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JAN 26 2012

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

by State Corporation Commission of Kansas

IN THE MATTER OF THE APPLICATION)	Docket No.
OF ATMOS ENERGY CORPORATION)	
FOR REVIEW AND ADJUSTMENT OF ITS)	
NATURAL GAS RATES)	12-ATMG-XXX-RTS

DIRECT TESTIMONY

OF

DANE A. WATSON, PE CDP

PARTNER,

ALLIANCE CONSULTING GROUP

ON BEHALF OF

ATMOS ENERGY CORPORATION – KANSAS DIVISION

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BEFORE THE

KANSAS CORPORATION COMMISSION

12-ATMG-__--RTS

PREPARED DIRECT TESTIMONY

OF

DANE A. WATSON

On Behalf of

ATMOS ENERGY CORPORATION

1		I. POSITION AND QUALIFICATIONS
2	Q.	PLEASE STATE YOUR NAME AND ADDRESS.
3	A.	My name is Dane A. Watson, and my business address is 1410 Avenue K, Suite
4		1105B, Plano, Texas 75074. I am a Partner of Alliance Consulting Group.
5		Alliance Consulting Group provides consulting and expert services to the utility
6		industry.
7	Q.	WHAT IS YOUR EDUCATIONAL BACKGROUND?
8	A.	I hold a Bachelor of Science degree in Electrical Engineering from the University
9		of Arkansas at Fayetteville and a Master's Degree in Business Administration
10		from Amberton University.
11	Q.	DO YOU HOLD ANY SPECIAL CERTIFICATION AS A
12		DEPRECIATION EXPERT?
13	A.	Yes. The Society of Depreciation Professionals ("the Society") has established
14		national standards for depreciation professionals. The Society administers an
15		examination and has certain required qualifications to become certified in this

ı		neid. I met an requirements and have become a Certified Depreciation
2		Professional ("CDP").
3	Q.	PLEASE OUTLINE YOUR EXPERIENCE IN THE FIELD OF
4		DEPRECIATION.
5	A.	Since graduation from college in 1985, I have worked in the area of depreciation
6		and valuation. I founded Alliance Consulting Group in 2004 and am responsible
7		for conducting depreciation, valuation and certain accounting-related studies for
8		utilities in various industries. My duties relate to preparing depreciation studies
9		and include (1) assembling and analyzing historical and simulated data, (2)
10		conducting field reviews, (3) determining service life and net salvage estimates,
11		(4) calculating annual depreciation, (5) presenting recommended depreciation
12		rates to utility management for its consideration, and (6) supporting such rates
13		before regulatory bodies.
14		My prior employment from 1985 to 2004 was with Texas Utilities
15		("TXU"). During my tenure with TXU, I was responsible for, among other
16		things, conducting valuation and depreciation studies for the domestic TXU
17		companies. During that time, I served as Manager of Property Accounting
18		Services and Records Management in addition to my depreciation responsibilities.
19		I have twice been Chair of the Edison Electric Institute ("EEI") Property
20		Accounting and Valuation Committee and have been Chairman of EEI's
21		Depreciation and Economic Issues Subcommittee. I am a Registered Professional
22		Engineer ("PE") in the State of Texas and a Certified Depreciation Professional. I
23		am a Senior Member of the Institute of Electrical and Electronics Engineers

1		("IEEE") and have held numerous offices on the Executive Board of the Dallas
2		Section of IEEE. I am also Past President of the Society of Depreciation
3		Professionals.
4	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY
5		COMMISSIONS?
6	A.	I have testified before the Railroad Commission of Texas ("Commission") in the
7		following Dockets: Gas Utility Docket ("GUD") Nos. 8976, 9145-9148, 9225,
8		9313, 9400, 9670, 9762, 9869, 9902, 10000, 10038, and 10041 on behalf of
9		Atmos Pipeline-Texas (formerly known as TXU Lone Star Pipeline), Atmos Mid-
10		Tex Division (formerly known as TXU Gas Distribution), CenterPoint Energy
11		Houston Gas, CenterPoint South Texas, and Atmos West Texas. I have appeared
12		before numerous other state and federal agencies in my 27 year career in
13		performing depreciation studies. I have conducted depreciation studies, filed
14		written testimony and/or testified before the following Commissions:
15		Before the Regulatory Commission of Alaska Docket 9-015 on behalf of
16		Alaska Electric Light and Power, Docket 10-043 on behalf of CUC and GHU, and
17		Docket 10-070 on behalf of Inside Passage Electric Cooperative.
18		Before the Public Utility Commission of Texas in Docket Nos. 11735,
19		12160, 15195, 16650, 18490, 20285, 22350, 23640, 24040, 32766, 34040, 35763,
20		35717, 36633, 38147, 38339, 38480, 39896, and 40020 on behalf of TXU Electric
21		Company, TXU Fuel Company, TXU Mining Company, Oncor Electric Delivery,
22		Texas New Mexico Power, CenterPoint Energy Houston Electric, Southwestern
23		Public Service, City of San Antonio Public Service Board, Entergy Texas, and

1	Lone Star Transmission.
2	Before the Arkansas Public Service Commission in Docket 06-161-U on
3	behalf of CenterPoint Energy Arkansas Gas,
4	Before the Louisiana Public Service Commission in Docket U-30689 on
5	behalf of Cleco Corporation,
6	Before the Michigan Public Service Commission in Docket U-15629 on
7	behalf of Consumers Energy, Docket U-15989 on behalf of Upper Peninsula
8	Power Company, Docket U-15963 for Michigan Gas Utilities Corp, Docket U-
9	16054 on behalf of Consumers Energy, Docket U-16055 on behalf of Consumers
0	Energy and DTE, and Dockets U-16536 and U-16938 on behalf of Consumers
11	Energy.
2	Before the New Mexico Public Regulation Commission in Docket 07-
13	00319-UT on behalf of Southwestern Public Service,
14	Before the Minnesota Public Utilities Commission in Docket E015/D-08
15	422 on behalf of Minnesota Power,
16	Before the Public Service Commission of Wisconsin in Docket 05-DU-
17	101 on behalf of WE Energies,
18	Before the Mississippi Public Service Commission of in Docket 09-UN-
19	334 on behalf of CenterPoint Energy Resources Corp,
20	Before the Colorado Public Utilities Commission in Dockets 06-234-
21	EG,09AL-299E, 11-AL-947E on behalf of Public Service of Colorado,
22	Before the North Dakota Public Service Commission in Docket PU-07-
23	776 on behalf of Northern States Power.

1		Before the Georgia Public Service Commission in Docket 31647 on behalf
2		of Atlanta Gas Light.
3		Before the Wyoming Public Service Commission in Docket 30022-148-
4		GR1031647 on behalf of Source Gas.
5		Before the California Public Utilities Commission in Docket A1011015 on
6		behalf of Southern California Edison.
7		Before the Federal Energy Commission in Docket RP 10-021 on behalf of
8		Florida Gas Transmission, RP 10-896 on behalf of Granite State Gas
9		Transmission, and ER12-12 on behalf of American Transmission Company.
10		I have also appeared in Federal Energy Regulatory Commission Docket
11		No. RM02-07 as an industry panelist on asset retirement obligations.
12		
13		II. PURPOSE OF DIRECT TESTIMONY
14	Q.	WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
15		PROCEEDING?
16	A.	I sponsor and support the depreciation studies performed for Atmos Energy
17		Company - Kansas Division ("Atmos Energy" or "Company") and its Shared
18		Services Unit ("SSU"). In addition, I sponsor and support the Company's request
19		to implement Vintage Group Amortization for its Kansas General Amortized
20		Plant Assets in FERC Accounts 391-399 (excludes Accounts 392 and 396). This
21		request has been taken into account to develop new depreciation rates that are
22		representative of Atmos Energy's actual operations.
		ARE YOU SPONSORING ANY ATTACHMENTS OR EXHIBITS IN THIS

1		PROCEEDING?
1		
2	A.	Yes. I am sponsoring the following attachments and exhibits:
3		• DAW Attachment 1 – Comparison of Existing vs. Proposed Accrual Rates
4		• DAW Attachment 2 – Comparison of Life Parameters
5		• DAW Attachment 3 – Comparison of Net Salvage Parameters
6		DAW-1 – Atmos Energy Company – Kansas Division's Gas Depreciation
7		Rate Study at September 30, 2011
8		DAW-2 – Atmos Energy Company – Shared Services Unit Depreciation
9		Rate Study at September 30, 2010
10	Q.	WERE THESE EXHIBITS PREPARED BY YOU OR UNDER YOUR
11		SUPERVISION AND CONTROL?
12	A.	Yes.
13	Q.	PLEASE SUMMARIZE YOUR CONCLUSIONS.
14	A.	The Atmos Energy Kansas and SSU depreciation studies and analysis that I have
15		performed support establishing depreciation rates at the level recommended in my
16		testimony. The Kansas Division depreciation rate study is attached to my
17		testimony as Exhibit DAW-1. The Kansas Division study shows that an increase
18		in the annual depreciation expense for Atmos Energy's assets of approximately
19		\$3.92 million per year is needed to ensure that the appropriate amount of

depreciation expense is collected by the Company. This amount was determined

by comparing the depreciation expense between the current rates and the

proposed rates as shown in DAW Attachment 1 at September 30, 2011, and in

Appendix A of Exhibit DAW-1. The change in procedure, Average Life Group

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1		("ALG") to Equal Life Group ("ELG") and the increase in removal cost
2		experienced by the Company in Account 380 Services, are the primary drivers for
3		the increase in expense. The Company recommends the continued use of the
4		normal or traditional method for determining net salvage, for all accounts, in
5		setting its depreciation rates. As discussed below, the Company believes the
6		traditional approach is the most appropriate method to use in determining
7		depreciation rates. The SSU depreciation rate study is attached as Exhibit DAW-
8		2.
9	Q.	DOES THE DEPRECIATION STUDY YOU SPONSOR IN THIS CASE
0		REFLECT THE MOST CURRENT DATA AVAILABLE FOR THE
1		ATMOS KANSAS DIVISION ASSETS?
2	A.	Yes. The data used reflects the most recent experience and future expectations for
3		life and net salvage characteristics for assets in Atmos' Kansas Division as of
14		September 30, 2011.
15	Q.	ARE YOU RECOMMENDING ANY CHANGE IN DEPRECIATION
16		RATES FOR ASSETS BOOKED AT THE ATMOS ENERGY
17		CORPORATE LEVEL?
18	A.	Yes. Atmos Energy has updated the depreciation study for its SSU, which
19		contains changes in depreciation rates for those accounts booked at an Atmos
20		Energy Corporate level. That study is included as Exhibit DAW-2 and is as of
21		September 30, 2010.
22		

III. ATMOS KANSAS DIVISION GAS DEPRECIATION STUDY

2	O.	DID	YOU	PREPARE	THE GA	AS DEPRI	ECIATION	STUDY?
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A.

A.

- Yes. The Atmos Kansas Division Gas Depreciation Study is attached to my
 testimony as Exhibit DAW-1. The study in Exhibit DAW-1 analyzes the life and
- 5 net salvage percentage for Atmos Energy's gas assets at September 30, 2011.

6 Q. WHAT PROPERTY IS INCLUDED IN THE DEPRECIATION STUDY?

There are four general classes, or functional groups, of depreciable property: the Storage Plant, Transmission Plant, Distribution Plant and General Plant property. Storage Plant functional group primarily consists of facilities that store natural gas for use as needed. Transmission Plant functional group primarily consist of high and intermediate pressure transmission assets that deliver gas to various receipt points or city gates. The Distribution Plant functional group primarily consists of lines and associated facilities used to distribute gas within the areas served by Atmos Energy. General Plant property, both depreciated and amortized, is not location specific but is used to support the overall distribution of gas to its customers.

Q. WHAT TYPES OF ASSETS ARE CLASSIFIED IN THE GENERAL PLANT DEPRECIATED AND AMORTIZED FUNCTIONS?

The General Plant functional group has been split into two groups, depreciated and amortized. The General Plant Depreciated functional group contains facilities and equipment associated with the overall operation of the business, such as office buildings, warehouses, service centers, transportation and power operated equipment. The General Plant Amortized functional group contains assets

1	associated w	ith the	overall	operation	of the	business,	, such as offic	e and	computer
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- 2 equipment, stores, tools, and other miscellaneous equipment. All General Plant is
- 3 used in overall operations of the business rather than with a specific Underground
- 4 Storage or Transmission classification.
- 5 Q. PLEASE DESCRIBE THE COMPANY'S REQUEST TO IMPLEMENT
- 6 VINTAGE GROUP AMORTIZATION FOR ITS GENERAL AMORTIZED
- 7 PLANT ASSETS IN FERC ACCOUNTS 391-399 (EXCLUDES
- 8 ACCOUNTS 392 AND 396).
- 9 A. Consistent with Federal Energy Regulatory Commission ("FERC") Rule AR-15,
- this depreciation study develops depreciation expense for Vintage Group
- Amortization in Accounts 391 through 399 (excluding Accounts 392 and 396).
- This process provides for the amortization of general plant over the same life as
- recommended in this study (with a separate amortization to allocate deficit or
- excess reserve). At the end of the amortized life, property will be retired from the
- books.
- 16 Q. WILL THE IMPLEMENTATION OF VINTAGE GROUP
- 17 AMORTIZATION AFFECT THE ANNUAL DEPRECIATION EXPENSE
- 18 ACCRUED BY THE COMPANY?
- 19 A. No. Implementation of this approach will not affect the annual expense accrued
- by the Company. This approach simply provides for the timely retirement of
- assets and the simplification of accounting for general property.

1	Q.	HAVE OTHER REGULATORY AUTHORITIES APPROVED THE
2		IMPLEMENTATION OF VINTAGE GROUP AMORTIZATION IN
3		OTHER RATE PROCEEDINGS?
4	A.	Yes. Both the FERC and several state public utility commissions have approved
5		this approach. Most recently, Atmos received authorization for Vintage Group
6		Amortization in Colorado Docket No. 09AL-507G and in Texas GUD 10000.
7		Atmos also plans to seek approval, where applicable, in its other jurisdictions with
8		each depreciation study filing.
9	Q.	WHAT IS THE CAUSE OF THE INCREASE IN DEPRECIATION
0		EXPENSE IN GENERAL PLANT AMORTIZED?
11	A.	Even though there was little change in lives for these accounts, expense related to
2		General Plant Amortized accounts has increased slightly. The increased expense
13		in General Plant Amortized is due primarily to the depreciation reserve position.
14		The change to amortization had no material effect on the depreciation rates
15		recommended for these accounts.
16	Q	WHAT DEFINITION OF DEPRECIATION HAVE YOU USED FOR THE
17		PURPOSES OF CONDUCTING A DEPRECIATION STUDY AND
18		PREPARING YOUR TESTIMONY?
19	A.	The term "depreciation," as used herein, is considered in the accounting sense;
20		that is, a system of accounting that distributes the cost of assets, less net salvage
21		(if any), over the estimated useful life of the assets in a systematic and rational
22		manner. Depreciation is a process of allocation, not valuation. Depreciation
23		expense is systematically allocated to accounting periods over the life of the

properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. Thus, depreciation is considered an expense or cost, rather than a loss or decrease in value. The Company accrues depreciation based on the original cost of all property included in each depreciable plant account. On retirement, the full cost of depreciable property, less the net salvage amount, if any, is charged to the depreciation reserve.

8 Q. PLEASE DESCRIBE YOUR DEPRECIATION STUDY APPROACH.

A.

I conducted the depreciation studies in four phases as shown in my Exhibit DAW
1. The four phases are: Data Collection, Analysis, Evaluation, and Calculation.

During the initial phase of the study, I collected historical data to be used in the analysis. After the data was assembled, I performed analyses to determine the life and net salvage percentage for the different property groups being studied. As part of this process, I conferred with field personnel, engineers, and managers responsible for the installation, operation, and removal of the assets to gain their input into the operation, maintenance, and salvage of the assets. The information obtained from field personnel, engineers, and managerial personnel, combined with the study results, was then evaluated to determine how the results of the historical asset activity analysis, in conjunction with the Company's expected future plans should be applied. Using all of these resources, I then calculated the depreciation rate for each function.

Q. WHAT DEPRECIATION METHODOLOGY DID YOU USE?

1	A.	The s	traight-line	(method),	Equal	Life	Group	("ELG")	(procedure),	and
2		remain	ning-life (tecl	hnique) dep	reciatio	n syste	em was	employed	to calculate an	ınual
3		and acc	crued deprec	iation in thi	s study.					

4 Q. HOW ARE THE DEPRECIATION RATES DETERMINED USING THE

5 ELG PROCEDURE?

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A.

In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective equal life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates are shown in Appendix B of my Exhibit DAW-1.

16 Q. HOW DOES THE ELG PROCEDURE DIFFER FROM THE ALG

PROCEDURE?

18 A. The ALG or Broad Group procedure, as it is commonly referred to in depreciation
19 literature, considers all units of plant within a particular depreciation category,
20 usually a plant account, sub-account or function to be considered as one group.
21 The ALG procedure treats each vintage in the group as having identical life
22 characteristics thus producing an averaging affect for the life of the group. The
23 ELG procedure groups plant units according to their service lives. Because the

	ELG procedure accrues the cost of the shorter-lived assets during their service
	lives in one group and, accrues the cost for the longer-lived assets during their
	service lives in a separate group, accruals for the longer-lived assets are not
	burdened by the short-lived assets.
Q.	WOULD YOU PROVIDE A SIMPLE EXAMPLE OF THE DIFFERENCE
	BETWEEN THE ALG AND ELG PROCEDURES?
A.	Yes. The use of the ELG procedure, rather than the ALG procedure results in a
	better matching of asset utilization with asset recovery (i.e. more appropriately
	matches cost recovery with consumption). The 2-unit example below illustrates
	the recovery patterns using both the ELG procedure and the ALG procedure.
	Example detailed information
	There are two units with each unit costing \$1,000. Unit A will be in
	service for 5 years and Unit B will be in service for 15 years. There is no net
	salvage anticipated for these units.
	ALG
	If depreciation is determined using the ALG procedure, then it would be
	determined that the average service life for the two units is 10 years $((5+15)/2)$
	and the depreciation rate is 10% (1/10 years). Therefore, the total account
	original cost is \$2,000 and the annual depreciation amount is \$200 (\$2,000 times
	10%). At the end of year 5, the total annual accrual for the account is \$1,000 (200
	times 5). Also affecting the accumulated depreciation is the retirement of Unit A
	for \$1,000. Thus, the accumulated depreciation for the account at the end of year
	5 is zero (\$1,000 annual accruals minus \$1,000 retirements). At the beginning of

year 6, we have \$1000 of original cost, an accumulated depreciation level of \$0 and one unit that has one-third of its service life expired. With the ALG procedure, the 10% rate or \$100 of annual expense is booked for years 6 through 15 and at the end of year 15 Unit B is retired. The utility collected \$1,000 in annual accruals during years 6 through 15 and made a retirement of \$1,000 at year 15, so its original cost and accumulated depreciation are both zero, so full recovery was achieved. However, if the focus is placed on the end of year 5, the utility had one unit remaining with two-thirds of its life expectancy still to be consumed, but 100% of the investment to be recovered. This example is demonstrated in Table 1 below.

ALG

	Gross	Depreciation		Accumulated
Year	Plant	Accrual	Retirement	Depreciation
0				0.00
1	2,000.00	200.00		200.00
2	2,000.00	200.00		400.00
3	2,000.00	200.00		600.00
4	2,000.00	200.00		800.00
5	2,000.00	200.00	1,000.00	0.00
6	1,000.00	100.00		100.00
7	1,000.00	100.00		200.00
8	1,000.00	100.00		300.00
9	1,000.00	100.00		400.00
10	1,000.00	100.00		500.00
11	1,000.00	100.00		600.00
12	1,000.00	100.00		700.00
13	1,000.00	100.00		800.00
14	1,000.00	100.00		900.00
15	1,000.00	100.00	1,000.00	0.00
16	0.00			

Table 1

EL

In contrast, if depreciation is determined using the ELG procedure, then
the depreciation expense would be recorded quite differently. Using the same two
unit example to illustrate the ELG calculation, Unit A will be in service for 5
years, therefore it will have a 20% (100 divided by 5 years) rate. Unit B will be in
service for 15 years, and will have a 6.67% (100 divided by 15 years) rate.
Consequently, depreciation expense for years 1 through 5 would be \$200 (\$1,000
times 20%) for Unit A and \$66.70 (\$1,000 times 6.67%) for Unit B. At the end of
year 5, the total annual accruals would be approximately \$1,334 (\$1,000 for Unit
A and \$334 for Unit B). Unit A would be retired at the end of year 5, so the
accumulated depreciation at the end of year 5 is \$334 (\$1,334 of annual accruals
minus \$1,000 retirement). In years 6 through 15, the annual accruals would be
\$66.67 for a total to \$666 for the 10-year period. Thus, at the end of year 15, the
accumulated depreciation is \$0 (\$1,000 of accruals minus the \$1,000 retirement of
Unit B), so full recovery was once again achieved. However, looking back at the
end of year 5 in this example, recovery of Unit A matched consumption of Unit A
at the time the unit went out of service, and more importantly Unit B has survived
one-third of its expected life and recovery was one-third (334/1000) of the
expected recovery. This example is demonstrated in Table 2 below.

Voor	Gross Plant	Depreciation Accrual	Retirement	Accumulated Depreciation
<u>Year</u>	Flant	Acciual	Ketii ement	
0				0
1	2,000.00	266.67		266.67
2	2,000.00	266.67		533.33
3	2,000.00	266.67		800.00
4	2,000.00	266.67		1,066.67
5	2,000.00	266.67	1,000.00	333,33
6	1,000.00	66.67		400.00
7	1,000.00	66.67		466.67
8	1,000.00	66.67		533.33
9	1,000.00	66.67	-	600.00
10	1,000.00	66.67		666.67
11	1,000.00	66.67		733.33
12	1,000.00	66.67		800.00
13	1,000.00	66.67		866.67
14	1,000.00	66.67		933.33
15	1,000.00	66.67	1,000.00	0.00
16	. 0			

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Table 2

A much more appropriate recovery pattern is recorded using the ELG procedure.

Q. DO YOU HAVE COMPELLING REASONS FOR USING ELG IN YOUR RATE CALCULATIONS AS COMPARED TO ALG?

- 7 A. Yes. There are several reasons:
 - (1) As shown above, the ELG procedure is a more theoretically accurate method of investment recovery than the alternative ALG procedure;
 - (2) ELG has been approved by the Interstate Commerce Commission

 ("ICC") (now known as the Surface Transportation Board ("STB")), the Federal

 Communications Commission ("FCC"), and other state commissions around the

 country. Specifically, the Company has received authorization in numerous other

1		jurisdictions. In Texas, the Railroad Commission has repeatedly endorsed and
2		approved the use of the ELG procedure;
3		(3) Transitioning back to ELG does not create any issues and provides
4		consistency with the utilities in other stated owned by the parent company;
5		(4) The expected future adoption of the International Financial Reporting
6		Standards ("IFRS") in the United States is likely to result in the acceptance of the
7		ELG procedure as the superior method based on early adoption discussions in
8		Canada which is scheduled to move to IFRS before the United States; and
9		(5) Using the ELG procedure depreciation allows the Company to utilize
10		its assets and recover its assets in the most appropriate manner
11	Q.	ONE OF THE CLAIMS USED AGAINST THE ELG PROCEDURE IS
12		THAT THE DATA REQUIREMENT IS GREATER. DO YOU AGREE?
13	A.	No I do not. There are some who would attempt to make that claim but the fact is
14		the quality and detail of data for any depreciation study is the same regardless of
15		the procedure being used.
16	Q.	ARE THERE OTHER CLAIMS AGAINST THE USE OF THE ELG
17		PROCEDURE YOU WOULD LIKE TO ADDRESS?
18	A.	Yes there are several claims I would like to address. First, is the claim the ELG
19		procedure accelerates depreciation. This claim is misplaced. In fact, the ELG
20		procedure is merely a different procedure used in calculating straight-line method
21		depreciation rates, which is the predominant if not required method used by the
22		industry and its regulators. The purpose of the ELG procedure (or for that matter
23		the ALG procedure) is to calculate the theoretical reserve requirement which

determines (on a theoretical basis) the amount of depreciation reserve a Company
would have collected were the assumed parameters in place throughout the
history of the current investment. After the theoretical reserve requirement has
been calculated, the annual accrual rate is established. The annual accrual rate is
the amount the Company will need to collect on an annual basis to recover the
remaining plant investment less accrued depreciation over the remaining life of
the assets. Typically, the annual accrual rate is calculated, as is the case of Atmos
Kansas, using a straight- line remaining life calculation. Often simple examples
are produced in an attempt to suggest the ELG procedure is an accelerated
procedure. However, many examples can also be produced to demonstrate that it
is not an accelerated procedure. The truth is that the ELG procedure is a straight-
line depreciation method, not an accelerated method, and is supported by
authoritative sources. Secondly, there have been claims that rates derived from
the ELG procedure are time sensitive. This criticism is not valid. All
depreciation rates whether ALG or ELG are time sensitive. In the same way ELG
rates are computed, ALG rates are also computed and depend on historical
balances, remaining lives, and how well assumed life and salvage parameters
match current experience. No depreciation system will achieve accurate capital
recovery if life and salvage parameters change.
HAVE INDUSTRY AND DEPRECIATION EXPERTS DESCRIBED THE
ELG PROCEDURE AS A MORE THEORETICALLY CORRECT
DEPRECIATION PROCEDURE?

Q.

1	A.	Yes. The ELG procedure has been recognized as the more theoretically correct
2		depreciation procedure. This conclusion was first reach by Mr. Robley Winfrey
3		(who helped design the current depreciation system we use today) approximately
4		60 years ago. Specifically, Mr. Winfrey, the founding father of modern
5		depreciation systems, has stated that the ELG procedure is the "only
6		mathematically correct [depreciation] procedure." Similarly, Dr. W. Chester
7		Fitch and Dr. Frank K. Wolf (who literally wrote the book on depreciation and
8		trained many of the depreciation professional working today, including myself),
9		are also in agreement with Mr. Winfrey on the validity of the ELG method. I
10		would note again, that a number of regulatory commissions have approved the use
11		of the ELG procedure.
12	Q.	WHAT TIME PERIOD DID YOU USE TO DEVELOP THE PROPOSED
13		DEPRECIATION RATES?
14	A.	The account level depreciation rates were developed based on the depreciable
15		property recorded on the Company's books at September 30, 2011.
16	Q.	PLEASE SUMMARIZE THE DEPRECIATION STUDY RESULTS WITH
17		RESPECT TO DEPRECIATION RATES.
18	A.	DAW Attachment 1 shows the approved and proposed annual depreciation rate
19		and accrual for each account.
20	Q.	WHAT FACTORS INFLUENCE THE DEPRECIATION RATES FOR AN
21		ACCOUNT?

1 A. The primary factors that influence the depreciation rate for an account ar	re: (1	1)	/ 1	th	16
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- 2 remaining investment to be recovered in the account, (2) the depreciable life of
- 3 the account, and (3) the net salvage for the account.
- 4 Q. DO YOU HAVE AN INITIAL OBSERVATION ABOUT ATMOS
- 5 ENERGY'S DEPRECIATION EXPENSE IN GENERAL?
- 6 A. Yes. Atmos Energy's depreciation expense is increasing from previously
- 7 approved levels.
- 8 Q. WHY IS ATMOS ENERGY'S DEPRECIATION EXPENSE
- 9 INCREASING?
- 10 A. Minor adjustments in life and net salvage factors for various accounts influenced
- the depreciation expense change as discussed later and in Exhibit DAW-1. The
- slight reduction in life and increase in cost of removal for Account 380, Services
- along with the change in procedure, ALG to ELG, are the primary reasons for the
- increase in depreciation expense.
- 15 Q. WHAT METHOD DID YOU USE TO ANALYZE HISTORICAL DATA TO
- 16 DETERMINE LIFE CHARACTERISTICS?
- 17 A. All accounts were analyzed using the simulated plant record balances analysis
- 18 (SPR method) to estimate the life of property. In much the same manner as
- human mortality is analyzed by actuaries, depreciation analysts use models of
- 20 property mortality characteristics that have been validated in research and
- 21 empirical applications. Further detail is found in the life analysis section of
- Exhibit DAW-1.

