BEFORE THE

TENNESSEE REGULATORY AUTHORITY

DIRECT TESTIMONY OF DONALD S. ROFF

IN RE:

CHATTANOOGA GAS COMPANY

DOCKET NO._____

I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, EMPLOYER AND JOB TITLE.

A. My name is Donald S. Roff. I am a Director with the public accounting firm of Deloitte & Touche LLP. My business address is 2200 Ross Avenue, Suite 1600, Dallas, Texas 75201.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of Chattanooga Gas Company ("CGC" or "the Company").

Q. DO YOU SPONSOR ANY EXHIBITS ?

A. Yes. I sponsor Exhibit 7, which consists of the following four sections:

Section I. Qualifications
Section II. Regulatory Appearances
Section III. Depreciation Study Report
Section IV. Comparison of Depreciation Rates

Q. WAS THIS EXHIBIT PREPARED BY YOU OR UNDER YOUR SUPERVISION?

A. Yes, it was.

Q. PLEASE STATE YOUR EDUCATION, PROFESSIONAL AND WORK EXPERIENCE.

A. My education, professional and work experience are contained in Section ! of Exhibit 7.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS OR ANY OTHER REGULATORY BODY?

A. Yes. A list of my regulatory appearances is attached as Section II of Exhibit 7. For Docket No. 95-02116, I prepared rebuttal testimony on the subject of depreciation. That case was resolved by a settlement agreement

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been asked by CGC to testify as to the recommended depreciation rates to be used by the Company for the accrual of depreciation expenses, recognizing accounting principles and the regulatory rules of the Tennessee Regulatory Authority ("TRA").

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. A copy of the Depreciation Study Report, conducted as of September 30, 1996, is attached to my direct testimony as Section III of Exhibit 7. Based upon my analysis, I recommend changes to the depreciation rates currently in use, as summarized below:

Function	Existing Rate (Percent)	Recommended Rate (Percent)
LNG Storage Plant	2.93	2.67
Distribution Plant	3.37	3.37
General Plant	7.71	7.34
Total Company	3.66	3.61

This summary is taken from Schedule 1 of Section III of Exhibit 7. Application of the recommended depreciation rates to the test year average depreciable balances results in a decrease in annual depreciation expense of $64,147, or less than 2 percent below that produced by application of the existing depreciation rates, as shown on Section IV of Exhibit 7. The remaining sections of my testimony discuss the depreciation study procedure, life analysis, salvage and cost of removal analysis, rate calculation methodology, functional results, General Plant amortization and my recommendations.

Q. WAS THE DEPRECIATION STUDY PREPARED BY YOU OR UNDER YOUR DIRECTION?

A. Yes, it was.

II. DEPRECIATION STUDY PROCEDURE

Q. WHAT IS DEPRECIATION?

A. The most widely recognized accounting definition of depreciation is that of the American Institute of Certified Public Accountants (AICPA), which states:

> Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation.[1]

Q. WHAT IS THE SIGNIFICANCE OF THIS DEFINITION?

[1] Accounting Terminology Bulletin No. 1, Paragraph 56, AICPA (August 1953).

A. This definition of depreciation accounting forms the accounting framework under which the depreciation study was conducted. Several aspects of this definition are particularly significant. Salvage (net salvage) is to be recognized. The allocation of costs is over the useful life of the assets. Grouping of assets is permissible. Depreciation accounting is not a valuation process. And the cost allocation must be both systematic and rational.

Q. PLEASE EXPLAIN THE IMPORTANCE OF THE TERMS "SYSTEMATIC AND RATIONAL".

A. Systematic implies the use of a formula. The formula that I have used for calculating the recommended depreciation rates is shown on Page 11 of Section III of Exhibit 7. Rational means that the pattern of depreciation, in this case, the depreciation rate itself, must match either the pattern of the revenues produced by the asset, or match the consumption of the asset. In my study, I have assumed that revenues are, and will continue to be, determined through regulation. Therefore, asset consumption must be directly measured and reflected in depreciation rates. This measurement of asset consumption is accomplished by conducting a depreciation study.

Q. ARE THERE OTHER DEFINITIONS OF DEPRECIATION?

A. Yes. The National Association of Regulatory Utility Commissioners Uniform System of Accounts provides series of definitions related to depreciation as shown on Page 4 of Section III of Exhibit 7. These definitions make reference to

asset consumption, and therefore relate very well to the accounting framework for depreciation. These definitions form the regulatory framework under which the depreciation study was conducted.

Q. HOW DOES THE DEPRECIATION STUDY RECOGNIZE ASSET CONSUMPTION?

A. Asset consumption (retirement dispersion) in the depreciation study is defined by the use of Iowa-type curves and average service lives.

Q. WHAT IS RETIREMENT DISPERSION?

A. Retirement dispersion merely recognizes that groups of assets have individual assets of different lives, therefore each asset retires at differing ages. Retirement dispersion is the scattering of retirements by age around average service life for each group of assets.

Q. WHAT ARE IOWA-TYPE CURVES?

A. Iowa-type curves are a collection of retirement dispersion patterns developed to measure asset consumption. These patterns were developed in the 1930's at what is now Iowa State University. These patterns are useful because they have a simple naming convention tied to the shape of each pattern. Curves with the maximum level of retirements (mode) before average service life (mean) are left-modal (L-curves). Curves with the maximum level of retirements after average service life are right-modal (R-curves). Curves with the same level of retirements

before and after average service life are symmetrical (S-curves). Examples of these curves are contained in Appendix A attached to Section III of Exhibit 7.

Q. PLEASE DESCRIBE HOW THESE ELEMENTS WERE DETERMINED AND UTILIZED IN THE DEPRECIATION STUDY.

A. A depreciation study consists of four distinct, yet related phases - data collection, analysis, evaluation and rate calculation. Data collection refers to the gathering of historical accounting information in a format for use in the other phases. AGL Resources Service Company ("AGLRSC") personnel assisted with this effort. Analysis refers to the statistical processing of the data collected in the first phase. There are three separate analysis procedures - two for life, and one for salvage and cost of removal. The evaluation phase incorporates the information developed in the data collection and analysis phase, to determine the applicability of the historical relationships developed in these phases to the future. The rate calculation phase merely utilizes the parameters developed in the other phases in the computation of the recommended depreciation rates.

Q. WHAT ARE THE PARAMETERS USED IN THE CALCULATION OF THE RECOMMENDED DEPRECIATION RATES?

A. The parameters are the average service life and retirement dispersion defined by Iowa curves, net salvage factors and the depreciable plant balance. How these components are used in the calculation is discussed on Pages 10 and 11 of Section III of Exhibit 7.

III. LIFE ANALYSIS

Q. PLEASE EXPLAIN THE LIFE ANALYSIS PHASE OF THE DEPRECIATION STUDY.

A. For certain asset categories the age of both surviving and retired property is known, and actuarial analysis was utilized. Actuarial analysis is described on Page 6 of Section III of Exhibit 7. For the remaining asset categories, only gross annual activity is available, i.e., additions and retirements, and simulation analysis procedures were utilized. The Simulated Plant Record (SPR) analysis is described on Page 7 of Section III of Exhibit 7.

Q. HOW WERE THE IOWA CURVE AND AVERAGE SERVICE LIFE SELECTIONS MADE?

A. Summaries of the individual asset category life analysis indications were prepared and discussed with Company personnel. Anomalies and trends were identified, and engineering and operations input was requested where necessary. A single average service life and Iowa curve was selected for each asset category reflecting the combination of the historical results and the information obtained from the engineering, accounting and operations personnel. This process is a part of the evaluation phase of the depreciation study, and also gives recognition to the causes of retirement enumerated in the definition of depreciation.

IV. SALVAGE AND COST OF REMOVAL ANALYSIS

Q. PLEASE EXPLAIN THE SALVAGE AND COST OF REMOVAL ANALYSIS.

A. Annual salvage amounts, cost of removal and retirements were provided by asset category for the period 1982 through 1996. Annual salvage, cost of removal and net salvage percentages were calculated by dividing by the annual retirement amounts. Rolling and shrinking bands were also developed to illustrate trends. One salvage and one cost of removal figure was selected for each asset category. Salvage and cost of removal analysis is discussed on Pages 7 and 8 of Section III of Exhibit 7.

Q. WHAT IS NET SALVAGE?

A. Net salvage is the difference between salvage and cost of removal. If salvage exceeds cost of removal, then net salvage is positive. If cost of removal exceeds salvage, then net salvage is negative. Negative net salvage is common for gas distribution companies.

V. RATE CALCULATION METHODOLOGY

Q. WHAT RATE CALCULATION METHOD ARE YOU RECOMMENDING IN THE DEPRECIATION STUDY?

A. I am recommending the continued use of the straight-line method, whole life technique and the equal life group procedure.

Q. WHAT IS THE WHOLE LIFE TECHNIQUE?

A. The whole life technique allocates the gross investment, adjusted for net salvage over the useful life of each asset category.

Q. IS THE WHOLE LIFE TECHNIQUE A GENERALLY ACCEPTED DEPRECIATION PRACTICE?

A. Yes, the whole life technique is a common and generally accepted practice.

Q. PLEASE EXPLAIN THE EQUAL LIFE GROUP PROCEDURE.

A. Certainly. The equal life procedure gives recognition to the fact that assets retire at different ages. Each investment is depreciated over its respective useful life. A more complete discussion of the equal life group procedure, with examples is contained in Appendix A attached to Section III of Exhibit 7.

Q. HOW ARE THE EQUAL LIFE GROUPS DETERMINED?

A. Once an average service life and Iowa curve has been determined as appropriate for each investment category, the individual equal life groups can be determined. This is accomplished by recognizing the general shape of the retirement dispersion pattern and average service life combination. This combination is applied to the surviving vintage balances to determine when each vintage balance is expected to retire. For example, an asset category will have some predicted retirements occurring at age one, which investment will be assigned a depreciation rate of 100%. Some predicted retirements will occur at age two, which investment will be assigned a depreciation rate of 50%, and so

on for each future life. The summation of these individual equal life groups will be combined to determine the total depreciation for the asset category.

