

**BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION**

**PREFILED REBUTTAL TESTIMONY OF
DONALD S. ROFF
ON BEHALF OF
ATMOS ENERGY CORPORATION**

DOCKET NO. 20298-U

**Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS
AFFILIATION.**

A. My name is Donald S. Roff and I am a Director with the public accounting
firm of Deloitte & Touche LLP.

**Q. ARE YOU THE SAME DONALD S. ROFF WHO SUBMITTED
DIRECT TESTIMONY IN THIS PROCEEDING?**

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to address the positions taken by
Adversary Staff ("Staff") witness Mr. Charles W. King with respect to the

ROFF REBUTTAL

1 topics of depreciation rates, net salvage allowances and depreciation
2 accounting. In particular, I will demonstrate that:

3 1. Mr. King has improperly intertwined regulatory accounting with
4 financial reporting;

5 2. Mr. King has made several errors in his net salvage calculation; Mr.
6 King's recommendations and approach with respect to net salvage do not
7 comply with the regulatory accounting rules of this Commission;

8 3. Mr. King's recommendations and approach with respect to net salvage
9 do not comply with accounting principles;

10 4. Mr. King's recommendations and approach with respect to net salvage
11 do not comport with depreciation theory and are not widely accepted;

12 5. Mr. King's recommendations and approach with respect to net salvage
13 unfairly shifts costs to future generations of customers;

14 6. Mr. King's testimony with respect to the use of the Equal Life Group
15 ("ELG") procedure is misleading;

16 7. Mr. King's judgments with respect to average service life and
17 retirement dispersion patterns are different from mine, and are based
18 solely on the measurement of history and outdated industry data;

19 8. Mr. King's recommendation with respect to Shared Services assets are
20 improper and unfounded and, finally,

21 9. Mr. King has made certain incorrect, improper, or misleading
22 assertions in his testimony that I will correct or refute.

1 In summary, Mr. King's recommendations must be rejected due to these
2 various flaws, and the depreciation request put forth by Atmos Energy
3 Corporation ("Atmos") should be approved by this Commission.
4

5 **Q. HAVE YOU PREPARED ANY EXHIBITS?**
6

7 A. Yes. Atmos Exhibit No. ____ (DSR-6) has been prepared to summarize
8 the differences in annual depreciation expense by cause. Exhibit No. ____
9 (DSR-7) demonstrates the shortfall in annual depreciation produced by
10 using Mr. King's depreciation rate for Account 376, Distribution - Mains.
11

12 **Q. WERE THESE EXHIBITS PREPARED BY YOU OR UNDER**
13 **YOUR DIRECTION AND SUPERVISION?**
14

15 A. Yes, they were.
16

17 **Q. WHAT DOES EXHIBIT NO. ____ (DSR-6) ILLUSTRATE?**
18

19 A. Exhibit No. ____ (DSR-6) illustrates a number of important results. First
20 and foremost, this Exhibit illustrates the dramatic reduction in annual
21 depreciation expense proposed by Staff witness Mr. King. As shown in
22 Column [9], Mr. King's recommended depreciation rates result in a
23 reduction of more than \$850,000 from my recommended annual

1 depreciation expense, and an additional \$91,000 reduction to the level of
2 depreciation expense produced by application of the existing depreciation
3 rates to test year plant balances. Mr. King's proposed depreciation rates
4 result in reductions of 26% and 28%, respectively. Second, he proposes
5 depreciation rate reductions in each and every plant function. Third, the
6 single, largest identifiable difference is due to changes in net salvage
7 (\$232,351). This topic will be addressed more fully later in my rebuttal.
8

9 **Q. WHAT DOES EXHIBIT NO. ____ (DSR-7) ILLUSTRATE?**
10

11 A. Exhibit No. ____ (DSR-7) is a worksheet that provides an example of the
12 recovery shortfall produced by using the methodology recommended by
13 Mr. King and relates to Account 376, Distribution - Mains. Unfortunately,
14 this cannot be demonstrated in simple terms. However, the basic
15 assumptions of this example are:

- 16 - retirements occur uniformly over the average remaining life of
17 50.66 years (roughly 101 future periods)
- 18 - net removal cost ratio is 20% (Atmos selection)
- 19 - investment accrual rate is 1.44% (King Schedule 6, Column B)
- 20 - net removal cost accrual rate is 0.0400% (King Schedule 6,
21 Column C)
- 22 - starting book reserve is \$13,291,515 (King Schedule 2, Column E)
- 23 - starting net removal cost reserve is \$924,587 (King Schedule 4,

Column E)

To illustrate, I have split the Exhibit into two parts. The first page stops after 64 future periods which represents Mr. King's use of the average service life ("ASL") as the number of applicable periods. It can be seen that a shortfall occurs as shown by the (\$4,167,753) credit balance at the end of year 2068 in Column [9]. As such, it would appear that this assumption of the average service life as the number of future periods is flawed.

The second page continues the calculations from the first page, but properly extends them until the end of life of the existing asset base (an additional 37 years or through the year 2105), at which time the investment is essentially fully accrued as demonstrated by the Ending Book Reserve Balance of \$256,046, as shown in Column [7]. Please note that the reason that this amount is not zero is because the depreciation rate is NOT precisely 1.44% as the percentage rate is rounded to 2 decimal places. It should also be noted that the shortfall in Column [9], however, continues to grow to over \$7.5 million or 15.5% of the current asset base. This is because Mr. King has significantly understated the total lifetime removal cost. This Exhibit clearly demonstrates Mr. King's methodology error and highlights the inadequacy of the accumulated cost of removal that results.

Q. HAVE YOU UTILIZED A DIFFERENT APPROACH?

1

2

A. I believe that I have used the correct and most widely accepted approach.

3

As illustrated above, I believe that Mr. King's approach is totally flawed,

4

because it divorces retirements from actual removal costs. Even if his

5

estimate of annual removal cost was correct, (discussed below) the

6

estimated number of future periods cannot be correct.

7

8

Q. HOW WOULD YOU ESTIMATE THE NUMBER OF FUTURE PERIODS?

9

10

11

A. I believe this could be accomplished using simple ratios. The ratio of the

12

total depreciable balance to the annual retirements should yield the

13

number of equivalent periods it would take to retire the current asset base

14

at present levels. Thus, we have \$48,758,983 of depreciable assets and

15

\$55,598 of average annual retirements, resulting in 877 future periods.

16

17

Q. WHY IS THIS ESTIMATION REASONABLE?

18

19

A. This estimation is reasonable for two reasons. First, the average annual

20

retirement amount has been fairly low, suggesting many future periods.

21

Second, the estimation uses the actual balance and experienced retirement

22

amounts.

23

1 **Q. WHY DO YOU SAY MR. KING HAS ERRED IN HIS**
2 **DETERMINATION OF THE AVERAGE ANNUAL REMOVAL**
3 **COST AMOUNT?**

4
5 **A.**Mr. King has attempted to estimate the average annual removal cost and
6 lifetime removal cost. (King Schedule 5). On this Schedule, Mr. King
7 attempts to restate the historical removal costs to 2004 price levels. It
8 appears to me that he has inverted the calculation, that is, the numerator
9 should be the denominator and the denominator should be the numerator.
10 Correctly calculating this amount results in a slightly higher removal cost
11 percentage. Thus, at the very least, he has understated the average annual
12 net removal cost. For Account 376, Distribution – Mains, I compute an
13 average annual removal cost amount (at 2004 price levels) of \$22,795.
14 Multiplying this by the number of equivalent future periods (877)
15 produces a lifetime removal cost of \$19, 991,215, or 41.00%. This
16 removal cost allowance is substantially different from the 2.40%
17 allowance proposed by Mr. King, and helps explain why his recommended
18 depreciation rates are so low!

19
20 **Q. WHEN YOU SAY THAT YOU HAVE UTILIZED THE CORRECT**
21 **AND MOST WIDELY ACCEPTED APPROACH, WHAT DO YOU**
22 **MEAN?**

ROFF REBUTTAL

1 A. I have used the same approach for every asset category, which approach I
2 have also used for every depreciation study that I have conducted for
3 Atmos Energy Corporation, Atlanta Gas Light Company, and for other
4 utilities as well. That approach consists of an analysis of history using the
5 cause and effect relationships of retirements (*cause*) and net salvage
6 (*effect*) coupled with an evaluation of that history and its applicability to
7 future surviving plant in service. With the exception of Pennsylvania, I
8 believe this approach has been accepted in virtually every state.

9
10 **Q. PLEASE EXPLAIN FURTHER THIS CAUSE AND EFFECT**
11 **RELATIONSHIP?**

12
13 A. Quite simply the cause is the retirement and the effect is the net salvage.
14 From a depreciation standpoint, this ratio (net salvage amounts divided by
15 retirement amounts) is important in determining the appropriate net
16 salvage allowance.

17
18 **Q. WHY HAVE YOU CONDUCTED YOUR ANALYSIS IN THIS**
19 **MANNER?**

20
21 A. I conducted my analysis in this manner because it complies with
22 regulatory accounting instructions and rules, comports with depreciation
23 analysis theory as well as recognizes the cause and effect relationship

1 described above. On the other hand, Mr. King used a methodology that
2 ignores the causal link between actual retirements and the costs those
3 retirements cause.
4

5 **Q. TO WHAT DEPRECIATION ANALYSIS THEORY ARE YOU**
6 **REFERRING?**
7

8 A. Numerous depreciation texts provide a description of the net salvage
9 analysis. For example, the NARUC text referenced by Mr. King provides
10 the following discussion:

11 Net salvage is expressed as a percentage of plant retired by
12 dividing the dollars of net salvage by the dollars of original cost of
13 plant retired.¹

14 Another reference can be found in *Accounting for Public Utilities*, a
15 recognized text in the regulated utility arena:

16 Salvage and cost of removal analysis involves the determination of
17 salvage and cost of removal as a percentage of the cost of the
18 retired property.²

19 Thus salvage and cost of removal allowances reflect the same relationship
20 between salvage received or cost of removal incurred (i.e., negative net
21 salvage) and the book cost of the plant retired expressed as a percentage of
22 retired amounts.
23

¹ *Public Utilities Depreciation Practices*, National Association of Regulatory Utility Commissioners ("NARUC"), 1996 Edition, page 18.

² *Accounting for Public Utilities*, Hahne and Aliff, 19th Edition, page 6-24.

1 **Q. DID YOUR DEPRECIATION STUDY UTILIZE AN ANALYSIS**
2 **PROCESS THAT WAS CONSISTENT WITH THESE PASSAGES?**

3
4 A. Yes. My salvage and cost of removal analysis for all accounts was based
5 upon the historical relationship between salvage and cost of removal to the
6 cost amounts of the plant retired. This is evident from a review of my analysis
7 workpapers for Account 376 and Account 380, attached as Atmos Exhibit No.
8 ____ (DSR-8). In the two largest accounts, salvage has been very limited and
9 net salvage is comprised almost entirely of cost of removal. Net salvage
10 percentages for Account 376, Mains range from negative 4% to negative
11 152%, with a weighted average for the period 2000 – 2004 of negative 37%.
12 In total, some \$102,000 of cost of removal has been incurred relative to over
13 \$278,000 in book cost of retirements within the Mains Account. Net salvage
14 percentages for Account 380, Services range from negative 8% to negative
15 38%, with a weighted average for the period 2000 – 2004 of negative 19%. In
16 total, some \$422,000 of cost of removal has been incurred relative to over
17 \$2.2 million in book cost of retirements within the Services Account. As
18 indicated by historic activity, it is clear that my analysis has been conducted
19 consistent with the concepts described above.

20
21 **Q. WHAT DOES ALL THIS MEAN?**
22

1 A. Fundamentally, it means that different estimates can be derived by different
2 methods. More significantly, the process created by Mr. King is NOT correct
3 and obviously leads to incorrect and inappropriate results. I urge this
4 Commission to evaluate the two net salvage methodologies employed, and to
5 rule on the propriety of one over the other.

6
7 **Q. YOU CLAIM THAT MR. KING HAS INTERWINED REGULATORY**
8 **ACCOUNTING WITH FINANCIAL REPORTING. PLEASE**
9 **EXPLAIN.**

10
11 A. This is a very technical subject, so I will try to keep it simple. First, Atmos
12 maintains one set of books for financial reporting purposes and another set of
13 books for regulatory accounting purposes. In the vast majority of
14 circumstances, these books are identical. However, for depreciation purposes,
15 the financial reporting books and regulatory accounting books are different, in
16 particular with respect to accounting for cost of removal. Section 515-3-1-.10
17 of the Georgia Public Service Commission rules states:

18 “(a) Each electric and gas utility company shall adopt the system of
19 accounts devised by the Federal Energy Regulatory Commission
20 (“FERC”) for Class “A” and “B” or Class “C” and “D” companies, as
21 appropriate.”

22 This rule establishes the regulatory accounting requirements for Atmos.

23 Second, the Financial Accounting Standards Board (“FASB”) and the

1 Securities and Exchange Commission ("SEC") establish the financial
2 reporting requirements for Atmos.
3

4 **Q. WHERE DOES MR. KING CONFUSE THESE TWO DISTINCT**
5 **REQUIREMENTS?**
6

7 A. Mr. King improperly commingles these two separate requirements in his
8 discussion of the segregation of depreciation rates.³ Statement of Financial
9 Accounting Standards No. 143, *Accounting for Asset Retirement Obligations*
10 ("AROs") is a financial reporting requirement. The FERC created the
11 regulatory accounting requirement when it issued Order No. 631, *Accounting,*
12 *Financial Reporting, and Rate Filing Requirements for Asset Retirement*
13 *Obligations*. Order No. 631 effectively created some new accounts in which
14 to record AROs and related accretion expense and Asset Retirement Costs
15 ("ARCs"). Order No. 631 also placed some boundaries on its applicability:

16 The Commission did not propose any changes to its existing accounting
17 requirements for cost of removal for non-legal retirement obligations.⁴
18

19 The accounting for removal costs that do not qualify as legal retirement
20 obligations falls outside the scope of this rule. The Commission is aware
21 that there is an ongoing discussion in the accounting community as to
22 whether the cost of removal should be considered as a component of
23 depreciation. However, this issue is beyond the scope of this rule and we
24 are not convinced that there is a need to fundamentally change accounting
25 concepts at this time⁵ (Emphasis added)

³ King Testimony, page 4, lines 4-14; pages 9-11.

⁴ Order No. 631, Paragraph 36.

⁵ Ibid, Paragraph 37.

Order No. 631 obviously did NOT require the creation of new accounts for non-legal retirement obligations. However, Order No. 631 obviously DID require a reporting entity to maintain separate subsidiary records:

Instead we will require jurisdictional entities to maintain separate subsidiary records for cost of removal for non-legal retirement obligations that are included as specific identifiable allowances recorded in accumulated depreciation in order to separately identify such information to facilitate external reporting and for regulatory analysis, and rate setting purposes. Therefore, the Commission is amending the instructions of account 108 and 110 in Parts 101, 201 and account 31, Accrued depreciation – Carrier property, in Part 352 to require jurisdictional entities to maintain separate subsidiary records for the purpose of identifying the amount of specific allowances collected on rates for non-legal retirement obligations included in the depreciation accruals.⁶

Jurisdictional entities must identify and quantify in separate subsidiary records the amounts, if any, of previous and current accrued accumulated removal costs for other than legal retirement obligations recorded as part of the depreciation accrual in accounts 108 and 110 for public utilities and licensees, account 108 for natural gas companies, and account 31 for oil pipeline companies. If jurisdictional entities do not have the required records to separately identify such prior accruals for specific identifiable allowances collected in rates for non-legal asset retirement obligations recorded in accumulated depreciation, the Commission will require that the jurisdictional entities separately identify and quantify prospectively the amount of current accruals for specific allowances collected in rates for non-legal retirement obligations.⁷

Thus it is clear that separate accounting is NOT required by FERC Order No. 631. There is a distinct difference between a requirement to maintain separate subsidiary records and the alleged requirement for separate accounting. For example, Atmos maintains time reports for its employees to support the accounting for payroll expense, but does not account for each employee's payroll expense individually on its general ledger. Mr. King has introduced an obviously flawed interpretation that does not apply. Most importantly,

⁶ Ibid, Paragraph 38.