1	Q.	HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR
2		EACH ASSET GROUP?
3	A.	The establishment of appropriate average service lives for each account was
4		determined by using the SPR balances analysis methods. Graphs illustrating the
5		chosen Iowa Curves used to determine the average service lives for analyzed
6		accounts are found in the Life Analysis section of my Exhibit DAW-1. A
7		summary of the depreciable life for each account is shown in DAW Attachment 2.
8	Q.	PLEASE DESCRIBE SOME OF THE CHANGES IN THE AVERAGE
9		SERVICE LIVES FOR THE VARIOUS ACCOUNTS?
0	A.	The detailed analysis of each account is described fully in Exhibit DAW-1.
1		Examples of some of the changes in average service lives are:
2		• The two largest decreases were a change in life of 10 years for Account
3		383 - House Regulators and Account 384 - House Regulator Installations.
4		The life of these two accounts has been linked to the life of meters and
5		will be installed and retired at the same time going forward.
6		• The largest increases were changes in life of 25 years in Account 354 -
7		Compressor Station Equipment and increases of 10 years in Account 353
8		- Pipelines and Account 390 Structures & Improvements.
9		• Overall, 19 accounts experienced some level of decrease in average
20		service life while 9 accounts experienced a lengthening of average service
21		life.
2	0	YMILATE IS NIETE SALVACIED

While discussed more fully in the study itself, net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset). Salvage and removal cost percentages are calculated by dividing the current cost of salvage or removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the amount of removal cost and the timing of the addition versus the retirement. For example, a Distribution asset in FERC Account 376 with a current installed cost of \$500 (2010) would have had an installed cost of \$33¹ in 1947. If one were to calculate removal cost as a percent of current cost, a removal cost of \$50 for the asset would only have a -10 percent removal cost (\$50/\$500). This would be incorrect. A correct removal cost calculation would show a negative 152 percent removal cost for that asset (\$50/\$33). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

17 Q. PLEASE DISCUSS THE BASIS FOR THE CURRENT APPROVED NET 18 SALVAGE RATES.

19 A. Net salvage rates for the Company were last established by the Commission in 20 Docket No. 08-ATMG-280-RTS. These net salvage rates were primarily based 21 on the normal or traditional approach to determine the net salvage percentages.

22 Q. HOW DID YOU DETERMINE THE NET SALVAGE PERCENTAGES 23 FOR EACH ASSET GROUP?

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¹ Using the Handy-Whitman Bulletin No. 174, G-3, line 43, $$33 = $500 \times 40/607$.

1	A.	Using the normal or traditional approach, the net salvage as a percent of
2		retirements for various bands (i.e. groupings of years such as the five-year or 10-
3		year average) for each account is shown in my Exhibit DAW-1. The historical
4		experience, input from company experts and judgment were used to select a net
5		salvage percentage that represents the future expectations for each account. A
6		summary of the proposed net salvage percentages are shown below in DAW
7		Attachment 3:
8	Q.	PLEASE DESCRIBE SOME OF THE CHANGES IN THE NET SALVAGE
9		PERCENTAGES FOR THE VARIOUS ACCOUNTS?
10	A.	The detailed analysis of each account is described fully in Exhibit DAW-1.
11		Examples of some of the changes in net salvage are:
12		• The largest increase (i.e. less negative) in net salvage was in Account
13		352.0 - Wells. Net salvage moved from a negative 100 percent to
14		negative 20 percent.
15		• The largest decrease (i.e. more negative or less positive) is in Account 380
16		- Services This change is due to the increase in cost of removal being
17		recorded for retiring a service, which caused net salvage to change from
18		negative 45 percent to negative 65 percent.
19		• Overall, 9 accounts experienced some level of increase (less negative) in
20		net salvage while 6 accounts experienced a decrease (more negative or
21		less positive) in net salvage.
22	Q.	IS THIS APPROACH TO NET SALVAGE THE MOST APPROPRIATE
23		FOR SETTING DEPRECIATION RATES IN A REGULATED SETTING?

1	A.	Yes. The approach used matches the costs of assets to the customers' use of the
2		assets on a straight-line basis and is a conservative estimate of the future cash
3		flow requirements needed to remove the Company's assets at the end of their
4		lives. This method has been used by nearly all utilities across the country for
5		many years and it is backed by sound depreciation theory.
6	Q.	ARE YOU AWARE THE STAFF HAS IDENTIFIED AN ISSUE RELATED
7		TO THE APPROPRIATE TREATMENT OF NON-LEGAL ASSET
8		RETIREMENT OBLIGATIONS FOR COMPANIES TO ADDRESS IN
9		THEIR DEPRECIATION FILINGS?
0	A.	Yes.
11	Q.	DO YOU HAVE ANY INITIAL THOUGHTS OR OBSERVATIONS YOU
2		WOULD LIKE TO SHARE ON THIS ISSUE?
13	A.	Yes I do. This issue arose from the issuance of the Financial Accounting
14		Standards Board Statement 143 ("FAS 143") and then the Federal Energy
15		Regulatory Commission's subsequent issuance of Order 631 ("FERC Order
16		631"). The issuance of FAS 143 was driven by the need for transparency and
17		consistency among all public companies in their financial reporting related to
18		legal asset retirement obligations ("ARO's"). FERC Order 631 prescribed the
19		accounts that public utility companies would need in order to accurately report
20		their financial statements. Additionally, FERC Order 631 specifically excluded
21		"non-legal" obligations. As a result of FAS 143 and FERC Order 631 utility
22		companies and their regulators have determined the need for separate reporting
23		(regulatory and financial accounting) related to legal and non-legal ARO's.

1		Neither FAS 143 nor FERC Order 631 has mandated the use of these alternate					
2		methodologies when determining net salvage in its depreciation rate calculations.					
3		In fact, as discussed a little later, there are only a very few jurisdictions where a					
4		fully litigated filing has resulted in the use of an alternate methodology and those					
5		have unique circumstances.					
6	Q.	ARE THE CONCERNS RAISED BY THE STAFF AND OTHER					
7		INTERVENORS IN SOME OF THE MORE RECENT ELECTRIC CASES,					
8		IN KANSAS, ON TERMINAL NET SALVAGE APPLICABLE TO ATMOS					
9		IN THIS CASE?					
0	A.	No. Based upon my knowledge of the recent filings of electric utilities, there are					
1		concerns regarding the terminal net salvage (dismantlement costs) for its					
2		production assets. From my limited review, I believe there are issues about the					
3		certainty of those costs being incurred. In that sense they are different. However,					
4		I want to be clear on this topic, when terminal (end of life) removal costs are					
5		known from past experience or are expected to occur, the method I have utilized					
6		in this study (traditional or normal) is the most appropriate.					
7	Q.	HAVE OTHER STATES RAISED THIS ISSUE AND IMPLEMENTED AN					
8		ALTERNATIVE APPROACH TO NET SALVAGE AND THEN					
9		RETURNED TO THE TRADITIONAL OR "NORMAL" NET SALVAGE					
20		APPROACH?					
21	A.	Yes. In Missouri the Commission adopted a form of the present value approach.					
22		However, the approach was litigated and appealed through all possible channels					
23		and in the end (Ameren UE Final Order ER2007-0002), they returned to the					

traditional methodology. Michigan also opened a separate docket to explore four
different calculation approaches (including variations of the present value
approach) and required the utilities to submit all four methodologies with their
depreciation testimony. After considerable time and evaluation, the Michigan
Commission issued an Order in Consumers Gas Docket No. U-15629 which
approved depreciation rates based on the traditional method of net salvage. This
precedent has been continued by the Michigan Public Service Commission for
every depreciation case litigated since Docket No. 15629. Most recently the
Georgia Public Service Commission reversed its position for Atlanta Gas Light
Company's net salvage methodology in Docket #31647-U and returned to the
traditional method as we are proposing here. It became clear to the Missouri,
Michigan and Georgia Commissions that approving and retaining alternate
methodologies over the long term will negatively impact customers and needed to
be reversed before the approach had a greater and greater negative impact on
customers.
YOU MAKE THE STATEMENT THESE ALTERNATIVE
METHODOLOGIES TO NET SALVAGE NEGATIVELY IMPACT
CUSTOMERS, CAN YOU EXPLAIN?
Certainly. Under what is called a "current cost" or "present value" approach for
calculating net salvage, it significantly reduces the recovery of removal cost in
earlier years while dramatically increasing the costs to future customers. The
Company and its customers will be faced with significantly higher removal costs

in the future under those types of approaches.

Q.

A.

1	Q.	ARE THERE ANY JURISDICTIONS THAT CURRENTLY USE A
2		METHODOLOGY DIFFERENT FROM THE TRADITIONAL NET
3		SALVAGE APPROACH?
4	A.	Yes, although most Commissions reject departing from the traditional net salvage
5		approach, there are a few states that have adopted an alternative approach.
6		Pennsylvania has a form of "Pay-As-You-Go" approach which was enacted by
7		legislation many years ago. New Jersey, Delaware, Maryland, and Washington
8		D.C. are the only and most recent jurisdictions that I am aware of to approve an
9		alternate net salvage approach.
10	Q.	ARE THERE UNIQUE CIRCUMSTANCES IN NEW JERSEY,
11		DELAWARE, MARYLAND AND WASHINGTON D.C.?
12	A.	Yes. All four jurisdictions were reviewing electric general rate cases along with a
13		depreciation study and were facing dramatic increases in costs due to the effects
14		of coming off a rate freeze due to deregulation.
15	Q.	DO YOU SEE ANY SIMILARITY BETWEEN THESE JURISDICTIONS
16		AND KANSAS AT THE PRESENT TIME?
17	A.	No. I believe that once the Staff and this Commission has compiled their research
18		on this issue, they will find, as the other Commissions have, that departure from a
19		long standing, fundamentally correct methodology is not the most appropriate
20		answer.
21	Q.	DO YOU BELIEVE THE TRADITIONAL APPROACH TO NET
22		SALVAGE IS THE MOST APPROPRIATE METHOD TO USE IN
23		CALCULATING RATES FOR ALL ACCOUNTS?

ı	A.	1 es 1 do. As discussed above, these alternate approaches when implemented have
2		proven to be harmful to current customers and will further harm future customers
3		The Company's depreciation study has addressed net salvage rates using the
4		traditional and fair method for all customers. The Company requests that the
5		Commission adopt the depreciation rates as presented in the Company's
6		depreciation study and described in this testimony.
7		
8		IV. SHARED SERVICES UNIT DEPRECIATION STUDY
9	Q.	DID ALLIANCE PREPARE A 2010 DEPRECIATION STUDY FOR
0		ATMOS SHARED SERVICES?
11	A.	Yes. We have conducted a study as of September 30, 2010. The study
12		recommendations and results are attached to my direct testimony as Exhibit
13		DAW-2.
14	Q.	ARE THE STEPS DESCRIBED ABOVE FOR THE KANSAS DIVISION
15		DEPRECIATION STUDY THE SAME FOR THE SHARED SERVICES
16		ASSETS?
17	A.	Yes. The same approach and methods were used for both studies.
18	Q.	WHAT PROPERTY IS INCLUDED IN THE SHARED SERVICES
19		DEPRECIATION STUDY?
20	A.	For Shared Services, there is one general class of depreciable property which is
21		related to general office activities. These assets include office buildings and
22		leasehold improvements, office furniture, communications equipment,
23		transportation equipment, computer software and hardware and other

1		miscellaneous general office assets.
2	Q.	WHAT TIME PERIOD WAS USED TO DEVELOP THE PROPOSED
3		DEPRECIATION RATES?
4	A.	The depreciation rates were developed based on the depreciable property recorded
5		on Shared Services' books at September 30, 2010.
6	Q.	WHAT ARE THE RESULTS OF THE ATMOS SHARED SERVICES
7		DEPRECIATION STUDY?
8	A.	The 2010 Atmos Shared Services Depreciation Study is found in Exhibit DAW-2.
9		The annual depreciation and amortization expense for Atmos Shared Services is
0		approximately \$19.8 million per year. More details related to the study and
1		results are found in Exhibit DAW-2.
2	Q.	WHAT ARE THE PRIMARY FORCES AFFECTING THE
3		DEPRECIATION RATES RECOMMENDED IN THIS STUDY?
4	A.	Generally, depreciation rates are affected by three separate factors – changes in
5		average service life, changes in net salvage, and the effect of reserve position.
6		The Shared Service Division's depreciation rates only have two of these affecting
7		the rates, average service life and reserve position.
8	Q.	ARE THERE ANY GENERAL OBSERVATIONS REGARDING THE
9		LIFE AND NET SALVAGE PARAMETERS BEING RECOMMENDED IN
20		THE STUDY YOU WOULD LIKE TO EXPLAIN?
21	A.	Yes. There is significant investment in the Shared Services Division related to
22		technology-based assets which generally have shorter life expectations than gas
23		distribution assets. Discussions with Company personnel indicated the Company

'		has moved from a maintaine on vironment to a server environment. I can
2		accounts (399.04, 399.05, 399.09 and 399.24) are fully depreciated with the assets
3		in the accounts expected to retire soon. No analysis or depreciation rates are
4		provided for those four accounts in the 2010 Shared Services Depreciation Study.
5		The net salvage analyses for all Shared Services accounts indicate no salvage or
6		cost of removal is being experienced, therefore a zero percent net salvage rate is
7		recommended for each account in the Shared Services study. Detailed discussions
8		for each account can be found in Exhibit DAW-2.
9	Q.	WHAT ASSETS WERE ANALYZED FOR THE 2010 SHARED SERVICES
10		DEPRECIATION STUDY?
11	A.	The Shared Services assets perform a common service to all of Atmos'
12		companies, including its regulated utility operations across multiple states, Kansa
13		being one of the states. The assets used to perform these common services were
14		analyzed during the depreciation study. As previously stated these assets include
15		but are not limited to, office buildings, furniture and equipment, communication
16		equipment, and any computer hardware or software utilized. The top three larges
17		investments in Shared Services are the application software, server hardware, and
18		communication equipment. These assets are primarily located in the Company's
19		home office in Dallas, Texas and the customer service centers in Amarillo, Texas
20		and Waco, Texas.
21	Q.	WHAT DEPRECIATION RATES DOES THE COMPANY PROPOSE TO
22		USE FOR SHARED SERVICES ASSETS?
23	A.	The Company proposes to utilize the depreciation rates proposed in the Alliance

1		depreciation study, which can be found in Exhibit DAW-2 on Appendix A.
2	Q.	HAS ALLIANCE QUANTIFIED THE DEPRECIATION EXPENSE FOR
3		SHARED SERVICES AS A RESULT OF THE IMPLEMENTATION OF
4		THE PROPOSED DEPRECIATION RATES?
5	A.	Yes. Based on September 30, 2010 plant balances, the annual depreciation
6		expense related to Shared Services is approximately \$19.8 million which can be
7		found on Appendix A in Exhibit DAW-2. The direct impact to Atmos Kansas
8		customers is addressed by Witness Joe T. Christian.
9	Q.	HAS THE COMPANY REQUESTED APPROVAL OF THE PROPOSED
10		SHARED SERVICES DEPRECIATION RATES IN ANY OTHER
11		STATES?
12	A.	Yes. Mississippi was the first state the Company has made a filing in since the
13		study's completion in June 2010. Additionally, consistent with past practice and
14		policy, the Company will request approval to utilize the proposed depreciation
15		rates in each of its other state jurisdictions at the time of its next filing to change
16		rates in its other jurisdictions.
17	Q.	WHEN WILL THE COMPANY CONDUCT ANOTHER SHARED
18		SERVICES DEPRECIATION STUDY?
19	A.	The Company has plans to perform a depreciation study on Shared Services assets
20		about every four years. The Company's objective is to have reasonable
21		depreciation rates in place that recognize the expense of those assets over their
22		useful lives. It is important that the depreciation rates be as reasonable as
23		possible, so the cost can be assessed to the proper generation of customer.

V. CONCLUSION

1		V. <u>CONCLUSION</u>
2	Q.	WHAT ACCOUNT DEPRECIATION RATES ARE YOU PROPOSING,
3		AND HOW DO THEY COMPARE WITH THE CURRENT RATES?
4	A.	The current depreciation rates and the rates I am now proposing related to the
5		Kansas Division are found in DAW Attachment 1 and in Appendix A of my
6		Exhibit DAW-1. The proposed rates for SSU are in Appendix A of my Exhibit
7		DAW-2. Detailed calculations and comparisons of these rates are found in my
8		studies, Exhibit DAW-1 and Exhibit DAW-2.
9	Q.	MR. WATSON, DO YOU HAVE ANY CONCLUDING REMARKS?
10	A.	Yes. The depreciation study and analysis performed under my supervision fully
11		support setting depreciation rates at the level I have indicated in my testimony.
12		The Company should continue to periodically review the annual depreciation
13		rates for its property. In this way, all customers are charged for their appropriate
14		share of the capital expended for their benefit. The depreciation study for Atmos
15		Energy's Kansas Division gas depreciable property as of September 30, 2011 and
16		the SSU depreciable property as of September 30, 2010 describes the extensive
17		analysis performed and the resulting rates that are now appropriate for Company
18		property. The Company's depreciation rates should be set at my recommended
19		amounts in order to recover the Company's total investment in property over the
20		estimated remaining life of the assets.

21 DOES THIS CONCLUDE YOUR DIRECT TESTIMONY? Q.

22 Yes, it does. A.

ATMOS ENERGY - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Existing vs. Proposed Accrual Rates

Companisor of Existing vo. 1 Toposod Activation						
			ng Annual		sed Annual	Depreciation
Account Description	Plant Balance	Accrual Rate			Accrual Amount	Expense
(a) (b)	(c)	(d)	(e)	(f)	[9]	[h]
STORAGE PLANT	\$ 568,935.31	3.05%	\$ 17,352.53	1.76%	\$ 10,013.26	\$ (7,339.27)
35020 Rights-of-Way 35100 Well Structures	102,922.98	2.18%	2,243.72	2.13%	2,192.26	(51.46)
35200 Wells	1,136,224.55	4.62%	52,493.57	2.15%	24,428.83	(28,064.75)
35300 Pipelines	1,145,817.65	2.32%	26,582.97	2.36%	27,041.30	458.33
35400 Compressor Station Equipment		4.02%	90,829.07	2.90%	65,523.46	(25,305.61)
35500 M&R Equipment	220,010.72	4.69%	10,318.50	2.72%	5,984.29	(4,334.21)
35600 Purification Equipment	288,382.11	4.37%	12,602.30	1.80%	5,190.88	(7,411.42)
35700 Other Equipment	125,321.36	3.07%	3,847.37	2.10% 2.45%	2,631.75 143,006.02	(1,215.62) (73,264.01)
Total Stor	age5,847,044.27	_ 3.70%	216,270.03	2.45 /6	143,000.02	(13,204.01)
TRANSMISSION PLANT						
36520 Rights-of-Way	9,037.30	1.95%	176.23	2.12%	191.59	15.36
36600 Structures & Improvements	33,191.19	1.89%	627.31	2.89%	959.23	331.91
36700 Mains - Cathodic Protection	3,452,903.74	1.64%	56,627.62	2.36%	81,488.53	24,860.91
36701 Mains - Steel	143,453.18	1.64%	2,352.63	3.44%	4,934.79	2,582.16
36703 Mains Anodes	2,334.13	1.64%	38.28	4.57%	106.67	68.39
36704 Mains - Leak Clamps & Sleeve		1.64%	0.00	8.33%	0.00 1,877.19	0.00 154.33
36800 Compressor Station Equipment		5.47%	1,722.86	5.96% 4.19%	22,048.92	11,050.77
36900 M&R Station Equipment Total Transmiss	526,227.23 ion 4,198,643.24	2.09% 1.73%	10,998.15 72,543.08	2.66%	111,606.91	39,063.83
Total Hallshins	1011 4,100,043.24	- 1.1070	12,040.00	2.0070	111,000101	
DISTRIBUTION PLANT						
37402 Rights-of-Way	292,602.99	2.92%	8,544.01	2.12%	6,203.18	(2,340.82)
37500 Structures & Improvements	119,493.70	3.10%	3,704.30	4.27%	5,102.38	1,398.08
37600 Mains - Cathodic Protection	4,179,130.11	2.02%	84,418.43	3.33%	139,165.03	54,746.60
37601 Mains - Steel	32,805,122.95	2.02%	662,663.48	3.08%	1,010,397.79	347,734.30
37602 Mains - Plastic	78,899,087.04	2.02%	1,593,761.56	3.24%	2,556,330.42	962,568.86
37603 Mains - Anodes	2,985,070.81	2.02%	60,298.43	7.19%	214,626.59	154,328.16
37604 Mains - Leak Clamps & Sleeve		2.02%	113,001.27	14.20%	794,365.33 190,350.33	681,364.07 21,070.67
37800 M&R Station Equipment 37900 City Gate Equipment	3,571,300.76 2,207,812.05	4.74% 2.53%	169,279.66 55,857.64	5.33% 4.16%	91,844.98	35,987.34
37906 City Gate Equipment	14,850.51	2.53%	375.72	4.14%	614.81	239.09
38000 Services	57,635,135.19	3.49%	2,011,466.22	5.41%	3,118,060.81	1,106,594.60
38100 Meters	15,021,142.34	5.12%	769,082.49	6.93%	1,040,965.16	271,882.68
38200 Meter Installations	23,917,802.91	6.86%	1,640,761.28	7.39%	1,767,525.64	126,764.36
38300 House Regulators	2,209,798.32	2.66%	58,780.64	6.70%	148,056.49	89,275.85
38400 House Regulator Installations	209,461.47	1.65%	3,456.11	7.23%	15,144.06	11,687.95
38500 Industrial M&R Equipment	951,405.33	3.78%	35,963.12	6.29%	59,843.40	23,880.27
38700 Other Equipment	613,731.61	_ 15.08%	92,550.73	7.47%	45,845.75 11,204,442.16	(46,704.98) 3,840,477.08
Total Distribu	tion <u>231,227,070.15</u>	3.18%	7,363,965.08	4.85%	11,204,442.10	3,040,477.00
GENERAL PLANT - DEPRECIATED						
39000 Structures & Improvements	1,853,668.26	3.31%	61,356.42	3.26%	60,429.59	(926.83)
39003 Improvements	1,512.88	3.31%	50.08	4.15%	62.78	12.71
39004 Air Conditioning Equipment	8,781.87	3.31%	290.68	4.17%	366.20	75.52
39009 Leasehold Improvements	39,013.13	3.31%	1,291.33	4.20%	1,638.55	347.22
39200 Transportation Equipment	645,301.60	25.98%	167,649.36	17.99%	116,089.76	(51,559.60)
39600 Power Operated Equipment	490,962.01	16.62%	81,597.89	14.31%	70,256.66	(11,341.22)
39604 Backhoes	203,475.27 54,818.88	16.62%	33,817.59	15.03% 14.52%	30,582.33 7,959.70	(3,235.26) (1,151.20)
39605 Welders Total General Deprecia			9,110.90 355,164.24	8.72%	287,385.58	(67,778.66)
Total Deprecia	· · · · · · · · · · · · · · · · · · ·		\$ 8,007,942.43	4.80%	\$ 11,746,440.68	\$ 3,738,498.25
rotal Doprosi	<u> </u>		+ 0,001,01-1.10	,	-	
GENERAL PLANT - AMORTIZED						
Account Description					24 222 24	(00.000.55)
39100 Office Furniture & Equipment	429,389.08	12.20%	52,385.47	7.38%	31,688.91	(20,696.55)
39300 Stores Equipment	1,308.13	7.85%	102.69	4.69%	61.35	(41.34) (7,666.55)
39400 Tools, Shop, &Garage Equipme		8.03%	198,588.30	7.72% 7.98%	190,921.75 1,121.79	400.64
39500 Laboratory Equipment 39700 Communication Equipment	14,057.47 410,878.57	5.13% 11.96%	721.15 49,141.08	8.93%	36,691.46	(12,449.62)
39700 Communication Equipment 39701 Mobile Radios	7,901.70	11.96%	945.04	16.38%	1,294.30	349.26
39702 Fixed Radios	6,064.82	11.96%	725.35	8.89%	539.16	(186.19)
39800 Miscellaneous Equipment	7,674.27	6.59%	505.73	6.85%	525.69	19.95
39901 Servers Hardware	25,349.38	7.21%	1,827.69	15.28%	3,873.39	2,045.69
39902 Servers Software	63,701.89	7.21%	4,592.91	17.92%	11,415.38	6,822.47
39903 Network Hardware	180,428.24	7.21%	13,008.88	16.82%	30,348.03	17,339.15
39906 PC Hardware	588,495.87	7.21%	42,430.55	32.78%	192,908.95	150,478.39
39907 PC Software	84,069.92	7.21%	6,061.44	30.37%	25,532.03	19,470.59
39908 Application Software	213,445.03	7.21%	15,389.39	17.19%	36,691.20	21,301.81 177,187.72
Total General Amortized after Retiren			386,425.66 \$ 8,394,368.09	. 12.51% 4.94%	\$ 12,310,054.06	\$ 3,915,685.97
Total Depreciated & Amort	zed <u>\$ 249,076,135.63</u>	= 3.31 70	φ 0,004,000.00	· ~.J~ 70	ψ 12,010,00 7 .00	4 0101010101

ATMOS ENERGY - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Life Parameters

		EXIS	TING	PROP	OSED	
	.	4.01	lowa	401	lowa	D:66
Account	Description	_ ASL	Curve		Curve	Diff Years
STORAGE	DI ANT	Years		Years		rears
	Rights-of-Way	- 50	R5	50	R5	0
	Well Structures		R4		R4	Ö
	Wells	50	S4		S4	0
	Reservoirs	* 60	R3	70	R3	10
	Pipelines	50	S2	60	R3	10
	Compressor Station Equipment	25	S2	50	S2	25
	M&R Equipment	25	S2	25	S2	0
	Purification Equipment	30	R4	30	R4	0
	Other Equipment	35	R5	35	R5	0
TRANSMIS	SION PLANT					
36520	Rights-of-Way	- 50	R5	50	R5	0
	Structures & Improvements	40	R2.5	40	R2.5	0
36700	Mains - Cathodic Protection	50	S2	50	R1.5	0
36701	Mains - Steel	50	S2	50	R1.5	0
36703	Mains Anodes	N/A	N/A	16	SQ	N/A
36704	Mains - Leak Clamps & Sleeves	N/A	N/A	12	SQ	N/A
36800	Compressor Station Equipment	20	SQ	20	SQ	0
36900	M&R Station Equipment	30	R0.5	30	R0.5	0
DISTRIBUT	TION PLANT	_				
	Rights-of-Way		R5		R5	0
37500	Structures & Improvements		L2	31	L2	(4)
37600	Mains - Cathodic Protection		S2		R1.5	0
37601	Mains - Steel		S2		R1.5	0
37602	Mains - Plastic		S2		R1.5	0
	Mains - Anodes		N/A		SQ	N/A
37604	Mains - Leak Clamps & Sleeves		N/A		SQ	N/A
37800	M&R Station Equipment		S2	25	R0.5	0
	City Gate Equipment	30	R1	30	R2	0
37908	City Gate Equipment	30	R1	30	R2	0
38000	Services		S1		S1	(2)
38100	Meters	20	R0.5	20	R1	0
	Meter Installations		R0.5		R1	0
	House Regulators		R0.5		R1	(10)
	House Regulator Installations		S5		R1	(10)
	Industrial M&R Equipment		R0.5		R0.5	(2)
38700	Other Equipment	20	L3	18	L3	(2)