Q. WHAT ARE THE BENEFITS OF THE EQUAL LIFE GROUP PROCEDURE?

A. First and foremost, the individual investment categories are depreciated over their respective lives. This allocation of cost provides the most appropriate matching between the recording of depreciation and asset consumption. Second, the equal life group procedure gives appropriate recognition to the fact that assets within a group retire at different ages.

Q. IS THE EQUAL LIFE GROUP PROCEDURE A GENERALLY RECOGNIZED DEPRECIATION PRACTICE?

A. Yes. While the use of the equal life group procedure has not been widespread for energy companies. it does have extensive use in the telecommunications industry, and is mandated by the Federal Communication Commission. The existing depreciation rates used the equal life group procedure

Q. WHY SHOULD THIS AUTHORITY AGAIN APPROVE THE USE OF THE EQUAL LIFE GROUP PROCEDURE?

A. The equal life group procedure should be approved again by this Authority because it provides the best conceptual matching between the recording of depreciation and asset consumption. Thus the equal life group procedure best fulfills the accounting principle of matching and the allocation of cost to accounting periods is more appropriate.

Q. IS THERE ANY NEED TO ADJUST THE WHOLE LIFE DEPRECIATION RATES FOR THE BOOK RESERVE POSITION?

A. No. As shown on Schedule 3 of Section III of Exhibit 7, the difference between the theoretical reserve and the accumulated provision for depreciation is $1,024,918. This amount is less than three (3) months normal depreciation accruals, and no adjustment is required. My general rule of thumb for adjustment is a difference greater than one year's depreciation.

VI. RESULTS

Q. PLEASE SUMMARIZE THE RESULTS FOR LNG STORAGE PLANT.

A. Average service lives have both increased and decreased, and net salvage is slightly negative. The composite depreciation rate decreased from 2.93% to 2.67%, an annual expense decrease of $26,508. The limited decreases are for Account 363.1, Liquefaction Equipment and Account 363.2, Vaporizing Equipment. More detail regarding individual accounts is contained in Appendix B attached to Section III of Exhibit 7.

Q. PLEASE SUMMARIZE THE RESULTS FOR DISTRIBUTION PLANT.

A. The composite depreciation rate is unchanged at 3.37%, an annual increase of $5,398. The major influences are Account 376, Mains which has less cost of removal, and Account 380, Services which has more cost of removal. Additional detail regarding individual accounts is contained in Appendix B attached to Section III of Exhibit 7.

Q. PLEASE SUMMARIZE THE RESULTS FOR GENERAL PLANT.

A. The composite depreciation rate decreased from 7.71% to 7.34%, an annual expense decrease of $35,225. Average lives changes are in both directions, but the primary influence is more positive net salvage. More details regarding the results for individual accounts are contained in Appendix B attached to Section III of Exhibit 7.

Q. WHAT IS THE TOTAL CHANGE IN ANNUAL DEPRECIATION INDICATED BY THE DEPRECIATION STUDY?

A. At the total Company depreciable investment level, as shown on Schedule 1 of Section III of Exhibit 7, the decrease in annual depreciation expense indicated by the study is $56,335, or less than 2% compared with the level of expense developed by application of the existing rates.

VII. GENERAL PLANT AMORTIZATION

Q. WHAT IS GENERAL PLANT AMORTIZATION?

A. In simple terms, General Plant amortization is a process for the systematic and rational recording of expense and the retirement of small dollar items in certain of the accounts in the General Plant functional grouping.

Q. WHY IS "CGC" REQUESTING APPROVAL FOR USE OF THIS PROCESS AT THIS TIME?

A. For some time, CGC and AGLRSC property accounting personnel have had difficulty tracking the numerous, small dollar items contained in certain General Plant accounts, due to changing capitalization limits. As such, retirements are often not reported. This process will enable an orderly retirement of these items, and provide a more direct matching between the accounting effort and the value of these assets. Thus the customer will benefit from the more efficient utilization of Company resources.

Q. PLEASE DESCRIBE THE PROCESS THAT CGC INTENDS TO IMPLEMENT.

A. Certainly. CGC proposes to amortize amounts recorded in these accounts over their estimated service lives. Initially, a retirement will be recorded for all amounts with an age greater than the service life. The remaining asset base net of the accumulated provision for depreciation balances will be amortized over the remaining lives of the surviving asset base. On a going forward basis, new additions will be amortized on a straight line basis over their respective service lives. Additionally, any salvage received or cost of removal incurred will be charged as current period amounts, that is, the Income Statement, not the Balance Sheet.

Q. HAS SUCH A PROCESS BEEN APPROVED IN OTHER JURISDICTIONS?

A. Yes. This or similar amortization processes have been approved in the following jurisdictions: Arkansas, California, Connecticut, Delaware, Florida, Maryland, Massachusetts, Michigan, Minnesota, New York, Oklahoma, Oregon,

Pennsylvania, Virginia, Washington, and the Federal Energy Regulatory Commission (FERC).

Q. WHAT IS THE BENEFIT OF SUCH A PROCESS?

A. There are several benefits. Unitization of the assets is no longer required. Tracking and recording of individual retirements is eliminated. There is a systematic recording of retirements and expense. And most important, there is a matching of the level of the accounting effort with the value of the property. This is a more efficient utilization of the Company's property accounting resources.

Q. WHAT IS UNITIZATION?

A. Unitization is the process of translating capital expenditures into property units on the Continuing Property Records of the Company. Under the proposed amortization process, capital expenditures will be recorded by account at the vintage level only.

Q. WHAT ASSET CATEGORIES WILL BE IMPACTED BY THIS PROPOSED TREATMENT?

A. The following accounts will be amortized:

Account 391.0	Office Furniture & Equipment
Account 391.1	EDP Equipment
Account 393.0	Stores Equipment
Account 394.0	Tools, Shop & Garage Equipment
Account 395.0	Laboratory Equipment

Account 398.0 Miscellaneous Equipment

These accounts represent only about 2.5% of the depreciable asset base as of September 30, 1996.

Q. WHY ARE THE REMAINING GENERAL PLANT ACCOUNTS NOT TO BE AMORTIZED?

A. The remaining accounts not to be amortized include large, separately identifiable items, which can easily be tracked and recorded.

VIII. RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I recommend that CGC adopt the depreciation rates shown in Column 5 of Schedule 1 of Section III of Exhibit 7, and that this Authority approve their use. I further recommend that CGC implement an amortization process for certain General Plant accounts.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AFFIDAVIT

State of Texas §

County of Dallas §

Personally, appeared before the undersigned authority, **Donald S. Roff**, who, after being dully sworn, states on oath that he is the same **Donald S. Roff** whose prepared testimony and exhibits accompany this Affidavit; that he is authorized to make this Affidavit; that he is familiar with the contents of the foregoing testimony on behalf of Chattanooga Gas Company to the Tennessee Regulatory Authority; and that the facts stated therein are true to the best of his knowledge, information and belief.

Donald S. Roff

Donald S. Roff

Sworn to and subscribed before me this
15th day of April, 1997.

Notary Public

My Commission Expires:

3/26/2000

NOTARY SEAL:

Docket No. _____
Exhibit No. 7
Section III

Schedule 1

CHATTANOOGA GAS COMPANY
Comparison of Annual Accrual from Existing and Recommended Rates

Account	Description	(1) Depreciable Balance September 30, 1996 Total	(2) Existing Rates Rate	(3) Existing Rates Amount	(4) Recommended Rates ELG-WL Rate	(5) Recommended Rates Amount	(6) Increase or (Decrease)	(7)
		$	%	$	%	$	$	
	LNG STORAGE PLANT							
361.1	Structures & Improvements	502,157	2.59	13,006	2.77	13,910	904	
362.0	Storage & Transfer	3,905,672	2.58	100,766	2.64	103,110	2,343	
363.0	Purification Equipment	286,926	3.27	9,382	2.63	7,546	(1,836)	
363.1	Liquefaction System	2,513,277	3.27	82,184	2.64	66,351	(15,834)	
363.2	Vaporizing Equipment	2,128,232	3.24	68,955	2.75	58,526	(10,428)	
363.4	Metering & Regulating	95,050	2.89	2,747	2.78	2,642	(105)	
363.5	Other Equipment	646,735	2.89	18,691	2.65	17,138	(1,552)	
	Total LNG Storage Plant	10,078,049	2.93	295,731	2.67	269,223	(26,508)	
	DISTRIBUTION PLANT							
374.2	Land Rights	384,189	0.00	0	2.57	9,874	9,874	
375.0	Structures & Improvements	16,171	2.65	429	5.10	825	396	
376.0	Mains	56,571,564	3.17	1,793,319	2.81	1,589,661	(203,658)	
378.0	M & R Equipment – General	1,675,472	2.57	43,060	2.71	45,405	2,346	
379.0	M & R Equipment – City Gate	1,044,712	2.34	24,446	2.96	30,923	6,477	
380.0	Services	35,289,342	4.02	1,418,632	4.43	1,563,318	144,686	
381.0	Meters	4,494,979	2.25	101,137	2.41	108,329	7,192	
382.0	Meter Installations	1,892,006	2.87	54,301	4.51	85,329	31,029	
383.0	House Regulators	2,021,886	2.23	45,088	2.54	51,356	6,268	
385.0	Industrial M & R Equipment	157,527	2.56	4,033	3.12	4,915	882	
386.0	Property on Customers' Premises	16,919	4.02	680	3.46	585	(95)	
	Total Distribution Plant	103,564,767	3.37	3,485,123	3.37	3,490,521	5,398	
	GENERAL PLANT							
390.0	Structures & Improvements	3,524,119	3.00	105,724	2.02	71,187	(34,536)	
391.0	Office Furniture & Equipment	429,706	4.03	17,317	4.78	20,540	3,223	
391.1	EDP Equipment	2,167,064	13.86	300,355	13.05	282,802	(17,553)	
392.1	Transportation – Cars (5 Year)	385,002	16.00	61,600	12.00	46,200	(15,400)	
392.2	Transportation – Light Trucks (7 Year)	677,384	11.43	77,425	10.00	67,738	(9,687)	
392.3	Transportation – Heavy Trucks (10 Year)	833,140	8.00	66,651	8.00	66,651	0	
393.0	Stores Equipment	93,642	4.50	4,214	4.44	4,158	(56)	
394.0	Tools, Shop & Garage Equipment	328,359	4.24	13,922	6.96	22,854	8,931	
395.0	Laboratory Equipment	22,280	5.00	1,114	4.64	1,034	(80)	
396.0	Power Operated Equipment	234,188	6.50	15,222	15.51	36,323	21,100	
397.0	Communication Equipment	617,533	9.00	55,578	10.37	64,038	8,460	
398.0	Miscellaneous Equipment	22,465	3.70	831	5.36	1,204	373	
	Total General Plant	9,334,882	7.71	719,954	7.34	684,729	(35,225)	
	TOTAL COMPANY DEPRECIABLE PLANT	122,977,698	3.66	4,500,808	3.61	4,444,473	(56,335)	
All	Intangible Plant (a)	48,229						
All	Land (a)	909,829						
311.0	LP Gas Equipment (b)	420,955						
387.0	Other Equipment (b)	82,976						
392.0	Transportation Vintage Retirements (c)	159,502						
	TOTAL COMPANY PLANT IN SERVICE	$124,599,189						