⁷ Ibid, Paragraph 39.

Order No. 631 in no way changes the regulatory accounting for non-legal AROs which SFAS 143 does not address.

Q. WHAT DOES THIS MEAN TO THE RESULTS OF MR. KING'S ANALYSIS?

A. It means that Mr. King's analysis is based upon an improper interpretation and renders his conclusions equally improper.

Q. WHAT ARE THE REGULATORY ACCOUNTING RULES WITH RESPECT TO NET SALVAGE?

A. The pertinent regulatory accounting rules with respect to net salvage can be found in the Uniform System of Accounts ("USOA")⁸ definitions and instructions. This begins with the definition of net salvage: "net salvage value means the salvage value of property retired less the cost of removal" and ends with the instructions related to Account 403, Depreciation Expense: "The utility shall keep such records of property and property retirements as will reflect the service life of property which has been retired and aid in estimating probable service life by mortality, turnover, or other appropriate methods; and also such records as will reflect *the percentage of salvage and cost of removal for property retired* from each account, or subdivision thereof, for depreciable gas plant." (Emphasis added). The approach that I have utilized

⁸ Part 201 – Code of Federal Regulations ("CFR") 18.

1 complies with these instructions and objectives. The approach utilized by Mr.
2 King does not comply with USOA requirements.
3

4 **Q. PLEASE DISCUSS THE ISSUE RELATED TO THE DEPRECIATION**
5 **RATES FOR THE SHARED SERVICES ASSETS.**
6

7 A. Mr. King proposes to retain the existing depreciation rates for these facilities
8 which produce a decrease in annual depreciation expense of roughly 46%
9 below that requested by Atmos. Mr. King states that the Company did not file
10 a supporting depreciation study, nor did my direct testimony address this
11 group of assets. A Shared Services depreciation study was filed in response to
12 a data request. That depreciation study developed recommended depreciation
13 rates utilizing new mortality characteristics (average service life, retirement
14 dispersion and net salvage allowance) and the Equal Life Group depreciation
15 procedure. I submit that the mortality characteristics developed in the 2002
16 study should be used for the Shared Services depreciable investments, not
17 some parameters that are outdated. The 2002 study was prepared to recognize
18 the changing investments and mortality experience that has occurred since the
19 existing depreciation rates were established via a 1992 study. In fact, these
20 2002 study depreciation rates have been approved for use in ATMOS'
21 Virginia, Texas, and Louisiana jurisdictions. Mr. King's real argument,
22 however, is for not using the Equal Life Group procedure. A comparison of
23 annual depreciation expense using Average Life Group depreciation rates

1 reveals the total difference between ALG and ELG on a Georgia jurisdictional
2 basis is only about \$35,000. It is evident that Mr. King's goal seems to be to
3 minimize depreciation expense regardless of reason.
4

5 **Q. FOR THE RECORD, PLEASE DESCRIBE THE DIFFERENCES**
6 **BETWEEN THE AVERAGE LIFE GROUP ("ALG") PROCEDURE**
7 **AND THE EQUAL LIFE GROUP ("ELG") PROCEDURE.**
8

9 A. Utility group property is comprised of many vintages of assets. Within a
10 property group there are individual assets that have different lives. The ELG
11 procedure recognizes this fact, and develops composite depreciation rates that
12 reflect the lives of the individual components. The ALG procedure effectively
13 treats all assets within a group as if they have the same life. Thus the ELG
14 procedure provides a better matching of the recording of depreciation with
15 asset consumption.
16

17 **Q. IS THIS A DESIRABLE FEATURE?**
18

19 A. Absolutely. In fact, a recent FASB pronouncement pertinent to depreciation
20 emphasizes this feature. In SFAS No. 154, Accounting Changes and Errors,
21 the Board states:

1 “Therefore, in redeliberations, the Board affirmed that better reflecting the
2 pattern of consumption of the asset being depreciated should be the sole
3 basis in determining the preferable depreciation method.”⁹
4

5 While I realize that SFAS No. 154 is strictly a financial reporting requirement,
6 the use of an acceptable depreciation method and procedure would also be
7 applicable to regulatory accounting.
8

9 **Q. DO YOU HAVE ANY OTHER AUTHORITATIVE SOURCES THAT**
10 **ADDRESS THE ELG PROCEDURE?**
11

12 A. Yes. In a report co-authored by Adversary Staff witness Mr. King on the
13 subject of depreciation, the following passages can be found:

14 “There are three objectives to depreciation as currently practiced by public
15 utilities in North America:

- 16 1.) to recover, through annual depreciation charges, the exact
17 amount of capital originally invested,
18 2.) to distribute the recovery of capital over the life of the plant
19 which it purchases in accordance with the consumption of
20 that plant, and
21 3.) to provide an annual allowance for the net effect of
22 expected cost of removal offset against salvage proceeds at
23 the time the plant is removed from service.¹⁰
24

⁹ SFAS No. 154, Paragraph B26.

¹⁰ Depreciation, Snavely, King & Tucker, Inc. and Gilbert Management Consultants, for the Canadian Transport Commission, Telecommunications Cost Inquiry, Supplementary Report of the Consultants, February, 1976, page 78.

1 A second passage states:
2

- 3 3. The equal life group method is one that segregates and
4 depreciates units having equal life expectancies. This
5 method therefore allocates investment more accurately to
6 the period of its consumption.¹¹
7

8 Thus it would appear that even Mr. King recognizes the features of the ELG
9 procedure.
10

11 **Q. MR. KING CURIOUSLY CLAIMS TO HAVE “CONDUCTED A**
12 **COMPLETE REPORT ON OUR ANALYSIS OF THE LIFE AND**
13 **SURVIVOR CURVES OF EACH OF ATMOS’ ACCOUNTS.” FROM**
14 **THIS “REPORT”, HE HAS MODIFIED SEVERAL OF YOUR LIFE**
15 **SELECTIONS. DO YOU HAVE ANY COMMENTS?**
16

17 A. I do. While it is probable that different experts will reach different
18 conclusions regarding certain sets of data, and these differences may be the
19 result of judgment, the one-sided direction of these differences causes me to
20 be concerned. It is unclear what Mr. King means by the phrase “conducted a
21 complete report”. Both Mr. King and I exhibit similar life analyses; however,
22 I had the benefit of discussions with Company operations and engineering
23 personnel. This process, which I refer to as the evaluation phase, aided in my
24 service life determinations. Mr. King has relied solely on the measurement of
25 history and various references to industry data.
26

¹¹ Ibid, page 80.

1 **Q. IS THERE ANY EXAMPLE THAT ILLUSTRATES THESE POINTS?**

2
3 **A. One example that illustrates this point is Account 367, Transmission – Mains.**
4 **Mr. King’s workpapers for this Account state:**

5 “SK recommends the 65-R4 based on the South Atlantic Range and on the
6 available data, industry limits and available information.”

7 Under the “Description of Analysis Method” at the front of his workpapers,
8 Mr. King states that:

9 “Industry statistics were taken from the source: AGA/EEI “A Survey of
10 Depreciation Statistics,” 1998-1999.”

11 I have reviewed this publication for Account 367, Transmission – Mains. The
12 industry data relied upon by Mr. King is for one Company operating in
13 Virginia and the District of Columbia. The average service lives reported for
14 this Company are 55 years and 65 years, respectively. My recommended
15 average service life of 60 years falls right in the middle of this range. A
16 sample size of one company is hardly the basis for a definite conclusion and
17 makes Mr. King’s reliance on industry data suspect. Further, this statistical
18 survey is at least six years old.

19 Another example of reliance solely on history or industry data is for Account
20 378, Distribution – Measuring and Regulating Equipment. Mr. King states:

21 “SK recommends R4-45 based on the industry limits and available data
22 from this account.”

1 Schedule 3 of Mr. King's Exhibits, under the "Notes" Column for Account
2 378, states: "Based on industry, data, South Atlantic Region". The industry
3 data from the Statistics Survey lists five companies with the following average
4 service lives: 29 years, 43 years, 27 years, 30 years and 30 years. The simple
5 average of these five values is 31.8 years. My recommendation is an average
6 service life of 35 years; Mr. King's recommendation is an average service life
7 of 45 years! His recommended average service life is outside the range of the
8 industry data which he states that he relied on. Clearly, this begs the question
9 of the reliability and objectivity of Mr. King's recommendations. Further, this
10 statistical survey is at least six years old. Two of the five company entries are
11 based on studies from 1992 and one is from 1991. My selections are based
12 upon an analysis of history, an evaluation of that history and input from
13 Company personnel. They are both reasonable and adequate and should be
14 accepted by this Commission.

15
16 **Q. ARE THERE ANY OTHER TOPICS OR ISSUES THAT YOU WISH**
17 **TO ADDRESS?**

18
19 A. Yes. I believe that Mr. King's approach to net salvage is in conflict with
20 accounting principles. Mr. King provides a definition of depreciation
21 accounting in his Direct Testimony.¹² This definition forms the accounting
22 framework under which my study was conducted and to which it conforms.
23 Depreciation accounting is a process of cost allocation, NOT of valuation.

¹² King Direct, page 6, lines 20 – 29.

1 Mr. King's net salvage methodology relies on valuation principles and is
2 therefore NOT consistent with accounting principles.
3

4 **Q. HOW DOES MR. KING'S NET SALVAGE METHODOLOGY RELY**
5 **ON VALUATION PRINCIPLES?**
6

7 A. Mr. King's reliance on valuation principles is evident from a review of his
8 Schedule 5, where he attempts to restate removal costs to 2004 price levels.
9 Such a restatement is inconsistent with the accounting principles described
10 above. Mr. King's methodology is consistent with valuation principles, which
11 are inappropriate to use in any analysis of cost allocation associated with
12 depreciation.
13

14 **Q. IS MR. KING'S NET SALVAGE METHODOLOGY CONSISTENT**
15 **WITH REGULATORY ACCOUNTING PRINCIPLES?**
16

17 A. No. There is nothing in the Uniform System of Accounts describing or
18 requiring cost of removal to be re-stated to current price levels. In fact, the
19 instruction for Account 403, depreciation expense, reinforces the process that
20 I have utilized (also addressed above at page 13, line 6).
21

22 **Q. DO YOU HAVE ANY OTHER ISSUES OR CONCERNS?**
23

1 A. I have just one more concern. Mr. King seems to believe that this
2 Commission has *approved* and *endorsed* his net salvage methodology. I could
3 find no Finding of Fact in any previous case before this Commission in which
4 Mr. King has appeared as a witness that supports his contention. As
5 addressed during Mr. King's cross examination, these cases ended in
6 stipulated agreements.

7
8 **Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

9
10 A. My rebuttal testimony demonstrates how the direct testimony of Adversary
11 Staff witness Mr. King:

- 12 - improperly intertwines financial reporting and regulatory accounting;
- 13 - contains certain errors in his net salvage analysis and calculations;
- 14 - does not comply with the regulatory accounting rules of this Commission;
- 15 - does not comply with accounting principles;
- 16 - does not comport with depreciation theory with respect to net salvage and
17 is not widely accepted;
- 18 - is misleading with respect to the ELG procedure; and
- 19 - provides improper recommendations with respect to Shared Services.

20 My depreciation study recommendations are based upon accounting principles
21 and regulatory rules, produce a fair and reasonable level of depreciation
22 expense and should be adopted and approved by this Commission.

1 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

2

3 **A.** Yes, at this time. However, to the extent that I have not addressed any
4 particular issue or topic, does not mean that I agree with the positions
5 espoused by Adversary Staff.

EXHIBIT ____ (DSR-6)

ATMOS ENERGY CORPORATION - GEORGIA
COMPARISON OF ANNUAL DEPRECIATION BY CAUSE

[1] <u>Function</u>	[2] June 19, 2006 Avg. Bal. \$	[3] Existing Rate %	[4] Annual Amount \$	[5] Atmos Rate %	[6] Annual Amount \$	[7] Staff Rate %	[8] Annual Amount \$	[9] Increase or (Decrease) \$	[10] Change in ASL \$	[11] Change in Net Salv. \$	[12] Change in Procedure \$	[13] Change in Rsv. Pos. \$	[14] Inter- Relations \$
STORAGE PLANT	4,570,370	3.19	145,612	2.11	96,225	1.76	80,277	(15,948)	(12,882)	(11,646)	(2,655)	(34,017)	45,252
TRANSMISSION PLANT	3,396,598	2.56	87,009	1.41	47,807	1.17	39,870	(7,937)	(3,552)	(9,806)	1,401	(17,473)	21,493
DISTRIBUTION PLANT	101,438,871	2.90	2,938,078	2.92	2,961,564	2.11	2,143,233	(818,331)	(165,510)	(211,143)	(229,657)	(1,957)	(210,064)
GENERAL PLANT	3,326,135	6.87	228,569	6.10	202,911	5.85	194,686	(8,225)	-	244	1,953	(3,322)	(7,100)
TOTAL GAS PLANT	<u>112,731,974</u>	<u>3.02</u>	<u>3,399,268</u>	<u>2.93</u>	<u>3,308,507</u>	<u>2.18</u>	<u>2,458,066</u>	<u>(850,441)</u>	<u>(181,944)</u>	<u>(232,351)</u>	<u>(228,958)</u>	<u>(56,769)</u>	<u>(150,419)</u>

