



***MISSOURI GAS ENERGY***

## **2016 DEPRECIATION STUDY**

**CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO GAS PLANT  
AS OF SEPTEMBER 30, 2016**

*Prepared by:*



***Gannett Fleming***

*Excellence Delivered **As Promised***

MISSOURI GAS ENERGY

St. Louis, Missouri

2016 DEPRECIATION STUDY  
CALCULATED ANNUAL DEPRECIATION ACCRUALS  
RELATED TO GAS PLANT  
AS OF SEPTEMBER 30, 2016

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



Excellence Delivered *As Promised*

April 5, 2017

Missouri Gas Energy  
700 Market Street  
St. Louis, MO 63101

Attention Mr. Michael R. Noack  
Director of Pricing and Regulatory Affairs

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas plant of Missouri Gas Energy as of September 30, 2016. The study results include annual depreciation rates and amounts for regulatory reporting purposes. The attached report presents a description of the methods used in the estimation of depreciation, summaries of annual and accrued depreciation, the statistical support for the life and net salvage estimates and the detailed tabulations of depreciation by year installed for each account.

Respectfully submitted,

GANNETT FLEMING VALUATION  
AND RATE CONSULTANTS, LLC

A handwritten signature in blue ink that reads "John J. Spanos".

JOHN J. SPANOS  
Senior Vice President

JJS:mlw

062174.000

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# MISSOURI GAS ENERGY

## DEPRECIATION STUDY

### EXECUTIVE SUMMARY

Pursuant to Missouri Gas Energy's ("MGE" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the gas plant as of September 30, 2016. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a whole life basis. The calculations were based on attained ages and estimated average service life, and forecasted net salvage characteristics for each depreciable group of assets.

MGE's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes in depreciation rates caused by the proposed service life and net salvage estimates in this depreciation study as well as the merger which established consistent operational practices.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas plant in service as of September 30, 2016 as summarized in Table 1 of the study. Supporting analysis and calculations are provided within the study.

The study results set forth an annual depreciation expense of \$35.5 million when applied to depreciable plant balances as of September 30, 2016. The results are summarized at the functional level as follows:

**SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS**

<b>FUNCTION</b>	<b>ORIGINAL COST AS OF SEPTEMBER 30, 2016</b>	<b>PROPOSED RATE</b>	<b>PROPOSED EXPENSE</b>
Distribution Plant	\$ 1,124,135,175.13	2.75	\$ 30,942,480
General Plant	<u>92,470,028.74</u>	4.89	<u>4,520,766</u>
<b>Total Depreciable Plant</b>	<b><u>\$1,216,605,203.87</u></b>	<b>2.91</b>	<b><u>\$ 35,463,246</u></b>

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## PART I. INTRODUCTION



# **MISSOURI GAS ENERGY DEPRECIATION STUDY**

## **PART I. INTRODUCTION**

### **SCOPE**

This report presents the results of the depreciation study prepared for Missouri Gas Energy (the Company) as applied to gas plant in service as of September 30, 2016. The study results include annual depreciation rates and amounts for regulatory reporting. The regulatory rates and amounts are based on the straight line whole life method of depreciation. The report also describes the concepts, methods and basic judgments which underlie recommended annual depreciation accrual rates and amounts related to current gas plant in service.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through September 2016; a review of Company practice and outlook as they relate to plant operation and retirement; and consideration of current practice in the gas industry, including knowledge of service life and net salvage estimates used for other gas properties.

### **PLAN OF REPORT**

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Net Salvage Considerations, presents the judgment utilized for the net salvage study. Part V, Calculation of Annual and Accrued Depreciation,

describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents a summary by depreciable group of annual depreciation accrual rates and amounts. Part VII, Service Life Statistics presents the statistical analysis of service life estimates; Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents; and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

## **BASIS OF THE STUDY**

### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For all accounts, the annual depreciation was calculated by the straight line whole life method using the average service life procedure. The calculated annual and accrued depreciation were based on attained ages of plant in service and the estimated service

life and net salvage characteristics of each depreciable group. Amortization accounting or vintage pooling is used for most general plant accounts

### **Service Life and Net Salvage Estimates**

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas utility industry, and comparisons of the service life and net salvage estimates from our studies of other gas utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and estimates of future experience yielded estimated survivor curves from which the average service lives were derived.

The Company's service life estimates used in the depreciation calculation incorporated historical data compiled through September 2016 from the property records of the Company. Such data included plant additions, retirements, transfers and other activity. Generally, retirement data for the years 1994 through 2016 were used in the actuarial life table computations which were the primary statistical support of the service life estimates.

A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirement was obtained through discussions with operating and management personnel conducted during the course of the service life study. Information regarding plans for the future was incorporated in the interpretation and extrapolation of the statistical analyses.

The estimates of net salvage were based in part on historical data compiled for the years 2008 through 2016. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Percentages of the cost of plant retired were calculated for each component of net salvage, on both annual and five-year moving average bases. The estimates of net salvage are expressed as percentages of the cost of plant retired.

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**PART II. ESTIMATION OF  
SURVIVOR CURVES**

## PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

### SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves,

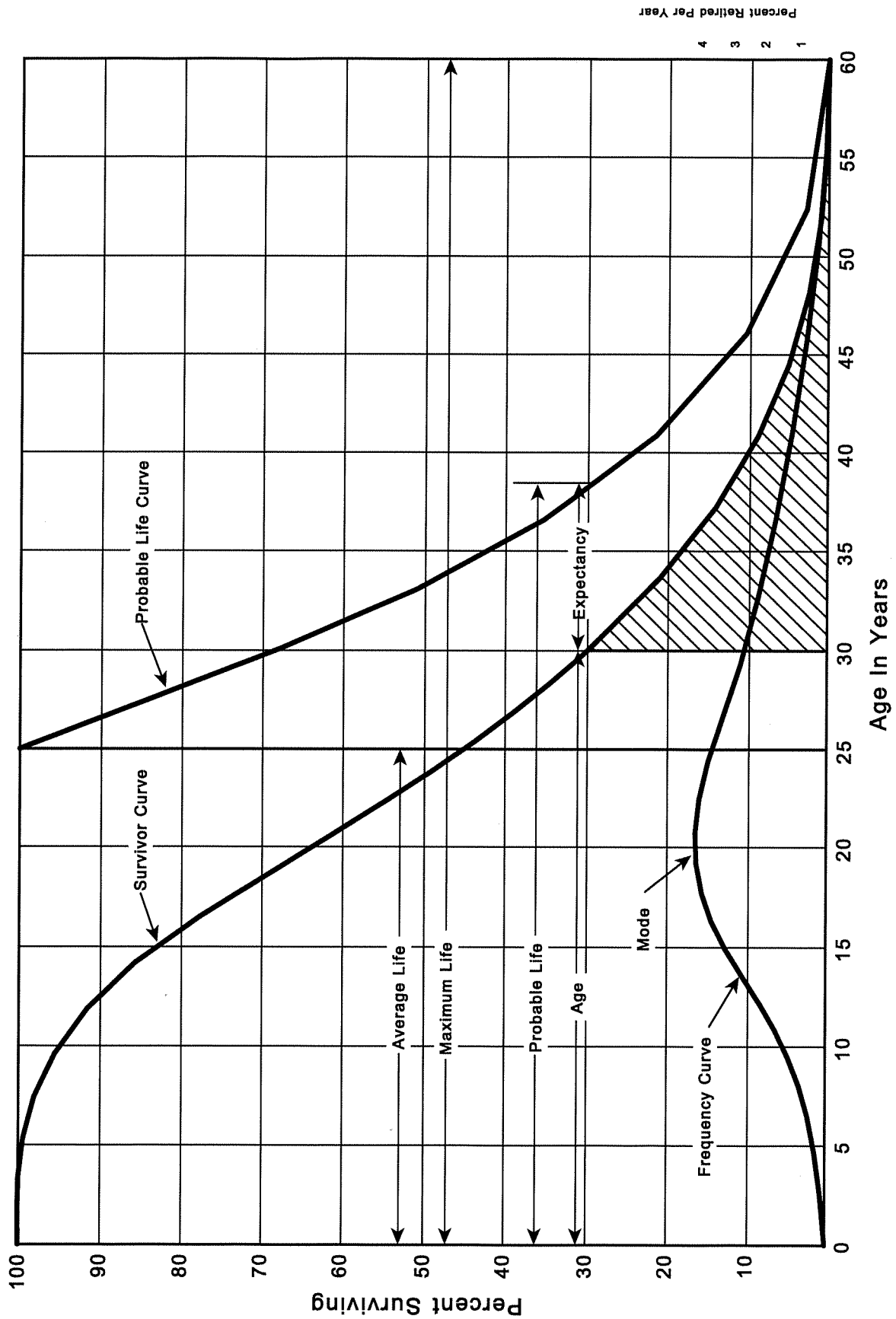


Figure 1. A Typical Survivor Curve and Derived Curves



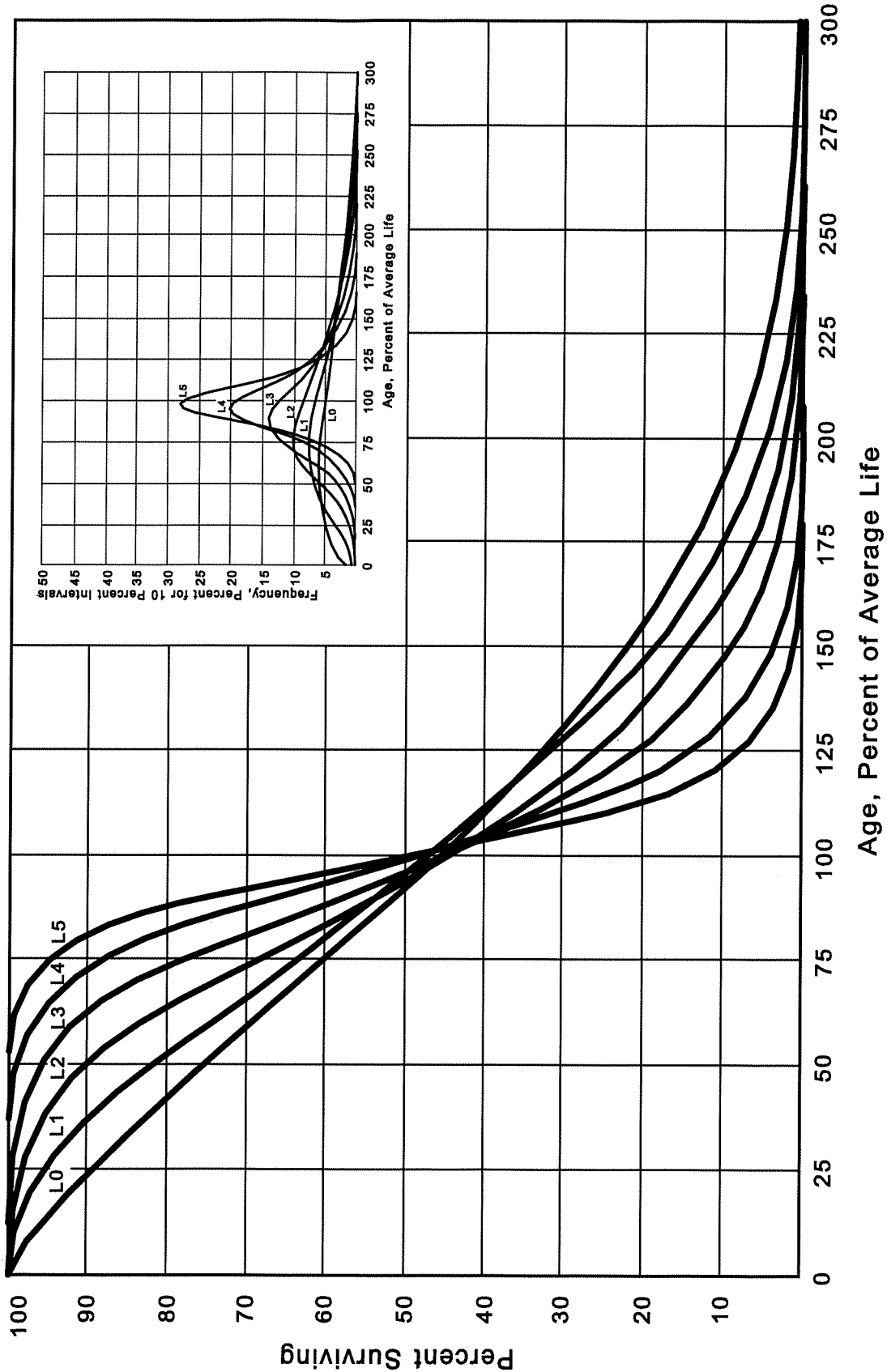


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

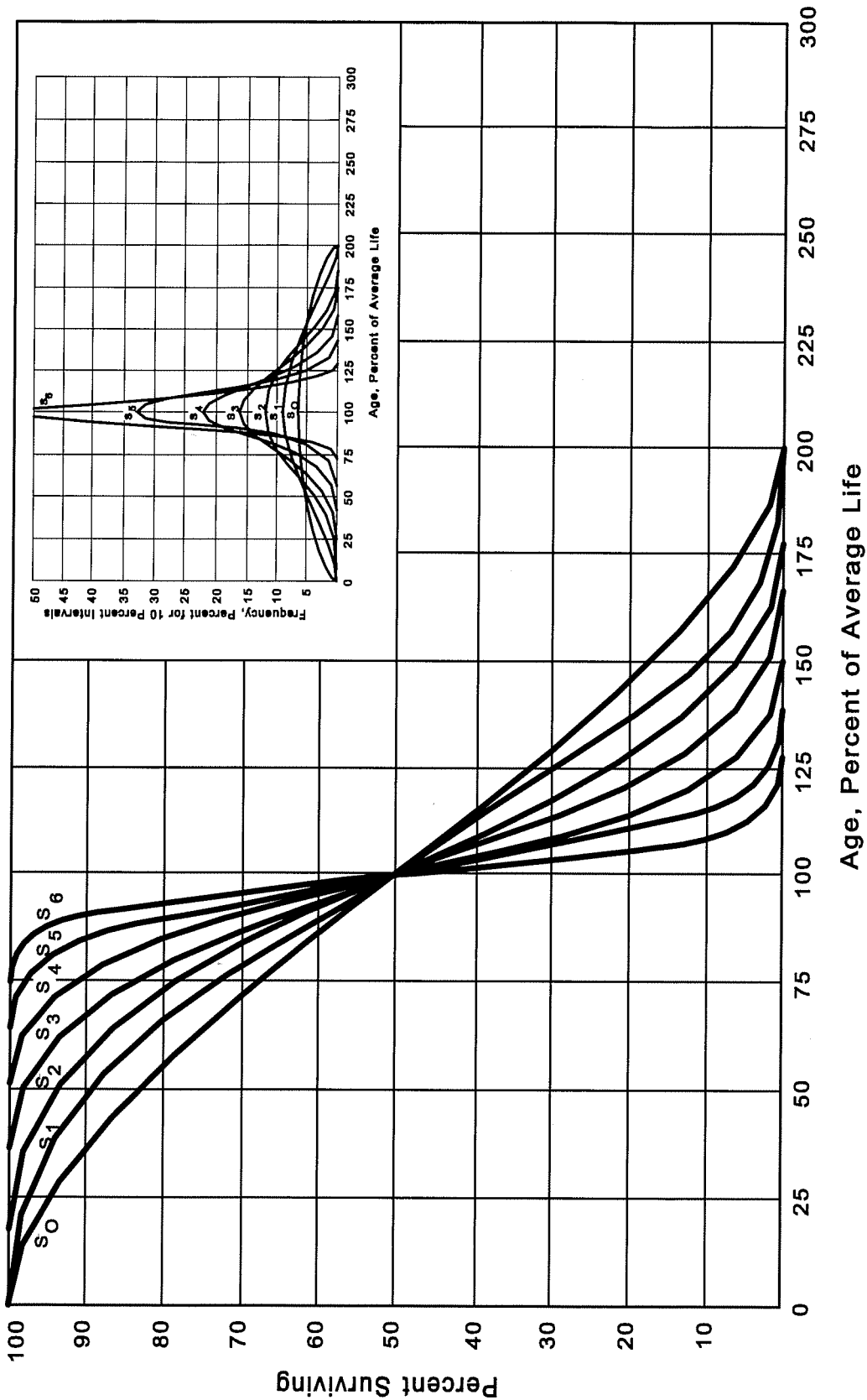


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

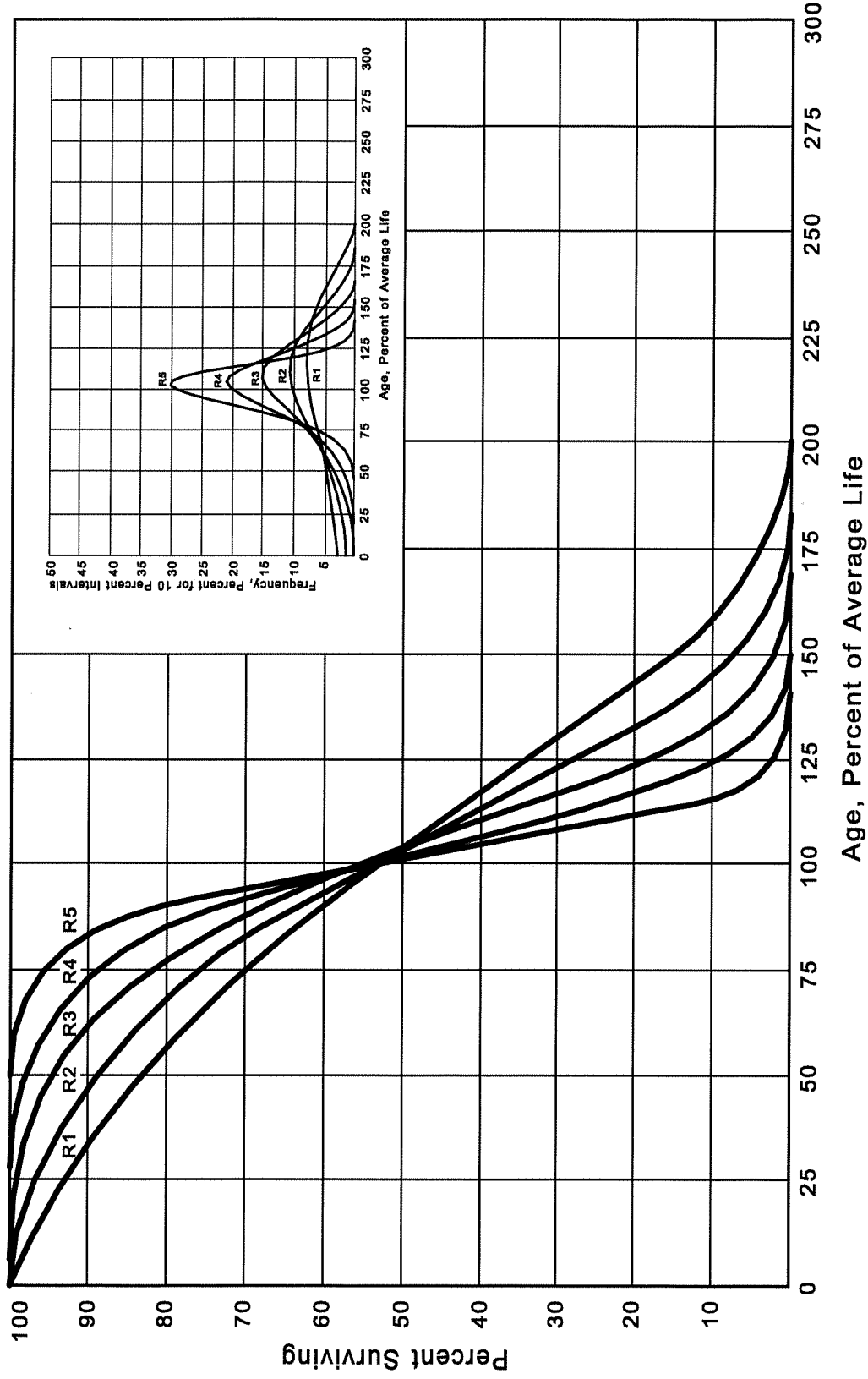


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

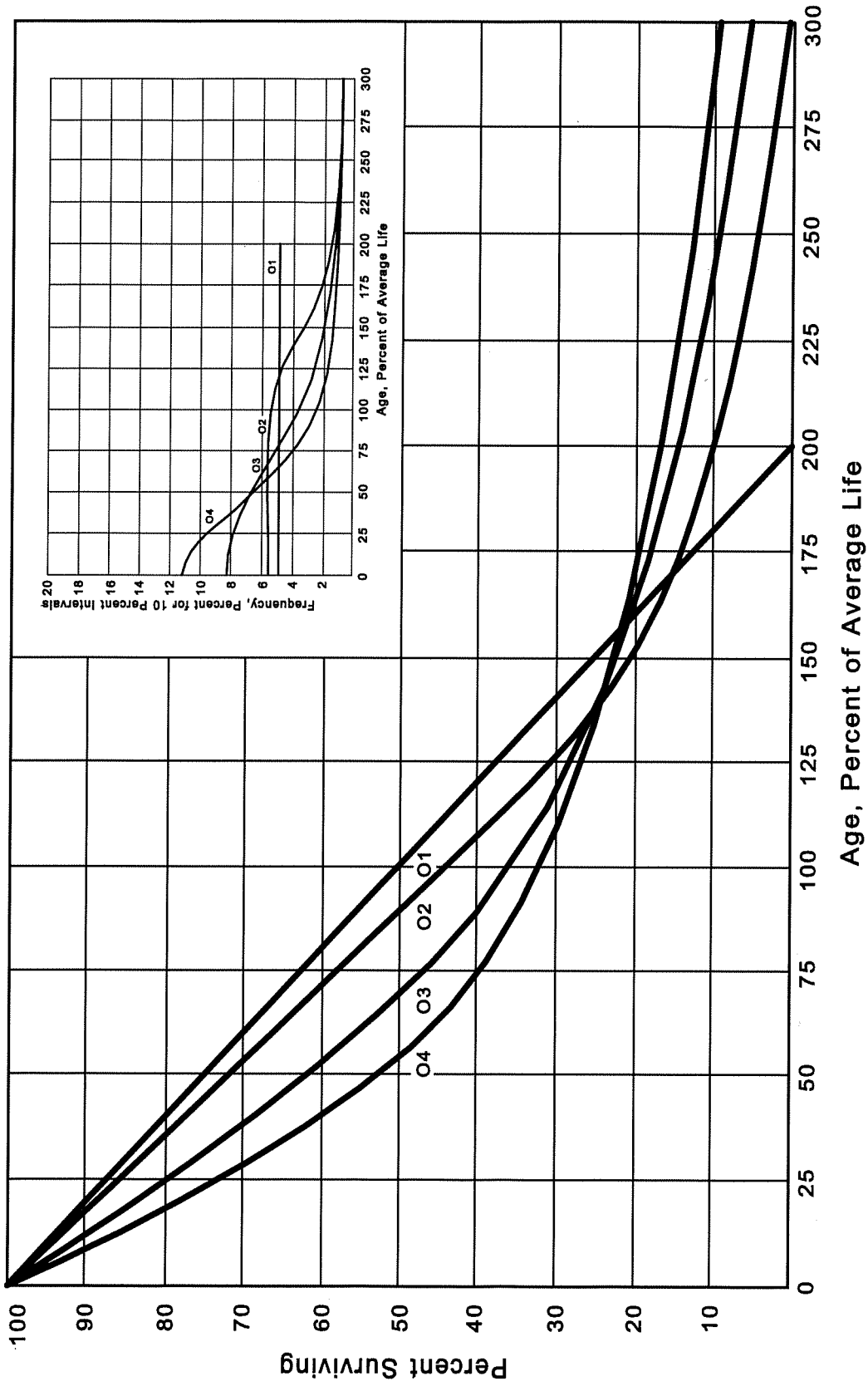


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125. These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."<sup>1</sup> In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"<sup>2</sup> "Engineering Valuation and Depreciation,"<sup>3</sup> and "Depreciation Systems."<sup>4</sup>

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual

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<sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>2</sup>Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

<sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>4</sup>Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

**Schedules of Annual Transactions in Plant Records**

A hypothetical property group is used to illustrate the retirement rate method. This property group is observed for the experience band 2007-2016 during which there were placements (or installations) during the years 2002-2016. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, year placed and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2002 were retired in 2007. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2007 retirements of 2002 installations and ending with the 2016 retirements of the 2011 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2007-2016  
SUMMARIZED BY AGE INTERVAL

Experience Band 2007-2016 Placement Band 2002-2016

Year Placed (1)	Retirements, Thousands of Dollars											Total During Age Interval (12)	Age Interval (13)
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)			
2002	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½
2003	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½
2004	11	12	13	14	16	17	19	21	22	18	64	64	11½-12½
2005	8	9	10	11	11	13	14	15	16	17	83	83	10½-11½
2006	9	10	11	12	13	14	16	17	19	20	93	93	9½-10½
2007	4	9	10	11	12	13	14	15	16	20	105	105	8½-9½
2008	5	5	11	12	13	14	15	16	18	20	113	113	7½-8½
2009			6	12	13	15	16	17	19	19	124	124	6½-7½
2010				6	13	15	16	17	19	19	131	131	5½-6½
2011					7	14	16	17	19	20	143	143	4½-5½
2012						8	18	20	22	23	146	146	3½-4½
2013							9	20	22	25	150	150	2½-3½
2014								11	23	25	151	151	1½-2½
2015									11	24	153	153	½-1½
2016										13	80	80	0-½
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>		

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2007-2016  
 SUMMARIZED BY AGE INTERVAL

Experience Band 2007-2016 Placement Band 2002-2016

Year Placed (1)	Acquisitions, Transfers and Sales, Thousands of Dollars											Total During Age Interval (12)	Age Interval (13)	
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)				
2002	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	-	-	13½-14½
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2005	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	-	60	-	-	10½-11½
2006	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	-	-	-	9½-10½
2007	-	-	-	-	-	-	-	-	-	-	(5)	-	-	8½-9½
2008	-	-	-	-	-	-	-	-	-	-	6	-	-	7½-8½
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2010	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	-	-	5½-6½
2011	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	-	-	4½-5½
2012	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	-	10	-	-	3½-4½
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2014	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	-	-	1½-2½
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	-	-	-	-	-	-	60	(30)	22	(102)	(50)	-	-	

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses Denote Credit Amount.



In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

### **Schedule of Plant Exposed to Retirement**

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2007 through 2016 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2012 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

**SCHEDULE 3. PLANT EXPOSED TO RETIREMENT  
 JANUARY 1 OF EACH YEAR 2007-2016  
 SUMMARIZED BY AGE INTERVAL**

Year Placed (1)	Exposures, Thousands of Dollars											Total at		Age Interval (13)
	2007 (2)	2008 (3)	2009 (4)	2010 (5)	2011 (6)	2012 (7)	2013 (8)	2014 (9)	2015 (10)	2016 (11)	Beginning of Age Interval (12)	Age Interval (13)		
2002	255	245	234	222	209	195	239	216	192	167	167	13½-14½		
2003	279	268	256	243	228	212	194	174	153	131	323	12½-13½		
2004	307	296	284	271	257	241	224	205	184	162	531	11½-12½		
2005	338	330	321	311	300	289	276	262	242	226	823	10½-11½		
2006	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½		
2007	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	8½-9½		
2008		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	7½-8½		
2009			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	6½-7½		
2010				580 <sup>a</sup>	574	561	546	530	501	482	3,057	5½-6½		
2011					660 <sup>a</sup>	653	639	623	628	609	3,789	4½-5½		
2012						750 <sup>a</sup>	742	724	685	663	4,332	3½-4½		
2013							850 <sup>a</sup>	841	821	799	4,955	2½-3½		
2014								960 <sup>a</sup>	949	926	5,719	1½-2½		
2015									1,080 <sup>a</sup>	1,069	6,579	½-1½		
2016										1,220 <sup>a</sup>	7,490	0-½		
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,824</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>6,017</b>	<b>6,852</b>	<b>7,799</b>	<b>44,780</b>			

<sup>a</sup>Additions during the year

Experience Band 2007-2016

Placement Band 2002-2016

For the entire experience band 2007-2016, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE  
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2007-2016

Placement Band 2002-2016

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	167	26	0.1557	0.8443	42.24
14.5					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES

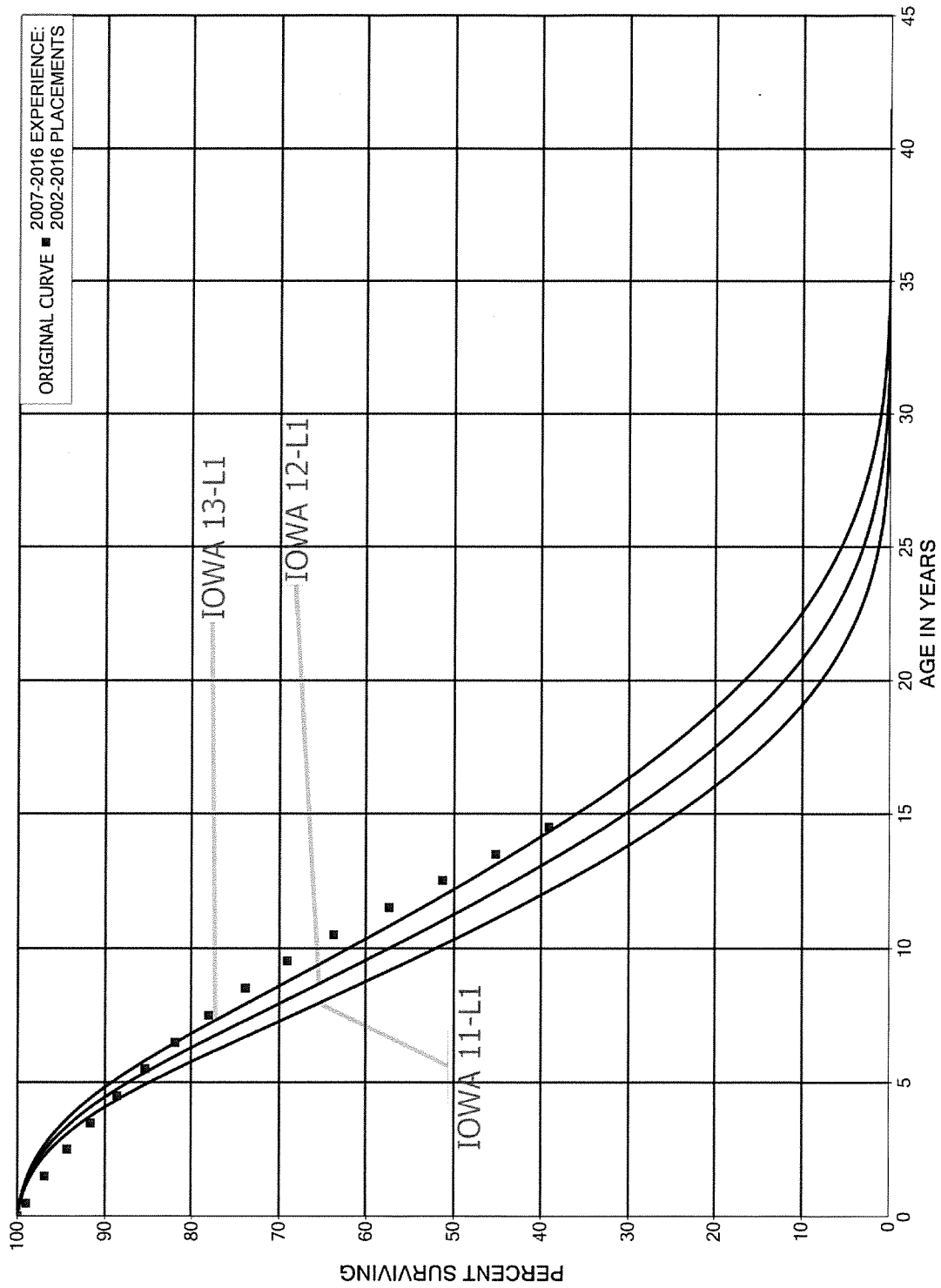


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES

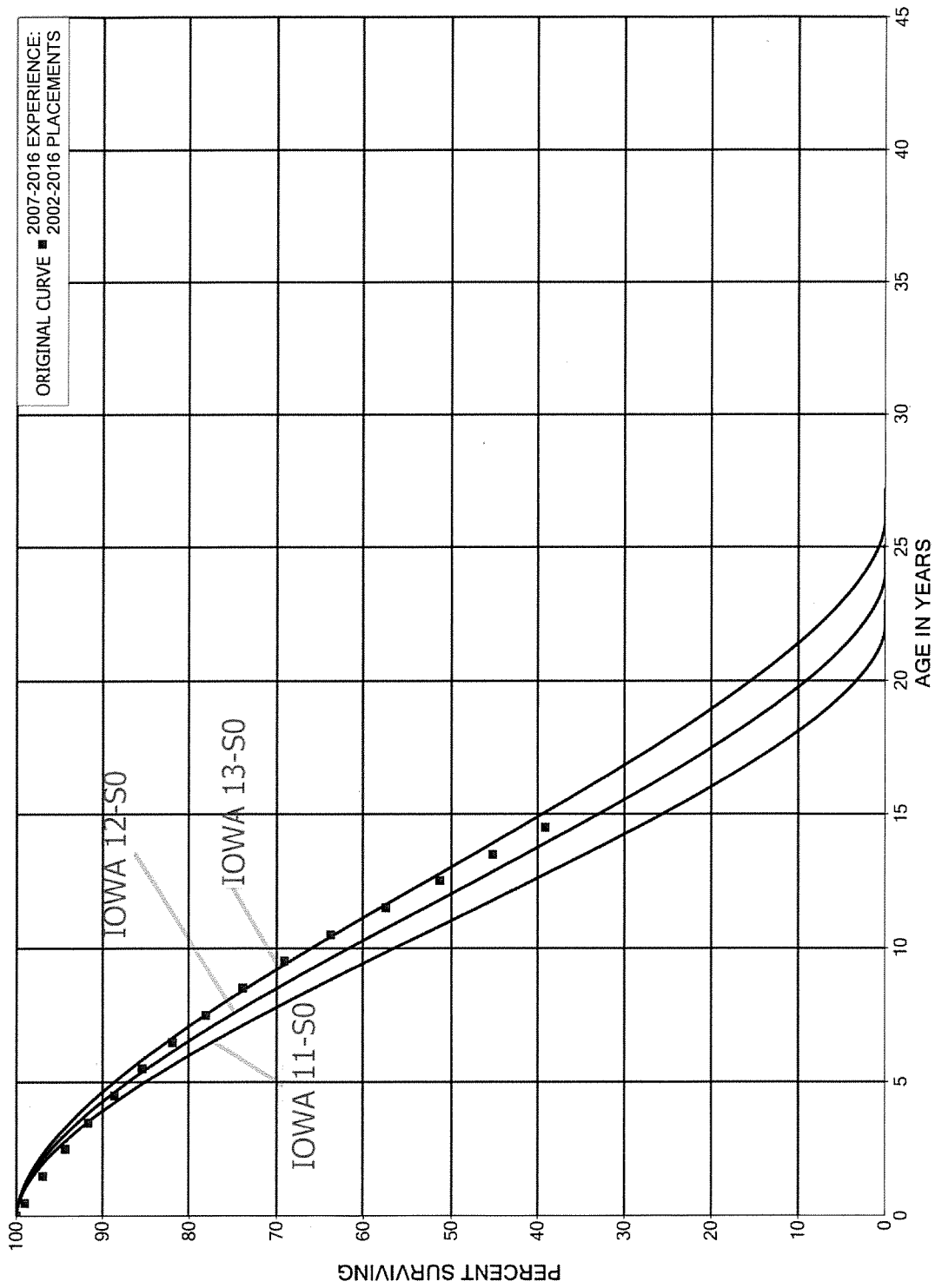


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

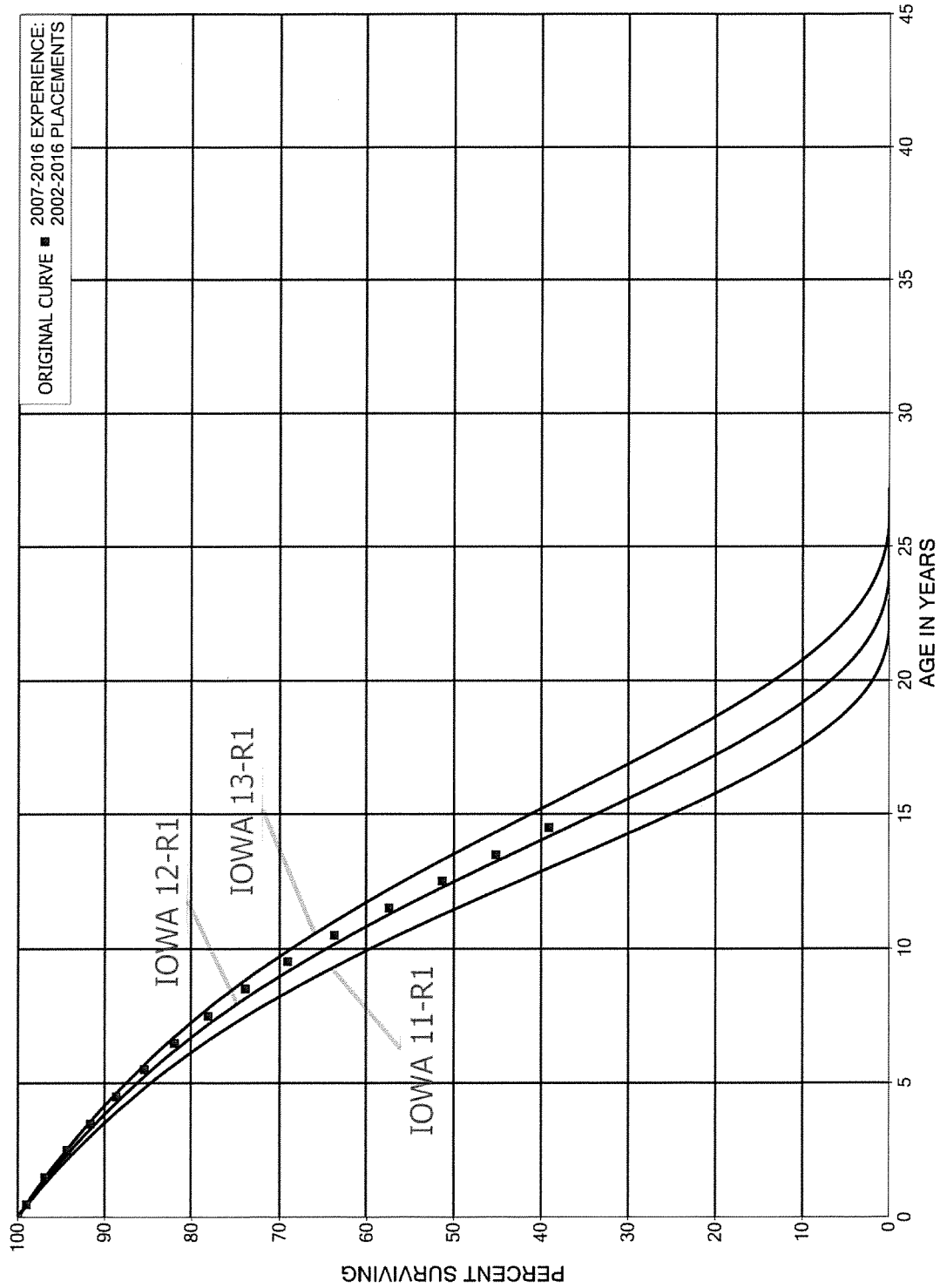
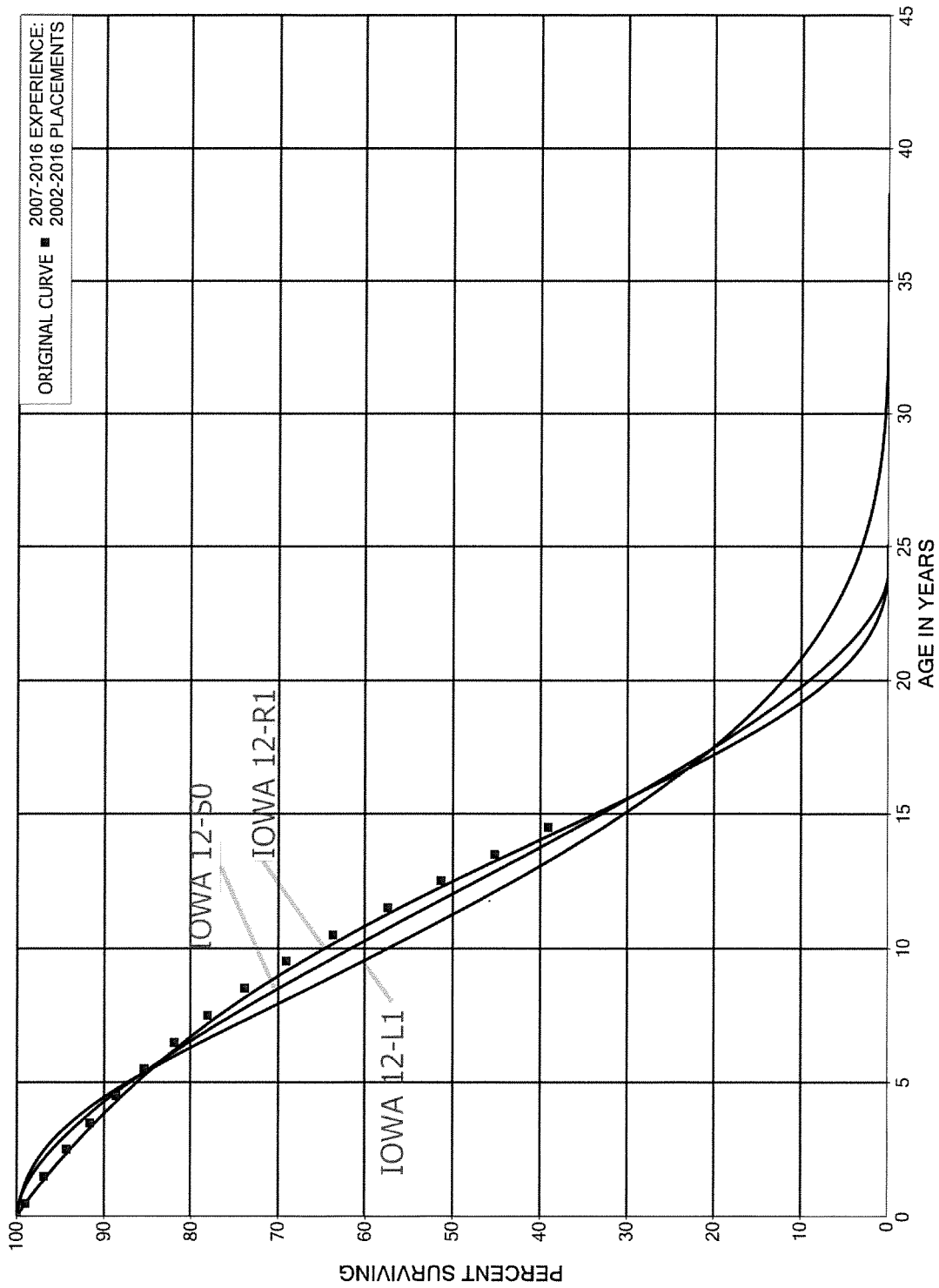




FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



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## PART III. SERVICE LIFE CONSIDERATIONS

## PART III. SERVICE LIFE CONSIDERATIONS

### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, a field trip was conducted for the study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trip.