(a) Non-Depreciable
(b) Fully Depreciated
(c) Vintage Retirements After 09/30/96

Schedule 2

CHATTANOOGA GAS COMPANY
Mortality Characteristics

Account	Description	(1)	(2) Existing Rates Average Service Life	(3) Existing Rates Iowa Curve Type	(4) Existing Rates Net Salvage	(5) Recommended Rates Average Service Life	(6) Recommended Rates Iowa Curve Type	(7) Recommended Rates Net Salvage
			Years		%	Years		%
	LNG STORAGE PLANT							
361.1	Structures & Improvements		40	R4	0	40	R4	(5)
362.1	Storage & Transfer		40	R4	0	40	R4	(5)
363.0	Purification Equipment		*	*	*	40	R4	(5)
363.1	Liquefaction System		30	R2.5	0	40	R4	(5)
363.2	Evaporator System		30	R2.5	0	40	R4	(5)
363.4	Metering & Regulating		35	R3	0	40	R4	(5)
363.5	Other Equipment		35	R3	0	40	R4	(5)
	DISTRIBUTION PLANT							
374.1	Land Rights		*	*	*	40	S4	0
375.0	Structures & Improvements		40	R4	0	20	R5	0
376.0	Mains		55	R3	(60)	55	R3	40
378.0	M & R Station Equipment – General		40	R3	0	40	R3	0
379.0	M & R Station Equipment – City Gate		45	R3	0	45	R1.5	0
380.0	Services		40	S6	(60)	40	S1.5	55
381.0	Meters		45	S5	0	40	S5	5
382.0	Meter Installations		35	S6	0	30	R0.5	0
383.0	House Regulators		45	S6	0	40	S5	0
385.0	M & R Station Equipment – Industrial		45	R3	0	35	R3	0
386.0	Property on Customers' Premises		40	S6	(60)	40	S1.5	55
	GENERAL PLANT							
390.0	Structures & Improvements		35	R4	5	50	R4	5
391.0	Office Furniture & Equipment		25	S2	5	20	S6	5
391.1	EDP Equipment		7	L3	0	8	L1.5	0
392.1	Transportation – Cars (5 Year)		*	*	*	5	SQ	40
392.2	Transportation – Light Trucks (7 Year)		*	*	*	7	SQ	30
392.3	Transportation – Heavy Trucks (10 Year)		*	*	*	10	SQ	20
393.0	Stores Equipment		25	R3	0	25	R3	0
394.0	Tools, Shop & Garage Equipment		25	R2	0	15	R2	0
395.0	Laboratory Equipment		25	R2	0	25	R2	0
396.0	Power Operated Equipment		15	R2	15	5	R4	15
397.0	Communication Equipment		15	R3	0	10	L3	0
398.0	Miscellaneous Equipment		20	R2	0	20	R2	0

*Not in Prior Study

Schedule 3

CHATTANOOGA GAS COMPANY
Reserve Comparison

Account	Function and Account Description	(1)	(2) Surviving Balance	(3) Book Reserve	(4) Theoretical Reserve	(5) Difference
			As of September 30, 1996			
			$	$	$	$
	LNG STORAGE PLANT					
361.1	Structures & Improvements		502,157	117,670	83,952	
362.0	Storage & Transfer (Gas Holders)		3,905,672	3,483,772	2,485,495	
363.0	Purification Equipment		286,926	260,396	185,780	
363.1	Liquefaction Equipment		2,513,277	2,273,474	1,622,008	
363.2	Vaporizing Equipment		2,128,232	586,593	418,504	
363.4	Metering & Regulating Equipment		95,050	24,083	17,182	
363.5	Other Equipment		646,735	535,612	382,132	
	Total LNG Storage Plant		10,078,049	7,281,600	5,195,053	(2,086,547)
	DISTRIBUTION PLANT					
374.2	Land Rights		384,189	0	38,042	
375.0	Structures & Improvements		16,171	10,982	8,495	
376.0	Mains		56,571,564	15,827,857	15,971,109	
377.0	M&R Equipment – General		1,675,472	502,444	402,699	
378.0	M&R Equipment – City Gate		1,044,712	144,346	145,653	
380.0	Services		35,289,342	10,741,738	12,654,095	
381.0	Meters		4,494,979	1,271,887	1,195,556	
382.0	Meter Installations		1,892,006	270,099	434,926	
383.0	House Regulators		2,021,886	320,243	283,807	
385.0	M&R Equipment – Industrial		157,527	31,667	35,398	
386.0	Property on Customer Premises		16,919	16,621	18,276	
	Total Distribution Plant		103,564,767	29,137,884	31,188,056	2,050,172
	GENERAL PLANT					
390.0	Structures & Improvements		3,524,119	720,263	313,733	
391.0	Furniture & Office Equipment		429,706	52,846	93,945	
391.1	EDP (Computer) Equipment		2,167,064	1,069,067	902,142	
392.1	Transportation – Cars (5 Years) (c)		385,002	284,179	121,263	
392.2	Transportation – Light Trucks (7 Years) (c)		677,384	561,695	304,234	
392.3	Transportation – Heavy Trucks (10 Years)		833,140	491,256	308,155	
393.0	Stores Equipment		93,642	58,301	17,039	
394.0	Tools, Shop & Garage Equipment		328,359	34,938	129,101	
395.0	Laboratory Equipment		22,280	4,925	4,708	
396.0	Power Operated Equipment		234,188	113,897	128,378	
397.0	Communication Equipment		617,533	258,914	338,959	
398.0	Miscellaneous Equipment		22,465	7,869	7,950	
	Total General Plant		9,334,882	3,658,150	2,669,607	(988,543)
	Total Company Depreciable Plant		122,977,698	40,077,634	39,052,716	(1,024,918)
All	Intangible Plant (a)		48,229			
All	Land (a)		909,829			
311.0	LP Gas Equipment (b)		420,955	444,955	444,955	
387.0	Other Equipment (b)		82,976	82,976	82,976	
392.0	Adjustment for Vintage Retirements (c)		159,502	159,502	159,502	
	TOTAL COMPANY PLANT IN SERVICE		$124,599,189	$40,765,067	$39,740,149	($1,024,918)

(a)Non–Depreciable
(b)Fully Depreciated
(c)Vintage Retirements After 09/30/96

APPENDIX A

CALCULATION OF EQUAL LIFE GROUP DEPRECIATION RATES

It is the group concept of depreciation that leads to the existence of the ELG procedure of calculating depreciation rates. This concept has been an integral part of utility depreciation accounting practices for many years. Under the group concept, there is no attempt to keep track of the depreciation applicable to individual items of property. This is not surprising, in view of the millions of items making up a utility system. Any item retired is assumed to be fully depreciated, no matter when the retirements occur. The group of property would have some average life. "Average" is the result of an arithmetic calculation, and there is no assurance that any of the property in the group is "average."

The term "average service life" used in the context of book depreciation is well known, and its use in the measurement of the mortality characteristics of property carries with it the concept of retirement dispersion. If every item was average, thereby having exactly the same life, there would be no dispersion. The concept of retirement dispersion recognizes that some items in a group live to an age less than the average service life, and other items live longer than the average. Retirement dispersion is often identified by standard patterns.

The Iowa-type dispersion patterns that are widely used by electric and gas utilities were devised empirically about 60 years ago to provide a set of standard definitions of retirement dispersion patterns. Figure 1 shows the dispersion patterns for three of these curves. The L series indicates the mode is to the Left of average service life, the R series to the Right, and the S series at average service life, and therefore, Symmetrical. There is also an O series which has the mode at the Origin, thereby identifying a retirement pattern that has the maximum percentage of original installations retired during the year of placement.

The subscripts on Figure 1 indicate the range of dispersion, with the high number (4) indicating a narrow dispersion pattern, and the low number (1) indicating a wide dispersion pattern. For example, the R1 curve shown on the Figure indicates retirements start immediately and some of the property will last twice as long as the average service life. The dispersion patterns translate

to survivor curves, which are the most widely recognized form of the Iowa curves. Other families of patterns exist but are not as widely used as the Iowa type.

The methods of calculating depreciation rates are categorized as straight-line and non-straight-line. Non-straight-line methods can be accelerated or deferred. There are three basic procedures for calculating straight-line book depreciation rates:

Units-of-Production

Average Life Group (ALG)

Equal Life Group (ELG)

Each of these procedures can be calculated using either the whole life or the remaining life technique.

Productive life may be identified by (a) a life span or (b) a pattern of production or usage. If production or usage is the suitable criterion, depreciation should be straight-line over life measured by time. Units-of-Production is straight-line over production or usage, while the others are straight-line over life measured by time. ALG is straight-line over the average life of the group, while ELG is straight-line over the actual life of the group.