ATMOS ENERGY CORPORATION - GEORGIA
DEVELOPMENT OF FUTURE DEPRECIATION ACCRUALS
INADEQUACY OF KING METHODOLOGY

ATMOS EXHIBIT NO. ____ (DSR-7)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Year	Ending Balance	ARL = 50.66 Retmts.	Average Balance	@ 1.44% Accrual	@ 20% COR	Ending Bk Rsv	@ 0.04% COR Accrual	COR Rsv
	\$	\$	\$	\$	\$	\$	\$	\$
2004	48,758,983					13,291,515		924,587
2005	48,277,746	481,237	48,518,364	698,664	96,247	13,508,942	24,259	852,599
2006	47,796,508	481,237	48,037,127	691,735	96,247	13,719,439	24,019	780,370
2007	47,315,271	481,237	47,555,889	684,805	96,247	13,923,006	23,778	707,900
2008	46,834,033	481,237	47,074,652	677,875	96,247	14,119,644	23,537	635,190
2009	46,352,796	481,237	46,593,414	670,945	96,247	14,309,352	23,297	562,239
2010	45,871,558	481,237	46,112,177	664,015	96,247	14,492,129	23,056	489,048
2011	45,390,321	481,237	45,630,939	657,086	96,247	14,667,977	22,815	415,616
2012	44,909,083	481,237	45,149,702	650,156	96,247	14,836,896	22,575	341,943
2013	44,427,846	481,237	44,668,464	643,226	96,247	14,998,884	22,334	268,030
2014	43,946,608	481,237	44,187,227	636,296	96,247	15,153,943	22,094	193,876
2015	43,465,371	481,237	43,705,989	629,366	96,247	15,302,071	21,853	119,481
2016	42,984,133	481,237	43,224,752	622,436	96,247	15,443,270	21,612	44,846
2017	42,502,896	481,237	42,743,514	615,507	96,247	15,577,539	21,372	(30,029)
2018	42,021,658	481,237	42,262,277	608,577	96,247	15,704,879	21,131	(105,146)
2019	41,540,421	481,237	41,781,039	601,647	96,247	15,825,288	20,891	(180,503)
2020	41,059,183	481,237	41,299,802	594,717	96,247	15,938,768	20,650	(256,100)
2021	40,577,946	481,237	40,818,564	587,787	96,247	16,045,318	20,409	(331,939)
2022	40,096,708	481,237	40,337,327	580,858	96,247	16,144,938	20,169	(408,017)
2023	39,615,471	481,237	39,856,089	573,928	96,247	16,237,628	19,928	(484,337)
2024	39,134,233	481,237	39,374,852	566,998	96,247	16,323,388	19,687	(560,897)
2025	38,652,996	481,237	38,893,614	560,068	96,247	16,402,219	19,447	(637,698)
2026	38,171,758	481,237	38,412,377	553,138	96,247	16,474,120	19,206	(714,739)
2027	37,690,521	481,237	37,931,139	546,208	96,247	16,539,090	18,966	(792,021)
2028	37,209,283	481,237	37,449,902	539,279	96,247	16,597,132	18,725	(869,543)
2029	36,728,046	481,237	36,968,664	532,349	96,247	16,648,243	18,484	(947,307)
2030	36,246,808	481,237	36,487,427	525,419	96,247	16,692,424	18,244	(1,025,310)
2031	35,765,571	481,237	36,006,189	518,489	96,247	16,729,676	18,003	(1,103,555)
2032	35,284,333	481,237	35,524,952	511,559	96,247	16,759,998	17,762	(1,182,040)
2033	34,803,096	481,237	35,043,714	504,629	96,247	16,783,390	17,522	(1,260,765)
2034	34,321,858	481,237	34,562,477	497,700	96,247	16,799,852	17,281	(1,339,732)
2035	33,840,621	481,237	34,081,239	490,770	96,247	16,809,384	17,041	(1,418,939)
2036	33,359,383	481,237	33,600,002	483,840	96,247	16,811,987	16,800	(1,498,386)
2037	32,878,146	481,237	33,118,764	476,910	96,247	16,807,659	16,559	(1,578,074)
2038	32,396,908	481,237	32,637,527	469,980	96,247	16,796,402	16,319	(1,658,003)
2039	31,915,671	481,237	32,156,289	463,051	96,247	16,778,215	16,078	(1,738,172)
2040	31,434,433	481,237	31,675,052	456,121	96,247	16,753,099	15,838	(1,818,582)
2041	30,953,196	481,237	31,193,814	449,191	96,247	16,721,052	15,597	(1,899,233)
2042	30,471,958	481,237	30,712,577	442,261	96,247	16,682,076	15,356	(1,980,124)
2043	29,990,721	481,237	30,231,339	435,331	96,247	16,636,169	15,116	(2,061,256)
2044	29,509,483	481,237	29,750,102	428,401	96,247	16,583,333	14,875	(2,142,628)
2045	29,028,246	481,237	29,268,864	421,472	96,247	16,523,568	14,634	(2,224,241)
2046	28,547,008	481,237	28,787,627	414,542	96,247	16,456,872	14,394	(2,306,095)
2047	28,065,771	481,237	28,306,389	407,612	96,247	16,383,246	14,153	(2,388,189)
2048	27,584,533	481,237	27,825,152	400,682	96,247	16,302,691	13,913	(2,470,524)
2049	27,103,296	481,237	27,343,914	393,752	96,247	16,215,206	13,672	(2,553,100)
2050	26,622,058	481,237	26,862,677	386,823	96,247	16,120,791	13,431	(2,635,916)
2051	26,140,821	481,237	26,381,439	379,893	96,247	16,019,446	13,191	(2,718,973)
2052	25,659,583	481,237	25,900,202	372,963	96,247	15,911,172	12,950	(2,802,270)
2053	25,178,346	481,237	25,418,964	366,033	96,247	15,795,967	12,709	(2,885,808)
2054	24,697,108	481,237	24,937,727	359,103	96,247	15,673,833	12,469	(2,969,587)
2055	24,215,871	481,237	24,456,489	352,173	96,247	15,544,769	12,228	(3,053,606)
2056	23,734,633	481,237	23,975,252	345,244	96,247	15,408,775	11,988	(3,137,866)
2057	23,253,396	481,237	23,494,015	338,314	96,247	15,265,851	11,747	(3,222,366)
2058	22,772,158	481,237	23,012,777	331,384	96,247	15,115,998	11,506	(3,307,108)
2059	22,290,921	481,237	22,531,540	324,454	96,247	14,959,215	11,266	(3,392,089)
2060	21,809,683	481,237	22,050,302	317,524	96,247	14,795,502	11,025	(3,477,312)
2061	21,328,446	481,237	21,569,065	310,595	96,247	14,624,859	10,785	(3,562,775)
2062	20,847,208	481,237	21,087,827	303,665	96,247	14,447,286	10,544	(3,648,478)
2063	20,365,971	481,237	20,606,590	296,735	96,247	14,262,783	10,303	(3,734,422)
2064	19,884,733	481,237	20,125,352	289,805	96,247	14,071,351	10,063	(3,820,607)
2065	19,403,496	481,237	19,644,115	282,875	96,247	13,872,988	9,822	(3,907,033)
2066	18,922,258	481,237	19,162,877	275,945	96,247	13,667,696	9,581	(3,993,699)
2067	18,441,021	481,237	18,681,640	269,016	96,247	13,455,475	9,341	(4,080,605)
2068	17,959,783	481,237	18,200,402	262,086	96,247	13,236,323	9,100	(4,167,753)

Subtotals

30,799,200

30,744,008

6,159,840

1,067,500

ATMOS ENERGY CORPORATION - GEORGIA
DEVELOPMENT OF FUTURE DEPRECIATION ACCRUALS
INADEQUACY OF KING METHODOLOGY

ATMOS EXHIBIT NO. ____ (DSR-7)

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Year	Ending Balance	ARL = 50.66 Retmts.	Average Balance	@ 1.44% Accrual	@ 20% COR	Ending Bk Rsv	@ 0.04% COR Accrual	COR Rsv
	\$	\$	\$	\$	\$	\$	\$	\$
2069	17,478,546	481,237	17,719,165	255,156	96,247	13,010,241	8,860	(4,255,141)
2070	16,997,308	481,237	17,237,927	248,226	96,247	12,777,230	8,619	(4,342,769)
2071	16,516,071	481,237	16,756,690	241,296	96,247	12,537,289	8,378	(4,430,638)
2072	16,034,833	481,237	16,275,452	234,367	96,247	12,290,418	8,138	(4,518,748)
2073	15,553,596	481,237	15,794,215	227,437	96,247	12,036,617	7,897	(4,607,098)
2074	15,072,358	481,237	15,312,977	220,507	96,247	11,775,886	7,656	(4,695,689)
2075	14,591,121	481,237	14,831,740	213,577	96,247	11,508,226	7,416	(4,784,521)
2076	14,109,883	481,237	14,350,502	206,647	96,247	11,233,636	7,175	(4,873,593)
2077	13,628,646	481,237	13,869,265	199,717	96,247	10,952,116	6,935	(4,962,906)
2078	13,147,408	481,237	13,388,027	192,788	96,247	10,663,666	6,694	(5,052,460)
2079	12,666,171	481,237	12,906,790	185,858	96,247	10,368,286	6,453	(5,142,254)
2080	12,184,933	481,237	12,425,552	178,928	96,247	10,065,976	6,213	(5,232,289)
2081	11,703,696	481,237	11,944,315	171,998	96,247	9,756,737	5,972	(5,322,564)
2082	11,222,458	481,237	11,463,077	165,068	96,247	9,440,568	5,732	(5,413,080)
2083	10,741,221	481,237	10,981,840	158,138	96,247	9,117,469	5,491	(5,503,836)
2084	10,259,983	481,237	10,500,602	151,209	96,247	8,787,440	5,250	(5,594,834)
2085	9,778,746	481,237	10,019,365	144,279	96,247	8,450,481	5,010	(5,686,071)
2086	9,297,508	481,237	9,538,127	137,349	96,247	8,106,593	4,769	(5,777,550)
2087	8,816,271	481,237	9,056,890	130,419	96,247	7,755,775	4,528	(5,869,269)
2088	8,335,033	481,237	8,575,652	123,489	96,247	7,398,027	4,288	(5,961,229)
2089	7,853,796	481,237	8,094,415	116,560	96,247	7,033,349	4,047	(6,053,429)
2090	7,372,558	481,237	7,613,177	109,630	96,247	6,661,741	3,807	(6,145,870)
2091	6,891,321	481,237	7,131,940	102,700	96,247	6,283,203	3,566	(6,238,551)
2092	6,410,083	481,237	6,650,702	95,770	96,247	5,897,736	3,325	(6,331,473)
2093	5,928,846	481,237	6,169,465	88,840	96,247	5,505,339	3,085	(6,424,636)
2094	5,447,608	481,237	5,688,227	81,910	96,247	5,106,012	2,844	(6,518,040)
2095	4,966,371	481,237	5,206,990	74,981	96,247	4,699,755	2,603	(6,611,684)
2096	4,485,133	481,237	4,725,752	68,051	96,247	4,286,568	2,363	(6,705,568)
2097	4,003,896	481,237	4,244,515	61,121	96,247	3,866,452	2,122	(6,799,693)
2098	3,522,658	481,237	3,763,277	54,191	96,247	3,439,405	1,882	(6,894,059)
2099	3,041,421	481,237	3,282,040	47,261	96,247	3,005,429	1,641	(6,988,666)
2100	2,560,183	481,237	2,800,802	40,332	96,247	2,564,523	1,400	(7,083,513)
2101	2,078,946	481,237	2,319,565	33,402	96,247	2,116,688	1,160	(7,178,601)
2102	1,597,708	481,237	1,838,327	26,472	96,247	1,661,922	919	(7,273,929)
2103	1,116,471	481,237	1,357,090	19,542	96,247	1,200,227	679	(7,369,498)
2104	635,233	481,237	875,852	12,612	96,247	731,601	438	(7,465,307)
2105	153,996	481,237	394,615	5,682	96,247	256,046	197	(7,561,358)
Subtotals		17,805,787		4,825,511	3,561,157		167,552	
Totals		48,604,987		35,569,518	9,720,997		1,235,053	

ATMOS ENERGY CORPORATION - GEORGIA
COMPARISON OF DEPRECIATION EXPENSE BY CAUSE

ACCOUNT NUMBER	DESCRIPTION	JUNE 18, 2008 AVG. BAL.	EXISTING RATE	ANNUAL AMOUNT	ATMOS RATE	ANNUAL AMOUNT	STAFF RATE	ANNUAL AMOUNT	INCREASE OR (DECREASE)	ATMOS ASL	ANNUAL AMOUNT	ASL WEIGHT	STAFF ASL	ANNUAL AMOUNT	ATMOS NET SALV.	ANNUAL AMOUNT	ALGWL RATE	ANNUAL AMOUNT	ELGWL RATE	ANNUAL AMOUNT	RSV AMOUNT
STORAGE PLANT																					
361.00	Structs. & Improve.	539,087	3.66	21,347	1.75	9,434	2.23	12,029	2,595	40.0	13,477	21,562,680	40.0	13,477	-	13,477	2.82	13,477	2.82	14,124	(4,211)
362.00	Gas Holdens	1,651,166	3.36	55,470	1.84	30,381	1.53	25,200	(5,181)	45.0	36,693	74,302,470	45.0	36,693	-	36,693	2.82	48,563	2.90	47,884	(17,594)
363.10	Liquefaction Epl.	2,028,679	2.89	58,635	2.28	48,258	1.72	34,930	(11,328)	35.0	57,968	71,010,765	45.0	57,968	-	57,968	2.86	58,026	2.86	58,432	(12,044)
363.50	Other Equipment	351,253	2.89	10,151	2.89	10,151	2.31	8,118	(2,033)	35.0	10,036	12,294,030	35.0	10,036	-	10,036	2.86	10,046	2.94	10,327	(168)
	Total Storage Plant	4,570,370	3.19	145,612	2.11	98,228	1.76	80,277	(15,845)	39.2	118,173	178,169,945	43.9	105,291	105,291	138,080	2.80	128,111	2.86	130,786	(34,017)
TRANSMISSION PLANT																					
365.20	Right of Way	294,938	-	-	1.54	4,542	1.44	4,250	(292)	70.0	4,213	20,645,660	65.0	4,538	-	4,213	1.43	4,218	1.51	4,454	90
367.00	Mains	3,023,305	2.87	86,769	1.21	36,582	1.17	35,317	(1,265)	60.0	50,388	181,398,300	65.0	46,512	-	42,131	2.00	60,468	1.92	58,047	(21,632)
369.00	M & R Station Equipment	107	3.32	6	3.32	6	3.32	6	-	35.0	5	5,845	35.0	5	-	5	2.86	5	2.86	5	-
370.00	Communication Equipment	78,188	0.30	235	6.54	6,677	0.38	297	(6,380)	30.0	2,606	2,345,640	30.0	2,006	-	2,006	2.33	1,822	3.33	2,604	4,096
	Total Transmission Plant	3,396,598	2.56	87,009	1.41	47,807	1.17	39,870	(7,937)	60.2	57,213	204,395,445	64.2	53,061	53,061	87,291	1.96	68,510	1.92	65,100	(17,473)
DISTRIBUTION PLANT																					
375.00	Structs. & Improve.	54,383	3.00	1,631	3.04	1,653	2.13	1,160	(493)	35.0	1,554	1,903,405	43.0	1,265	-	1,554	2.86	1,555	2.95	1,604	47
376.00	Mains	53,034,656	2.04	1,061,907	2.41	1,275,135	1.49	789,037	(488,098)	60.0	883,911	3,182,079,460	64.0	828,667	-	1,040,663	2.86	1,060,693	2.98	1,251,618	25,434
378.00	M & R Station Equipment	1,574,385	3.32	52,204	4.69	73,748	2.14	33,666	(40,079)	35.0	44,928	65,033,825	43.0	36,567	-	47,172	3.00	47,172	2.93	48,071	27,268
380.00	City Gate Equipment	3,004,355	3.00	9,131	3.80	11,566	2.74	6,350	(3,216)	35.0	8,696	10,652,530	35.0	8,696	-	8,696	3.00	9,131	3.67	11,170	395
381.00	Meters	31,624,342	4.03	1,274,465	2.79	882,322	2.29	725,077	(157,245)	40.0	790,611	1,264,678,080	45.0	702,768	-	880,425	3.00	948,734	3.12	986,683	(97,120)
382.00	Meier Installations	4,657,181	3.16	146,071	2.02	93,671	2.06	95,558	1,887	40.0	115,930	185,487,240	40.0	115,930	-	127,522	2.75	127,522	2.69	124,740	(31,180)
383.00	Regulators	8,627,355	3.68	326,761	6.74	603,369	5.21	486,023	(137,366)	25.0	358,094	223,806,900	25.0	344,321	-	501,332	5.60	501,332	5.63	504,018	87,491
385.00	Industrial M & R Equipment	1,234,251	3.68	44,604	1.28	15,747	1.93	23,995	7,948	40.0	30,766	49,210,040	40.0	30,766	-	30,766	2.50	30,756	2.48	30,284	(14,382)
	Total Distribution Plant	101,439,971	2.80	3,639,076	2.92	2,081,564	2.11	2,143,232	(618,332)	49.0	2,235,302	4,974,162,745	53.9	2,097,781	2,097,781	2,727,759	2.89	2,727,760	2.92	2,957,417	(1,657)
GENERAL PLANT																					
390.00	Structs. & Improve.	983,799	2.50	17,095	1.46	9,983	2.15	14,886	4,703	35.0	19,537	23,932,965	35.0	19,537	-	19,537	2.86	19,557	3.09	21,129	(9,479)
391.10	Leasehold Improve.	291,380	10.00	28,136	3.23	9,086	5.11	17,165	8,107	13.6	20,688	3,825,496	13.6	20,688	-	20,688	4.00	11,254	7.35	20,680	-
391.00	Office Furniture & Equip.	565,499	4.04	22,846	2.06	11,646	3.08	17,420	5,771	25.0	22,620	14,137,475	25.0	22,620	-	22,620	6.67	37,719	4.00	22,620	(9,500)
392.00	Transportation Equipment	108,881	6.44	7,011	6.14	6,884	6.37	8,852	1,971	15.0	7,257	1,632,915	15.0	7,257	-	7,257	4.00	4,354	7.51	8,175	(1,197)
393.00	Stores Equipment	4,183	3.98	168	0.58	94	0.10	6	(26)	25.0	167	104,575	25.0	167	-	167	6.67	279	4.00	167	(143)
394.00	Tools, Shop & Garage Equip.	59,119	4.11	2,430	21.80	12,868	3.29	1,945	(10,923)	15.0	3,941	886,785	15.0	3,941	-	3,941	6.67	3,943	6.67	3,943	23,882
396.00	Power Operated Equipment	411,132	8.21	25,532	3.56	14,637	3.46	14,234	(403)	15.0	37,377	4,222,562	15.0	37,377	-	35,508	8.64	35,523	8.26	33,960	(20,699)
397.00	Communication Equipment	94,135	6.31	5,940	18.15	17,086	4.85	4,565	(12,521)	15.0	36,014	5,115,025	15.0	36,014	-	35,508	6.67	6,279	6.67	6,279	12,143
398.00	Miscellaneous Equipment	640,214	6.82	36,843	7.09	38,301	6.50	35,133	(3,168)	15.0	36,014	5,115,025	15.0	36,014	-	36,014	6.67	36,032	6.67	36,032	1,670
399.00	Other Tangible Property - Servers	677,823	14.20	82,571	14.20	82,571	14.20	82,571	-	7.0	82,546	4,044,781	7.0	82,546	-	82,546	14.20	82,571	14.20	82,571	-
	Total General Plant	3,326,135	6.87	228,560	6.10	202,811	5.85	194,685	(8,226)	18.8	238,424	62,003,769	18.8	238,424	-	234,959	7.14	237,511	7.06	235,558	(3,322)
TOTAL GAS PLANT																					
		112,731,974	3.02	3,399,269	2.93	3,306,507	2.16	2,458,063	(850,443)	48.1	2,847,111	5,420,331,904	51.9	2,465,167	2,465,167	3,157,685	2.80	3,159,993	3.01	3,388,850	(55,769)
											(181,944)					(323,350)				239,957	