ATMOS ENERGY - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Life Parameters

		-	EXIS	TING Iowa	PRO	POSED Iowa	
Account	Description		ASL	Curve	ASL	Curve	
			Years		Year	S	Years
GENERAL	DIANT						
	Structures & Improvements	_	30	R2	4	0 R2	10
	Improvements		30	R2	-	0 R2	0
	Air Conditioning Equipment		30	R2		0 R2	0
	Leasehold Improvements		30	R2		0 R2	0
	Office Furniture & Equipment		15	R5	1	5 SQ	0
	Office Machines		15	R5	1	5 SQ	0
39200	Transportation Equipment		6	L3		6 L3	0
	Stores Equipment		28	R0.5	2	8 SQ	0
39400	Tools, Shop, &Garage Equipment		15	L5	1	5 SQ	0
39500	Laboratory Equipment		20	S6	1	5 SQ	(5)
39600	Power Operated Equipment		10	L4		8 R3	(2)
39603	Ditchers	*	10	L4		8 R3	(2)
39604	Backhoes		10	L4		8 R3	(2)
39605	Welders		10	L4		8 R3	(2)
39700	Communication Equipment		12	S6		2 SQ	0
39701	Mobile Radios		12	S6		2 SQ	0
39702	Fixed Radios		12	S6		2 SQ	0
39800	Miscellaneous Equipment		15	R1	1	5 SQ	0
39900	Other Tangible Property		8	S5		7 SQ	(1)
39901	Servers Hardware		8	S5		7 SQ	(1)
39902	Servers Software		8	S5		7 SQ	(1)
39903	Network Hardware		8	S5		7 SQ	(1)
	Mainframe Hardware		8	S5		7 SQ	(1)
39906	PC Hardware		8	S5		4 SQ	(4)
39907	PC Software		8	S5		4 SQ	(4)
39908	Application Software		8	S5		7 SQ	(1)

^{*}Denotes Accounts are currently fully depreciated

ATMOS ENERGY - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Net Salvage Parameters

Account Description	Existing Net Salvage	Proposed Net Salvage	Change
STORAGE PLANT	%	%	%
35020 Rights-of-Way	 0%	0%	0%
35100 Well Structures	0%	0%	0%
35200 Wells	-100%	-20%	80%
35202 Reservoirs	* 0%	0%	0%
35300 Pipelines	-25%	-25%	0%
35400 Compressor Station Equipment	-5%	0%	5%
35500 M&R Equipment	-5%	0%	5%
35600 Purification Equipment	0%	0%	0%
35700 Other Equipment	0%	0%	0%
TRANSMISSION PLANT			
36520 Rights-of-Way	0%	0%	0%
36600 Structures & Improvements	-10%	-10%	0%
36700 Mains - Cathodic Protection	-15%	-12%	3%
36701 Mains - Steel	-15%	-12%	3%
36703 Mains Anodes	N/A	0%	N/A
36704 Mains - Leak Clamps & Sleeves	N/A	0%	N/A
36800 Compressor Station Equipment	-10%	-10%	0%
36900 M&R Station Equipment	-20%	-20%	0%
DISTRIBUTION PLANT			
37402 Rights-of-Way	0%	. 0%	0%
37500 Structures & Improvements	-5%	-5%	0%
37600 Mains - Cathodic Protection	-25%	-25%	0%
37601 Mains - Steel	-25%	-25%	0%
37602 Mains - Plastic	-25%	-25%	0%
37603 Mains - Anodes	N/A	0%	N/A
37604 Mains - Leak Clamps & Sleeves	N/A	0%	N/A
37800 M&R Station Equipment	-5%	-5%	0%
37900 City Gate Equipment	0%	-5%	-5%
37908 City Gate Equipment	0%	-5%	-5%
38000 Services	-45%	-65%	-20%
38100 Meters	-20%	-20%	0%
38200 Meter Installations	-20%	-20%	0%
38300 House Regulators	-5%	-20%	-15%
38400 House Regulator Installations	0%	-20%	-20%
38500 Industrial M&R Equipment	0%	-5%	-5%
38700 Other Equipment	-5%	-5%	0%

ATMOS ENERGY - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Net Salvage Parameters

Account	Description	Existing Net Salvage	Proposed Net Salvage	Change
7.00041.1		%	%	 %
GENERAL PLA	ANT			
39000 Str	uctures & Improvements	0%	0%	0%
39003 lm	provements	0%	0%	0%
39004 Air	Conditioning Equipment	0%	0%	0%
39009 Lea	asehold Improvements	0%	0%	0%
39100 Off	fice Furniture & Equipment	0%	0%	0%
39103 Off	fice Machines	0%	0%	0%
39200 Tra	ansportation Equipment	5%	10%	5%
39300 Std	ores Equipment	0%	0%	0%
39400 To	ols, Shop, &Garage Equipment	0%	0%	0%
39500 Lal	boratory Equipment	0%	0%	0%
39600 Po	wer Operated Equipment	0%	0%	0%
39603 Dit	chers	* 0%	4%	4%
39604 Ba	ckhoes	0%	4%	4%
39605 We	elders	0%	4%	4%
39700 Co	mmunication Equipment	0%	0%	0%
39701 Mc	bile Radios	0%	0%	0%
39702 Fix	red Radios	0%	0%	0%
39800 Mis	scellaneous Equipment	0%	0%	0%
39900 Otl	her Tangible Property	0%	0%	0%
39901 Se	rvers Hardware	0%	0%	0%
39902 Se	rvers Software	0%	0%	0%
39903 Ne	twork Hardware	0%	. 0%	0%
39905 Ma	ainframe Hardware	0%	0%	0%
39906 PC	C Hardware	0%	0%	0%
39907 PC	Software	0%	0%	0%
39908 Ap	plication Software	0%	0%	0%

^{*}Denotes Accounts are currently fully depreciated.

VERIFICATION

STATE OF TEXAS

COUNTY OF COLLIN

Dane A. Watson, being duly sworn upon his oath, deposes and states that he is a Partner of Alliance Consulting Group; that he has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of his knowledge, information and belief.

Dane A. Watson

Subscribed and sworn before me this 13th day of January, 2012.

Notary Public

LYNN M. REITZ Notary Public

State of Texas Comm. Expires 02-23-2015

My appointment expires: 02-23-2015

ATMOS ENERGY CORPORATION KANSAS DIVISION

DEPRECIATION RATE STUDY
As of September 30, 2011



http://www.utilityalliance.com

ATMOS ENERGY CORPORATION KANSAS DIVISION DEPRECIATION RATE STUDY EXECUTIVE SUMMARY

Atmos Energy Corporation ("Atmos" or "Company") engaged Alliance Consulting Group to conduct a depreciation study of the Company's Kansas Division ("Kansas") natural gas operations depreciable assets as of fiscal year end September 30, 2011.

The existing depreciation rates were based on the straight-line method, equal life group ("ELG") procedure, and remaining-life technique and are retained in this study. This study recommends an increase of \$3.9 million in annual depreciation expense when compared to the depreciation rates currently in effect. Life estimates showed the following changes: four accounts have an increase in life, 19 accounts have a decrease in life, 33 accounts remained unchanged and there are four accounts for which no comparison is possible. Net salvage showed the following changes: six accounts have a decrease in net salvage (more negative), nine accounts have an increase in net salvage (less negative), 41 accounts remained unchanged and there are four account for which no comparison is possible.

The depreciation study we conducted analyzed and developed depreciation recommendations at an account level. The resulting annual depreciation accrual amounts and depreciation rates contained in this study are at the account level. The Company will accrue depreciation expense based on the account level depreciation rates developed in this study. The depreciation study also reflects the implementation of Vintaged Group Amortization for certain General Plant accounts based on FERC Accounting Release 15 ("AR-15") issued by the Federal Energy Regulatory Authority ("FERC"). Appendix A demonstrates the change in depreciation expense.

ATMOS ENERGY CORPORATION KANSAS DIVISION DEPRECIATION RATE STUDY

As of September 30, 2011

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PURPOSE

The purpose of this study is to develop depreciation rates for the depreciable property as recorded on Atmos' books at September 30, 2011. The account based depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of Atmos' property on a straight-line basis. Non-depreciable property and property which is amortized such as intangible software were excluded from this study.

Atmos provides local gas distribution service to over 127,000 customers in more than a 100 towns and commercial customers in Kansas. Its assets consist of a complex system of some high pressure transmission, but primarily high, intermediate and low pressure distribution networks, including over 4800 miles of gas distribution mains, located across the service area. It has a number of receipt points or city gates, throughout the system where gas enters the distribution system and is then delivered to customers for burner tip consumption.

STUDY RESULTS

The existing and current study of annual depreciation expense results from the use of Iowa Curve dispersion patterns with the straight-line method, equal life group ("ELG") procedure and remaining-life technique, and consideration of net salvage in the development of the study recommended depreciation rates. Detailed information for each of these factors will follow in this report.

Overall depreciation rates for Kansas depreciable property are shown in Appendix A. The recommended rates translate into an annual depreciation accrual of \$12.3 million based on Kansas's depreciable investment at September 30, 2011. The annual equivalent depreciation expense calculated by the same method using the currently approved rates was \$8.4 million. The primary drivers for the increase in the annual depreciation expense when compared to the existing is the change in procedure from the Average Life Group ("ALG") to ELG and the change in life and net salvage for Account 380, Services.

Consistent with FERC Rule AR-15, this depreciation study develops depreciation expense for Vintaged Group Amortization in Accounts 391 through 399, excluding 392 and 396. This process provides for the amortization of general plant over the same life as recommended in this study (with a separate amortization to allocate deficit or excess reserve). At the end of the amortized life, property will be retired from the books. Implementation of this approach did not affect the annual expense accrued by Atmos Kansas and provides for the timely retirement of assets and the simplification of accounting for general property. The FERC and numerous other Public Utility Commissions around the country have approved this approach since the early 1990's.

Appendix A presents a comparison of the composite existing rates versus the recommended study rates. Appendix B presents the development of the depreciation rates and annual accruals. Appendix C presents the mortality and net salvage parameters by account. Appendix D shows net salvage history by plant account.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense, that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

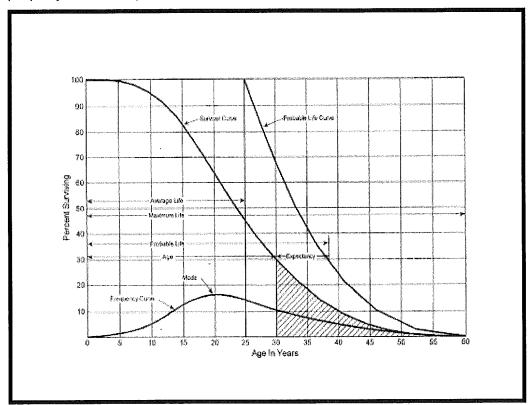
Basis of Depreciation Estimates

The straight-line, equal life group ("ELG"), remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective equal life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates are shown in Appendix B and remaining life calculations are provided in the workpapers.

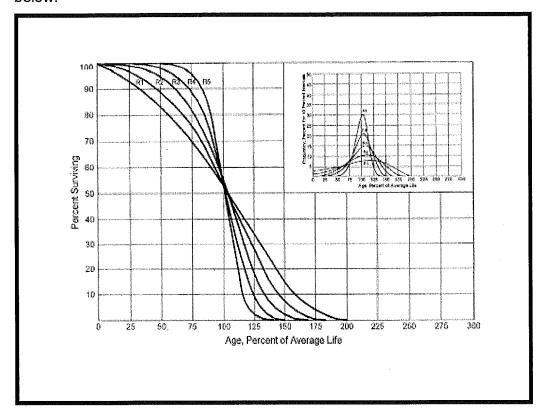
The Simulated Plant Record ("SPR") balances approach of life analysis was used with each account within a function where sufficient activity occurred within the account, and judgment was used to some degree on all accounts.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The lowa Curves are the result of an extensive investigation of life characteristics of physical property made at lowa State College Engineering Experiment Station in the first half of the prior century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an lowa Curve is shown below.



There are four families in the Iowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.



Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. An "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. A special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life

of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique average service life. The blending of judgment concerning current conditions and future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

Simulated Plant Record Procedure

The SPR - Balances approach is one of the commonly accepted approaches to analyze mortality characteristics of utility property. SPR was applied to all accounts due to the unavailability of vintaged transactional data. In this method, an Iowa Curve and average service life are selected as a starting point of the analysis and its survivor factors are applied to the actual annual additions to give a sequence of annual balance totals. These simulated balances are compared with the actual balances by using both graphical and statistical analysis. Through multiple comparisons, the mortality characteristics (as defined by an average life and Iowa Curve) that are the best match to the property in the account can be found.

The Conformance Index (CI) is one measure used to evaluate various SPR analyses. CIs are also used to evaluate the "goodness of fit" between the actual data and the Iowa Curve being referenced. The sum of squares difference (SSD) is a summation of the difference between the calculated balances and the actual balances for the band or test year being analyzed. This difference is squared and then summed to arrive at the SSD, where n is the number of years in the test band.

$$SSD = \sum_{i=1}^{n} (Calculated \ Balance_{i} - Observed \ Balance_{i})^{2}$$

This calculation can then be used to develop other calculations, which the analyst feels might give a better indication for the "goodness of fit" for the representative curve under consideration. The residual measure (RM) is the square root of the average squared differences as developed above. The residual measure is calculated as follows:

$$RM = \sqrt{\left(\frac{SSD}{n}\right)}$$

The conformance index (CI) is developed from the residual measure and the average observed plant balances for the band or test year being analyzed. The calculation of conformance index is shown below:

$$CI = \frac{\sum_{l}^{n} Balances_{i} / n}{RM}$$

The retirement experience index (REI) gives an indication of the maturity of the account and is the percent of the property retired from the oldest vintage in the band at the end of the test year. Retirement indices range from 0 percent to 100 percent and a REI of 100 percent indicates that a complete curve was used. A retirement index less than 100 percent indicates that the survivor curve was truncated at that point. The originator of the SPR method, Alex Bauhan, suggests ranges of value for the CI and REI. The relationship for CI proposed by Bauhan is shown below¹:

CI	Value
Over 75	Excellent
50 to 75	Good
25 to 50	Fair
Under 25	Poor

¹ Public Utility Depreciation Practices, p. 96.

The relationship for REI proposed by Bauhan² is shown below:

REI	Value
Over 75	Excellent
50 to 75	Good
33 to 50	Fair
17 to 33	Poor
17 and below	Valueless

Depreciation analysts have used these measures in analyzing SPR results for nearly 60 years, since the SPR method was developed. Both the CI and REI statistics provide the analyst with important information with which to make a comparison between a band of simulated or calculated balances and the observed or actual balances in the account being studied. It is important to understand that observing the pattern of best-fitting curves over various bands, as well as considering other company and asset-specific information, is important in the ultimate decision for the most appropriate live and curve combination that will reflect future retirements of each account.

Statistics are useful in analyzing mortality characteristics of accounts, as well as determining a range of service lives to be analyzed using the detailed graphical method. However, these statistics boil all the information down to one, or at most, a few numbers for comparison. Visual matching through comparison between actual and calculated balances expands the analysis by permitting the analyst to view many points of data at a time. The goodness of fit should be visually compared to plots of other Iowa Curve dispersions and average lives for the selection of the appropriate curve and life. Detailed information for each account is shown later in this study and in workpapers.

² Public Utility Depreciation Practices, p. 97.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts into the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property. In these cases, it is rare for one factor to individually have a, substantial impact on the analysis. However, individual factors, may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least for example, any analysis requires choosing upon which bands to place more emphasis.

The establishment of appropriate average service lives and retirement dispersions for the Storage, Transmission, Distribution and General accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information analyzed using the SPR balance methods. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices in order for appropriate mortality characteristics to be chosen.

Equal Life Group Depreciation

Atmos agreed that the continued use of the ELG depreciation procedure was appropriate. This study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and net salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resulting rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in all accounting textbooks.

Theoretical Depreciation Reserve

The Company's book depreciation reserves were reallocated within each function by plant account based on the theoretical reserves for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The equal life

group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the vintage is retired. Estimated average service lives and dispersion determine the amount within each equal life group. The equal life group-remaining-life theoretical reserve ratio (RRELG) is calculated as:

$$RRELG = 1 - \frac{(ELG \ Remaining \ Life)}{(ELG \ Life)} * (1 - Net \ Salvage \ Ratio)$$

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. Once the first three stages were complete, the fourth phase began. This phase involved the calculation of deprecation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. Audit of this data was validated against historical data from prior periods, historical general This data was reviewed ledger sources, and field personnel discussions. extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study. One of the most important elements of performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis section, the salvage analysis section, and also in workpapers.

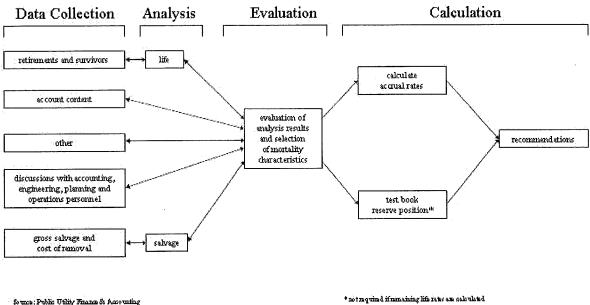
Phase 2 was where the SPR analysis was performed. Phase 2 and 3 overlap to a significant degree. The detailed property records information is used in phase 2 to develop observed life tables for life analysis. These tables were visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information was then carried forward into phase 3 for the evaluation process.

Phase 3 was the evaluation process which synthesized analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from phase 2 was further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in phase 1. Phases 2 and 3 allowed the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in the final report. The calculation of accrual rates is found in Appendix A. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1³ documents the steps used in conducting this study. Depreciation Systems, page 289 documents the same basic processes in performing a depreciation study which are: Statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, write logic supporting forecasts and estimation, and write final report.

³ Public Utility Finance & Accounting, A Reader

Book Depreciation Study Flow Diagram



founds: Public Utility Finance & Accounting A Reader

Figure 1

ATMOS KANSAS DEPRECIATION STUDY PROCESS

Depreciation Rate Calculation

Annual depreciation expense amounts for the depreciable property accounts of Atmos were calculated by the straight line, equal life group, and remaining-life system. With this approach, remaining lives were calculated according to standard ELG group expectancy techniques, using the lowa Survivor Curves noted in the calculation. For each plant account, the difference between the surviving investment, adjusted for estimated net salvage and the allocated book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix B.

Remaining Life Calculation

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the actuarial methods. After establishment of appropriate average service lives and retirement dispersions, remaining lives were computed for each account. The theoretical depreciation reserve with zero net salvage (used in calculating remaining life) was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the general discussion section. The difference between plant balance and theoretical reserve was then spread over the ELG depreciation accruals. After accumulating the ELG accruals across each vintage, the annual accrual was divided into the net balance to compute remaining life. Details of the theoretical reserve computations, ELG accruals, and remaining life are found by account in the study workpapers.

Calculation Process

Annual depreciation expense amounts for all accounts were calculated by the straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the following equation,

$$Annual Accrual Rate = \frac{(100\% - Net Salvage Percent)}{Average Service Life}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using lowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$Composite \ Remaining \ Life = \frac{\sum Original \ Cost - Theoretical \ Reserve}{\sum Whole \ Life \ Annual \ Accrual}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation.

$$Annual \, Depreciation \, Expense = \frac{Original \, Cost - Book \, Reserve - (Original \, Cost) * (1 - Net \, Salvage \, \%)}{Composite \, Remaining \, Life}$$

Where the net salvage percent represents future net salvage.

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$Annual \, Depreciation \, Rate = \frac{\displaystyle \sum \, \, Annual \, Depreciation \, \, Expense}{\displaystyle \sum \, Original \, Cost}$$

These calculations are shown in Appendix B. The calculations of the theoretical depreciation reserve values and the corresponding remaining life

calculations are shown in workpapers. Book depreciation reserves were allocated from a functional level to individual accounts and the theoretical reserve computation was used to compute a composite remaining life for each account.

Life Analysis

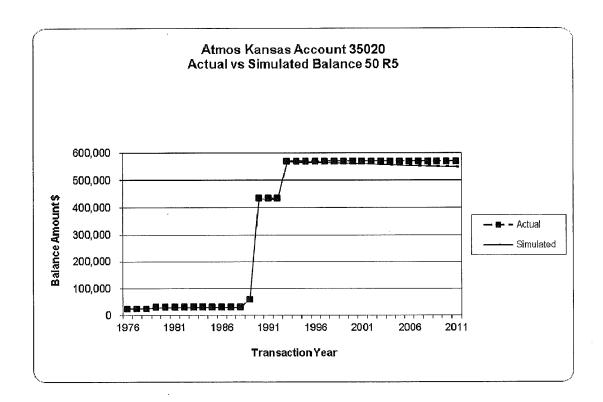
The simulated plant record method SPR semi-actuarial analysis method was applied to all accounts for Kansas. For each account, a simulated plant record method analysis was performed at intervals for the overall band and at 5-year intervals within the overall balance period. In addition to reviewing the SPR analysis for each band and account, a graphical comparison between actual and simulated balances was performed.

These results are used in conjunction with all other factors that may influence asset lives.

Storage Plant - FERC Accounts 350.20-357

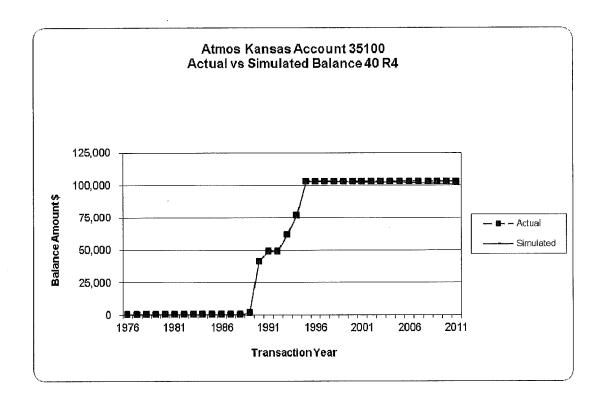
Account 350.20 Rights of Way (50 R5)

This account includes the cost of land rights located on underground storage lines and other property associated with underground gas storage operations. The account balance is under \$569 thousand. The existing life for this account is 50 R5. This study proposes retention of the existing life and curve, 50 R5. A comparison of actual versus simulated balances is shown below for the 50 R5 curve.



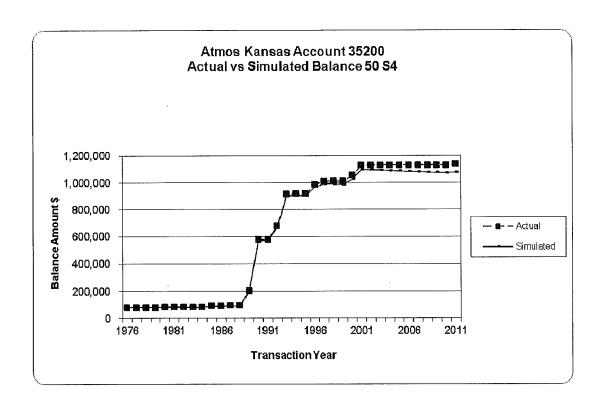
Account 351.00 Well Structures and Improvements (40 R4)

This account includes buildings, fences, regulator station and other structures and improvements used in connection with underground storage of natural gas. The balance is this account is \$103 thousand. The existing life for this account is 40 R4. While there are structure accounts within each functional group, the lives of each account are tied to the forces of retirement for that function. The life analysis indicates the average age of retirements is about 19 years. The overall life expectations for this account remain at 40 years and the study recommends retaining the R4 dispersion. A comparison of actual versus simulated balances is shown below for the 40 R4 curve.



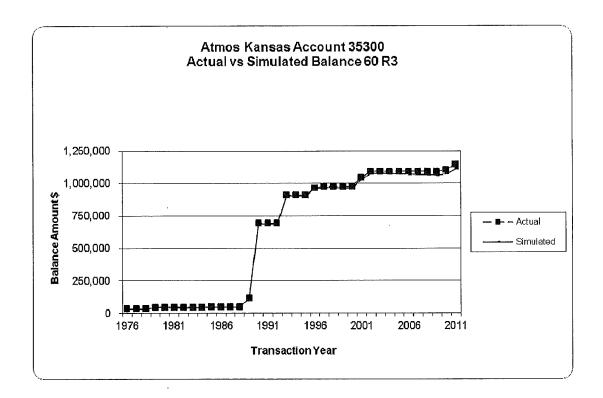
Account 352.00 Wells, Storage Leaseholds and Rights (50 S4)

This account includes the cost of drilling wells for injection and withdrawal of gas from underground storage projects, as well as storage leaseholds and rights. The balance in this account is \$1.1 million. The Company has retired wells with problems or those it no longer needs. Three such retirements have occurred. The existing life 50 S4 is retained for the approximately 50 remaining wells. A comparison of actual versus simulated balances is shown below for the 50 S4 curve.



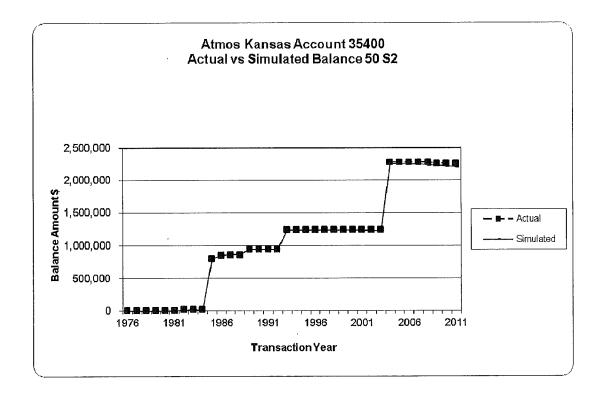
Account 353.00 Lines (60 R3)

This account includes the cost of assets used by Atmos Kansas to convey gas from the connection point with transmission or field lines to underground storage wells and from underground storage wells to the point where gas enters the transmission system. The balance in this account is \$1.1 million. The existing life for this account is 50 S2. Based on the life analysis indications, discussions on the assets and use, this study recommends increasing the life from 50 years to 60 and changing from the S2 dispersion to the R3 at this time. A comparison of actual versus simulated balances is shown below for the 60 R3 curve.



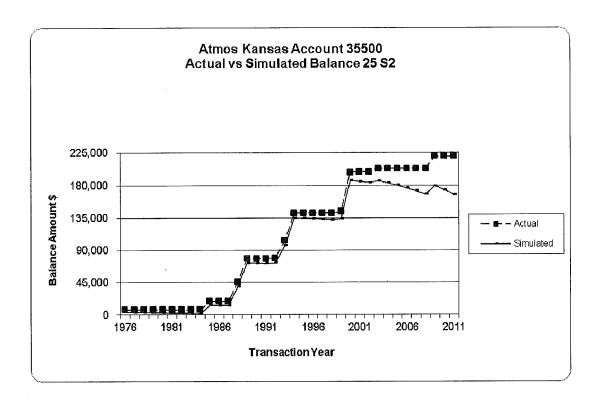
Account 354.00 Compressor Station Equipment (50 S2)

This account includes compressor station equipment used to raise the pressure of gas for delivery to underground storage or to raise the pressure of gas withdrawn from underground storage for delivery to the transmission system. The balance in this account is \$2.3 million. The existing life for this account is 25 S2. Discussions with Company personnel indicated 1 set of 2 active compressors is leased, 1 set of 3 compressors were inactive and were disconnected in 2011 with retirement expected in 2012. Other equipment, such as dehydrators and other miscellaneous equipment remain. Based on the type and use of the remaining assets, the information gleaned from interviews with the Company, and judgment this study recommends moving the life to the 50 S2. A comparison of actual versus simulated balances is shown below for the 50 S2 curve.