The formulas for the whole life and remaining life techniques are shown on Table 1. For the ELG calculation procedure, Formulas 1 and 3 are applied to the individual equal life components of the property group. For the ALG calculation, the formulas are applied to the property group itself. Formula 2 is applied to the property group for either ELG or ALG. Use of the units (percent and years) in the formulas results in rates as a percent of the depreciable plant balance. The depreciable plant balance is the surviving balance at the time the rate is calculated and is expressed as a percentage (always 100) of itself. Salvage and reserves are expressed as a percent of the depreciable plant balance. For example, a property group having a 35-year average service life and negative 5% salvage would have an ALG whole life rate of (100 + 5)/35, or 3.00%.

The first term of Formula 2 is identical to Formula 1 for the whole life rate. The second term of Formula 2 illustrates that the difference between a remaining life rate and whole life rate is the allocation of the difference between the book and calculated theoretical reserves over the remaining life by a remaining life rate.

The widely used ALG procedure of depreciation rate calculation does not recognize the existence of retirement dispersion in the calculation. The difference between the ALG and ELG procedures is the recognition of retirement dispersion in the ELG rate calculation. ELG is a rate calculation procedure, nothing more. The data required to make the ELG calculation are average service life, retirement dispersion, net salvage and the age distribution of the property. The depreciation study required to determine the applicable mortality characteristics is independent from the calculation of the depreciation rates. The resulting mortality characteristics can be used to calculate either ALG or ELG rates, both with either the whole life technique or the remaining life technique. Any set of mortality characteristics that is suitable for calculating ALG rates is just as suitable for calculating ELG rates. Conversely, any set that is not suitable for ELG is not suitable for ALG either.

The ELG procedure calculates the depreciation rates based on the expected life of each equal life component of the property rather than the average life of all components. As discussed earlier, "average" is the result of a calculation, and there may not be any "average" property. When curves are used to define retirement dispersion, the average service life and the retirement dispersion pattern define the equal life groups and the expected life applicable to each group.

When retirement dispersion does not exist, the ELG rate is identical to the ALG rate. When dispersion exists, the ELG rate for recently installed property is higher than the ALG rate and for old property is lower.

A Simple Illustration of ELG

This illustration provides a framework for visualizing the ELG methodology. Table 2 assumes 20% of the $5,000 investment is retired at the end of each year following placement. The

retirement frequencies are shown on Line 7. As shown in Columns 2 through 6, this means $1,000 of investment is retired each year, with the retirement at Age 1 being recovered in its entirety during Year One; at Age 2 in Years One and Two, etc. The depreciation rate applicable to each equal life group is shown on Line 8. The annual provision in dollars for Year One shown in Column 7 is made up of the Age 1 annual amounts shown on Line 1, Columns 2 through 6. As shown on the Table, the annual provision for Age 2 is equal to the annual provision for Age 1 less the amount collected during Year One applicable to the group retired during Year One. Thus, the annual provisions can be thought of as a matrix, with the provision for any given year being produced by a portion of the matrix.

The depreciation rates in Column 9 are determined by dividing the annual provisions in Column 7 by the survivors in Column 8. The rate formula shown on Table 2 can also be used to calculate the rates and is used on the Table to illustrate the working of the matrix by calculating the depreciation rates for Year One and Year Three. For Year One, the numerator and denominator both consist of five terms. Each year, the left-hand term of both numerator and denominator drop off. It should be noted that the reverse summation of retirement ratios (starting with Column 6 and moving left on Line 7) is equal to the survivor ratio at the beginning of the period shown in Column 10.

The formula can illustrate how the matrix can be thought of in terms of a depreciation rate. If the multiplier of 100 is incorporated in each element of the numerator of the formula, such as (100 x 0.2)/2, it can be seen that 100/2 is a rate and the retirement frequency (0.2) is a weighting factor. This particular rate (50%) is the one shown for Age 2 property on Line 8, Column 3.

It can be seen that the only data required for the ELG rate calculation are the retirement frequencies for each year. These frequencies are defined by the average service life and the shape of the dispersion pattern.

A Real Illustration of ELG

The depreciation analyst deals with much larger groups of property than appearing on Table 2. Table 3 contains an ELG rate calculation for an actual depreciable property group of an electric utility. The retirement frequencies shown in Column 4 are defined by the 38-year average service life and the L5 Iowa-type dispersion pattern. The ALG rate without salvage for this property is 2.632% (100%/38 years), while the ELG rate varies from 2.704% at age 0.5 years to 1.471% at the age just prior to the last retirement, 67.5 years.

The rate listed in Column 5 at each age is the weighted summation of individual rates applicable to that portion of the surviving property that the retirement frequencies in Column 4 indicate will be retired in each following year. This combination of average service life and dispersion pattern means that the first retirement will be from the age 18.5-year property during the following year at an age of 19 years; therefore, it will require a rate of 5.263% (100%/19 years). (This example does not have any surviving balance at age 18.5.) The last retirement will be from age 67.5-year property; consequently, it will require a rate of 1.471% (100%/68 years). The vintage composite rate shown in Column 5 at age 0.5 years is the weighted summation of rates varying from 5.263% to 1.471%.

Since this example is for a narrow dispersion pattern, the first retirement occurs at age 19 years and the vintage composite rate remains at 2.704% at age 19.5 years because the first retirement drops the 5.263% rate from the summation.

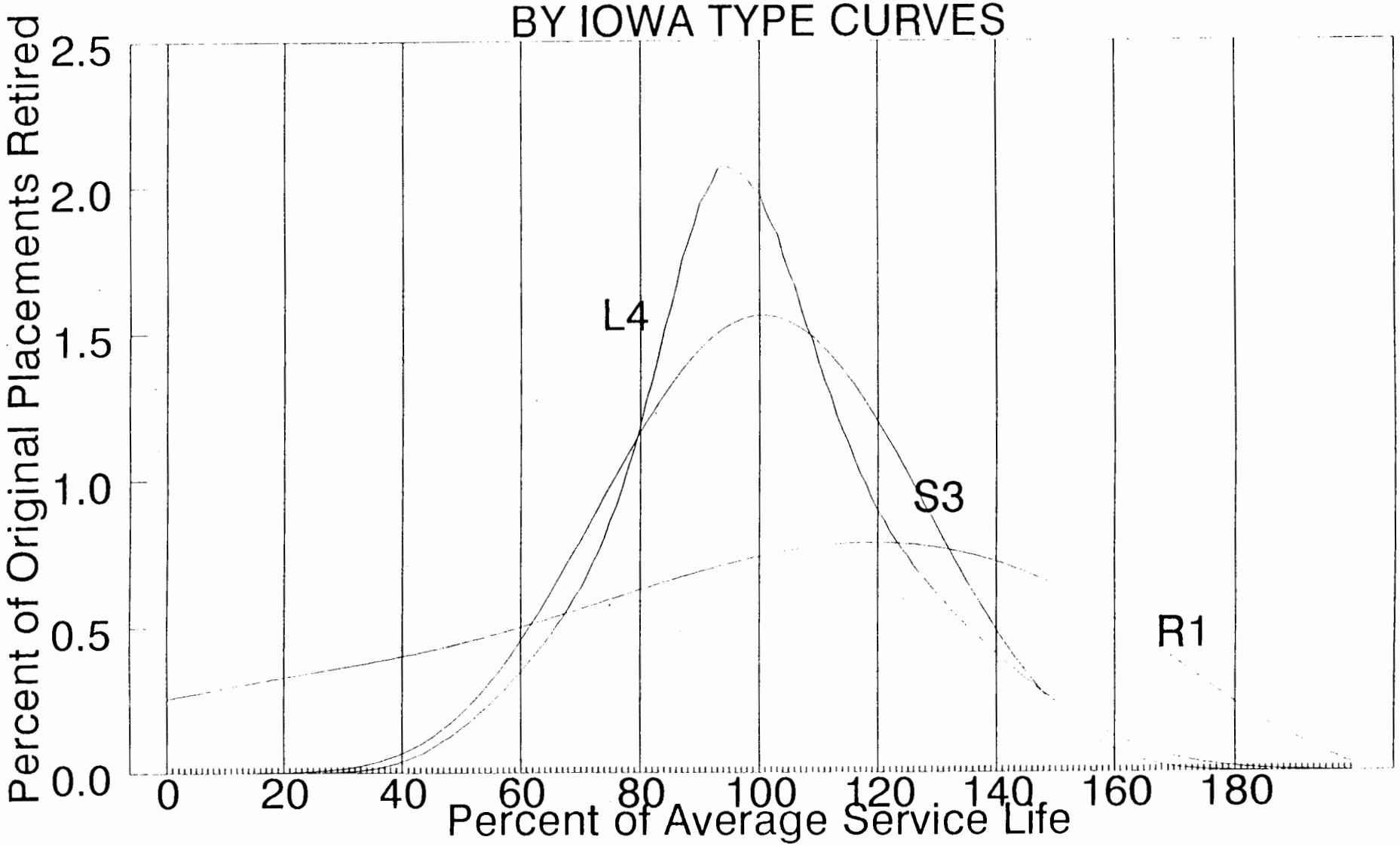
A wider dispersion pattern would result in a wider range of vintage composite rates than defined by the L5 curve (2.704% to 1.471%).

All that is necessary for calculating the depreciation rates applicable to each age of property are the retirement frequencies. These frequencies are defined by the average service life and the retirement dispersion pattern. The determination of average service life requires the determination of the dispersion, as without dispersion there would be no "average."

Depending on the dispersion pattern, the number of retirement frequencies making up the complete Iowa curve can be up to about 4.4 times the number of years of average service life. Thus, for an account whose number of retirement frequencies is three times average service life and whose average service life is 30 years, the rate applicable to the Age 1 property will be made up of the weighted summation of 89 components, etc. Thus, the rate calculation process is complex, but certainly not complicated. It is this complexity that makes the rate calculations much more practical using a computer.