**BEFORE THE CORPORATION COMMISSION OF THE
STATE OF OKLAHOMA**

IN THE MATTER OF THE APPLICATION)
OF OKLAHOMA NATURAL GAS)
COMPANY, A DIVISION OF ONEOK, INC.,)
FOR A REVIEW AND CHANGE OR)
MODIFICATION IN ITS RATES, CHARGES,)
TARIFFS, AND TERMS AND CONDITIONS)
OF SERVICE)

CAUSE NO. PUD 200400610

REBUTTAL TESTIMONY

OF

DONALD S. ROFF

ON BEHALF OF

OKLAHOMA NATURAL GAS COMPANY

**DELOITTE & TOUCHE LLP
JPMorgan Chase Tower
2200 Ross Ave., Suite 1600
Dallas, TX 75201-6778**

JUNE 13, 2005

1 **BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA**
IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA NATURAL GAS COMPANY, A)
DIVISION OF ONEOK, INC., FOR A REVIEW) CAUSE NO. PUD 200400610
AND CHANGE OR MODIFICATION IN ITS)
RATES, CHARGES, TARIFFS, AND TERMS)
AND CONDITIONS OF SERVICE)

2

3 **REBUTTAL TESTIMONY OF DONALD S. ROFF**

4 **Q: PLEASE STATE YOUR NAME, ADDRESS, TITLE AND BUSINESS**
5 **AFFILIATION.**

6 A: My name is Donald S. Roff and I am a Director with the public accounting firm
7 of Deloitte & Touche LLP. My business address is JPMorgan Chase Tower,
8 2200 Ross Avenue, Suite 1600, Dallas, Texas 75201-6778.

9 **Q: ARE YOU THE SAME DONALD S. ROFF THAT SUBMITTED DIRECT**
10 **TESTIMONY IN THIS PROCEEDING?**

11 A: Yes, I am.

12 **Q: WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

13 A: The purpose of my rebuttal testimony is to address the responsive testimony of
14 Attorney General ("AG") witness Mark E. Garrett and Oklahoma Corporation
15 Commission Public Utility Division ("PUD") witnesses George F. Kiser and
16 George Mathai on the topics of depreciation rates, depreciation accounting and
17 capitalization issues. My primary focus will be on the subjects of the Equal Life
18 Group ("ELG") depreciation procedure and net salvage. My rebuttal testimony
19 will also address certain incorrect or misleading statements made by Mr. Garrett
20 and Mr. Kiser. My rebuttal testimony will further address Mr. Garrett's
21 testimony and recommendations and Mr. Mathai's testimony and

1 recommendations regarding maintenance expense and capitalization policy. I
2 will demonstrate each has either:

- 3 - mischaracterized the ELG procedure from the standpoint of
4 concepts and application;
- 5 - misstated the ratemaking impacts of changing depreciation
6 procedures;
- 7 - incorrectly described my recommendations with respect to net
8 salvage;
- 9 - inaccurately characterized the accrual for net salvage; or
10 - inappropriately shifted costs from expense to capital.

11 **Q: PLEASE INDICATE WHERE MR. GARRETT AND MR. KISER HAVE**
12 **MISCHARACTERIZED THE ELG PROCEDURE.**

13 A: Mr. Garrett and Mr. Kiser have characterized the ELG procedure as being an
14 accelerated depreciation method. This assertion is just not correct. Strangely,
15 both Mr. Garrett and Mr. Kiser provide the same example in their testimonies and
16 attempt to demonstrate that the ELG procedure results in more depreciation in the
17 early years (first year, actually) than does the Average Life Group ("ALG")
18 procedure. Thus, they claim that ELG is accelerated depreciation relative to
19 ALG. I am absolutely certain that the ELG procedure emulates item depreciation.
20 That is, each asset is depreciated separately over its individual life. In their
21 examples, asset one is depreciated over one year and asset two is depreciated over
22 three years. I have prepared a Table showing each asset separately. The top
23 section of this Table shows the calculations on an ELG basis. THIS IS THE
24 CORRECT DEPRECIATION! The bottom section shows the calculations on an

ROFF REBUTTAL

1 ALG basis and demonstrates the deferral inherent in the ALG procedure -- the
2 long-lived asset must over-depreciate to make up for the shortfall of the short-
3 lived asset.
4

<u>ELG BASIS</u>								
<u>Year</u>	<u>Balance</u>	<u>ASSET ONE</u>			<u>Balance</u>	<u>ASSET TWO</u>		
		<u>Retmts.</u>	<u>Expense</u>	<u>Rate</u>		<u>Retmts.</u>	<u>Expense</u>	<u>Rate</u>
1	100.0	100.0	100.0	100.0%	100.0		33.3	33.3%
2					100.0		33.3	33.3%
3					100.0	100.0	33.4	33.4%
Totals			<u>100.0</u>				<u>100.0</u>	

<u>ALG BASIS</u>								
<u>Year</u>	<u>Balance</u>	<u>ASSET ONE</u>			<u>Balance</u>	<u>ASSET TWO</u>		
		<u>Retmts.</u>	<u>Expense</u>	<u>Rate</u>		<u>Retmts.</u>	<u>Expense</u>	<u>Rate</u>
1	100.0	100.0	50.0	50.0%	100.0		50.0	50.0%
2					100.0		50.0	50.0%
3					100.0	100.0	50.0	50.0%
Totals			<u>50.0</u>				<u>150.0</u>	

5

6 **Q: HOW DO MR. GARRETT AND MR. KISER MISSTATE THE**
7 **RATEMAKING IMPACTS OF CHANGING TO THE ELG PROCEDURE?**

8 A: Mr. Garrett and Mr. Kiser misstate the ratemaking impacts of switching to the
9 ELG procedure because they ignore the impacts entirely. Mr. Garrett asserts that
10 the accounting change is designed to primarily accelerate cash flow to the
11 Company for the benefit of the investors, and therefore, at the expense of the
12 ratepayers. This is not so, as the ratepayers actually pay a lower lifetime total cost
13 under the ELG procedure as shown below:

ROFF REBUTTAL

1

COMPARISON OF REVENUE REQUIREMENTS

<u>PERIOD</u>	<u>ALG</u> <u>Expense</u> \$	<u>ALG</u> <u>RATE</u> <u>BASE</u> \$	<u>Return</u> <u>@ 12%</u> \$	<u>Revenue</u> <u>Requirements</u> \$	<u>ELG</u> <u>Expense</u> \$	<u>ELG</u> <u>RATE</u> <u>BASE</u> \$	<u>Return</u> <u>@ 12%</u> \$	<u>Revenue</u> <u>Requirements</u> \$
1	100.0	200.0	24.0	124.0	133.0	200.0	24.0	157.0
2	50.0	100.0	12.0	62.0	33.0	67.0	8.0	41.0
3	50.0	50.0	6.0	62.0	34.0	33.0	4.0	42.0
	<u>200.0</u>		<u>42.0</u>	<u>242.0</u>	<u>200.0</u>		<u>36.0</u>	<u>236.0</u>

2 **Q: WHAT DOES THIS COMPARISON ILLUSTRATE?**

3 A: This comparison illustrates that ratepayers benefit from the utilization of the ELG
4 procedure. The lifetime total revenue requirements under the ELG procedure for
5 this simple, short-lived example are nearly 3% lower than for the ALG procedure.
6 This differential grows as the number of periods increase, due to the workings of
7 the return component, making the ELG procedure even more attractive to
8 ratepayers.

9 **Q: MR. GARRETT CLAIMS THAT THE ELG PROCEDURE PROVIDES**
10 **IMPROPER INCENTIVES TO REPLACE ASSETS SOONER THAT**
11 **NECESSARY AS THERE IS NO FINANCIAL INCENTIVE TO RETAIN**
12 **AN ASSET IN RATE BASE. IS THIS TRUE?**

13 A: Absolutely not. This claim has no merit. In my 32 years of serving the utility
14 industry, I have seen no utility that would replace an asset sooner than necessary
15 unless there were special facts and circumstances. This is a "red herring" created
16 by Mr. Garrett that has no basis in fact. Besides, under mass asset accounting, all

1 retired assets are considered to be fully accrued, and rate base is unaffected by a
2 retirement transaction.

3 **Q: IS THERE ANY OTHER PORTION OF MR. GARRETT'S TESTIMONY**
4 **WHERE HE HAS MISCHARACTERIZED YOUR TESTIMONY OR**
5 **RESPONSES TO DATA REQUESTS?**

6 A. Yes. At page 23, line 14 of his testimony Mr. Garrett claims that the Company
7 "admits that the proposed change to ELG will increase depreciation expense by
8 \$5,768,612 annually." This amount was developed in response to a data request.
9 This statement is not entirely true. Attached to my direct testimony is an Exhibit
10 (DSR-4), which segregates the depreciation expense change into components by
11 cause. The change to the ELG procedure alone produces a difference in annual
12 depreciation expense of only \$1,430,272. I believe the changes in average service
13 life and the changes in net salvage are independent events, not related to a change
14 in depreciation procedure from ALG to ELG. Thus, Mr. Garrett has improperly
15 characterized the effect of using the ELG procedure.

16 **Q: WHAT IS MR. GARRETT'S RECOMMENDATION WITH RESPECT TO NET**
17 **SALVAGE?**

18 A: Mr. Garrett recommends that this Commission "suspend the collection of removal
19 costs (negative salvage values) in these two accounts (Mains and Service Lines)
20 until the Company's next rate case."

21 **Q: HOW DID YOU DETERMINE THE NET SALVAGE ALLOWANCE FOR**
22 **MAINS AND SERVICES IN YOUR DEPRECIATION STUDY?**

23 A: Consistent with past practice and accepted historical analysis techniques, I related
24 the recorded salvage and cost of removal amounts to the annual recorded

1 retirements. Not only did I do this for Mains and Service Lines, but for every
2 other asset category as well.

3 **Q: WHY DID YOU CONDUCT YOUR ANALYSIS IN THIS MANNER?**

4 A: There are two reasons. The first reason relates to depreciation analysis theory and
5 practice. The second reason relates to logic and accounting principles. With
6 respect to depreciation analysis theory, various publications describe how to
7 conduct an analysis of historical salvage and cost of removal experience. One
8 such publication states that "net salvage is expressed as a percentage of plant
9 retired by dividing the dollars of net salvage by the dollars of original cost of
10 plant retired."¹ Therefore I have followed accepted practice in determining my
11 net salvage allowance recommendations. With respect to logic and accounting
12 principles, I have recognized the very fundamental cause and effect relationship
13 related to asset retirement. The cause is the retirement and the effect is the net
14 salvage. This is consistent with and equivalent to the accounting concept of
15 matching.

16 **Q: IS THE COMPANY ENTITLED TO THE INCLUSION OF NET**
17 **SALAVGE IN DEPRECIATION RATES?**

18 A: Yes, I believe so. The following passage addresses this concept:

19 Under presently accepted concepts, the amount of depreciation to be
20 accrued over the life of an asset is its original cost less net salvage. Net
21 salvage, as the name implies, is the difference between the gross salvage
22 that will be obtained when the asset is disposed of and the cost of
23 removing it. Positive net salvage occurs when gross salvage exceeds cost
24 of removal, and negative net salvage occurs when cost of removal exceeds
25 gross salvage. Thus the intent of the present concept is to allocate the net
26 cost of an asset to annual accounting periods, making due allowance for
27 the net salvage, positive or negative, that will be obtained when the asset

¹ *Public Utility Depreciation Practices*, National Association of Regulatory Utility Commissioners, 1996 Edition, page 18.

1 is retired. This concept carries with it the thought that ownership of
2 property entails the responsibility for its ultimate abandonment or
3 removal. Hence if current users of the property benefit from its use, they
4 should pay their pro rata share of the costs involved in the abandonment or
5 removal of the property.

6
7 This treatment of salvage is in harmony with generally accepted
8 accounting practices and tends to remove from the income statement
9 fluctuations caused by erratic, although necessary, abandonment and
10 uneconomical removal operations. It also has the advantage that current
11 consumers pay a fair share, even though estimated, of costs associated
12 with the property devoted to their service.²

13
14 It is clear that net salvage is an appropriate component of depreciation rates.