March 14, 2017

Jackson / Tall Grass City Gate Station

107<sup>th</sup> and Elm District Regulating Station

107<sup>th</sup> and Greenwood District Regulating Station

Riverside City Gate Station

47<sup>th</sup> and Belinder City Gate Station

25<sup>th</sup> and Bellevue District Regulating Station

Kansas City Central Service Center

### SERVICE LIFE CONSIDERATIONS

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current Company policies and outlook as determined during field reviews of the property and other conversations with management, and the survivor curve estimates from other gas companies.

The estimated survivor curves for the mass property accounts are based on statistical analyses of plant accounting data, management policies and outlook, and

previous estimates for the Company and other gas utilities. Account 380.2, Services - Plastic and Copper, is the largest depreciable group, representing 32 percent of depreciable plant, and is used to illustrate the manner in which the study was conducted for groups using the retirement rate method. Aged retirement and other plant accounting data were compiled for the years 1994 through 2016. These data were coded in the course of the Company's normal recordkeeping according to plant account or property group, type of transaction, year in which the transaction took place, and year in which the plant was placed in service. The data were analyzed by the retirement rate method of life analysis. The survivor curve chart for the account is presented on page VII-36 and the life table for the experience band, 1994-2016, plotted on the chart follow it.

The primary causes of retirements for plastic and copper services are breaks and main replacement. Management has increased its capital budget for replacement of copper services with plastic services in the past fifteen years as well as installing new plastic services when the associated main is replaced. The historical indication of life characteristics is quite supportive of the 39-R2 through age 60. Significant installations of plastic services have occurred in the last 25 years which has established an original survivor curve of 30 percent surviving at age 48, which substantiates the good fit of the 39-R2.

The estimated survivor curve for Account 376.2, Mains - Cast Iron, reflects the early stages of the Cast Iron Replacement Program. The program was initiated over 25 years ago and will continue until all cast iron main and related assets are replaced. The current practices anticipate completing the replacement program in about 10 years.

Therefore, the survivor curve is truncated at year end 2025 to reflect the remaining life cycle. The 65-S2.5 survivor curve reflects the future plans of removing all remaining cast iron mains as well as the encapsulations which have allowed some cast iron to stay in service longer.

Another large asset class is Account 376.1, Mains – Steel, which represents larger diameter mains. The historical indication of the 1994-2016 experience band sets forth a consistent life cycle to the 70-R2 survivor curve.

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

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## PART IV. NET SALVAGE CONSIDERATIONS

## PART IV. NET SALVAGE CONSIDERATIONS

### SALVAGE ANALYSIS

The estimates of net salvage were based in part on historical data compiled for the years 2008 through 2016. The net salvage estimates are expressed as a percent of the original cost of plant retired. The salvage analyses include annual amounts and five-year moving average bases.

### Net Salvage Considerations

The estimates of net salvage were based primarily on judgment which considered a number of factors. The primary factors were the analyses of historical data, a knowledge of management's plans and operating policies determined during the field trip and other discussions, a general knowledge of the gas industry, and net salvage estimates used by other gas companies. Depreciation reserve accounting data were compiled for the years 2008 through 2016. These data include the retirements, cost of removal and gross salvage.

The net salvage results for Account 376.1, Mains - Steel, will be used to illustrate the methods for estimating net salvage. The net salvage estimate for these steel transmission and distribution mains is negative 30 percent and is based on the historical analysis of salvage percents as shown in the tabulation on page VIII-3 and the typical range of net salvage estimates used by other gas utilities for mains. The historical indication for the period 2014 through 2016 is negative 29 percent. Based on the overall average and the range of estimates used by others, negative 30 percent net salvage is estimated for both Account 367.1, Mains - Steel, and Account 376.11, Mains - Steel - Transmission.

The net salvage estimates for the remaining plant accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other gas companies. The results of the net salvage for each plant account are presented in account sequence beginning in the section titled “Net Salvage Statistics”, page VIII-2.

Generally, the net salvage estimates for the general plant accounts were zero percent, consistent with amortization accounting.



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**PART V. CALCULATION OF ANNUAL AND  
ACCRUED DEPRECIATION**

## PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

### GROUP DEPRECIATION PROCEDURES

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the average service life procedure, the annual accrual rate is computed by the following equation:

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

### Single Unit of Property

After the survivor curve and net salvage are estimated, the annual and accrued depreciation can be calculated. The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an

age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10}\right) = \$400.$$

For property groups in which the average service life of each vintage differs because the life of successive additions is restricted by an expected concurrent retirement of all associated property, the annual accrual rate is calculated separately for each vintage. The rate for each vintage is determined by the above equations, using the average service life calculated for the investment in that vintage. A composite rate for the total investment in such a group may then be calculated at a specific date by weighting the rate for each vintage by the related surviving investment.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age, service life and net salvage. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$\text{Ratio} = 1 - \left( \frac{\text{Average Remaining Life}}{\text{Average Service Life}} \right) (1 - \text{Net Salvage, Percent}).$$

## CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is appropriate for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable gas plant in service. The accounts and their amortization periods are as follows:

Account	Amortization Period, Years
391.0, Office Furniture and Equipment	20
391.3, Data Processing Software	5
393.0, Stores Equipment	30
394.0, Tools, Shop and Garage Equipment	25
395.0, Laboratory Equipment	20
397.0, Communication Equipment	15
397.1, Communication Equipment - ERT	15
398.0, Miscellaneous Equipment	20

The annual amortization amount is determined by dividing the original cost for vintages whose age is less than the amortization period by the period of amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period.

## **MONITORING OF BOOK ACCUMULATED DEPRECIATION**

As stated previously, the calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics and net salvage materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the adjustment of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The Company has identified a reserve variance of \$10,671,571 as of September 30, 2016, based on the results of the updated service life and net salvage studies. The amortization of this amount could occur over the remaining life of each account commencing with the effective date of customer rates based on this proceeding. However, utilizing the rates based on the life and net salvage parameters in this study would correct the variance over time.

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**PART VI. RESULTS OF STUDY**

## **PART VI. RESULTS OF STUDY**

### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and net salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line whole life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the gas in service as of September 30, 2016. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to September 30, 2016, is reasonable for a period of three to five years.

### **DESCRIPTION OF STATISTICAL SUPPORT**

The service life and net salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other gas utility companies. The results of the statistical analyses of service life are presented in the section titled "Service Life Statistics".

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s),

when applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented.

The analyses of salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and net salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of the original cost retired.

**DESCRIPTION OF DEPRECIATION TABULATIONS**

A summary table of the results of the study, as applied to the original cost of gas plant as of September 30, 2016, are presented on pages VI-4 and VI-5 of this report. The table summarizes the calculated annual and accrued depreciation by account based on the straight line whole life method of depreciation.

The tables of the calculated annual and accrued depreciation are presented in account sequence in the section titled "Detailed Depreciation Calculations." The tables indicate the estimated survivor curve and net salvage percent for the account and set forth for each installation year the original cost, the average life, the calculated annual accrual amount and rate, the expectancy, and the calculated accrued factor and depreciation.



MISSOURI GAS ENERGY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AS OF SEPTEMBER 30, 2016

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) NET SALVAGE	(4) ORIGINAL COST AS OF SEPTEMBER 30, 2016	(5) CALCULATED ANNUAL ACCRUAL AMOUNT	(6)=(5)/(4) RATE	(7) CALCULATED ACCRUED DEPRECIATION
	<b>DISTRIBUTION PLANT</b>						
374.2	LAND RIGHTS	70-R4	0	2,623,355.65	37,514	1.43	665,586
375.2	STRUCTURES AND IMPROVEMENTS	35-S0	(5)	12,590,385.44	377,887	3.00	2,985,376
376.1	MAINS - STEEL	70-R2	(30)	213,954,270.28	3,977,410	1.86	80,886,104
376.11	MAINS - STEEL - TRANSMISSION	80-R2.5	(30)	10,024,789.18	162,903	1.63	2,373,282
376.2	MAINS - CAST IRON	65-S2.5 *	(100)	2,306,655.15	72,087	3.13	4,174,082
376.21	MAINS - CAST IRON ENCAPSULATIONS	65-S2.5 *	0	32,402,337.06	1,783,463	5.50	15,939,144
376.3	MAINS - PLASTIC	65-R3	(40)	282,762,544.40	6,096,360	2.16	74,378,920
	TOTAL ACCOUNT 376			541,450,596.07	12,092,223		177,751,532
378	MEASURING AND REGULATING STATION - GENERAL	45-R0.5	(10)	14,235,494.01	347,549	2.44	4,092,664
379	MEASURING AND REGULATING STATION - CITY GATE	45-S0.5	(5)	5,918,676.31	137,964	2.33	1,567,472
380.1	SERVICES - STEEL	40-R1.5	(100)	7,235,155.69	358,933	4.96	7,186,958
380.2	SERVICES - PLASTIC AND COPPER	39-R2	(40)	388,715,536.58	13,931,565	3.58	195,876,661
	TOTAL ACCOUNT 380			395,950,692.27	14,290,498		203,063,619
381	METERS	28-O1	4	40,311,714.35	1,376,666	3.42	10,836,435
382	METER INSTALLATIONS	55-R2	(5)	94,089,028.93	1,797,238	1.91	24,878,738
383	HOUSE REGULATORS	35-S4	0	15,906,292.95	454,920	2.86	7,448,021
385	INDUSTRIAL MEASURING AND REGULATING STATIONS	37-S2	(5)	1,058,939.15	30,021	2.84	201,799
	TOTAL DISTRIBUTION PLANT			1,124,135,175.13	30,942,480	2.75	433,491,242
	<b>GENERAL PLANT</b>						
390.7	STRUCTURES AND IMPROVEMENTS	25-L2	0	878,378.47	33,307	3.79	429,926
391	OFFICE FURNITURE AND EQUIPMENT	20-SQ	0	4,955,875.26	191,538	3.86	2,084,996
391.3	DATA PROCESSING SOFTWARE	5-SQ	0	3,261,921.81	23,872	0.73	3,245,129
	TOTAL ACCOUNT 391			8,217,797.07	215,410		5,330,125

MISSOURI GAS ENERGY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST AND CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AS OF SEPTEMBER 30, 2016

	DEPRECIABLE GROUP (1)	SURVIVOR CURVE (2)	NET SALVAGE (3)	ORIGINAL COST AS OF SEPTEMBER 30, 2016 (4)	CALCULATED ANNUAL ACCRUAL		CALCULATED ACCRUED DEPRECIATION (7)
					AMOUNT (5)	RATE (6)=(5)/(4)	
392.1	TRANSPORTATION EQUIPMENT - AUTOS	10-S1	20	6,091,410.87	487,313	8.00	2,041,029
392.2	TRANSPORTATION EQUIPMENT - TRUCKS	12-S2	25	15,726,253.68	979,190	6.23	3,686,897
	TOTAL ACCOUNT 392			21,817,664.55	1,466,503		5,727,926
393	STORES EQUIPMENT	30-SQ	0	664,473.51	20,651	3.11	363,649
394	TOOLS, SHOP AND GARAGE EQUIPMENT	25-SQ	0	8,930,688.90	310,721	3.48	3,697,493
396	POWER OPERATED EQUIPMENT	10-L2.5	25	2,880,563.09	216,042	7.50	848,685
397	COMMUNICATION EQUIPMENT	15-SQ	0	6,619,312.84	361,006	5.45	3,205,791
397.1	COMMUNICATION EQUIPMENT - ERT	15-SQ	0	41,660,450.48	1,864,150	4.47	22,830,430
	TOTAL ACCOUNT 397			48,279,763.32	2,225,156		26,036,221
398	MISCELLANEOUS EQUIPMENT	20-SQ	0	800,699.83	32,976	4.12	478,486
	TOTAL GENERAL PLANT			92,470,028.74	4,520,766	4.89	42,912,511
	TOTAL DEPRECIABLE PLANT			1,216,605,203.87	35,463,246	2.91	476,403,753
	NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED						
301	ORGANIZATION			15,600.35			
302	FRANCHISES AND CONSENTS			13,822.90			
303	INTANGIBLE PROPERTY			773,928.74			
374.1	LAND			476,087.63	487,078		
375.21	STRUCTURES AND IMPROVEMENTS - LEASED PROPERTY			9,724.36	6,251		
389	LAND			1,058,065.19			
	TOTAL NONDEPRECIABLE AND ACCOUNTS NOT STUDIED			2,347,229.17	493,329		
	TOTAL GAS PLANT			1,218,952,433.04	35,956,575		476,403,753

MISSOURI GAS ENERGY

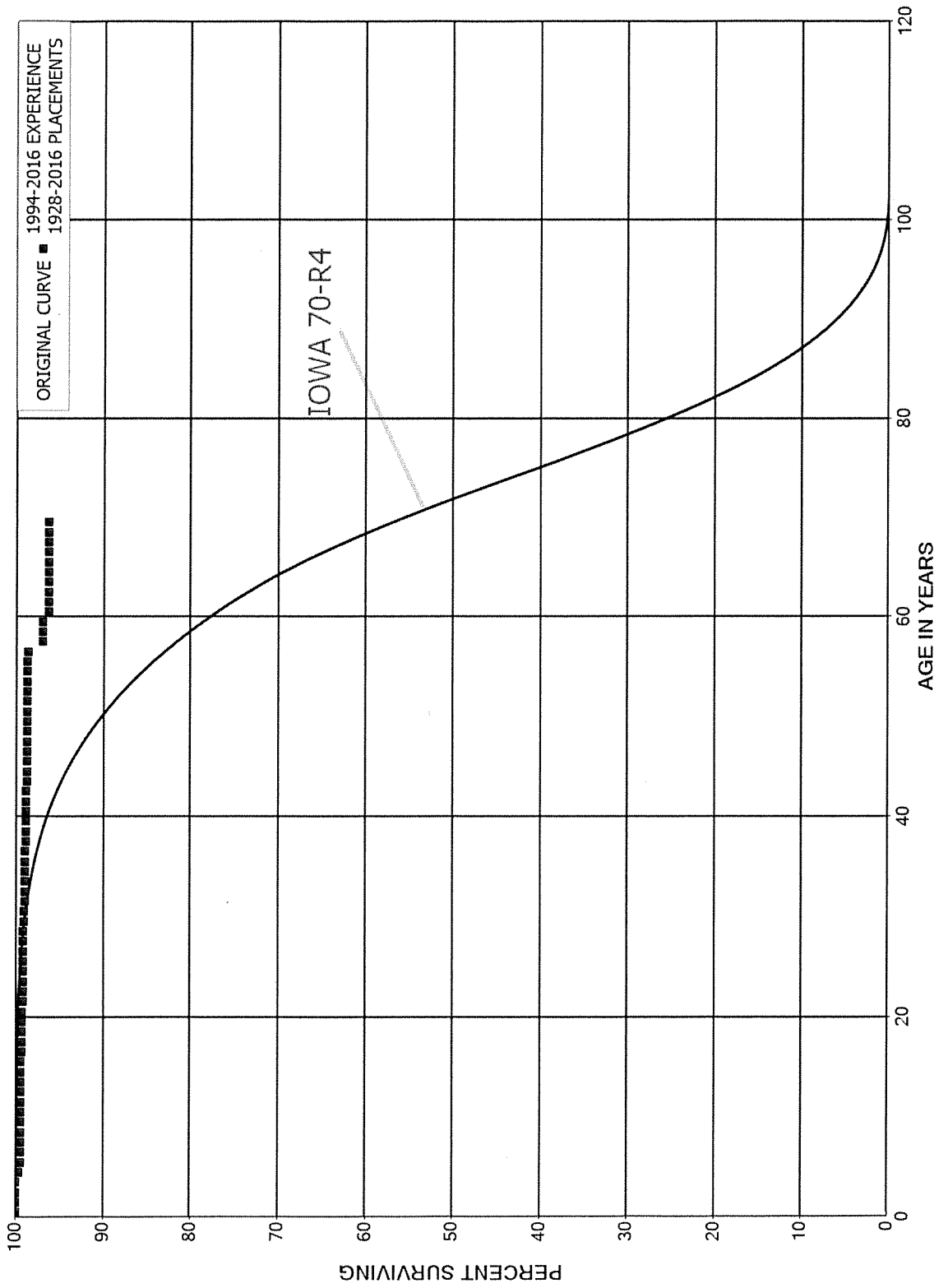
TABLE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AS OF SEPTEMBER 30, 2016 WITH THE RESERVE VARIANCE

	DEPRECIABLE GROUP (1)	ORIGINAL COST (2)	CALCULATED ACCRUED DEPRECIATION (3)	BOOK DEPRECIATION RESERVE (4)	VARIANCE (5) = (3) - (4)
<b>DISTRIBUTION PLANT</b>					
374.2	LAND RIGHTS	2,623,355.65	665,586	890,352	(224,766)
375.2	STRUCTURES AND IMPROVEMENTS	12,590,385.44	2,985,376	1,660,338	1,325,038
376.1	MAINS - STEEL	213,954,270.28	80,886,104	100,444,196	(19,558,092)
376.11	MAINS - STEEL - TRANSMISSION	10,024,789.18	2,373,282	3,058,406	(685,124)
376.2	MAINS - CAST IRON	2,306,655.15	4,174,082	1,750,411	2,423,671
376.21	MAINS - CAST IRON ENCAPSULATIONS	32,402,337.06	15,939,144	6,684,118	9,255,026
376.3	MAINS - PLASTIC	282,762,544.40	74,378,920	72,624,877	1,754,043
	TOTAL ACCOUNT 376	541,450,596.07	177,751,532	184,562,008	(6,810,476)
378	MEASURING AND REGULATING STATION - GENERAL	14,235,494.01	4,092,664	6,080,106	(1,987,442)
379	MEASURING AND REGULATING STATION - CITY GATE	5,918,676.31	1,567,472	1,747,140	(179,668)
380.1	SERVICES - STEEL	7,235,155.69	7,186,958	5,326,689	1,860,269
380.2	SERVICES - PLASTIC AND COPPER	388,715,536.58	195,876,661	209,963,200	(14,086,539)
	TOTAL ACCOUNT 380	395,950,692.27	203,063,619	215,289,889	(12,226,270)
381	METERS	40,311,714.35	10,836,435	5,380,866	5,455,569
382	METER INSTALLATIONS	94,089,028.93	24,878,738	36,371,580	(11,492,842)
383	HOUSE REGULATORS	15,906,292.95	7,448,021	5,342,103	2,105,918
385	INDUSTRIAL MEASURING AND REGULATING STATIONS	1,058,939.15	201,799	243,644	(41,845)
	<b>TOTAL DISTRIBUTION PLANT</b>	<b>1,124,135,175.13</b>	<b>433,491,242</b>	<b>457,568,028</b>	<b>(24,076,786)</b>
<b>GENERAL PLANT</b>					
390.7	STRUCTURES AND IMPROVEMENTS	878,378.47	429,926	247,676	182,250
391	OFFICE FURNITURE AND EQUIPMENT	4,955,875.26	2,084,996	1,366,646	718,350
391.3	DATA PROCESSING SOFTWARE	3,261,921.81	3,245,129	2,127,074	1,118,055
	TOTAL ACCOUNT 391	8,217,797.07	5,330,125	3,493,720	1,836,405
392.1	TRANSPORTATION EQUIPMENT - AUTOS	6,091,410.87	2,041,029	4,106,908	(2,065,879)
392.2	TRANSPORTATION EQUIPMENT - TRUCKS	15,726,253.68	3,686,897	4,970,256	(1,283,359)
	TOTAL ACCOUNT 392	21,817,664.55	5,727,926	9,077,164	(3,349,238)
393	STORES EQUIPMENT	664,473.51	363,649	199,638	164,011
394	TOOLS, SHOP AND GARAGE EQUIPMENT	8,930,688.90	3,697,493	2,793,683	903,810
396	POWER OPERATED EQUIPMENT	2,880,563.09	848,685	473,881	374,804
397	COMMUNICATION EQUIPMENT	6,619,312.84	3,205,791	(118,221)	3,324,012
397.1	COMMUNICATION EQUIPMENT - ERT	41,660,450.48	22,830,430	12,831,074	9,999,356
	TOTAL ACCOUNT 397	48,279,763.32	26,036,221	12,712,853	13,323,368
398	MISCELLANEOUS EQUIPMENT	800,699.83	478,486	508,682	(30,196)
	<b>TOTAL GENERAL PLANT</b>	<b>92,470,028.74</b>	<b>42,912,511</b>	<b>29,507,297</b>	<b>13,405,214</b>
	<b>TOTAL DEPRECIABLE PLANT</b>	<b>1,216,605,203.87</b>	<b>476,403,753</b>	<b>487,075,324</b>	<b>(10,671,571)</b>

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## PART VII. SERVICE LIFE STATISTICS

MISSOURI GAS ENERGY  
 ACCOUNT 374.20 LAND RIGHTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1928-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,239,079		0.0000	1.0000	100.00
0.5	2,032,779		0.0000	1.0000	100.00
1.5	2,038,340		0.0000	1.0000	100.00
2.5	2,082,396	172	0.0001	0.9999	100.00
3.5	2,115,609	8,827	0.0042	0.9958	99.99
4.5	2,107,962	4,697	0.0022	0.9978	99.57
5.5	1,908,742	47	0.0000	1.0000	99.35
6.5	1,807,264	72	0.0000	1.0000	99.35
7.5	1,791,229		0.0000	1.0000	99.35
8.5	1,800,007	57	0.0000	1.0000	99.35
9.5	1,795,878		0.0000	1.0000	99.34
10.5	1,275,145		0.0000	1.0000	99.34
11.5	1,232,602		0.0000	1.0000	99.34
12.5	1,050,708		0.0000	1.0000	99.34
13.5	859,949		0.0000	1.0000	99.34
14.5	838,645	15	0.0000	1.0000	99.34
15.5	674,272	362	0.0005	0.9995	99.34
16.5	637,564	33	0.0001	0.9999	99.29
17.5	561,970		0.0000	1.0000	99.28
18.5	536,553		0.0000	1.0000	99.28
19.5	509,788	237	0.0005	0.9995	99.28
20.5	431,513	132	0.0003	0.9997	99.24
21.5	332,582	90	0.0003	0.9997	99.21
22.5	328,677	76	0.0002	0.9998	99.18
23.5	293,493	43	0.0001	0.9999	99.16
24.5	298,969	27	0.0001	0.9999	99.14
25.5	280,054		0.0000	1.0000	99.13
26.5	254,173		0.0000	1.0000	99.13
27.5	254,266		0.0000	1.0000	99.13
28.5	249,744	269	0.0011	0.9989	99.13
29.5	258,586	43	0.0002	0.9998	99.03
30.5	233,736	30	0.0001	0.9999	99.01
31.5	258,257	14	0.0001	0.9999	99.00
32.5	271,349		0.0000	1.0000	98.99
33.5	277,962		0.0000	1.0000	98.99
34.5	273,208	227	0.0008	0.9992	98.99
35.5	262,042	33	0.0001	0.9999	98.91
36.5	264,519	203	0.0008	0.9992	98.90
37.5	262,947		0.0000	1.0000	98.82
38.5	261,796	106	0.0004	0.9996	98.82

MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	263,830		0.0000	1.0000	98.78
40.5	254,651		0.0000	1.0000	98.78
41.5	203,739	3	0.0000	1.0000	98.78
42.5	195,518	9	0.0000	1.0000	98.78
43.5	203,627	148	0.0007	0.9993	98.78
44.5	212,883	10	0.0000	1.0000	98.70
45.5	186,622		0.0000	1.0000	98.70
46.5	204,425	5	0.0000	1.0000	98.70
47.5	196,826		0.0000	1.0000	98.70
48.5	172,866	4	0.0000	1.0000	98.70
49.5	138,037		0.0000	1.0000	98.70
50.5	119,277		0.0000	1.0000	98.70
51.5	120,598		0.0000	1.0000	98.70
52.5	109,110		0.0000	1.0000	98.70
53.5	105,380		0.0000	1.0000	98.70
54.5	73,248		0.0000	1.0000	98.70
55.5	60,203	31	0.0005	0.9995	98.70
56.5	54,562	915	0.0168	0.9832	98.64
57.5	60,732		0.0000	1.0000	96.99
58.5	57,891		0.0000	1.0000	96.99
59.5	55,345	373	0.0067	0.9933	96.99
60.5	54,817		0.0000	1.0000	96.34
61.5	58,030		0.0000	1.0000	96.34
62.5	55,536		0.0000	1.0000	96.34
63.5	54,817		0.0000	1.0000	96.34
64.5	52,822		0.0000	1.0000	96.34
65.5	51,885		0.0000	1.0000	96.34
66.5	43,750		0.0000	1.0000	96.34
67.5	34,346	11	0.0003	0.9997	96.34
68.5	34,306		0.0000	1.0000	96.31
69.5	15,923		0.0000	1.0000	96.31
70.5	15,724		0.0000	1.0000	96.31
71.5	15,586		0.0000	1.0000	96.31
72.5	15,586		0.0000	1.0000	96.31
73.5	15,580		0.0000	1.0000	96.31
74.5	14,096		0.0000	1.0000	96.31
75.5	13,644		0.0000	1.0000	96.31
76.5	13,586		0.0000	1.0000	96.31
77.5	13,568		0.0000	1.0000	96.31
78.5	13,509		0.0000	1.0000	96.31

MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

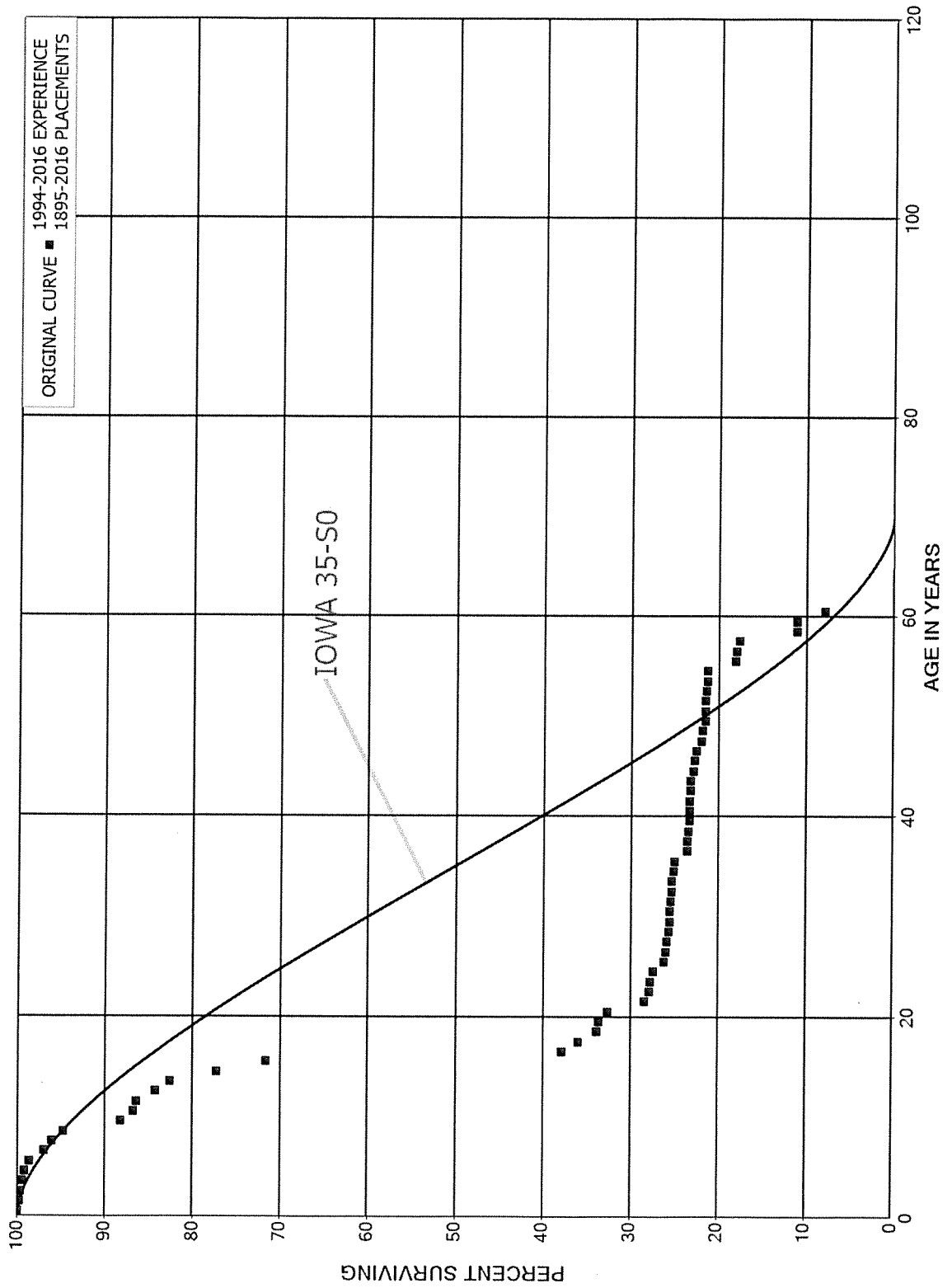
PLACEMENT BAND 1928-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,612		0.0000	1.0000	96.31
80.5	5,029		0.0000	1.0000	96.31
81.5	5,028		0.0000	1.0000	96.31
82.5	5,026		0.0000	1.0000	96.31
83.5	4,994		0.0000	1.0000	96.31
84.5	1,361		0.0000	1.0000	96.31
85.5	996		0.0000	1.0000	96.31
86.5	238		0.0000	1.0000	96.31
87.5	93		0.0000	1.0000	96.31
88.5					96.31



MISSOURI GAS ENERGY  
 ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1895-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,372,020		0.0000	1.0000	100.00
0.5	13,447,205	41,321	0.0031	0.9969	100.00
1.5	12,775,936	9,609	0.0008	0.9992	99.69
2.5	12,786,568	23,343	0.0018	0.9982	99.62
3.5	12,777,578	38,089	0.0030	0.9970	99.44
4.5	13,313,545	76,556	0.0058	0.9942	99.14
5.5	12,115,017	202,255	0.0167	0.9833	98.57
6.5	13,667,744	120,245	0.0088	0.9912	96.92
7.5	12,681,259	174,969	0.0138	0.9862	96.07
8.5	14,496,526	1,011,525	0.0698	0.9302	94.75
9.5	7,005,688	115,408	0.0165	0.9835	88.13
10.5	7,032,341	26,447	0.0038	0.9962	86.68
11.5	6,843,605	167,337	0.0245	0.9755	86.36
12.5	4,690,297	92,395	0.0197	0.9803	84.25
13.5	4,556,552	289,731	0.0636	0.9364	82.59
14.5	4,780,079	356,138	0.0745	0.9255	77.33
15.5	4,384,388	2,065,697	0.4711	0.5289	71.57
16.5	2,255,131	111,082	0.0493	0.9507	37.85
17.5	2,054,856	125,931	0.0613	0.9387	35.99
18.5	1,620,273	5,462	0.0034	0.9966	33.78
19.5	696,435	22,152	0.0318	0.9682	33.67
20.5	722,936	92,725	0.1283	0.8717	32.60
21.5	635,371	12,148	0.0191	0.9809	28.42
22.5	629,655	2,916	0.0046	0.9954	27.87
23.5	614,944	7,287	0.0118	0.9882	27.74
24.5	605,200	27,990	0.0462	0.9538	27.41
25.5	571,911	3,814	0.0067	0.9933	26.15
26.5	575,155	3,879	0.0067	0.9933	25.97
27.5	563,347	4,156	0.0074	0.9926	25.80
28.5	548,401	1,478	0.0027	0.9973	25.61
29.5	522,633	641	0.0012	0.9988	25.54
30.5	507,222	2,575	0.0051	0.9949	25.51
31.5	622,979	2,179	0.0035	0.9965	25.38
32.5	614,349	594	0.0010	0.9990	25.29
33.5	596,359	5,745	0.0096	0.9904	25.26
34.5	616,666	2,241	0.0036	0.9964	25.02
35.5	614,767	35,996	0.0586	0.9414	24.93
36.5	601,325	300	0.0005	0.9995	23.47
37.5	255,193	654	0.0026	0.9974	23.46
38.5	260,574	1,598	0.0061	0.9939	23.40

MISSOURI GAS ENERGY

ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1895-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	256,416	221	0.0009	0.9991	23.25
40.5	254,994		0.0000	1.0000	23.23
41.5	245,512	69	0.0003	0.9997	23.23
42.5	268,636	1,046	0.0039	0.9961	23.23
43.5	249,278	2,972	0.0119	0.9881	23.14
44.5	263,682	1,861	0.0071	0.9929	22.86
45.5	252,520	2,201	0.0087	0.9913	22.70
46.5	255,088	5,701	0.0223	0.9777	22.50
47.5	239,276	1,558	0.0065	0.9935	22.00
48.5	219,172	3,659	0.0167	0.9833	21.86
49.5	216,038	404	0.0019	0.9981	21.49
50.5	216,010		0.0000	1.0000	21.45
51.5	240,778	1,061	0.0044	0.9956	21.45
52.5	238,879	375	0.0016	0.9984	21.36
53.5	237,547	130	0.0005	0.9995	21.32
54.5	149,357	22,935	0.1536	0.8464	21.31
55.5	126,075	261	0.0021	0.9979	18.04
56.5	105,800	2,202	0.0208	0.9792	18.00
57.5	56,753	21,189	0.3734	0.6266	17.63
58.5	24,027		0.0000	1.0000	11.05
59.5	20,419	5,958	0.2918	0.7082	11.05
60.5	8,999		0.0000	1.0000	7.82
61.5	7,024		0.0000	1.0000	7.82
62.5	7,024		0.0000	1.0000	7.82
63.5	13,776		0.0000	1.0000	7.82
64.5	23,465		0.0000	1.0000	7.82
65.5	17,579	168	0.0096	0.9904	7.82
66.5	17,410		0.0000	1.0000	7.75
67.5	17,410		0.0000	1.0000	7.75
68.5	25,995		0.0000	1.0000	7.75
69.5	28,006		0.0000	1.0000	7.75
70.5	28,006		0.0000	1.0000	7.75
71.5	39,983		0.0000	1.0000	7.75
72.5	39,983		0.0000	1.0000	7.75
73.5	39,983		0.0000	1.0000	7.75
74.5	39,983	2,011	0.0503	0.9497	7.75
75.5	37,972		0.0000	1.0000	7.36
76.5	37,972		0.0000	1.0000	7.36
77.5	37,972		0.0000	1.0000	7.36
78.5	37,972		0.0000	1.0000	7.36