RETIREMENT DISPERSION DEFINED

BY IOWA TYPE CURVES



DEPRECIATION RATE CALCULATION PROCEDURES

TABLE 1

Whole Life

$$\text{Rate (\%)} = \frac{PB - S}{ASL} \qquad \text{Formula 1}$$

Remaining Life

$$\text{Rate (\%)} = \frac{PB - S}{ASL} - \frac{BR - CT}{ARL} \qquad \text{Formula 2}$$

$$\text{Rate (\%)} = \frac{PB - FS - BR}{ARL} \qquad \text{Formula 3}$$

Where

PB	is Depreciable Balance, %
AS	is Average Net Salvage, %
FS	is Future Net Salvage, %
ASL	is Average Service Life, years
BR	is Depreciation Reserve, %
CTR	is Calculated Theoretical Reserve, %
ARL	is Average Remaining Life, years

DEVELOPMENT OF EQUAL LIFE GROUP CAPITAL RECOVERY RATE

APPENDIX A
TABLE 2

Line	(1) Age Years	(2) Group 1 $	(3) Group 2 $	(4) Group 3 $	(5) Group 4 $	(6) Group 5 $	(7) Annual Provision $	(8) Beginning Survivors $	(9) Rate %	(10) Survivor Factor
1	1	1,000.00	500.00	333.33	250.00	200.00	2,283.33	5,000.00	45.67	1.00
2	2		500.00	333.33	250.00	200.00	1,283.33	4,000.00	32.08	0.80
3	3			333.33	250.00	200.00	783.33	3,000.00	26.11	0.60
4	4				250.00	200.00	450.00	2,000.00	22.50	0.40
5	5					200.00	200.00	1,000.00	20.00	0.20
6	Retirements	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00				
7	Frequency	0.20	0.20	0.20	0.20	0.20				
8	Rate	100%	50%	33.33%	25%	20%				

$$\text{Rate, \%} = \frac{\text{Retirements} \quad \text{Frequencies}}{\text{Age at Retirement}} \Big/ \frac{\text{Reverse}}{\text{of Retirement Frequencies}} \times 100$$

$$\text{Year One Rate} = \frac{0.2 + 0.2 + 0.2 + 0.2 + 0.2}{1 \quad 2 \quad 3 \quad 4 \quad 5} \Big/ \frac{}{0.2 + 0.2 + 0.2 + 0.2 + 0.2} \times 100 = 45.67\%$$

$$\text{Year Three Rate} = \frac{0.2 + 0.2 + 0.2}{3 \quad 4 \quad 5} \Big/ \frac{}{0.2 + 0.2 + 0.2} \times 100 = 26.11\%$$

Exhibit No. 7
Section III

APPENDIX A
TABLE 3

DETERMINATION OF DEPRECIATION RATES BY ELG PROCEDURES

[1]	[2]	[3]	[4]	[5]	[6]
Age Years	Year	Vintage Balance $	Retirement Frequency ASL 38 Curve L5	Rate	Amount $
0.5	1993	4,244,285	0.0000	0.02704	114,758.36
1.5	1992	800,784	0.0000	0.02704	21,651.86
2.5	1991	60,016	0.0000	0.02704	1,622.73
3.5	1990	43,455,063	0.0000	0.02704	1,174,952.00
4.5	1989	81,456	0.0000	0.02704	2,202.43
5.5	1988	172,463	0.0000	0.02704	4,663.11
6.5	1987	2,098,991	0.0000	0.02704	56,753.20
7.5	1986	2,685,949	0.0000	0.02704	72,623.55
9.5	1984	1,642,443	0.0000	0.02704	44,408.90
10.5	1983	222,602	0.0000	0.02704	6,018.78
11.5	1982	85,661	0.0000	0.02704	2,316.13
12.5	1981	4,985	0.0000	0.02704	134.79
13.5	1980	72,942	0.0000	0.02704	1,972.23
14.5	1979	219,163	0.0000	0.02704	5,925.80
15.5	1978	120,665	0.0000	0.02704	3,262.58
16.5	1977	37,042	0.0000	0.02704	1,001.55
17.5	1976	339,236	0.0000	0.02704	9,172.21
19.5	1974	336,723	0.0001	0.02703	9,101.41
20.5	1973	10,375,359	0.0004	0.02702	280,292.86
21.5	1972	4,481,906	0.0009	0.02699	120,963.25
22.5	1971	5,923,340	0.0018	0.02695	159,618.98
23.5	1970	78,848	0.0030	0.02689	2,119.97
24.5	1969	305,178	0.0047	0.02681	8,180.42
25.5	1968	10,312,586	0.0069	0.02670	275,375.94
26.5	1967	2,754,067	0.0094	0.02658	73,203.24
27.5	1966	9,558,786	0.0123	0.02644	252,715.77
29.5	1964	5,556,083	0.0194	0.02610	144,995.54
30.5	1963	23,383	0.0242	0.02589	605.42
31.5	1962	3,313,564	0.0305	0.02566	85,012.50
32.5	1961	32,271	0.0386	0.02538	819.15
33.5	1960	151,658	0.0482	0.02507	3,802.24
34.5	1959	171,483	0.0583	0.02472	4,238.70
35.5	1958	167,116	0.0674	0.02433	4,065.35
36.5	1957	70,420	0.0740	0.02390	1,683.22
37.5	1956	1,792,312	0.0768	0.02345	42,036.33
39.5	1954	2,270,555	0.0701	0.02252	51,131.79
40.5	1953	187	0.0622	0.02206	4.13
41.5	1952	20,185	0.0531	0.02161	436.14
42.5	1951	12,860	0.0442	0.02118	272.40
43.5	1950	706	0.0362	0.02078	14.67
44.5	1949	2,652	0.0296	0.02041	54.13
45.5	1948	6,422	0.0245	0.02006	128.81
46.5	1947	19,573	0.0205	0.01972	386.07
47.5	1946	323,058	0.0173	0.01940	6,268.69
49.5	1944	2,285,041	0.0123	0.01879	42,943.47
50.5	1943	15,614	0.0103	0.01850	288.86
51.5	1942	620,752	0.0085	0.01821	11,306.36
53.5	1940	684,610	0.0055	0.01766	12,090.28
54.5	1939	47,173	0.0043	0.01740	820.76
55.5	1938	22,725	0.0033	0.01714	389.52
56.5	1937	560	0.0025	0.01689	9.46
57.5	1936	722	0.0019	0.01664	12.02
59.5	1934	3,065	0.0005	0.01573	48.21
61.5	1932	944,400	0.0005	0.01573	14,853.98
67.5	1926	2	0.0000	0.01471	0.03
Totals		119,029,691			3,133,730.27
			SALVAGE (%) =		-5.0
			AFTER SALVAGE =		3,290,417
			ANNUAL DEPRECIATION RATE =		2.76

Docket No. _____
Exhibit No. 7
Section III

Deloitte & Touche LLP

Chattanooga Gas Company

Book Depreciation Study
as of September 30, 1996

Deloitte Touche
Tohmatsu
International

Deloitte & Touche LLP

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Texas Commerce Tower
2200 Ross Avenue
Dallas, Texas 75201-6778

Telephone: (214) 777-7000

March 1997

AGL Resources Service Company
1219 Caroline Street
Atlanta, Georgia 30307

Attn: Mr. Gerald A. Hinesley, Controller

In accordance with your request, we have conducted a book depreciation study of the properties of the Chattanooga Gas Company ("Chattanooga" or "the Company"). The study recognized addition and retirement experience through September 30, 1996, and the comparisons presented herein are based on depreciable plant balances as of that date. The purpose of the study was to determine the continued appropriateness of the existing depreciation rates, and recommend any changes determined to be needed. Changes are recommended.

A comparison of the existing account rates with the account rates recommended as a result of this study is shown below:

	Depreciation Rates	
	Existing	Recommended
	%	%
LNG Storage Plant	2.93	2.67
Distribution Plant	3.37	3.37
General Plant	7.71	7.34
Total	3.66	3.61

The above summary is taken from Schedule 1, which shows the annual depreciation provisions for the existing and recommended rates and the differences. Based on September 30, 1996, depreciable

balances, the recommended rates will result in a decrease in annual depreciation expense of $56,335, or less than 2%, as shown in Column 7 of Schedule 1. Schedule 2 compares the mortality characteristics (average service life, retirement dispersion and net salvage) determined by this study with the existing parameters. The recommended rates were calculated using the equal life group procedure and the whole life technique. The mortality characteristics and the procedure and technique used to calculate the existing rates are the equal life group procedure and the whole life technique.

Both the existing and recommended rates apply to individual depreciable property groups consisting of primary plant accounts or subaccounts. Account 392, Transportation Equipment, has been included in the analysis portion of this study. Chattanooga adopted the fleet management and vehicle depreciation policies of Atlanta Gas Light Company (AGLC). The rates recommended for Account 392 are based on AGLC's depreciation policy.

Certain accounts were fully depreciated at September 30, 1996, so no recommended rates are shown for them in Column 5 of Schedule 1.

The following sections of this report describe the methods of analysis used, the bases for the conclusions reached and recommendations for future actions by the Company.

We appreciate this opportunity to serve the Chattanooga Gas Company and would be pleased to meet with you to further discuss the matters presented in this report, if you desire.

Yours truly,

Deloitte & Touche LLP

PURPOSE OF DEPRECIATION ACCOUNTING

Book depreciation accounting is the recognition in financial statements that property is consumed in the process of providing a service or product. For accounting purposes, consumption is usually assumed to occur at a constant rate. The key to the validity of the book depreciation accounting process lies in the accurate measurement of property consumption through the determination of its mortality characteristics.

Depreciation accounting is an allocation process. Depreciation expense should provide for the full recovery of invested capital, adjusted for the net salvage (salvage less cost of removal) expected to be realized at the time facilities are abandoned or removed. Recovery implies a revenue component for depreciation provisions. Thus, for utilities the recording of depreciation is but a step toward recovery. Accounting theory requires that the allocation of cost be over the expected life of the facilities constructed with the invested capital. Pricing theory suggests that recovery be from those customers served by the facilities.