15 **Q: WHAT ARE THE ISSUES WITH RESPECT TO NET SALVAGE RAISED**
16 **BY MR. GARRETT?**

17 **A:** Mr. Garrett alleges that "the Company is claiming large amounts for negative net
18 salvage with little support and virtually no explanation for these apparently
19 excessive amounts."³ Mr. Garrett goes on to suggest that the net salvage values
20 for Mains and Service Lines appear to be overstated and inconsistent with the
21 Company's policy of abandoning distribution property in place. He further
22 suggests "the Company is attempting to collect from ratepayers, in advance, the
23 cost to install new plant, when this is actually a responsibility of investors."⁴ He
24 continues by also suggesting that past inflation has influenced the net salvage
25 results and that future inflation will not repeat at historical levels. Finally, Mr.
26 Garrett confuses the accrual for net salvage with the incurrence of net salvage, by
27 trying to equate these amounts for depreciation purposes.

28 **Q: DO YOU HAVE ANY COMMENTS?**

² Ibid.

³ Responsive testimony of Mark E. Garrett, page 28, lines 7 and 8.

⁴ Ibid, page 29, lines 1 through 3.

1 A: Yes. I will address each area separately. First, with respect to support for the net
2 salvage allowances requested by the Company for Mains and Service Lines, a
3 total of twenty years of historical retirement and net salvage activity was reviewed
4 and analyzed. For the Mains account (Account 376), over \$26 million has been
5 retired with related salvage of over \$2 million and related cost of removal of over
6 \$6 million. These are NOT insignificant amounts. That is the equivalent of over
7 \$200,000 of annual net salvage and over \$1.3 million of annual retirements. For
8 the Service Lines account (Account 380), over \$24 million has been retired with
9 related salvage of under \$250,000 and related cost of removal of over \$9 million.
10 These are NOT insignificant amounts. That is the equivalent of over \$460,000 of
11 annual net salvage and over \$1.2 million of annual retirements. Mr. Garrett's
12 statement is unwarranted given the facts. There is considerable support for the net
13 salvage selections that I have made for these two accounts.

14 **Q: HOW DO YOU RESPOND TO MR. GARRETT'S TESTIMONY THAT**
15 **THE NET SALVAGE VALUES FOR MAINS AND SERVICE LINES**
16 **APPEAR TO BE OVERSTATED AND INCONSISTENT WITH THE**
17 **COMPANY'S POLICY OF ABANDONING DISTRIBUTION PROPERTY**
18 **IN PLACE?**

19 A: It is unclear what Mr. Garrett means by the phrase "appear to be overstated", as
20 he provides no basis for his claim. Clearly the Commission should not make
21 decisions based upon statements like this that are not supported by any evidence.
22 My experience with the net salvage percentages for these two accounts indicates
23 otherwise. A net salvage allowance of negative 15% for Mains and negative 50%
24 for Services is within industry norms based upon my experience. Mr. Garrett

1 must not be familiar with the process of safely abandoning distribution property,
 2 in particular, mains and services. There are a number of activities that must occur
 3 including opening the lines, purging the gas, and refilling the trench or holes. All
 4 of these activities are labor-intensive and generate costs that are classified as cost
 5 of removal. No inconsistency exists.

6 **Q: MR. GARRETT INDICATES THAT THE COMPANY IS ATTEMPTING**
 7 **TO COLLECT FROM RATEPAYERS, IN ADVANCE, THE COST TO**
 8 **INSTALL NEW PLANT. DO YOU AGREE?**

9 **A:** No. The Company is required to follow the Uniform System of Accounts
 10 ("USOA"). Within the USOA, there are enumerated the various components of
 11 construction cost including:

- 12 - contract work
- 13 - labor
- 14 - materials and supplies
- 15 - transportation
- 16 - special machine service
- 17 - shop service
- 18 - protection
- 19 - injuries and damages
- 20 - privileges and permits
- 21 - rents
- 22 - engineering and supervision
- 23 - general administration capitalized
- 24 - engineering services
- 25 - insurance
- 26 - law expenditures
- 27 - taxes
- 28 - allowance for funds used during construction
- 29 - earnings and expenses
- 30 - training costs
- 31 - line pack gas
- 32 - LNG Heel
- 33 - studies, and
- 34 - asset retirement costs
- 35

1 Cost of removal is not a component of construction costs, cannot be capitalized
2 and relates to retired assets, not replacement assets (additions). The Company is
3 recording its costs in accordance with the USOA (As Ordered by this Commission
4 in Oklahoma Natural Cause No. PUD 910001190 – see pages 124 and 125 of
5 Order No. 388124, attached as Exhibit DSR-1R) and is NOT attempting to pre-
6 collect any improper amounts from ratepayers.

7 **Q: DO YOU HAVE ANY COMMENTS REGARDING THE RECOGNITION**
8 **OF INFLATION IN DETERMINING APPROPRIATE NET SALVAGE**
9 **ALLOWANCES?**

10 A: Yes. Price level changes are inherent in many costs incurred and recorded by
11 Oklahoma Natural Gas Company. This includes not only salvage and cost of
12 removal, but the depreciable base upon which depreciation expense is accrued.
13 Inflation during the period 1983 through 2003 averaged about 3.1% as measured
14 by the Consumer Price Index – Urban. Estimates of future inflation are between
15 2.4% and 2.7%. While Mr. Garrett may be correct that future inflation may not
16 mirror past inflation, his suggestion that these amounts are vastly different is
17 incorrect. The appropriate measurement of a net salvage percentage inherently
18 recognizes the price level differences that occur between when an asset is placed
19 in service and when it is retired. Mr. Garrett is attempting to create an issue that
20 just does not exist.

21 **Q: HOW DOES MR. GARRETT CONFUSE THE ACCRUAL FOR NET**
22 **SALVAGE WITH THE INCURRENCE OF NET SALVAGE AND WHY IS**
23 **THIS SIGNIFICANT?**

1 A: The Table shown on page 33 of his testimony illustrates his confusion and
2 misunderstanding of the basic, traditional depreciation model with respect to net
3 salvage. Let me begin with the amounts shown under the Column Heading
4 "Annual Removal Charge Requested by ONG". These amounts were developed
5 in response to a request for information and represent the difference between the
6 annual depreciation expense requested by the Company in this proceeding and the
7 annual depreciation expense using a zero net salvage factor. The amounts shown
8 under the Column Heading "Actual Removal Costs Incurred During the Test
9 Year" represent the cost of removal incurred during the test year for these two
10 accounts as a function of whatever assets were retired during the test year. Herein
11 lies the difference as the first pair of numbers relates to ALL future retirements,
12 not just those in the test year. It is not surprising that these amounts are different,
13 in fact, they should be dramatically different. Mr. Garrett is attempting to raise an
14 issue that does not exist.

15 **Q: BUT SHOULDN'T THESE AMOUNTS BE CLOSER TOGETHER?**

16 A: No. We are dealing with two property groups having very long lives. Over time,
17 as more and more retirements occur from the existing asset base, the incurred cost
18 of removal amounts will rise and surpass the accrual amounts. Mr. Garrett's
19 comparison is irrelevant and misleading.

20 **Q: MR. GARRETT AND MR. KISER BOTH ARGUE THAT THE PRICE OF**
21 **NATURAL GAS SHOULD HAVE AN IMPACT ON DEPRECIATION**
22 **PRACTICES. DO YOU AGREE?**

23 A: Absolutely not. While I would agree that the price of natural gas certainly
24 impacts ratepayer's bills, I do not believe that the price of natural gas should

1 impact depreciation policy or approved depreciation rates. Depreciation
2 accounting requires the allocation of the cost of an individual asset over its useful
3 life or groups of assets over the group life(s). There is no mention of the price of
4 gas as a contributing force of mortality. Such a linkage is irrelevant and the
5 arguments advanced by Mr. Garrett and Mr. Kiser must be dismissed.

6 **Q: WHAT IS THE ISSUE WITH RESPECT TO CAPITALIZATION**
7 **PRACTICES?**

8 A: Mr. Garrett and Mr. Mathai have challenged the Company's capitalization
9 percentage for payroll and employee benefit costs. Each believes the Company is
10 currently undercapitalizing these expenditures. The effect of their
11 recommendations is a significant decrease in operating expense levels. Company
12 witness, Mr. Robbins, also addresses this topic in his rebuttal testimony.

13 **Q: MR. ROFF, PLEASE SUMMARIZE THE CAPITALIZATION ISSUES**
14 **AND EXPLAIN HOW ONE COULD HAVE ARRIVED AT SUCH A**
15 **DIFFERENCE OF OPINION.**

16 A: First, it is clear to me that Staff, the AG, and the Company have not been working
17 from a common definition for such terms as "contract labor" and "capitalization
18 ratio." I will discuss the specifics behind these definition differences later in my
19 testimony. However, it appears that an unfortunate and unintended consequence
20 of the terminology use differences is that Staff and AG have taken a significantly
21 different approach from ONG on the capitalization issue. The differences in
22 interpretation must be reconciled if the parties' respective recommendations are to
23 have an appropriate, and necessary, apples-to-apples comparisons. Certainly the
24 current recommendations of the parties fail, in my opinion, to provide truly

1 comparable alternatives from which the Commission should be making fair, just,
2 and reasonable cost recovery decisions. I would add that the testimony of Mr.
3 Robbins attempts to explain this issue in more detail and should be relied upon by
4 the Commission to fairly assess the respective positions of the parties.

5 **Q: WHAT IS YOUR GENERAL OBSERVATION WITH REGARD TO**
6 **OKLAHOMA NATURAL'S CAPITALIZATION PRACTICES WHEN**
7 **VIEWS FROM A REVIEW OF CAPITAL ADDITIONS?**

8 A: To reach a general conclusion with regard to the reasonableness of the Company's
9 capitalization procedures, I view this subject from the standpoint of capitalization
10 policy and fixed asset accounting practices. Let us begin with a review of capital
11 additions. For purposes of this discussion, I have combined Account 376 – Mains
12 and Account 380 – Service Lines, because these two accounts comprise roughly
13 two-thirds of the depreciable base and the majority of the Company's construction
14 activity. For the five-year period ended 2002, nearly \$161 million had been
15 added to these two asset categories, compared with \$144 million in the prior five-
16 year period (1993-1997) and \$110 million in the five-year period prior to that
17 (1988-1992). Clearly, capital expenditures have risen.

18 **Q: WHAT CONCLUSION DO YOU DRAW FROM THIS SERIES OF**
19 **EXPENDITURES RELATIVE TO MR. GARRETT'S AND MR.**
20 **MATHAI'S ASSERTIONS?**

21 A. The conclusion that I reach is that the Company is NOT undercapitalizing and
22 that any suggestion that the Company's current capitalization procedures have
23 effectively resulted in an undercapitalization of costs is clearly wrong and not
24 supported by facts.

1 **Q: MR. GARRETT AND MR. MATHAI CLAIM THAT THE COMPANY IS**
2 **NOT CAPITALIZING "CONTRACT LABOR" COSTS. DO YOU**
3 **AGREE?**

4 **A:** No. First, the capital additions levels in recent years do not support such a claim.
5 Secondly, a review of the Company's response to Data Requests reveals this not
6 to be true. In response to AG Data Request 26.10, section e, the Company
7 provided a Table detailing (Capital) Contract Labor amounts for the period 2000
8 through 2004. Capitalized Contract Labor has grown from \$14.6 million in 2000
9 to \$26.7 million in 2004. Mr. Garrett and Mr. Mathai are quite simply wrong.

10 **Q: WHAT DOES THIS MEAN RELATIVE TO MR. GARRETT'S AND MR.**
11 **MATHAI'S RECOMMENDATIONS REGARDING CAPITALIZATION**
12 **PERCENTAGE IN THIS PROCEEDING?**

13 **A:** It means that Mr. Garrett's and Mr. Mathai's recommendations are based on
14 flawed assumptions and must be rejected. The Company is recording all
15 appropriate costs related to construction. It is just that the components of the total
16 cost have changed and are being recorded in different categories.

17 **Q: SPECIFICALLY WHAT CHANGES ARE YOU REFERRING TO IN**
18 **YOUR LAST STATEMENT?**

19 **A:** In the past, Oklahoma Natural utilized in-house personnel almost exclusively for
20 capital projects. In recent years, however, the Company has transitioned to a
21 much higher utilization of outside contractors to support capital projects.
22 Information provided to the Staff and AG confirms this operational change.

23 **Q: GENERALLY, WHAT HAS BEEN THE MAGNITUDE OF THIS**
24 **CHANGE?**

1 A: During the timeframes captured by the Staff and the AG in making their
2 respective recommendations, approximately 80% of capital projects were
3 completed using in-house personnel. That percentage has decreased to the 10%
4 range.

5 **Q: IS THE COMPANY'S TRANSITION TO INCREASED RELIANCE ON**
6 **OUTSIDE CONTRACTORS TO COMPLETE CAPITAL PROJECTS**
7 **SOMETHING ABOUT WHICH THE COMMISSION MIGHT HAVE**
8 **BEEN AWARE?**

9 A: Yes. It appears that not only was the Commission aware of this, it was also
10 supportive of this change. When the Commission authorized Oklahoma Natural
11 to assume responsibility for service line installations and replacements (see Order
12 No. 441549), a concurring opinion to the order stated in part that Oklahoma
13 Natural would also utilize the services of outside contractors to assist in this work.

14 **Q: PLEASE EXPAND UPON YOUR EARLIER REFERENCE TO**
15 **PROBLEMS RELATED TO TERMINOLOGY USE DIFFERENCES OR**
16 **TERMINOLOGY USE MISUNDERSTANDINGS.**

17 A: Certainly. It quickly became clear to me that many of the differences between the
18 Company's position and that of the PUD and the AG relate to a misunderstanding
19 of terminology. Mr. Robbins addresses this topic in his rebuttal testimony and I
20 will offer my thoughts. The confusion seems to relate to the term "Contract
21 Labor." At various points in their testimony, both Mr. Garrett and Mr. Mathai
22 assert that ONG has not capitalized Contract Labor or could not identify the

1 amount of Capitalized Contract Labor.⁵ As discussed above, ONG has capitalized
2 Contract Labor in ever-increasing amounts.

3 **Q: MORE SPECIFICALLY, WHERE DID CONFUSION REGARDING THE**
4 **TERM "CONTRACT LABOR" ARISE?**

5 A: The term "contract labor," as used by the Company, actually refers to outside
6 labor used to support Operations and Maintenance (O&M expense) activities
7 involving meter reading, call center support, and line locating activities.
8 However, the term contract labor **ALSO** is used to refer to the outside contractors
9 hired to complete capital projects. When Staff and the AG asked data requests
10 regarding the level of "contract labor" being used by the Company, ONG's
11 responses appear to have been based upon its own broad use and understanding of
12 the term. It was not until much later that it became fully apparent that the parties
13 were working from two different frameworks.

14 **Q: WAS THERE A SIMILAR COMMUNICATION GAP RELATED TO THE**
15 **USE OF THE TERM "CAPITALIZATION RATIO"?**

16 A: Yes.

17 **Q: SO IN YOUR OPINION, HOW DOES THE COMMISSION SORT**
18 **THROUGH THIS CONFUSION?**

19 A: In my opinion, the solution is to step back from the numbers, as I have done,
20 recognize the operational changes Oklahoma Natural has adopted over the past
21 few years, and also look at the resulting overall picture of the Company's plant
22 investment level activities and in-house employee count.