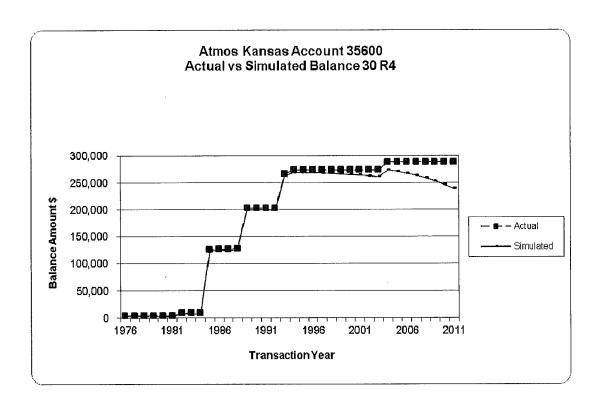
Account 355.00 M & R Station Equipment (25 S2)

This account includes equipment used to measure and regulate deliveries of gas to underground storage and withdrawals of gas from underground storage. The plant balance in this account is \$220 thousand. The existing life for this account is 25 S2. Based on judgment, the type and use of the assets, this study recommends retaining the 25 S2 at this time. A comparison of actual versus simulated balances is shown below for the 25 S2 curve.



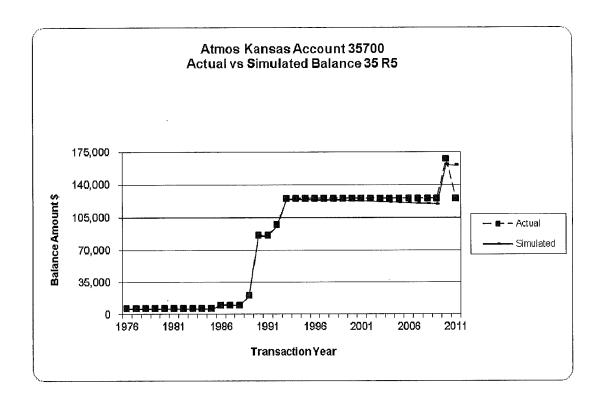
Account 356.00 Purification Equipment (30 R4)

This account includes the cost of equipment used to remove impurities from and to condition gas delivered to or removed from underground storage fields. The balance in this account is \$288 thousand. The existing life for this account is 30 R4. Based on judgment, the type and use of the assets, this study recommends retaining the 30 R4 at this time. A comparison of actual versus simulated balances is shown below for the 30 R4 curve.



Account 357.00 Other Equipment (35 R5)

This account includes the cost of equipment used for underground storage when not assigned to other accounts within the underground storage function, such as calorimeters or odorizers. The balance in this account is \$125 thousand. The existing life for this account is 35 R5. Based on judgment, the type and use of the assets, this study recommends retaining the 35 R5 at this time. A comparison of actual versus simulated balances is shown below for the 35 R5 curve.

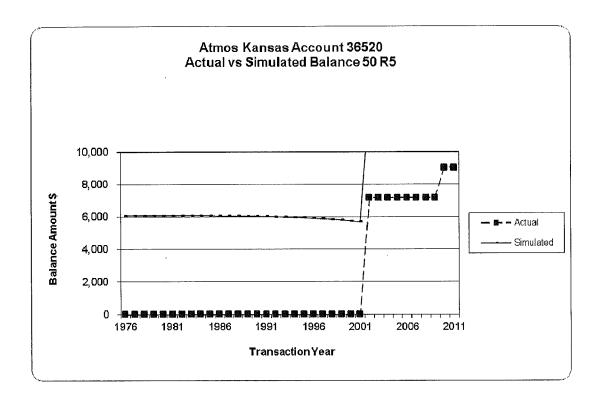


<u>Transmission Plant – FERC Accounts 365.2-369</u>

Kansas has a limited number of mains recorded in the transmission function.

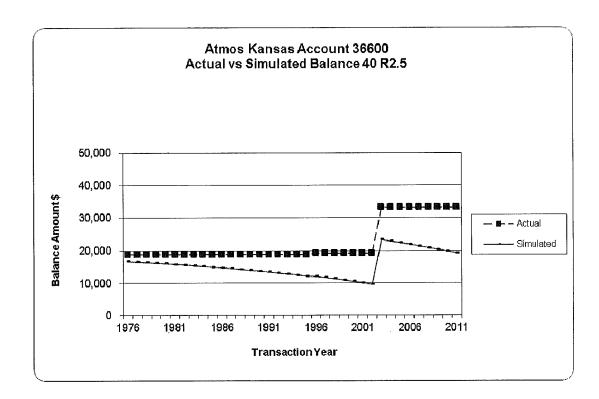
Account 365.20 Rights of Way (50 R5)

This account includes the cost of land rights used in connection with transmission operations. The plant balance in this account is \$9 thousand. The existing life is a 50 R5 and is retained. A comparison of actual versus simulated balances is shown below for the 50 R5 curve.



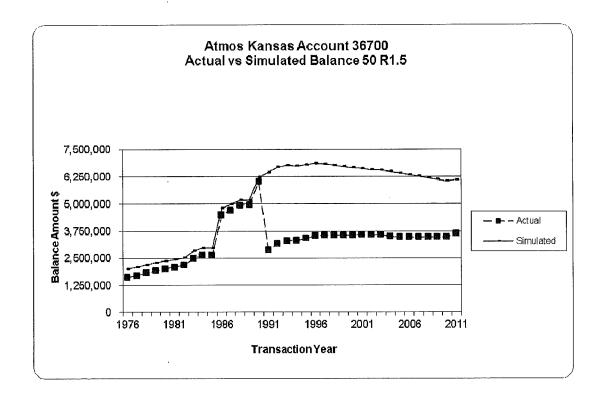
Account 366.00 Structures & Improvements (40 R2.5)

This account includes the cost of structures and improvements in connection with transmission operations. The plant balance in this account is \$33 thousand. The existing life is 40 R2.5 and is retained. A comparison of actual versus simulated balances is shown below for the 40 R2.5 curve.



Account 367.00 Mains – Cathodic Protected and Steel (50 R1.5)

This account includes the cost of transmission system mains including excavation costs, pipe, valves, cathodic protection and other equipment. The plant balance in this account is \$3.6 million. The existing life for this account is 50 S2. Life indications in the analysis were too short to be considered representative of the type of asset in this account. Therefore, based on type and use of assets, discussions with Company personnel and judgment, this study proposes using the same life as Distribution Account 376 Mains. The life remains consistent with the existing 50 year life with a slight change in dispersion from the S2 to the R1.5 dispersion for this account. A comparison of actual versus simulated balances is shown below for the 50 R1.5 curve.



Account 367.03 Mains Anodes (16 SQ)

This account includes the cost of anodes. There is approximately \$2 thousand that was transferred into this account and has an age less than the specified amortization period of 16 years. Due to the nature of these assets disintegrating over time with no ability to identify and report retirements, discussions with the Company and consistency with the Colorado jurisdiction the implementation of an amortization approach is reflected in this study. The segregation and parameters are new and due to amortization no comparison is provided.

Account 367.04 Mains Leak Clamps & Sleeves (12 SQ)

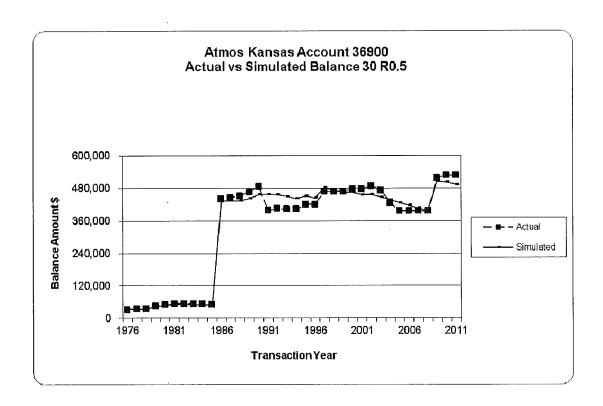
This account includes the cost of leak clamps, sleeves and weld overs used with mains. After transfer and retirement of assets with an age greater than the specified amortization period of 12 years this account has a zero balance. Consistent with the Colorado jurisdiction and discussions with Company personnel, this study recognizes and recommends amortization for this account. The amortization period is reflective of the installation of these assets during the last 25% of the expected life of mains. Based on the proposed life of mains, 50 years, these would be installed around age 38 leaving an estimated 12 years for amortization. The segregation and parameters are new and due to amortization no comparison is provided.

Account 368.00 Compressor Station Equipment (20 SQ)

This account includes the cost of transmission compressor station equipment. The balance in this account is approximately \$31 thousand. The existing life for this account is 20 SQ and is retained in this study. No comparison is provided.

Account 369.00 M&R Station Equipment (30 R0.5)

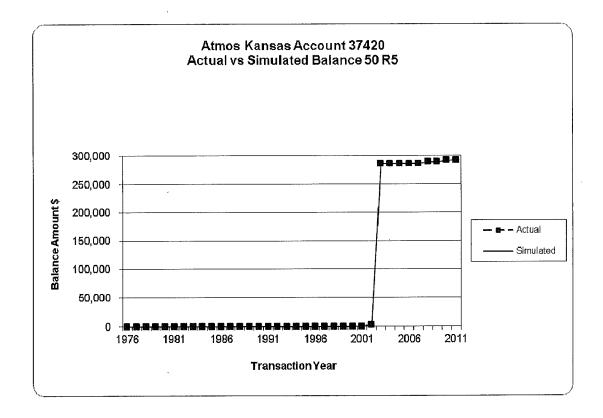
This account includes the costs of meters, gauges, and other equipment used to measure or regulate gas in connection with transmission city gate operations. The plant balance in this account is \$525 thousand. The existing life for this account is 30 R0.5. The average age of the surviving assets is 25 years. Based on the analysis indications, type of assets, use, and judgment this study recommends retaining the 30 R0.5. A comparison of actual versus simulated balances is shown below for the 30 R0.5 curve.



Distribution Plant - FERC Accounts 374.02-387

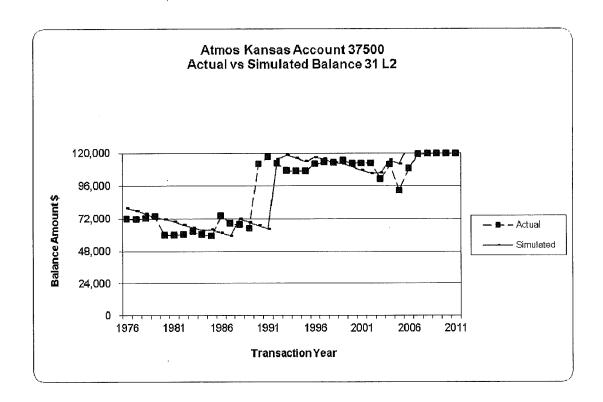
Account 374.02 Land Rights (50 R5)

This account includes the cost of land rights used in connection with distribution operations. There is approximately \$293 thousand in this account. The existing life is a 50 R5. These assets are linked to Account 376. This study recommends retention of the existing 50 R5 dispersion for this account. A comparison of actual versus simulated balances is shown below for the 50 R5 curve.



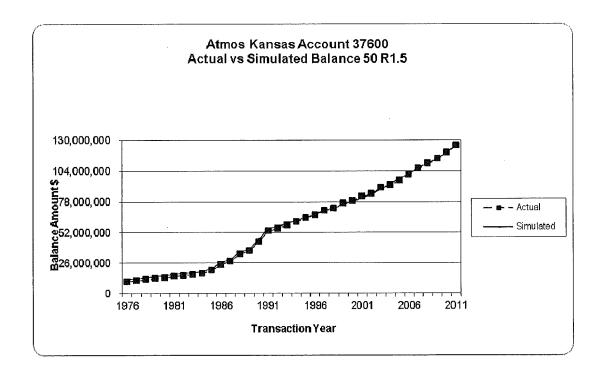
Account 375.00 Structures and Improvements (31 L2)

This account includes the cost of buildings, border station and regulating station structures, fences, and other miscellaneous related assets used in connection with distribution operations. There is approximately \$119 thousand in this account. The existing life was 35 L2. The average age of survivors is approximately 13 year. The CI is low but life analysis clear indications of a shorter life. This study recommends decreasing the life slightly from 35 to 31 years and retaining the L2 dispersion. A comparison of actual versus simulated balances is shown below for the 31 L2 curve.



Account 376.00 Mains - Cathodic Protected, Steel and Plastic (50 R1.5)

This account includes the cost of all mains - cathodic protected, steel and plastic - which operate at high, medium and low pressure. There is approximately \$115.9 million in this account. The existing life is 50 years with an S2 dispersion. All mains are now protected, but that has not always been the case. Most new pipe installed is plastic unless pressure or continuity of protected pipe dictates otherwise. Some "Marlex" plastic pipe has been replaced at 40 years. Above ground pipe in Class 2 and 3 areas have to be replaced or are planned to be replaced. This has been a focus for the past few years which has influenced the existing and proposed 50 year life. No cast iron pipe remains on the system. Current study indications and discussions support retention of the 50 year life but changing from the S2 to an R1.5 dispersion. A comparison of actual versus simulated balances is shown below for the 50 R1.5 curve.



Account 376.03 Mains - Anodes (16 SQ)

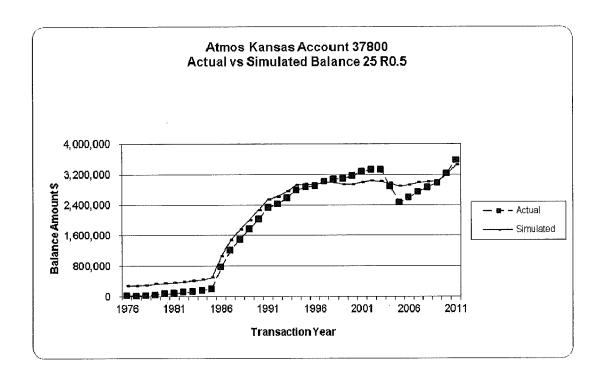
This account includes the cost of anodes. There is approximately \$3.0 million that was transferred into this account and has an age less than the specified amortization period of 16 years. Due to the nature of these assets disintegrating over time with no ability to identify and report retirements, discussions with the Company and consistency with the Colorado jurisdiction the implementation of an amortization approach is reflected in this study. The segregation and parameters are new and due to amortization no comparison is provided.

Account 376.04 Mains - Leak Clamps & Sleeves (12 SQ)

This account includes the cost of leak clamps, sleeves and weld overs used with mains. There is approximately \$5.6 million that was transferred into this account and has an age less than the specified amortization period of 12 years. This amortization approach is being implemented to facilitate the accurate retirement of these property units. As discussed above, this decision was a result of discussions with Company personnel and consistency with the Colorado jurisdiction. The amortization period is reflective to the installation of these assets during the last 25% of the life of mains. Based on the study life of mains at 50 years, these would be installed around age 38 leaving an estimated 12 years for recovery. The segregation and parameters are new and due to amortization no comparison is provided.

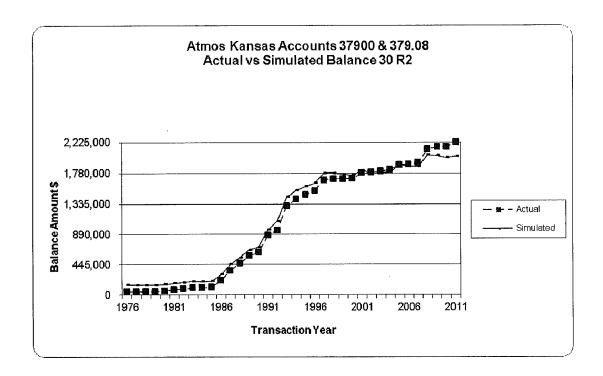
Account 378.00 M&R Station Equipment (25 R0.5)

This account consists of various measuring equipment, regulator station and valves used in distribution operations. There is approximately \$3.6 million of investment in this account. The existing life is 25 years with an S2 dispersion. Based on type of assets, expectations, and history this study recommends retaining the 25 year life but changing from the S2 to an R0.5 dispersion. A comparison of actual versus simulated balances is shown below for the 25 R0.5 curve.



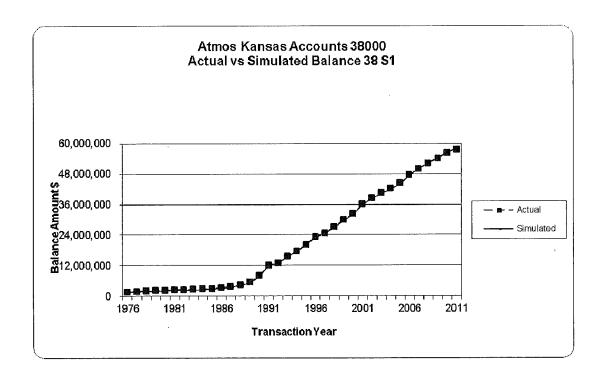
Account 379.00 & 379.08 M&R - City Gate Equipment (30 R2)

This account includes the cost of related equipment used in measuring and regulating gas at the city gate. There is approximately \$2.2 million in plant in these accounts. The existing life is 30 years with an R1 dispersion. Analysis results have low CI but indicate higher-moded curves. This study recommends retention of the 30 year life, but changing to a higher-moded curve from the R1 to R2 for this account. A comparison of actual versus simulated balances is shown below for the 30 R2 curve.



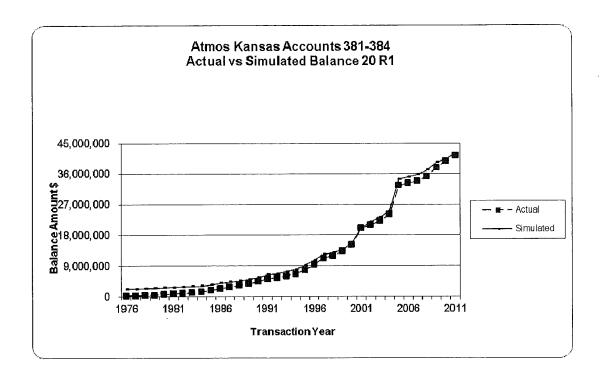
Account 380.00 Services (38 S1)

This account consists of all types of services used in distribution operations. There is approximately \$57.6 million of investment in this account. The existing life is 40 years with an S1 dispersion. A service is from the meter to the house, which the Company is responsible for maintaining. However, this has not always been the case. When a yard line has a leak that was not installed by the Company, it will be replaced with a short service to meter and yard line with service from main to meter (with the meter being moved to the house). Past practice may not have always retired the loop at same time (but should have) and is expected to occur consistently going forward. Currently, in nearly all cases, the Company will physically replace loop when replacing the service. Based on the life analysis, discussions with Company personnel on past, present and future practices related to services, this study recommends decreasing the life to 38 years and retaining the S1 dispersion at this time. A comparison of actual versus simulated balances is shown below for the 38 S1 curve.



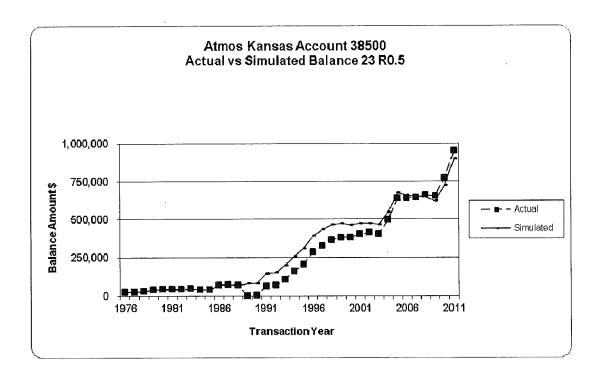
Account 381.00-384.00 Meters, House Regulators, & Installations (20 R1)

These accounts include the cost of meters, meter installations and house regulators and are combined for purposes of this study. Combined there is a balance of \$41.4 million in these accounts. The existing lives are 20 R0.5, 20 R0.5, 30 R0.5, and 30 S5, respectively. The Company plans to process retirements of meters, their capitalized meter installation cost and the associated house regulator and installation costs at the same time. As a result, these accounts were combined for the life analysis. Company personnel indicated that in the past (10-12 years ago), there was a 10 year change-out plan for meters. Current practice is to pull the meter if over 10 years old (between ages of 10-15 years), test and reinstall. Meters that are 15 years and over will be retired when pulled. There is currently no program to locate and retire older meters. Company expects meters could have a life of 20-25 years if not pulled for testing, and maybe a few would reach 30 years. However, many will be pulled for testing and retired that are 15 to 20 years old. Based on the combined life analysis, current practices and plans, this study recommends retaining the 20 year meter life and moving to the R1 dispersion for all accounts. A comparison of actual versus simulated balances is shown below for the 20 R1 curve.



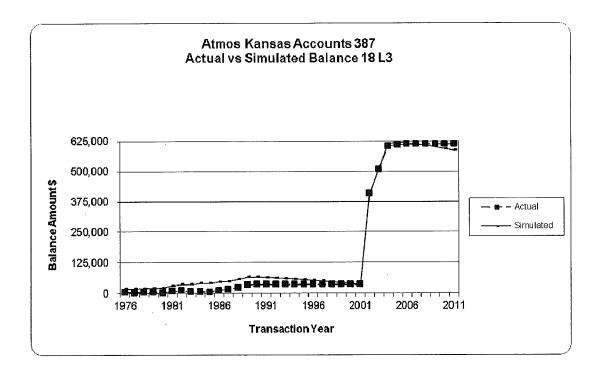
Account 385.00 Industrial M&R Equipment (23 R0.5)

This account includes the cost of meters, regulator installations, regulator stations, valves and pressure recorders for industrial customers. There is approximately \$951 thousand in this account. The existing life is a 25 R0.5. Life analysis results in low CI but a lower life and low-moded dispersion pattern are indicated. Based on type and use of assets, life analysis shortest band indications, and judgment, this study recommends decreasing the life slightly to 23 years and retaining the low-moded R0.5 dispersion. A comparison of actual versus simulated balances is shown below for the 23 R0.5 curve.



Account 387.00 Other Equipment (18 L3)

This account includes the cost of pipe locators, leak detectors, flame ionization and other miscellaneous equipment. There is approximately \$614 thousand in this account. The existing life is a 20 year life with the L3 dispersion. Life analysis results in low CI but indicates a shorter life. Based on the life analysis shortest band, type of assets, and judgment this study recommends decreasing the life slightly to 18 years and retaining the L3 dispersion at this time. A comparison of actual versus simulated balances is shown below for the 18 L3 curve.



General Plant – FERC Accounts 390-399.08

Depreciated Accounts 390, 392 and 396

Account 390.00 Structures and Improvements (40 R2)

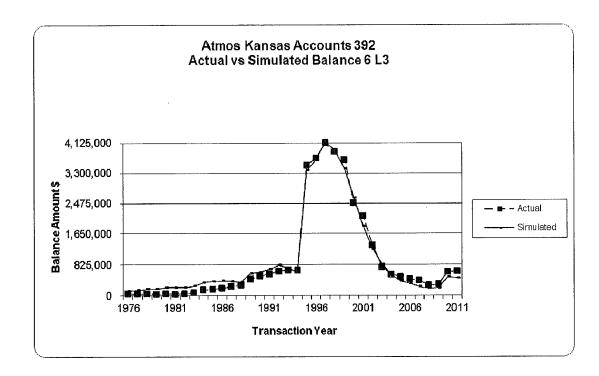
This account includes the cost of buildings, roof, heating/cooling equipment, carpet, other structures and improvements. There is approximately \$1.8 million in this account. The current life is a 30 R2. Life analysis results in low CI and shorter life indications. However, discussions with Company personnel indicate that the existing 30 year life is too low for the district offices. Based on the analysis, mix of assets, and discussions with Company personnel this study recommends segregating the recommendations related to Account 390 and increasing the life from 30 to 40 years, but retaining the R2 dispersion for this account. As a result of the segregation for life parameters and rate calculations, a comparison of actual versus simulated balances is not provided.

Account 390.03, 390.04, and 390.09 Improvements, Air Conditioning, and Leasehold Improvements (30 R2)

This account includes the cost of roofs, foundation, air conditioning equipment and leasehold improvements such as carpet, lighting and other structures and improvements. There is approximately \$49 thousand in this account. The current life is a 30 R2. This study recommends retention of the existing 30 R2 for the assets in these accounts. Due to the segregation and different life parameter recommendations no comparison is provided.

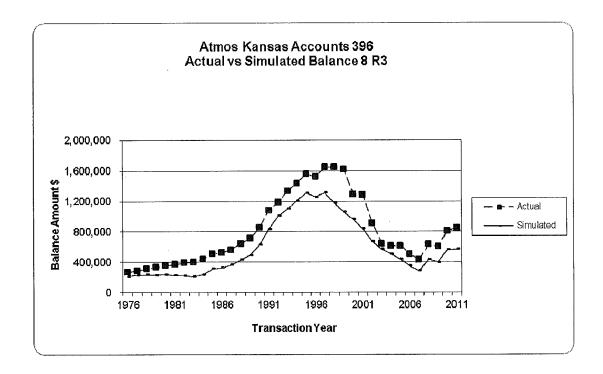
Account 392.00 Transportation Equipment (6 L3)

This account consists of various types of transportation equipment such as cars, trucks, tractor, and trailers. There is approximately \$645 thousand in this account. Discussions with Company personnel indicated most equipment is currently leased. Expectations for smaller vehicles would be around 5 years and larger trucks, tractors and trailers are 10-20 years depending on the asset. The life analysis based on the current mix of assets support retention of the existing 6 L3. A comparison of actual versus simulated balances is shown below for the 6 L3 curve.



Account 396.00 Power Operated, Ditchers, Backhoes & Welders (8 R3)

This account consists of all power operated equipment including generators, ditchers, backhoes, welders, trailers, tamper/compactors, boring equipment, air compressors and other miscellaneous power equipment. There is approximately \$749 thousand remaining to be depreciated for these accounts. Account 396.03 – Ditchers, which has approximately \$101 thousand is considered fully depreciated. The current life is 10 years with an L4 dispersion. Based on the analysis, type of equipment and discussions with Company personnel, this study recommends decreasing the life to 8 years and moving to the R3 dispersion. A comparison of actual versus simulated balances is shown below for the 8 R3 curve.



Amortized Accounts 391, 393-395, 397-399.08

This study recommends and implements General Plant Amortization as discussed in the report previously. In compliance with FERC AR 15 requirements, assets totaling \$648,650 were determined to exceed the amortization life and were considered retired in the study. The following accounts will utilize a life reflective of the specific account experience and expectations with the SQ dispersion. No graph is provided.