Generally accepted depreciation accounting principles require that the recording of depreciation provisions be systematic and rational. Inherent in the terms systematic and rational is the concept that depreciation will match the consumption of facilities to the extent possible. The matching of expenses (consumption) and revenues is required by accounting theory to ensure that financial statements reflect the results of operations and changes in financial position as accurately as possible.

The matching concept is also an essential element of basic regulatory philosophy known as intergenerational customer equity. Intergenerational equity means the costs are borne by the generation of customers that caused them to be incurred, not by some earlier or later generation. This matching is required to ensure that charges to customers reflect the actual costs of providing service.

DEPRECIATION DEFINITIONS

The Uniform System of Accounts prescribed for gas utilities by the National Association of Regulatory Utility Commissioners, followed by Chattanooga and adopted by the Tennessee Regulatory Authority, provides the following definitions:

> "Depreciation," as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources.
>
> "Service value" means the difference between original cost and net salvage of utility plant.
>
> "Net salvage value" means the salvage value of property retired less the cost of removal.
>
> "Salvage value" means the amount received for the property retired, less any expenses incurred in connection with the sale or in preparing the property for sale, or, if retained, the amount at which the material is chargeable to materials and supplies or other appropriate account.
>
> "Cost of removal" means the cost of demolishing, dismantling, tearing down or otherwise removing utility plant, including the cost of transportation and handling incidental thereto.

Thus, it is the salvage that will actually be received and the cost of removal that will actually be incurred, both measured at the price level at the time of receipt or incurrence, that are required to be recognized by the Company through capital recovery. Implementation of these depreciation accounting definitions results in recovery of invested capital after expenditure, credit for salvage before receipt and recovery of cost of removal before expenditure. Thus, the accrual method of accounting is required.

These definitions are consistent with the purpose of depreciation accounting, and the study reported here was conducted in a manner consistent with both.

THE BOOK DEPRECIATION STUDY

Implementation of a policy toward book depreciation that recognizes the purpose of depreciation accounting requires accurate determination of the mortality characteristics that are applicable to surviving property. The purpose of the depreciation study reported here was to accurately measure those mortality characteristics and to use the characteristics to determine appropriate rates for accrual of depreciation provisions.

The major effort of the study was the determination of the appropriate mortality characteristics. The remainder of this report describes how those characteristics were determined, describes how the mortality characteristics have been used to calculate rates and presents the results of the rate calculations.

The study involved the following steps:

Step One of the study was a Life Analysis consisting of a study of historical retirement experience and an evaluation of the applicability of that experience to surviving property.

Step Two was a Salvage and Cost of Removal Analysis consisting of a study of salvage value and cost of removal experience, and an evaluation of the applicability of that experience to surviving property.

Step Three consisted of selection of average service lives, of retirement dispersion patterns identified by Iowa-type curves and of net salvage factors applicable to surviving property.

Step Four was the determination of the depreciation rate applicable to each depreciable property group, recognizing the results of the work in Steps One through Three.

LIFE ANALYSIS

Life Analysis concerns the determination of average service life and retirement dispersion identified by standard curve types. A statistical analysis of historical retirement activity, suitably tempered by informed judgment as to the future applicability of such activity to surviving property, formed the basis for determination of average service lives and dispersion patterns. Retirement experience through September 30, 1996, was analyzed using the actuarial and simulation methods of Life Analysis. The actuarial method was used for a few property groups for which the age of retired and surviving property could be determined. The simulated balances and retirements methods were used for most of the property groups because dated retirements are not available.

The actuarial method determines actual survivor curves for selected periods of retirement experience. In order to recognize trends in life characteristics and to assure that the information in the curves is available to the analyst, actual survivor curves were calculated by computer using several different periods of retirement experience. The average service lives and retirement dispersion patterns indicated by these actual survivor curves were identified by visually fitting Iowa type standard curves to the actual curves.

It is important to discern trends in historical mortality experience. In order to determine trends, the periods (year bands) of retirement experience analyzed for the actuarial method were the past five years, the past ten years and the past 15 years of retirement experience. The actual survivor curves for each of these year bands were plotted, and the standard curves is visually fitted to ensure that the significant amount of data contained in the actual curves is available to the analyst and to ensure that the analyst does not allow computer calculations to be the sole determinant of study results.

The simulated balances procedure consists of applying survivor ratios from Iowa-type dispersion patterns to gross additions in order to calculate annual balances, and then comparing the calculated balances with the actual annual balances for several periods of retirement experience, followed by statistical comparisons of the calculated balances over each period with the actual balances for the period. Through an iterative procedure, a computer program calculates the best fitting average service life for each of 27 Iowa type patterns, using the most recent year as a starting point, and then backs up one year and repeats the process. Thus, trends are shown, both by using different periods of retirement experience, and by making calculations as if the study was done at the end of each of the last ten years.

The simulated retirements procedure is similar, except that the retirement frequency rates of the Iowa patterns are utilized to calculate annual retirements and the comparisons were to actual retirements rather than to balances. The simulated retirements procedure is more sensitive than the balances procedure, recognizing change more quickly.

Both the simulated balances and simulated retirements procedures were utilized. The periods of retirement experience analyzed for the simulation method were the same as for the actuarial method.

SALVAGE AND COST OF REMOVAL ANALYSIS

Company gross salvage and cost of removal experience for the period 1982 through 1996 was the basis for determining the net salvage factors shown in Column 7 of Schedule 2. The analysis was done in a manner that allows separate salvage and cost of removal factors to be selected for most depreciable property groups. The salvage and cost of removal factors were calculated for each property group by dividing the salvage amounts received and the cost of removal amounts incurred by the original cost of the retired property that produced the salvage and cost of removal. Factors were calculated for annual,

rolling bands and shrinking bands of retirement experience, and for some property groups were plotted and trends identified by linear regression.

The average dollar age of retirements of Distribution Plant are young relative to the expected age of surviving property at retirement, with the exception of Account 380, Services, for which retirement amounts are determined on a first-in-first-out basis. This results in overstating the salvage factors and understating the cost of removal factors applicable to surviving property, if history serves as the sole basis for net salvage determination. Salvage factors are overstated because young property is more likely to be reused than junked and the salvage value of reused items is much higher than the scrap value. However, there has been very little salvage recorded. Cost of removal factors are understated because the amount of inflation reflected in the cost to remove young property is much less than the amount that will be reflected in the cost to remove the surviving property. The average age of original installations at retirement is equal to the average service life, meaning that the average age of surviving property at retirement will be higher than the average service life, and much higher than the age of current retirements.

Distribution Mains is one property group affected by this situation, as it has experienced considerable cost of removal. No adjustment was made for this situation. The net salvage recommendation for Mains reflects anticipation of higher cost of removal in the future related to cast iron main replacements.

EVALUATION OF ACTUAL EXPERIENCE

The analysis process used involves historical retirement experience. Since the depreciation rates are to be applied to surviving property, the historical mortality experience indicated by the Life and the Salvage

and Cost of Removal Analyses must be evaluated to ensure that the mortality characteristics used to calculate the rates are applicable to surviving property. The evaluation is required to ensure the validity of the recommended depreciation rates.

The evaluation process requires knowledge of the type of property surviving, the type of property retired, the reasons for changing life, dispersion, salvage and cost of removal characteristics, and the effect of present and future plans on property life. The evaluation included discussions with Company accounting, engineering and operating personnel, determination of the type of property carried in each account, and special analyses of retirements to identify the types of property retired and reasons for retirements.

Certain analysis results were not considered to be an adequate indication of the future because the current character of some property groups has not yet been reflected in retirements and because future activity of some property groups is expected to be unlike the past.

ACCOMPLISHMENT OF ACCOUNTING AND REGULATORY PRINCIPLES

The equal life group (ELG) depreciation rate calculation procedure was selected to ensure that accounting and regulatory principles will be followed. The procedure was selected as a result of the increased regulatory recognition that ELG rates better accomplish accounting and regulatory principles than do average life group (ALG) rates. The equal life groups are defined by Iowa-type retirement dispersion patterns.

Depreciation is a group concept, and depreciation rates are based on the recognition that a group has an average service life. However, very little of the property is "average." The average concept carries with it recognition that most property will be retired at an age either less than or greater than the average service life. The study recognized the existence of this variation through the identification of Iowa-type

retirement dispersion patterns. Once the mortality characteristics have been determined, they are useful for calculating either ELG or ALG depreciation rates. The only difference between ELG and ALG is that ELG recognizes the existence of retirement dispersion in the calculation of the depreciation rates. The ELG rate calculation procedure was devised to ensure that recording and recovery of depreciation expenses occur over the actual life of property, rather than over the average life of the property group. Since ELG is merely a rate calculation procedure, continued use of ELG rates would have no effect on depreciation study data or procedures, accounting procedures, or the administrative burdens of either the Company or the Authority.

Any set of mortality characteristics that is suitable for calculating ALG rates is just as suitable for calculating ELG rates. Conversely, any set that is not suitable for ELG is not suitable for ALG either.

The ELG procedure calculates the depreciation rates based on the expected life of each equal life component of the property rather than the average life of all components. "Average" is the result of a calculation, and there may not be any average property. When curves are used to define retirement dispersion, the average service life and the retirement dispersion pattern define the equal life groups and the expected life applicable to each such group.

CALCULATION OF RECOMMENDED DEPRECIATION RATES

The straight-line rate calculation procedures are units-of-production (UOP), ALG and ELG. UOP is straight-line over usage or production, ALG is straight-line over average life, and ELG is straight-line over actual life. No property groups were identified that have a distinctive usage pattern, so UOP was not utilized. Therefore, the rates are straight-line over life measured by time. The ELG procedure and whole life technique were used to calculate the recommended rates for property groups other than

Account 392. For Account 392, ALG whole life rates were calculated from the lives and net salvage factors shown on Schedule 2.

A straight-line whole life rate for each depreciable property group was calculated using the following formula:

$$\text{Rate} = \frac{\text{Plant Balance - Net Salvage}}{\text{Average Service Life}}$$

Formula numerator elements in percent of depreciable plant balance and the denominator element in years produce a rate in percent. The depreciable balance for each property group is from the Company accounting records. The average service lives, dispersion patterns and net salvage factors were determined by the study.