23 **Q: AND WHAT IS THE RESULT?**

⁵ Ibid, page 44, footnote, page 45, lines 4 and 5; Responsive Testimony of George Mathai, page 14, line 11.

1 A: Oklahoma Natural's decreasing actual in-house labor capitalization rate is not
2 only reasonable, it should have been expected by the Commission Staff in light of
3 the Company's agreement to utilize outside contract labor to complete service
4 lines installations and other capital projects for service line replacements. I
5 certainly believe that there would have been reason for the Staff to be "more
6 concerned" if the effective in-house labor capitalization rate had NOT dropped in
7 light of the increased reliance on outside contractors.

8 **Q: CAN YOU FURTHER EXPLAIN THIS CONFUSION AS YOU**
9 **UNDERSTAND THE COMPANY'S ACCOUNTING AND DATA**
10 **RESPONSES?**

11 A: I would explain it this way, because this is how it was described to me. First,
12 ONG utilizes Contract Labor for a variety of activities. Second, the usage of
13 Contract Labor for these various activities has steadily increased over the past few
14 years. This is due to both the type of activity and the economic benefits of
15 utilizing Contract Labor. Third, the accounting for Contract Labor by ONG has
16 been handled on a consistent basis for a long period of time. Fourth, and this is
17 critical to the discussion, contractors DO NOT provide detailed invoices for their
18 services. Fifth, it is a fact that some of the Contract Labor recorded by ONG
19 includes components that are not labor. Thus, when ONG is asked if it can
20 identify the amount of Contract Labor, the answer is both yes and no. ONG can
21 provide the amount of Contract Labor that it has been invoiced, but CANNOT
22 provide the exact amount of "pure" labor contained in those invoices. I believe
23 this is one of the areas where some confusion has arisen. Lastly, no adjustment to

1 expense is necessary. ONG has appropriately recorded its costs into the correct
2 accounts.

3 **Q: WHAT IS YOUR OPINION OF THE INDUSTRY COMPARISONS**
4 **PRESENTED BY MR. GARRETT?**

5 A: I am skeptical of any industry comparisons for the simple reason that very few
6 companies are comparable. I have been involved with regulated utilities in the
7 area of fixed asset accounting for over thirty-two years. The one truth that I have
8 found is that every utility is a little bit different. The reasons for the difference
9 include, but are not limited to: growth, weather, geography, accounting policies,
10 taxes, age, maintenance practices and regulatory climate. Thus when Mr. Garrett
11 attempts to compare the capitalization ratio of ONG with other companies⁶, I have
12 to question the validity and meaningfulness of such comparisons. The differences
13 among the five companies even with respect to the few characteristics I have just
14 enumerated are sufficient cause for skepticism. For example, PSO and NPC are
15 electric utilities, not comparable to ONG. NPC is one of the fastest growing
16 utilities in the country, not so with ONG. If anything, I would expect these
17 Companies to be different, not similar and comparable as Mr. Garrett would have
18 one believe. His comparison is inconclusive at best.

19 **Q: PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

20 A: I have provided an itemization of the issues raised by AG witness Garrett and
21 PUD witnesses Kiser and Mathai. I have demonstrated where their testimonies
22 are inaccurate, are based upon terminology misunderstandings, or are completely
23 false. I support my testimony with facts, principles and accepted depreciation

⁶ Ibid, page 44.

1 concepts. The depreciation rate recommendations of Mr. Garrett and Mr. Kiser
2 are inadequate and detrimental to both the Company and its customers. I urge this
3 Commission to approve my depreciation recommendations in this proceeding.
4 My recommendations result in a level of depreciation expense that is fair and
5 reasonable. Further, perhaps as a result of the inconsistent use of terminology,
6 Mr. Garrett's and Mr. Mathai's recommendations regarding capitalization
7 percentages are based upon flawed logic and assumptions and must be rejected.

8 **Q: DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

9 A: Yes, at this time. But to the extent that I have not addressed topics or issues
10 raised or discussed by Mr. Garrett, Mr. Kiser or Mr. Mathai does not signify my
11 acceptance of their positions.

BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

APPLICANT: OKLAHOMA NATURAL
GAS COMPANY

RELIEF REQUESTED: REVIEW OF RATES
AND CHARGES

IN THE MATTER OF THE APPLICATION
OF OKLAHOMA NATURAL GAS COMPANY,
A DIVISION OF ONEOK INC., FOR A
REVIEW AND DETERMINATION CONCERNING
ITS RATES AND EARNINGS IN
COMPLIANCE WITH THE REQUIREMENTS
OF 17 O.S. Supp. 1990, § 263, AND
FOR OTHER APPROPRIATE RELIEF

CAUSE PUD NO. 910001190

APPLICANT: OKLAHOMA NATURAL
GAS COMPANY

RELIEF REQUESTED: APPROVAL OF THE
ACQUISITION COST OF CERTAIN OF
OKLAHOMA UTILITY PROPERTIES
FORMERLY OWNED BY LONE STAR GAS
COMPANY

CAUSE PUD NO. 910001144

APPLICATION OF OKLAHOMA NATURAL
GAS COMPANY FOR APPROVAL OF THE
ACQUISITION COST OF CERTAIN
OKLAHOMA UTILITY PROPERTIES
FORMERLY OWNED BY LONE STAR GAS
COMPANY

APPLICANT: OKLAHOMA NATURAL
GAS COMPANY

RELIEF REQUESTED: MODIFICATION OF
SPECIAL INDUSTRIAL SALES PROGRAM

CAUSE PUD NO. 920001394

APPLICATION OF OKLAHOMA NATURAL
GAS COMPANY FOR MODIFICATION OF
ITS SPECIAL INDUSTRIAL SALES
PROGRAM

APPLICANT: OKLAHOMA NATURAL
GAS COMPANY

RELIEF REQUESTED: AMENDMENT OF A
LIMITED DEVIATION FROM THE GENERAL
PRIORITY SCHEDULE ESTABLISHED BY
OAC 165:10-17-12 IN ORDER TO
MODIFY SPECIAL INDUSTRIAL SALES
PROGRAM

CAUSE CD NO. 920165303

APPLICATION OF OKLAHOMA NATURAL
GAS COMPANY TO AMEND ITS LIMITED
DEVIATION FROM THE GENERAL
PRIORITY SCHEDULE ESTABLISHED BY
OAC 165:10-17-12 IN ORDER TO
MODIFY SPECIAL INDUSTRIAL SALES
PROGRAM

ORDER NO. 388124

I, Charlotte W. Flanagan, Secretary of the Corporation Commission
of the State of Oklahoma, do hereby certify that this is a true and
correct copy of the original on file in this Commission.

In witness whereof, I hereunto set my hand and affix the seal of the
Corporation Commission of the State of Oklahoma, Done in this
office of the Commission this 7th day of Dec., 1994

CORPORATION COMMISSION OF OKLAHOMA

CHARLOTTE W. FLANAGAN, Secretary

BY: Charlotte W. Flanagan

INCLUSION OF LONE STAR ACQUISITION PREMIUM IN RATE BASE

ONG argued that it should be allowed rate base treatment on the unamortized balance of the Lone Star Acquisition Premium, less depreciation of the Lone Star Gas Company plant. ONG argued that the Lone Star acquisition transaction met all of the requirements to be included in rate base. ONG argued that, in the alternative, a five (5) year levelized return would be appropriate.

Staff argued that ONG should not receive any return on the unamortized balance of the Lone Star acquisition premium. The Staff argued that both the ratepayers and ONG's stockholders benefited from the Lone Star acquisition and therefore it would be equitable and just to amortize the acquisition premium over five (5) years without a return. By amortizing the balance of the acquisition premium over five (5) years with no return, the ratepayers assume 75% of the premium balance and the stockholders assume the remaining 25% .

The AG argued that because ONG failed to prove that the acquisition premium should be recovered from the ratepayers, there is nothing to be added to rate base.

The Commission finds based on the evidence and arguments of the parties, that the unamortized balance of the Lone Star acquisition premium should not be allowed in rate base. The Commission further finds the arguments of the Staff persuasive on the issue and finds that ONG should be allowed to recover the unamortized acquisition premium over a five (5) year period without the acquisition premium being included in rate base.

UNIFORM SYSTEM OF ACCOUNTS (USOA)

ONG, Staff and the Attorney General all agreed that ONG should adopt the current Federal Energy Regulatory Commission's (FERC) Uniform Systems of Accounts (USOA). All parties recognized that with the new timing mandates placed on Staff to process rate cases, it is imperative that all regulated utility companies use the same accounting system. Further, the parties recognized and agreed that it would take ONG time to transfer its books and records from the

current systems of accounts to the FERC USOA and that ONG should not be precluded from filing a rate case during the transition period.

The Commission finds based on the evidence and arguments of the parties, that ONG should convert its books and records to conform with the current FERC Uniform Systems of Accounts. Further, the Commission finds that ONG should be allowed a reasonable amount of time to convert its books and records and that during the transition period ONG should not be precluded from filing a rate case.

COST OF DEBT

ONG argued that because 9.60% was the cost of debt at the end of the test year that rate should be used to calculate ONG's cost of debt. ONG further argued that post-test year, the Company refinanced some of its long-term debt with medium-term debt issues that range from one (1) to seven (7) years in term. However, the Company argued the refinancing is not an indicator of future debt cost, which would be the only possible justification for going beyond the test year. Further, ONG argued that, if the Commission should go outside the test year to establish the cost of debt, the Commission should go outside the test year to establish rate base. Finally, ONG argued that it would be inappropriate and inconsistent with prior Commission practice to go outside the test year to establish the cost of debt.

Staff argued that the Commission should recognize the known and measurable changes that have occurred since the end of the test year and set ONG's cost of debt at 8.74%. Specifically, Staff argued that on June 30, 1993, ONG restructured its long-term debt, which lowered the weighted cost of debt. Staff argued that to ignore that reduction in ONG's cost of debt would allow a windfall to ONG's shareholders. Further, Staff argued that ONG controlled the timing of the restructuring and, by delaying the restructuring, ONG's stockholders have an opportunity for unwarranted financial gains.

**BEFORE THE
GEORGIA PUBLIC SERVICE COMMISSION**

COPY

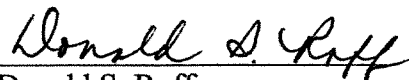
In the matter of Atmos Energy Corporation)
of Dallas, Texas, for authority to file tariffs)
reflecting an increase in rates for gas service)
provided to customers in the Georgia service)
area of the Company)

DOCKET NO: 20298-U

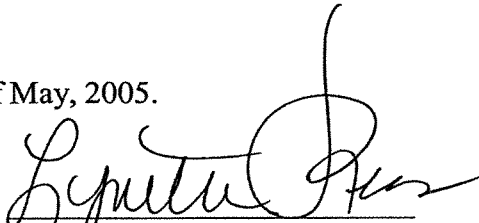
AFFIDAVIT

STATE OF TEXAS)
) ss
COUNTY OF TARRANT)

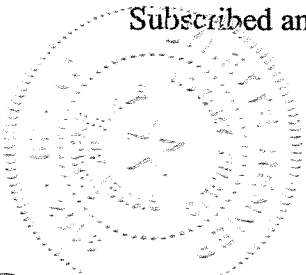
DONALD S. ROFF, first being duly sworn, deposes and says that he is Donald S. Roff referred to in the document entitled "Prepared Direct Testimony of Donald S. Roff" in Docket No. 20298-U before the Public Service Commission of the State of Georgia, and that the statements therein were prepared by him or under his direction and are true and correct to the best of his information, knowledge and belief.


Donald S. Roff
Director of Regulatory Services
Deloitte & Touche LLP

Subscribed and sworn to before me, this 13th day of May, 2005.


Notary Public

My commission expires 9/20/2006



ATMOS ENERGY CORPORATION
DOCKET NO. 20298
TESTIMONY OF DONALD S. ROFF
BEFORE THE GEORGIA PUBLIC SERVICE COMMISSION

EXECUTIVE SUMMARY

1 Due to the technical nature of the subject of depreciation, this Executive Summary has
2 been provided to highlight Atmos Energy Corporation's ("Atmos" or "the Company")
3 depreciation request in this proceeding in simple and direct terms. Based upon a depreciation
4 study that I conducted as of September 30, 2004, new mortality characteristics were selected to
5 be used in the calculation of depreciation expense provisions. Mortality characteristics
6 encompass average service life, retirement dispersion (the scattering of retirements by age
7 around the average service life), and net salvage (net salvage is the difference between gross
8 salvage and cost of removal; when cost of removal exceeds gross salvage, negative net salvage
9 occurs). In general, average service lives have increased (decreasing annual depreciation
10 expense) and net salvage has become slightly more negative (increasing annual depreciation
11 expense).

12 I am also recommending that Atmos adopt the Equal Life Group ("ELG") procedure. In
13 depreciation parlance, the depreciation procedure refers to the grouping of assets for depreciation
14 rate calculation purposes. The ELG procedure groups asset categories of equal lives and
15 depreciates them over their respective lives. The ELG procedure recognizes that assets within a
16 depreciable group have different lives, and uses the average service life and retirement
17 dispersions to develop these equal life group elements. The benefit to Atmos and its customers

1 is that the recording of depreciation expense matches the consumption of assets, and is consistent
2 with the treatment in other jurisdictions. This is a desirable outcome from both a regulatory
3 accounting principles standpoint, as well as from the standpoint of customer equity, a ratemaking
4 principle.

5 As part of my depreciation study, I calculated a theoretical reserve amount for each asset
6 category. A theoretical reserve is a measure of what would have been accumulated in the book
7 reserve had the study parameters been in effect for all time. In effect, the theoretical reserve is
8 the difference between the total amount to be accumulated through depreciation charges (plant
9 balance adjusted for net salvage) and the sum of future accruals. In my study, the theoretical
10 reserve is less than the book reserve by roughly \$1.6 million. Compared to the test year
11 depreciation expense request of \$3.0 million, this difference is not cause for concern. In fact, the
12 remaining life depreciation rates that I recommended allocate this difference to future periods
13 over the remaining lives of the respective asset categories.

14 In summary, I have conducted a comprehensive depreciation study in accordance with
15 accounting principles and regulatory rules. My study develops depreciation rates which result in
16 a fair and reasonable level of depreciation expense and should provide the Company with
17 adequate capital recovery until a new study indicates the need for change.

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Q. PLEASE STATE YOUR NAME, TITLE, BUSINESS AFFILIATION AND ADDRESS.

A. My name is Donald S. Roff and I am a Director with the accounting firm of Deloitte & Touche LLP. My business address is JPMorgan Chase Tower, 2200 Ross Avenue, Suite 1600, Dallas, Texas 75201-6778.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. My business experience is described on Exhibit DSR-1.

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

A. Yes. A list of my regulatory appearances is summarized on Exhibit DSR-2. I recently provided testimony in Docket No. 18638-U for Atlanta Gas Light Company.

Q. ARE YOU SPONSORING ANY ADDITIONAL EXHIBITS IN THIS PROCEEDING?

A. Yes. In addition to the above-described Exhibits, I am sponsoring Exhibit DSR-3, which presents the depreciation study report prepared for Atmos Energy Corporation (“the Company” or “Atmos”), which includes a discussion of depreciation accounting principles, describes the depreciation study methodology, summarizes the study results and itemizes recommendations

1 related to depreciation rate and depreciation accounting. I am also sponsoring Exhibit DSR-4,
2 which presents a summary comparison of changes in annual depreciation by cause.

3
4 Q. WERE THESE EXHIBITS PREPARED BY YOU OR UNDER YOUR DIRECTION AND
5 SUPERVISION?