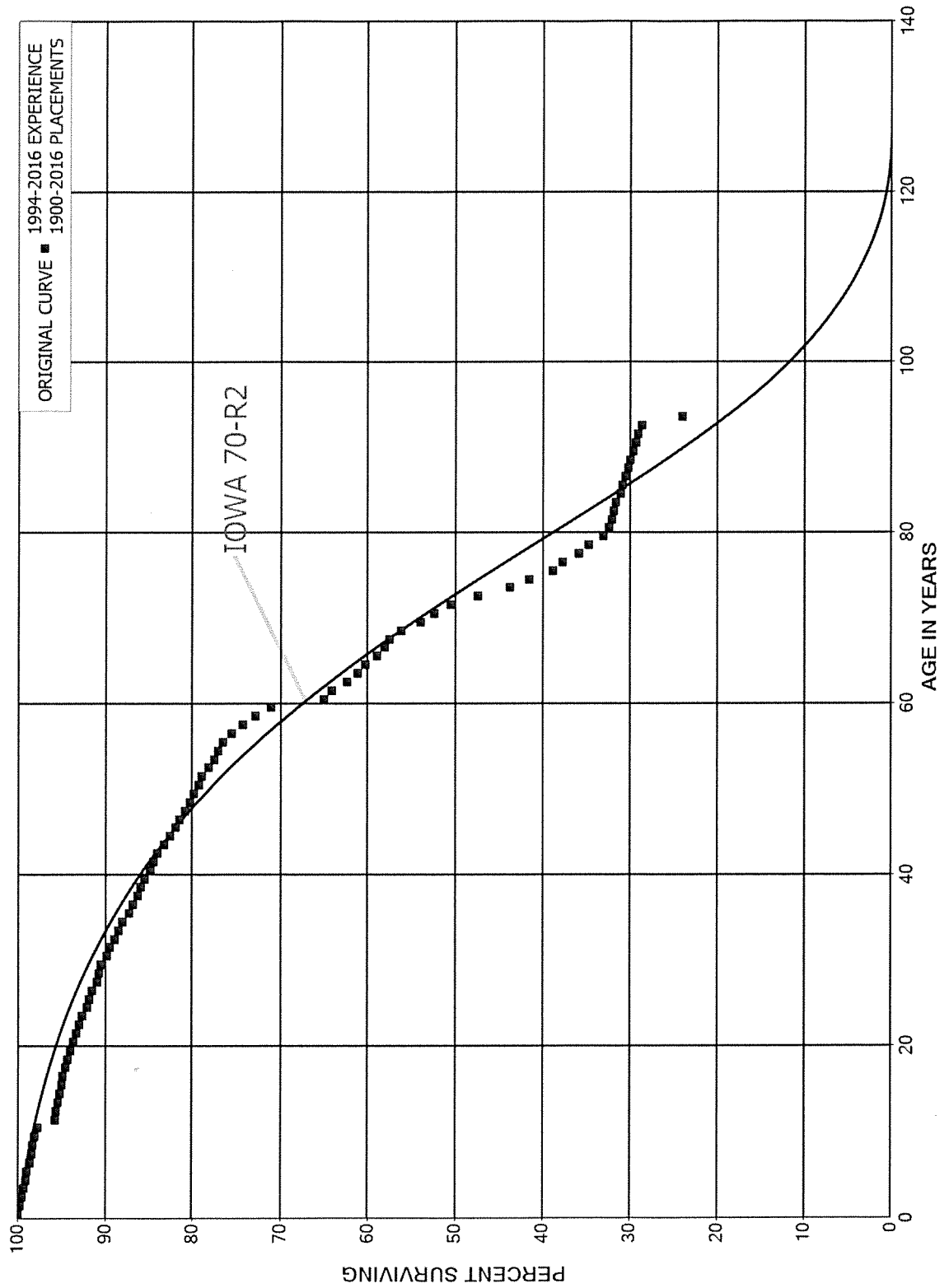
MISSOURI GAS ENERGY

ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1895-2016			EXPERIENCE BAND 1994-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	40,539	10,066	0.2483	0.7517	7.36	
80.5	30,473		0.0000	1.0000	5.53	
81.5	37,829		0.0000	1.0000	5.53	
82.5	28,651		0.0000	1.0000	5.53	
83.5	28,651	4,474	0.1562	0.8438	5.53	
84.5	24,177		0.0000	1.0000	4.67	
85.5	12,200		0.0000	1.0000	4.67	
86.5	5,449		0.0000	1.0000	4.67	
87.5	5,449		0.0000	1.0000	4.67	
88.5	5,449		0.0000	1.0000	4.67	
89.5	5,449		0.0000	1.0000	4.67	
90.5	5,449		0.0000	1.0000	4.67	
91.5	10,239		0.0000	1.0000	4.67	
92.5	10,239		0.0000	1.0000	4.67	
93.5	119,619		0.0000	1.0000	4.67	
94.5	119,619	2,567	0.0215	0.9785	4.67	
95.5	117,052		0.0000	1.0000	4.57	
96.5	15,031	2,882	0.1917	0.8083	4.57	
97.5	12,149		0.0000	1.0000	3.69	
98.5	98,914	6,830	0.0690	0.9310	3.69	
99.5	126,979		0.0000	1.0000	3.44	
100.5	126,979		0.0000	1.0000	3.44	
101.5	126,979		0.0000	1.0000	3.44	
102.5	126,979		0.0000	1.0000	3.44	
103.5	126,979		0.0000	1.0000	3.44	
104.5	53,228		0.0000	1.0000	3.44	
105.5	48,438		0.0000	1.0000	3.44	
106.5	48,438		0.0000	1.0000	3.44	
107.5	13,014		0.0000	1.0000	3.44	
108.5	13,014		0.0000	1.0000	3.44	
109.5	13,014		0.0000	1.0000	3.44	
110.5	13,014		0.0000	1.0000	3.44	
111.5	13,014		0.0000	1.0000	3.44	
112.5					3.44	

MISSOURI GAS ENERGY  
 ACCOUNT 376.10 MAINS - STEEL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	333,140,084	222,832	0.0007	0.9993	100.00
0.5	342,753,832	712,458	0.0021	0.9979	99.93
1.5	334,875,792	828,721	0.0025	0.9975	99.73
2.5	321,918,753	686,586	0.0021	0.9979	99.48
3.5	308,571,207	610,470	0.0020	0.9980	99.27
4.5	295,872,084	423,420	0.0014	0.9986	99.07
5.5	283,832,420	757,708	0.0027	0.9973	98.93
6.5	276,034,809	727,202	0.0026	0.9974	98.66
7.5	265,603,319	378,586	0.0014	0.9986	98.40
8.5	254,781,971	384,088	0.0015	0.9985	98.26
9.5	243,501,536	1,045,842	0.0043	0.9957	98.12
10.5	226,686,144	4,534,908	0.0200	0.9800	97.69
11.5	212,085,433	303,114	0.0014	0.9986	95.74
12.5	202,897,539	402,092	0.0020	0.9980	95.60
13.5	189,675,693	382,443	0.0020	0.9980	95.41
14.5	176,914,715	421,774	0.0024	0.9976	95.22
15.5	163,769,880	231,713	0.0014	0.9986	94.99
16.5	152,391,170	588,580	0.0039	0.9961	94.86
17.5	140,612,622	325,720	0.0023	0.9977	94.49
18.5	131,145,263	495,431	0.0038	0.9962	94.27
19.5	115,451,215	314,252	0.0027	0.9973	93.92
20.5	102,589,000	356,988	0.0035	0.9965	93.66
21.5	89,761,560	338,379	0.0038	0.9962	93.34
22.5	86,833,595	343,030	0.0040	0.9960	92.99
23.5	81,570,266	445,946	0.0055	0.9945	92.62
24.5	78,144,481	258,356	0.0033	0.9967	92.11
25.5	73,171,480	262,575	0.0036	0.9964	91.81
26.5	69,192,696	366,144	0.0053	0.9947	91.48
27.5	65,296,940	191,135	0.0029	0.9971	90.99
28.5	62,183,985	189,178	0.0030	0.9970	90.73
29.5	60,027,026	383,712	0.0064	0.9936	90.45
30.5	60,317,114	269,726	0.0045	0.9955	89.87
31.5	59,783,230	363,598	0.0061	0.9939	89.47
32.5	60,054,550	285,278	0.0048	0.9952	88.93
33.5	60,259,738	305,748	0.0051	0.9949	88.50
34.5	59,248,456	505,625	0.0085	0.9915	88.06
35.5	58,649,777	319,536	0.0054	0.9946	87.30
36.5	57,467,252	329,759	0.0057	0.9943	86.83
37.5	55,617,336	269,237	0.0048	0.9952	86.33
38.5	53,601,635	242,142	0.0045	0.9955	85.91

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	52,545,651	397,439	0.0076	0.9924	85.52
40.5	50,328,854	204,747	0.0041	0.9959	84.88
41.5	47,621,794	292,616	0.0061	0.9939	84.53
42.5	46,891,084	375,465	0.0080	0.9920	84.01
43.5	45,408,392	367,143	0.0081	0.9919	83.34
44.5	44,758,306	371,220	0.0083	0.9917	82.67
45.5	39,841,843	229,974	0.0058	0.9942	81.98
46.5	39,046,765	344,675	0.0088	0.9912	81.51
47.5	37,404,915	233,216	0.0062	0.9938	80.79
48.5	34,690,770	179,311	0.0052	0.9948	80.28
49.5	32,705,296	231,832	0.0071	0.9929	79.87
50.5	30,329,176	154,783	0.0051	0.9949	79.30
51.5	28,600,748	250,640	0.0088	0.9912	78.90
52.5	25,957,478	244,679	0.0094	0.9906	78.21
53.5	21,302,748	115,880	0.0054	0.9946	77.47
54.5	20,192,591	147,845	0.0073	0.9927	77.05
55.5	17,975,020	228,573	0.0127	0.9873	76.48
56.5	16,159,851	267,622	0.0166	0.9834	75.51
57.5	14,075,908	267,049	0.0190	0.9810	74.26
58.5	11,969,401	290,604	0.0243	0.9757	72.85
59.5	10,535,490	885,469	0.0840	0.9160	71.08
60.5	8,546,436	123,144	0.0144	0.9856	65.11
61.5	7,674,311	210,364	0.0274	0.9726	64.17
62.5	6,611,590	126,323	0.0191	0.9809	62.41
63.5	6,454,207	103,818	0.0161	0.9839	61.22
64.5	6,065,366	129,437	0.0213	0.9787	60.23
65.5	5,711,281	89,548	0.0157	0.9843	58.95
66.5	6,082,814	57,295	0.0094	0.9906	58.02
67.5	5,675,010	126,229	0.0222	0.9778	57.48
68.5	5,588,356	222,647	0.0398	0.9602	56.20
69.5	5,172,508	148,296	0.0287	0.9713	53.96
70.5	5,107,601	180,969	0.0354	0.9646	52.41
71.5	7,474,499	467,708	0.0626	0.9374	50.56
72.5	6,981,010	547,504	0.0784	0.9216	47.39
73.5	6,446,410	312,521	0.0485	0.9515	43.68
74.5	5,976,974	389,624	0.0652	0.9348	41.56
75.5	5,367,922	150,218	0.0280	0.9720	38.85
76.5	5,158,909	259,522	0.0503	0.9497	37.76
77.5	4,259,212	139,095	0.0327	0.9673	35.86
78.5	4,087,341	196,148	0.0480	0.9520	34.69

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

ORIGINAL LIFE TABLE, CONT.

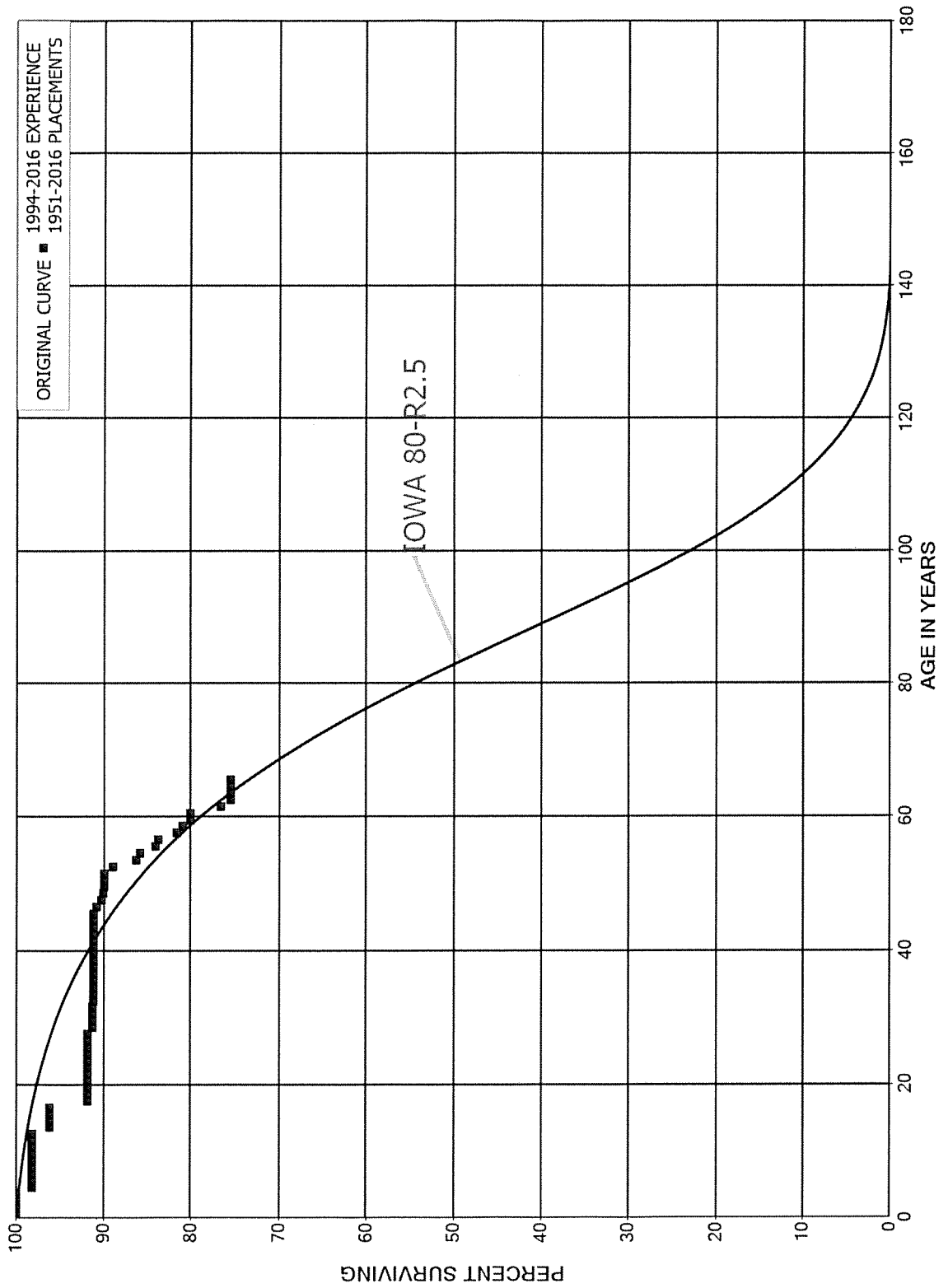
PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	3,612,582	72,390	0.0200	0.9800	33.03
80.5	3,439,007	29,328	0.0085	0.9915	32.36
81.5	3,390,380	30,591	0.0090	0.9910	32.09
82.5	3,342,703	22,934	0.0069	0.9931	31.80
83.5	3,285,385	55,879	0.0170	0.9830	31.58
84.5	3,003,359	21,641	0.0072	0.9928	31.04
85.5	2,773,135	28,741	0.0104	0.9896	30.82
86.5	2,470,986	26,790	0.0108	0.9892	30.50
87.5	2,311,137	12,747	0.0055	0.9945	30.17
88.5	1,979,929	27,840	0.0141	0.9859	30.00
89.5	1,235,746	12,721	0.0103	0.9897	29.58
90.5	1,034,251	8,673	0.0084	0.9916	29.28
91.5	921,025	13,096	0.0142	0.9858	29.03
92.5	178,594	29,496	0.1652	0.8348	28.62
93.5	164,491	416	0.0025	0.9975	23.89
94.5	27,353		0.0000	1.0000	23.83
95.5	8,407		0.0000	1.0000	23.83
96.5	8,407	10	0.0012	0.9988	23.83
97.5	5,253	0	0.0001	0.9999	23.80
98.5	5,253	210	0.0400	0.9600	23.80
99.5	5,043	61	0.0120	0.9880	22.85
100.5	4,982		0.0000	1.0000	22.57
101.5	4,982		0.0000	1.0000	22.57
102.5	4,982		0.0000	1.0000	22.57
103.5	4,982		0.0000	1.0000	22.57
104.5	4,982		0.0000	1.0000	22.57
105.5	4,982	76	0.0153	0.9847	22.57
106.5	4,906		0.0000	1.0000	22.23
107.5	3,730		0.0000	1.0000	22.23
108.5	3,730		0.0000	1.0000	22.23
109.5	3,575		0.0000	1.0000	22.23
110.5	3,575		0.0000	1.0000	22.23
111.5	111	111	1.0000		22.23
112.5					



MISSOURI GAS ENERGY  
 ACCOUNT 376.11 MAINS - STEEL - TRANSMISSION  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 376.11 MAINS - STEEL - TRANSMISSION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1951-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,062,024		0.0000	1.0000	100.00
0.5	9,119,087		0.0000	1.0000	100.00
1.5	7,661,115		0.0000	1.0000	100.00
2.5	7,498,221		0.0000	1.0000	100.00
3.5	7,020,576	130,766	0.0186	0.9814	100.00
4.5	6,029,031		0.0000	1.0000	98.14
5.5	4,005,563		0.0000	1.0000	98.14
6.5	3,118,761		0.0000	1.0000	98.14
7.5	2,998,791		0.0000	1.0000	98.14
8.5	3,149,410		0.0000	1.0000	98.14
9.5	3,027,117		0.0000	1.0000	98.14
10.5	2,607,408		0.0000	1.0000	98.14
11.5	2,529,577		0.0000	1.0000	98.14
12.5	2,529,577	50,730	0.0201	0.9799	98.14
13.5	2,121,641		0.0000	1.0000	96.17
14.5	2,121,641		0.0000	1.0000	96.17
15.5	2,149,383		0.0000	1.0000	96.17
16.5	2,028,976	92,117	0.0454	0.9546	96.17
17.5	1,936,859		0.0000	1.0000	91.80
18.5	1,936,859		0.0000	1.0000	91.80
19.5	2,028,111		0.0000	1.0000	91.80
20.5	758,227		0.0000	1.0000	91.80
21.5	831,698		0.0000	1.0000	91.80
22.5	831,698		0.0000	1.0000	91.80
23.5	845,495		0.0000	1.0000	91.80
24.5	860,695		0.0000	1.0000	91.80
25.5	877,623		0.0000	1.0000	91.80
26.5	877,623		0.0000	1.0000	91.80
27.5	887,296	4,635	0.0052	0.9948	91.80
28.5	1,008,521		0.0000	1.0000	91.32
29.5	1,008,521		0.0000	1.0000	91.32
30.5	1,008,521		0.0000	1.0000	91.32
31.5	753,384	1,547	0.0021	0.9979	91.32
32.5	1,097,337		0.0000	1.0000	91.14
33.5	1,349,352		0.0000	1.0000	91.14
34.5	1,033,406		0.0000	1.0000	91.14
35.5	1,245,850		0.0000	1.0000	91.14
36.5	1,245,850		0.0000	1.0000	91.14
37.5	1,357,888		0.0000	1.0000	91.14
38.5	1,657,501		0.0000	1.0000	91.14

MISSOURI GAS ENERGY

ACCOUNT 376.11 MAINS - STEEL - TRANSMISSION

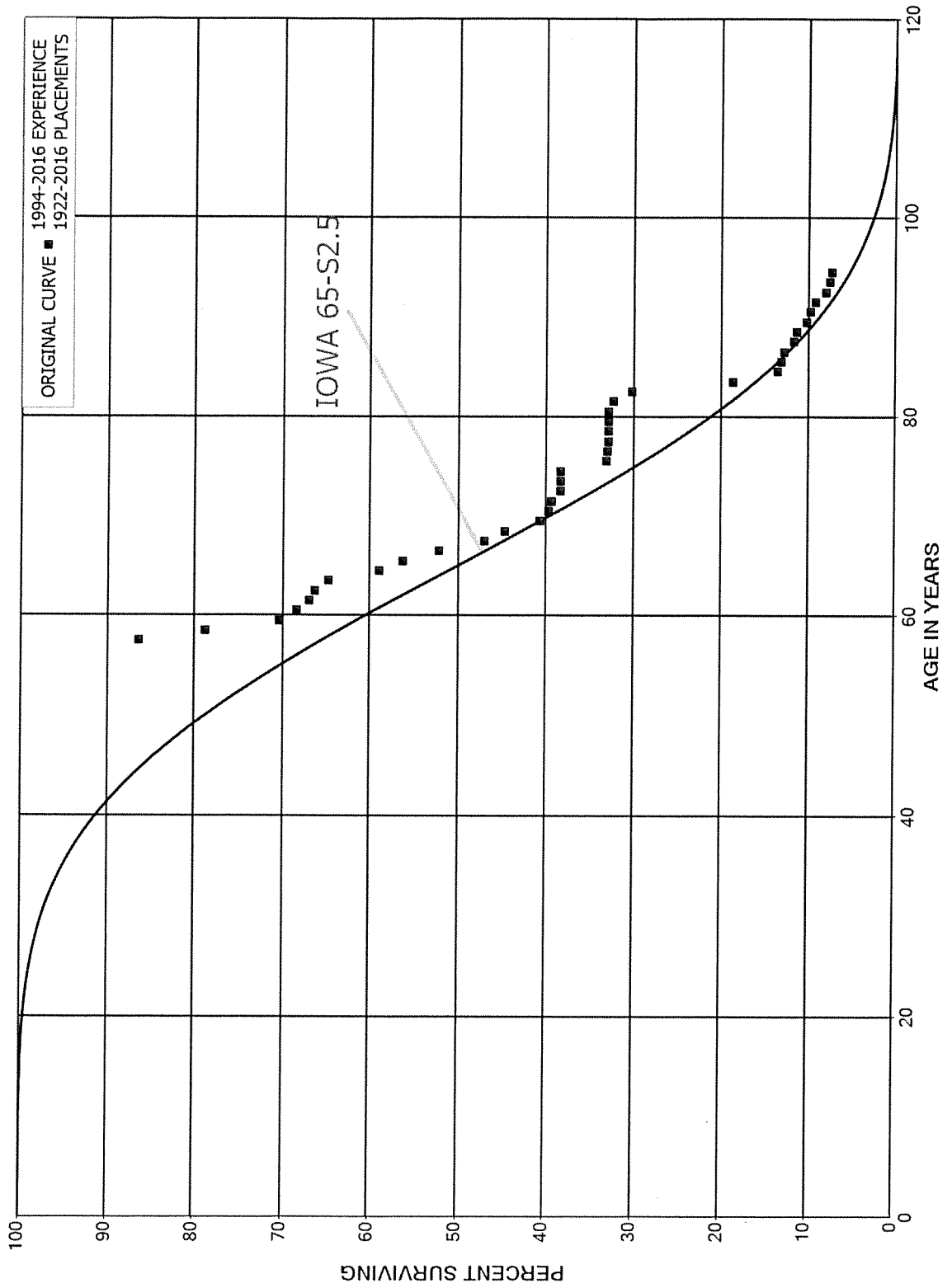
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1951-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,643,704		0.0000	1.0000	91.14
40.5	1,626,776		0.0000	1.0000	91.14
41.5	1,688,848		0.0000	1.0000	91.14
42.5	1,801,765		0.0000	1.0000	91.14
43.5	1,743,044		0.0000	1.0000	91.14
44.5	1,654,373		0.0000	1.0000	91.14
45.5	1,654,373	4,654	0.0028	0.9972	91.14
46.5	1,645,797	11,469	0.0070	0.9930	90.88
47.5	1,624,655	2,663	0.0016	0.9984	90.25
48.5	1,414,814	2,458	0.0017	0.9983	90.10
49.5	1,541,003		0.0000	1.0000	89.94
50.5	1,541,003		0.0000	1.0000	89.94
51.5	1,436,522	16,145	0.0112	0.9888	89.94
52.5	1,422,206	43,147	0.0303	0.9697	88.93
53.5	1,379,059	5,882	0.0043	0.9957	86.23
54.5	1,373,176	28,764	0.0209	0.9791	85.87
55.5	1,018,023	4,244	0.0042	0.9958	84.07
56.5	774,972	19,053	0.0246	0.9754	83.72
57.5	755,919	6,126	0.0081	0.9919	81.66
58.5	749,793	8,579	0.0114	0.9886	81.00
59.5	741,214		0.0000	1.0000	80.07
60.5	629,176	27,034	0.0430	0.9570	80.07
61.5	283,882	3,979	0.0140	0.9860	76.63
62.5	278,595		0.0000	1.0000	75.56
63.5	278,595		0.0000	1.0000	75.56
64.5	278,595		0.0000	1.0000	75.56
65.5					75.56

MISSOURI GAS ENERGY  
 ACCOUNT 376.20 MAINS - CAST IRON  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

ORIGINAL LIFE TABLE

PLACEMENT BAND 1922-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,845,338		0.0000		
0.5	2,397,899		0.0000		
1.5	2,150,049		0.0000		
2.5	2,754,098		0.0000		
3.5	3,497,218		0.0000		
4.5	4,303,122		0.0000		
5.5	3,835,444		0.0000		
6.5	2,914,131		0.0000		
7.5	3,014,006		0.0000		
8.5	2,665,087		0.0000		
9.5	2,264,796		0.0000		
10.5	2,323,094		0.0000		
11.5	2,682,887		0.0000		
12.5	3,008,119		0.0000		
13.5	2,576,509		0.0000		
14.5	2,331,167		0.0000		
15.5	2,450,924		0.0000		
16.5	2,311,896		0.0000		
17.5	2,140,409		0.0000		
18.5	1,745,421		0.0000		
19.5	2,112,865		0.0000		
20.5	2,331,842		0.0000		
21.5	2,627,169		0.0000		
22.5	1,684,766		0.0000		
23.5	163		0.0000		
24.5					
25.5					
26.5					
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5					

MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5					
41.5					
42.5					
43.5					
44.5					
45.5					
46.5					
47.5					
48.5					
49.5	2,078		0.0000		
50.5	18,855		0.0000		
51.5	20,323		0.0000		
52.5	15,986		0.0000		
53.5	12,439		0.0000		
54.5					
55.5	6,379	369	0.0578	0.9422	100.00
56.5	6,010	499	0.0831	0.9169	94.22
57.5	13,764	1,200	0.0872	0.9128	86.39
58.5	12,372	1,333	0.1078	0.8922	78.86
59.5	29,872	835	0.0280	0.9720	70.36
60.5	112,267	2,443	0.0218	0.9782	68.40
61.5	183,316	1,765	0.0096	0.9904	66.91
62.5	136,934	3,266	0.0239	0.9761	66.26
63.5	91,371	8,036	0.0880	0.9120	64.68
64.5	71,173	3,335	0.0469	0.9531	58.99
65.5	54,541	3,904	0.0716	0.9284	56.23
66.5	85,662	8,625	0.1007	0.8993	52.21
67.5	93,491	4,593	0.0491	0.9509	46.95
68.5	86,009	7,792	0.0906	0.9094	44.64
69.5	52,870	1,336	0.0253	0.9747	40.60
70.5	20,093	166	0.0083	0.9917	39.57
71.5	6,840	172	0.0251	0.9749	39.25
72.5	4,096		0.0000	1.0000	38.26
73.5	18,868		0.0000	1.0000	38.26
74.5	25,777	3,482	0.1351	0.8649	38.26
75.5	135,815	655	0.0048	0.9952	33.09
76.5	142,450	227	0.0016	0.9984	32.93
77.5	40,651		0.0000	1.0000	32.88
78.5	38,534		0.0000	1.0000	32.88

MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

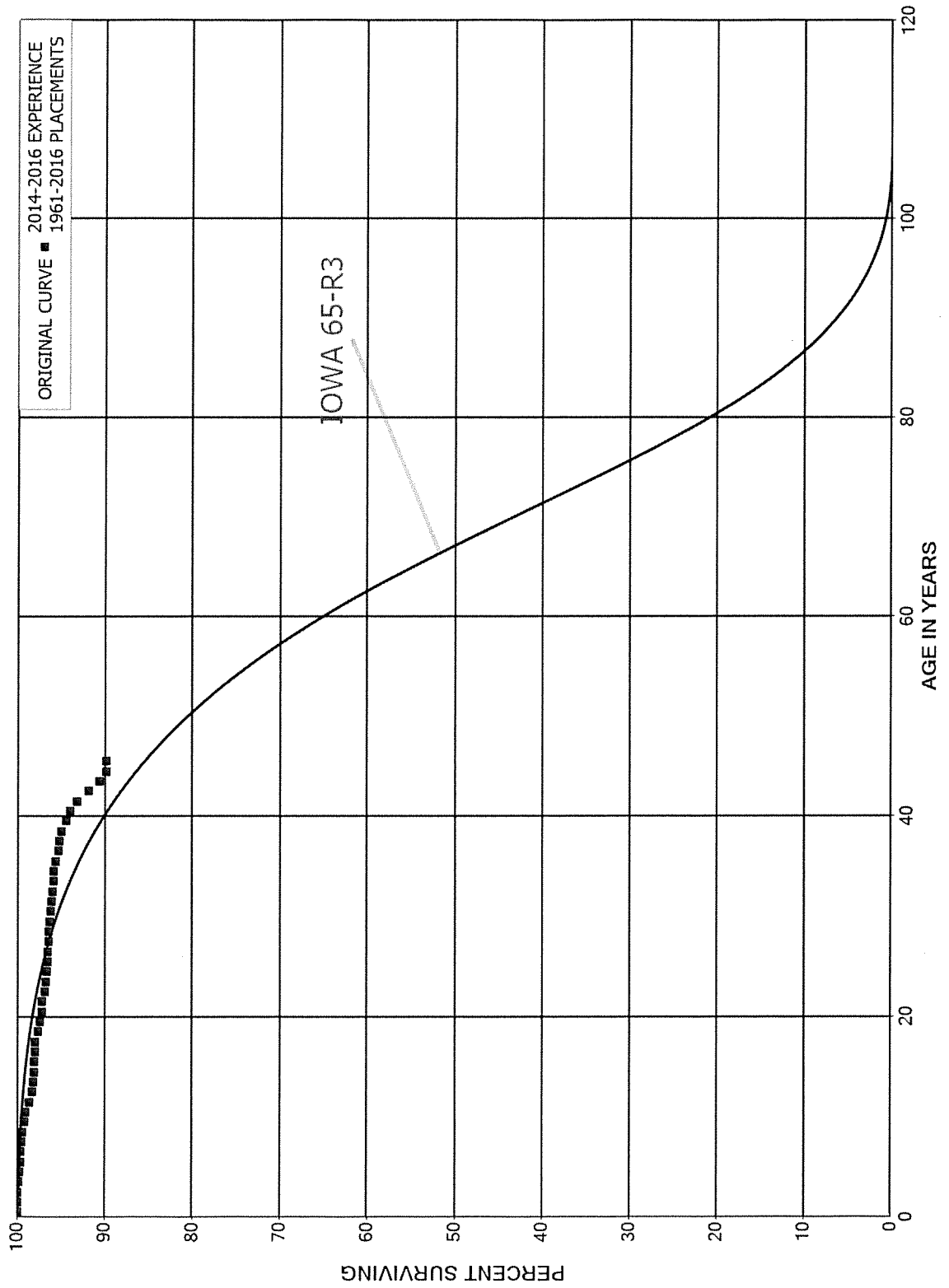
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1922-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	27,886		0.0000	1.0000	32.88
80.5	17,477	328	0.0188	0.9812	32.88
81.5	14,957	950	0.0635	0.9365	32.26
82.5	23,301	8,977	0.3853	0.6147	30.21
83.5	36,416	10,035	0.2756	0.7244	18.57
84.5	166,324	4,647	0.0279	0.9721	13.45
85.5	250,131	6,938	0.0277	0.9723	13.08
86.5	188,772	15,647	0.0829	0.9171	12.72
87.5	172,248	4,829	0.0280	0.9720	11.66
88.5	199,912	19,611	0.0981	0.9019	11.33
89.5	275,807	13,512	0.0490	0.9510	10.22
90.5	345,606	19,546	0.0566	0.9434	9.72
91.5	268,204	36,926	0.1377	0.8623	9.17
92.5	820,905	40,964	0.0499	0.9501	7.91
93.5	715,482	23,924	0.0334	0.9666	7.51
94.5					7.26

MISSOURI GAS ENERGY  
 ACCOUNT 376.30 MAINS - PLASTIC  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





MISSOURI GAS ENERGY

ACCOUNT 376.30 MAINS - PLASTIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1961-2016

EXPERIENCE BAND 2014-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	63,491,073		0.0000	1.0000	100.00
0.5	46,006,811	1,547	0.0000	1.0000	100.00
1.5	22,659,913	11,771	0.0005	0.9995	100.00
2.5	26,450,694	34,348	0.0013	0.9987	99.94
3.5	25,775,624	12,623	0.0005	0.9995	99.81
4.5	26,972,897	29,709	0.0011	0.9989	99.77
5.5	24,789,027	17,777	0.0007	0.9993	99.66
6.5	24,652,354	14,555	0.0006	0.9994	99.58
7.5	24,669,494	30,757	0.0012	0.9988	99.53
8.5	18,076,692	40,671	0.0022	0.9978	99.40
9.5	19,181,550	29,013	0.0015	0.9985	99.18
10.5	17,715,372	79,819	0.0045	0.9955	99.03
11.5	16,858,053	56,183	0.0033	0.9967	98.58
12.5	14,274,786	5,282	0.0004	0.9996	98.25
13.5	17,506,671	21,926	0.0013	0.9987	98.22
14.5	22,604,586	9,682	0.0004	0.9996	98.09
15.5	20,081,036	16,984	0.0008	0.9992	98.05
16.5	17,805,620	6,644	0.0004	0.9996	97.97
17.5	18,533,236	68,802	0.0037	0.9963	97.93
18.5	17,166,914	29,391	0.0017	0.9983	97.57
19.5	17,351,066	31,735	0.0018	0.9982	97.40
20.5	18,411,495	10,495	0.0006	0.9994	97.22
21.5	15,461,976	61,470	0.0040	0.9960	97.17
22.5	9,180,217	7,034	0.0008	0.9992	96.78
23.5	6,493,145	2,707	0.0004	0.9996	96.71
24.5	7,950,238	10,224	0.0013	0.9987	96.67
25.5	7,675,012	6,900	0.0009	0.9991	96.54
26.5	7,334,874	3,486	0.0005	0.9995	96.46
27.5	6,561,861	1,744	0.0003	0.9997	96.41
28.5	5,375,952	7,510	0.0014	0.9986	96.39
29.5	4,420,559	4,173	0.0009	0.9991	96.25
30.5	3,638,290	2,800	0.0008	0.9992	96.16
31.5	2,029,425	3,019	0.0015	0.9985	96.09
32.5	1,385,485	1,035	0.0007	0.9993	95.94
33.5	1,667,782	782	0.0005	0.9995	95.87
34.5	1,629,532	2,765	0.0017	0.9983	95.83
35.5	1,718,533	6,578	0.0038	0.9962	95.66
36.5	1,936,154	2,553	0.0013	0.9987	95.30
37.5	1,609,642	4,111	0.0026	0.9974	95.17
38.5	1,262,521	7,186	0.0057	0.9943	94.93

MISSOURI GAS ENERGY

ACCOUNT 376.30 MAINS - PLASTIC

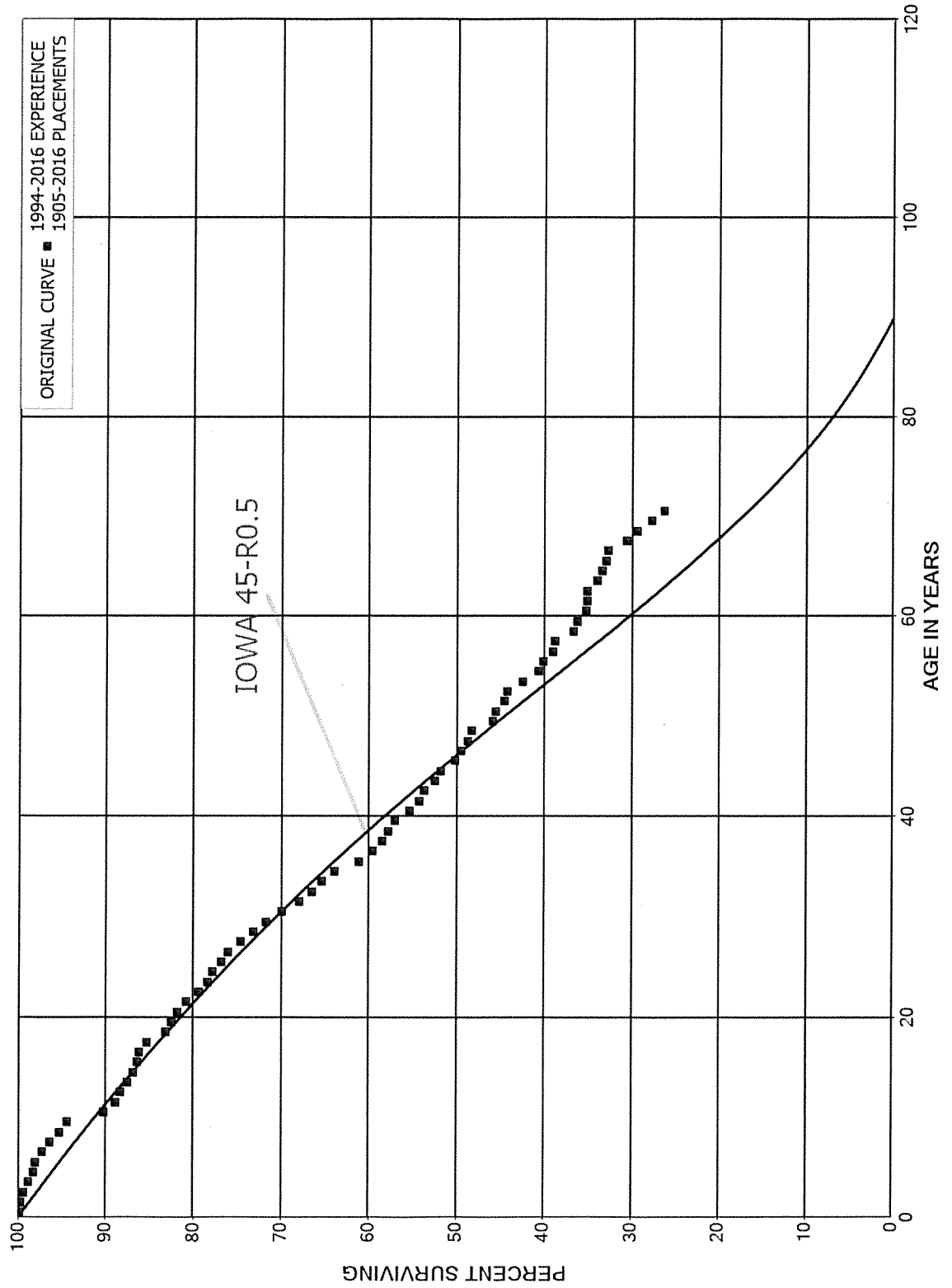
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1961-2016

EXPERIENCE BAND 2014-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,404,770	7,221	0.0051	0.9949	94.39
40.5	1,302,206	10,130	0.0078	0.9922	93.90
41.5	958,815	14,208	0.0148	0.9852	93.17
42.5	519,306	6,481	0.0125	0.9875	91.79
43.5	159,405	1,338	0.0084	0.9916	90.65
44.5	5,841		0.0000	1.0000	89.89
45.5					89.89
46.5	68		0.0000		
47.5	68		0.0000		
48.5					
49.5					
50.5					
51.5					
52.5					
53.5	42		0.0000		
54.5	42		0.0000		
55.5					