The Iowa-type retirement dispersion patterns define the equal life groups used for rate calculations. For this calculation, the computer uses the average service life and dispersion pattern applicable to the property group to determine what portion of the surviving property of each vintage is expected to be retired in each year until all property of that vintage is retired. A straight-line whole life depreciation rate is calculated for each portion so identified using the rate formula above and zero net salvage, and then is summarized to the rate required during the following year for each vintage. The resulting rate for each vintage is that required to ensure all retirements are fully recovered when they occur. Using these vintage rates, the composite annual accrual amount is calculated and adjusted for net salvage. The adjusted accrual amount is then used to calculate a composite whole life rate. A more detailed discussion of the ELG rate calculation procedure appears in Appendix A.

RESULTS

The rates developed in this study have been calculated using the mortality characteristics shown in Columns 5, 6 and 7 of Schedule 2. While the recommended rates are both above and below the existing rates, most are below, and at the total depreciable plant level there is a decrease from 3.66% to 3.61%. Appendix B discusses the bases for the average service life, retirement dispersion patterns, and salvage and cost of removal factors selected for each depreciable property group.

ADEQUACY OF THE BOOK RESERVE

A comparison of the accumulated provision for depreciation and the calculated theoretical reserve as of September 30, 1996, appears on Schedule 3. A difference between book and theoretical reserves occurs only when whole life rates are used. The mortality characteristics shown on Schedule 2 and the formula below were used to calculate the theoretical reserves.

The calculated theoretical reserve ratio without net salvage for each equal life group is calculated using the following formula:

$$\text{Theoretical Reserve Ratio} = 1 - \frac{\text{Remaining Life}}{\text{Average Life}}$$

The average remaining life of each equal life group was determined from the average service life and dispersion pattern determined by the study, and the age distribution of the surviving property. The age distributions were determined from Company property records for property groups for which aged data are available, and were calculated for property groups for which aged data are not available. The ratio

for each vintage is determined from the ratios for the equal life groups making up that vintage. The theoretical reserve amount for each vintage is calculated from the surviving balance and vintage ratio and then summarized for the account and adjusted for the effect of net salvage.

Schedule 3 provides a comparison of the book reserve and theoretical reserve as of September 30, 1996.

GENERAL PLANT AMORTIZATION

Capitalization policy for certain general plant property groups is based on dollar amounts, which are easily identified when purchasing equipment but are difficult, if not impossible, to identify when retiring equipment. As a result, Chattanooga often has equipment being retired without being reported. Many utilities have responded to this problem by recording retirements for this property on a systematic basis without field reporting of retirements. The recommended average service lives for property groups other than Accounts 389, 390, 392, 396 and 397 are suitable as maximum lives for recording retirements.

RECOMMENDATIONS

Our recommendations for your future action in regard to book depreciation are as follows:

1. The depreciation rate for each property group shown in Column 5 of Schedule 1 applies to surviving property, and they are recommended for adoption at such time as they have been authorized for use by the Tennessee Regulatory Authority.

2. The Company should consider adopting the amortization approach to accounting for certain General Plant property groups. This approach is intended to simplify the accounting effort and to solve the universal problem of unreported retirements that is inherent in the use of dollar amounts to distinguish between capital and expense activity, as well as to provide a matching between the accounting effort and the cost of the facilities.

APPENDIX B

CHATTANOOGA GAS COMPANY

Description of Study Results

LNG STORAGE PLANT

ACCOUNT 361.1, STRUCTURES AND IMPROVEMENTS

Content:

Structures, gates, fences, paving and security system.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.59% are 40 years and R4, respectively

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate of 2.59% is zero.

The only retirement experience predates the installation of the LNG plant, so is not applicable. Negative 5% net salvage is reasonable for this type of facility and reflects the removal expectation.

ACCOUNT 362, STORAGE & TRANSFER

Content:

LNG tank, foundation, pumps, piping and boil-off compressor.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.58% are 40 years and R4, respectively. There are no current plans for retirement.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate of 2.85% is zero. Negative 5% net salvage is reasonable for this type of facility.

ACCOUNT 363, PURIFICATION EQUIPMENT

Content:

Purification equipment.

Life Analysis:

This account was not segregated in prior study. The recommended pattern is R4 with an average service life of 40 years.

Salvage and Cost of Removal Analysis:

Negative 5% net salvage is recommended to reflect removal expectation.

ACCOUNT 363.1, LIQUEFACTION EQUIPMENT

Content:

Inlet separators, absorber, regeneration, odorizer, molecular sieve and liquefaction equipment.

Life Analysis:

The life and dispersion reflected in the existing rate of 3.27% are 30 years and R2.5, respectively. The only retirement experience is for the molecular sieves, and they are scheduled to be replaced again in the late 1990s. Consistent with the associated accounts, our recommendation is an R4 curve with an average life of 40 years.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate of 3.27% is zero. The molecular sieve retirements have not produced salvage or cost of removal. Negative 5% net salvage is reasonable for this type of facility.

ACCOUNT 363.2, EVAPORATOR SYSTEM

Content:

Vaporizers and piping.

Life Analysis:

The life and dispersion reflected in the existing rate of 3.24% are 30 years and R2.5, respectively. Certain vaporizer components were replaced in 1995. The selections for Account 363.1 were adopted.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. Negative 5% net salvage is reasonable for this type of facility.

ACCOUNT 363.4, MEASURING AND REGULATING EQUIPMENT

Content:

Valves and regulating equipment.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.89% are 35 years and R3, respectively. There have been few retirements. We recommend an R4 dispersion with an average life of 40 years.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate of 2.89% is zero. Negative 5% net salvage is reasonable for this type of facility.

ACCOUNT 363.5, OTHER EQUIPMENT

Content:

Liquid load-out system, generator, switchgear, instrumentation and fire protection equipment.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.89% are 35 years and R3, respectively. The only retirement has been very small. The life and dispersion selected for Account 363.4 were adopted.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate of 2.89% is zero. The only retirement did not produce salvage or cost of removal. Negative 5% net salvage is reasonable for this type of facility.

DISTRIBUTION PLANT

ACCOUNT 374.1, LAND RIGHTS

Content:

Easements.

Life Analysis:

This account was not included in prior study. The selected average service life is 40 years and is comparable to the LNG plant.

Salvage and Cost of Removal Analysis:

No salvage or cost of removal is expected.

ACCOUNT 375, STRUCTURES AND IMPROVEMENTS

Content:

Two portable metal storage buildings are located inside the leased Chattanooga service center to provide lockable storage.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.65% are 40 years and R4. Due to the type of structure, an average life of 20 years was selected with an R5 curve.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. While there may be cost of removal when the buildings are moved, the net salvage selection assumes that any terminal salvage and cost of removal will offset.

ACCOUNT 376, MAINS

Content:

Cast Iron	$ 350,000
Steel	56,222,000
Total	$56,572,000

Life Analysis:

The life and dispersion reflected in the existing rate are 55 years and R3. Both SPR analyses are somewhat influenced by high 1983 retirements due to sale of property to AGLC. The ten-year bands of the retirements analysis ending in 1994, 1995 and 1996 do not include this retirement, but are also influenced by large 1988 retirements. For the balances analysis, only the 15-year band was considered to discount the influence of the 1983 retirements.

The erratic retirement activity causes wide swings in indicated dispersions, so R3 was selected as being reasonable for the property. Both analyses indicate varying service life for this dispersion, with no basis for change to the existing life evident.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rates is negative 60%. There has been limited salvage.

The historical indications of approximately 20% cost of removal were modified to reflect anticipated increases in the level of cost of removal related to cast iron main replacement. Negative 40% net salvage was used.

ACCOUNT 378, MEASURING AND REGULATING STATION EQUIPMENT

Content:

Various regulating stations, gauges, manholes, vaults, pit regulators and foggers.

Life Analysis:

The life and dispersion reflected in the existing rates of 2.57% are 40 years and R3. While retirement experience is limited, more activity has occurred in recent years. The historical indications support no basis for change.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. Continued use of zero salvage and cost of removal is recommended.

ACCOUNT 379, MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

Content:

Several regulating stations.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.34% are 45 years and R3. The analysis results reveal no basis for change in average life but recognition of a broader dispersion pattern. An R1.5 curve was selected.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. While retirements are limited, there has been no salvage or cost of removal recorded. Therefore, zero salvage and cost of removal were selected.

ACCOUNT 380, SERVICES

Content:

There is no information on material type, although most new additions are plastic.

Life Analysis:

The life and dispersion reflected in the existing rate of 4.02% are 40 years and S6. FIFO aging and pricing of retirements can cause narrow dispersion, but erratic retirement experience can also cause wide swings in indicated dispersions, especially for the SPR retirements analysis.

Both SPR analyses are somewhat influenced by high 1983 retirements due to sale of property to AGLC. The ten-year bands of the retirements analysis ending in 1994, 1995 and 1996 do not include this retirement. Recent experience that excludes 1983 indicates averages of 40 to 45 years for the narrow dispersion patterns. For the balances analysis, all bands suggest about 30 years for recent experience and narrow patterns. In view of the historical indicators, S1.5 dispersion was selected, and the 40-year life currently in use was retained.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is negative 60%. There has been no true salvage, but there has been a small amount of third-party reimbursements that were related to additions in order to provide an accurate credit. FIFO pricing of retirements causes high cost of removal factors, as the high age of retirements causes the analysis to indicate terminal cost of removal. Zero salvage was selected, based on the indications of each experience band. The band analysis shows slightly less cost of removal, supported by the individual year analysis. A modest adjustment to negative 55% net salvage was made.

ACCOUNT 381, METERS

Content:

Various meters.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.25% are 45 years and S5. Consistent indications of a shorter average life were recognized in the selection of an average service life of 40 years with continued use of the S5 pattern.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been salvage and cost of removal recorded in the past few years. Salvage of 15% and cost of removal of 10% were selected.