6
7 A. Yes, they were.

8
9 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

10
11 A. I have conducted a depreciation study of Atmos' depreciable gas properties as of September 30,
12 2004, and have made recommendations for revised depreciation rates, as necessary, for inclusion
13 in the Company's revenue requirement. Exhibit DSR-3 is the report of my findings and
14 recommendations. The purpose of my testimony is to present the study results, describe the
15 depreciation study process and recommend appropriate depreciation rates for use by Atmos
16 reflecting depreciation accounting principles and regulatory rules. I will show that my study
17 produces a fair and reasonable level of depreciation expense utilizing sound accounting practices
18 and principles. I will demonstrate that the Equal Life Group ("ELG") procedure better comports
19 with the matching principle of accounting and reduces total lifetime customer revenue
20 requirements.

21
22 Q. WHAT WERE YOUR FINDINGS AND RECOMMENDATIONS?

1 A. I found that changes were needed to the mortality characteristics for nearly every asset category
2 resulting in revised depreciation rates. A summary comparison of the existing and recommended
3 depreciation rates by functional category follows:
4

Function	Existing	Recommended
	%	%
Storage	3.18	2.11
Transmission	2.56	1.41
Distribution	2.90	2.90
General	5.31	5.13
Total Gas Plant	2.96	2.87

5
6
7 Q. HAVE YOU QUANTIFIED THE IMPACT ON ANNUAL DEPRECIATION DUE TO YOUR
8 RECOMMENDED CHANGES?
9

10 A. Yes. The above summary was taken from Schedule 1 of Exhibit DSR-3. Using September 30,
11 2004 depreciable balances, the effect of the recommended depreciation rates on annual
12 depreciation expense is a decrease of about \$88 thousand.
13

14 Q. WHAT ARE THE PRIMARY FORCES THAT ARE DRIVING THIS CHANGE IN ANNUAL
15 DEPRECIATION EXPENSE?
16

1 A. The change in annual depreciation expense is affected by four separate factors: changes in
2 average service life; changes in net salvage; the effect of reserve position and a change in
3 depreciation procedure. The interaction of these four factors also makes up a portion of the
4 difference. Exhibit DSR-4 has been prepared to summarize the change in annual depreciation by
5 cause. Decreases in average service lives, primarily in the Distribution function, produce an
6 increase in annual depreciation expense of about \$51 thousand. Less negative net salvage, also
7 in the Distribution function, produces a decrease in annual depreciation expense of about \$15
8 thousand. Prior depreciation was greater relative to what it would have been had the current
9 study parameters been in use, resulting in a decrease in annual depreciation expense of about \$68
10 thousand. Use of the Equal Life Group ("ELG") procedure increases annual depreciation
11 expense by about \$212 thousand. The effect of depreciation procedure will be discussed later in
12 my testimony.

13
14 Q. CAN YOU EXPLAIN THE COLUMN ENTITLED "INTER-RELATIONS"?

15
16 A. Yes. The total change in annual depreciation expense from the level of annual depreciation
17 expense developed by application of the existing, approved rates as shown on Exhibit DSR-4 is
18 \$88 thousand. This decrease is a function of changes in average service life parameters, changes
19 in net salvage allowances, changes in the theoretical level of accumulated depreciation, changes
20 in the depreciation procedure and the interaction of each of these forces. Assume that we have
21 an asset category with a balance of \$1,000. Assume that my recommendation is an average
22 service life of 25 years and the existing average service life is 20 years. Further assume that I
23 recommend a positive 10% net salvage factor and the existing net salvage factor is positive 20%.

1 The difference in annual depreciation due to the *increase* in average service life is ($\$1,000/25 =$
2 $\$40$) minus ($\$1,000/20 = \50), for a *decrease* of \$10. The difference due to the change in net
3 salvage would be calculated as $((100\%-10\%)/25 = 3.6\%)$ minus $((100\%-20\%)/25 = 3.2\%)$, times
4 the \$1,000 balance, or an *increase* of \$4. The existing depreciation rate would be $((100\%-$
5 $20\%)/20)$, or 4.00%. My recommended depreciation rate would be $((100\%-10\%)/25)$, or 3.60%.
6 The total change in depreciation expense is a *decrease* of \$4. Therefore, the components of the
7 depreciation change are: a *decrease* of \$10, for an *increase* average service life; an *increase* of
8 \$4 for less positive net salvage; a total *decrease* of \$4; and an inter-relationship effect of
9 positive \$2, representing the combination of change in life and change in net salvage. The inter-
10 relationships magnify as the number of changing elements increases.

11
12 Q. WHAT DOES THE COLUMN ENTITLED "CHANGE IN PROCEDURE" REFER TO?

13
14 A. The depreciation procedure refers to the grouping of assets for depreciation rate calculation
15 purposes. The nature of the group varies with the form of the depreciable base. The most basic
16 depreciable group is a single item. Because utilities have thousands of items, group procedures
17 are utilized. In the past a broad group procedure or Average Life Group ("ALG") procedure has
18 been used. Other types of groups include vintage group and Equal Life Group ("ELG"). The
19 ELG procedure will be discussed in detail later in my testimony.

20
21 Q. WHAT IS DEPRECIATION?

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

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

7

8 Q. WHAT IS THE SIGNIFICANCE OF THIS DEFINITION?

9

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

16

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

19

¹ Accounting Research Bulletin No. 43, Chapter 9, Paragraph 5 (June 1953).

1 A. Systematic implies the use of a formula, and the formula used for calculating the recommended
2 depreciation rates is shown on Page 7 of Exhibit DSR-3. Rational means that the pattern of
3 depreciation, in this case, the depreciation rate itself, must match either the pattern of revenues
4 produced by the asset, or match the consumption of the asset. Since revenues are determined
5 through regulation and are expected to continue to be so determined, asset consumption must be
6 directly measured and reflected in depreciation rates. This measurement of asset consumption is
7 accomplished by conducting a depreciation study.

8
9 Q. ARE THERE OTHER DEFINITIONS OF DEPRECIATION?

10
11 A. Yes. The Federal Energy Regulatory Commission (FERC) Uniform System of Accounts
12 (USOA), followed by the Company, provides a series of definitions related to depreciation as
13 shown on Page 4 of Exhibit DSR-3. These definitions of depreciation make reference to asset
14 consumption, and therefore relate very well to the accounting framework for depreciation. These
15 definitions form the regulatory framework under which my depreciation study was conducted. I
16 recommend remaining life rates, which depreciation rates provide for full recovery of net
17 investment adjusted for net salvage over the future useful life of each asset category, and are
18 consistent with past practice.

19
20 Q. WHAT ARE MORTALITY CHARACTERISTICS?

1 A. Mortality characteristics are the parameters necessary to calculate depreciation rates. They
2 include average service life, retirement dispersion defined by Iowa-type curves and net salvage
3 factors.

4
5 Q. WHAT ARE IOWA-TYPE CURVES?

6 A. The Iowa-type curves were devised empirically over 60 years ago by the Engineering Research
7 Institute at what is now Iowa State University to provide a set of standard definitions of
8 retirement dispersion. Retirement dispersion merely recognizes that groups of assets are
9 comprised of individual assets having different lives, i.e., each asset retires at a differing age.
10 Retirement dispersion is the scattering of retirements by age for the individual assets around the
11 average service life for the entire group of assets. Standard dispersion patterns are useful and
12 necessary because they make calculations of the remaining life of existing property possible and
13 allow life characteristics to be compared.

14 The Engineering Research Institute collected retirement information on many types of industrial
15 and utility property and devised empirical curves that matched the range of patterns found. A
16 total of 18 curves were defined. There were six left-skewed, seven symmetrical and five right-
17 skewed curves, varying from wide to narrow dispersion patterns. The Iowa-curve naming
18 convention allows the analyst to relate easily to the patterns. The left-skewed curves are known
19 as the "L series", the symmetrical as the "S series" and the right-skewed as the "R series." A
20 number identifies the range of dispersion. A low number represents a wide pattern and a high
21 number a narrow pattern. The combination of one letter and one number defines a unique
22 dispersion pattern. There is also an "SQ" pattern that has no dispersion and is the equivalent of

1 an amortization period, that is, all assets survive for their entire average life. This pattern has
2 been used for certain General Plant accounts.

3
4 Q. PLEASE DISCUSS THE DEPRECIATION STUDY PROCESS.

5
6 A. A depreciation study consists of four distinct yet inter-related phases: *data collection, analysis,*
7 *evaluation and calculation.* Data collection refers to the gathering of historical investment
8 activity and this information was provided by the Company. Analysis refers to the statistical
9 processing of the data gathered in phase one. In my study there were two separate analyses
10 performed – one for the determination of life and one for the determination of net salvage. The
11 analyses were conducted by me or under my supervision. Evaluation refers to the development
12 of an understanding of asset history and its applicability to the surviving asset base into the
13 future. This phase also gives consideration to changing asset base and Company plans and
14 expectations. The evaluation phase was conducted by me with the assistance of my staff and the
15 input from Company personnel. The calculation phase utilizes the information and result
16 determined in the first three phases in the computation of recommended depreciation rates, and
17 was conducted by Deloitte personnel.

18
19 Q. PLEASE DISCUSS THE LIFE ANALYSIS PROCEDURE FOR STORAGE,
20 TRANSMISSION, DISTRIBUTION AND GENERAL PLANT.

1 A. For some asset categories, the age of both surviving and retired property is known, and actuarial
2 analysis was utilized for these property groups. Actuarial analysis is described on Page 7 of
3 Exhibit DSR-3. For the remaining asset categories, the age of retirements is not known, and a
4 simulation analysis technique was utilized. Simulation analysis is described on Page 8 of Exhibit
5 DSR-3.

6
7 Q. HOW WERE THE IOWA CURVE SHAPES AND AVERAGE SERVICE LIFE SELECTIONS
8 MADE?

9
10 A. Summaries of the individual asset category life analysis indications were prepared and discussed
11 with Atmos personnel. Anomalies and trends were identified and engineering and operations
12 input was requested where necessary. The types of assets surviving and retiring were discussed.
13 A single average service life and Iowa curve was selected for each asset category reflecting the
14 combination of the historical results and the additional information obtained from the
15 engineering, accounting and operations personnel. This process is a part of the Evaluation phase
16 of the depreciation study.

17
18 Q. PLEASE EXPLAIN THE SALVAGE AND COST OF REMOVAL ANALYSIS.

1 A. Annual salvage amounts, cost of removal and retirements were provided by account for the
2 period 2000 though 2004. Annual salvage, cost of removal, and net salvage percentages were
3 calculated by dividing by the retirement amounts.

4
5 Q. WHAT ARE THE RESULTS OF YOUR DEPRECIATION STUDY FOR STORAGE PLANT?

6
7 A. For the Storage Plant function, the composite depreciation rate decreases from 3.18% to 2.11%.
8 Longer service lives and the reserve position influence the depreciation rate decrease.

9
10 Q. WHAT ARE THE RESULTS OF YOUR DEPRECIATION STUDY FOR TRANSMISSION
11 PLANT?

12 A. For the Transmission Plant function, the depreciation rate decreases from 2.56% to 1.41%. A
13 portion of the decrease in depreciation rate is attributable longer average service lives, and a
14 portion is attributable to the reserve position, whereby the accumulated depreciation to date is
15 higher than it would have been, presuming that assets retiring in the future follow the selected
16 patterns. The net dollar impact of the change in depreciation rate is a decrease in annual
17 depreciation expense of approximately \$39,000.

18
19 Q. WHAT ARE THE RESULTS OF YOUR DEPRECIATION STUDY FOR DISTRIBUTION
20 PLANT?

1

2 A. For the Distribution Plant function, the depreciation rate is unchanged from 2.90%. Based upon
3 a review of the prior depreciation study, both average service lives and net salvage factors have
4 changed. The impact on annual depreciation expense is an increase of approximately \$4,100.

5

6 Q. WHAT ARE YOUR DEPRECIATION STUDY RESULTS FOR GENERAL PLANT?

7

8 A. The composite depreciation rate decreases from 5.31% to 5.13%. In general, average service
9 lives have been shortened and the accumulated depreciation balance is greater than the
10 theoretical reserve. The impact of the change in rate is a decrease in annual depreciation expense
11 of approximately \$4,600.

12

13 Q. WHAT DEPRECIATION PROCEDURE ARE YOU RECOMMENDING IN THIS
14 PROCEEDING?

15

16 A. I am recommending the Equal Life Group ("ELG") procedure.

17

18 Q. WHY ARE YOU RECOMMENDING THE ELG PROCEDURE?

19

1 A. The ELG procedure provides the best matching of the recording of depreciation expense with the
2 consumption of the depreciable assets. Such a matching is desirable from both an accounting
3 and a regulatory perspective. The actual decision regarding the use of the ELG procedure was
4 made by Atmos management, after a careful review of the concepts, advantages and
5 shortcomings of various depreciation methodologies, and a desire for consistency with the
6 methodology approved in other jurisdictions where Atmos operates.

7
8 Q. PLEASE BRIEFLY EXPLAIN THE ELG PROCEDURE.

9
10 A. Certainly. The ELG procedure merely recognizes that assets within a group have different
11 service lives. This fact has been given recognition by adoption of retirement dispersion in
12 concert with an average service life selection for each depreciable asset category.

13
14 Q. CAN YOU PROVIDE A SIMPLE EXAMPLE OF THE DIFFERENCE BETWEEN THE ALG
15 PROCEDURE AND THE ELG PROCEDURE?

16
17 A. Yes, I can. Assume that we have a two unit asset group. Each unit costs \$10. Asset "A" has a
18 life of 2 years, and Asset "B" has a life of 8 years. The average service life of this group is 5
19 years. For purposes of this example, we shall ignore net salvage. The following Table illustrates
20 the difference between the ELG procedure and the Average Life Group ("ALG") procedure:

1

			ALG							ELG			
			Accrual			EOY Reserve				Accrual			EOY Reserve
	Asset “A”	Asset “B”	Totals	Asset “A”	Asset “B”	Totals	Asset “A”	Asset “B”	Totals	Asset “A”	Asset “B”	Totals	
1	2.00	2.00	4.00	2.00	2.00	4.00	5.00	1.25	6.25	5.00	1.25	6.25	
2	2.00	2.00	4.00	(6.00)	4.00	(2.00)	5.00	1.25	6.25	0.00	2.50	2.50	
3		2.00	2.00	(6.00)	6.00	0.00		1.25	1.25		3.75	3.75	
4		2.00	2.00	(6.00)	8.00	2.00		1.25	1.25		5.00	5.00	
5		2.00	2.00	(6.00)	10.00	4.00		1.25	1.25		6.25	6.25	
6		2.00	2.00	(6.00)	12.00	6.00		1.25	1.25		7.50	7.50	
7		2.00	2.00	(6.00)	14.00	8.00		1.25	1.25		8.75	8.75	
8		2.00	2.00	(6.00)	6.00	0.00		1.25	1.25		0.00	0.00	

2

3 Q. WHAT DOES THIS EXAMPLE ILLUSTRATE?

4

5 A. First and foremost, this example illustrates that the ELG procedure produces a better matching of
6 the pattern of depreciation relative to how the assets are consumed. This improved matching is
7 desirable from both a regulatory and an accounting perspective. This example also illustrates a
8 number of facts. There is retirement dispersion, which is recognized in the determination of
9 average service life. Neither asset has a life equal to the average service life. There is a deferral
10 of depreciation under the ALG procedure. The longer lived asset (Asset “B”) must accumulate
11 more depreciation to make up for the depreciation shortfall for the shorter lived asset (Asset

1 “A”). This is evident by the reserve position at the end of Period 2 for the ALG procedure. It is
2 negative! The depreciation under the ELG procedure reflects the life of each asset appropriately.
3 Fifth, the ELG depreciation rate changes over time as the asset mix changes.