MISSOURI GAS ENERGY  
 ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,580,375	11,739	0.0012	0.9988	100.00
0.5	10,359,145	17,929	0.0017	0.9983	99.88
1.5	11,059,542	29,513	0.0027	0.9973	99.70
2.5	11,680,378	73,164	0.0063	0.9937	99.44
3.5	12,053,470	59,666	0.0050	0.9950	98.82
4.5	11,942,184	37,365	0.0031	0.9969	98.33
5.5	11,961,805	86,557	0.0072	0.9928	98.02
6.5	11,901,658	106,561	0.0090	0.9910	97.31
7.5	11,463,354	135,393	0.0118	0.9882	96.44
8.5	11,347,634	110,639	0.0098	0.9902	95.30
9.5	11,074,650	494,074	0.0446	0.9554	94.37
10.5	10,186,010	150,947	0.0148	0.9852	90.16
11.5	9,770,184	57,614	0.0059	0.9941	88.82
12.5	9,511,336	82,013	0.0086	0.9914	88.30
13.5	9,135,832	74,389	0.0081	0.9919	87.54
14.5	8,900,470	40,457	0.0045	0.9955	86.83
15.5	8,676,414	26,078	0.0030	0.9970	86.43
16.5	8,427,561	90,309	0.0107	0.9893	86.17
17.5	7,846,999	194,734	0.0248	0.9752	85.25
18.5	7,296,295	54,548	0.0075	0.9925	83.13
19.5	7,066,669	56,456	0.0080	0.9920	82.51
20.5	6,815,411	85,413	0.0125	0.9875	81.85
21.5	5,963,461	107,099	0.0180	0.9820	80.83
22.5	5,402,712	65,014	0.0120	0.9880	79.37
23.5	4,458,250	33,477	0.0075	0.9925	78.42
24.5	3,808,670	47,806	0.0126	0.9874	77.83
25.5	2,884,829	29,274	0.0101	0.9899	76.85
26.5	2,427,088	48,175	0.0198	0.9802	76.07
27.5	2,034,467	39,004	0.0192	0.9808	74.56
28.5	1,860,176	36,075	0.0194	0.9806	73.13
29.5	1,664,861	42,013	0.0252	0.9748	71.72
30.5	1,620,113	46,576	0.0287	0.9713	69.91
31.5	1,408,857	29,052	0.0206	0.9794	67.90
32.5	1,416,865	23,168	0.0164	0.9836	66.50
33.5	1,455,500	32,730	0.0225	0.9775	65.41
34.5	1,393,863	60,478	0.0434	0.9566	63.94
35.5	1,296,360	33,609	0.0259	0.9741	61.16
36.5	1,254,078	23,649	0.0189	0.9811	59.58
37.5	1,207,327	12,763	0.0106	0.9894	58.45
38.5	1,113,924	14,965	0.0134	0.9866	57.84

MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,041,279	31,301	0.0301	0.9699	57.06
40.5	957,214	17,740	0.0185	0.9815	55.34
41.5	896,683	9,252	0.0103	0.9897	54.32
42.5	859,697	19,384	0.0225	0.9775	53.76
43.5	714,253	10,289	0.0144	0.9856	52.55
44.5	668,384	21,388	0.0320	0.9680	51.79
45.5	603,883	7,230	0.0120	0.9880	50.13
46.5	595,564	9,264	0.0156	0.9844	49.53
47.5	565,613	5,071	0.0090	0.9910	48.76
48.5	547,337	27,672	0.0506	0.9494	48.32
49.5	502,788	4,570	0.0091	0.9909	45.88
50.5	454,550	9,084	0.0200	0.9800	45.46
51.5	387,129	3,273	0.0085	0.9915	44.56
52.5	339,391	13,701	0.0404	0.9596	44.18
53.5	247,456	10,471	0.0423	0.9577	42.40
54.5	230,496	3,014	0.0131	0.9869	40.60
55.5	169,492	4,941	0.0292	0.9708	40.07
56.5	129,036	587	0.0045	0.9955	38.90
57.5	97,762	5,203	0.0532	0.9468	38.73
58.5	89,993	1,102	0.0122	0.9878	36.66
59.5	84,630	2,496	0.0295	0.9705	36.22
60.5	78,182	287	0.0037	0.9963	35.15
61.5	70,484	12	0.0002	0.9998	35.02
62.5	77,982	2,458	0.0315	0.9685	35.01
63.5	69,224	1,000	0.0145	0.9855	33.91
64.5	64,274	844	0.0131	0.9869	33.42
65.5	62,523	448	0.0072	0.9928	32.98
66.5	56,680	3,735	0.0659	0.9341	32.74
67.5	50,761	1,933	0.0381	0.9619	30.59
68.5	45,217	2,689	0.0595	0.9405	29.42
69.5	41,036	2,092	0.0510	0.9490	27.67
70.5	38,005		0.0000	1.0000	26.26
71.5	38,212		0.0000	1.0000	26.26
72.5	37,844	428	0.0113	0.9887	26.26
73.5	35,562		0.0000	1.0000	25.96
74.5	34,459		0.0000	1.0000	25.96
75.5	33,918		0.0000	1.0000	25.96
76.5	33,918	473	0.0139	0.9861	25.96
77.5	30,446	44	0.0014	0.9986	25.60
78.5	31,829		0.0000	1.0000	25.56

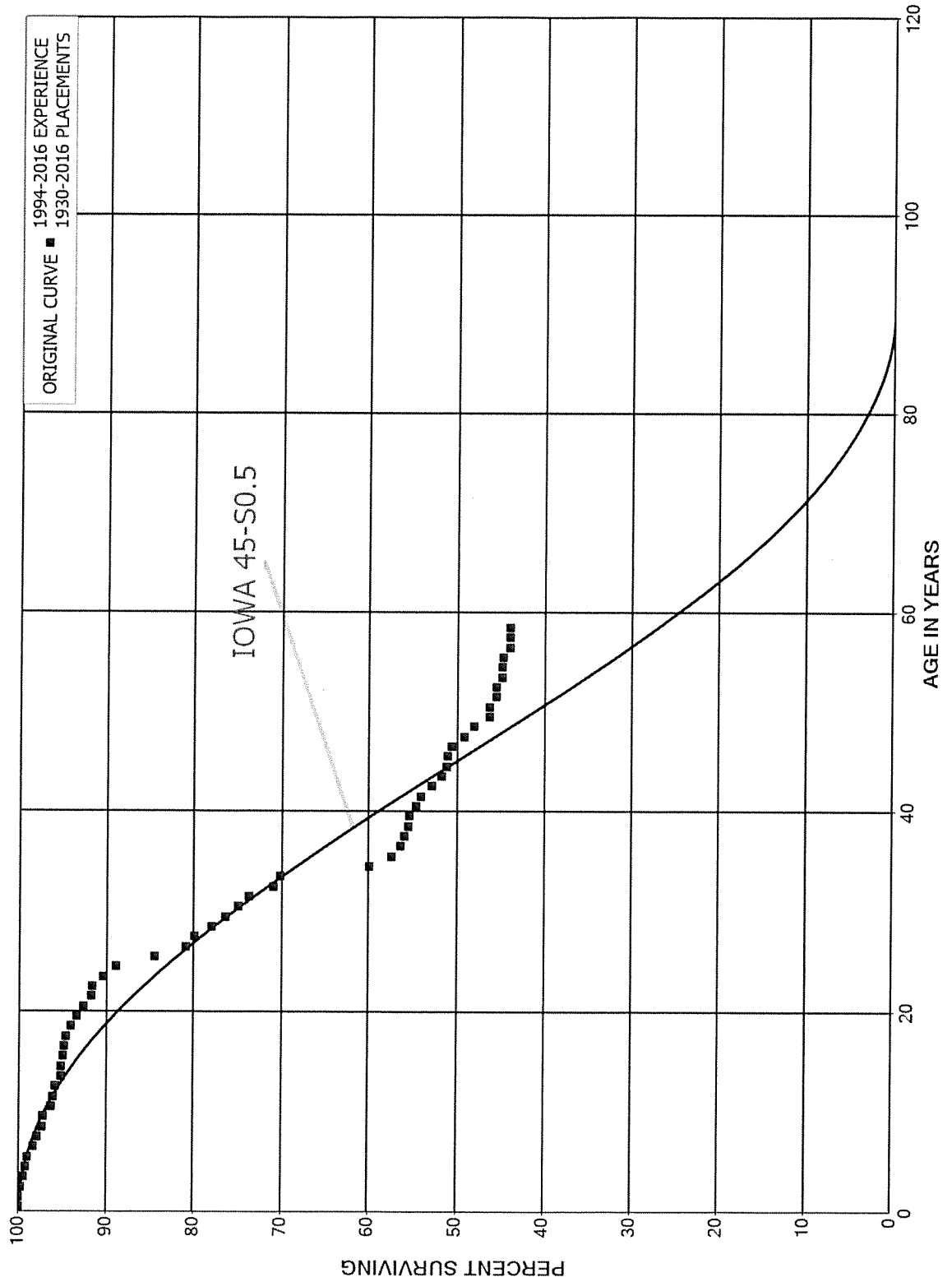
MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	28,774		0.0000	1.0000	25.56
80.5	27,976		0.0000	1.0000	25.56
81.5	26,979		0.0000	1.0000	25.56
82.5	28,007		0.0000	1.0000	25.56
83.5	28,188	330	0.0117	0.9883	25.56
84.5	28,152	259	0.0092	0.9908	25.27
85.5	14,049		0.0000	1.0000	25.03
86.5	19,655	217	0.0110	0.9890	25.03
87.5	18,865	7,224	0.3829	0.6171	24.76
88.5	6,628	729	0.1100	0.8900	15.28
89.5	5,197	850	0.1635	0.8365	13.60
90.5	4,029		0.0000	1.0000	11.37
91.5	2,892	95	0.0329	0.9671	11.37
92.5	2,347	475	0.2022	0.7978	11.00
93.5	1,873		0.0000	1.0000	8.77
94.5	1,873	269	0.1436	0.8564	8.77
95.5	1,604		0.0000	1.0000	7.51
96.5	1,604		0.0000	1.0000	7.51
97.5	1,604		0.0000	1.0000	7.51
98.5	1,604		0.0000	1.0000	7.51
99.5	1,604		0.0000	1.0000	7.51
100.5	1,604		0.0000	1.0000	7.51
101.5	1,604		0.0000	1.0000	7.51
102.5	1,604	146	0.0910	0.9090	7.51
103.5	1,458		0.0000	1.0000	6.83
104.5	1,335		0.0000	1.0000	6.83
105.5	408		0.0000	1.0000	6.83
106.5	408		0.0000	1.0000	6.83
107.5	114		0.0000	1.0000	6.83
108.5	114		0.0000	1.0000	6.83
109.5	42		0.0000	1.0000	6.83
110.5	42		0.0000	1.0000	6.83
111.5					6.83

MISSOURI GAS ENERGY  
 ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1930-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,011,903		0.0000	1.0000	100.00
0.5	5,363,073	3,828	0.0007	0.9993	100.00
1.5	5,407,994	10,935	0.0020	0.9980	99.93
2.5	5,420,685	18,102	0.0033	0.9967	99.73
3.5	5,271,705	13,024	0.0025	0.9975	99.39
4.5	4,424,871	10,089	0.0023	0.9977	99.15
5.5	4,425,563	26,388	0.0060	0.9940	98.92
6.5	3,132,245	17,300	0.0055	0.9945	98.33
7.5	3,144,530	14,562	0.0046	0.9954	97.79
8.5	3,042,486	6,591	0.0022	0.9978	97.34
9.5	2,742,661	25,144	0.0092	0.9908	97.13
10.5	2,683,138	6,071	0.0023	0.9977	96.23
11.5	2,696,786	4,359	0.0016	0.9984	96.02
12.5	2,702,800	19,110	0.0071	0.9929	95.86
13.5	2,663,337		0.0000	1.0000	95.18
14.5	2,585,393	6,400	0.0025	0.9975	95.18
15.5	2,164,437	3,163	0.0015	0.9985	94.95
16.5	2,079,989	4,771	0.0023	0.9977	94.81
17.5	2,037,744	12,043	0.0059	0.9941	94.59
18.5	1,790,252	11,945	0.0067	0.9933	94.03
19.5	1,463,818	12,020	0.0082	0.9918	93.41
20.5	967,963	9,870	0.0102	0.9898	92.64
21.5	867,277	1,023	0.0012	0.9988	91.69
22.5	792,073	10,474	0.0132	0.9868	91.59
23.5	550,580	8,872	0.0161	0.9839	90.37
24.5	518,062	25,973	0.0501	0.9499	88.92
25.5	469,276	19,719	0.0420	0.9580	84.46
26.5	475,464	5,762	0.0121	0.9879	80.91
27.5	445,078	10,746	0.0241	0.9759	79.93
28.5	434,824	8,724	0.0201	0.9799	78.00
29.5	420,292	8,197	0.0195	0.9805	76.44
30.5	395,451	6,469	0.0164	0.9836	74.95
31.5	377,096	14,156	0.0375	0.9625	73.72
32.5	366,740	3,775	0.0103	0.9897	70.95
33.5	366,355	53,471	0.1460	0.8540	70.22
34.5	298,795	12,654	0.0424	0.9576	59.97
35.5	274,587	5,101	0.0186	0.9814	57.43
36.5	291,124	2,114	0.0073	0.9927	56.37
37.5	276,221	2,012	0.0073	0.9927	55.96
38.5	278,099	998	0.0036	0.9964	55.55



MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 1994-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	273,663	3,726	0.0136	0.9864	55.35	
40.5	253,415	2,647	0.0104	0.9896	54.60	
41.5	239,098	5,183	0.0217	0.9783	54.03	
42.5	233,483	5,025	0.0215	0.9785	52.85	
43.5	221,191	2,174	0.0098	0.9902	51.72	
44.5	204,399	670	0.0033	0.9967	51.21	
45.5	184,955	1,484	0.0080	0.9920	51.04	
46.5	185,423	5,506	0.0297	0.9703	50.63	
47.5	170,003	3,837	0.0226	0.9774	49.13	
48.5	150,587	5,415	0.0360	0.9640	48.02	
49.5	106,793		0.0000	1.0000	46.29	
50.5	103,471	1,747	0.0169	0.9831	46.29	
51.5	89,419		0.0000	1.0000	45.51	
52.5	57,528	853	0.0148	0.9852	45.51	
53.5	49,057		0.0000	1.0000	44.84	
54.5	38,298	133	0.0035	0.9965	44.84	
55.5	38,077	634	0.0166	0.9834	44.68	
56.5	36,568		0.0000	1.0000	43.94	
57.5	31,593		0.0000	1.0000	43.94	
58.5	32,180	32	0.0010	0.9990	43.94	
59.5	10,517	59	0.0056	0.9944	43.89	
60.5	10,511		0.0000	1.0000	43.64	
61.5	10,301		0.0000	1.0000	43.64	
62.5	11,304	307	0.0272	0.9728	43.64	
63.5	10,908		0.0000	1.0000	42.46	
64.5	8,219		0.0000	1.0000	42.46	
65.5	7,308		0.0000	1.0000	42.46	
66.5	7,308		0.0000	1.0000	42.46	
67.5	6,750		0.0000	1.0000	42.46	
68.5	6,750		0.0000	1.0000	42.46	
69.5	3,826		0.0000	1.0000	42.46	
70.5	3,786		0.0000	1.0000	42.46	
71.5	3,786		0.0000	1.0000	42.46	
72.5	3,786		0.0000	1.0000	42.46	
73.5	3,786	203	0.0537	0.9463	42.46	
74.5	3,514		0.0000	1.0000	40.18	
75.5	3,514		0.0000	1.0000	40.18	
76.5	3,514		0.0000	1.0000	40.18	
77.5	3,396		0.0000	1.0000	40.18	
78.5	3,396		0.0000	1.0000	40.18	

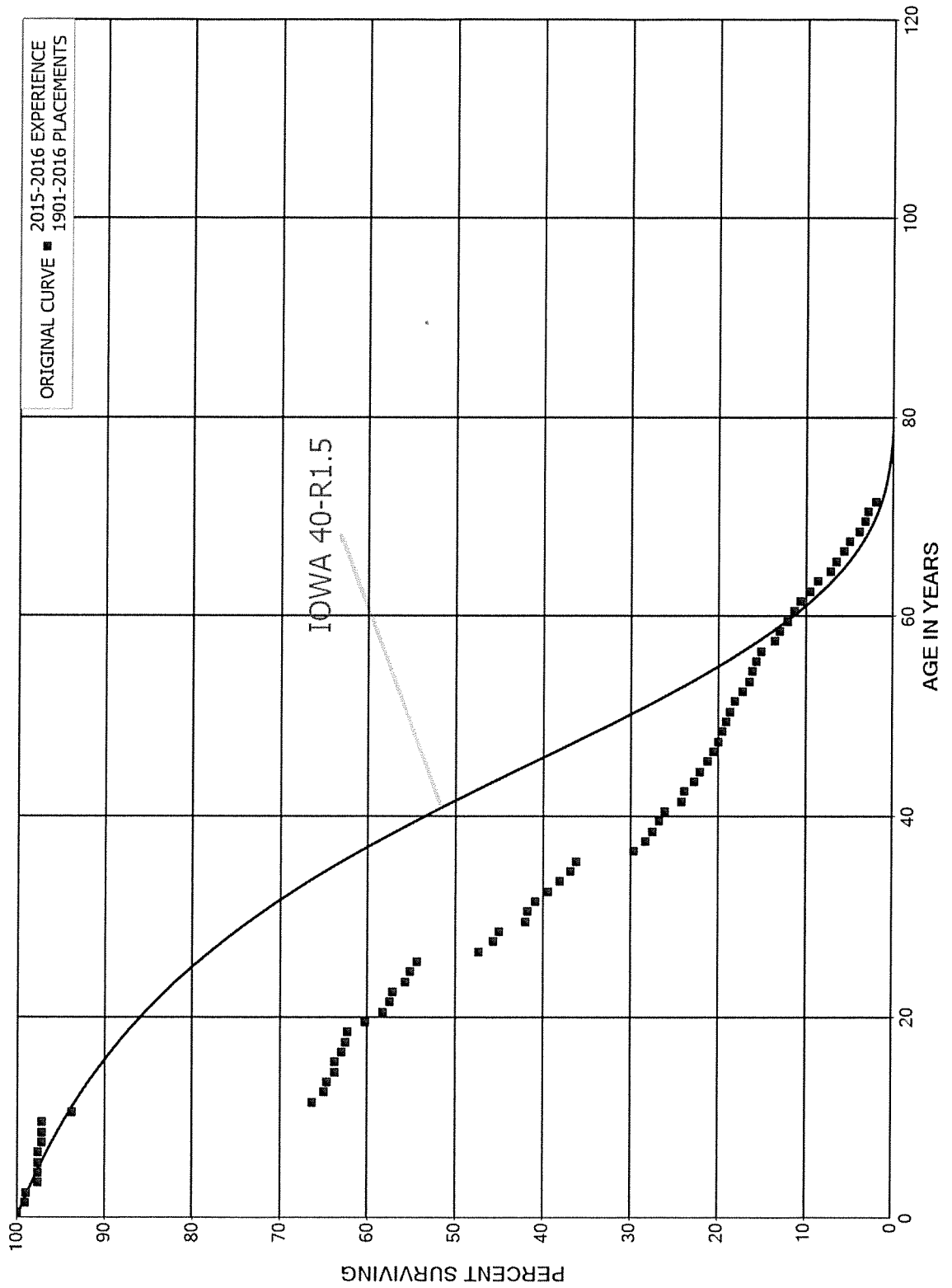
MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1930-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	3,199		0.0000	1.0000	40.18
80.5	3,199		0.0000	1.0000	40.18
81.5	2,348		0.0000	1.0000	40.18
82.5	2,348		0.0000	1.0000	40.18
83.5	2,295		0.0000	1.0000	40.18
84.5	1,756		0.0000	1.0000	40.18
85.5	685		0.0000	1.0000	40.18
86.5					40.18

MISSOURI GAS ENERGY  
 ACCOUNT 380.10 SERVICES - STEEL  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1901-2016

EXPERIENCE BAND 2015-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	227,908	159	0.0007	0.9993	100.00
0.5	134,662	1,226	0.0091	0.9909	99.93
1.5	153,609	159	0.0010	0.9990	99.02
2.5	150,659	1,980	0.0131	0.9869	98.92
3.5	94,741		0.0000	1.0000	97.62
4.5	144,867		0.0000	1.0000	97.62
5.5	109,543		0.0000	1.0000	97.62
6.5	108,011	509	0.0047	0.9953	97.62
7.5	63,505		0.0000	1.0000	97.16
8.5	174,617		0.0000	1.0000	97.16
9.5	119,413	4,208	0.0352	0.9648	97.16
10.5	50,514	14,780	0.2926	0.7074	93.73
11.5	82,053	1,745	0.0213	0.9787	66.31
12.5	76,385	350	0.0046	0.9954	64.90
13.5	86,268	1,202	0.0139	0.9861	64.60
14.5	102,299		0.0000	1.0000	63.70
15.5	228,758	2,665	0.0117	0.9883	63.70
16.5	157,844	999	0.0063	0.9937	62.96
17.5	112,586	533	0.0047	0.9953	62.56
18.5	116,942	3,706	0.0317	0.9683	62.26
19.5	187,720	6,259	0.0333	0.9667	60.29
20.5	203,927	2,895	0.0142	0.9858	58.28
21.5	261,714	1,487	0.0057	0.9943	57.45
22.5	46,718	1,142	0.0244	0.9756	57.13
23.5	71,871	676	0.0094	0.9906	55.73
24.5	127,172	1,912	0.0150	0.9850	55.21
25.5	101,685	13,290	0.1307	0.8693	54.38
26.5	132,759	4,501	0.0339	0.9661	47.27
27.5	73,561	1,233	0.0168	0.9832	45.67
28.5	89,422	5,800	0.0649	0.9351	44.90
29.5	170,762	1,167	0.0068	0.9932	41.99
30.5	151,693	3,070	0.0202	0.9798	41.70
31.5	112,581	4,100	0.0364	0.9636	40.86
32.5	97,381	3,234	0.0332	0.9668	39.37
33.5	125,865	3,917	0.0311	0.9689	38.06
34.5	132,526	2,340	0.0177	0.9823	36.88
35.5	128,345	23,273	0.1813	0.8187	36.23
36.5	101,794	4,619	0.0454	0.9546	29.66
37.5	100,536	2,879	0.0286	0.9714	28.31
38.5	157,458	4,516	0.0287	0.9713	27.50

MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016

EXPERIENCE BAND 2015-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	87,699	2,188	0.0250	0.9750	26.71
40.5	117,768	8,246	0.0700	0.9300	26.05
41.5	136,273	2,043	0.0150	0.9850	24.22
42.5	124,698	6,130	0.0492	0.9508	23.86
43.5	216,241	5,952	0.0275	0.9725	22.69
44.5	210,857	8,293	0.0393	0.9607	22.06
45.5	171,628	5,872	0.0342	0.9658	21.19
46.5	109,158	2,866	0.0263	0.9737	20.47
47.5	121,703	2,749	0.0226	0.9774	19.93
48.5	97,822	1,956	0.0200	0.9800	19.48
49.5	94,640	2,623	0.0277	0.9723	19.09
50.5	89,420	2,498	0.0279	0.9721	18.56
51.5	81,465	3,974	0.0488	0.9512	18.04
52.5	57,229	2,404	0.0420	0.9580	17.16
53.5	186,787	3,686	0.0197	0.9803	16.44
54.5	53,618	1,636	0.0305	0.9695	16.12
55.5	119,634	4,694	0.0392	0.9608	15.63
56.5	51,422	5,079	0.0988	0.9012	15.01
57.5	38,569	1,756	0.0455	0.9545	13.53
58.5	27,245	1,766	0.0648	0.9352	12.91
59.5	28,905	1,800	0.0623	0.9377	12.08
60.5	31,156	1,969	0.0632	0.9368	11.33
61.5	19,573	1,944	0.0993	0.9007	10.61
62.5	11,735	1,118	0.0953	0.9047	9.56
63.5	8,658	1,504	0.1737	0.8263	8.65
64.5	35,225	2,977	0.0845	0.9155	7.14
65.5	14,753	1,971	0.1336	0.8664	6.54
66.5	2,300	307	0.1336	0.8664	5.67
67.5	2,842	593	0.2086	0.7914	4.91
68.5	2,175	388	0.1783	0.8217	3.88
69.5	2,477	262	0.1059	0.8941	3.19
70.5	1,176	354	0.3013	0.6987	2.85
71.5					1.99
72.5	494	142	0.2871		
73.5	237	54	0.2301		
74.5	413	158	0.3835		
75.5	1,095	370	0.3383		
76.5	5,175	740	0.1430		
77.5	2,341	460	0.1964		
78.5	1,786	89	0.0498		

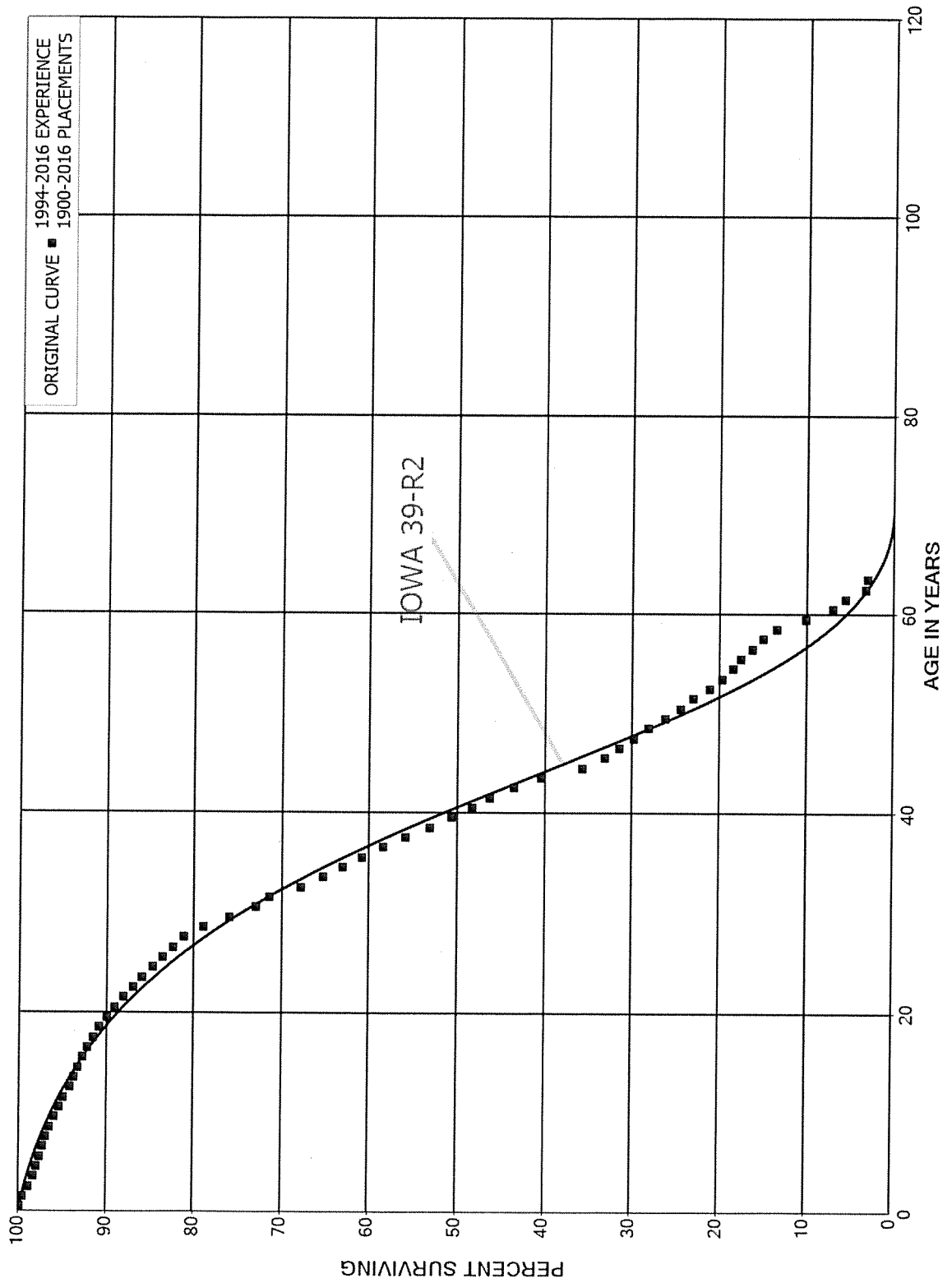
MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1901-2016			EXPERIENCE BAND 2015-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	890	67	0.0749		
80.5	1,377	157	0.1139		
81.5	2,449	1,399	0.5713		
82.5	1,072		0.0000		
83.5	1,926	393	0.2041		
84.5	2,493	423	0.1698		
85.5					
86.5	1,452	1,243	0.8558		
87.5	2,941	430	0.1464		
88.5	275	113	0.4114		
89.5	4,785	966	0.2019		
90.5	5,882	1,689	0.2872		
91.5	7,662	1,627	0.2124		
92.5	4,151	2,155	0.5193		
93.5	33,540	5,583	0.1665		
94.5					
95.5					
96.5					
97.5					
98.5					
99.5	8		0.0000		
100.5	3		0.0000		
101.5					
102.5					
103.5	6		0.0000		
104.5	1		0.0000		
105.5	52		0.0000		
106.5	8		0.0000		
107.5	52		0.0000		
108.5					
109.5					
110.5					
111.5					
112.5					
113.5					
114.5	20		0.0000		
115.5					

MISSOURI GAS ENERGY  
 ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	282,579,633	335,688	0.0012	0.9988	100.00
0.5	287,059,530	1,099,284	0.0038	0.9962	99.88
1.5	285,543,509	1,840,453	0.0064	0.9936	99.50
2.5	289,012,719	1,643,484	0.0057	0.9943	98.86
3.5	296,711,886	910,063	0.0031	0.9969	98.30
4.5	305,533,400	1,179,317	0.0039	0.9961	97.99
5.5	301,418,834	1,019,473	0.0034	0.9966	97.62
6.5	297,090,468	1,165,987	0.0039	0.9961	97.29
7.5	292,512,377	1,354,030	0.0046	0.9954	96.90
8.5	286,165,722	1,601,911	0.0056	0.9944	96.45
9.5	278,518,697	1,526,760	0.0055	0.9945	95.92
10.5	270,680,047	1,314,115	0.0049	0.9951	95.39
11.5	262,906,950	1,937,741	0.0074	0.9926	94.93
12.5	254,370,347	1,414,737	0.0056	0.9944	94.23
13.5	248,736,598	1,218,894	0.0049	0.9951	93.70
14.5	242,254,437	1,422,152	0.0059	0.9941	93.24
15.5	236,242,421	1,309,090	0.0055	0.9945	92.70
16.5	223,652,751	1,581,463	0.0071	0.9929	92.18
17.5	211,842,897	1,491,979	0.0070	0.9930	91.53
18.5	197,101,231	1,942,009	0.0099	0.9901	90.89
19.5	178,982,100	1,845,786	0.0103	0.9897	89.99
20.5	163,214,214	1,833,602	0.0112	0.9888	89.06
21.5	146,680,204	1,815,483	0.0124	0.9876	88.06
22.5	130,831,042	1,598,248	0.0122	0.9878	86.97
23.5	116,996,330	1,606,655	0.0137	0.9863	85.91
24.5	101,542,424	1,381,764	0.0136	0.9864	84.73
25.5	85,633,575	1,199,766	0.0140	0.9860	83.58
26.5	70,934,460	1,041,907	0.0147	0.9853	82.41
27.5	55,155,483	1,496,042	0.0271	0.9729	81.20
28.5	48,580,276	1,896,373	0.0390	0.9610	78.99
29.5	42,359,602	1,684,052	0.0398	0.9602	75.91
30.5	35,281,929	719,754	0.0204	0.9796	72.89
31.5	31,310,405	1,563,328	0.0499	0.9501	71.40
32.5	26,345,015	1,001,788	0.0380	0.9620	67.84
33.5	21,566,422	714,239	0.0331	0.9669	65.26
34.5	17,376,917	634,132	0.0365	0.9635	63.10
35.5	13,616,528	533,754	0.0392	0.9608	60.80
36.5	11,157,939	482,888	0.0433	0.9567	58.41
37.5	9,559,615	488,833	0.0511	0.9489	55.88
38.5	8,240,208	378,466	0.0459	0.9541	53.03



MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,890,763	319,772	0.0464	0.9536	50.59
40.5	5,327,487	221,353	0.0415	0.9585	48.24
41.5	4,258,505	254,111	0.0597	0.9403	46.24
42.5	3,370,830	243,179	0.0721	0.9279	43.48
43.5	2,693,797	312,941	0.1162	0.8838	40.34
44.5	2,274,197	162,349	0.0714	0.9286	35.66
45.5	1,952,659	103,798	0.0532	0.9468	33.11
46.5	1,730,287	92,234	0.0533	0.9467	31.35
47.5	1,545,456	82,698	0.0535	0.9465	29.68
48.5	1,438,750	96,063	0.0668	0.9332	28.09
49.5	1,269,623	89,173	0.0702	0.9298	26.22
50.5	1,069,399	64,922	0.0607	0.9393	24.37
51.5	937,642	73,713	0.0786	0.9214	22.89
52.5	823,151	58,040	0.0705	0.9295	21.10
53.5	615,057	39,074	0.0635	0.9365	19.61
54.5	816,250	35,869	0.0439	0.9561	18.36
55.5	661,951	50,244	0.0759	0.9241	17.56
56.5	570,084	44,022	0.0772	0.9228	16.22
57.5	493,286	51,655	0.1047	0.8953	14.97
58.5	422,467	105,771	0.2504	0.7496	13.40
59.5	313,253	97,200	0.3103	0.6897	10.05
60.5	279,580	55,612	0.1989	0.8011	6.93
61.5	219,481	92,006	0.4192	0.5808	5.55
62.5	125,591	11,396	0.0907	0.9093	3.22
63.5	125,867	8,400	0.0667	0.9333	2.93
64.5	102,281	12,623	0.1234	0.8766	2.74
65.5	105,513	8,070	0.0765	0.9235	2.40
66.5	118,357	13,056	0.1103	0.8897	2.21
67.5	150,344	16,897	0.1124	0.8876	1.97
68.5	190,958	18,440	0.0966	0.9034	1.75
69.5	231,846	16,254	0.0701	0.9299	1.58
70.5	253,413	21,102	0.0833	0.9167	1.47
71.5	501,489	17,615	0.0351	0.9649	1.35
72.5	490,746	27,529	0.0561	0.9439	1.30
73.5	448,548	31,734	0.0707	0.9293	1.23
74.5	415,907	20,166	0.0485	0.9515	1.14
75.5	402,688	135,086	0.3355	0.6645	1.08
76.5	263,050	27,441	0.1043	0.8957	0.72
77.5	229,686	20,225	0.0881	0.9119	0.65
78.5	208,013	12,614	0.0606	0.9394	0.59

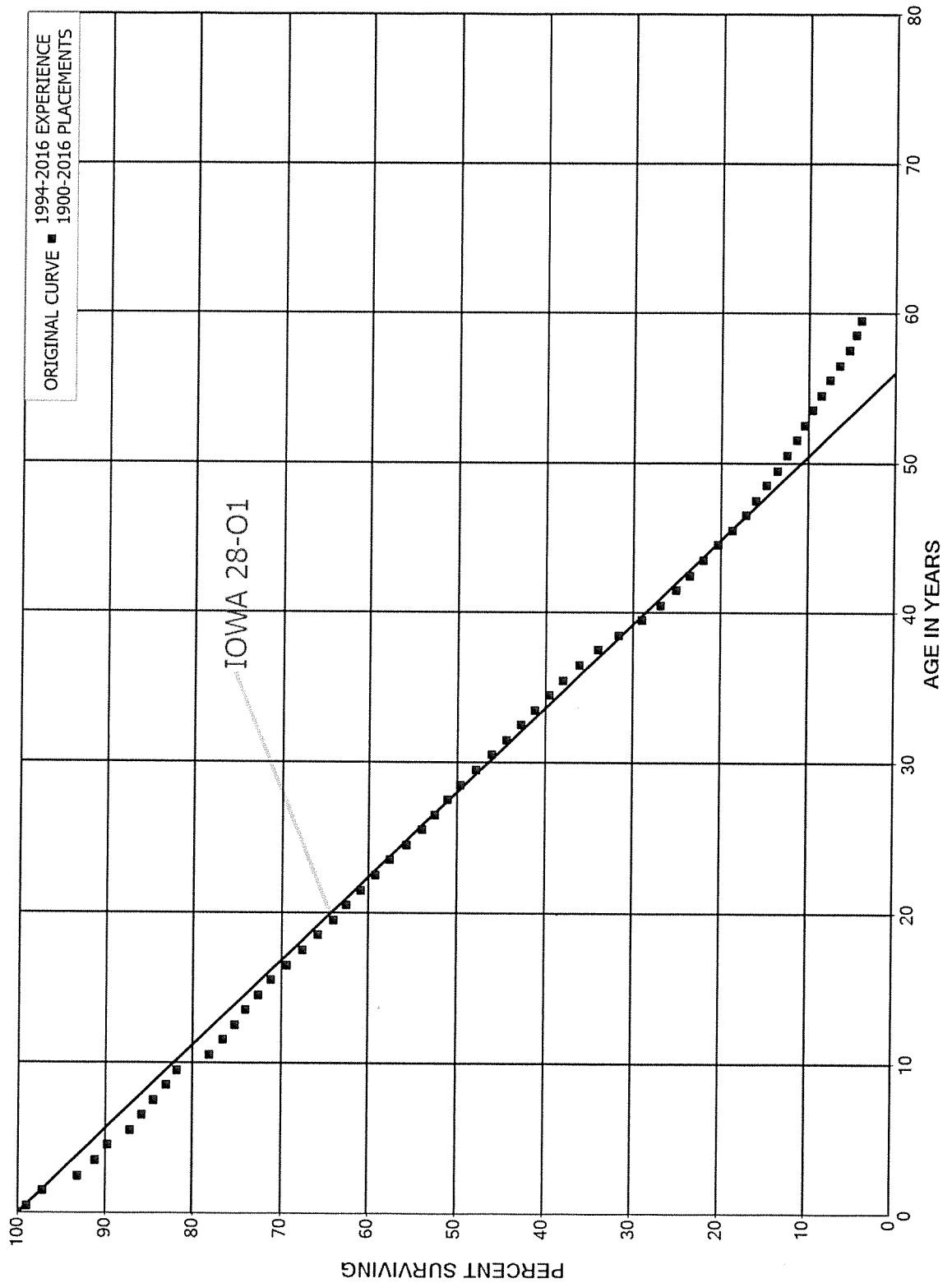
MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	194,640	12,982	0.0667	0.9333	0.55
80.5	180,572	13,312	0.0737	0.9263	0.52
81.5	164,839	12,464	0.0756	0.9244	0.48
82.5	151,653	11,041	0.0728	0.9272	0.44
83.5	139,589	10,510	0.0753	0.9247	0.41
84.5	127,081	14,271	0.1123	0.8877	0.38
85.5	114,555	8,286	0.0723	0.9277	0.34
86.5	101,454	7,143	0.0704	0.9296	0.31
87.5	89,422	7,470	0.0835	0.9165	0.29
88.5	79,932	9,239	0.1156	0.8844	0.27
89.5	70,839	4,620	0.0652	0.9348	0.24
90.5	62,728	5,514	0.0879	0.9121	0.22
91.5	57,343	6,331	0.1104	0.8896	0.20
92.5	39,102	4,044	0.1034	0.8966	0.18
93.5	2,452	38	0.0157	0.9843	0.16
94.5	2,414		0.0000	1.0000	0.16
95.5	893		0.0000	1.0000	0.16
96.5	893	742	0.8314	0.1686	0.16
97.5	151		0.0000	1.0000	0.03
98.5	151		0.0000	1.0000	0.03
99.5	151		0.0000	1.0000	0.03
100.5	151		0.0000	1.0000	0.03
101.5	151		0.0000	1.0000	0.03
102.5	151		0.0000	1.0000	0.03
103.5	151		0.0000	1.0000	0.03
104.5	151		0.0000	1.0000	0.03
105.5	151		0.0000	1.0000	0.03
106.5	151		0.0000	1.0000	0.03
107.5	99		0.0000	1.0000	0.03
108.5	20		0.0000	1.0000	0.03
109.5					0.03