Account 391.00 Office Furniture, Equipment and Machines (15 SQ)

This account consists of miscellaneous office furniture such as desks, chairs, filing cabinets, tables, copiers, typewriters, and vacuums used for general utility service. There is approximately \$429 thousand in this account. The existing life is a 15 R5. Based on the analysis, type and use of assets, this study recommends retention of the 15 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 393.00 Stores Equipment (28 SQ)

This account consists primarily of forklift and some storage shelving, and miscellaneous equipment used for general utility service. There is approximately \$1 thousand in this account. The existing life is a 28 R0.5 dispersion. The Company has moved to a consignment approach to its stores operations. Based on this change in process and types of surviving assets, this study recommends retaining the existing life for the remaining assets but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 394.00 Tools, Shop, and Garage Equipment (15 SQ)

This account consists of various tools used in the shop and garages such as boring equipment, leak detectors, pipe locators, fusion, tapping, and plugging equipment. There is approximately \$2.5 million in this account. The existing life is a 15 L5. This study recommends retaining the 15 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 395.00 Laboratory Equipment (15 SQ)

This account consists of all types of laboratory equipment. There is approximately \$14 thousand in this account. The existing life is a 20 S6. Based on the analysis, type of assets and judgment, this study recommends decreasing the life to 15 years and moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Accounts 397.00 Communication Equipment (All) (12 SQ)

This account consists of all communication equipment including mobile and fixed radio systems along with telephone, telemetering and other miscellaneous communication equipment. Combining all accounts there is approximately \$425 thousand in this account. The existing life is a 12 S6. Based on the type of equipment, future expectations and judgment, this study recommends retention of the 12 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 398.00 Miscellaneous Equipment (15 SQ)

This account consists of miscellaneous equipment used in general utility service. There is approximately \$8 thousand in this account. The existing life is a 15 R1. Based on the analysis, type of assets, expectations and judgment, this study recommends retaining the life of 15 years but moving to the SQ dispersion

consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.00 Other Tangible Property (7 SQ)

This account consists of other tangible property used in general utility service. Currently there is no balance in this account. However, if assets are added in the future, the study recommends moving from the existing 8 S5 dispersion to the 7 SQ dispersion, consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.01 Server Hardware (7 SQ)

This account consists of server hardware computer equipment. There is approximately \$25 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 7 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.02 Server Software (7 SQ)

This account consists of server software. There is approximately \$64 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 7 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.03 – Network Hardware (7 SQ)

This account consists of network hardware computer equipment. There is approximately \$180 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 7 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.05 - Mainframe Hardware (7 SQ)

This account consists of computer mainframe hardware. Currently there is no balance in this account. However, should assets be added in the future, the study recommends moving from the existing 8 S5 to the 7 SQ dispersion consistent with the implementation and future application of General Plant Amortization No graph is provided.

Account 399.06 - PC Hardware (4 SQ)

This account consists of personal computer hardware, laptops, printers, monitors, and projectors. There is approximately \$588 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 4 year life with an SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.07 PC Software (4 SQ)

This account consists of software for personal computers. There is approximately \$84 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 4 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Account 399.08 Application Software (7 SQ)

This account consists of large application software. There is approximately \$213 thousand in this account. The existing life is an 8 S5. This study recommends moving to a 7 year life but moving to the SQ dispersion consistent with the implementation and future application of General Plant Amortization. No graph is provided.

Salvage Analysis

When a capital asset is retired, physically removed from service and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset). Salvage and removal cost percentages are calculated by dividing the current cost of salvage or removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the original addition versus the retirement. For example, a Distribution asset in FERC Account 376 Steel Mains with a current installed cost of \$500 (2011) would have had an installed cost of \$384 in 1961. A removal cost of \$50 for the asset calculated (incorrectly) on current installed cost would only have a negative 10 percent removal cost (\$50/\$500). However, a correct removal cost calculation would show a negative 131.5 percent removal cost for that asset (\$50/\$38). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the <u>original</u> installed cost of assets.

The net salvage analysis uses the history of the individual accounts to estimate the future net salvage that Kansas can expect in its operations. As a result, the analysis not only looks at the historical experience but also takes into account recent and expected changes in operations that could reasonably lead to different future expectations for net salvage than were experienced in the past. Generally, recent experience is more heavily weighted in making net salvage recommendations than experience older than 10 years.

Salvage Characteristics

For each account, data for retirements, gross salvage, and cost of removal

 $^{^4}$ Using the Handy-Whitman Bulletin No. 174, G-3, line 44, \$38 = \$500 x 57/ 743,

was derived from 1992-2011. Moving averages, which remove timing differences between retirement and salvage and removal cost, were analyzed over periods varying from one to 19 years, which were evaluated in making the net salvage recommendations for the study. However, for purposes of printing in this report, we have limited it to a period of 10 years in Appendix D. A discussion for each account provides the recommended net salvage factor, the existing net salvage factor if known, and any specific considerations given to support the recommendations.

Underground Storage

Account 350.20 Rights of Way (0%)

This account includes any gross salvage or removal cost related to the cost of rights of way located on underground storage lines and other property associated with underground gas storage operations. The existing net salvage is 0 percent. No net salvage is anticipated for this account. This study recommends retaining 0 percent net salvage for this account.

Account 351.00 Structures and Improvements (0%)

This account includes any gross salvage or removal cost related to structures and improvements used in connection with underground storage of natural gas. The existing net salvage is 0 percent. There have been no retirements, salvage or cost of removal. Therefore, there is no basis to change from the existing 0 percent net salvage at this time for this account.

Account 352.00 Wells, Storage Leaseholds & Rights (-20%)

This account includes any gross salvage or removal cost related to the cost of retiring wells from underground storage and associated leasehold and rights. The existing net salvage is negative 100 percent. Based on the experience of the three wells that have been retired, the cost to close the wells by filling with cement is \$4 thousand each. Some salvage was realized for the sale of the storage fields but not

likely to reoccur. Based on 50 wells and Company cost estimate of \$4 thousand per well, this study recommends moving to a negative 20 percent net salvage for this account.

Account 353.00 Lines (-25%)

This account includes any gross salvage or removal cost related to the assets used to convey gas from the connection point with transmission or field lines to underground storage wells and from underground storage wells to the point where gas enters the transmission system. The existing net salvage is negative 25 percent and is retained.

Account 354.00 Compressor Station Equipment (0%)

This account includes any gross salvage or removal cost related to compressor station equipment used to raise the pressure of gas for delivery to underground storage or to raise the pressure of gas withdrawn from underground storage for delivery to the transmission system. The existing net salvage is negative 5 percent. Some salvage is recorded due to the sale of compressors, due to the Company's move to leasing no salvage or cost of removal is expected so this study recommends 0 percent net salvage for this account.

Account 355.00 M&R Equipment (0%)

This account includes any gross salvage or removal cost related to equipment used to measure and regulate deliveries of gas to underground storage and withdrawals of gas from underground storage. The existing net salvage is negative 5 percent. Only one retirement and no salvage or cost of removal recorded in the past 19 years evaluated in the study. Therefore, this study recommends moving to 0 percent net salvage for this account at this time.

Account 356.00 Purification Equipment (0%)

This account includes any gross salvage or removal cost related to the cost of equipment used to remove impurities from and the conditioning of gas delivered to or removed from underground storage fields. The existing net salvage is 0 percent. There has been no retirement, salvage or cost of removal activity. This study recommends retaining 0 percent net salvage for this account.

Account 357.00 Other Equipment (0%)

This account includes any gross salvage or removal cost related to the cost of equipment used for underground storage when not assigned to other accounts within the underground storage function such as calorimeters or odorizers. The existing net salvage is 0 percent. There has been no retirement, salvage or cost of removal activity. This study recommends retaining 0 percent net salvage for this account.

Transmission

Account 365.20 Rights of Way (0%)

This account includes any gross salvage or removal cost for the cost of land rights used in connection with transmission operations. The existing net salvage is 0 percent. No retirements, salvage or cost of removal have been recorded and none is expected. This study recommends retaining 0 percent net salvage for this account.

Account 366.00 Structures & Improvements (-10%)

This account includes any gross salvage or removal cost for the cost of structures and improvements used in conjunction with transmission operations, such as buildings, fences, or other structures. Retirement, salvage and cost of removal activity analysis from 2002, 2004 and 2005 suggest cost of removal does occur and will exceed salvage. Based on the overall experience, this study recommends retention of the existing negative 10 percent net salvage.

Account 367.00 Mains - Cathodic Protected & Steel (-12%)

This account includes any gross salvage or removal cost for the cost of all transmission system mains including excavation costs, pipe, valves, and other equipment. The existing net salvage is negative 15 percent. Cost of removal recorded in 2008 impacts overall indications and not indicative of expectations going forward. Based on the 5-10 averages prior to 2008 and discussions with Company, this study recommends moving to a negative 12 percent net salvage for this account.

Account 368.00 Compressor Station Equipment (-10%)

This account includes any gross salvage or removal cost for the cost of transmission compressor station equipment such as boiler plant, compressed air equipment, electric power system equipment, fire fighting equipment and gas lines and equipment. The existing net salvage is negative 10 percent. Based on the most recent 5-10 year averages, this study recommends retention of the existing negative 10 percent net salvage for this account.

Account 367.03 Mains Anodes and 367.04 Leak Clamps & Sleeves (0%)

This account consists of any salvage and removal cost related to anodes and leak clamps and sleeves. These two accounts were established in this study to facilitate the retirement of these assets and for consistency with the Company's Colorado Division. Due to the amortization process being implemented and the manner in which these assets are handled at the end of life, no salvage or cost of removal is reflected. The study recommendation is a 0 percent net salvage.

Account 369.00 M&R Equipment (-20%)

This account includes any gross salvage or removal cost for the costs of meters, gauges, and other equipment used to measure or regulate gas in connection with transmission operations. The existing net salvage is negative 20

percent. Based on the analysis, the retirement, salvage and cost of removal activity recorded in 2003-2005 support the existing negative 20 percent net salvage. This study recommends no change at this time.

Distribution Plant - FERC Accounts 374.02-387

Account 374.02 Rights of Way (0%)

This account includes any salvage and removal cost related to rights of way used in connection with distribution operations. Some cost of removal was recorded due to the disposal of gathering plant right of way assets but no other cost of removal or salvage has been recorded nor expected. This study recommends retention of the 0 percent net salvage for this account.

Account 375.00 Structures and Improvements (-5%)

This account consists of any salvage and removal cost related to buildings, border station and regulating station structures, fences, and other miscellaneous related assets used in connection with distribution operations. Some salvage could be realized but will be minimal. Cost of removal is more likely to occur and expected to exceed any salvage. When retirements occur, analysis and discussions with Company personnel indicate the existing negative 5 percent is reasonable. This study recommends retention of the negative 5 percent net salvage for this account at this time.

Account 376.00 Mains Cathodic Protected; 376.01 Mains Steel; and 376.02 Mains Plastic (- 25%)

This account consists of any salvage and removal cost related to all types of distribution mains, cathodic protection and other related assets. The combined analysis indicates a 10 year average of negative 29 percent. Rolling averages are generally in the range of a negative 20 and negative 30 percent.

Timing differences in recording of salvage and cost of removal and related retirements are not unusual in the industry and can be seen in the analysis. Based on the rolling average range in the 10 year analysis and the fact the existing net salvage factor falls within this range we recommend retaining the existing negative 25 percent net salvage at this time.

Account 376.03 Mains Anodes and 376.04 Leak Clamps & Sleeves (0%)

This account consists of any salvage and removal cost related to anodes and leak clamps and sleeves. These two accounts were established in this study to facilitate the retirement of these assets. Due to the amortization process being implemented and the manner in which these assets are handled at the end of life, no salvage or cost of removal is reflected. The study recommendation is a 0 percent net salvage.

Account 378.00 Measuring & Regulating Station Equipment (-5%)

This account includes any salvage and removal cost related to measuring equipment, regulator station and valves used in distribution operations. The existing net salvage is negative 5 percent. The analysis is being driven by the cost of removal activity recorded in only 3 years (2004; 2008; 2010), but primarily from 2004. The prior study evaluated and discounted this impact making the recommendation and the existing net salvage a negative 5 percent. Cost of removal activity recorded in 2008 and 2010 relative to the retirements are impacting the overall results to be higher than what would typically be seen or expected for this account. Timing differences in recording of salvage and cost of removal and related retirements are not unusual in the industry and can be seen in the analysis. Based on the overall indications in the analysis tempered by judgment, this study recommends limiting the negative net salvage and retaining the existing negative 5 percent.

Account 379.00 Measuring & Regulating – City Gate (-5%)

This account includes any salvage and removal cost related to meters used in measuring and regulating gas at the city gate. Some retirements with cost of removal have been recorded. Rolling averages for the 4-6 year bands produce a range of negative 16 to 23 percent net salvage. Timing differences in recording of salvage and cost of removal and related retirements are not unusual in the industry and can be seen in the analysis. Based on the indications in the analysis, expectations and similarity to Account 378, tempered by judgment, this study recommends a change from the existing 0 percent to a negative 5 percent net salvage factor at this time.

Account 380.00 Services (- 65%)

This account includes any salvage and removal cost related to all types of services related to distribution operations. Analysis indicates no salvage being recorded in the past 12 years but significant cost to remove is being experienced and is expected to continue for this account. Moving averages from most recent to 10 years is negative 60 to negative 89 percent. The most recent 10 year overall is a negative 70 percent and 2011 experience is negative 60 percent. Based on the analysis, discussions with Company, and, judgment, this study recommends moving from the existing negative 45 percent to a negative 65 percent net salvage based on the consistent overall indications of increasing cost of removal being experienced by the Company.

Account 381.00 – 384.00 Meters House Regulators, & Installations (-20%)

These accounts include any salvage and removal cost related to meters used in installations, measuring, regulators and regulator installations. Due to the combined life analysis, the net salvage analysis was also combined to reflect Company plans and expectations to retire assets in these accounts at the time of a meter replacement. Very little salvage is being recorded now and none is expected in the future. Cost of removal is being consistently recorded and is

expected to continue. Based on the combined analysis and the overall indications we recommend retention of the existing negative 20 percent net salvage factor at this time.

Account 385.00 Industrial M&R Station Equipment (-5%)

This account includes any salvage and removal cost related to meters, regulator installations, regulator stations, valves and pressure recorders for industrial customers. No salvage has been recorded and is unlikely. Cost of removal was recorded in 2010 and 2011. Based on the analysis and expectations that some cost of removal will be incurred, this study recommends moving from the existing 0 percent to a negative 5 percent net salvage at this time for this account.

Account 387.00 Other Equipment (-5%)

This account includes any salvage and removal cost related to leak detectors, pipe locators, flame ionization and other miscellaneous equipment. Few retirements, minimal salvage and some cost of removal recorded. Based on the overall analysis indications and judgment, this study recommends retention of the existing negative 5 percent net salvage for this account.

General Plant – FERC Accounts 390-399.08 Depreciated Accounts 390, 392 and 396

Account 390.00 Structures and Improvements (0%)

This account includes the gross salvage and cost or removal for costs of structures and improvements used for utility service. The existing net salvage is 0 percent. Some salvage and cost of removal has been recorded in the past but is due to the sale of the Yates office building. These are unlikely to reoccur as a result, the remaining activity indicates there is little to no net salvage. This study recommends retaining 0 percent net salvage for this account.

Account 390.03, 390.04, and 390.09 Improvements, Air Conditioning, and Leasehold Improvements (0%)

This account includes the cost of roofs, foundation, air conditioning equipment and leasehold improvements such as carpet, lighting and other structures and improvements. The existing net salvage is 0 percent and is retained in this study.

Account 392.00 Transportation Equipment (10%)

This account consists of gross salvage and cost of removal for cars, trucks, and other transportation equipment that can be licensed on roadways. The existing net salvage is 5 percent. The Company leases most of its vehicles. Assets contained in this account are primarily trailers, tractor and heavy duty trucks. The overall analysis indicates a 10 percent net salvage and is reasonable based on the type of assets and Company expectations for the account. This study recommends moving from 5 to 10 percent net salvage for this account.

Account 396.00 Power Operated Equipment and Backhoes (4%)

This account consists of bulldozers, forklifts, trenchers, and other power operated equipment that cannot be licensed on roadways. The existing net salvage

is zero percent. Overall indications suggest salvage is being received and no cost of removal is expected. This study recommends moving from the existing zero percent net salvage to 4 percent as reflected in the overall analysis.

General Amortized Accounts 391, 393-395, 397-399.08

For the assets classified as amortized, where FERC AR 15 has been implemented, no net salvage is present.

Account 391.00 Office Furniture & Equipment and Office Machines (0%)

This account consists of gross salvage and cost of removal for miscellaneous office furniture such as desks, chairs, filing cabinets, and tables. The existing net salvage is 0 percent. This study recommends retention of the 0 percent net salvage for this account.

Account 393.00 Stores Equipment (0%)

This account consists of gross salvage and cost of removal for stores equipment. The existing net salvage is 0 percent. This study recommends retention of the 0 percent net salvage for this account.

Account 394.00 Tools, Shop, and Garage Equipment (0%)

This account consists of gross salvage and cost of removal for various tools used in the shop and garages such as boring equipment, leak detectors, pipe locators, fusion, tapping, and plugging equipment. The existing net salvage is 0 percent. This study recommends retention of the 0 percent net salvage for this account.

Account 395.00 Laboratory Equipment (0%)

This account includes the gross salvage and cost of removal for cost of laboratory equipment such as calorimeters, gauges, or other testing apparatus. The

existing net salvage is 0 percent. This study recommends retention of the 0 percent net salvage for this account.

Accounts 397.00, 397.01, and 397.02 Communication Equipment (0%)

This account consists of telephone and telemetering equipment. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 398.00 Miscellaneous Equipment (0%)

This account consists of miscellaneous equipment. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.00 Other Tangible Property (0%)

This account consists of gross salvage and cost of removal for server hardware computer equipment. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.01 Servers Hardware (0%)

This account consists of gross salvage and cost of removal for server hardware computer equipment. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.02 Servers Software (0%)

This account consists of gross salvage and cost of removal for server software. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage

for this account.

Account 399.03 Network Hardware (0%)

This account consists of gross salvage and cost of removal for network hardware computer equipment. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.05 Mainframe Hardware (0%)

This account consists of gross salvage and cost of removal for computer mainframe hardware. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.06 PC Hardware (0%)

This account consists of gross salvage and cost of removal for personal computer hardware, laptop, printers, monitors, and projectors. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.07 PC Software (0%)

This account consists of gross salvage and cost of removal for software for personal computers. The existing net salvage is 0 percent. Typically, these assets do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

Account 399.08 Application Software (0%)

This account consists of gross salvage and cost of removal for large application software. The existing net salvage is 0 percent. Typically, these assets

do not produce any gross salvage or removal cost. This study recommends retaining 0 percent net salvage for this account.

APPENDIX A Comparison of Depreciation Rates

Atmos Energy Corporation - Kansas Division At September 30, 2011 Comparison of Existing vs Proposed Accrual Rate

		EX	Existing	Prop	Proposed	Change in
a Cipelian Co.	Diant Ralance	Annual	Annual	Annual	Annual	Depreciation Expense
	(c)	(p)	(e)	E	[6]	[h]
STORAGE PLANT						
35020 Rights-of-Way	568,935.31	3.05%	17,352.53	1.76%	10,013.26	(7,339.27)
35100 Well Structures	102,922.98	2.18%	2,243.72	2.13%	2,192.26	(51.46)
35200 Wells	1,136,224.55	4.62%	52,493.57	2.15%	24,428.83	(28,064.75)
35300 Pipelines	1,145,817.65	2.32%	26,582.97	2.36%	27,041.30	458.33
35400 Compressor Station Equipment	2,259,429.59	4.02%	90,829.07	2.90%	65,523.46	(25,305.61)
35500 M&R Equipment	220,010.72	4.69%	10,318.50	2.72%	5,984.29	(4,334.21)
35600 Purification Equipment	288,382.11	4.37%	12,602.30	1.80%	5,190.88	(7,411.42)
35700 Other Equipment	125,321.36	3.07%	3,847.37	2.10%	2,631.75	(1,215.62)
Total Storage	5,847,044.27	3.70%	216,270.03	2.45%	143,006.02	(73,264.01)
TRANSMISSION PLANT						
36520 Rights-of-Way	9,037.30	1.95%	176.23	2.12%	191.59	15.36
36600 Structures and Improvements	33,191.19	1.89%	627.31	2.89%	959.23	331.91
36700 Mains - Cathodic Protection	3,452,903.74	1.64%	56,627.62	2.36%	81,488.53	24,860.91
36701 Mains - Steel	143,453.18	1.64%	2,352.63	3.44%	4,934.79	2,582.16
36703 Mains Anodes	2,334.13	1.64%	38.28	4.57%	106.67	68.39
36704 Mains - Leak Clamps & Sleeves	0.00	1.64%	00.0	8.33%	00.00	00:00
36800 Compressor Station Equipment	31,496.47	5.47%	1,722.86	2.96%	1,877.19	154.33
36900 M&R Station Equipment	526,227.23	2.09%	10,998.15	4.19%	22,048.92	11,050.77
Total Transmission	4,198,643.24	1.73%	72,543.08		111,606.91	39,063.83
DISTRIBUTION PLANT						
37402 Rights-of-Way	292.602.99	2,92%	8,544.01	2.12%	6,203.18	(2,340.82)
37500 Structures and Improvements	119,493.70	3.10%	3,704.30	4.27%	5,102.38	1,398.08
37600 Mains - Cathodic Protection	4,179,130.11	2.02%	84,418.43	3.33%	139,165.03	54,746.60
37601 Mains - Steel	32,805,122.95	2.02%	662,663.48	3.08%	1,010,397.79	347,734.30
37602 Mains - Plastic	78,899,087.04	2.02%	1,593,761.56	3.24%	2,556,330.42	962,568.86
37603 Mains - Anodes	2,985,070.81	2.02%	60,298.43	7.19%	214,626.59	154,328.16
37604 Mains - Leak Clamps & Sleeves	5,594,122.06	2.02%	113,001.27	14.20%	794,365.33	681,364.07
37800 M&R Station Equipment	3,571,300.76	4.74%	169,279.66	5.33%	190,350.33	21,070.67
37900 City Gate Equipment	2,207,812.05	2.53%	55,857.64	4.16%	91,844.98	35,987.34
37908 City Gate Equipment	14,850.51	2.53%	375.72	4.14%	614.81	239.09

Atmos Energy Corporation - Kansas Division At September 30, 2011 Comparison of Existing vs Proposed Accrual Rate

		EX	Existing	Pro	Proposed	Change in
		Annual	Annual	Annual	Annual	Depreciation
Accoun Description	Plant Balance	Accrual Rate	Accrual	Accrual Rate	Accrual	Expense
(a) (b)	(၁)	(p)	(e)	Ξ	<u>[6</u>]	Ξ
38000 Services	57,635,135.19	3.49%	2,011,466.22	5.41%	3,118,060.81	1,106,594.60
38100 Meters	15,021,142.34	5.12%	769,082.49	6.93%	1,040,965.16	271,882.68
38200 Meter Installations	23,917,802.91	98.9	1,640,761.28	7.39%	1,767,525.64	126,764.36
38300 House Regulators	2,209,798.32	2.66%	58,780.64	6.70%	148,056.49	89,275.85
38400 House Regulator Installations	209,461.47	1.65%	3,456.11	7.23%	15,144.06	11,687.95
38500 Industrial M&R Equipment	951,405.33	3.78%	35,963.12	6.29%	59,843.40	23,880.27
38700 Other Equipment	613,731.61	15.08%	92,550.73	7.47%	45,845.75	(46,704.98)
Total Distribution	231,227,070.15	3.18%	7,363,965.08	4.85%	11,204,442.16	3,840,477.08
GENERAL PLANT - DEPRECIATED						
39000 Structures and Improvements	1,853,668.26	3.31%	61,356.42	3.26%	60,429.59	(926.83)
39003 Improvements	1,512.88	3.31%	50.08	4.15%	62.78	12.71
39004 Air Conditioning Equipment	8,781.87	3.31%	290.68	4.17%	366.20	75.52
39009 Leasehold Improvements	39,013.13	3.31%	1,291.33	4.20%	1,638.55	347.22
39200 Transportation Equipment	645,301.60	25.98%	167,649.36	17.99%	116,089.76	(51,559.60)
39600 Power Operated Equipment	490,962.01	16.62%	81,597.89	14.31%	70,256.66	(11,341.22)
39604 Backhoes	203,475.27	16.62%	33,817.59	15.03%	30,582.33	(3,235.26)
39605 Welders	54,818.88	16.62%	9,110.90	14.52%	7,959.70	(1,151.20)
Total General Depreciated	3,297,533.90	_ 10.77% _	355,164.24	8.72%	287,385.58	(67,778.66)
Total Depreciated	244,570,291.56	3.27%	8,007,942.43	4.80%	11,746,440.68	3,738,498.25
GENERAL PLANT - AMORTIZED						
39100 Office Furniture and Equipment	429,389.08	12.20%	52,385.47	(E)	31,709.64	(20,675.82)
39300 Stores Equipment	1,308.13	7.85%	102.69	Ξ	61.35	(41.34)
39400 Tools, Shop, and Garage Equipment	2,473,079.70	8.03%	198,588.30	(1)	190,825.63	(7,762.67)
39500 Laboratory Equipment	14,057.47	5.13%	721.15	Ξ	1,121.17	400.02
39700 Communication Equipment	410,878.57	11.96%	49,141.08	£)	36,679.55	(12,461.53)
39701 Mobile Radios	7,901.70	11.96%	945.04	(E)	1,294.48	349.44
39702 Fixed Radios	6,064.82	11.96%	725.35	Ξ	539.21	(186.14)
39800 Miscellaneous Equipment	7,674.27	6.59%	505.73	(E)	526.07	20.33
39901 Servers Hardware	25,349.38	7.21%	1,827.69	(1)	3,872.38	2,044.69
39902 Servers Software	63,701.89	7.21%	4,592.91	(1	11,413.37	6,820.46
39903 Network Hardware	180,428.24	7.21%	13,008.88	Ð	30,340.73	17,331.85

Atmos Energy Corporation - Kansas Division At September 30, 2011 Comparison of Existing vs Proposed Accrual Rate

		Exi	Existing	Pro	Proposed	Change in
		Annual	Annual	Annual	Annual	Depreciation
Accoun Description	Plant Balance	Accrual Rate	Accrual	Accrual Rate	Accrual	Expense
(a) (b)	(0)	[] (E)	(e)	E	[6]	[h]
39906 PC Hardware	588,495.87	7.21%	42,430.55	Ξ	192,901.38	150,470.82
39907 PC Software	84,069.92	7.21%	6,061.44	Ξ	25,529.01	19,467.57
39908 Application Software	213,445.03	7.21%	15,389.39	Ξ	36,683.89	21,294.50
Total General Amortized after Ret	4,505,844.07	8.58%	386,425.66	Ξ	563,497.84	177,072.18
Total Depreciated & Amortized	249,076,135.63	3.37%	8,394,368.09	4.94%	12,309,938.52	3,915,570.43
AR 15 Retirements	648,650.04					
Fully Depreciated 35202 and 39603	137,706.74					
Retire 36703/4 and 37603/3 Amortize	1,100,065.60					
Total Study	250,962,558.01					
Non-Depreciable	925,012.38					
Total PIS Study	251,887,570.39					
Total PIS Per GL	251,887,570.39					
Diff	•					

(1) General Plant - Amortized proposed accrual includes ongoing amortization (1/Life) plus fixed (Deficit)/Surplus accrual

APPENDIX B Calculation of Equal Life Group

Atmos Energy - Kansas At September 30, 2011 Calculation of Equal Life Group Depreciation Accrual Rate