4
5 Q. IF THE DEPRECIATION RATE CHANGES OVER TIME, HOW WOULD THIS CHANGE
6 BE RECOGNIZED IN FUTURE YEARS?

7
8 A. For this simple example, the depreciation rate does change over time to reflect the remaining mix
9 of assets and associated equal life at every point in time. In fact, the depreciation rate only
10 changes once, at the beginning of the third year. For Atmos, we are dealing with large,
11 continuous asset groups, with many hundreds of assets and a constantly changing asset mix. As
12 additions are made and retirements are recorded, the composite depreciation changes very little,
13 if at all. For example, for Account 376, Distribution – Mains, the depreciation rate for the
14 youngest vintage (2004) is 2.40%, as seen on the attached Exhibit DSR-6; the depreciation rate
15 for the oldest vintage (1930) is 1.18%. Thus the depreciation rate declines 122 basis points over
16 roughly 75 years. Moreover, as assets are added and replaced, and existing assets are retired, the
17 composite depreciation rate changes very little, if at all. Even so, periodic prospective
18 adjustments can be made in future rate filings. I have recommended to Atmos management that
19 periodic depreciation studies be conducted.

20
21 Q. DOES THE USE OF THE ELG PROCEDURE VERSUS THE ALG PROCEDURE HAVE
22 ANY IMPACT ON REVENUE REQUIREMENTS?

A. Yes. The above example is expanded below to include the impact on revenue requirements due strictly to depreciation expense and return:

<u>Period</u>	<u>Rate</u> <u>Base</u>	<u>ALG</u> Return @ <u>12%</u>	<u>Rev. Req</u>	<u>Rate</u> <u>Base</u>	<u>ELG</u> Return @ <u>12%</u>	<u>Rev. Reqs.</u>
1	20.00	2.40	6.40	20.00	2.40	8.65
2	16.00	1.92	5.92	13.75	1.65	7.90
3	12.00	1.44	3.44	7.50	0.90	2.15
4	10.00	1.20	3.20	6.25	0.75	2.00
5	8.00	0.96	2.96	5.00	0.60	1.85
6	6.00	0.72	2.72	3.75	0.45	1.70
7	4.00	0.48	2.48	2.50	0.30	1.55
8	2.00	0.24	2.24	1.25	0.15	1.40
Totals			<u>29.36</u>			<u>27.20</u>

Thus, the ELG procedure produces a lower, total-life revenue requirement of approximately 7.5% in this example.

Q. THIS IS A RATHER LIMITED LIFE EXAMPLE. DOES THE SAME RELATIONSHIP HOLD TRUE FOR THE LONG-LIVED ASSETS OF ATMOS?

A. Yes. As a matter of fact, the difference is more pronounced the longer the average service life is. This is because the return component has a longer time to build, making the absolute contribution to return greater under ALG than under ELG.

Q. WHAT ARE THE BENEFITS OF THE ELG PROCEDURE?

A. First and foremost, the individual asset categories are depreciated over their respective lives. This is consistent with item depreciation, and this allocation of cost provides the most

1 appropriate matching between the recording of depreciation and asset consumption. Second, the
2 ELG procedure gives appropriate recognition to the fact that assets within a group retire at
3 different ages. Third, the ELG procedure produces a lower total life revenue requirement to the
4 benefit of customers. Fourth, the ELG procedure produces a systematic and rational allocation
5 of cost in a straight-line method over the life of each asset, consistent with generally accepted
6 accounting principles ("GAAP").

7
8 Q. ARE THERE CRITICISMS OF THE ELG PROCEDURE?

9
10 A. Yes, there are, but in my view these criticisms are either misplaced or asserted due to a lack of
11 understanding of the ELG procedure.

12
13 Q. WHAT ARE THESE CRITICISMS AND WHY ARE THEY MISPLACED OR ASSERTED
14 DUE TO MISUNDERSTANDING?

15
16 A. One common criticism is that the ELG procedure is not widely accepted. This may be true for
17 certain segments of the utility environment, but should certainly not be used as a basis for
18 denying its use. The beneficial features of the ELG procedure as described above should be the
19 basis for its acceptance and approval. A second common criticism is that the ELG procedure
20 results in accelerated depreciation. This is patently incorrect and is demonstrated in the above
21 example. While the ELG depreciation rate in early years may be higher than the ALG
22 depreciation rate, this does not equate to accelerated depreciation. In fact, the ELG rate in later
23 years is less than the ALG rate. Using the same logic, this would say that the ALG procedure

1 produces accelerated depreciation. I believe that the ELG procedure produces the correct
2 depreciation expense.
3

4 Q. ARE THERE OTHER FEATURES OF THE ELG PROCEDURE THAT ARE DESIRABLE?
5

6 A. Yes. Robley Winfrey, the "father" of the Iowa curves, in a letter dated February 1, 1975 to Dr.
7 W. Chester Fitch, Center for Depreciation Studies, Western Michigan University, wrote:

8 In the 43 years, 1932 to 1975, that have passed since I developed the concepts and
9 procedures that led to the publication in 1942 of *Depreciation of Group Properties*, I
10 have continued to have faith that the unit summation procedure of applying the concept
11 of the so-called average life method of computing annual depreciation cost for accounting
12 purposes would someday prevail. Now, the discussion and publications of the past ten
13 years are giving evidence that my 1932 expectations are being upheld.
14

15 The beginning of my study of group property depreciation was undertaken in the belief
16 that the commonly applied method of applying the straight line method to group
17 properties, as contrasted to single units of property in which terms the method is usually
18 defined and explained, results in inappropriate answers. But the analysts and accountants
19 were not aware of the true character of their results and their effects on the depreciation
20 reserve balance. But the publication in 1942 created no awareness and made no
21 impression on the legal and business actions involving depreciation within the subjects of
22 accounting, property valuation, utility rate making, income tax, and depreciation reserves.
23

24 What kept me on course 1928 to 1932 was the firm conviction that any depreciation
25 procedure using a zero discount rate and the concept of average life as applied to single
26 units of property, should produce for a fully stabilized property, a depreciation reserve
27 credit balance of 50 percent of the cost new (depreciation base) of the surviving property.
28 The unit summation procedure (ELG) (emphasis by Mr. Roff) gives that 50 percent
29 result for all properties regardless of the character of the distribution of the retirement
30 over total life of a vintage group.
31

32 I think of no reasons why the unit summation method should not be used by public
33 utilities, private industries, for income tax returns, and other uses. On the other hand, I
34 can think of good reasons for using the unit summation procedure in cost accounting
35 applications to the preference of other methods and procedures. Now that we are in the
36 computer age, the details of the calculation can no longer be supported as an
37 administrative objection to using the unit summation procedure.
38

1 The Portland (Oregon) General Electric Court Case and the recent proposal by the
2 American Telephone and Telegraph Company of their equal life group (a different name
3 for unit summation) procedure are evidence that the unit summation procedure is now an
4 accepted and legally approved method of cost accounting for depreciation expense. We
5 can look ahead for wider adoption of the procedure in public utility regulation and in
6 private business.²
7
8

9 Q. HAVE YOU EVER TESTIFIED IN A LITIGATED PROCEEDING WHERE THE ELG
10 PROCEDURE WAS AN ISSUE AND WAS APPROVED BY A REGULATORY BODY?
11

12 A. Yes. I testified in a case on behalf of Lone Star Gas Pipeline Company before the Railroad
13 Commission of Texas (GUD Docket No. 8664). After extensive cross-examination and
14 discovery, the Commission found that the ELG procedure provided a better matching between
15 the recording of depreciation and asset consumption than the alternative Average Life Group
16 (ALG) procedure. This procedure has repeatedly been approved in Texas.
17

18 Q. ARE YOU PROPOSING ANY CHANGES IN DEPRECIATION METHODOLOGY FOR
19 ANY OF THE PLANT ACCOUNTS?
20

21 A. Yes. I recommend that Atmos change from a depreciation accounting methodology to a vintage
22 amortization accounting methodology for certain plant accounts.
23

24 Q. TO WHICH ACCOUNTS DOES THIS RECOMMENDED CHANGE APPLY?
25

26 A. The vintage amortization accounting methodology would be applied to the following accounts:

² *The Estimation of Depreciation*, Fitch, Wolf and Bissinger, Center for Depreciation Studies, Western Michigan University, 1975, pages 45 and 46.

<u>Account</u>	<u>Description</u>
<u>GENERAL PLANT</u>	
391	Office Furniture and Equipment
393	Stores Equipment
394	Tools, Shop and Garage Equipment
397	Communication Equipment
398	Miscellaneous Equipment

Q. WHY IS THIS CHANGE BEING PROPOSED FOR THESE ACCOUNTS?

A. This change is being proposed for four reasons. First, these accounts generally represent items of small dollar unit prices, with similar mortality characteristics. Second, the percentage of total plant represented by these accounts is minimal, only about 1.1% of total depreciable plant balances. Third, the proposed method of accounting will eliminate the individual recording and tracking by Property Accounting of thousands of items. Fourth, this approach has previously been approved by this Commission.

Q. PLEASE EXPLAIN THE PROPOSED ACCOUNTING METHODOLOGY?

A. The Company would use a vintage (year of addition) accounting methodology to record assets in these accounts. Under the proposed method of accounting, amounts recorded as additions to utility plant would be recorded in the Continuing Property Records (CPR) of the Company at a vintage account level only (i.e., total by year), as opposed to tracking assets individually. These vintage amounts would then be amortized over their average service life, as determined in this

1 depreciation study (See Schedule 3 of Exhibit DSR-3). When each vintage amount reaches its
2 average service life (i.e. the amount is fully amortized), the original cost in that vintage amount
3 will be retired from utility plant in service.
4

5 Q. HAS THE VINTAGE ACCOUNTING METHODOLOGY BEEN APPROVED IN OTHER
6 JURISDICTIONS OF WHICH YOU ARE AWARE?
7

8 A. Yes, virtually all of my clients utilize this methodology for the selected plant accounts. I am not
9 aware of any state jurisdiction that has not authorized this accounting methodology. In addition,
10 the Federal Energy Regulatory Commission granted a blanket approval for this methodology in
11 Accounting Release AR-15, provided that certain conditions are met. Both Atlanta Gas Light
12 Company and Georgia Power Company have been using a form of vintage accounting for certain
13 accounts for several years.
14

15 Q. WHAT ARE THOSE CONDITIONS?
16

17 A. These conditions are that the individual classes of assets contain high volume, low value items;
18 that there is no change in existing retirement unit definitions; that the cost of each vintage group
19 is amortized to depreciation expense over its useful life; that there is no change in depreciation
20 rates resulting from the adoption of vintage amortization accounting; that interim retirements are
21 not recognized; that salvage and cost of removal is included in the accumulated provision for
22 depreciation and assigned to the oldest vintage first; and that retirements are recorded for those
23 assets whose age exceeds average service life at the time of adoption. The Company's proposal

1 will meet all of these conditions upon approval of the depreciation rates recommended in this
2 proceeding for these General Plant asset categories.

3
4 Q. PLEASE SUMMARIZE AGAIN WHY THE COMPANY IS SEEKING THE APPROVAL OF
5 THE USE OF THE ELG PROCEDURE.

6
7 A. First, Atmos believes that the ELG procedure provides the best matching between the recording
8 of depreciation with asset consumption. This was the finding before the Railroad Commission of
9 Texas in the Lone Star Pipeline Case (Docket No. GUD 8664). Second, Atmos desires
10 consistency in depreciation methodology for each of its jurisdictions. Third, Atmos and I believe
11 that the ELG procedure more correctly allocates cost over the life of the assets.

12
13 Q. WHAT ARE THE RESULTS OF YOUR STUDY FOR THE TOTAL COMPANY?

14
15 A. At the total Company depreciable level, the composite depreciation rate decreases from 2.96% to
16 2.87%, or approximately \$88,000 less depreciation expense on an annual basis.

17
18 Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

19
20 A. I recommend that Atmos adopt the depreciation rates shown on Schedule 1 of Exhibit DSR-3
21 and that this Commission approves their use. I base this recommendation on the fact that I have
22 conducted a comprehensive depreciation study, giving appropriate recognition to historical

1 experience, recent trends and Company expectations. My study results in a fair and reasonable
2 level of depreciation expense which, when incorporated into a revenue stream, will provide the
3 Company with adequate capital recovery until such time as a new depreciation study indicates a
4 need for change.

5
6 Q. IS THERE ANY OTHER ISSUE THAT YOU WISH TO ADDRESS?

7
8 A. Yes. In other proceedings before this Commission, the Adversary Staff has proposed a unique
9 calculation for the net salvage allowance for Mains and Services. I ask the Commission to refer
10 to the record in the Atlanta Gas Light Company proceeding (Docket No. 18638-U). My study of
11 net salvage for the Mains and Services accounts gives appropriate recognition to the cause
12 (retirement) and effect (cost of removal) relationships as required by the accounting rules of this
13 Commission, as well as accepted industry practice.

14
15 Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

16
17 A. Yes, it does.

EXHIBIT DSR-1Academic Background

Donald S. Roff graduated from Rensselaer Polytechnic Institute with a Bachelor of Science degree in Management Engineering in 1972.

Mr. Roff has also received specialized training in the area of depreciation from Western Michigan University's Institute of Technological Studies. This training involved three forty-hour seminars on depreciation entitled "Fundamentals of Depreciation", "Fundamentals of Service Life Forecasting" and "Making a Depreciation Study" and included such topics as accounting for depreciation, estimating service life, and estimating salvage and cost of removal.

Employment and Professional Experience

Following graduation, Mr. Roff was employed for eleven and one-half years by Gilbert Associates, Inc., as an engineer in the Management Consulting Division. In this capacity, he held positions of increasing responsibility related to the conduct and preparation of various capital recovery and valuation assignments.

In 1984, Mr. Roff was employed by Ernst & Whinney and was involved in several depreciation rate studies and utility consulting assignments.

In 1985, Mr. Roff joined Deloitte Haskins & Sells (DH&S), which, in 1989, merged with Touche Ross & Co. to form Deloitte & Touche. In 1995, Mr. Roff was appointed as a Director with Deloitte & Touche.

During his tenure with Gilbert Associates, Inc., Ernst & Whinney, DH&S and Deloitte & Touche, Mr. Roff has participated in or directed depreciation studies for electric, gas, water and steam heat utilities, pipelines, railroad and telecommunication companies in over 30 states, several Canadian provinces and Puerto Rico. This work requires an in-depth knowledge of depreciation accounting and regulatory principles, mortality analysis techniques and financial practices. At these firms, Mr. Roff has had varying degrees of responsibility for valuation studies, development of depreciation accrual rates, consultation on the unitization of property records, and other studies concerned with the inspection and appraisals of utility property, preparation of rate case testimony and support exhibits, data responses and rebuttal testimony, in addition to appearing as an expert witness.

Industry and Technical Affiliations

Mr. Roff is a registered Professional Engineer in Pennsylvania (by examination).

Mr. Roff is a member of the Society of Depreciation Professionals and a Certified Depreciation Professional, and a Technical Associate of the American Gas Association (A.G.A.) Depreciation Committee. He currently serves as the lead instructor for the A.G.A.'s Principles of Depreciation Course.