ACCOUNT 382, METER INSTALLATIONS

Content:

Meter installation costs.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.87% are 35 years and S6. The retirement accounting practice will cause the life to be similar to Account 380, but the indicated life is lower than for Account 380. The indicated lives are higher for the balances analysis than for the retirements analysis but lower overall. The selection is a 30-year average life with an R0.5 pattern.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been little salvage or cost of removal recorded, so zero was selected for both.

ACCOUNT 383, HOUSE REGULATORS

Content:

House regulators.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.23% are 45 years and S6. The indicated lives are lower for the balances analysis than for the retirements analysis. The life should be comparable to Account 381, Meters. The selections are an S5 curve with a 40-year life.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been no salvage and little cost of removal recorded, so zero was selected for both.

ACCOUNT 385, INDUSTRIAL MEASURING & REGULATING STATION EQUIPMENT

Content:

Industrial meter stations.

Life Analysis:

The life and dispersion reflected in the existing rate of 2.56 are 45 years and R3. There has been no retirement activity. A life five years less than Account 378 was selected due to heavier usage.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been no retirement activity. No change is recommended.

ACCOUNT 386, OTHER PROPERTY ON CUSTOMERS' PREMISES

Content:

Services beyond meters at apartment houses.

Life Analysis:

The life and dispersion reflected in the existing rate of 4.02% are 40 years and S6. There have been no retirements. The selections for Account 380 were adopted.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is negative 60%. The selections for Account 380 were adopted.

ACCOUNT 387, OTHER EQUIPMENT

The property is fully depreciated, so was not included in the study.

GENERAL PLANT

ACCOUNT 390, STRUCTURES AND IMPROVEMENTS

Content:

Chattanooga General Office	$2,690,000
Cleveland office and service center	834,000
Total	$3,524,000

Life Analysis:

The buildings were replaced in 1992, at which time the average dollar age of the General Office was about 31 years, the average age of the Cleveland office and service center was about 23 years, and the composite age was about 30 years. A life of 50 years and R4 dispersion were selected as applicable to the new buildings.

Salvage and Cost of Removal Analysis:

Five percent net salvage was retained.

ACCOUNT 391.0, OFFICE FURNITURE AND EQUIPMENT

Content:

Office furniture and equipment other than EDP equipment.

Life Analysis:

The life and dispersion reflected in the existing rate of 4.03% are 25 years and S2. The building replacements caused about 65% of the 1990 surviving balance to be retired in 1991 and 1992. Erratic retirement experience can make the retirements analysis meaningless, so the balances analysis was relied upon. The erratic retirements can cause wide swings in indicated dispersion patterns, and S6 was selected as being reasonable for the property with an average life of 20 years.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is 5% and was retained.

ACCOUNT 391.1, EDP EQUIPMENT

Life Analysis:

The life and dispersion reflected in the existing rate of 13.86% are seven years and L3. The historical indications reveal a slightly longer service life. Due to the type of equipment, the increase in ASL was limited to one year.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero and was retained.

ACCOUNT 392, TRANSPORTATION EQUIPMENT

Content:

Cars, compact pickups and minivans	$385,002
Large diesel trucks	677,384
Light trucks and large gasoline trucks	833,140
Total	$1,895,526

Chattanooga has adopted AGLC's fleet management and depreciation policies. The recommended rates are based on AGLC's depreciation policy.

Life Analysis:

The five, seven and ten year lives for the three categories of vehicles in the AGLC fleet management policy were adopted.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rates is positive 20%. The net salvage factors for the three categories of vehicles are 40%, 30% and 20%, respectively.

ACCOUNT 393, STORES EQUIPMENT

Content:

New storeroom.

Life Analysis:

Actuarial life analysis was inconclusive. There is no reason to change from the existing 25-years ASL and R3 curve.

Salvage and Cost of Removal Analysis:

There has been no activity, and zero net salvage was retained.

ACCOUNT 394, TOOLS, SHOP AND GARAGE EQUIPMENT

Content:

Welding equipment, air compressors, paving breakers, gas testers, chain saws, tractors, drills, boring machines, pumps, lawn mowers, voltmeters, air packs, pipe locators, testers, pipe cutters, stopping machines, gas detectors and tapping machines.

Life Analysis:

The life and dispersion reflected in the existing rate 4.24 is 15 years and R2. Erratic retirement experience influences the SPR analyses. A shorter life is indicated due to recent retirements. The selections of an R2 curve with a 15-year life are suitable for the type of property.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been only one salvage entry recorded for the period 1982 to 1996, so zero was continued for both.

ACCOUNT 395, LABORATORY EQUIPMENT

The property is new. The existing rate of 5% reflects 25 years and an R2 pattern with zero net salvage. There is no reason to change from the existing selections.

ACCOUNT 396, POWER-OPERATED EQUIPMENT

There is considerable turnover in this account. The existing rate of 6.50% reflects an R2 curve with a 15-year life and 15% net salvage. To recognize the asset turnover, an average life of five years was selected with an R4 pattern. Net salvage is unchanged.

ACCOUNT 397, COMMUNICATION EQUIPMENT

Content:

Radio communication system.

Life Analysis:

The life and dispersion reflected in the existing rate of 9% is 15 years and R3. The prior study surviving equipment was retired in 1991. In view of the type of property, a 10-year L3 was selected to be applicable to the new equipment.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been no salvage or cost of removal for the retired equipment, so zero net salvage was continued.

ACCOUNT 398, MISCELLANEOUS EQUIPMENT

Content:

Kitchen facilities and video equipment.

Life Analysis:

The life and dispersion reflected in the existing rate of 3.70% is 20 years and R2. The selections are considered suitable for the type of property.

Salvage and Cost of Removal Analysis:

The net salvage factor reflected in the existing rate is zero. There has been no salvage cost of removal recorded. Continued use of zero net salvage is recommended.

CHATTANOOGA GAS COMPANY

SECTION IV

Comparison of Annual Accrual from Existing and Recommended Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Depreciable Balance September 30, 1997	Depreciable Balance September 30, 1998	Existing Rates		Recommended Rates		
Function and Account	Total	Total	Rate	Amount	ELG - WL Rate	Amount	Increase or (Decrease)
	$	$	%	$	%	$	$
LNG STORAGE PLANT							
361.1 Structures & Improvements	638,835	638,835	2.59	16,546	2.77	17,696	1,150
362.0 Storage & Transfer	4,297,642	4,297,642	2.58	110,879	2.64	113,458	2,579
363.1 Liquefaction System	2,055,474	2,055,474	3.27	67,214	2.64	54,265	(12,949)
363.2 Vaporizing Equipment	2,547,570	2,800,482	3.24	86,638	2.75	73,536	(13,103)
363.4 Metering & Regulating	763,792	763,792	2.89	22,074	2.78	21,233	(840)
363.5 Other Equipment	514,763	514,763	2.89	14,877	2.65	13,641	(1,235)
Total LNG Storage Plant	10,818,076	11,070,988	2.91	318,228	2.68	293,828	(24,399)
DISTRIBUTION PLANT							
374.2 Land Rights	384,189	384,189	0.00	0	2.57	9,874	9,874
375.0 Structures & Improvements	15,873	15,814	2.65	420	5.10	808	388
376.0 Mains – Steel & Plastic	59,833,151	63,057,641	3.17	1,947,819	2.81	1,726,616	(221,203)
376.0 Mains – Cast Iron	255,869	207,826	3.17	7,350	2.81	6,515	(835)
378.0 M & R Equipment – General	1,664,772	1,643,066	2.57	42,506	2.71	44,821	2,315
379.0 M & R Equipment – City Gate	1,042,965	1,040,869	2.34	24,381	2.96	30,841	6,460
380.0 Services	37,786,106	40,246,440	4.02	1,568,454	4.43	1,728,421	159,967
381.0 Meters	4,707,894	4,877,887	2.25	107,840	2.41	115,509	7,669
382.0 Meter Installations	2,025,181	2,246,531	2.87	61,299	4.51	96,327	35,028
383.0 House Regulators	2,324,071	2,553,164	2.23	54,381	2.54	61,941	7,560
385.0 Industrial M & R Equipment	157,527	157,527	2.56	4,033	3.12	4,915	882
386.0 Property on Customers' Premises	16,919	16,919	4.02	680	3.46	585	(95)
387.0 Other Distribution Property	82,976	82,976	0.00	0	0.00	0	0
Total Distribution Plant	110,297,493	116,530,849	3.37	3,819,162	3.37	3,827,172	8,010
GENERAL PLANT							
390.0 Structures & Improvements	3,524,119	3,524,119	3.00	105,724	2.02	71,187	(34,536)
391.0 Office Furniture & Equipment	425,098	420,001	4.03	17,029	4.78	20,198	3,169
391.1 EDP Equipment	2,280,519	2,260,665	13.86	314,704	13.05	296,312	(18,392)
392.0 Transportation Equipment							
5 Year Property	690,843	599,179	16.00	103,202	12.00	77,401	(25,800)
7 Year Property	789,162	1,328,872	11.43	121,046	10.00	105,902	(15,144)
10 Year Property	707,694	700,538	8.00	56,329	8.00	56,329	0
393.0 Stores Equipment	90,504	87,362	4.50	4,002	4.44	3,949	(53)
394.0 Tools, Shop & Garage Equipment	343,250	337,719	4.24	14,437	6.96	23,698	9,261
395.0 Laboratory Equipment	22,280	22,280	5.00	1,114	4.64	1,034	(80)
396.0 Power Operated Equipment	254,871	299,464	6.50	18,016	15.51	42,989	24,973
397.0 Communication Equipment	603,969	605,586	9.00	54,430	10.37	62,715	8,285
398.0 Miscellaneous Equipment	21,369	46,150	3.70	1,249	5.36	1,810	560
Total General Plant	9,753,678	10,231,935	8.12	811,281	7.64	763,523	(47,757)
Total Depreciable Gas Plant	130,869,247	137,833,772	3.68	4,948,671	3.64	4,884,524	(64,147)
Intangible Plant	35,666	35,666					
Land	909,259	906,633					
311.0 LPG pment	411,331	399,782					
Total Company	132,225,503	139,175,853					

Docket No.
Exhibit No. 7
Section IV