Annual Accrual Rate	(0)	1.76%	2.13%	2.15%	2.36%	2.90%	2.72%	1.80%	2.10%			2.12%	2.89%	2.36%	3.44%	4.57%	8.33%	5.96%	4.19%			2.12%	4.27%	3.33%	3.08%	3.24%	7.19%	14.20%	5.33%	4.16%	4.14%	5.41%	6.93%	7.39%	6.70%	7.23%	6.29%	7.47%	
Annual Accrual Amount	(j)	9,989,92	2,196.39	24,391.48	27,078.32	65,469.12	5,991.77	5,177.28	2,626.47	142,920.75		191.27	960.64	81,606.74	4,936.01	106.72	*	1,878.42	22,028.45	111,708.26		6,208.45	5,099.12	139,024.35	1,011,621.85	2,553,208.34	214,494.75	794,541.27	190,511.65	91,744.23	614.30	3,116,068.53	1,040,615.26	1,767,863.28	148,020.16	15,136.23	59,826.73	45,832.40	11,200,430.92
Annual Remaining Life	(h)	27.20	19.52	28.09	27.21	10.87	9.90	8.80	13.16			37.01	17.34	22.63	31.11	3.10	0.00%	11.50	13.58	•		40.21	16.25	30.90	29.42	31.14	9.28	2.88	13.23	16.27	15.25	22.67	9.77	11.26	8.87	5.87	12.38	7.94	
Unaccrued Balance	(b)	271.727.54	42,871.73	685,122.54	736,691.72	711,499.95	59,329.43	45,572.26	34,567.52	2,587,382.68		7,078.82	16,653.73	1,846,692.45	153,559.89	330.98	ı	21,601.86	299,188.70	2,345,106.43		249,629.75	82,853.44	4,295,648.48	29,763,017.15	79,516,550.08	1,990,534.09	2,285,575.88	2,520,596.24	1,493,047.86	9,365.17	70,651,347.53	10,166,921.02	19,905,193.78	1,312,669.51	88,820.30	740,578.02	363,907.65	225,436,255.94
Net Salvage Amount	(1	1	(227,244.91)	(286,454.41)	1	1	1	•	(513,699.32)			(3,319.12)	(414,348.45)	(17,214.38)	. ,	,	(3,149.65)	(105,245.45)	(543,277.04)		•	(5,974.69)	(1,044,782.53)	(8,201,280.74)	(19,724,771.76)	•	•	(178,565.04)	(110,390.60)	(742.53)	(37,462,837.87)	(3,004,228.47)	(4,783,560.58)	(441,959.66)	(41,892.29)	(47,570.27)	(30,686.58)	(75,079,243.60)
Net Salvage %	(e)	%0	%0	-20%	-55%	%0	%0 _.	%0	%0			%0	-10%	-12%	-12%	%0	%0	-10%	-20%	1 1		%0	-2%	-25%	-25%	-25%	%0	%0	-2%	% 5-	~2%	-65%	-20%	-20%	-20%	-20%	-5%	-2%	
Allocated Reserve	(p)	77 202 282	60,051,25	678,346.92	695,580.35	1,547,929.64	160,681.29	242,809.85	90,753.84	3,773,360.91		1,958.48	19,856.58	2,020,559.74	7.107.67	2,003,15		13.044.25	332,283,98	2,396,813.85		42,973.24	42,614.95	928,264.16	11,243,386.53	19,107,308.72	994,536.72	3,308,546.18	1,229,269.56	825,154.80	6,227.87	24,446,625.53	7,858,449.79	8,796,169.71	1,339,088.47	162,533.47	258,397.57	280,510.54	80,870,057.81
Plant Balance	(0)	568 935 31	102,922,98	1,136,224.55	1,145,817.65	2,259,429.59	220,010.72	288,382.11	125,321.36	5,847,044.27		9,037.30	33,191.19	3,452,903.74	143,453.18	2,334,13		31.496.47	526,227,23	4,198,643.24		292,602.99	119,493.70	4,179,130.11	32,805,122.95	78,899,087.04	2,985,070.81	5,594,122.06	3,571,300.76	2,207,812.05	14,850.51	57,635,135.19	15,021,142.34	23,917,802.91	2,209,798.32	209,461.47	951,405.33	613,731.61	231,227,070.15
Description		STORAGE PLANT 35020 Rights-of-May	Well Structures	Wells	Pipelines	Compressor Station Equipment	M&R Equipment	Purification Equipment	Other Equipment	Total Storage	TRANSMISSION PLANT	Rights-of-Way	Structures and Improvements	Mains - Cathodic Protection	Mains - Steel	Mains Anodes	Mains - Leak Clamps & Sleeves	Compressor Station Equipment	M&R Station Equipment	Total Transmission	DISTRIBUTION PLANT	Rights-of-Way	Structures and Improvements	Mains - Cathodic Protection	Mains - Steel	Mains - Plastic	Mains - Anodes	Mains - Leak Clamps & Sleeves	M&R Station Equipment	City Gate Equipment	City Gate Equipment	Services	Meters	Meter Installations	House Regulators	House Regulator Installations	Industrial M&R Equipment	Other Equipment	Total Distribution
		<u>ದ</u> ಜೆ	. Š	Š	ä	ပ္ပ	ž	P	ð		SS	ž	얍	ž	Σ	Σ	Σ	C	2	į	Ĕ	œ	ഗ്	Š	Š	Σ	Σ	Σ	Σ	Ü	$\bar{\Omega}$	ű	≥	ž	Ĭ	Ĭ	Ĕ	Ó	

Atmos Energy - Kansas At September 30, 2011 Calculation of Equal Life Group Depreciation Accrual Rate

Annual	Rate	6		4.15%								
Annual	Accidal	©	60,374.10	62.84	366.61	1,638.41	116,103.30	70,240.34	30,576.46	7,962.20	287,324.26	11,742,384.19
	Life		26.85	15.80	15.25	14.72	3.11	3.90	3.87	4.74	'	
7 9 9 9	Oriacci ueu Balance	(b)	1,621,217.87	993.07	5,589.06	24,114.41	361,143.55	273,790.66	118,398.51	37,776.99	2,443,024.12	232,811,769.18
100	Net Salvage Amount	())	1	•		ı	64,530.16	19,638.48	8,139.01	2,192.76	94,500.41	(76,041,719.56)
	ivet Salvage %	(e)	0.00%	0.00%	0.00%	0.00%	10.00%	4.00%	4.00%	4.00%	•	•
7	Allocated	(p)	232,450,39	519.81	3,192.81	14,898.72	219,627.89	197,532.87	76,937.75	14,849.14	760,009.38	87,800,241.95
	Plant Balance	(0)	1,853,668,26	1,512.88	8,781.87	39,013.13	645,301.60	490,962.01	203,475.27	54,818.88	3,297,533.90	244,570,291.56
	Description	(b)	39000 Structures and Improvements	Improvements	Air Conditioning Equipment	Leasehold Improvements	Transportation Equipment	Power Operated Equipment	Backhoes	Welders	Total General Depreciated	Total Depreciated
	Acct	(a)	39000	39003	39004	39009	39200	39600	39604	39605		

Atmos Energy - Kansas At September 30, 2011 Calculation of Equal Life Group Depreciation Accrual Rate

Annual Accrual Rate	6																																						
Annual Accrual Amount	©																																				•		
Annual Remaining Life	(h)	Amortize Reserve	(Deficit)/Surplus	3,083.71	14.63	25,953.65	184.01	2,439.67	636.01	33.81	14.45	251.04	2,313.10	4,565.26	45,777.41	4,511.53	6,191.74	95,969.99	95,969.99	Ongoing	Amortization	Rate	%	6.67%	(2)		3.57%	(2)		6.67%	(Z)	č	%/9.9 (3)	(7)	/00000	0.55%	(2)	8.33%	(2)
Unaccrued Balance	(b)	Remaining	Life	10.46	12.55	9.07	9.76	9.37	2.50	9.50	13.50	5.50	3.50	4.13	1.41	2.17	3.89					Total	Amortization			31,709.64			61.35		00000	190,025.05			1,121.1		36,679.55		
Net Salvage Amount	()	Reserve	(Deficit)/Surplus	(32,243.22)	(183.52)	(235,502.09)	(1,243.37)	(22,866.12)	(1,590.02)	(321.16)	(195.06)	(1,380.70)	(8,095.83)	(18,833.39)	(64,678.87)	(9,783.70)	(24,093.89)	(421,010.93)	(76,462,730.49)		Accrual	For Reserve	(Deficit)/Surplus		3,083.71			14.63		1	25,953.65			184.01		73067	7,103.07		636.01
Net Salvage	(e)	Theoretical Reserve	9/30/2011	132,294.52	722.02	1,018,491.24	12,056.90	89,960.78	6,255.51	1,263.50	767.43	5,432.01	31,850.95	74,095.03	798,535.13	38,491.41	94,791.11	2,305,007.54	2,305,007.54			Annual	Amortization (1)	28,625.94			46.72		!	164,871.98			937.1646667		0000	34,239.88		658.48	
Allocated Reserve	(p)	Allocated Reserve	9/30/2011	100,051.30	538.50	782,989.15	10,813.53	67,094.66	4,665.49	942.35	572.36	4,051.31	23,755.11	55,261.65	733,856.27	28,707.71	70,697.22	1,883,996.61	89,684,238.56	vice Life	Allocated	Reserve	9/30/2011	94,609.29			538.50			691,019.35			3,648.33		0	67,094.66		4,665.49	
Plant Balance	(c)	Plant Balance	9/30/2011	434,831.09	1,308.13	2,565,049.50	21,222.67	410,878.57	7,901.70	6,064.82	7,674.27	25,349.38	63,701.89	180,428.24	1,132,568.90	84,069.92	213,445.03	5,154,494,11	249,724,785.67	Age > Average Ser	Plant	Balance	9/30/2011	429,389.08	•		1,308.13			2,473,079.70	-		14,057.47			410,878.57		7,901.70	
Description	(q)	GENERAL PLANT - AMORTIZED	Description	Office Furniture and Equipment	Stores Equipment	Tools, Shop, and Garage Equipmer	Laboratory Equipment	Communication Equipment	Mobile Radios	Fixed Radios	Miscellaneous Equipment	Servers Hardware	Servers Software	Network Hardware	PC Hardware	PC Software	Application Software	Total General Amortized	. •	After Retirements of Assets With Age > Average Service Life			Description	39100 Office Furniture and Equipment	39100 Office Furniture and Equipment	Total	39300 Stores Equipment	39300 Stores Equipment	39300 Total	39400 Tools, Shop, and Garage Equipmer	Tools, Shop, and Garage Equipment	l lotal	39500 Laboratory Equipment	39500 Laboratory Equipment	Total	Communication Equipment	communication Equipment Total	39701 Mobile Radios	39701 Mobile Radios
Acct	(a)	GENERAL	Account	39100	39300	39400	39500	39700	39701	39702	39800	39901	39902	39903	39906	39907	39908						Account	39100	39100	39100 Total	39300	39300	39300	39400	39400	39400	39500	39500	39500 Total	39700	39700 Com 39700 Total	39701	39701

Atmos Energy - Kansas At September 30, 2011 Calculation of Equal Life Group Depreciation Accrual Rate

Annual Accrual Rate	(0)		,								
Annual Accrual Amount	())										
Annual Remaining Life	(µ)	8.33% (2)	6.67% (2)	14.29%	14.29% (2)	14.29% (2)	25.00% (2)	25.00% (2)	14.29% (2)		
Unaccrued Balance	(g) 1.294.48	539.21	526.07	3 872 38	11 413 37	30 340 73	100 001 38	25 529.01	36 683.89	563,497.84 233,375,267.02	
Net Salvage Amount	€	33.81	14.45	251.04	2,313.10	4,565.26	45,777.41	4,511.53	6,191.74	95,969.99 (75,945,749.57)	
Net Salvage %	(e)	505.40	511.62	3,621.34	9,100.27	25,775.46	147,123.97	21,017.48	30,492.15	467,527.85 467,527.85	
Allocated Reserve	(p)	942.35	572.36	4,051.31	23,755.11	55,261.65	189,783.24	28,707.71	70,697.22	1,235,346.57 89,035,588.52	90,901,965.73 (1,217,727.17) (20,045.18) 137,706.75 1,100,065.60
Plant Balance	(5)	6,064.82	7,674.27	25,349.38	63,701.89	180,428.24	588,495.87	84,069.92	213,445.03	4,505,844.07 249,076,135.63	251,887,570,40 (2,162,784.73) 925,012.38 137,706.75 1,100,065.60
Acct Description	701 Total	39702 Fixed Radios 39702 Fixed Radios 39702 Tretal	39800 Miscellaneous Equipment 39800 Miscellaneous Equipment	39901 Servers Hardware 39901 Servers Hardware 39001 Trotal	39902 Servers Software 39902 Servers Software 39007 Total	39903 Network Hardware 39903 Network Hardware 20002 Total	39906 PC Hardware 39906 PC Hardware 39006 PC Hardware	39907 PC Software 39907 PC Software 39007 PC Software	39908 Application Software 39908 Application Software 39908 Total	Total Study Depreciated & Amortized Total Study Depreciated & Amortized	GL Diff Non Depreciable Fully Depreciated 35202 & 39603 Retirements 367 & 376 Amortized

⁽¹⁾ Annual Amortization is 1/life of asset group (excluding Deficit/Surplus Accrual). (2) Amortization of Reserve (Deficit)/Surplus will be a fixed dollar amount over the current remaining life of the account.

APPENDIX C Mortality Characteristics

ATMOS ENERGY CORPORATION - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Approved and Study Proposed Divisions 79, 81 and 86

				EXI	STING			Р	ROPOSE	D - 2011	
			Mort		racteristi					racteristic	
			lowa	Gross	Cost of	Net		lowa	Gross	Cost of	Net
Account	Description		Curve	Salvage %	Removal %	Salvage %	ASL Yrs	Curve	Salvage %	Removal %	Salvage %
	STORAGE PLANT	Yrs		%	70	70	115		70	70	70
350.20	Rights-of-Way	50	R5	0%	0%	0%	50	R5	0%	0%	0%
	Well Structures		R4	0%	0%	0%		R4	0%	0%	0%
352.00			S4	0%	100%	-100%		S4	0%	20%	-20%
	Reservoirs *		R3	0%	0%	0%		R3	0%	0%	0%
	Pipelines		S2	0%	25%	-25%		R3	0%	25%	-25%
	Compressor Station Equipment		S2	0%	5%	-5%		S2	0%	0%	0%
	M&R Equipment		S2	0%	5%	-5%		S2	0%	0%	0%
	Purification Equipment		R4	0%	0%	0%		R4	0%	0%	0%
	Other Equipment	35		0%	0%	0%		R5	0%	0%	0%
357.00	Other Equipment	55	110	0 70	0 70	070	00	110	070	070	070
	TRANSMISSION PLANT										
365.20	Rights-of-Way	50	R5	0%	0%	0%	50	R5	0%	0%	0%
	Structures and Improvements		R2.5	0%	10%	-10%		R2.5	0%	10%	-10%
	Mains - Cathodic Protection		S2	0%	15%	-15%		R1.5	0%	15%	-15%
	Mains - Steel	50		0%	15%	-15%		R1.5	0%	12%	-12%
	Mains Anodes		N/A	N/A	N/A	N/A		SQ	0%	0%	0%
	Mains - Leak Clamps & Sleeves		N/A	N/A		N/A		SQ	0%	0%	0%
	Compressor Station Equipment		SQ	5%	15%	-10%		SQ	0%	10%	-10%
	M&R Station Equipment		R0.5	5%	25%	-20%		R0.5	0%	20%	-20%
309.00	Mar Station Equipment	. 50	110.5	570	2370	2070	00	110.0	0,0	2070	2070
	DISTRIBUTION PLANT										
374.02	Rights-of-Way	50	R5	0%	0%	0%	50	R5	0%	0%	0%
	Structures and Improvements	35	L2	0%	5%	-5%	31	L2	0%	5%	-5%
	Mains - Cathodic Protection		S2	0%		-25%		R1.5	0%	25%	-25%
	Mains - Steel		S2	0%		-25%		R1.5	0%	25%	-25%
	Mains - Plastic	50		0%	25%	-25%		R1.5	0%	25%	-25%
	Mains - Anodes		N/A	N/A		N/A		SQ	0%	0%	0%
	Mains - Leak Clamps & Sieeves		N/A	N/A				SQ	0%		0%
	M&R Station Equipment		S2	0%		-5%		R0.5	0%		-5%
	City Gate Equipment		R1	0%		0%		R2	0%		-5%
	City Gate Equipment		R1	0%		0%		R2	0%		-5%
	Services	40		0%		-45%		S1	0%		-65%
	Meters		R0.5	0%		-20%		R1	0%		-20%
	Meter Installations		R0.5	0%		-20%		R1	0%		
	House Regulators	30	R0.5	0%		-5%		R1	0%		-20%
	•		S5	0%		0%		R1	0%		
	House Regulator Installations		R0.5					R0.5	0%		-5%
	Industrial M&R Equipment	25 20		0% 5%		0% -5%		L3	0%		-5%
387.00	Other Equipment	20	LO	3%	10%	-070	10	LJ	070	376	-5 76
	GENERAL PLANT										
300.00	Structures and Improvements	30	R2	0%	0%	0%	40	R2	0%	0%	0%
	Improvements		R2	0%				R2	0%		0%
	Air Conditioning Equipment		R2	0%				R2	0%		0%
	Leasehold Improvements		R2	0%				R2	0%		
	Office Furniture and Equipment		R5	0%				SQ	0%		
	Office Machines	- 15		0%				SQ	0%		
	Transportation Equipment		L3	5%				L3	10%		
	Stores Equipment		R0.5	0%				SQ	0%		
	Tools, Shop, and Garage Equipmen			0%				SQ	0%		
	Laboratory Equipment		S6	0%				SQ	0%		
	Power Operated Equipment		L4	0%				R3	4%		
555,50				- 70	- 70		_				

Appendix C

ATMOS ENERGY CORPORATION - KANSAS DIVISION Depreciation Study as of September 30, 2011 Comparison of Approved and Study Proposed Divisions 79, 81 and 86

					EXI	STING			Р	ROPOSE	D - 2011	
				Mort	ality Cha	racteristic	cs		Mort	ality Cha	racteristic	
				lowa	Gross	Cost of	Net		lowa	Gross	Cost of	Net
Account	Description		ASL	Curve	Salvage	Removal	Salvage	ASL	Curve	Salvage	Removal	
		,	Yrs		%	%	%	Yrs		%	%	%
396.03	Ditchers	*	10	L4	0%	0%	0%		R3	4%	0%	4%
396.04	Backhoes		10	L4	0%	0%	0%		R3	4%	0%	4%
396.05	Welders		10	L4	0%	0%	0%	8	R3	4%	0%	4%
397.00	Communication Equipment		12	S6	0%	0%	0%	12	SQ	0%	0%	0%
397.01	Mobile Radios		12	S6	0%	0%	0%	12	SQ	0%	0%	0%
397.02	Fixed Radios		12	S6	0%	0%	0%	12	SQ	0%	0%	0%
398.00	Miscellaneous Equipment		15	R1	0%	0%	0%	15	SQ	0%	0%	0%
399.00	Other Tangible Property		8	S5	0%	0%	0%	7	SQ	0%	0%	0%
399.01	Servers Hardware		8	S5	0%	0%	0%	7	SQ	0%	0%	0%
399.02	Servers Software		8	S5	0%	0%	0%	7	SQ	0%	0%	0%
399.03	Network Hardware		8	\$5	0%	0%	0%	7	SQ	0%	0%	0%
399.05	Mainframe Hardware		8	S5	0%	0%	0%	7	SQ	0%	0%	0%
399.06	PC Hardware		8	S5	0%	0%	0%	4	SQ	0%	0%	0%
399.07	PC Software		8	S5	0%	0%	0%	4	SQ	0%	0%	0%
399.08	Application Software		8	S5	0%	0%	0%	7	SQ	0%	0%	0%

APPENDIX D Net Salvage

	Net Salv. %	\$	%00'0	48.59%	4130.86%	0.00%	
	Net Net	\$ \$	%00.0 %00.0	48.59% 48.59%	4130.86% 4130.86%	%00°0 %00°0	
!	Net Net	ZZZ	0.00% 0.00% 2.00%	48 59% 48.59% 48.59%	4130.85% 4130.88% 4 4130.88% 4	%00°0 %00°0	
	Net Net Salv. %	4444 2222	2000 0000 0000 0000 0000 0000	48.59% 48.59% 48.59% 48.59%	NA 4130.86% 4130.86%	%600'0 %600'0	
	Salv. %	£ £ ££	%%%% 2000 0000 0000	48.159% 48.159% 48.159% 48.159% 48.159%	NA NA 130.86% 130.86%	%%%% 80000 60000 800000	
	Net Salv. %	\$ \$\$ \$ \$\$	****** 80000 00000 00000	84 84 84 84 84 84 84 84 84 84 84 84 84 8	NA 4130.88% 4130.88% 4130.88%	%##%% %#6000 666000	
:	Salv. %	\$ \$\$\$\$\$\$	****** 0000000 0000000	44 44 44 44 44 44 44 44 44 44 44 44 44	NA NA NA NA NA NA NA NA NA NA NA NA NA N	% 2000 0000 0000 0000 0000	
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	19- yr Net Salv. % -3.70%	-25.34%	-78.01%	-33.35%	-36.05%	
	18-yr Nef Sarv. % 3.70% 4.23%	.25.27% -24.79%	-85.37% -78.01%	.39.87% .33.35%	.34,93%. -35,75%	-26.06%
	17. yr Net Salv. % 4.23% 4.24%	-25.25% -24.71% -24.75%	-82.20% -85.31% -78.01%	%85.35- %78.05- %30.55-	.31.52% .34.59% .35.85%	-25.52% -26.56%
	16- yr Na. 62 Na. 75 Na. 75 Na	-24.74% -24.73% -24.67% -24.67%	-119.23% -82.20% -85.31% -78.01%	430 12% 480 89% 43. 35%	원 (18% 사건 (12% 14(18%	.25.62% -26.11% -27.07%
	3.70% 3.70% 4.24% 4.24% 4.24%	.22.73% .24.83% .24.63% .24.63%	-87,98% -19,223% -26,537% -78,01%	-19.89% -26.52% -28.87% -28.87%	28.43% 43.73% 44.83% 8.48%	25.55% -28.51% -27.15%
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	17-7 No. 1 10-1	27.23% 26.418% 24.418% 24.93% 24.92%	NA NA 116.93% 12.23% 18.53.34% 18.53.34%	4.9 99.4 26.31.99.4 26.31.4 26.87.4 26.87.4 26.87.4 26.87.4	-21.22% -25.91% -25.91% -31.031% -36.33% -36.33%	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
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TMOS ENERGY - KANSAS DVJSION iciation Study as of September 10, 2011 NET SALVAGE HISTORY	Salva Nak Nak 1-20% 1-50-5% 1-150-3% 1-150-3% NA	PV212126666 \$422222222222222222222222222222222	\$	%%%%% %%%%% %%%%%	ૡૡૺઌઌઌ૽ૡૹ૽૽ ૡૡઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌઌ	00000000000000000000000000000000000000
S ENERGY - on Study as NET SALVAG	2-yr Net Net -0.15% -1150.3% -1150.3% NA	±₹₩₽₽₩₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	\$2888888888888888888888888888888888888	\$\$\$\$\$ \$	±&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&	00000000000000000000000000000000000000
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!	Salv. %	-1.19%	-65,60%	-0.02%	.25.92%	-18.33%	
	78- yr Net Salv. % S -26.56%	-1-19% -1.25%	-67.05% -65.59%	.0.07% -0.02%	-29.65% -26.28%	-18.33% -19.28%	
	17-yr Net Salv. % 5	1.1.25% 495% 498%	-54 B4% -67 T05% -55.81%	0.00% -0.02% -0.03%	%25'92' %25'92' %25'92'	-18.33% -19.28% -20.00%	
	16-yr Net Salv. % -27.15%	19% 2. 2. 25% 2. 4. 29% 1. 50%	-63 84% -64 83% -57 33%	%%% %% % % % % % % % % % % % % % % % %	28.91% 27.17% 30.45% 25.77%	-18.33% -19.28% -20.00%	
	15- yr Net Salv. % -27.53%	2.4.4.2.4.4.2.4.4.2.4.4.4.4.4.4.4.4.4.4	47.27% 48.31% 65.11% 67.77%	%%% %%%% \$500 \$600 \$600 \$600 \$600 \$600 \$600 \$600	25.25 25.25	-18.33% -25.23% -20.85% -21.55%	
	14- yr Net Salv. % -28.01%	%%%%% 70,777,77 77,777	45.18% 47.24% 64.15% 65.53% 67.49%	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	23.40% 27.773% 28.772% 29.74% 21.05% 27.22%	######################################	
	13- yr Net Salv. % -28.07%	\$\$\$\$\$\$\$ \$\$\$\\\\\\\\\\\\\\\\\\\\\\\\\\\	4.4.5.4.4.3.8.4.4.5.8.6.5.9.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8	0.000000000000000000000000000000000000	27.36% 23.97% 27.06% 27.38% 28.56% 27.27%	6-6-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4	
	12-yr Net Salv. % -28.07%	6.6.6.4.4.6.98.88.28.28.28.28.28.28.28.28.28.28.28.28	4.5.5.5.3.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	00000000 00000000000000000000000000000	23.46% 24.398% 24.308% 29.33% 29.33% 31.43% 27.28%	64488888888888888888888888888888888888	
	11- yr Net Salv. % -28.15%	0.00 0.00 0.000 0.	45. 45. 45. 45. 45. 45. 45. 45. 45. 45.	00000000000000000000000000000000000000	22.22 22.33 22.33 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 23.40 24.40	######################################	
	10- yr Net Salv. % -28.39%	0.00% 0.00% 0.31% 0.31% 0.31% 0.31% 0.33% 1.41% 1.33%	6.64.64.64.64.65.65.65.65.65.65.65.65.65.65.65.65.65.	2222222222 22222222222 222222222222222	17.62% 27.62% 27.93% 27.13% 27.11% 27	7-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-	
	9-yr Net Salv. % :	0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000%	8,8,2,4,4,4,6,8,6,5,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4	00000000000000000000000000000000000000	25 1817 1817 1817 1817 1817 1817 1817 181	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
	8-yr Net Salv. % :	00000000000000000000000000000000000000	48884888888888888888888888888888888888	00000000000000000000000000000000000000	0.000 1.000	o.t.t.c446161616161616161616161616161616161616	
	7-yr Net Salv. %	0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000%	45.55% 15.10% 15	325500000000000000000000000000000000000	0.00% 2000%	oo #	
	6- yr Net Salv. % -249.79%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.17% 0.17% 0.17% 0.17%	433 433 434 435 435 435 435 435 435 435	0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000% 0.000%	000 0000 0000 0000 0000 0000 0000 0000 0000	00000000000000000000000000000000000000	
	5- yr Net Salv: % -249,8%	ద్ది క్రిమాన్స్ క్రామాన్స్ క్రిమాన్స్ క్రామ్న్ క్రిమాన్స్ క్రామ్న్ క్రామ్స్ క్రిమాన్స్ క్రామ్న్ క్రామాన్స్ క్రామాన్స్ క్రామాన్స్ క్రామాన్స్ క్రామాన్స్ క్రామ్స్ క్స్ స్ట్రాన్స్ క్స్ స్ట్రాన్స్ స్ట్రాన్స్ క్స్ స్ట్రాన్స్ స్ట్రాన్స	66897 44897 6487 6487 6487 6487 6487 6487 6487 648	00000000000000000000000000000000000000	0000 % 1 % 1 % 1 % 1 % 1 % 1 % 1 % 1 % 1	00000824474444 9999999999999444 50000	
	4- yr Net Salv. % -246.4%	00000000000000000000000000000000000000	2224-224269888866298 2224-23288888866298 2224-23288888866298	00000000000000000000000000000000000000	99999445444444444444444444444444444444	888888884888484848 666666664884848484848	
SE HISTORY	3- yr Net Satv. % -233.6%	000000000 00000000 00000000 00000000 0000	88229929929999999999999999999999999999	7.7×××××××××××××××××××××××××××××××××××	000000004/4444444444444444444444444444	00000000000000000000000000000000000000	0.0 %0.0
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	19-yr Net Salv. %	-7.52%	0.00%	-20.59%	-5.48%	-3.80%	
	18- yr Nef Salv. %	7.52%	0.00 %00.0	.22.02% -21.41%	-0.52% -6.11%	ى 90% 19.4%	
	Net Salv. %	-7.52% -7.75% -8.20%	0.00 0.00 0.00 0.00	-20.79% -22.36% -22.07%	0.00% 0.59% 6.70%	.3.80% 3.517% 3.91%	
	16- yr Net Salv. %	7.52% -7.75% -8.20% -2.162%	0.00% 0.00% 0.00%	25.25. 25	**************************************	%%%% 85666 87666	
	15-yr Net Salv. %	7.1.75% 43.70% -27.62% -55.43%	\$2000 \$2000 \$2000 \$2000	-18.37% -23.27% -24.54% -24.54%	0.00% 0.00% 0.00% 0.30%	, 82.000 84.44.44.44.44.44.44.44.44.44.44.44.44.4	
	14-yr Net Safv. %	7.152% 27.152% 27.1523% 25.152% 15.154%	%%%%% 828886 62666 62666	1-18-10% 1-19-15-5-2-1-19-18-18-18-18-18-18-18-18-18-18-18-18-18-	0.00% 0.00% 0.00% 0.00% -1.09%	**** &555 \$99 \$99 \$99 \$99	
	13-yr Net Salv. %	-7.52% -7.75% -8.70% -65.43% -85.54% -154.92%	%%%%% %%%% 000000 000000	45.02% 4.020% 4.020% 7.0203% 7.06.7.1% 7.06.7.1% 7.42%	0.00% 0.00% 0.00% 0.00% 1-1.50% 1-1.50%	%%%%% &%%%%% &%%%%% &%%%%%% &%%%%%%	
	12-yr Net Salv. %	-7.80% -7.755% -7.755% -21.62% -55.43% -85.543% -154.92% -154.92%	%%%%%% %%%%%% 8000000000000000000000000	86.65% 86.65% 86.65% 86.75% 86.75% 87	00000000000000000000000000000000000000	%%%%%%% © 1999 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	
	71-yr Net Salv. %	0.00% 48.00% 21.02% 55.43% 48.52% 15.432%	%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	+ 444 +	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	88555555 55	
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	7- yr Net Salv. %	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	2222866666666 66666666	0.00% 1.00%	22000000000000000000000000000000000000	\$0000000000000000000000000000000000000	0.00% 0.00% 0.01% 6.05%
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on Study as of September 30, 2011 NET SALVAGE HISTORY	3- yr Net Salv. %	2000 2000 2000 2000 2000 2000 2000 200	5555555555555555	00000000000000000000000000000000000000	20000000000000000000000000000000000000	99 8844444444888888444444	******** ********** ******************
on Study as NET SALVA	2-yr Net Salv: %	2000 2000 2000 2000 2000 2000 2000 200	<u> </u>	00000000000000000000000000000000000000	335555552 66666666 6666 <u>K</u> K	00 884444444484444444444444444444444444	66666666888888888888888888888888888888
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	Account	88500 2000 88500 2000 88500 88500 88500 2000 88500 88500 88500 88500 88500 88500 88500 88500 88500	### 1990 1990		200 200 200 200 200 200 200 200 200 200	### 100	39000 1992 39000 1994 39000 1995 39000 1995 39000 1999 39000 2000 39000 2000