MISSOURI GAS ENERGY  
 ACCOUNT 381.00 METERS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	34,433,058	377,792	0.0110	0.9890	100.00
0.5	34,893,247	597,824	0.0171	0.9829	98.90
1.5	35,025,965	1,436,942	0.0410	0.9590	97.21
2.5	33,745,522	750,228	0.0222	0.9778	93.22
3.5	30,677,088	474,383	0.0155	0.9845	91.15
4.5	29,077,627	846,069	0.0291	0.9709	89.74
5.5	27,652,139	425,829	0.0154	0.9846	87.13
6.5	27,051,194	387,912	0.0143	0.9857	85.79
7.5	27,447,062	474,136	0.0173	0.9827	84.56
8.5	26,874,545	395,348	0.0147	0.9853	83.09
9.5	25,755,065	1,151,619	0.0447	0.9553	81.87
10.5	23,403,484	462,925	0.0198	0.9802	78.21
11.5	22,373,732	410,849	0.0184	0.9816	76.66
12.5	21,290,044	334,326	0.0157	0.9843	75.26
13.5	21,375,291	418,829	0.0196	0.9804	74.07
14.5	20,370,698	400,401	0.0197	0.9803	72.62
15.5	19,688,368	488,781	0.0248	0.9752	71.20
16.5	19,134,045	505,590	0.0264	0.9736	69.43
17.5	17,133,403	449,295	0.0262	0.9738	67.59
18.5	16,155,306	431,425	0.0267	0.9733	65.82
19.5	15,208,946	340,663	0.0224	0.9776	64.06
20.5	14,639,630	394,565	0.0270	0.9730	62.63
21.5	13,538,281	355,977	0.0263	0.9737	60.94
22.5	12,197,350	358,980	0.0294	0.9706	59.34
23.5	11,687,691	379,541	0.0325	0.9675	57.59
24.5	10,850,009	345,259	0.0318	0.9682	55.72
25.5	10,251,206	272,562	0.0266	0.9734	53.95
26.5	9,605,907	262,048	0.0273	0.9727	52.51
27.5	8,700,568	243,556	0.0280	0.9720	51.08
28.5	8,161,968	290,625	0.0356	0.9644	49.65
29.5	7,943,402	303,360	0.0382	0.9618	47.88
30.5	7,613,820	269,436	0.0354	0.9646	46.06
31.5	7,156,567	281,830	0.0394	0.9606	44.43
32.5	6,703,496	243,175	0.0363	0.9637	42.68
33.5	6,543,898	250,730	0.0383	0.9617	41.13
34.5	6,506,940	263,283	0.0405	0.9595	39.55
35.5	6,136,469	302,177	0.0492	0.9508	37.95
36.5	5,278,289	314,368	0.0596	0.9404	36.08
37.5	4,920,698	334,104	0.0679	0.9321	33.93
38.5	4,608,667	387,327	0.0840	0.9160	31.63

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,246,967	320,682	0.0755	0.9245	28.97
40.5	3,951,711	250,471	0.0634	0.9366	26.78
41.5	3,765,158	244,167	0.0648	0.9352	25.09
42.5	3,459,844	216,134	0.0625	0.9375	23.46
43.5	3,192,905	253,527	0.0794	0.9206	21.99
44.5	2,844,615	226,310	0.0796	0.9204	20.25
45.5	2,482,009	202,138	0.0814	0.9186	18.64
46.5	2,141,702	151,596	0.0708	0.9292	17.12
47.5	1,922,746	138,011	0.0718	0.9282	15.91
48.5	1,706,002	145,349	0.0852	0.9148	14.77
49.5	1,431,694	122,642	0.0857	0.9143	13.51
50.5	1,222,720	103,893	0.0850	0.9150	12.35
51.5	995,765	82,025	0.0824	0.9176	11.30
52.5	786,896	64,700	0.0822	0.9178	10.37
53.5	593,418	61,507	0.1036	0.8964	9.52
54.5	427,341	51,667	0.1209	0.8791	8.53
55.5	362,196	55,254	0.1526	0.8474	7.50
56.5	295,863	48,222	0.1630	0.8370	6.36
57.5	224,908	33,144	0.1474	0.8526	5.32
58.5	195,387	24,532	0.1256	0.8744	4.54
59.5	139,123	17,463	0.1255	0.8745	3.97
60.5	105,542	13,114	0.1243	0.8757	3.47
61.5	85,983	10,468	0.1217	0.8783	3.04
62.5	70,264	7,278	0.1036	0.8964	2.67
63.5	74,160	8,378	0.1130	0.8870	2.39
64.5	78,764	9,274	0.1177	0.8823	2.12
65.5	55,911	12,794	0.2288	0.7712	1.87
66.5	46,412	14,254	0.3071	0.6929	1.44
67.5	37,271	9,412	0.2525	0.7475	1.00
68.5	35,220	8,455	0.2401	0.7599	0.75
69.5	30,848	8,330	0.2700	0.7300	0.57
70.5	25,923	6,216	0.2398	0.7602	0.41
71.5	20,598	6,657	0.3232	0.6768	0.32
72.5	15,255	3,662	0.2401	0.7599	0.21
73.5	13,227	3,326	0.2514	0.7486	0.16
74.5	10,585	2,409	0.2275	0.7725	0.12
75.5	8,804	1,639	0.1862	0.8138	0.09
76.5	10,040	1,046	0.1042	0.8958	0.08
77.5	10,967	1,643	0.1498	0.8502	0.07
78.5	12,719	1,329	0.1045	0.8955	0.06

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

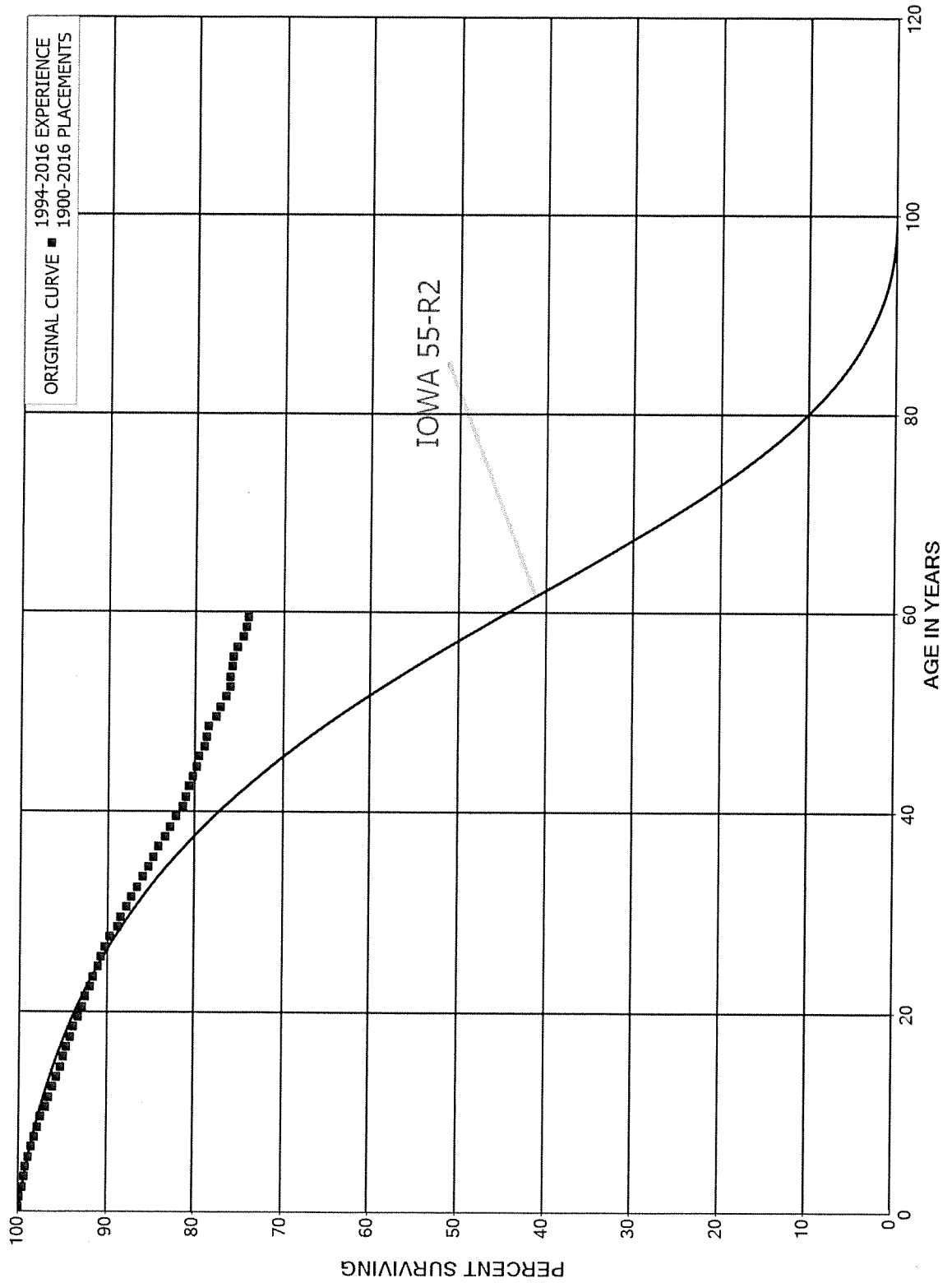
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,057	2,160	0.1792	0.8208	0.05
80.5	10,254	2,455	0.2394	0.7606	0.04
81.5	7,592	2,476	0.3262	0.6738	0.03
82.5	6,556	1,037	0.1582	0.8418	0.02
83.5	8,277	1,269	0.1533	0.8467	0.02
84.5	12,929	2,285	0.1767	0.8233	0.02
85.5	14,923	3,480	0.2332	0.7668	0.01
86.5	17,325	4,370	0.2523	0.7477	0.01
87.5	15,501	5,486	0.3539	0.6461	0.01
88.5	10,942	3,986	0.3643	0.6357	0.00
89.5	6,994	3,298	0.4716	0.5284	0.00
90.5	3,803	1,565	0.4115	0.5885	0.00
91.5	3,018	883	0.2928	0.7072	0.00
92.5	2,723	594	0.2182	0.7818	0.00
93.5	273,816	805	0.0029	0.9971	0.00
94.5	273,157	989	0.0036	0.9964	0.00
95.5	272,216	51,478	0.1891	0.8109	0.00
96.5	2,317	217	0.0935	0.9065	0.00
97.5	2,278	1,730	0.7597	0.2403	0.00
98.5	642	134	0.2095	0.7905	0.00
99.5	591	130	0.2200	0.7800	0.00
100.5	502	48	0.0961	0.9039	0.00
101.5	453	98	0.2174	0.7826	0.00
102.5	392	68	0.1744	0.8256	0.00
103.5	365	60	0.1635	0.8365	0.00
104.5	314		0.0000	1.0000	0.00
105.5	314	34	0.1092	0.8908	0.00
106.5	279		0.0000	1.0000	0.00
107.5	279	10	0.0342	0.9658	0.00
108.5	274		0.0000	1.0000	0.00
109.5	264	6	0.0244	0.9756	0.00
110.5	258	11	0.0410	0.9590	0.00
111.5	258		0.0000	1.0000	0.00
112.5	258		0.0000	1.0000	0.00
113.5	258		0.0000	1.0000	0.00
114.5	258		0.0000	1.0000	0.00
115.5	256		0.0000	1.0000	0.00
116.5					0.00

MISSOURI GAS ENERGY  
 ACCOUNT 382.00 METER INSTALLATIONS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	77,756,336	64,252	0.0008	0.9992	100.00
0.5	79,484,083	102,953	0.0013	0.9987	99.92
1.5	78,641,333	233,561	0.0030	0.9970	99.79
2.5	79,471,333	138,780	0.0017	0.9983	99.49
3.5	78,773,276	152,325	0.0019	0.9981	99.32
4.5	77,897,183	254,301	0.0033	0.9967	99.13
5.5	75,909,157	235,212	0.0031	0.9969	98.80
6.5	74,245,854	219,098	0.0030	0.9970	98.50
7.5	72,158,673	261,419	0.0036	0.9964	98.21
8.5	69,837,048	267,387	0.0038	0.9962	97.85
9.5	66,817,688	327,331	0.0049	0.9951	97.47
10.5	62,956,705	263,777	0.0042	0.9958	97.00
11.5	59,563,032	255,325	0.0043	0.9957	96.59
12.5	55,194,568	249,745	0.0045	0.9955	96.18
13.5	52,262,176	239,594	0.0046	0.9954	95.74
14.5	47,874,078	185,507	0.0039	0.9961	95.30
15.5	45,828,966	150,232	0.0033	0.9967	94.93
16.5	42,070,565	200,906	0.0048	0.9952	94.62
17.5	37,998,109	147,070	0.0039	0.9961	94.17
18.5	34,173,699	172,212	0.0050	0.9950	93.81
19.5	29,642,630	170,345	0.0057	0.9943	93.33
20.5	25,283,377	92,573	0.0037	0.9963	92.80
21.5	20,604,950	101,560	0.0049	0.9951	92.46
22.5	17,117,934	69,503	0.0041	0.9959	92.00
23.5	13,653,700	80,474	0.0059	0.9941	91.63
24.5	11,297,346	45,780	0.0041	0.9959	91.09
25.5	7,846,257	41,187	0.0052	0.9948	90.72
26.5	6,868,322	37,827	0.0055	0.9945	90.24
27.5	5,875,750	57,049	0.0097	0.9903	89.75
28.5	5,330,010	24,264	0.0046	0.9954	88.87
29.5	4,625,765	34,066	0.0074	0.9926	88.47
30.5	4,252,435	24,523	0.0058	0.9942	87.82
31.5	3,673,291	29,909	0.0081	0.9919	87.31
32.5	3,204,363	23,131	0.0072	0.9928	86.60
33.5	2,961,789	22,914	0.0077	0.9923	85.98
34.5	2,591,072	16,395	0.0063	0.9937	85.31
35.5	2,291,833	16,705	0.0073	0.9927	84.77
36.5	1,880,656	16,043	0.0085	0.9915	84.15
37.5	1,667,482	12,135	0.0073	0.9927	83.43
38.5	1,464,571	11,039	0.0075	0.9925	82.83



MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,424,824	14,404	0.0101	0.9899	82.20
40.5	1,452,771	5,673	0.0039	0.9961	81.37
41.5	1,505,879	6,796	0.0045	0.9955	81.05
42.5	1,605,865	8,833	0.0055	0.9945	80.69
43.5	1,650,734	7,486	0.0045	0.9955	80.25
44.5	1,615,146	5,517	0.0034	0.9966	79.88
45.5	1,573,788	12,409	0.0079	0.9921	79.61
46.5	1,580,570	4,154	0.0026	0.9974	78.98
47.5	1,454,322	5,613	0.0039	0.9961	78.77
48.5	1,373,279	14,843	0.0108	0.9892	78.47
49.5	1,264,467	6,952	0.0055	0.9945	77.62
50.5	1,191,785	10,759	0.0090	0.9910	77.19
51.5	1,111,474	5,735	0.0052	0.9948	76.50
52.5	1,046,719	1,237	0.0012	0.9988	76.10
53.5	969,222	2,057	0.0021	0.9979	76.01
54.5	915,258	1,177	0.0013	0.9987	75.85
55.5	856,138	4,737	0.0055	0.9945	75.75
56.5	1,180,259	10,905	0.0092	0.9908	75.33
57.5	1,122,725	5,177	0.0046	0.9954	74.64
58.5	1,066,722	3,668	0.0034	0.9966	74.29
59.5	1,009,284	3,595	0.0036	0.9964	74.04
60.5	949,430	1,777	0.0019	0.9981	73.78
61.5	879,676	2,004	0.0023	0.9977	73.64
62.5	798,587	606	0.0008	0.9992	73.47
63.5	732,924	1,822	0.0025	0.9975	73.41
64.5	685,492	543	0.0008	0.9992	73.23
65.5	581,227	305	0.0005	0.9995	73.17
66.5	526,317	2,413	0.0046	0.9954	73.13
67.5	498,746	1,326	0.0027	0.9973	72.80
68.5	486,371	3,034	0.0062	0.9938	72.61
69.5	467,697	772	0.0017	0.9983	72.15
70.5	461,878	3,229	0.0070	0.9930	72.03
71.5	452,882	509	0.0011	0.9989	71.53
72.5	449,676	1,135	0.0025	0.9975	71.45
73.5	446,229	192	0.0004	0.9996	71.27
74.5	436,045	287	0.0007	0.9993	71.24
75.5	409,982	116	0.0003	0.9997	71.19
76.5	395,042	170	0.0004	0.9996	71.17
77.5	397,322	102	0.0003	0.9997	71.14
78.5	392,999	164	0.0004	0.9996	71.12

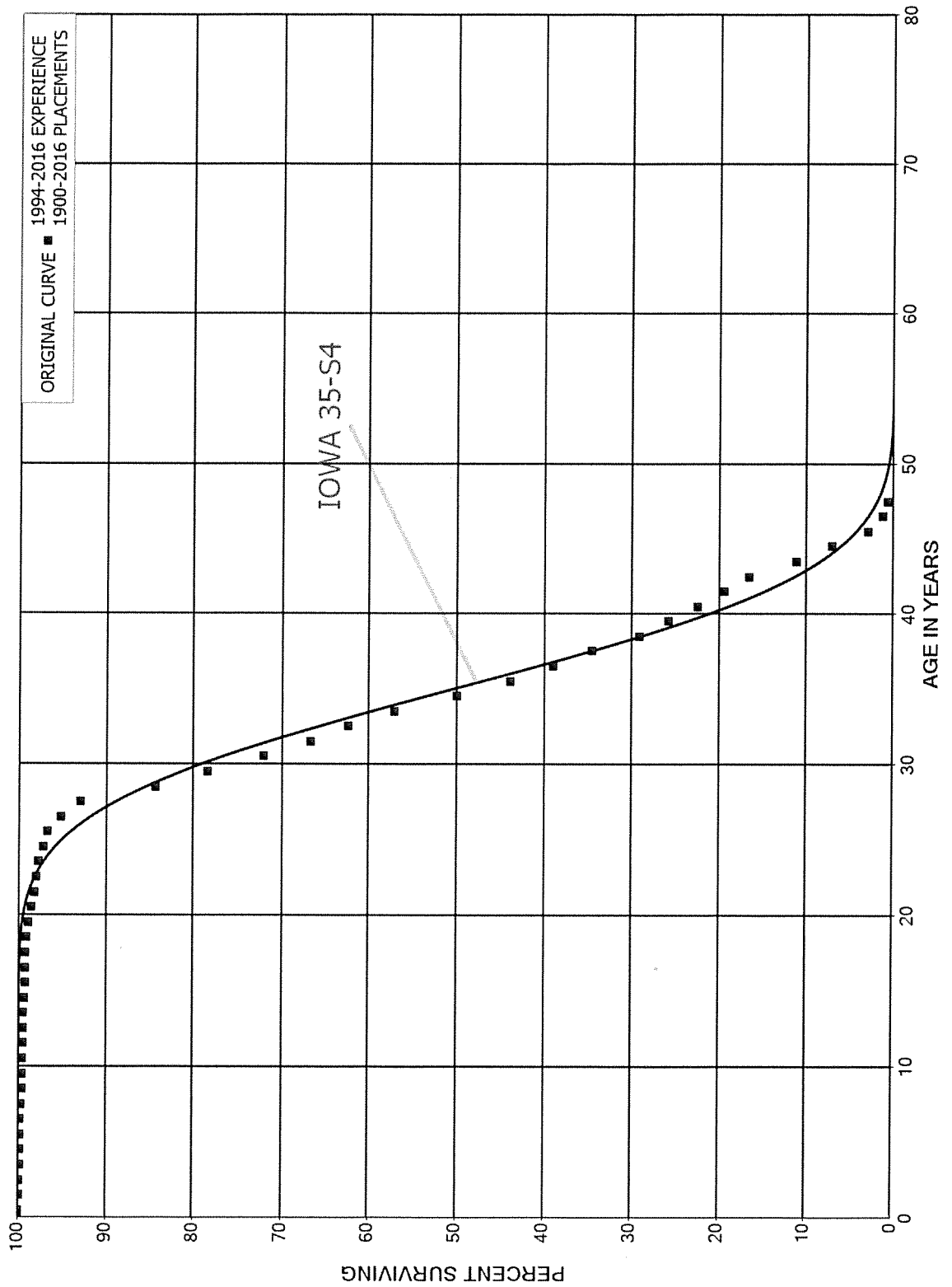
MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	47,675	46	0.0010	0.9990	71.09	
80.5	46,095	25	0.0005	0.9995	71.02	
81.5	45,097	11	0.0002	0.9998	70.99	
82.5	47,266	25	0.0005	0.9995	70.97	
83.5	51,985	237	0.0045	0.9955	70.93	
84.5	64,073	24	0.0004	0.9996	70.61	
85.5	70,174	35	0.0005	0.9995	70.58	
86.5	80,397	235	0.0029	0.9971	70.55	
87.5	78,970	2,700	0.0342	0.9658	70.34	
88.5	75,781	42	0.0006	0.9994	67.94	
89.5	73,474	27	0.0004	0.9996	67.90	
90.5	70,164	31	0.0004	0.9996	67.87	
91.5	65,827	32	0.0005	0.9995	67.84	
92.5	62,258	58	0.0009	0.9991	67.81	
93.5	87,984	109	0.0012	0.9988	67.75	
94.5	87,872	26	0.0003	0.9997	67.66	
95.5	87,781	65	0.0007	0.9993	67.64	
96.5	86,776	35,659	0.4109	0.5891	67.59	
97.5	50,595	73	0.0014	0.9986	39.82	
98.5	50,387	230	0.0046	0.9954	39.76	
99.5	48,661	443	0.0091	0.9909	39.58	
100.5	45,852		0.0000	1.0000	39.22	
101.5	43,151		0.0000	1.0000	39.22	
102.5	42,395	5	0.0001	0.9999	39.22	
103.5	42,386	11	0.0002	0.9998	39.21	
104.5	42,376	52	0.0012	0.9988	39.20	
105.5	39,915	223	0.0056	0.9944	39.16	
106.5	35,110	307	0.0087	0.9913	38.94	
107.5	25,195		0.0000	1.0000	38.60	
108.5	18,571	14	0.0007	0.9993	38.60	
109.5	7,645	128	0.0167	0.9833	38.57	
110.5	2,154	256	0.1189	0.8811	37.92	
111.5	150	120	0.7979	0.2021	33.41	
112.5	30	5	0.1732	0.8268	6.75	
113.5	25		0.0000	1.0000	5.58	
114.5	25		0.0000	1.0000	5.58	
115.5	15		0.0000	1.0000	5.58	
116.5					5.58	

MISSOURI GAS ENERGY  
 ACCOUNT 383.00 HOUSE REGULATORS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	11,823,639	1,761	0.0001	0.9999	100.00	
0.5	12,210,155	21,507	0.0018	0.9982	99.99	
1.5	12,346,385	1,029	0.0001	0.9999	99.81	
2.5	12,542,114	4,852	0.0004	0.9996	99.80	
3.5	12,689,880	2,626	0.0002	0.9998	99.76	
4.5	12,482,241	4,160	0.0003	0.9997	99.74	
5.5	12,199,936	4,067	0.0003	0.9997	99.71	
6.5	11,911,033	5,757	0.0005	0.9995	99.67	
7.5	11,451,154	8,817	0.0008	0.9992	99.63	
8.5	11,228,633	6,156	0.0005	0.9995	99.55	
9.5	10,904,798	3,544	0.0003	0.9997	99.50	
10.5	10,446,068	2,703	0.0003	0.9997	99.46	
11.5	10,144,642	5,901	0.0006	0.9994	99.44	
12.5	9,817,771	3,314	0.0003	0.9997	99.38	
13.5	9,544,752	6,639	0.0007	0.9993	99.35	
14.5	9,279,003	6,319	0.0007	0.9993	99.28	
15.5	9,002,525	4,390	0.0005	0.9995	99.21	
16.5	8,488,044	3,094	0.0004	0.9996	99.16	
17.5	7,998,214	5,714	0.0007	0.9993	99.12	
18.5	7,434,416	12,339	0.0017	0.9983	99.05	
19.5	6,483,748	24,791	0.0038	0.9962	98.89	
20.5	5,787,406	19,540	0.0034	0.9966	98.51	
21.5	5,192,095	13,332	0.0026	0.9974	98.18	
22.5	4,811,960	8,698	0.0018	0.9982	97.93	
23.5	4,273,555	23,580	0.0055	0.9945	97.75	
24.5	3,940,855	18,769	0.0048	0.9952	97.21	
25.5	3,439,539	54,652	0.0159	0.9841	96.75	
26.5	2,898,478	67,407	0.0233	0.9767	95.21	
27.5	2,521,626	233,576	0.0926	0.9074	93.00	
28.5	2,161,686	153,473	0.0710	0.9290	84.38	
29.5	1,909,814	154,888	0.0811	0.9189	78.39	
30.5	1,681,562	124,357	0.0740	0.9260	72.03	
31.5	1,420,259	90,712	0.0639	0.9361	66.71	
32.5	1,266,907	109,249	0.0862	0.9138	62.45	
33.5	1,156,983	145,068	0.1254	0.8746	57.06	
34.5	1,020,971	123,704	0.1212	0.8788	49.91	
35.5	893,374	99,932	0.1119	0.8881	43.86	
36.5	774,612	88,091	0.1137	0.8863	38.95	
37.5	698,926	111,186	0.1591	0.8409	34.52	
38.5	642,292	73,620	0.1146	0.8854	29.03	

MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	644,001	83,324	0.1294	0.8706	25.70
40.5	668,986	89,633	0.1340	0.8660	22.38
41.5	756,474	112,805	0.1491	0.8509	19.38
42.5	772,166	255,297	0.3306	0.6694	16.49
43.5	601,724	225,325	0.3745	0.6255	11.04
44.5	422,092	248,155	0.5879	0.4121	6.90
45.5	188,749	107,420	0.5691	0.4309	2.85
46.5	106,691	52,582	0.4928	0.5072	1.23
47.5	66,539	39,362	0.5916	0.4084	0.62
48.5	33,505	27,832	0.8307	0.1693	0.25
49.5	9,808	5,166	0.5267	0.4733	0.04
50.5	5,692	2,400	0.4217	0.5783	0.02
51.5	3,592	1,874	0.5217	0.4783	0.01
52.5	3,561	2,082	0.5847	0.4153	0.01
53.5	2,556	799	0.3127	0.6873	0.00
54.5	9,146	7,322	0.8006	0.1994	0.00
55.5	1,896	141	0.0746	0.9254	0.00
56.5	2,027	611	0.3012	0.6988	0.00
57.5	1,427	977	0.6848	0.3152	0.00
58.5	659	291	0.4420	0.5580	0.00
59.5	887	220	0.2475	0.7525	0.00
60.5	667	590	0.8846	0.1154	0.00
61.5	80	77	0.9589	0.0411	0.00
62.5	3		0.0000	1.0000	0.00
63.5	3		0.0000	1.0000	0.00
64.5	3		0.0000	1.0000	0.00
65.5	601	3	0.0055	0.9945	0.00
66.5	598		0.0000	1.0000	0.00
67.5	598		0.0000	1.0000	0.00
68.5	598		0.0000	1.0000	0.00
69.5	598	598	1.0000		0.00
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

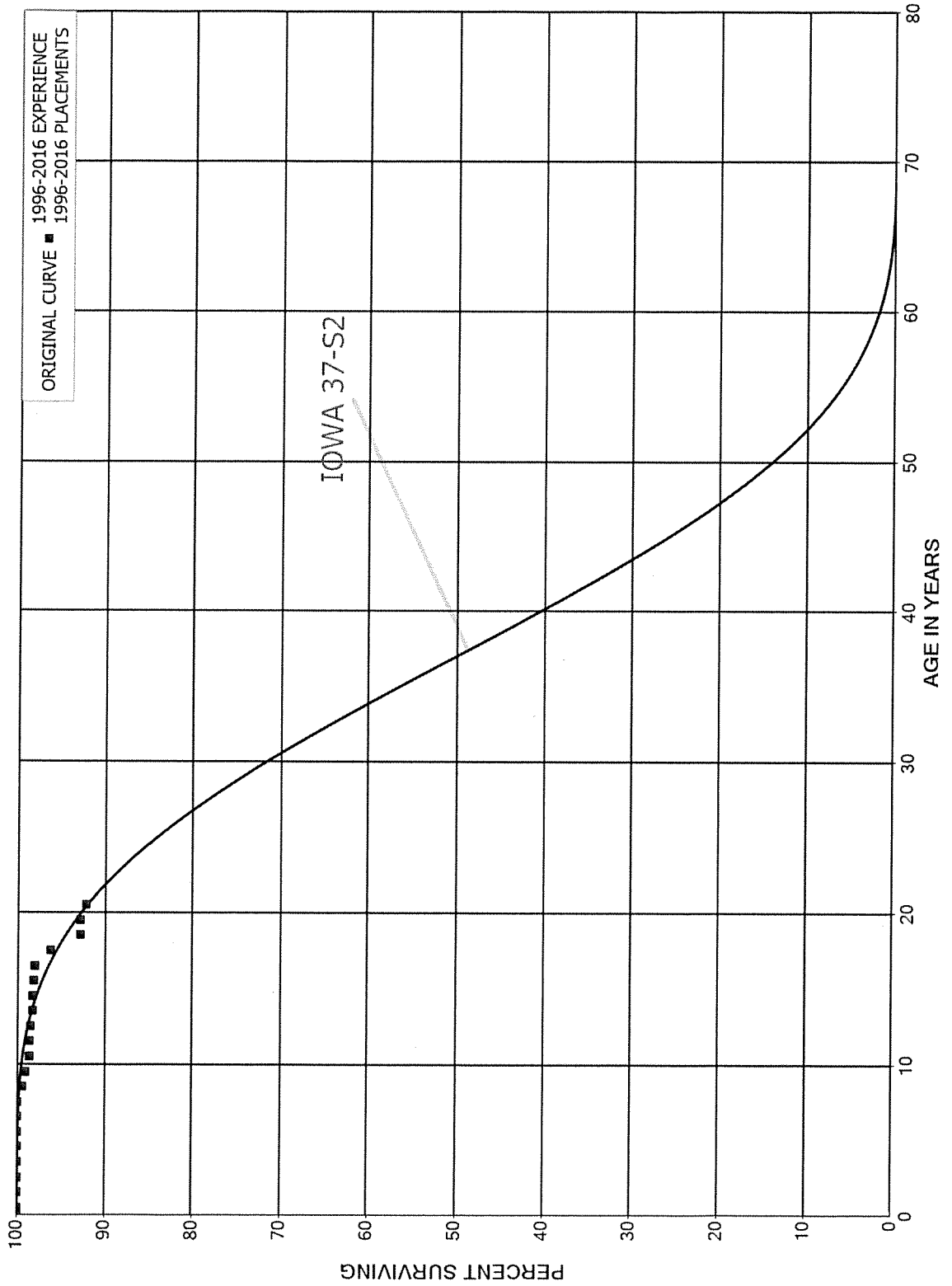
MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5					
83.5					
84.5					
85.5					
86.5					
87.5					
88.5					
89.5					
90.5					
91.5					
92.5					
93.5	4,646	1,233	0.2654		
94.5	3,661		0.0000		
95.5	521	521	1.0000		
96.5					

MISSOURI GAS ENERGY  
 ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATION EQUIPMENT

ORIGINAL LIFE TABLE

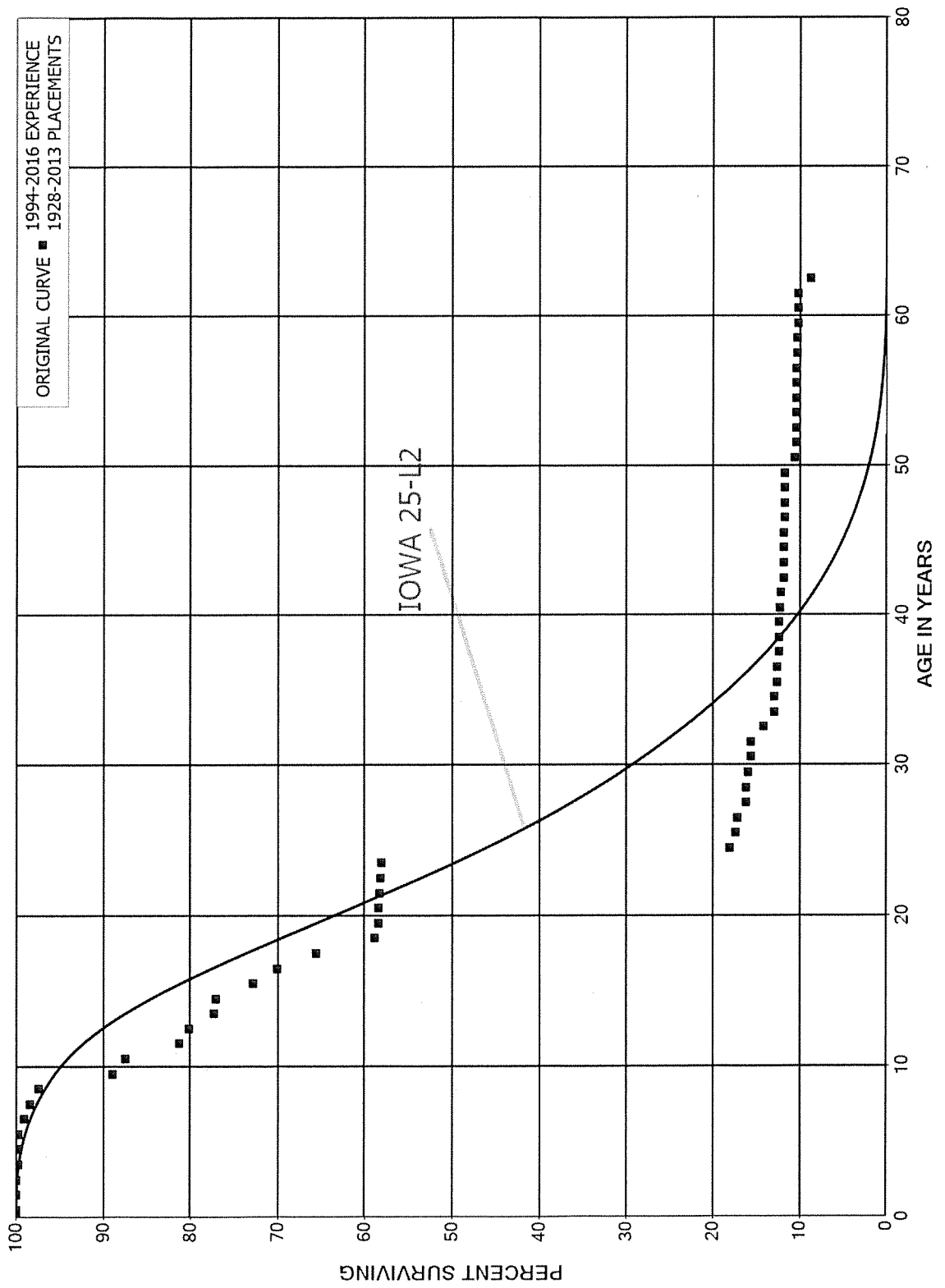
PLACEMENT BAND 1996-2016

EXPERIENCE BAND 1996-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,106,052		0.0000	1.0000	100.00
0.5	552,801		0.0000	1.0000	100.00
1.5	552,801		0.0000	1.0000	100.00
2.5	550,526		0.0000	1.0000	100.00
3.5	470,691		0.0000	1.0000	100.00
4.5	459,487		0.0000	1.0000	100.00
5.5	414,068		0.0000	1.0000	100.00
6.5	395,112	155	0.0004	0.9996	100.00
7.5	385,188	2,381	0.0062	0.9938	99.96
8.5	382,647	964	0.0025	0.9975	99.34
9.5	363,135	1,667	0.0046	0.9954	99.09
10.5	360,175		0.0000	1.0000	98.64
11.5	347,542	601	0.0017	0.9983	98.64
12.5	340,773	704	0.0021	0.9979	98.47
13.5	331,665		0.0000	1.0000	98.26
14.5	311,744	371	0.0012	0.9988	98.26
15.5	287,609	364	0.0013	0.9987	98.15
16.5	286,983	5,077	0.0177	0.9823	98.02
17.5	243,525	8,768	0.0360	0.9640	96.29
18.5	192,419		0.0000	1.0000	92.82
19.5	167,287	1,262	0.0075	0.9925	92.82
20.5					92.12



MISSOURI GAS ENERGY  
 ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1928-2013			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	606,947		0.0000	1.0000	100.00
0.5	619,590		0.0000	1.0000	100.00
1.5	619,590		0.0000	1.0000	100.00
2.5	630,036	1,962	0.0031	0.9969	100.00
3.5	603,716		0.0000	1.0000	99.69
4.5	597,858		0.0000	1.0000	99.69
5.5	679,653	4,110	0.0060	0.9940	99.69
6.5	681,313	4,478	0.0066	0.9934	99.09
7.5	683,595	7,324	0.0107	0.9893	98.43
8.5	612,678	53,102	0.0867	0.9133	97.38
9.5	564,271	9,375	0.0166	0.9834	88.94
10.5	470,538	33,239	0.0706	0.9294	87.46
11.5	426,750	5,966	0.0140	0.9860	81.28
12.5	361,268	12,880	0.0357	0.9643	80.15
13.5	331,527	730	0.0022	0.9978	77.29
14.5	323,602	18,149	0.0561	0.9439	77.12
15.5	303,004	11,324	0.0374	0.9626	72.79
16.5	257,006	16,219	0.0631	0.9369	70.07
17.5	234,200	24,396	0.1042	0.8958	65.65
18.5	195,267	1,482	0.0076	0.9924	58.81
19.5	192,636		0.0000	1.0000	58.37
20.5	343,778	686	0.0020	0.9980	58.37
21.5	344,455	228	0.0007	0.9993	58.25
22.5	318,966	624	0.0020	0.9980	58.21
23.5	220,434	151,881	0.6890	0.3110	58.10
24.5	71,264	2,746	0.0385	0.9615	18.07
25.5	71,132	795	0.0112	0.9888	17.37
26.5	59,734	3,330	0.0557	0.9443	17.18
27.5	38,947		0.0000	1.0000	16.22
28.5	13,011	241	0.0185	0.9815	16.22
29.5	40,552	657	0.0162	0.9838	15.92
30.5	39,793	219	0.0055	0.9945	15.66
31.5	53,190	4,689	0.0882	0.9118	15.58
32.5	48,501	4,124	0.0850	0.9150	14.20
33.5	65,765	83	0.0013	0.9987	12.99
34.5	64,415	1,712	0.0266	0.9734	12.98
35.5	62,703		0.0000	1.0000	12.63
36.5	58,951	996	0.0169	0.9831	12.63
37.5	66,202	214	0.0032	0.9968	12.42
38.5	66,261	117	0.0018	0.9982	12.38

