acct. No.	Account	Depreciable Plant 12/31/2008	Average Service Life Years	Life Accrual Rate	Life Related Accrual	Cost of Removal Allowance	Average Service Life Years	Life Accrual Rate	Life Related Accrual	Cost of Removal Accrual Rate	Cost of Removal Accrual	Average Service Life Years	Life Accrual Rate	Life Related Accrual	Cost of Removal Allowance	Proposed Whole Life Depreciation Rate
		\$		1 / [D]	[C] * [E]	\$		1 / [H]	[C] * [I]	Table 5-2	[C] * [K]		[H] - [D]	[I] - [E]	[J] - [F]	[L] - [G]
Transmission Plant																
366	Structures	10,880	45	2.22%	242		45	2.22%	242	0.00%	0	0	0.00%	0	0	2.22%
367	Mains	6,803,691	60	1.67%	113,622		65	1.54%	104,777	0.00%	0	5	-0.13%	(8,845)	0	1.54%
369	Measuring & Regulating Stations	412,130	44	2.27%	9,355		45	2.22%	9,149	0.00%	0	1	-0.05%	(206)	0	2.22%
	Total Distribution Plant	7,226,700		1.71%	123,219			1.58%	114,168		0			(9,051)		
Distribution Plant																
375	Structures	98,669	45	2.22%	2,190		45	2.22%	2,190	0.00%	0	0	0.00%	0	0	2.22%
376	Mains	40,882,215	45	2.22%	907,585		45	2.22%	907,585	0.08%	32,706	0	0.00%	0	0	2.30%
378	Measuring & Regulating Stations	636,217	44	2.27%	14,442		50	2.00%	12,724	0.00%	0	6	-0.27%	(1,718)	0	2.00%
379	City Gate Stations	932,939	44	2.27%	21,178		50	2.00%	18,659	0.00%	0	6	-0.27%	(2,519)	0	2.00%
380	Services	23,733,563	45	2.22%	526,885		43	2.33%	552,992	0.55%	130,535	-2	0.11%	26,107	0	2.88%
381	Meters	5,233,634	40	2.50%	130,841		40	2.50%	130,841	0.02%	1,047	0	0.00%	0	0	2.52%
383	Regulators	3,111,493	40	2.50%	77,787		40	2.50%	77,787	0.66%	20,536	0	0.00%	0	0	3.16%
385	Industrial Meas/Reg Equip	583,501	44	2.27%	13,245		45	2.22%	12,954	0.10%	584	1	-0.05%	(292)	0	2.32%
387	Other Equipment	5,472		0.00%	0			0.00%	0	0.00%	0		0.00%	0		0.00%
	Total Distribution Plant	75,217,704		2.25%	1,694,154			2.28%	1,715,733		185,406			21,578		
General Plant																
390	Structures & Improvements	653,583	45	2.22%	14,510		45	2.22%	14,510	0.14%	915	0	0.00%	0	0	2.36%
391	Furniture & Equipment	153,532	22	4.55%	6,986		15	6.67%	10,241	0.00%	0	-7	2.12%	3,255	0	6.67%
391	Computer Equipment	304,345	7	14.29%	43,491		7	14.29%	43,491	0.00%	0	0	0.00%	0	0	14.29%
392	Transportation Equipment	1,213,917	12	8.33%	101,119		12	8.33%	101,119	-0.08%	(971)	0	0.00%	0	0	8.25%
393	Stores Equipment	29,019	27	3.70%	1,074		25	4.00%	1,161	0.00%	0	-2	0.30%	87	0	4.00%
394	Tools Shop & Garage Equipment	761,155	27	3.70%	28,163		30	3.33%	25,346	0.00%	0	3	-0.37%	(2,816)	0	3.33%
395	Laboratory Equipment	98,267	29	3.45%	3,390		30	3.33%	3,272	0.00%	0	1	-0.12%	(118)	0	3.33%
396	Power Operated Equipment	425,081	16	6.25%	26,568		16	6.25%	26,568	-0.47%	(1,998)	0	0.00%	0	0	5.78%
397	Communication Equipment	0	29	3.45%	0			0.00%	0	0.00%	0	0	-3.45%	0	0	0.00%
398	Miscellaneous Equipment	82,094	23	4.35%	3,571		23	4.35%	3,571	0.00%	0	0	0.00%	0	0	4.35%
	Total General Plant	3,720,993		6.15%	228,871			6.16%	229,278		(2,054)			408		
	Total Depreciable Plant (1)	86,165,397		2.37%	2,046,243			2.39%	2,059,179	0.21%	183,352			12,935		2.60%

(1) Existing allowance for net salvage of \$90,163 per the Unanimous Stipulation and Agreement in Case No. GR-2004-0072:
 "The provision for jurisdictional net cost of removal of \$68,272 for MPS, and \$21,891 for L&P is to be recorded as an annual expense for rate making purposes."