	19-yr Net Salv: %	29.78%	%00'0		10.40%	%00°0	-0.13%	
	18-yr 1 Net Salv. % Si	28.78% 30.03%	%00°0 %00°0		10.40% 10.40%	%00°0 %00°0	0.13% 0.13%	
	Net Salv. % S	29.78% 30.03% 30.03%	%00 %00 %00 %00 %00		8 44% 10.40% 10.40%	%00.0 %00.0 00.00 00.00	-0-13% -0-13% -0-13%	
	16-yr Net Salv. %	29.78% 30.03% 30.03% 30.16%	%000 %000 %000 %000		8 07% 8 44% 10.43% 10.48%	%0000 %0000 %0000	0.11% 0.13% 0.13% 0.13%	
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	13-yr Net Salv. %	**************************************			8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	****** 0000 0000 0000 0000 0000 0000	6.0.0.0.0.0.0 20.00.0.0.0.0 \$\$\$\$\$\$ \$\$\$\$\$	
	12-yr Net Salv. %				######################################	2000 2000 2000 2000 2000 2000 2000 200	00.00000000000000000000000000000000000	
	-	3.13% 3.113% 30.28% 30.28% 31.48% 59.19%	**************************************		8.48% 8.50% 7.70% 19.50% 1.77%	\$5555 \$5555	0.000000000000000000000000000000000000	
	Net Net %	3.13% 3.13% 3.13% 30.31% 30.31% 31.49% 59.16% 56.95%	######################################		88.42 88.88 88.88 88.88 88.88 11.72 11.24 11.24 11.24 11.24 11.24 11.24 12.34 13.34	********* 888688888 00000000	00000000000000000000000000000000000000	
	9-yr Net Salv. %	3.133% 3.14% 3.14% 3.149% 59.10% 59.10% 56.95% 56.95%	25000000000000000000000000000000000000		8.88.88.88.88.88.88.88.88.88.88.88.88.8	************** 00000000000000000000000	00000000000000000000000000000000000000	0.00%
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	7-yr Net Salv. %	3.17% 3.17% 3.17% 3.1.7% 59.20% 56.95% 70.52% 101.73%	00000000000000 \$\$\$\$\$\$\$\$\$\$\$\$55 \$\$\$\$\$\$\$\$\$\$		7.1.08% 8.7.188% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06% 7.06%	23333333333333 200000000000000000000000	aaaaaaddddddd + 42aaaaaa * 48aaaaaaa * 48aaaaaaaaa	0.00% 0.00% 0.00%
	Selv. 7	3.33% 3.33% 3.33% 56.95% 56.95% 101.73%	%%%%%%%%%%%%%% 00000000000000000000000		12.34 7.195 7.195 7.195 8.865 8.865 8.865 8.055 7.195 9.275 9.275 8.509 8.500	VVXXXXXXXXXXXXX ZZ0000000000000000000000	00000000000000000000000000000000000000	0.00% 0.000% 0.000%
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on Study as NET SALVA	Salv. %	25.44.1.01 26.82.92.00 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 26.80 2	00000000000000000000000000000000000000	%0.00 %0.00 %0.00	7. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	444444333334334335 222222266666 66666 666666	00000000000000000000000000000000000000	*4444**** 6222206666 6666
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	agg	25.75 27.62 20.03	೧೦೧೦೦೦೦೦೦೦೦೦೦೩	00000	(33.95) (4.32.95) (4.32.95) (4.32.95) (4.32.95) (4.32.95) (4.32.95) (4.32.95) (4.32.95)		000000000000000000000000000000000000000	000000000
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	Ostinements	24,523 34,523 888,530 27,628 0	800,804-482224 800000000000000000000000000000000	2516 2516 0 633 0	性 10	24 4. ō. c.	8-00-0-554 8578-877-0-875-87-584 8678-877-0-875-87-584 867-7-88-7-58-7-58-7-58-7-58-7-58-7-58-7	3,027 0 0 0 0 0 0 0 18,369 18,369
	}	39000 2004 39000 2004 39000 2004 39000 2005 39000 2008 39000 2008 39000 2014	7 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	39103 2007 39103 2008 39103 2009 39103 2010 39103 2010	28.200 28	2000 100 100 100 100 100 100 100 100 100	7,288,282,283,283,283,283,283,283,283,283	38500 1992 38500 1993 38500 1994 38500 1996 38500 1996 38500 1998 38500 1998 38500 2000

	19-yr Net Salv. %	2.60%	4.00%			5.08%	%90.0-			
	18-yr Net Salv. % S	2.60% 2.60%	24.01% 3.73%			5.07% 4.80%	%90.0- %90.0-			
	17-yr Net Salv. %	2.66% 2.66% 2.66%	4.01% 3.75% 3.13%			4.28% 4.82% 4.26%	%90.0 %90.0 %90.0			
	16- yr Net Salv. %	22.55 25.55	2009 2017 2017 2017 2017 2017 2017			4.28% 4.03% 4.28% 4.29%	%%% %%% %%% %% %% % % % % % % % % % %			
	15- yr Net Salv. %	2828 8828 8828 8828 8828 8828 8828 882	4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	60 60 88 88 88 88 88 88 88 88 88 88 88 88 88			
	14-yr Net Salv. %	288837 888837 888837	4.00 9.00 8.83 8.83 8.83 8.83 8.83 8.83 8.83 8			48.52 90.52 88.53 88 88.53 88 88 88 88 88 88 88 88 88 88 88 88 88	\$290 \$290 \$290 \$290 \$290 \$290 \$290 \$290			
	13-yr Net Salv. % s	22722 22728 2688 2888 2888 2888 2888 288	4.33 8.79% 8.12% 8.12% 8.12% 1.33%			4444444 88888 888888 888888	******* 80888888 9999999			
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	11-yr Net Salv. %	0.000 2.0000 2.0000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.0000 2.000 2.000 2.000 2.0000 2.0000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2	5.90 3.31 3.31 3.31 3.31 3.31 5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.0			& 4&&&& 0014 0014 0014 0014 0004 0004 0004	\$\$\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$ \$\$\$\$\$ \$\$\$\$ \$\$\$\$			
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ISION 30, 2011		**************************************	1111-000 44 44 44 44 44 44 44 44 44 44 44 44	61.1%	179.1%	### ##################################	99999999999999999999999999999999999999	%0.0	Š	****** 600000
MOS ENERGY - KANSAS DVISKON Jation Study as of September 30, 2011 NET SALVAGE HISTORY		**************************************	######################################	9.2% 61.1% 61.1%	37.8% 179.1% 247.1%	460 460 460 460 460 460 460 460	######################################	%0.0 %0.0 %0.0	0.0 AAA AAA	52555555 55555555
S ENERGY - on Study as	2-yr Net Salv. %	238777777 20000000000000000000000000000000	0100048-01000000000000000000000000000000	9.2% 87.19 61.1%	88.4% 37.8% 247.1% NA	0.000 4.00 0.00 0.00 0.00 0.00 0.00 0.0	8888888888888888888 666688888888888888	%%% %0.0 %% %0.0 %	0 % 8 8 8 8 8 8 8 8	********** ***************************
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ATMOS ENERGY CORPORATION SHARED SERVICES UNIT

DEPRECIATION RATE STUDY
As of September 30, 2010



http://www.utilityalliance.com

ATMOS ENERGY CORPORATION - SHARED SERVICES UNIT DEPRECIATION RATE STUDY EXECUTIVE SUMMARY

Atmos Energy Corporation ("Atmos" or "Company") engaged Alliance Consulting Group to conduct a depreciation study of the Company's Shared Services Unit ("SSU" or "Shared Services") operations depreciable assets as of fiscal year end September 30, 2010. SSU provides support to Atmos Energy Corporation's regulated utility divisions.

The regulated natural gas utility divisions during the year ended September 30, 2010 were:

- Atmos Colorado-Kansas Division
- Atmos Louisiana Division
- Atmos Kentucky Mid-States (Kentucky, Tennessee, Virginia, Iowa, Illinois, Missouri and Georgia) Division
- Atmos Mississippi Division
- Atmos Mid-Tex Division
- Atmos West Texas Division

The depreciation rates are based on the straight-line method, equal life group ("ELG") procedure, and remaining-life technique. This study results in an annual depreciation expense accrual of \$19.8 million when applied to depreciable plant balances as of September 30, 2010.

The depreciation study we conducted analyzed and developed depreciation recommendations at an account level. The resulting annual depreciation accrual amounts and depreciation rates contained in this study are at the account level. The Company will accrue depreciation expense based on the account level depreciation rates developed in this study. Appendix A demonstrates the annual depreciation expense.

ATMOS ENERGY CORPORATION ATMOS SHARED SERVICES UNIT DEPRECIATION RATE STUDY

As of September 30, 2010

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PURPOSE

The purpose of this study is to develop depreciation rates for the depreciable property as recorded on Shared Services' books at September 30, 2010. The account based depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of Shared Services' property on a straight-line basis. Non-depreciable property and property which is amortized, such as intangible software were excluded from this study.

Shared Services is a division of Atmos Corporation dedicated to providing various support services to its operating companies. As of the study date, Shared Services supported regulated gas utility divisions operating in 12 different states.

STUDY RESULTS

The existing and current study annual depreciation expense results from the use of lowa Curve dispersion patterns with average service life, the equal life group ("ELG") procedure and remaining-life technique, and consideration of net salvage in the development of the study recommended depreciation rates. Detailed information for each of these factors will follow in this report.

Overall depreciation rates for Shared Services depreciable property are shown in Appendix A. These rates translate into an annual depreciation accrual of \$19.8 million based on Shared Services' depreciable investment at September 30, 2010.

Appendix A presents the recommended study annual accrual rates and amounts. Appendix B presents the development of the depreciation rates and annual accruals. Appendix C presents the recommended study mortality and net salvage parameters by account. Appendix D shows net salvage history by plant account.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense, that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

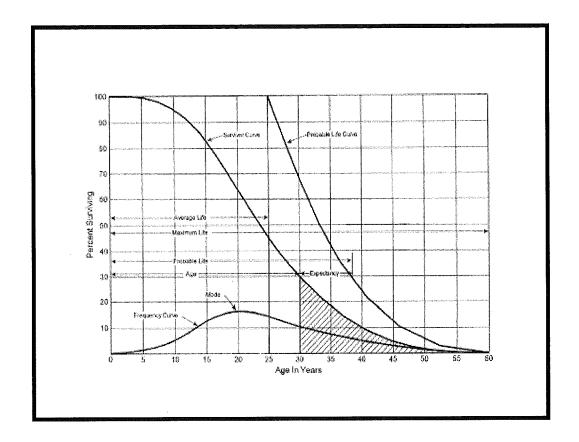
The straight-line, equal life group ("ELG"), remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective equal life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates are shown in Appendix B and remaining life calculations are provided in the workpapers.

Actuarial analysis was used with each account within a function where

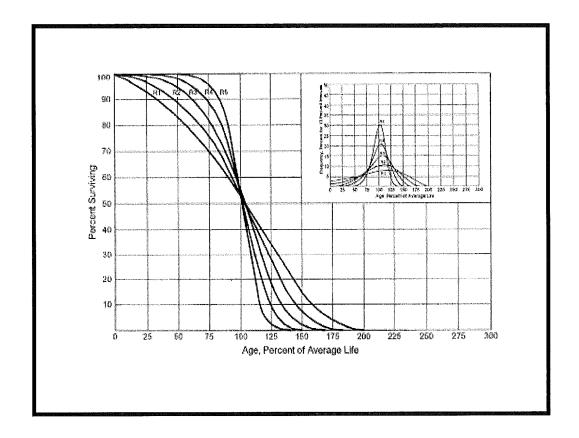
sufficient data was available, and judgment was used to some degree on all accounts.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The lowa Curves are the result of an extensive investigation of life characteristics of physical property made at lowa State College Engineering Experiment Station in the first half of the prior century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an lowa Curve is shown below.



There are four families in the lowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.



Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. An "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. A special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique average service life. The blending of judgment concerning current conditions and

future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the lowa Curves. Where data was available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. The results from these analyses for those accounts which had data sufficient to be analyzed using this method are shown in the Life Analysis section of this report.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts into the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one factor in these cases may have a substantial impact on the analysis, but overall, may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least for example, any analysis requires choosing which bands to place more emphasis.

The establishment of appropriate average service lives and retirement dispersions for Shared Services' accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information analyzed using the Retirement Rate actuarial methods. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices in order for appropriate mortality characteristics to be chosen.

Equal Life Group Depreciation

Atmos agreed that the continued use of the ELG depreciation procedure was appropriate. This study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and net salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resulting rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in all accounting textbooks.

Theoretical Depreciation Reserve

The Company's book depreciation reserves were reallocated based on the theoretical reserves for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each

vintage. The equal life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the vintage is retired. Estimated average service lives and dispersion determine the amount within each equal life group. The equal life group-remaining-life theoretical reserve ratio (RRELG) is calculated as:

$$RRELG = 1 - \frac{(ELG \ Remaining \ Life)}{(ELG \ Life)} * (1 - Net \ Salvage \ Ratio)$$

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. Once the first three stages were complete, the fourth phase began. This phase involved the calculation of deprecation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study. One of the most important elements of performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis and salvage analysis sections and also in workpapers.

Phase 2 is where the actuarial analysis is performed. Phase 2 and 3 overlap to a significant degree. The detailed property records information is used in phase 2 to develop observed life tables for life analysis. These tables are visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information was then carried forward into phase 3 for the evaluation process.

Phase 3 is the evaluation process which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in phase 1. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix B. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1¹ documents the steps used in conducting this study. Depreciation Systems, page 289 documents the same basic processes in performing a depreciation study which are: Statistical analyses, evaluation of statistical analysis, discussions with management, forecast assumptions, write logic supporting forecasts and estimation, and write final report.

¹ Public Utility Finance & Accounting, A Reader

Analysis Calculation Data Collection Evaluation retirements and survivors calculate ac crual rates account content. evaluation of analysis results and selection of mortality characteristics recommendations other discussions with accounting, engineering, planning and operations personnel test, book reserve position* gross salvage and salvage cost of removal • not may sind if manuscand life exter an extended

Book Depreciation Study Flow Diagram

Figure 1

founce: Public Utility Finance & Accounting A Reader

SHARED SERVICES DEPRECIATION STUDY PROCESS

Depreciation Rate Calculation

Annual depreciation expense amounts for the depreciable property accounts of Shared Services were calculated by the straight line, equal life group, and remaining-life system. With this approach, remaining lives were calculated according to standard ELG group expectancy techniques, using the lowa Survivor Curves noted in the calculation. For each plant account, the difference between the surviving investment, adjusted for estimated net salvage and the allocated book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix B.

Remaining Life Calculation

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the actuarial methods. After establishment of appropriate average service lives and retirement dispersions, remaining lives were computed for each account. The theoretical depreciation reserve with zero net salvage (used in calculating remaining life) was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the general discussion section. The difference between plant balance and theoretical reserve was then spread over the ELG depreciation accruals. After accumulating the ELG accruals across each vintage, the annual accrual was divided into the net balance to compute remaining life. Details of the theoretical reserve computations, ELG accruals, and remaining life are found by account within each division in the study workpapers.

Calculation Process

Annual depreciation expense amounts for all accounts were calculated by the straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the

following equation,

Annual Accrual Rate =
$$\frac{(100\% - \text{Net Salvage Percent})}{\text{Average Service Life}}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using lowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$Composite \ Remaining \ Life = \frac{\sum Original \ Cost - Theoretical \ Reserve}{\sum Whole \ Life \ Annual \ Accrual}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation where the net salvage percent represents future net salvage.

Annual Depreciation Expense =
$$\frac{\text{Original Cost} - \text{Book Reserve} - (\text{Original Cost}) * (1 - \text{Net Salvage \%})}{\text{Composite Remaining Life}}$$

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$Annual \ Depreciation \ Rate = \frac{\sum \ Annual \ Depreciation \ Expense}{\sum Original \ Cost}$$

These calculations are shown in Appendix B. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in workpapers. Book depreciation reserves were allocated to individual accounts and the theoretical reserve computation was used to compute a composite remaining life for each account.

LIFE ANALYSIS

The retirement rate actuarial analysis method was applied to all accounts for Shared Services. For each account, an actuarial retirement rate analysis was made with placement and experience bands of varying width. The historical observed life table was plotted and compared with various Iowa Survivor Curves to obtain the most appropriate match. A selected curve for each account is shown in the Life Analysis Section of this report. The observed life tables for all analyzed placement and experience bands are provided in workpapers.

For the overall band (i.e. placement from earliest vintage year which varied for each account through 2010) for each account, various dispersion curves were plotted. Frequently, visual matching would confirm one specific dispersion pattern (i.e. L, S. or R) as a better match than others. The next step would be to determine the most appropriate life using that dispersion pattern. Then, after looking at the overall experience band, different experience bands were plotted and analyzed, for instance 1950-2010, 1989-2010, etc. Next placement bands of varying width were plotted with each experience band discussed above. Repeated matching usually pointed to a focus on one dispersion family and small range of service lives. The goal of visual matching was to minimize the differential between the observed life table and lowa curve in top and mid range of the plots. These results are used in conjunction with all other factors that may influence asset lives.

NET SALVAGE CONSIDERATIONS

When a capital asset is retired, physically removed from service and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

Net Salvage Characteristics

The net salvage analysis, for each account, is shown in Appendix D. Moving averages for intervals are also included in Appendix D. The assets of Shared Services generally do not incur cost of removal and salvage has declined in recent years. In this study a 0 percent net salvage is recommended for each account.

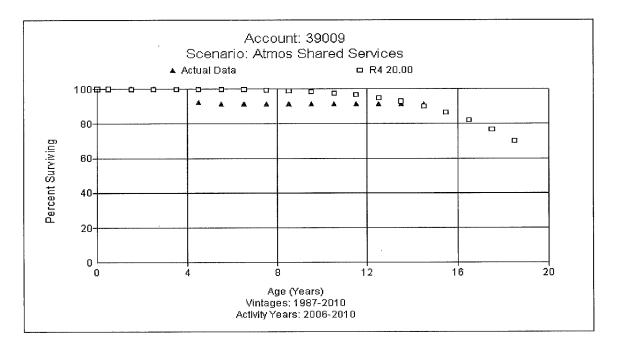
Account Life and Net Salvage Analysis

39000 – Structures & Improvements

This account includes the cost of buildings and improvements. The account balance is \$8.6 million. Costs associated with the Greenville operations center have been recorded in this account and the costs associated with the Charles K. Vaughn training center will be recorded in fiscal year 2011. The average age of investment is 1.5 years, so based on judgment and type of assets this study recommends a 40 year life with the R2 dispersion pattern. No graph is provided. A zero percent net salvage is recommended at this time.

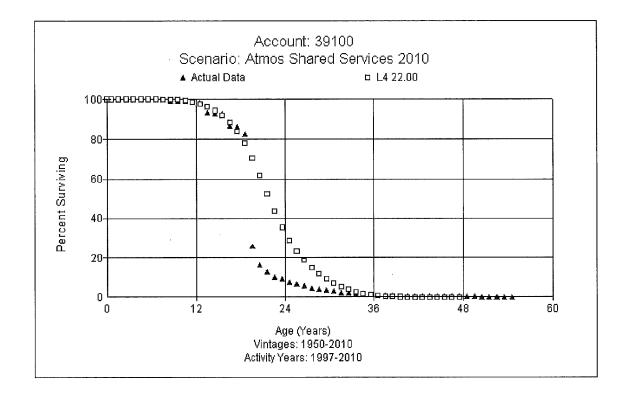
39009 - Improvements to Leased Premises

This account includes the cost of improvements to leased premises such as the Dallas office and call centers. The balance is \$12.7 million. Assets in this account are tied to the lease term, which is about 20 years. This study recommends moving from a 12 year life to a 20 R4 at this time. A graph of the observed life table and the recommended life and curve are shown below. No salvage or removal cost is currently expected for these improvements, therefore a zero percent net salvage is recommending for this account.



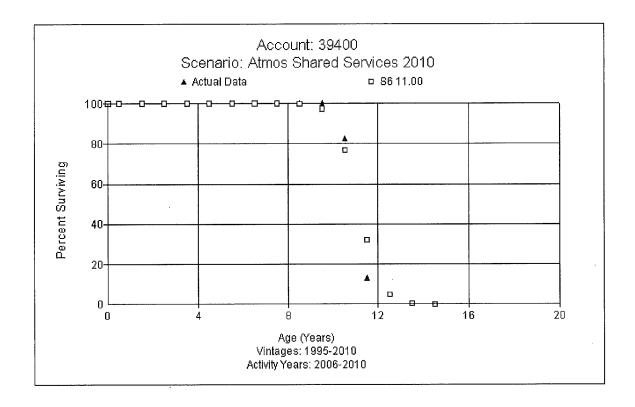
39100 - Office Furniture and Equipment

This account consists of modular furniture, desks, chairs, bookcases, credenzas, file cabinets, office machines and other miscellaneous equipment. The balance is \$11.9 million. An expected life range for the assets in this account is 20 to 25 years. This study recommends a 22 L4 dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. There is no cost of removal and salvage has declined to a negligible level. A zero percent net salvage rate is recommended for this account.



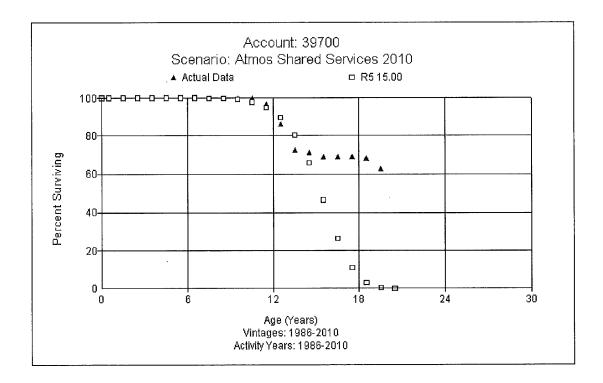
39400 - Tools, Shop & Garage Equipment

This account consists of various small tools and equipment used in an office. The balance is \$83 thousand in this account. The average age of investment is 1.5 years. Due to the type and use of the assets and the analysis, this study recommends an 11 S6 life and dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. There is generally little or no salvage and no cost of removal related to the equipment in the account. This study recommends a zero percent net salvage rate for this account.



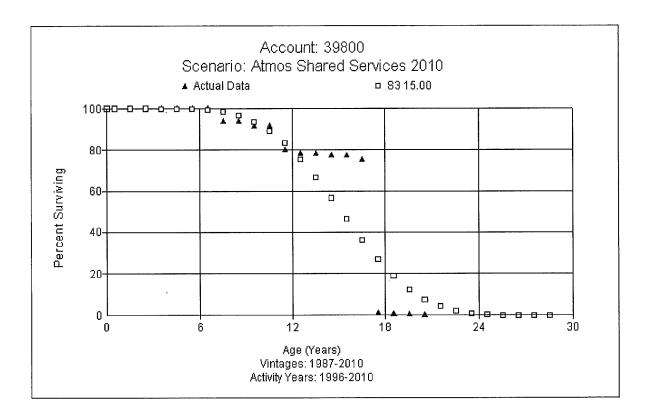
39700 - Communications Equipment

The communications equipment account includes communication, computer hardware, telephone, and radio equipment. It is used to account for the initial setup of the telephone and related telecom equipment and its attendant computer software. The balance is \$27.5 million in this account. Assets in this account have a life range between 10 and 15 years. A 15 year life with the R5 dispersion is recommended based on the fit using actuarial analysis and the type of assets and use. A graph of the observed life table and the recommended life and curve are shown below. There has been no recent salvage and removal cost experience. This study recommends a zero percent net salvage rate for this account.