MISSOURI GAS ENERGY

ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2013			EXPERIENCE BAND 1994-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	93,193	875	0.0094	0.9906	12.36	
40.5	92,318	273	0.0030	0.9970	12.24	
41.5	92,421	2,806	0.0304	0.9696	12.21	
42.5	89,616		0.0000	1.0000	11.84	
43.5	90,106	376	0.0042	0.9958	11.84	
44.5	89,730		0.0000	1.0000	11.79	
45.5	104,247	490	0.0047	0.9953	11.79	
46.5	103,757		0.0000	1.0000	11.73	
47.5	110,426		0.0000	1.0000	11.73	
48.5	112,121		0.0000	1.0000	11.73	
49.5	89,247	8,638	0.0968	0.9032	11.73	
50.5	79,205	1,084	0.0137	0.9863	10.59	
51.5	67,688		0.0000	1.0000	10.45	
52.5	67,952		0.0000	1.0000	10.45	
53.5	46,778	264	0.0056	0.9944	10.45	
54.5	47,014		0.0000	1.0000	10.39	
55.5	47,014		0.0000	1.0000	10.39	
56.5	47,079	500	0.0106	0.9894	10.39	
57.5	85,600		0.0000	1.0000	10.28	
58.5	85,600	1,234	0.0144	0.9856	10.28	
59.5	60,122		0.0000	1.0000	10.13	
60.5	60,122		0.0000	1.0000	10.13	
61.5	60,122	8,268	0.1375	0.8625	10.13	
62.5	51,854		0.0000	1.0000	8.74	
63.5	51,854		0.0000	1.0000	8.74	
64.5	51,854		0.0000	1.0000	8.74	
65.5	45,106		0.0000	1.0000	8.74	
66.5	45,106		0.0000	1.0000	8.74	
67.5	45,106		0.0000	1.0000	8.74	
68.5	45,700		0.0000	1.0000	8.74	
69.5	45,700		0.0000	1.0000	8.74	
70.5	45,700		0.0000	1.0000	8.74	
71.5	45,700		0.0000	1.0000	8.74	
72.5	45,700		0.0000	1.0000	8.74	
73.5	45,700		0.0000	1.0000	8.74	
74.5	45,700		0.0000	1.0000	8.74	
75.5	45,700		0.0000	1.0000	8.74	
76.5	45,700		0.0000	1.0000	8.74	
77.5	594		0.0000	1.0000	8.74	
78.5	594		0.0000	1.0000	8.74	

MISSOURI GAS ENERGY

ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS

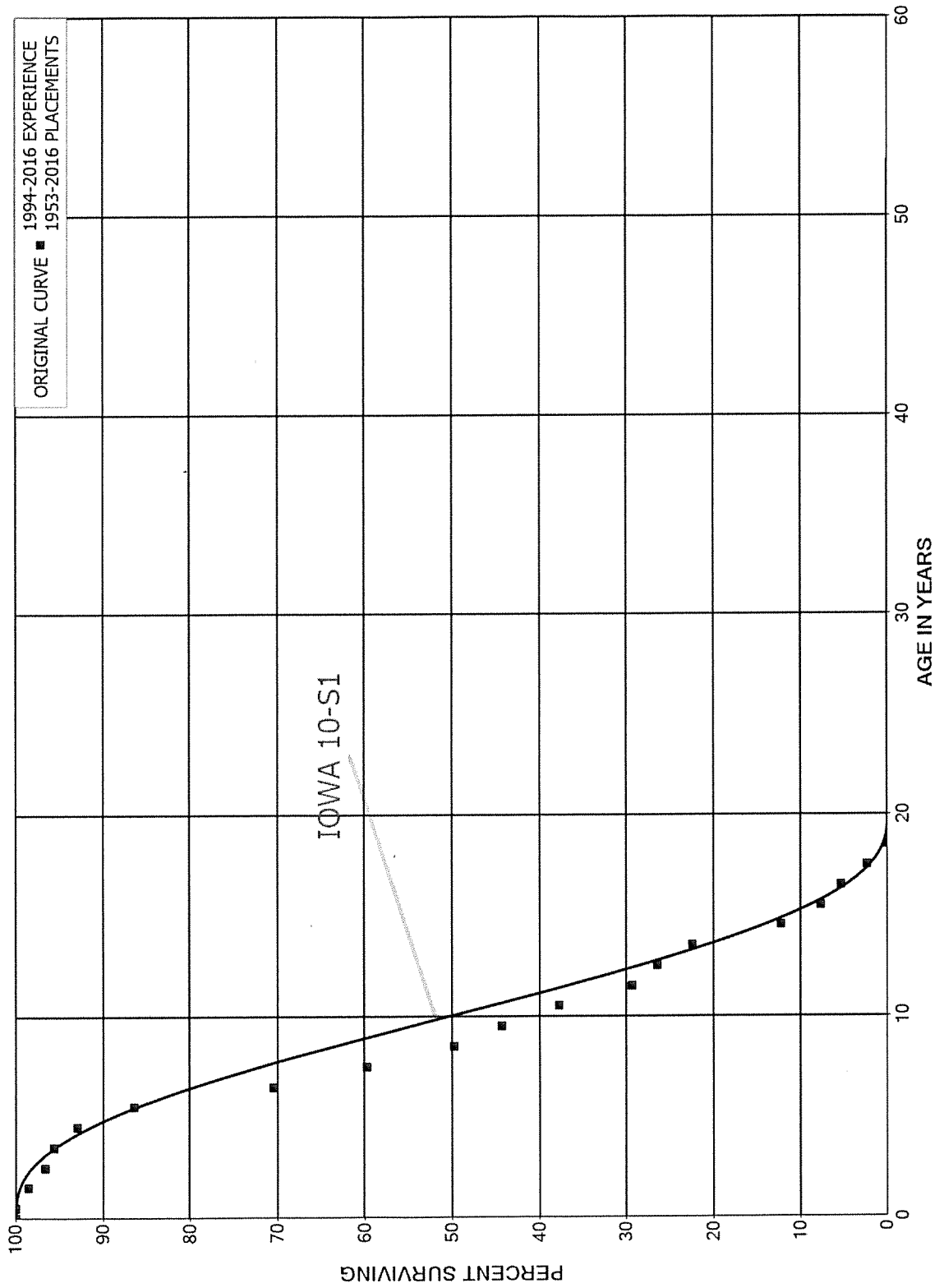
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1928-2013

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	594		0.0000	1.0000	8.74
80.5	594		0.0000	1.0000	8.74
81.5	594		0.0000	1.0000	8.74
82.5	594		0.0000	1.0000	8.74
83.5	594		0.0000	1.0000	8.74
84.5	594		0.0000	1.0000	8.74
85.5	594		0.0000	1.0000	8.74
86.5	594		0.0000	1.0000	8.74
87.5	594		0.0000	1.0000	8.74
88.5					8.74

MISSOURI GAS ENERGY  
 ACCOUNT 392.10 TRANSPORTATION EQUIPMENT - AUTOS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 392.10 TRANSPORTATION EQUIPMENT - AUTOS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1953-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,102,137	6,572	0.0008	0.9992	100.00
0.5	8,090,903	110,978	0.0137	0.9863	99.92
1.5	10,089,473	192,847	0.0191	0.9809	98.55
2.5	10,020,167	108,300	0.0108	0.9892	96.66
3.5	8,309,234	232,090	0.0279	0.9721	95.62
4.5	6,758,979	477,832	0.0707	0.9293	92.95
5.5	5,381,400	994,033	0.1847	0.8153	86.38
6.5	3,395,176	516,816	0.1522	0.8478	70.42
7.5	1,436,660	239,578	0.1668	0.8332	59.70
8.5	1,168,748	129,457	0.1108	0.8892	49.75
9.5	1,047,542	153,575	0.1466	0.8534	44.24
10.5	768,974	171,625	0.2232	0.7768	37.75
11.5	341,437	34,537	0.1012	0.8988	29.33
12.5	15,753	2,350	0.1492	0.8508	26.36
13.5	20,983	9,601	0.4576	0.5424	22.43
14.5	16,261	6,056	0.3724	0.6276	12.17
15.5	14,881	4,675	0.3142	0.6858	7.64
16.5	7,526	4,265	0.5667	0.4333	5.24
17.5	15,339	15,339	1.0000		2.27
18.5	2,193	2,193	1.0000		
19.5	26,600	26,600	1.0000		
20.5	5,739	5,739	1.0000		
21.5	5,316	5,316	1.0000		
22.5	1,688	1,688	1.0000		
23.5	2,517	2,517	1.0000		
24.5					
25.5	45	45	1.0000		
26.5	290	290	1.0000		
27.5	4,413	4,413	1.0000		
28.5	4,411	4,411	1.0000		
29.5	9,095	9,095	1.0000		
30.5	120	120	1.0000		
31.5					
32.5	219	219	1.0000		
33.5					
34.5					
35.5	1,464	1,464	1.0000		
36.5	392	392	1.0000		
37.5					
38.5	574	574	1.0000		

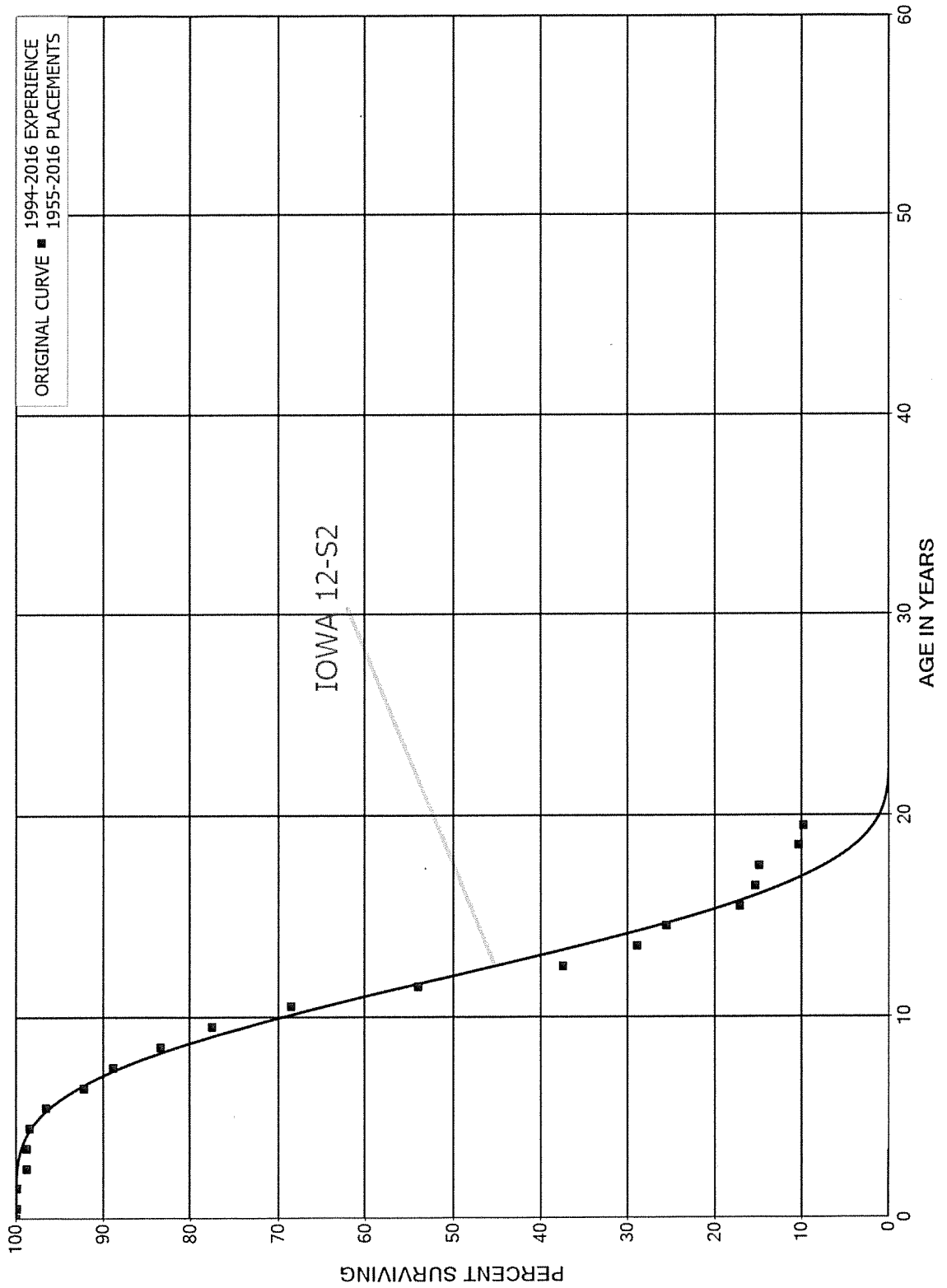
MISSOURI GAS ENERGY

ACCOUNT 392.10 TRANSPORTATION EQUIPMENT - AUTOS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1953-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5					
40.5	341	341	1.0000		
41.5					

MISSOURI GAS ENERGY  
 ACCOUNT 392.20 TRANSPORTATION EQUIPMENT - TRUCKS  
 ORIGINAL AND SMOOTH SURVIVOR CURVES





MISSOURI GAS ENERGY

ACCOUNT 392.20 TRANSPORTATION EQUIPMENT - TRUCKS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	20,697,928	23,130	0.0011	0.9989	100.00
0.5	16,161,422	11,947	0.0007	0.9993	99.89
1.5	10,596,731	110,904	0.0105	0.9895	99.81
2.5	9,117,078	2,343	0.0003	0.9997	98.77
3.5	9,329,824	34,253	0.0037	0.9963	98.74
4.5	8,772,306	162,586	0.0185	0.9815	98.38
5.5	8,103,552	370,081	0.0457	0.9543	96.56
6.5	7,401,851	268,557	0.0363	0.9637	92.15
7.5	5,372,341	326,433	0.0608	0.9392	88.81
8.5	5,312,788	372,865	0.0702	0.9298	83.41
9.5	4,610,477	534,870	0.1160	0.8840	77.56
10.5	3,825,044	817,017	0.2136	0.7864	68.56
11.5	3,290,750	1,008,429	0.3064	0.6936	53.91
12.5	1,715,325	390,434	0.2276	0.7724	37.39
13.5	1,324,174	154,368	0.1166	0.8834	28.88
14.5	1,156,600	384,299	0.3323	0.6677	25.51
15.5	795,265	83,306	0.1048	0.8952	17.04
16.5	478,026	14,565	0.0305	0.9695	15.25
17.5	331,298	102,020	0.3079	0.6921	14.79
18.5	80,217	3,940	0.0491	0.9509	10.23
19.5	53,698		0.0000	1.0000	9.73
20.5	54,835	4,265	0.0778	0.9222	9.73
21.5	53,698		0.0000	1.0000	8.97
22.5	56,177	2,479	0.0441	0.9559	8.97
23.5	53,698		0.0000	1.0000	8.58
24.5	53,698		0.0000	1.0000	8.58
25.5	53,698		0.0000	1.0000	8.58
26.5	4,677		0.0000	1.0000	8.58
27.5	1,262	500	0.3963	0.6037	8.58
28.5	1,093	331	0.3030	0.6970	5.18
29.5	2,511	1,749	0.6967	0.3033	3.61
30.5	762		0.0000	1.0000	1.09
31.5	762	762	1.0000		1.09
32.5					
33.5					
34.5					
35.5					
36.5					
37.5					
38.5	219		0.0000		

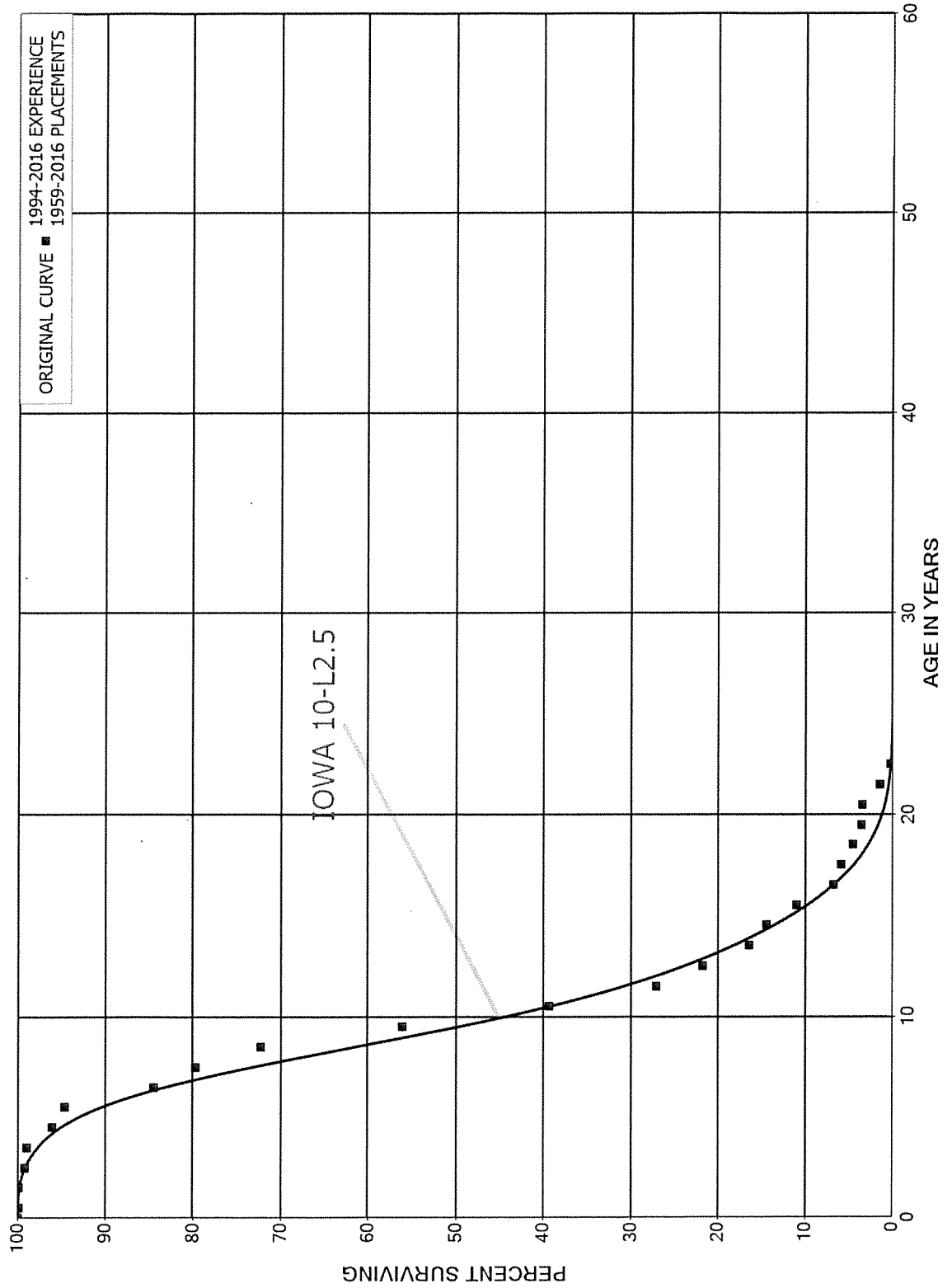
MISSOURI GAS ENERGY

ACCOUNT 392.20 TRANSPORTATION EQUIPMENT - TRUCKS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2016			EXPERIENCE BAND 1994-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	219		0.0000		
40.5	219		0.0000		
41.5	219		0.0000		
42.5	219	219	1.0000		
43.5					

MISSOURI GAS ENERGY  
 ACCOUNT 396.00 POWER OPERATED EQUIPMENT  
 ORIGINAL AND SMOOTH SURVIVOR CURVES



MISSOURI GAS ENERGY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1959-2016

EXPERIENCE BAND 1994-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,160,350	5,857	0.0019	0.9981	100.00
0.5	3,129,748		0.0000	1.0000	99.81
1.5	2,743,970	17,363	0.0063	0.9937	99.81
2.5	2,563,441	4,517	0.0018	0.9982	99.18
3.5	2,435,130	73,583	0.0302	0.9698	99.01
4.5	2,199,577	32,010	0.0146	0.9854	96.02
5.5	2,114,036	225,388	0.1066	0.8934	94.62
6.5	2,042,385	116,882	0.0572	0.9428	84.53
7.5	1,270,265	117,441	0.0925	0.9075	79.69
8.5	1,357,846	305,852	0.2252	0.7748	72.33
9.5	1,245,128	372,512	0.2992	0.7008	56.03
10.5	1,123,039	349,932	0.3116	0.6884	39.27
11.5	773,108	152,092	0.1967	0.8033	27.03
12.5	621,016	152,219	0.2451	0.7549	21.72
13.5	502,449	62,531	0.1245	0.8755	16.39
14.5	439,917	105,680	0.2402	0.7598	14.35
15.5	334,640	127,163	0.3800	0.6200	10.90
16.5	207,477	26,842	0.1294	0.8706	6.76
17.5	180,635	43,251	0.2394	0.7606	5.89
18.5	138,887	31,629	0.2277	0.7723	4.48
19.5	108,457	1,199	0.0111	0.9889	3.46
20.5	111,866	64,460	0.5762	0.4238	3.42
21.5	47,994	42,499	0.8855	0.1145	1.45
22.5	5,495		0.0000	1.0000	0.17
23.5	5,495		0.0000	1.0000	0.17
24.5	5,495		0.0000	1.0000	0.17
25.5	5,495		0.0000	1.0000	0.17
26.5	5,562	67	0.0120	0.9880	0.17
27.5	5,874	5,874	1.0000		0.16
28.5	1,229	1,229	1.0000		
29.5	144	144	1.0000		
30.5					
31.5					
32.5					
33.5	607	607	1.0000		
34.5	801	801	1.0000		
35.5					

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**PART VIII. NET SALVAGE STATISTICS**

MISSOURI GAS ENERGY

ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2016	4,002		0		0		0
TOTAL	4,002		0		0		0

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013	1,311,924	198,857-	15-		0	198,857	15
2014	1,103,827	148,194-	13-		0	148,194	13
2015	1,156,033	311,086-	27-		0	311,086	27
2016	872,100	1,954,416	224		0	1,954,416-	224-
TOTAL	4,443,884	1,296,280	29		0	1,296,280-	29-

THREE-YEAR MOVING AVERAGES

13-15	1,190,595	219,379-	18-		0	219,379	18
14-16	1,043,987	498,379	48		0	498,379-	48-

MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	58,693	1,503	3		0	1,503-	3-
2015	62,457	397,919	637		0	397,919-	637-
2016	139,717	867,400	621		0	867,400-	621-
TOTAL	260,867	1,266,823	486		0	1,266,823-	486-

THREE-YEAR MOVING AVERAGES

14-16	86,956	422,274	486		0	422,274-	486-
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MISSOURI GAS ENERGY

ACCOUNT 376.30 MAINS - PLASTIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	124,019	2,333	2		0	2,333-	2-
2015	285,215	179,478	63		0	179,478-	63-
2016	325,935	414,225	127		0	414,225-	127-
TOTAL	735,170	596,036	81		0	596,036-	81-
THREE-YEAR MOVING AVERAGES							
14-16	245,056	198,679	81		0	198,679-	81-

MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2008	76,825	10,668	14	0	0	10,668-	14-
2009	82,197	12,255	15	0	0	12,255-	15-
2010	136,164	16,747	12	0	0	16,747-	12-
2011	66,381	12,465	19	0	0	12,465-	19-
2012	59,604	7,959	13	0	0	7,959-	13-
2013	279,922	7,680	3	0	0	7,680-	3-
2014	119,240	3,952	3	0	0	3,952-	3-
2015	115,869	4,872	4	0	0	4,872-	4-
2016	78,733	6,114	8	0	0	6,114-	8-
TOTAL	1,014,935	82,711	8	0	0	82,711-	8-

THREE-YEAR MOVING AVERAGES

08-10	98,396	13,224	13	0	0	13,224-	13-
09-11	94,914	13,823	15	0	0	13,823-	15-
10-12	87,383	12,390	14	0	0	12,390-	14-
11-13	135,302	9,368	7	0	0	9,368-	7-
12-14	152,922	6,530	4	0	0	6,530-	4-
13-15	171,677	5,501	3	0	0	5,501-	3-
14-16	104,614	4,979	5	0	0	4,979-	5-

FIVE-YEAR AVERAGE

12-16	130,673	6,115	5	0	0	6,115-	5-
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MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION - CITY GATE

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	6,364	412	6		0	412-	6-
2009	13,262		0		0		0
2010	1,998		0		0		0
2011	14,055	1,875	13		0	1,875-	13-
2012	58,887		0		0		0
2013	24,124		0		0		0
2014	1,134		0		0		0
2015	197		0		0		0
2016	15,532	368	2		0	368-	2-
TOTAL	135,552	2,655	2		0	2,655-	2-

THREE-YEAR MOVING AVERAGES

08-10	7,208	137	2		0	137-	2-
09-11	9,772	625	6		0	625-	6-
10-12	24,980	625	3		0	625-	3-
11-13	32,355	625	2		0	625-	2-
12-14	28,048		0		0		0
13-15	8,485		0		0		0
14-16	5,621	123	2		0	123-	2-

FIVE-YEAR AVERAGE

12-16	19,975	74	0		0	74-	0
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MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2015	25,391	3,873	15		0	3,873-	15-
2016	222,812	268,727	121	377	0	268,350-	120-
TOTAL	248,203	272,600	110	377	0	272,223-	110-

MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2013	1,154,095	424,055	37		0	424,055-	37-
2014	1,167,129	177,079	15		0	177,079-	15-
2015	1,355,370	189,525	14		0	189,525-	14-
2016	1,535,249	1,544,847	101	5,428	0	1,539,420-	100-
TOTAL	5,211,843	2,335,506	45	5,428	0	2,330,078-	45-

THREE-YEAR MOVING AVERAGES

13-15	1,225,531	263,553	22		0	263,553-	22-
14-16	1,352,583	637,150	47	1,809	0	635,341-	47-

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	696,488		0		0		0
2009	832,421		0		0		0
2010	958,875		0		0		0
2011	913,494		0		0		0
2012	1,834,297		0	163,086	9	163,086	9
2013	1,233,303		0	125,502	10	125,502	10
2014	593,170		0	53,900	9	53,900	9
2015	99,910		0		0		0
2016	610,179		0		0		0
<b>TOTAL</b>	<b>7,772,136</b>		<b>0</b>	<b>342,488</b>	<b>4</b>	<b>342,488</b>	<b>4</b>

THREE-YEAR MOVING AVERAGES

08-10	829,261		0		0		0
09-11	901,597		0		0		0
10-12	1,235,555		0	54,362	4	54,362	4
11-13	1,327,031		0	96,196	7	96,196	7
12-14	1,220,257		0	114,163	9	114,163	9
13-15	642,128		0	59,800	9	59,800	9
14-16	434,420		0	17,967	4	17,967	4

FIVE-YEAR AVERAGE

12-16	874,172		0	68,498	8	68,498	8
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MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	171,769	1,934	1		0	1,934-	1-
2009	243,031	4,911	2		0	4,911-	2-
2010	188,822	9,031	5		0	9,031-	5-
2011	439,072	11,586	3		0	11,586-	3-
2012	230,184	6,555	3		0	6,555-	3-
2013	208,245	11,229	5		0	11,229-	5-
2014	229,924	27,943	12		0	27,943-	12-
2015	181,746	5,568	3		0	5,568-	3-
2016	23,908	2,452	10		0	2,452-	10-
TOTAL	1,916,701	81,210	4		0	81,210-	4-

THREE-YEAR MOVING AVERAGES

08-10	201,207	5,292	3		0	5,292-	3-
09-11	290,308	8,509	3		0	8,509-	3-
10-12	286,026	9,057	3		0	9,057-	3-
11-13	292,500	9,790	3		0	9,790-	3-
12-14	222,784	15,242	7		0	15,242-	7-
13-15	206,638	14,913	7		0	14,913-	7-
14-16	145,193	11,988	8		0	11,988-	8-

FIVE-YEAR AVERAGE

12-16	174,801	10,750	6		0	10,750-	6-
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MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2008	47,435		0		0		0
2009	30,661		0		0		0
2010	32,880		0		0		0
2011	76,449	805	1		0	805-	1-
2012	33,519		0		0		0
2013	24,930		0		0		0
2014	18,916	58	0		0	58-	0
2015	7,346	256	3		0	256-	3-
2016	1,754	475	27		0	475-	27-
TOTAL	273,889	1,593	1		0	1,593-	1-

THREE-YEAR MOVING AVERAGES

08-10	36,992		0		0		0
09-11	46,663	268	1		0	268-	1-
10-12	47,616	268	1		0	268-	1-
11-13	44,966	268	1		0	268-	1-
12-14	25,788	19	0		0	19-	0
13-15	17,064	105	1		0	105-	1-
14-16	9,339	263	3		0	263-	3-

FIVE-YEAR AVERAGE

12-16	17,293	158	1		0	158-	1-
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MISSOURI GAS ENERGY

ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING STATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	601		0		0		0
2009	704		0		0		0
2010							
2011							
2012							
2013	5,320		0		0		0
2014	9,692		0		0		0
2015							
2016	1,361		0		0		0
TOTAL	17,677		0		0		0

THREE-YEAR MOVING AVERAGES

08-10	435		0		0		0
09-11	235		0		0		0
10-12							
11-13	1,773		0		0		0
12-14	5,004		0		0		0
13-15	5,004		0		0		0
14-16	3,684		0		0		0

FIVE-YEAR AVERAGE

12-16	3,274		0		0		0
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MISSOURI GAS ENERGY

ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	2,708		0		0		0
2009	686		0		0		0
2010	40,742	1,171	3		0	1,171-	3-
2011							
2012							
2013	8,268		0		0		0
2014							
2015							
2016							
TOTAL	52,404	1,171	2		0	1,171-	2-

THREE-YEAR MOVING AVERAGES

08-10	14,712	390	3		0	390-	3-
09-11	13,809	390	3		0	390-	3-
10-12	13,581	390	3		0	390-	3-
11-13	2,756		0		0		0
12-14	2,756		0		0		0
13-15	2,756		0		0		0
14-16							

FIVE-YEAR AVERAGE

12-16	1,654		0		0		0
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MISSOURI GAS ENERGY

ACCOUNT 392.10 TRANSPORTATION EQUIPMENT - AUTOS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	111,876		0	20,665	18	20,665	18
2011	136,828		0	171,603	125	171,603	125
2012	107,879		0	84,970	79	84,970	79
2013	300,697		0	144,128	48	144,128	48
2014	337,788		0	240,592	71	240,592	71
2015	638,711		0	170,763	27	170,763	27
2016	770,972		0	335,717	44	335,717	44
TOTAL	2,404,750		0	1,168,439	49	1,168,439	49

THREE-YEAR MOVING AVERAGES

10-12	118,861		0	92,413	78	92,413	78
11-13	181,801		0	133,567	73	133,567	73
12-14	248,788		0	156,564	63	156,564	63
13-15	425,732		0	185,161	43	185,161	43
14-16	582,490		0	249,024	43	249,024	43

FIVE-YEAR AVERAGE

12-16	431,209		0	195,234	45	195,234	45
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MISSOURI GAS ENERGY

ACCOUNT 392.20 TRANSPORTATION EQUIPMENT - TRUCKS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
2010	647,415		0	88,250	14	88,250	14
2011	233,688		0	78,215	33	78,215	33
2012	363,578		0	67,719	19	67,719	19
2013	182,981		0	97,403	53	97,403	53
2014	222,546		0	41,150	18	41,150	18
2015	339,982		0	72,999	21	72,999	21
2016	417,238		0	131,581	32	131,581	32
TOTAL	2,407,428		0	577,317	24	577,317	24

THREE-YEAR MOVING AVERAGES

10-12	414,894		0	78,061	19	78,061	19
11-13	260,082		0	81,112	31	81,112	31
12-14	256,368		0	68,757	27	68,757	27
13-15	248,503		0	70,517	28	70,517	28
14-16	326,589		0	81,910	25	81,910	25

FIVE-YEAR AVERAGE

12-16	305,265		0	82,170	27	82,170	27
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MISSOURI GAS ENERGY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2008	72,983		0	17,800	24	17,800	24
2009	8,438		0	5,845	69	5,845	69
2010	64,621		0		0		0
2011	61,904		0	29,253	47	29,253	47
2012							
2013	70,146		0	20,348	29	20,348	29
2014	32,010		0	35,298	110	35,298	110
2015	72,468		0	24,980	34	24,980	34
2016	7,188		0	8,374	116	8,374	116
TOTAL	389,760		0	141,898	36	141,898	36

THREE-YEAR MOVING AVERAGES

08-10	48,681		0	7,882	16	7,882	16
09-11	44,988		0	11,699	26	11,699	26
10-12	42,175		0	9,751	23	9,751	23
11-13	44,017		0	16,534	38	16,534	38
12-14	34,052		0	18,549	54	18,549	54
13-15	58,208		0	26,875	46	26,875	46
14-16	37,222		0	22,884	61	22,884	61

FIVE-YEAR AVERAGE

12-16	36,362		0	17,800	49	17,800	49
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**PART IX. DETAILED DEPRECIATION  
CALCULATIONS**

MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1928	93.00	87	93			
1929	145.45	136	145			
1930	757.94	707	758			
1931	365.00	339	365			
1932	3,633.10	3,362	3,633			
1933	31.50	29	32			
1934	2.00	2	2			
1935	1.00	1	1			
1936	7,582.63	6,893	7,583			
1937	897.00	812	897			
1938	59.85	54	60			
1939	18.00	16	18			
1940	57.45	51	57			
1941	452.15	400	452			
1942	1,483.71	1,307	1,484			
1943	6.00	5	6			
1945	137.80	119	138			
1946	199.80	171	200			
1947	18,382.64	15,631	18,383			
1948	28.85	24	29			
1949	9,403.71	7,862	9,404			
1950	8,135.53	6,740	8,136			
1951	1,030.18	845	1,030			
1952	2,140.39	1,738	2,140			
1953	1,476.80	1,187	1,477			
1954	2,870.29	2,281	2,870			
1955	419.92	330	420			
1956	186.76	145	187			
1957	2,547.25	1,953	2,547			
1958	2,842.26	2,152	2,842			
1959	497.91	372	498			
1960	6,506.48	4,797	6,485	21	18.39	1
1961	13,105.80	9,530	12,884	222	19.10	12
1962	32,522.30	23,318	31,525	997	19.81	50
1963	3,787.50	2,676	3,618	170	20.54	8
1964	11,939.75	8,310	11,235	705	21.28	33
1965	1,077.75	739	999	79	22.03	4
1966	18,797.18	12,680	17,143	1,654	22.78	73
1967	34,824.63	23,109	31,242	3,583	23.55	152
1968	24,097.93	15,722	21,255	2,843	24.33	117
1969	7,792.99	4,996	6,754	1,039	25.12	41
1970	580.60	366	495	86	25.93	3
1971	26,279.44	16,241	21,957	4,322	26.74	162

MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1973	21.95	13	18	4	28.39	
1974	9,249.20	5,387	7,283	1,966	29.23	67
1975	53,057.24	30,250	40,896	12,161	30.09	404
1976	10,655.67	5,944	8,036	2,620	30.95	85
1977	741.11	404	546	195	31.82	6
1978	1,718.00	915	1,237	481	32.70	15
1979	1,565.25	814	1,100	465	33.59	14
1980	40.00	20	27	13	34.48	
1981	13,781.60	6,814	9,212	4,570	35.39	129
1982	5,251.76	2,528	3,418	1,834	36.30	51
1985	8,172.97	3,611	4,882	3,291	39.07	84
1986	28,627.47	12,265	16,582	12,045	40.01	301
1987	3,055.36	1,268	1,714	1,341	40.95	33
1988	5,600.00	2,248	3,039	2,561	41.90	61
1989	18,884.76	7,322	9,899	8,986	42.86	210
1990	60,719.88	22,718	30,714	30,006	43.81	685
1991	42,834.87	15,433	20,865	21,970	44.78	491
1992	2,316.02	803	1,086	1,230	45.74	27
1993	35,958.79	11,964	16,175	19,784	46.71	424
1994	30,094.84	9,596	12,973	17,122	47.68	359
1995	98,798.93	30,120	40,721	58,078	48.66	1,194
1996	78,060.73	22,705	30,696	47,365	49.64	954
1997	36,036.97	9,977	13,488	22,549	50.62	445
1998	78,980.00	20,761	28,068	50,912	51.60	987
1999	86,292.16	21,462	29,015	57,277	52.59	1,089
2000	37,178.10	8,726	11,797	25,381	53.57	474
2001	166,207.44	36,660	49,562	116,645	54.56	2,138
2002	26,545.17	5,480	7,409	19,136	55.55	344
2003	190,798.90	36,689	49,602	141,197	56.54	2,497
2004	195,675.77	34,830	47,088	148,588	57.54	2,582
2005	46,718.80	7,655	10,349	36,370	58.53	621
2006	523,329.13	78,348	105,922	417,407	59.52	7,013
2007	4,073.00	552	746	3,327	60.52	55
2008	7,510.00	910	1,230	6,280	61.52	102
2009	43,679.25	4,674	6,319	37,360	62.51	598
2010	101,109.32	9,374	12,674	88,435	63.51	1,392
2011	198,061.65	15,534	21,001	177,061	64.51	2,745
2012	13,366.84	857	1,159	12,208	65.51	186



MISSOURI GAS ENERGY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
2013	19,674.73	984	1,330	18,345	66.50	276
2014	2,865.77	102	138	2,728	67.50	40
2016	88,848.03	634	857	87,991	69.50	1,266
	2,623,355.65	665,586	890,352	1,733,003		31,100
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						55.7 1.19

MISSOURI GAS ENERGY

ACCOUNT 375.20 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0						
NET SALVAGE PERCENT.. -5						
1930	6,751.04	7,089	7,089			
1955	1,975.00	1,887	1,047	1,027	3.15	326
1962	139,396.24	122,027	67,737	78,629	5.82	13,510
1963	618.03	534	296	353	6.21	57
1972	1,732.28	1,308	726	1,093	9.83	111
1973	20,383.73	15,135	8,401	13,002	10.25	1,268
1974	10,569.65	7,715	4,283	6,815	10.67	639
1975	4,033.04	2,893	1,606	2,629	11.09	237
1976	4,797.71	3,381	1,877	3,161	11.51	275
1979	342,804.97	228,205	126,677	233,268	12.81	18,210
1980	3,830.67	2,500	1,388	2,634	13.25	199
1984	6,519.07	3,902	2,166	4,679	15.05	311
1985	12,624.77	7,382	4,098	9,158	15.51	590
1988	27,116.44	14,708	8,164	20,308	16.92	1,200
1989	12,827.87	6,773	3,760	9,709	17.40	558
1990	21,794.10	11,187	6,210	16,674	17.89	932
1991	2,358.88	1,176	653	1,824	18.38	99
1992	3,906.88	1,889	1,049	3,053	18.88	162
1996	686.72	289	160	561	20.96	27
1997	397,965.92	161,296	89,536	328,328	21.49	15,278
1998	313,203.70	121,775	67,597	261,267	22.04	11,854
1999	14,766.00	5,493	3,049	12,455	22.60	551
2000	16,064.29	5,706	3,167	13,701	23.16	592
2001	6,238.29	2,107	1,170	5,380	23.74	227
2002	24,407.88	7,813	4,337	21,291	24.33	875
2003	16,795.92	5,074	2,817	14,819	24.93	594
2004	1,985,362.81	562,850	312,438	1,772,193	25.55	69,362
2005	218,046.91	57,762	32,064	196,885	26.17	7,523
2006	53,027.30	13,013	7,224	48,455	26.82	1,807
2007	4,573,514.38	1,031,799	572,752	4,229,438	27.48	153,910
2008	27,556.74	5,655	3,139	25,796	28.16	916
2009	847,453.03	156,102	86,652	803,174	28.86	27,830
2010	347,861.85	56,666	31,455	333,800	29.57	11,288
2011	1,930,267.26	271,001	150,433	1,876,348	30.32	61,885
2012	315,772.31	37,039	20,561	311,000	31.09	10,003
2013	137,681.64	12,846	7,131	137,435	31.89	4,310
2014	125,132.25	8,559	4,751	126,638	32.72	3,870
2015	500,140.12	21,158	11,745	513,402	33.59	15,284
2016	114,399.75	1,682	933	119,186	34.51	3,454
	12,590,385.44	2,985,376	1,660,338	11,559,566		440,124