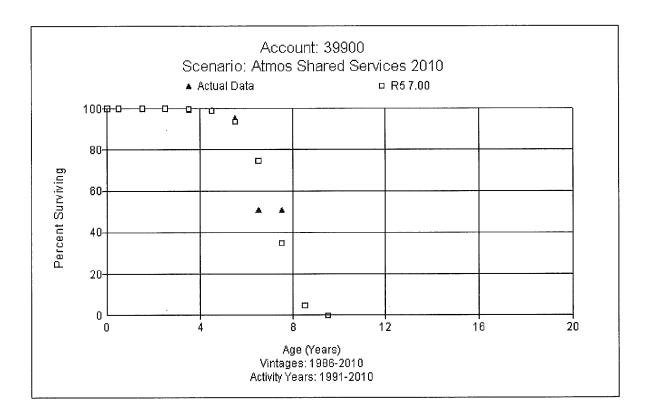
Account 39800 - Miscellaneous Equipment

This account consists of various small office equipment items, such as kitchen appliances, televisions and audio/video equipment that are not homogeneous with other plant accounts. The balance is \$214 thousand. Retirements of assets, as a group, in this account are demonstrating that a 15 year average service life with an S3 dispersion for assets in this account is appropriate. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



Account 39900 – Other Tangible Property

The other tangible property account holds some computer hardware and communication equipment. The account balance is \$162 thousand. The average age of the investment is 1.5 years and average age of retirements is 7.34 years. The recommended life is also 7 years with the R5 dispersion for this account. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



Account 39901 - Servers Hardware

This account consists of assets such as the HP 9000 RP 8420 servers, Oracle server, EMC DMX 3 disk array, Banner server, Markview servers and other server hardware and equipment. The balance is \$31.1 million. There have been no retirements and average age of the investment is 5.46 years. Based on discussions with Company personnel and future expectations and operation plans, this study recommends a 10 year average service life with the SQ dispersion pattern for this account. No graph is provided. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.

Account 39902 – Servers Software

This account consists of assets such as the Banner, Oracle, VMWare, Appwork scheduling, Witness, Networker, and other server attendant software for billing and software licenses. The balance is \$19.6 million. There have been no retirements and the average age of investment is 5.55 years. Based on discussions with Company personnel and future expectations and operation plans, this study recommends a 10 year average service life with the SQ dispersion pattern for this account. No graph is provided. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.

Account 39903 - Network Hardware

This account consists of assets related to networking activities such as routers, switches and miscellaneous networking equipment. The balance is \$4.2 million. The average age of retirements is 7.50 years and the average age of investment is 4.80 years. Based on discussions with Company personnel and future expectations and operation plans, this study recommends a 10 year average service life with the SQ dispersion, which is similar to server hardware and software accounts. No graph is provided. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.

Account 39904 - CPU

This account consists of costs for an IBM 9762-R22 mainframe. The balance is \$1.1 million. This account is fully depreciated and was not analyzed in this study.

Account 39905 - Main Frame Hardware

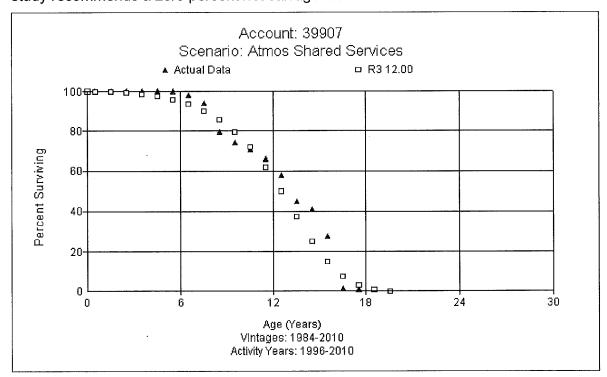
This account consists of costs for an upgraded CPU, disk storage, arrays, remote access server and other related mainframe equipment. The balance is \$1.2 million. This account is fully depreciated and was not analyzed in this study.

Account 39906 - PC Hardware

This account consists of costs for computer hardware, desktop and laptop computers, PC's for the call center, servers, and some costs associated with software licenses for PC's and servers.. The balance is \$9.6 million. The average age of investment is 5.85 years and average age of retirements is 6.55 years. The life indications in the actuarial analysis suggest a life of 9 years. The Company recently performed an inventory of these assets and note that approximately onethird of these assets should have already been retired. These retirements will be processed in 2011 and are not reflected in the data used in the life analysis. Due to the delayed retirements included in the data analysis, the observed 9 year life is not an accurate assessment of the life of these assets. However, based on discussions with Company personnel regarding current practices, future expectations and operational plans, the life of many of the remaining assets in this account will likely exceed a normal PC life expectation of 3 to 5 years. Therefore, using judgment, this study recommends a 7 year life with the S3 dispersion. Due to the processing of retirements outside of the study date, a graph of the observed life table and the recommended life and curve is not provided. This study recommends a zero percent net salvage rate for this account.

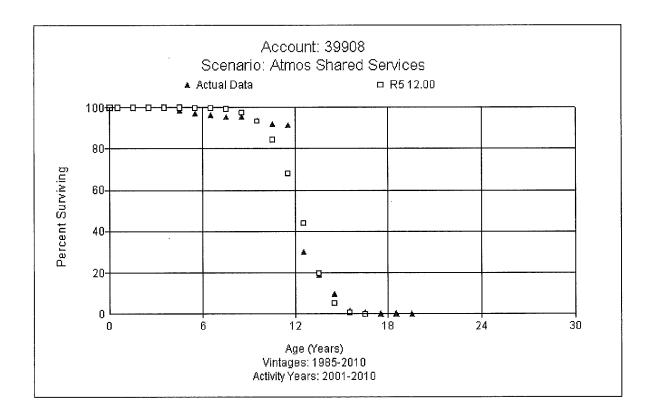
Account 39907 - PC Software

The PC software account holds booked investment and retirement activity for software assets including operating system software such as Windows 2000 or Windows XP, Microsoft Office, call center, Verizon dialer software, Genesys upgrade, MS Project and other related application software. The balance is \$4.8 million. The average age of investment is 6.54 years and average age of retirements is 9.52 years. Based on discussions with Company personnel regarding current practice, future expectations and operational plans, the life of many of the software assets in this account will likely exceed normal PC software life expectations. There has been retirement activity in this account and the life indications in the actuarial analysis confirm a longer life than what is typically expected. This study recommends using a 12 year average service life with the R3 dispersion. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



Account 39908 - Application Software

The applications software account holds booked investment and retirement activity for software assets including billing system software, electronic mapping and training software applications, Oracle upgrade, Banner, Data Mart System, PowerPlant System, Advantage System application and the Waco Call Center IT build. The balance is \$167.7 million. The average age of investment is 7.16 years and average age of retirements is 9.05 years. Based on discussions with Company personnel and future expectations and operation plans this study recommends a 12 year average service life with the R5 dispersion for this account. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



Account 39909 - Main Frame Software

This account consists of costs related to Oracle, assembler language, security control package, natural VSAM and other related software. The balance is \$2.6 million. This account is fully depreciated and was not analyzed in this study.

Account 39924 - General Startup Cost

This account holds the costs related to the CIS System and supportive assets. The balance is \$23.2 million. This activity accounts for one vintage investment in 1999. This account is considered fully depreciated and was not analyzed in this study.

APPENDIX A

Annual Rate and Accrual

Appendix A

Atmos Energy Corporation - Shared Services Unit At September 30, 2010 Depreciation Study Annual Depreciation Rates and Accruals

			A	\nnual
			Accrual	Accrual
Account	Description	Plant Balance	Rate	Amount
(a)	(b)	(c)	(d)	(e)
39000	Structures & Improvements	8,601,087.60	3.34%	287,326.17
39009	Improvement. to Leased Premises	12,690,502.89	4.06%	514,830.04
39100	Office Furniture & Equipment	11,972,180.63	4.03%	482,120.63
39400	Tools, Shop, & Garage Equipment	83,933.49	8.88%	7,450.68
39700	Communication Equipment	27,526,596.22	5.54%	1,526,160.50
39800	Miscellaneous Equipment	214,283.04	1.72%	3,675.77
39900	Other Tangible Property	162,267.97	13.84%	22,456.94
39901	Servers - Hardware	31,101,165.15	8.62%	2,680,840.65
39902	Servers - Software	19,569,699.13	8.78%	1,719,191.49
39903	Network - Hardware	4,166,729.38	8.72%	363,489.92
39906	PC Hardware	9,583,849.86	8.78%	841,383.02
39907	PC Software	4,824,824.46	6.64%	320,346.67
39908	Application Software	167,785,375.80	6.57%	11,024,831.77
	Total Depreciable Plant	\$ 298,282,495.62	6.64%	\$ 19,794,104.25

Note: The following accounts are fully depreciated and were not analyzed in the study.

39904	CPU		1,095,465.10
39905	Main Frame Hardware		1,159,964.38
39909	Mainframe Software		2,575,367.35
39924	General Startup Cost		 23,172,325.96
			 28,003,122.79
		Total Plant	\$ 326,285,618,41

APPENDIX B

Remaining Life Calculations

Atmos Energy - Shared Services
At September 30, 2010
Depreciation Accrual Calculation of Remaining Life
With Reserve Reallocation

				Net	Net			Annual	
			Allocated	Salvage	Salvage	Unaccrued	Remaining	Accrual	Accrual
Account	Description	Plant Balance	Book Reserve	%	Amount	Balance	Life	Amount	Rate
(a)	(q)	(၁)	(p)	(e)	€	(B)	(h)	(i)	(£)
39000	Structures & Improvements	8,601,087.60	516,954.06	0	0	8,084,133.54	28.14	287,326.17	3.34%
39009	Improv. to Leased Premises	12,690,502.89	7,748,705.42	0	0	4,941,797.47	9.60	514,830.04	4.06%
39100	Office Furniture & Equipment	11,972,180.63	6,312,368.27		0	5,659,812.36	11.74	482,120.63	4.03%
39400	Tools, Shop, & Garage Equip.	83,933.49	13,679.16	0	0	70,254.33	9.43	7,450.68	8.88%
39700	Communication Equipment	27,526,596.22	16,038,475.59	0	0	11,488,120.63	7.53	1,526,160.50	5.54%
39800	Miscellaneous Equipment	214,283.04	201,310.26	0	0	12,972.78	3.53	3,675.77	1.72%
39900	Other Tangible Property	162,267.97	42,221.51	0	0	120,046.46	5.35	22,456.94	13.84%
39901	Servers - Hardware	31,101,165.15	17,778,530.61	0	0	13,322,634.54	4.97	2,680,840.65	8.62%
39902	Servers - Software	19,569,699.13	10,898,084.75	0	0	8,671,614.38	5.04	1,719,191.49	8.78%
39903	Network - Hardware	4,166,729.38	2,066,171.06	0	0	2,100,558.32	5.78	363,489.92	8.72%
39904	CPU	1,095,465.10	1,095,465.10	0	0	•			0.00%
39905	Main Frame Hardware	1,159,964.38	1,159,964.38	0	0	•			0.00%
39906	PC Hardware	9,583,849.86	7,503,090.92	0	0	2,080,758.94	2.47	841,383.02	8.78%
39907	PC Software	4,824,824.46	3,012,312.13	0	0	1,812,512.33	5.66	320,346.67	6.64%
39908	Application Software	167,785,375.80	110,309,082.09	0	0	57,476,293.71	5.21	11,024,831.77	6.57%
39909	Mainframe Software	2,575,367.35	2,575,367.35	0	0	1			0.00%
39924	General Startup Cost	23,172,325.96	23,172,325.96	0	0	1			0.00%
	Total Depreciable Plant 326,285,618.41	326,285,618.41	210,444,108.63	•		115,841,509.78		19,794,104.25	%20.9
	1								

APPENDIX C

Mortality Characteristics

Appendix C

Atmos Energy - Shared Services Unit At September 30, 2010 Mortality Characteristics

		Plant		Propos	sed
		Balance			Net
Account	Description	9/30/2010	Life	Curve	Salvage
39000	Structures & Improvements	8,601,087.60	40	R2	0
39009	Improv. to Leased Premises	12,690,502.89	20	R4	0
39100	Office Furniture & Equipment	11,972,180.63	22	L4	0
39400	Tools, Shop, & Garage Equip.	83,933.49	11	S6	0
39700	Communication Equipment	27,526,596.22	15	R5	0
39800	Miscellaneous Equipment	214,283.04	15	S3	0
39900	Other Tangible Property	162,267.97	7	R5	0
39901	Servers - Hardware	31,101,165.15	10	SQ	0
39902	Servers - Software	19,569,699.13	10	SQ	0
39903	Network - Hardware	4,166,729.38	10	SQ	0
39906	PC Hardware	9,583,849.86	7	S3	0
39907	PC Software	4,824,824.46	12	R3	0
39908	Application Software	167,785,375.80	12	R5	0
	Total Depreciable Plant	\$ 298,282,495.62			

Note: The following accounts are fully depreciated and were not analyzed in the study.

39904	CPU	1,095,465.10
39905	Main Frame Hardware	1,159,964.38
39909	Mainframe Software	2,575,367.35
39924	General Startup Cost	23,172,325.96
		28,003,122.79
	Total Plant	\$ 326,285,618,41

APPENDIX D

Net Salvage Analysis

- %			%		
18-yr Net Salv.%			% % 0.26%		
17- yr Net Salv. %			0.28%		
16-yr Net Salv. %			0.31%		
15- yr Net Salv. %			0.31% 0.32% 0.28%		
14-yr Net Salv. %			0.33% 0.32% 0.28% 0.28%		
13- yr Net Salv. %			2.77% 0.33% 0.32% 0.32% 0.30%		
12- yr Net Salv. %			2,77% 4,73% 0,32% 0,00% 0,00%		
11-yr Net Salv. %		%00'0	2.77% 4.73% 5.10% 0.34% 0.00% 0.00%		
10- yr Net Salv. %		%00°0	2.77% 5.13% 5.15% 0.36% 0.00% 0.00%		
9- yr Net Salv. %		0.00% 0.00% 0.00%	2.77% 4.73% 5.10% 5.15% 0.00% 0.00% 0.00% 0.00%		
8-yr Net Salv.%		0.00% 0.00% 0.00%	2.77% 4.73% 5.10% 5.15% 0.00% 0.00% 0.00% 0.00%		
7-yr Net Salv. %		0.00% 0.00% 0.00% 0.00%	2.77% 4.73% 5.10% 5.15% 74.55% 0.00% 0.00% 0.00% 0.00%		
6- yr Net Salv. %		0.00% 0.00% 0.00% 0.00% 0.00%	2,77% 5,173% 5,15% 0,00% 0,00% 0,00% 0,00% 0,00%		
5-yr Net Salv. %		%0.0 %0.0 %0.0 %0.0 %0.0	2.9% 4.7% 5.1% 5.1% 0.0% 0.0% 0.0% 0.0% 0.0%		
4- yr Net Salv. %	¥.	%0.0 AN AO.0 %0.0 %0.0 AN	%1.6.3% %1.7% %1.0.0% %2.0.0%	NA 0.0	0.0%
	A A	%0.0 A A A A 0.0 %0.0 A A A A A A A A A A A A A A A A A A A	0.0% 5.5% 5.5% 74.5% 0.0% NA NA NA NA NA NA NA NA NA NA NA NA NA	AN N N N N N N N N N N N N N N N N N N	0.0%
2- yr Net Salv. %	\$ \$ \$	%	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%	AN N N N N N N N N N N N N N N N N N N	0.0% NA 0.0%
Net Salv. %	X X X X	%	0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	0.0% NA 0.0% NA NA
2- yr 3- yr Net Net Net Net Salvage Salv. % Salv. %	0000	0000000000	200	0000 0000	0000 0
Cost of Removal			(5,108)	() 1 1 1	1 1 1 1
Gross Salvage			500	1 1 1 1	1 1 1 1 1
Retirement	0000	270,911 0 0 0 0 0 178,757 0 0 0	83,992 7,848 852 92,361 0 6,852 0 0 1,420,965 75,094 75,094 95,413	0 0 0 0 0 0 25,380	387,812 0 0 48,493
Activity Year F	2007 2008 2009 2010	2000 2001 2002 2003 2004 2006 2007 2008 2009 2010	1993 1995 1995 1996 1997 1999 2000 2000 2001 2002 2003 2004 2005 2006 2006 2006 2007 2006 2007 2007 2006 2007 2007	2007 2008 2009 2010 2007 2008 2009 2010	2007 2008 2008 2010 2010
Acct	39000000 39000000 39000000 39000000	39009000 39009000 39009000 39009000 39009000 39009000 39009000 39009000 39009000	341 00000 341 00000	39101000 39101000 39101000 39102000 39102000 39102000	39103000 39103000 39103000 39103000

ATMOS ENERGY - SHARED SERVICES NET SALVAGE HISTORY AS ADJUSTED

18- yr Net Salv. %							2.76%	
17-yr Net Salv. % S							2.76%	
16-yr Net Salv. % S							2.76% 2.79% 2.79%	
15-yr Net Salv. % S							2.82% 2.79% 2.79% 2.79%	1.44%
14- yr Net Salv. % S						2.82%	2.79% 2.79% 2.79% 2.79%	1.44%
13-yr Net Salv.%						5.82%	2.79% 2.79% 2.79% 2.79%	1,44% 0,00%
12-yr 1 Net Salv. % Si							2.79% 2.79% 2.79% 2.79%	4.37% 0.00% 0.00%
11-yr 1 Net Salv. % Sa						0.00% 69.09% 69.09% 6.90% 6.09%		4.37% 0.00% 0.00% 0.00%
10-yr 1 Net 1 Salv. % Sa						0.00% NA 69.09% 64		4.37% 0.00% 0.00% 0.00% 0.00%
9- yr 10 Net N Salv. % Sa						0.00% NA 0 NA 69.09% 69		4.37% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
.i.						0.00% NA 0 NA NA 0 NA 69.09% 69 69.09% 69		4.37% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
"]					ì	0.00% NA 0. NA NA 0. NA 0.09% 69.09% 69.		6.04% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%
r 7-yr Net % Salv.%								
6- yr Net % Salv. %						NA N		% 0.00% % 0.00
5- yr Net Salv. %						NA NA NA NA NA 69.1%		6.00 NAA NAA NAA NAA NAA NAA NAA NAA NAA N
4- yr Net Salv. %	%0:0	ž	0.0%	ž	%a.s A N	NA NA NA NA NA 69.1%	2.8% 0.0% 0.0%	%0.0 NA NA NA NA NA NA NA NA NA NA NA NA NA
3- yr Net Salv. %	0.0% NA	ΣŽ	0.0 NA	žž		NA NA NA NA NA NA NA NA NA NA NA NA NA N		%0.0 A N N A N O O O O O O O O O O O O O O O
2-yr 3-yr Net Net Salv. % Salv. %	0.0 NA NA	₹ ₹ ₹	0.0 A A A	¥ \$ \$	9 2 2 2 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	NA N	0.0% 0.0% NA	% 4 4 4 4 % % 4 4 5 % % 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Net Salv.%	0.0 AN AN AN AN	<u> </u>	0.0 N N N N N N N N N N N N N N N N N N N	¥ ¥ ¥ ¥	% X X X X X X X X X X X X X X X X X X X	69.1% A N N N N N N N N N N N N N N N N N N N	0.0 A A A	%0.9 8 X X X X X X 0.0 8 X X X X X X X X X X X X X X X X X X X
Net Salvage	0000	0000	0000	0000	000000	23,502 0 23,502	0000	00000
Cost of Removal	1 1 1 1	1111	1111	1 1 1 1	11111	3,107	1 1 1 1	
Gross Salvage		1 1 1 1	1 1 1 1		1 1 1 1 1 1	26,609		000.
Retirement	18,885 0 0	0000	7,683 0 0	0000	8,091 0 0 0	0 0 0 34,015 0 792,568	16,530 0 0	149,090 0 0 0 0 0 56,637 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Activity Year F	2007 2008 2009 2010	2007 2008 2009 2010	2007 2008 2009 2010	2007 2008 2009 2010	1993 1994 1995 1996 1997	2000 2001 2002 2003 2004 2005 2005	2007 2008 2009 2010	1996 1997 1998 1999 2000 2001 2003 2004 2005 2006 2006 2008 2009 2009 2009 2009
Acct	39200000 39200000 39200000	39300000 39300000 39300000	39400000 39400000 39400000 39400000	39500000 39500000 39500000 39500000	39700000 38700000 38700000 38700000 38700000	39700000 39700000 39700000 39700000 39700000 39700000	39700000 39700000 39700000	39800000 39800000

ATMOS ENERGY - SHARED SERVICES NET SALVAGE HISTORY AS ADJUSTED

ار» ار» به خا						
17-yr 18-yr Net Net Salv. % Salv. %		0.00%				0.03%
16-yr 17-yr Net Net Salv. % Salv. %		0.00% 0.00%				%80°0 %80°0 0°0%
15-yr 16 Net N Saiv. % Sai		0.00% 0.00% 0.00%				0.03% 0.003% 0.003%
14-yr 15 Net N Salv.% Sal		0 %00'0 0 %00'0 0 %00'0				0.03% 0
		0 0,000.0 0 0,000.0 0 0,000.0 0 0,000.0				0.03% 0.03% 0.03% 0.03%
yr 13-yr t Net .% Salv.%		70 %00°0 %00				0.05% 0.05% 0.03% 0.03% 0.03% 0.03%
r 12-yr Net Salv.%						70 %5010 70 %500 70 %500 70 %500 70 %500 70 %500 70 %500 70 %500
r 11-yr Net % Salv. %		%0000 %000 %000 %0000 %0000 %0000 %0000 %0000 %0000 %0000 %0000 %0				
10-yr Net 8 Salv. %		%0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % %0000 % % %0000 % % %0000 % % %0000 % % %0000 % % %0000 % % %0000 % % %0000 % % % %0000 % % % %0000 %				%0000 % %0002% %0003% %0003% %0003% %0003%
9- yr Net Salv. %		%00'0 9 %00'0 9 %00'0 9 %00'0 9 %00'0 9				6 0.00% 6 0.005% 6 0.005% 6 0.005% 6 0.003% 6 0.003%
8-yr Net Salv. %		%00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0 %00.0				1.36% 0.05% 0.05% 0.03% 0.03%
7-yr Net Salv. %		0.00% NA 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%				1.36% 0.05% 0.05% 0.05% 0.05% 0.00% 0.00%
6- yr Net Salv. %		%00.0 NA NA N				0.00% 2.47% 2.47% 0.05% 0.05% 0.05% 0.00% 0.00%
5- yr Net Salv. %		%0.0 %0.0 %0.0 %0.0 %0.0 %0.0 %0.0 %0.0			0.0%	0.0% 2.0% 104.3% 0.0% 0.0% 0.0% 0.0% 0.0%
4- yr Net Salv. %	¥ Z	%0.00 %0.00	ă	ă	0.0% NA	0.0% 0.0% 104.3% 104.3% 0.0% 0.0% 0.0% 0.0% 0.0%
3- yr Net Salv. %	₹ ₹	0.0% NA NA N	\$ \$	A A	0.0 N NA	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
2- yr Net Salv. % S	Z Z Z	% % % % % % % % % % % % % % % % % % %	\$ \$ \$	2 Z Z	0.0 N N N N N N N N N N N N N N N N N N N	0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%
Net Salv. % S	<u> </u>	%	\$ \$ \$ \$	\$ \$ \$ \$	0.0 N N N N N N N N N N N N N N N N N N N	% 4 % 4 % 4 % 4 % 4 % 4 % 4 % 4 % 4 % 4
Net Salvage S	0000	0000000000000000	0000	0000	00000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Cost of Removal	1 1 1 1			1 1 1 1		4
Gross Salvage	1111			1 1 1 1	1 1 1 1 1	ος 6
Retirement	0000	219,471 0 0 0 0 0 8,143 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000	0000	11,472 0 0 0	97,832 116,913 0 0 2,832 0 6,189,732 0 0 0 2,632,855
Activity Year F	2007 2008 2009 2010	1994 1995 1996 1997 1998 2000 2000 2007 2003 2006 2006 2006 2006 2008 2008 2008 2008	2007 2008 2009 2010	2007 2008 2009 2010	2006 2007 2008 2009 2010	1995 1995 1996 1997 1998 1998 2000 2001 2003 2005 2005 2006 2007 2008 2008 2008 2008 2008
Acct	39809000 39809000 39809000 39809000	38900000 38900000 38900000 38900000 38900000 38900000 389000000 389000000 389000000 389000000 3890000000000	39901000 39901000 39901000	39902000 39902000 39902000 39902000	39903000 39903000 39903000 39903000	39906000 39906000

ATMOS ENERGY - SHARED SERVICES NET SALVAGE HISTORY AS ADJUSTED

18- yr Net	Salv. %																																						
	Salv. %																		%00.0																				
	Salv. %																	0.00%	0.00%																	%00'0			
	Salv. %																0.00%	0.00%	0.00%																0.00%	%00.0			
14- yr Net																0.00%	0.00%	0.00%	0.00%															%00.0	0.00%	%00.0			
13- yr Net															%00.0	%00.0	%00.0	%00'0	%00'0														0.00%	0.00%	0.00%	%00.0			
12-yr Net														%00'0	0.00%	0.00%	0.00%	%00'0	%00'0													%00.0	%00.0	0.00%	%00.0	%00.0			
11-yr Net													0.00%	%00'0	0.00%	0.00%	0.00%	0.00%	%00'0												%00.0	0.00%	%00.0	%00.0	0.00%	%00'0			
10- yr Net	ı											%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	%00'0	%00.0											0.00%	0.00%	%00.0	%00.0	0.00%	%00.0	%00.0			
	Salv. % Sa										0.00%	%00.0	%00.0	%00'0	%00.0	%00"0	%00.0	%00'0	%00.0										%00.0	0.00%	0.00%	0.00%	%00.0	%00.0	%00.0	%00.0			
	Salv. % Sa									%00.0	3.00%	%00°C	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0	%00.0									0.00%	%00.0	%00.0	0.00%	0.00%	0.00%	0.00%	%00.0	%00.0			
7-yr Net	- 1																	0.00%									0.00%	%n.n	%00.0	%00.0	%00.0	%00.0	%00.0	0.00%	%00.0	%00.0			
	Salv. % Se																	%00.0								%00.0	%00	%00.	%00.	%00.	%00.	%00°	%00	%00°	.00%	%00"			
	Salv. % Sa							_			_	_	_	_	_	_	_	0.0% 0	_							0.0%	_	_	_	_	_	-							
	~ }				ě													0.0%					;			%0.0													
	% Salv.%			è														NA 0								0 %0.0													
	% Salv. %		70								_	_	_				_				,		_			_	_	_	_	_		_		_					
2-yr Net																	,			76		_																	
Net	- 1	į	5 Z	2 2																700																			
Net	Salvage	•		•	9	0	0	0	0	0	0	0	0	0	0	٥	0	0	0	•	، د	0	0	0	0	0	0	0	•	0	0	0	0	0	0	٥			
Cost of	Removal		•	•	•	1	1	•	1	1	•	1		•	1	•	•	1	•			•	•	1	1	•	ı	ı	1	•	1	•	•	•	1	•	(1,956)	(1,956)	
Gross	Salvage			,	•		,	1	•	1	•	1	•	1	•	•	•	r	•		•	•	1	٠	•	1	•	1	•	•	1	•	1	1	•	•	38,809	38,809	
	Retirement	;	38,759		0	•	0	0	0	0	861,539	•	0	0	16,495	0	0	0	0	4	007'0	0	0	0	0	8,032,596	0	9,573,067	0	0	0	731,136	0	0	0	0	33,186,461	33,186,461	,
Activity	Year	}	1994	200	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	1001	200	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010			
∢	Acct		3880/000	23307000	38907000	39907000	38907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	39907000	0000000	23300000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000	39908000			