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 26.3 3.50

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2						
NET SALVAGE PERCENT.. -30						
1905	3,464.44	4,182	4,504			
1907	154.92	185	201			
1909	1,175.79	1,394	1,529			
1922	137,651.14	153,357	178,946			
1923	3,684.34	4,084	4,790			
1924	623.95	688	811			
1925	7,787.03	8,540	10,123			
1926	1,591.07	1,735	2,068			
1927	541,769.64	587,591	704,301			
1928	245,148.45	264,378	318,693			
1929	36,641.94	39,285	47,635			
1930	203,534.74	216,891	264,595			
1931	96,326.79	102,022	125,225			
1932	83,773.00	88,166	108,905			
1933	3,781.42	3,954	4,913	3	13.69	
1934	2,884.19	2,996	3,723	26	14.06	2
1935	7,940.90	8,194	10,181	142	14.44	10
1936	95,891.44	98,249	122,075	2,584	14.83	174
1937	266,542.72	271,165	336,924	9,582	15.22	630
1938	17,635.01	17,810	22,129	797	15.62	51
1939	617,414.86	618,835	768,906	33,733	16.03	2,104
1940	55,925.14	55,618	69,106	3,597	16.45	219
1941	92,021.41	90,781	112,796	6,832	16.88	405
1942	145,991.67	142,856	177,499	12,290	17.31	710
1943	11,260.25	10,926	13,576	1,062	17.75	60
1944	21,506.37	20,689	25,706	2,252	18.20	124
1945	42,104.96	40,145	49,880	4,856	18.66	260
1946	153,269.31	144,797	179,911	19,339	19.13	1,011
1947	442,062.63	413,771	514,113	60,568	19.60	3,090
1948	139,836.80	129,615	161,047	20,741	20.09	1,032
1949	486,268.88	446,298	554,528	77,622	20.58	3,772
1950	537,426.34	488,262	606,668	91,986	21.08	4,364
1951	784,384.99	705,194	876,208	143,492	21.59	6,646
1952	493,788.39	439,167	545,668	96,257	22.11	4,354
1953	573,018.08	503,993	626,214	118,710	22.64	5,243
1954	1,062,920.29	924,422	1,148,600	233,196	23.17	10,065
1955	781,720.47	672,027	834,997	181,240	23.71	7,644
1956	1,077,990.77	915,513	1,137,530	263,858	24.27	10,872
1957	1,129,454.20	947,473	1,177,241	291,049	24.83	11,722
1958	1,883,172.71	1,559,798	1,938,058	510,067	25.40	20,081
1959	1,986,162.56	1,624,085	2,017,935	564,076	25.97	21,720
1960	1,963,030.84	1,583,657	1,967,703	584,237	26.56	21,997
1961	2,166,833.55	1,724,327	2,142,486	674,398	27.15	24,840

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2						
NET SALVAGE PERCENT.. -30						
1962	2,742,580.35	2,151,941	2,673,799	891,555	27.75	32,128
1963	4,509,446.23	3,487,236	4,332,911	1,529,369	28.36	53,927
1964	2,526,061.89	1,924,814	2,391,593	892,287	28.97	30,800
1965	1,751,268.07	1,313,945	1,632,584	644,064	29.60	21,759
1966	2,167,221.02	1,600,670	1,988,842	828,545	30.23	27,408
1967	1,710,905.40	1,243,315	1,544,826	679,351	30.87	22,007
1968	2,772,000.77	1,981,476	2,461,996	1,141,605	31.51	36,230
1969	1,661,599.18	1,167,371	1,450,465	709,614	32.17	22,058
1970	1,284,001.33	886,346	1,101,290	567,912	32.83	17,299
1971	4,863,499.23	3,296,767	4,096,252	2,226,297	33.50	66,457
1972	1,424,697.25	948,019	1,177,919	674,187	34.17	19,730
1973	1,956,947.01	1,277,460	1,587,252	956,779	34.85	27,454
1974	1,648,682.50	1,055,119	1,310,992	832,295	35.54	23,419
1975	3,264,341.02	2,046,667	2,542,996	1,700,647	36.24	46,927
1976	2,230,018.48	1,369,180	1,701,214	1,197,810	36.94	32,426
1977	1,673,053.64	1,005,141	1,248,894	926,076	37.65	24,597
1978	2,148,808.74	1,262,640	1,568,838	1,224,613	38.36	31,924
1979	2,274,583.08	1,305,704	1,622,345	1,334,613	39.09	34,142
1980	1,164,085.28	652,676	810,954	702,357	39.81	17,643
1981	1,286,216.33	703,461	874,054	798,027	40.55	19,680
1982	2,091,272.15	1,115,029	1,385,430	1,333,224	41.29	32,289
1983	773,827.97	401,958	499,435	506,541	42.03	12,052
1984	1,098,996.42	555,348	690,023	738,672	42.79	17,263
1985	2,631,450.93	1,293,095	1,606,678	1,814,208	43.54	41,668
1986	2,601,165.57	1,241,016	1,541,970	1,839,545	44.31	41,515
1987	2,754,523.46	1,274,793	1,583,938	1,996,942	45.08	44,298
1988	2,555,425.81	1,146,108	1,424,046	1,898,008	45.85	41,396
1989	2,907,581.55	1,261,943	1,567,972	2,211,884	46.63	47,435
1990	2,377,185.00	996,851	1,238,593	1,851,748	47.42	39,050
1991	3,879,975.46	1,570,137	1,950,904	3,093,064	48.21	64,158
1992	1,103,407.28	430,128	534,437	899,992	49.01	18,363
1993	2,226,392.27	834,806	1,037,251	1,857,059	49.81	37,283
1994	5,537,366.40	1,992,998	2,476,312	4,722,264	50.62	93,289
1995	5,679,593.47	1,958,761	2,433,772	4,949,700	51.43	96,241
1996	5,457,991.28	1,799,178	2,235,489	4,859,900	52.25	93,012
1997	6,581,826.27	2,069,445	2,571,297	5,985,077	53.07	112,777
1998	4,998,551.84	1,494,567	1,857,008	4,641,109	53.90	86,106
1999	3,777,910.36	1,071,347	1,331,155	3,580,128	54.73	65,414
2000	3,582,206.20	959,967	1,192,765	3,464,103	55.57	62,338
2001	6,030,473.34	1,521,983	1,891,073	5,948,542	56.41	105,452
2002	3,344,223.34	791,852	983,881	3,363,609	57.25	58,753
2003	2,449,920.45	540,987	672,179	2,512,718	58.11	43,241
2004	3,509,220.11	719,471	893,947	3,668,039	58.96	62,212

MISSOURI GAS ENERGY

ACCOUNT 376.10 MAINS - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2						
NET SALVAGE PERCENT.. -30						
2005	3,504,109.10	662,483	823,139	3,732,203	59.82	62,391
2006	7,405,380.39	1,281,738	1,592,567	8,034,428	60.68	132,407
2007	3,698,266.62	580,343	721,080	4,086,667	61.55	66,396
2008	4,148,854.39	583,254	724,696	4,668,815	62.43	74,785
2009	5,533,369.85	688,478	855,438	6,337,943	63.30	100,125
2010	6,669,361.21	720,838	895,645	7,774,525	64.18	121,136
2011	8,731,644.52	799,461	993,335	10,357,803	65.07	159,179
2012	9,400,531.78	705,256	876,285	11,344,406	65.96	171,989
2013	9,112,281.80	533,068	662,340	11,183,626	66.85	167,294
2014	11,271,015.53	473,123	587,858	14,064,462	67.74	207,624
2015	1,989,647.10	50,256	62,443	2,524,098	68.64	36,773
2016	1,073,735.87	8,975	11,152	1,384,705	69.55	19,909
	213,954,270.28	80,886,104	100,444,196	177,696,356		3,406,830
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.2 1.59

MISSOURI GAS ENERGY

ACCOUNT 376.11 MAINS - STEEL - TRANSMISSION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. -30						
1951	278,595.45	240,484	309,907	52,267	26.88	1,944
1954	1,307.76	1,089	1,403	297	28.74	10
1955	318,260.47	261,793	337,368	76,371	29.38	2,599
1956	112,038.34	90,995	117,264	28,386	30.02	946
1960	238,806.89	183,593	236,593	73,856	32.69	2,259
1961	276,627.49	209,613	270,125	89,491	33.37	2,682
1964	480.31	348	448	176	35.47	5
1965	105,362.45	75,026	96,685	40,286	36.18	1,113
1969	9,673.23	6,429	8,285	4,290	39.10	110
1972	88,671.12	55,677	71,750	43,522	41.36	1,052
1973	58,720.53	36,145	46,579	29,758	42.12	707
1974	91,251.98	55,029	70,915	47,713	42.89	1,112
1977	13,796.86	7,793	10,043	7,893	45.24	174
1978	22,776.75	12,573	16,203	13,407	46.03	291
1981	27,741.90	14,223	18,329	17,735	48.45	366
1982	315,946.81	157,823	203,384	207,347	49.26	4,209
1984	3,246.85	1,535	1,978	2,243	50.91	44
1985	255,136.84	117,165	150,988	180,690	51.74	3,492
1996	1,328,604.62	406,096	523,328	1,203,858	61.19	19,674
2000	120,406.94	29,838	38,452	118,077	64.75	1,824
2002	0.01					
2003	357,205.91	72,790	93,803	370,565	67.46	5,493
2005	395,324.84	68,804	88,666	425,256	69.29	6,137
2006	317,601.25	50,578	65,179	347,703	70.20	4,953
2007	125,539.67	18,115	23,345	139,857	71.12	1,966
2008	109,153.07	14,102	18,173	123,726	72.05	1,717
2009	119,970.80	13,706	17,663	138,299	72.97	1,895
2010	287,526.22	28,501	36,729	337,055	73.90	4,561
2012	860,779.11	59,173	76,255	1,042,758	75.77	13,762
2013	475,503.41	25,499	32,860	585,294	76.70	7,631
2014	158,029.95	6,060	7,809	197,630	77.64	2,545
2015	1,853,621.04	42,772	55,119	2,354,588	78.58	29,964
2016	1,297,080.31	9,915	12,778	1,673,427	79.53	21,041
	10,024,789.18	2,373,282	3,058,406	9,973,820		146,278
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						68.2 1.46

MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 65-S2.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. -100						
1922	691,558.02	1,269,369	532,313	850,803	5.34	159,326
1923	64,459.55	118,135	49,540	79,379	5.43	14,619
1924	156,383.29	286,213	120,024	192,743	5.51	34,981
1925	154,734.52	282,759	118,576	190,893	5.60	34,088
1926	97,305.62	177,565	74,462	120,149	5.68	21,153
1927	83,110.25	151,450	63,511	102,710	5.76	17,832
1928	72,343.75	131,645	55,206	89,482	5.84	15,322
1929	97,292.10	176,793	74,139	120,445	5.92	20,345
1930	132,026.39	239,570	100,464	163,589	6.00	27,265
1931	23,801.79	43,127	18,085	29,519	6.08	4,855
1932	3,949.26	7,147	2,997	4,902	6.15	797
1933	9,997.36	18,065	7,576	12,419	6.23	1,993
1934	4,959.21	8,949	3,753	6,165	6.30	979
1935	12,189.85	21,968	9,212	15,168	6.37	2,381
1936	15,695.95	28,243	11,844	19,548	6.45	3,031
1937	22,838.14	41,039	17,210	28,466	6.52	4,366
1938	17,812.91	31,964	13,404	22,222	6.59	3,372
1939	124,410.55	222,929	93,486	155,335	6.66	23,324
1940	10,749.40	19,234	8,066	13,433	6.73	1,996
1941	13,884.55	24,811	10,405	17,364	6.79	2,557
1942	4,013.75	7,161	3,003	5,024	6.86	732
1943	82.47	147	62	103	6.93	15
1944	6,757.39	12,021	5,041	8,474	6.99	1,212
1945	13,169.78	23,390	9,809	16,531	7.06	2,342
1946	40,570.18	71,936	30,166	50,974	7.13	7,149
1947	44,102.35	78,077	32,742	55,463	7.19	7,714
1948	46,821.63	82,760	34,705	58,938	7.25	8,129
1949	29,203.09	51,525	21,607	36,799	7.32	5,027
1950	21,328.57	37,567	15,754	26,903	7.38	3,645
1951	48,316.04	84,953	35,625	61,007	7.44	8,200
1952	36,601.96	64,240	26,939	46,265	7.50	6,169
1953	92,628.25	162,266	68,046	117,210	7.56	15,504
1954	44,617.71	78,010	32,714	56,521	7.62	7,417
1955	22,867.86	39,901	16,732	29,004	7.68	3,777
1956	6,856.91	11,939	5,007	8,707	7.74	1,125
1957	4,181.65	7,265	3,047	5,316	7.80	682
1958	192.87	334	140	246	7.85	31
1962	12,439.45	21,359	8,957	15,922	8.07	1,973

MISSOURI GAS ENERGY

ACCOUNT 376.20 MAINS - CAST IRON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 65-S2.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. -100						
1963	3,546.16	6,072	2,546	4,546	8.13	559
1964	16,776.79	28,646	12,012	21,542	8.18	2,633
1965	2,077.83	3,538	1,484	2,672	8.23	325
	2,306,655.15	4,174,082	1,750,411	2,862,899		478,942
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.0						20.76



MISSOURI GAS ENERGY

ACCOUNT 376.21 MAINS - CAST IRON ENCAPSULATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 65-S2.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. 0						
1992	163.18	119	50	113	9.13	12
1993	1,684,602.62	1,211,128	507,889	1,176,714	9.14	128,743
1994	942,566.17	669,297	280,671	661,895	9.15	72,338
1995	1,389,276.26	972,813	407,951	981,325	9.17	107,015
1996	723,588.47	499,254	209,363	514,225	9.18	56,016
1997	1,021,832.06	693,947	291,008	730,824	9.19	79,524
1998	1,118,576.72	746,930	313,227	805,350	9.19	87,633
1999	1,193,319.19	781,672	327,796	865,523	9.20	94,079
2000	1,257,604.48	806,741	338,309	919,295	9.21	99,815
2001	1,073,562.59	672,823	282,150	791,413	9.22	85,837
2002	1,502,946.31	918,496	385,174	1,117,772	9.22	121,233
2003	1,505,172.77	893,696	374,774	1,130,399	9.23	122,470
2004	1,177,714.64	677,245	284,004	893,711	9.23	96,827
2005	1,145,378.87	635,399	266,456	878,923	9.23	95,225
2006	1,119,417.36	595,429	249,695	869,722	9.24	94,126
2007	1,545,669.61	783,562	328,589	1,217,081	9.24	131,719
2008	1,468,336.27	703,539	295,031	1,173,305	9.24	126,981
2009	1,445,794.40	647,759	271,639	1,174,155	9.24	127,073
2010	2,389,649.39	986,208	413,569	1,976,080	9.25	213,630
2011	1,913,472.75	713,496	299,206	1,614,267	9.25	174,515
2012	1,583,745.17	518,312	217,355	1,366,390	9.25	147,718
2013	1,170,352.86	321,274	134,727	1,035,626	9.25	111,960
2014	979,696.30	208,450	87,414	892,282	9.25	96,463
2015	1,418,202.57	197,882	82,983	1,335,220	9.25	144,348
2016	1,631,696.05	83,673	35,088	1,596,608	9.25	172,606
	32,402,337.06	15,939,144	6,684,118	25,718,219		2,787,906

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.2 8.60

MISSOURI GAS ENERGY

ACCOUNT 376.30 MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. -40						
1961	42.21	43	42	17	18.23	1
1968	68.19	62	61	34	22.76	1
1971	5,841.27	5,049	4,930	3,248	24.87	131
1972	152,225.70	129,214	126,167	86,949	25.59	3,398
1973	359,277.21	299,238	292,181	210,807	26.33	8,006
1974	580,251.24	474,040	462,861	349,491	27.07	12,911
1975	699,683.89	560,307	547,094	432,463	27.82	15,545
1976	689,854.81	541,146	528,384	437,413	28.58	15,305
1977	559,404.18	429,535	419,405	363,761	29.35	12,394
1978	1,039,791.81	780,929	762,513	693,196	30.13	23,007
1979	891,224.53	654,376	638,944	608,770	30.91	19,695
1980	818,550.86	586,909	573,068	572,903	31.71	18,067
1981	806,849.02	564,625	551,310	578,279	32.51	17,788
1982	858,557.97	585,822	572,007	629,974	33.32	18,907
1983	525,820.45	349,501	341,259	394,890	34.14	11,567
1984	1,500,621.03	970,917	948,020	1,152,849	34.96	32,976
1985	2,133,529.00	1,341,823	1,310,179	1,676,762	35.80	46,837
1986	2,284,057.25	1,395,180	1,362,278	1,835,402	36.64	50,093
1987	3,082,498.67	1,826,448	1,783,376	2,532,122	37.49	67,541
1988	3,475,572.15	1,995,708	1,948,644	2,917,157	38.34	76,087
1989	3,854,614.13	2,141,153	2,090,659	3,305,801	39.21	84,310
1990	3,811,999.13	2,046,022	1,997,772	3,339,027	40.08	83,309
1991	4,121,943.11	2,135,167	2,084,814	3,685,906	40.95	90,010
1992	2,366,966.47	1,181,220	1,153,364	2,160,389	41.83	51,647
1993	6,804,587.46	3,265,372	3,188,366	6,338,056	42.72	148,363
1994	8,593,576.41	3,957,239	3,863,917	8,167,090	43.62	187,233
1995	9,764,098.73	4,307,061	4,205,490	9,464,248	44.52	212,584
1996	7,566,392.70	3,189,325	3,114,113	7,478,837	45.43	164,623
1997	9,562,140.54	3,843,139	3,752,508	9,634,489	46.34	207,909
1998	8,906,926.23	3,403,230	3,322,973	9,146,724	47.26	193,540
1999	8,842,443.01	3,203,423	3,127,878	9,251,542	48.18	192,020
2000	11,214,964.17	3,838,254	3,747,738	11,953,212	49.11	243,397
2001	11,375,404.57	3,662,880	3,576,500	12,349,066	50.05	246,735
2002	6,104,271.46	1,842,001	1,798,562	6,747,418	50.99	132,328
2003	8,150,571.90	2,294,484	2,240,374	9,170,427	51.93	176,592
2004	8,654,462.40	2,259,195	2,205,918	9,910,329	52.88	187,412
2005	9,016,439.77	2,169,265	2,118,108	10,504,908	53.83	195,150
2006	10,122,009.41	2,228,077	2,175,533	11,995,280	54.78	218,972
2007	7,905,182.31	1,576,641	1,539,460	9,527,795	55.74	170,933
2008	6,579,296.53	1,174,773	1,147,069	8,063,946	56.71	142,196
2009	10,103,500.90	1,595,121	1,557,504	12,587,397	57.67	218,266
2010	8,073,431.73	1,105,979	1,079,897	10,222,907	58.64	174,333
2011	8,736,946.49	1,014,255	990,337	11,241,388	59.61	188,582

MISSOURI GAS ENERGY

ACCOUNT 376.30 MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R3						
NET SALVAGE PERCENT.. -40						
2012	8,935,088.32	848,744	828,729	11,680,395	60.59	192,778
2013	8,819,254.34	653,401	637,992	11,708,964	61.56	190,204
2014	14,128,555.10	748,672	731,016	19,048,961	62.54	304,588
2015	31,620,611.98	1,008,002	984,231	43,284,626	63.52	681,433
2016	18,563,143.66	195,953	191,332	25,797,069	64.51	399,893
	282,762,544.40	74,378,920	72,624,877	323,242,685		6,129,597
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.7 2.17

MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R0.5						
NET SALVAGE PERCENT.. -10						
1905	41.52	46	46			
1907	72.29	80	80			
1909	294.00	323	323			
1911	926.77	1,019	1,019			
1912	123.00	135	135			
1924	450.00	495	495			
1925	1,137.00	1,251	1,251			
1926	318.00	350	350			
1927	702.00	768	772			
1928	6,023.90	6,516	6,626			
1929	573.12	613	630			
1930	792.96	839	872			
1931	13,939.41	14,591	15,333			
1933	17.00	17	19			
1934	298.00	302	328			
1935	1,119.82	1,122	1,232			
1936	1,567.46	1,553	1,724			
1937	3,055.18	2,995	3,361			
1938	1.03	1	1			
1939	2,999.47	2,879	3,299			
1941	540.50	508	595			
1942	1,103.12	1,026	1,213			
1943	1,853.86	1,706	2,039			
1944	368.07	335	405			
1945	123.74	111	136			
1946	938.66	836	1,033			
1947	1,942.41	1,712	2,137			
1948	4,707.69	4,104	5,178			
1949	2,501.74	2,156	2,752			
1950	6,097.21	5,196	6,707			
1951	9,309.87	7,844	10,241			
1952	7,034.13	5,858	7,738			
1953	9,746.04	8,019	10,721			
1954	9,348.42	7,600	10,283			
1955	7,553.58	6,066	8,309			
1956	4,139.97	3,283	4,554			
1957	4,559.15	3,570	5,015			
1958	6,481.66	5,008	7,130			
1959	32,418.06	24,716	35,660			
1960	40,721.30	30,629	44,793			
1961	57,997.22	43,013	63,797			
1962	10,248.50	7,493	11,185	88	15.09	6
1963	78,233.63	56,358	84,125	1,932	15.53	124

MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R0.5						
NET SALVAGE PERCENT.. -10						
1964	46,206.61	32,789	48,944	1,883	15.97	118
1965	59,646.80	41,671	62,202	3,409	16.42	208
1966	48,413.00	33,290	49,692	3,562	16.87	211
1967	17,244.72	11,668	17,417	1,552	17.32	90
1968	13,328.96	8,869	13,239	1,423	17.78	80
1969	22,440.58	14,674	21,904	2,781	18.25	152
1970	6,213.48	3,992	5,959	876	18.72	47
1971	52,755.31	33,284	49,683	8,348	19.19	435
1972	49,489.43	30,643	45,741	8,697	19.67	442
1973	137,998.70	83,826	125,127	26,672	20.15	1,324
1974	45,033.84	26,816	40,028	9,509	20.64	461
1975	57,337.79	33,442	49,919	13,153	21.14	622
1976	71,143.72	40,625	60,641	17,617	21.64	814
1977	76,137.05	42,545	63,507	20,244	22.14	914
1978	93,399.23	51,004	76,133	26,606	22.66	1,174
1979	38,894.34	20,755	30,981	11,803	23.17	509
1980	22,799.02	11,876	17,727	7,352	23.69	310
1981	64,314.73	32,669	48,765	21,981	24.22	908
1982	75,901.62	37,571	56,082	27,410	24.75	1,107
1983	22,965.05	11,070	16,524	8,738	25.28	346
1984	42,532.09	19,941	29,766	17,019	25.82	659
1985	184,523.44	84,032	125,434	77,542	26.37	2,941
1986	149,696.52	66,160	98,757	65,909	26.92	2,448
1987	228,781.62	98,037	146,339	105,321	27.47	3,834
1988	238,506.43	98,937	147,683	114,674	28.03	4,091
1989	418,801.61	167,997	250,769	209,913	28.59	7,342
1990	476,529.72	184,512	275,420	248,763	29.16	8,531
1991	904,942.56	337,782	504,206	491,231	29.73	16,523
1992	662,500.41	238,061	355,353	373,397	30.30	12,323
1993	892,318.12	308,207	460,060	521,490	30.87	16,893
1994	556,241.65	184,239	275,013	336,853	31.45	10,711
1995	835,782.60	264,776	395,230	524,131	32.04	16,359
1996	418,767.57	126,728	189,166	271,478	32.62	8,322
1997	242,920.39	70,010	104,504	162,708	33.21	4,899
1998	444,994.71	121,830	181,855	307,639	33.80	9,102
1999	603,125.63	156,425	233,495	429,943	34.39	12,502
2000	344,635.76	84,414	126,004	253,095	34.98	7,235
2001	306,095.89	70,483	105,210	231,495	35.58	6,506
2002	212,746.99	45,920	68,545	165,477	36.17	4,575
2003	326,404.11	65,666	98,019	261,026	36.77	7,099
2004	263,532.51	49,153	73,371	216,515	37.37	5,794
2005	354,970.13	60,999	91,053	299,414	37.97	7,886
2006	425,872.79	66,938	99,918	368,542	38.57	9,555

MISSOURI GAS ENERGY

ACCOUNT 378.00 MEASURING AND REGULATING STATION - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R0.5						
NET SALVAGE PERCENT.. -10						
2007	236,587.61	33,658	50,241	210,005	39.18	5,360
2008	209,244.02	26,700	39,855	190,313	39.78	4,784
2009	538,238.87	60,651	90,534	501,529	40.39	12,417
2010	246,402.39	24,093	35,963	235,080	41.00	5,734
2011	228,526.23	18,936	28,266	223,113	41.61	5,362
2012	617,831.87	41,987	62,674	616,941	42.22	14,613
2013	593,241.63	31,323	46,756	605,810	42.84	14,141
2014	366,414.24	13,881	20,720	382,336	43.45	8,799
2015	113,481.15	2,580	3,851	120,978	44.07	2,745
2016	196,218.31	1,487	2,219	213,621	44.69	4,780
	14,235,494.01	4,092,664	6,080,106	9,578,937		275,267
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						34.8 1.93

MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. -5						
1930	685.45	700	720			
1931	1,070.85	1,084	1,124			
1932	538.64	541	566			
1933	52.94	53	56			
1935	851.00	835	894			
1937	197.00	190	207			
1939	117.81	112	124			
1942	68.94	64	71	1	5.31	
1946	40.00	36	40	2	6.65	
1947	2,924.00	2,593	2,891	179	6.99	26
1949	558.10	486	542	44	7.68	6
1951	911.27	779	868	89	8.37	11
1952	2,688.23	2,276	2,537	286	8.72	33
1953	775.14	650	725	89	9.07	10
1954	67.92	56	62	9	9.42	1
1955	748.18	615	686	100	9.78	10
1957	21,630.29	17,412	19,410	3,302	10.50	314
1958	271.97	217	242	44	10.87	4
1959	5,376.11	4,235	4,721	924	11.24	82
1960	1,072.38	835	931	195	11.61	17
1961	189.11	146	163	36	11.98	3
1962	10,936.08	8,329	9,285	2,198	12.36	178
1963	7,617.76	5,734	6,392	1,607	12.74	126
1964	31,891.05	23,715	26,437	7,049	13.13	537
1965	12,406.98	9,113	10,159	2,868	13.52	212
1966	3,322.06	2,410	2,687	801	13.91	58
1967	38,511.17	27,578	30,743	9,694	14.31	677
1968	15,579.93	11,008	12,271	4,088	14.72	278
1969	9,953.47	6,937	7,733	2,718	15.13	180
1970	971.88	668	745	275	15.54	18
1971	18,774.37	12,721	14,181	5,532	15.96	347
1972	15,749.31	10,517	11,724	4,813	16.38	294
1973	8,295.83	5,457	6,083	2,628	16.81	156
1974	1,980.03	1,282	1,429	650	17.25	38
1975	11,516.55	7,339	8,181	3,911	17.69	221
1976	17,323.71	10,857	12,103	6,087	18.14	336
1977	4,096.05	2,524	2,814	1,487	18.59	80
1978	5,918.28	3,584	3,995	2,219	19.05	116
1979	15,518.14	9,226	10,285	6,009	19.52	308
1980	2,459.51	1,435	1,600	982	19.99	49
1981	13,367.32	7,651	8,529	5,507	20.47	269
1982	23,743.37	13,318	14,846	10,085	20.96	481
1983	1,879.40	1,032	1,150	823	21.46	38

MISSOURI GAS ENERGY

ACCOUNT 379.00 MEASURING AND REGULATING STATION - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S0.5						
NET SALVAGE PERCENT.. -5						
1984	898.63	483	538	406	21.96	18
1985	27,218.03	14,309	15,951	12,628	22.47	562
1986	37,686.93	19,346	21,566	18,005	23.00	783
1987	51,547.24	25,823	28,787	25,338	23.53	1,077
1988	16,235.53	7,929	8,839	8,208	24.07	341
1989	28,189.67	13,405	14,943	14,656	24.62	595
1990	69,723.48	32,244	35,945	37,265	25.18	1,480
1991	47,180.69	21,192	23,624	25,916	25.75	1,006
1992	39,732.58	17,309	19,296	22,423	26.33	852
1993	232,497.28	98,083	109,340	134,782	26.92	5,007
1994	120,186.31	49,019	54,645	71,551	27.52	2,600
1995	118,487.35	46,613	51,963	72,449	28.14	2,575
1996	500,160.42	189,528	211,280	313,888	28.76	10,914
1997	322,810.43	117,504	130,990	207,961	29.40	7,074
1998	251,909.32	87,874	97,959	166,546	30.05	5,542
1999	62,246.63	20,740	23,120	42,239	30.72	1,375
2000	92,362.98	29,310	32,674	64,307	31.40	2,048
2001	431,551.77	129,998	144,918	308,211	32.09	9,605
2002	98,528.32	28,048	31,267	72,188	32.80	2,201
2003	26,978.62	7,227	8,056	20,272	33.52	605
2004	23,622.53	5,920	6,599	18,205	34.26	531
2005	4,369.87	1,018	1,135	3,453	35.02	99
2006	36,258.81	7,792	8,686	29,386	35.79	821
2007	292,552.09	57,544	64,148	243,032	36.57	6,646
2008	132,855.52	23,621	26,332	113,166	37.38	3,027
2009	13,590.09	2,156	2,403	11,867	38.20	311
2010	1,321,181.25	183,726	204,813	1,182,427	39.04	30,288
2011	67,224.72	8,000	8,918	61,668	39.90	1,546
2012	887,597.27	87,401	97,432	834,545	40.78	20,465
2013	210,238.08	16,287	18,156	202,594	41.68	4,861
2014	27,186.62	1,522	1,697	26,849	42.60	630
2016	13,219.67	151	168	13,712	44.51	308
	5,918,676.31	1,567,472	1,747,140	4,467,470		131,307

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.0 2.22



MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R1.5						
NET SALVAGE PERCENT.. -100						
1901	19.85	40	40			
1908	52.03	104	104			
1909	7.92	16	16			
1910	52.20	104	104			
1911	1.26	3	3			
1912	6.30	13	13			
1915	3.06	6	6			
1916	7.92	16	16			
1922	27,957.12	55,914	55,914			
1923	3,309.29	6,619	6,619			
1924	6,089.23	12,178	12,178			
1925	4,192.49	8,385	8,385			
1926	3,848.77	7,698	7,698			
1927	222.30	445	445			
1928	2,514.23	5,028	5,028			
1929	311.46	623	623			
1931	2,069.52	4,139	4,139			
1932	1,532.56	3,065	3,065			
1933	1,072.40	2,145	2,145			
1934	1,184.06	2,368	2,368			
1935	1,220.25	2,440	2,440			
1936	823.63	1,647	1,647			
1937	1,697.07	3,368	2,482	912	0.31	912
1938	1,881.23	3,703	2,729	1,033	0.63	1,033
1939	4,434.77	8,657	6,380	2,490	0.96	2,490
1940	943.64	1,826	1,346	541	1.29	419
1941	281.13	539	397	165	1.63	101
1942	219.56	417	307	132	1.97	67
1943	352.09	664	489	215	2.29	94
1945	821.72	1,527	1,125	518	2.83	183
1946	2,256.59	4,167	3,071	1,442	3.07	470
1947	1,886.24	3,461	2,551	1,221	3.30	370
1948	2,283.54	4,165	3,070	1,497	3.52	425
1949	2,078.84	3,768	2,777	1,381	3.75	368
1950	12,835.10	23,116	17,037	8,633	3.98	2,169
1951	32,549.26	58,231	42,918	22,181	4.22	5,256
1952	7,645.52	13,582	10,010	5,281	4.47	1,181
1953	10,735.45	18,932	13,953	7,518	4.73	1,589
1954	17,716.82	31,013	22,857	12,577	4.99	2,520
1955	29,321.85	50,932	37,538	21,106	5.26	4,013
1956	27,379.85	47,175	34,769	19,991	5.54	3,608
1957	26,006.20	44,445	32,757	19,255	5.82	3,308
1958	37,182.19	63,024	46,450	27,914	6.10	4,576

MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R1.5						
NET SALVAGE PERCENT.. -100						
1959	47,125.96	79,172	58,352	35,900	6.40	5,609
1960	115,544.30	192,439	141,833	89,256	6.69	13,342
1961	52,383.77	86,433	63,703	41,065	7.00	5,866
1962	183,100.48	299,278	220,576	145,625	7.31	19,921
1963	55,236.72	89,428	65,911	44,562	7.62	5,848
1964	77,577.29	124,318	91,626	63,529	7.95	7,991
1965	87,136.82	138,199	101,856	72,418	8.28	8,746
1966	92,129.61	144,551	106,538	77,721	8.62	9,016
1967	96,068.59	149,050	109,854	82,283	8.97	9,173
1968	119,001.60	182,489	134,499	103,504	9.33	11,094
1969	106,562.91	161,443	118,988	94,138	9.70	9,705
1970	165,872.07	248,145	182,889	148,855	10.08	14,767
1971	203,599.98	300,615	221,561	185,639	10.47	17,731
1972	211,010.92	307,232	226,438	195,584	10.88	17,976
1973	118,843.71	170,541	125,693	111,994	11.30	9,911
1974	134,229.67	189,734	139,839	128,620	11.73	10,965
1975	109,521.37	152,399	112,322	106,721	12.17	8,769
1976	85,916.96	117,577	86,657	85,177	12.63	6,744
1977	152,967.06	205,741	151,637	154,297	13.10	11,778
1978	97,657.24	129,005	95,080	100,234	13.58	7,381
1979	97,174.49	125,987	92,856	101,493	14.07	7,213
1980	105,072.72	133,547	98,428	111,717	14.58	7,662
1981	130,789.25	162,833	120,012	141,566	15.10	9,375
1982	121,948.08	148,533	109,473	134,423	15.64	8,595
1983	94,481.03	112,480	82,901	106,061	16.19	6,551
1984	108,866.04	126,557	93,276	124,456	16.75	7,430
1985	148,623.35	168,539	124,218	173,029	17.32	9,990
1986	169,594.47	187,402	138,120	201,069	17.90	11,233
1987	83,622.21	89,894	66,254	100,990	18.50	5,459
1988	72,327.31	75,546	55,679	88,976	19.11	4,656
1989	128,258.01	130,054	95,853	160,663	19.72	8,147
1990	88,563.43	87,014	64,132	112,995	20.35	5,553
1991	125,260.64	119,060	87,750	162,771	20.99	7,755
1992	71,194.74	65,321	48,143	94,246	21.65	4,353
1993	45,576.31	40,312	29,711	61,442	22.31	2,754
1994	260,227.19	221,453	163,217	357,237	22.98	15,546
1995	202,801.21	165,689	122,117	283,485	23.66	11,982
1996	181,460.99	141,993	104,653	258,269	24.35	10,607
1997	113,235.84	84,700	62,426	164,046	25.04	6,551
1998	112,053.28	79,838	58,843	165,264	25.75	6,418
1999	156,845.60	106,184	78,260	235,431	26.46	8,898
2000	226,092.98	144,926	106,814	345,372	27.18	12,707
2001	102,298.98	61,840	45,578	159,020	27.91	5,698

MISSOURI GAS ENERGY

ACCOUNT 380.10 SERVICES - STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-R1.5						
NET SALVAGE PERCENT.. -100						
2002	85,065.50	48,275	35,580	134,551	28.65	4,696
2003	76,034.59	40,336	29,729	122,340	29.39	4,163
2004	80,308.46	39,592	29,180	131,437	30.14	4,361
2005	35,733.88	16,277	11,997	59,471	30.89	1,925
2006	115,204.75	48,098	35,449	194,960	31.65	6,160
2007	174,617.24	66,180	48,776	300,458	32.42	9,268
2008	63,505.35	21,624	15,938	111,073	33.19	3,347
2009	107,501.83	32,412	23,889	191,115	33.97	5,626
2010	109,542.77	28,700	21,153	197,933	34.76	5,694
2011	144,866.84	32,233	23,756	265,978	35.55	7,482
2012	94,741.22	17,338	12,779	176,703	36.34	4,862
2013	148,678.59	21,187	15,615	281,742	37.15	7,584
2014	153,449.66	15,729	11,593	295,306	37.95	7,781
2015	131,741.08	8,102	5,971	257,511	38.77	6,642
2016	179,302.24	3,676	2,709	355,895	39.59	8,990
	7,235,155.69	7,186,958	5,326,689	9,143,622		521,199
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.5 7.20

MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-R2						
NET SALVAGE PERCENT.. -40						
1958	453.86	573	614	21	3.84	5
1959	505.34	633	679	28	4.13	7
1960	6,858.86	8,514	9,126	476	4.42	108
1961	1,980.92	2,438	2,613	160	4.72	34
1962	5,074.50	6,192	6,637	467	5.01	93
1963	4,972.51	6,014	6,446	516	5.31	97
1964	7,033.08	8,427	9,033	813	5.62	145
1965	12,496.20	14,835	15,902	1,593	5.93	269
1966	18,041.71	21,210	22,735	2,523	6.25	404
1967	19,118.39	22,250	23,850	2,916	6.58	443
1968	41,802.77	48,139	51,601	6,923	6.92	1,000
1969	30,704.78	34,974	37,489	5,498	7.27	756
1970	82,995.67	93,432	100,151	16,043	7.64	2,100
1971	62,476.97	69,504	74,502	12,966	8.01	1,619
1972	249,169.98	273,705	293,389	55,449	8.40	6,601
1973	487,802.31	528,828	566,859	116,064	8.80	13,189
1974	777,955.35	831,654	891,463	197,674	9.22	21,440
1975	892,383.47	940,201	1,007,816	241,521	9.65	25,028
1976	1,283,365.87	1,331,867	1,427,649	369,063	10.09	36,577
1977	1,094,886.81	1,118,193	1,198,608	334,234	10.55	31,681
1978	956,976.35	960,854	1,029,954	309,813	11.03	28,088
1979	1,091,981.74	1,077,205	1,154,673	374,101	11.52	32,474
1980	1,781,255.05	1,724,533	1,848,553	645,204	12.03	53,633
1981	2,984,767.69	2,834,019	3,037,828	1,140,847	12.55	90,904
1982	3,531,154.42	3,285,626	3,521,913	1,421,703	13.08	108,693
1983	3,470,098.61	3,159,053	3,386,237	1,471,901	13.64	107,911
1984	3,678,544.83	3,274,861	3,510,374	1,639,589	14.20	115,464
1985	3,679,976.49	3,199,526	3,429,621	1,722,346	14.78	116,532
1986	5,720,170.75	4,850,110	5,198,907	2,809,332	15.38	182,661
1987	4,759,860.70	3,931,645	4,214,391	2,449,414	15.99	153,184
1988	5,584,359.46	4,488,373	4,811,156	3,006,947	16.61	181,032
1989	15,568,230.95	12,155,145	13,029,287	8,766,236	17.25	508,188
1990	14,291,584.36	10,825,046	11,603,533	8,404,685	17.90	469,535
1991	15,358,875.74	11,269,421	12,079,865	9,422,561	18.56	507,681
1992	14,545,556.84	10,317,716	11,059,718	9,304,062	19.24	483,579
1993	16,135,867.97	11,045,938	11,840,311	10,749,904	19.93	539,383
1994	15,208,007.11	10,028,799	10,750,024	10,541,186	20.63	510,964
1995	15,868,767.28	10,059,973	10,783,440	11,432,834	21.34	535,747
1996	15,310,523.41	9,310,391	9,979,951	11,454,782	22.06	519,256
1997	18,520,787.77	10,770,431	11,544,990	14,384,113	22.80	630,882
1998	16,033,845.63	8,898,367	9,538,296	12,909,088	23.54	548,389
1999	13,474,564.72	7,110,366	7,621,711	11,242,680	24.30	462,662
2000	14,590,722.92	7,301,431	7,826,516	12,600,496	25.06	502,813

MISSOURI GAS ENERGY

ACCOUNT 380.20 SERVICES - PLASTIC AND COPPER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 39-R2						
NET SALVAGE PERCENT.. -40						
2001	7,862,746.76	3,714,487	3,981,616	7,026,229	25.84	271,913
2002	8,800,467.73	3,907,865	4,188,900	8,131,755	26.63	305,361
2003	9,471,208.85	3,937,068	4,220,204	9,039,488	27.42	329,668
2004	11,905,171.45	4,602,658	4,933,660	11,733,580	28.23	415,642
2005	11,042,125.88	3,947,913	4,231,829	11,227,147	29.04	386,610
2006	11,108,470.21	3,640,690	3,902,511	11,649,347	29.87	390,002
2007	10,620,297.79	3,164,296	3,391,857	11,476,560	30.70	373,829
2008	9,265,648.11	2,481,266	2,659,707	10,312,200	31.54	326,956
2009	8,564,881.46	2,032,326	2,178,482	9,812,352	32.39	302,944
2010	8,396,973.04	1,733,270	1,857,919	9,897,843	33.25	297,679
2011	9,283,079.31	1,629,477	1,746,661	11,249,650	34.11	329,805
2012	7,683,588.41	1,106,037	1,185,578	9,571,446	34.99	273,548
2013	7,092,964.26	796,994	854,310	9,075,840	35.87	253,020
2014	12,078,396.28	975,524	1,045,679	15,864,076	36.75	431,676
2015	15,751,214.59	763,430	818,333	21,233,367	37.65	563,967
2016	12,561,742.31	202,948	217,543	17,368,897	38.55	450,555
	388,715,536.58	195,876,661	209,963,200	334,238,552		13,234,426
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.3 3.40

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 28-01						
NET SALVAGE PERCENT.. +4						
1900	256.28	246	246			
1901	1.47	1	1			
1907	10.05	10	10			
1908	6.11	6	6			
1913	1.09	1	1			
1915	0.94	1	1			
1916	0.13					
1917	0.06					
1918	2.64	3	3			
1919	4.06	4	4			
1920	8.44	8	8			
1921	2.67	3	3			
1922	2.32	2	2			
1923	1.89	2	2			
1924	2.08	2	2			
1925	4.59	4	4			
1926	1.91	2	2			
1927	20.69	20	20			
1928	1.16	1	1			
1929	1.72	2	2			
1930	510.81	490	490			
1931	64.37	62	62			
1932	104.78	101	101			
1934	78.27	75	75			
1935	98.53	95	95			
1936	122.48	118	118			
1937	500.56	481	481			
1938	181.36	174	174			
1939	192.18	184	184			
1940	5.24	5	5			
1941	209.10	201	201			
1942	66.14	63	63			
1943	163.11	157	157			
1944	50.90	49	49			
1945	348.25	334	334			
1946	4,847.21	4,653	4,653			
1947	126.89	122	122			
1948	529.49	508	508			
1949	537.53	516	516			
1950	1,714.36	1,646	1,646			
1951	17,839.55	17,126	17,126			
1952	1,986.14	1,907	1,907			
1953	3,925.56	3,769	3,769			

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 28-01						
NET SALVAGE PERCENT.. +4						
1954	6,053.54	5,811	5,811			
1955	7,422.21	7,125	7,125			
1956	16,194.97	15,547	15,547			
1957	34,353.99	32,980	32,980			
1958	6,835.33	6,562	6,562			
1959	22,139.59	21,254	21,254			
1960	15,352.69	14,739	14,739			
1961	24,212.03	23,036	11,290	11,954	0.25	11,954
1962	93,067.99	86,952	42,615	46,730	0.75	46,730
1963	119,636.56	109,724	53,776	61,075	1.25	48,860
1964	144,824.82	130,342	63,880	75,152	1.75	42,944
1965	133,856.37	118,176	57,918	70,584	2.25	31,371
1966	100,724.28	87,199	42,736	53,959	2.75	19,621
1967	146,393.81	124,226	60,883	79,655	3.25	24,509
1968	101,222.38	84,159	41,246	55,927	3.75	14,914
1969	94,100.50	76,624	37,553	52,783	4.25	12,420
1970	185,578.79	147,933	72,502	105,654	4.75	22,243
1971	189,304.35	147,657	72,366	109,366	5.25	20,832
1972	141,940.67	108,280	53,068	83,195	5.75	14,469
1973	138,070.74	102,962	50,462	82,086	6.25	13,134
1974	246,466.25	179,569	88,007	148,601	6.75	22,015
1975	14,993.47	10,667	5,228	9,166	7.25	1,264
1976	59,471.48	41,290	20,236	36,857	7.75	4,756
1977	98,146.86	66,460	32,572	61,649	8.25	7,473
1978	151,467.41	99,968	48,994	96,415	8.75	11,019
1979	257,891.29	165,787	81,252	166,324	9.25	17,981
1980	843,776.52	527,966	258,755	551,270	9.75	56,541
1981	371,065.83	225,821	110,675	245,548	10.25	23,956
1982	70,162.58	41,496	20,337	47,019	10.75	4,374
1983	72,989.85	41,917	20,543	49,527	11.25	4,402
1984	420,646.73	234,361	114,860	288,961	11.75	24,592
1985	514,313.51	277,729	136,115	357,626	12.25	29,194
1986	376,844.41	197,035	96,567	265,204	12.75	20,800
1987	288,300.77	145,799	71,456	205,313	13.25	15,495
1988	620,935.38	303,372	148,682	447,416	13.75	32,539
1989	926,661.06	436,853	214,101	675,494	14.25	47,403
1990	802,202.27	364,426	178,605	591,509	14.75	40,102
1991	588,998.28	257,478	126,190	439,248	15.25	28,803
1992	761,750.59	319,935	156,800	574,481	15.75	36,475
1993	690,690.99	278,248	136,369	526,694	16.25	32,412
1994	1,530,459.10	590,326	289,318	1,179,923	16.75	70,443
1995	1,123,216.08	413,987	202,894	875,393	17.25	50,747
1996	683,192.78	240,093	117,669	538,196	17.75	30,321

MISSOURI GAS ENERGY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 28-01						
NET SALVAGE PERCENT.. +4						
1997	1,097,902.33	367,009	179,871	874,115	18.25	47,897
1998	617,455.03	195,823	95,973	496,784	18.75	26,495
1999	1,623,573.32	487,072	238,713	1,319,917	19.25	68,567
2000	459,547.92	129,985	63,705	377,461	19.75	19,112
2001	721,850.98	191,809	94,005	598,972	20.25	29,579
2002	1,121,565.27	278,791	136,635	940,068	20.75	45,304
2003	880,665.41	203,810	99,887	745,552	21.25	35,085
2004	1,178,523.91	252,536	123,768	1,007,615	21.75	46,327
2005	782,906.46	154,347	75,645	675,945	22.25	30,380
2006	1,378,851.09	248,193	121,639	1,202,058	22.75	52,838
2007	1,565,681.06	254,978	124,964	1,378,090	23.25	59,273
2008	1,010,402.19	147,234	72,159	897,827	23.75	37,803
2009	1,288,304.23	165,641	81,180	1,155,592	24.25	47,653
2010	1,862,433.16	207,526	101,708	1,686,228	24.75	68,130
2011	1,714,821.72	161,676	79,237	1,566,992	25.25	62,059
2012	2,623,110.85	202,361	99,177	2,419,009	25.75	93,942
2013	2,059,463.22	123,568	60,561	1,916,524	26.25	73,010
2014	1,200,421.28	51,443	25,212	1,127,192	26.75	42,138
2015	2,016,293.69	51,856	25,415	1,910,227	27.25	70,100
2016	1,837,479.02	15,752	7,720	1,756,260	27.75	63,289
	40,311,714.35	10,836,435	5,380,866	33,318,380		1,956,089

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.0 4.85



MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2						
NET SALVAGE PERCENT.. -5						
1900	15.47	16	16			
1901	9.59	10	10			
1905	1,747.82	1,835	1,835			
1906	5,363.95	5,632	5,632			
1907	10,911.50	11,457	11,457			
1908	6,624.62	6,956	6,956			
1909	9,608.29	10,089	10,089			
1910	4,580.98	4,810	4,810			
1911	2,409.03	2,529	2,529			
1913	3.49	4	4			
1914	752.37	790	790			
1915	2,704.93	2,831	2,840			
1916	2,365.82	2,465	2,484			
1917	1,495.16	1,550	1,570			
1918	135.75	140	143			
1919	521.15	535	547			
1920	940.68	961	988			
1921	1,175.76	1,196	1,235			
1922	3.15	3	3			
1923	8,862.03	8,921	9,305			
1924	3,780.76	3,786	3,970			
1925	4,527.91	4,511	4,754			
1926	3,282.77	3,253	3,447			
1927	2,264.72	2,231	2,378			
1928	2,244.90	2,199	2,357			
1929	6,582.95	6,414	6,912			
1930	1,176.13	1,140	1,235			
1931	513.57	495	539			
1933	6.86	7	7			
1934	286.73	271	301			
1935	973.78	917	1,022			
1936	1,540.73	1,442	1,618			
1937	346,125.46	321,870	363,432			
1938	7,490.88	6,924	7,865			
1939	44.99	41	47			
1940	16,383.73	14,957	17,203			
1941	25,920.37	23,515	27,216			
1942	10,522.85	9,486	11,049			
1943	3,366.19	3,015	3,534			
1944	4,080.89	3,630	4,285			
1945	6,260.30	5,530	6,573			
1946	14,008.61	12,286	14,709			
1947	19,522.95	16,999	20,499			

MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2						
NET SALVAGE PERCENT.. -5						
1948	15,844.37	13,693	16,637			
1949	28,653.56	24,572	30,086			
1950	57,580.26	48,994	60,459			
1951	110,522.67	93,261	116,049			
1952	53,955.79	45,148	56,654			
1953	71,309.97	59,152	74,875			
1954	80,536.05	66,190	84,563			
1955	67,977.68	55,349	71,377			
1956	56,289.77	45,392	59,104			
1957	54,169.77	43,248	56,878			
1958	52,184.77	41,225	54,794			
1959	48,353.60	37,792	50,771			
1960	21,181.24	16,373	22,240			
1961	71,344.87	54,509	74,912			
1962	70,111.00	52,937	73,617			
1963	94,025.13	70,114	98,726			
1964	87,216.64	64,204	91,577			
1965	80,820.91	58,709	84,862			
1966	69,276.98	49,635	72,741			
1967	98,508.52	69,602	102,640	794	17.99	44
1968	82,467.19	57,402	84,649	1,942	18.54	105
1969	137,337.05	94,152	138,843	5,361	19.09	281
1970	2,282.92	1,541	2,272	125	19.65	6
1971	53,532.42	35,544	52,416	3,793	20.22	188
1972	62,278.18	40,662	59,963	5,429	20.80	261
1973	18,566.91	11,910	17,563	1,932	21.40	90
1974	18,370.00	11,573	17,066	2,222	22.00	101
1975	3,062.09	1,893	2,792	423	22.61	19
1976	33,988.67	20,615	30,400	5,288	23.23	228
1977	114,890.11	68,279	100,689	19,946	23.87	836
1978	263,056.61	153,119	225,800	50,409	24.51	2,057
1979	258,138.02	147,055	216,858	54,187	25.16	2,154
1980	455,392.14	253,689	374,108	104,054	25.82	4,030
1981	344,127.38	187,301	276,208	85,126	26.49	3,214
1982	406,353.75	215,896	318,376	108,295	27.17	3,986
1983	266,019.47	137,884	203,334	75,986	27.85	2,728
1984	526,054.78	265,634	391,723	160,635	28.55	5,626
1985	636,414.56	312,854	461,357	206,878	29.25	7,073
1986	450,963.81	215,576	317,904	155,608	29.96	5,194
1987	793,053.03	368,206	542,984	289,722	30.68	9,443
1988	588,651.33	265,102	390,939	227,145	31.41	7,232
1989	1,039,686.51	453,535	668,816	422,855	32.15	13,153
1990	1,053,128.75	444,526	655,531	450,254	32.89	13,690

MISSOURI GAS ENERGY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2						
NET SALVAGE PERCENT.. -5						
1991	3,503,088.38	1,428,482	2,106,544	1,571,699	33.64	46,721
1992	2,456,328.37	966,019	1,424,562	1,154,583	34.40	33,563
1993	3,407,988.91	1,290,188	1,902,606	1,675,782	35.17	47,648
1994	3,480,099.37	1,266,330	1,867,423	1,786,681	35.94	49,713
1995	4,664,937.01	1,627,960	2,400,709	2,497,475	36.72	68,014
1996	4,224,480.70	1,410,554	2,080,106	2,355,599	37.51	62,799
1997	4,401,397.21	1,402,384	2,068,058	2,553,409	38.31	66,651
1998	3,704,444.37	1,123,764	1,657,185	2,232,482	39.11	57,082
1999	3,955,598.07	1,138,773	1,679,318	2,474,060	39.92	61,975
2000	3,777,808.82	1,029,160	1,517,675	2,449,024	40.73	60,128
2001	2,182,269.78	560,358	826,345	1,465,038	41.55	35,260
2002	4,521,750.26	1,089,391	1,606,495	3,141,343	42.38	74,123
2003	3,171,374.95	713,807	1,052,632	2,277,312	43.21	52,703
2004	4,525,773.51	946,088	1,395,171	3,356,891	44.05	76,206
2005	3,597,956.90	694,445	1,024,079	2,753,776	44.89	61,345
2006	3,836,713.65	677,521	999,122	3,029,427	45.75	66,217
2007	3,467,984.41	556,149	820,138	2,821,246	46.60	60,542
2008	2,752,811.84	396,252	584,342	2,306,110	47.46	48,591
2009	2,393,002.47	304,709	449,346	2,063,307	48.33	42,692
2010	2,317,136.86	256,559	378,341	2,054,653	49.20	41,761
2011	2,408,196.83	226,184	333,547	2,195,060	50.08	43,831
2012	1,996,242.52	153,578	226,477	1,869,578	50.97	36,680
2013	1,969,021.30	118,404	174,607	1,892,865	51.85	36,507
2014	2,771,657.46	119,058	175,572	2,734,668	52.75	51,842
2015	3,292,155.94	84,864	125,147	3,331,617	53.65	62,099
2016	1,869,989.24	16,061	23,685	1,939,804	54.55	35,560
	94,089,028.93	24,878,738	36,371,580	62,421,901		1,461,992

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 42.7 1.55

MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S4						
NET SALVAGE PERCENT.. 0						
1967	139.47	133	95	44	1.62	27
1968	139.47	132	95	44	1.76	25
1970	35.04	33	24	11	2.06	5
1971	4,990.33	4,672	3,351	1,639	2.23	735
1972	8,187.22	7,626	5,470	2,717	2.40	1,132
1973	20,573.41	19,051	13,664	6,909	2.59	2,668
1974	43,131.85	39,694	28,471	14,661	2.79	5,255
1975	38,611.35	35,302	25,320	13,291	3.00	4,430
1976	41,521.24	37,689	27,032	14,489	3.23	4,486
1977	67,271.71	60,583	43,453	23,819	3.48	6,845
1978	65,172.20	58,171	41,723	23,449	3.76	6,236
1979	75,205.10	66,503	47,699	27,506	4.05	6,792
1980	85,514.81	74,837	53,677	31,838	4.37	7,286
1981	79,990.69	69,226	49,652	30,339	4.71	6,441
1982	88,449.88	75,587	54,215	34,235	5.09	6,726
1983	74,689.85	62,953	45,153	29,537	5.50	5,370
1984	131,239.14	108,967	78,157	53,082	5.94	8,936
1985	213,576.72	174,400	125,089	88,488	6.42	13,783
1986	169,357.49	135,728	97,351	72,006	6.95	10,361
1987	208,399.23	163,623	117,359	91,040	7.52	12,106
1988	212,100.64	162,832	116,791	95,310	8.13	11,723
1989	386,089.23	289,015	207,296	178,793	8.80	20,317
1990	566,223.70	412,534	295,891	270,333	9.50	28,456
1991	580,630.50	410,424	294,377	286,254	10.26	27,900
1992	384,396.25	262,927	188,585	195,811	11.06	17,704
1993	614,426.74	405,522	290,861	323,566	11.90	27,190
1994	532,721.27	338,353	242,684	290,037	12.77	22,712
1995	717,091.68	436,809	313,302	403,790	13.68	29,517
1996	773,044.96	450,353	323,016	450,029	14.61	30,803
1997	1,072,874.94	595,596	427,192	645,683	15.57	41,470
1998	626,680.37	330,530	237,073	389,607	16.54	23,555
1999	552,123.66	275,747	197,780	354,344	17.52	20,225
2000	600,021.85	282,694	202,763	397,259	18.51	21,462
2001	350,919.66	155,408	111,467	239,453	19.50	12,280
2002	350,799.76	145,333	104,240	246,560	20.50	12,027
2003	377,350.26	145,548	104,395	272,955	21.50	12,696
2004	416,247.90	148,659	106,626	309,622	22.50	13,761
2005	404,188.68	132,804	95,254	308,935	23.50	13,146
2006	548,109.53	164,433	117,940	430,170	24.50	17,558
2007	465,777.88	126,426	90,679	375,099	25.50	14,710
2008	448,801.92	108,996	78,178	370,624	26.50	13,986
2009	635,773.81	136,240	97,718	538,056	27.50	19,566
2010	521,695.57	96,884	69,490	452,206	28.50	15,867

MISSOURI GAS ENERGY

ACCOUNT 383.00 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S4						
NET SALVAGE PERCENT.. 0						
2011	500,698.33	78,680	56,434	444,264	29.50	15,060
2012	592,442.32	76,170	54,633	537,809	30.50	17,633
2013	418,443.10	41,844	30,013	388,430	31.50	12,331
2014	389,981.07	27,856	19,980	370,001	32.50	11,385
2015	282,045.35	12,088	8,670	273,375	33.50	8,160
2016	168,395.82	2,406	1,725	166,671	34.50	4,831
	15,906,292.95	7,448,021	5,342,103	10,564,190		647,676
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.3 4.07

MISSOURI GAS ENERGY

ACCOUNT 385.00 INDUSTRIAL MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 37-S2						
NET SALVAGE PERCENT.. -5						
1996	166,024.94	88,106	106,376	67,950	18.30	3,713
1997	25,131.41	12,816	15,474	10,914	19.03	574
1998	42,338.11	20,690	24,980	19,475	19.78	985
1999	38,380.68	17,906	21,619	18,681	20.56	909
2000	261.68	116	140	135	21.37	6
2001	23,764.55	9,981	12,051	12,902	22.20	581
2002	19,920.93	7,886	9,521	11,396	23.05	494
2003	8,404.24	3,120	3,767	5,057	23.92	211
2004	6,167.76	2,132	2,574	3,902	24.82	157
2005	12,633.41	4,040	4,878	8,387	25.73	326
2006	1,292.79	379	458	899	26.66	34
2007	18,547.50	4,942	5,967	13,508	27.61	489
2008	159.50	38	46	121	28.57	4
2009	9,768.56	2,068	2,497	7,760	29.54	263
2010	18,956.74	3,486	4,209	15,696	30.52	514
2011	45,419.20	7,076	8,543	39,147	31.51	1,242
2012	11,203.89	1,431	1,728	10,036	32.50	309
2013	79,834.64	7,929	9,572	74,254	33.50	2,217
2014	2,274.78	161	194	2,195	34.50	64
2016	528,453.84	7,496	9,050	545,826	36.50	14,954
	1,058,939.15	201,799	243,644	868,242		28,046
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						31.0 2.65

MISSOURI GAS ENERGY

ACCOUNT 390.70 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-L2						
NET SALVAGE PERCENT.. 0						
1928	593.65	594	594			
1939	45,106.31	45,106	45,106			
1951	6,747.89	6,467	3,400	3,348	1.04	3,219
1957	24,243.47	22,226	11,684	12,559	2.08	6,038
1959	7,254.40	6,546	3,441	3,813	2.44	1,563
1963	21,174.29	18,472	9,710	11,464	3.19	3,594
1965	10,433.00	8,939	4,699	5,734	3.58	1,602
1966	1,404.40	1,192	627	777	3.78	206
1967	22,873.52	19,232	10,110	12,764	3.98	3,207
1968	857.85	714	375	483	4.18	116
1971	998.33	806	424	574	4.81	119
1980	3,751.70	2,718	1,429	2,323	6.89	337
1982	1,267.00	892	469	798	7.39	108
1986	2,530.79	1,681	884	1,647	8.39	196
1988	26,793.67	17,266	9,076	17,718	8.89	1,993
1989	18,354.27	11,651	6,125	12,229	9.13	1,339
1990	10,603.52	6,629	3,485	7,119	9.37	760
1993	103,160.67	61,525	32,341	70,820	10.09	7,019
1994	25,260.55	14,813	7,787	17,474	10.34	1,690
1997	1,149.22	636	334	815	11.17	73
1998	14,765.00	7,985	4,197	10,568	11.48	921
1999	6,587.00	3,470	1,824	4,763	11.83	403
2000	59,545.00	30,463	16,013	43,532	12.21	3,565
2001	18,500.57	9,147	4,808	13,693	12.64	1,083
2002	17,640.96	8,383	4,407	13,234	13.12	1,009
2003	20,824.34	9,454	4,970	15,854	13.65	1,161
2004	65,944.00	28,409	14,934	51,010	14.23	3,585
2005	24,735.16	10,013	5,263	19,472	14.88	1,309
2006	87,409.20	32,901	17,295	70,114	15.59	4,497
2007	8,184.50	2,835	1,490	6,694	16.34	410
2008	7,602.92	2,387	1,255	6,348	17.15	370
2009	12,092.10	3,395	1,785	10,307	17.98	573
2010	35,340.42	8,722	4,585	30,755	18.83	1,633
2011	8,494.19	1,794	943	7,551	19.72	383
2012	27,628.00	4,829	2,538	25,090	20.63	1,216
2013	128,526.61	17,634	9,269	119,257	21.57	5,529
	878,378.47	429,926	247,676	630,702		60,826

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.4 6.92

MISSOURI GAS ENERGY

ACCOUNT 391.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1973	200.86	201	201			
1975	215.49	215	215			
1976	286.65	287	287			
1977	378.19	378	378			
1978	564.97	565	565			
1979	5,216.19	5,216	5,216			
1980	3,071.91	3,072	3,072			
1981	1,069.47	1,069	1,069			
1982	2,564.62	2,565	2,565			
1984	6,396.62	6,397	6,397			
1985	1,024.07	1,024	1,024			
1986	4,472.10	4,472	4,472			
1987	9,553.42	9,553	9,553			
1988	6,343.31	6,343	6,343			
1989	59,018.42	59,018	59,018			
1990	41,305.33	41,305	41,305			
1991	46,666.98	46,667	46,667			
1992	57,868.53	57,869	57,869			
1993	10,167.78	10,168	10,168			
1994	855,168.88	855,169	855,169			
1995	12,546.15	12,546	12,546			
1996	1,024.26	1,024	1,024			
1997	23,759.45	23,165	5,829	17,930	0.50	17,930
1998	54,138.93	50,079	12,601	41,538	1.50	27,692
1999	1,287.96	1,127	284	1,004	2.50	402
2000	2,039.77	1,683	423	1,617	3.50	462
2001	6,707.10	5,198	1,308	5,399	4.50	1,200
2002	8,017.65	5,813	1,463	6,555	5.50	1,192
2003	35,617.30	24,042	6,049	29,568	6.50	4,549
2004	112,651.29	70,407	17,716	94,935	7.50	12,658
2005	51,628.85	29,687	7,470	44,159	8.50	5,195
2006	34,071.33	17,887	4,501	29,570	9.50	3,113
2007	446,620.42	212,145	53,380	393,240	10.50	37,451
2008	216,649.97	92,076	23,168	193,482	11.50	16,825
2009	235,104.57	88,164	22,184	212,921	12.50	17,034
2010	253,376.09	82,347	20,720	232,656	13.50	17,234
2011	219,298.22	60,307	15,174	204,124	14.50	14,078
2012	142,091.29	31,971	8,044	134,047	15.50	8,648
2013	147,548.18	25,821	6,497	141,051	16.50	8,549



MISSOURI GAS ENERGY

ACCOUNT 391.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	360,321.24	45,040	11,333	348,988	17.50	19,942
2015	1,118,358.29	83,877	21,105	1,097,253	18.50	59,311
2016	361,463.16	9,037	2,274	359,189	19.50	18,420
	4,955,875.26	2,084,996	1,366,646	3,589,229		291,885
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 5.89

MISSOURI GAS ENERGY

ACCOUNT 391.30 DATA PROCESSING SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
1997	8,672.00	8,672	8,672			
1998	26,944.25	26,944	26,944			
1999	6,795.00	6,795	6,795			
2000	86,085.15	86,085	86,085			
2001	3,599.38	3,599	3,599			
2002	18,525.55	18,526	18,526			
2003	229,545.68	229,546	229,546			
2004	471,909.13	471,909	471,909			
2005	1,072,236.54	1,072,237	1,072,237			
2007	26,456.51	26,457	26,457			
2008	55,926.92	55,927	55,927			
2009	582,496.73	582,497	582,497			
2010	212,316.92	212,317	212,317			
2011	341,054.26	341,054	341,054			
2012	105,986.51	95,388	944,441-	1,050,428	0.50	1,050,428
2013	7,911.73	5,538	54,832-	62,744	1.50	41,829
2015	5,459.55	1,638	16,218-	21,678	3.50	6,194
	3,261,921.81	3,245,129	2,127,074	1,134,848		1,098,451
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.0						33.67

MISSOURI GAS ENERGY

ACCOUNT 392.10 TRANSPORTATION EQUIPMENT - AUTOS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-S1						
NET SALVAGE PERCENT.. +20						
1999	3,260.89	2,431	2,609			
2008	102,969.49	50,496	82,376			
2009	1,430,055.67	645,241	1,144,045			
2010	757,669.20	309,129	606,135			
2011	794,880.67	287,429	631,658	4,247	5.48	775
2012	1,123,117.76	347,717	764,148	134,346	6.13	21,916
2013	1,392,364.12	349,762	768,641	345,250	6.86	50,328
2014	84,079.00	15,740	34,590	32,673	7.66	4,265
2015	220,873.38	25,798	56,694	120,005	8.54	14,052
2016	182,140.69	7,286	16,012	129,700	9.50	13,653
	6,091,410.87	2,041,029	4,106,908	766,220		104,989
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.3 1.72

MISSOURI GAS ENERGY

ACCOUNT 392.20 TRANSPORTATION EQUIPMENT - TRUCKS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 12-S2						
NET SALVAGE PERCENT.. +25						
1989	3,915.00	2,936	2,936			
1990	49,021.16	36,766	36,766			
1997	22,578.24	15,706	16,934			
1998	153,002.36	104,232	114,752			
1999	133,034.45	88,634	99,776			
2000	243,398.39	158,361	182,549			
2002	13,205.50	8,121	9,904			
2003	717.60	427	538			
2004	859,469.40	491,509	644,602			
2005	104,867.55	57,415	78,651			
2006	410,705.44	213,310	296,358	11,671	3.69	3,163
2007	535,975.08	261,959	363,947	38,034	4.18	9,099
2008	198,071.39	89,998	125,037	23,517	4.73	4,972
2009	2,049,636.23	851,885	1,183,547	353,680	5.35	66,108
2010	605,382.56	225,507	313,303	140,734	6.04	23,300
2011	676,785.54	219,532	305,002	202,587	6.81	29,748
2012	767,768.55	208,737	290,004	285,822	7.65	37,362
2013	121,711.11	26,168	36,356	54,927	8.56	6,417
2014	1,207,074.40	187,851	260,987	644,319	9.51	67,752
2015	3,220,337.63	301,907	419,447	1,995,806	10.50	190,077
2016	4,349,596.10	135,936	188,860	3,073,337	11.50	267,247
	15,726,253.68	3,686,897	4,970,256	6,824,434		705,245
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						9.7 4.48

MISSOURI GAS ENERGY

ACCOUNT 393.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 30-SQUARE						
NET SALVAGE PERCENT.. 0						
1973	6,949.61	6,950	6,950			
1974	900.44	900	900			
1975	716.89	717	717			
1976	672.50	672	672			
1978	282.22	282	282			
1979	2,131.20	2,131	2,131			
1980	2,968.60	2,969	2,969			
1981	3,635.24	3,635	3,635			
1982	1,394.33	1,394	1,394			
1983	2,818.97	2,819	2,819			
1984	2,446.96	2,447	2,447			
1985	1,760.01	1,760	1,760			
1986	17,636.22	17,636	17,636			
1987	16,465.00	16,191	7,875	8,590	0.50	8,590
1988	44,701.09	42,466	20,656	24,045	1.50	16,030
1989	92,484.86	84,778	41,236	51,249	2.50	20,500
1990	31,828.66	28,115	13,675	18,154	3.50	5,187
1991	12,423.46	10,560	5,136	7,287	4.50	1,619
1992	14,098.70	11,514	5,600	8,499	5.50	1,545
1993	4,853.86	3,802	1,849	3,005	6.50	462
1994	735.64	552	268	468	7.50	62
1995	1,476.91	1,058	515	962	8.50	113
1996	4,070.69	2,782	1,353	2,718	9.50	286
1999	1,769.40	1,032	502	1,267	12.50	101
2002	9,751.00	4,713	2,292	7,459	15.50	481
2003	11,433.70	5,145	2,503	8,931	16.50	541
2004	44,696.46	18,624	9,059	35,637	17.50	2,036
2005	6,139.64	2,354	1,145	4,995	18.50	270
2006	34,100.65	11,935	5,805	28,296	19.50	1,451
2007	111,103.29	35,183	17,114	93,989	20.50	4,585
2008	1,502.65	426	207	1,296	21.50	60
2009	101,921.64	25,480	12,394	89,528	22.50	3,979
2010	6,257.47	1,356	660	5,597	23.50	238
2011	30,567.00	5,604	2,726	27,841	24.50	1,136
2012	37,778.55	5,667	2,756	35,023	25.50	1,373
	664,473.51	363,649	199,638	464,836		70,645

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.6 10.63

MISSOURI GAS ENERGY

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1976	10,401.56	10,402	10,402			
1977	1,409.81	1,410	1,410			
1978	6,135.76	6,136	6,136			
1979	8,204.83	8,205	8,205			
1980	10,362.30	10,362	10,362			
1981	14,674.80	14,675	14,675			
1982	76,774.27	76,774	76,774			
1983	6,891.83	6,892	6,892			
1984	22,306.12	22,306	22,306			
1985	49,989.50	49,990	49,990			
1986	63,178.84	63,179	63,179			
1987	36,979.00	36,979	36,979			
1988	117,599.00	117,599	117,599			
1989	143,944.24	143,944	143,944			
1990	405,534.05	405,534	405,534			
1991	188,281.97	188,282	188,282			
1992	49,233.27	48,249	31,045	18,188	0.50	18,188
1993	109,232.74	102,679	66,068	43,165	1.50	28,777
1994	142,019.29	127,817	82,243	59,776	2.50	23,910
1995	89,863.78	77,283	49,727	40,137	3.50	11,468
1996	124,685.71	102,242	65,787	58,899	4.50	13,089
1997	73,954.87	57,685	37,117	36,838	5.50	6,698
1998	192,948.15	142,782	91,872	101,076	6.50	15,550
1999	175,472.81	122,831	79,035	96,438	7.50	12,858
2000	149,515.16	98,680	63,495	86,020	8.50	10,120
2001	125,818.16	78,007	50,193	75,625	9.50	7,961
2002	166,982.82	96,850	62,317	104,666	10.50	9,968
2003	249,527.17	134,745	86,701	162,826	11.50	14,159
2004	467,921.03	233,961	150,540	317,381	12.50	25,390
2005	133,516.47	61,418	39,519	93,997	13.50	6,963
2006	261,765.02	109,941	70,741	191,024	14.50	13,174
2007	387,704.16	147,328	94,797	292,907	15.50	18,897
2008	350,940.68	119,320	76,776	274,165	16.50	16,616
2009	418,894.71	125,668	80,860	338,035	17.50	19,316
2010	523,662.91	136,152	87,606	436,057	18.50	23,571
2011	325,097.32	71,521	46,020	279,077	19.50	14,312
2012	446,068.42	80,292	51,663	394,405	20.50	19,239
2013	1,338,123.14	187,337	120,541	1,217,582	21.50	56,632

MISSOURI GAS ENERGY

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2014	339,711.49	33,971	21,858	317,853	22.50	14,127
2015	388,952.74	23,337	15,016	373,937	23.50	15,912
2016	736,409.00	14,728	9,477	726,932	24.50	29,671
	8,930,688.90	3,697,493	2,793,683	6,137,006		446,566
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.7 5.00

MISSOURI GAS ENERGY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-L2.5						
NET SALVAGE PERCENT.. +25						
2009	899,524.39	399,389	223,007	451,636	4.08	110,695
2011	378,158.91	138,406	77,282	206,337	5.12	40,300
2012	345,593.44	107,566	60,062	199,133	5.85	34,040
2013	356,061.44	88,926	49,654	217,392	6.67	32,593
2014	360,947.57	65,783	36,731	233,980	7.57	30,909
2015	385,778.90	42,821	23,910	265,424	8.52	31,153
2016	154,498.44	5,794	3,235	112,639	9.50	11,857
	2,880,563.09	848,685	473,881	1,686,541		291,547
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.8						10.12



MISSOURI GAS ENERGY

ACCOUNT 397.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1988	42,300.58	42,301	42,301			
1990	5,506.36	5,506	5,506			
1991	272,323.32	272,323	272,323			
1992	57,630.19	57,630	57,630			
1993	7,019.19	7,019	7,019			
1994	62,532.49	62,532	62,532			
1996	3,612.00	3,612	3,612			
1997	268,514.77	268,515	268,515			
1998	57,686.89	57,687	57,687			
1999	10,505.53	10,506	10,506			
2000	377,418.35	377,418	377,418			
2001	41,876.91	41,877	41,877			
2002	176,313.37	170,437	112,991-	289,304	0.50	289,304
2003	40,032.88	36,030	23,886-	63,919	1.50	42,613
2004	302,033.55	251,694	166,861-	468,895	2.50	187,558
2005	226,208.70	173,427	114,973-	341,182	3.50	97,481
2006	501,793.87	351,256	232,865-	734,659	4.50	163,258
2007	42,487.44	26,909	17,839-	60,326	5.50	10,968
2008	130,767.31	74,102	49,126-	179,893	6.50	27,676
2009	81,374.54	40,687	26,973-	108,348	7.50	14,446
2010	1,206,172.87	522,671	346,505-	1,552,678	8.50	182,668
2011	306,044.55	112,217	74,394-	380,439	9.50	40,046
2012	247,058.82	74,118	49,137-	296,196	10.50	28,209
2013	212,826.44	49,659	32,922-	245,748	11.50	21,369
2014	68,692.79	11,449	7,590-	76,283	12.50	6,103
2015	627,897.76	62,790	41,627-	669,525	13.50	49,594
2016	1,242,681.37	41,419	27,458-	1,270,140	14.50	87,596
	6,619,312.84	3,205,791	118,221-	6,737,534		1,248,889
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.4						18.87

MISSOURI GAS ENERGY

ACCOUNT 397.10 COMMUNICATION EQUIPMENT - ERT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1992	383.25	383	383			
1993	32.94	33	33			
1995	14.19	14	14			
1996	4,542.75	4,543	4,543			
1997	8,730,715.80	8,730,716	8,730,716			
1998	3,741,390.11	3,741,390	3,741,390			
1999	781,502.67	781,503	781,503			
2000	253,978.93	253,979	253,979			
2001	199,617.55	199,618	199,618			
2002	11,585.67	11,200	1,082-	12,668	0.50	12,668
2003	524,731.01	472,258	45,635-	570,366	1.50	380,244
2004	464,915.41	387,428	37,438-	502,353	2.50	200,941
2005	969,349.87	743,171	71,813-	1,041,163	3.50	297,475
2006	1,328,133.80	929,694	89,837-	1,417,971	4.50	315,105
2007	1,000,955.43	633,935	61,258-	1,062,213	5.50	193,130
2008	847,622.92	480,322	46,414-	894,037	6.50	137,544
2009	2,076,813.62	1,038,407	100,342-	2,177,156	7.50	290,287
2010	2,740,217.55	1,187,418	114,741-	2,854,959	8.50	335,878
2011	1,465,429.90	537,329	51,923-	1,517,353	9.50	159,721
2012	2,489,943.21	746,983	72,182-	2,562,125	10.50	244,012
2013	4,586,258.69	1,070,112	103,405-	4,689,664	11.50	407,797
2014	2,862,266.79	477,054	46,098-	2,908,365	12.50	232,669
2015	2,754,256.98	275,426	26,615-	2,780,872	13.50	205,991
2016	3,825,791.44	127,514	12,322-	3,838,113	14.50	264,697
	41,660,450.48	22,830,430	12,831,074	28,829,376		3,678,159

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.8 8.83

MISSOURI GAS ENERGY

ACCOUNT 398.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL  
RELATED TO ORIGINAL COST AS OF SEPTEMBER 30, 2016

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1988	697.95	698	698			
1989	270.76	271	271			
1990	604.80	605	605			
1992	45,398.51	45,399	45,399			
1993	72,667.83	72,668	72,668			
1994	21,541.75	21,542	21,542			
1999	41,446.71	36,266	39,513	1,934	2.50	774
2000	166,539.85	137,395	149,694	16,846	3.50	4,813
2001	12,543.11	9,721	10,591	1,952	4.50	434
2003	5,247.40	3,542	3,859	1,388	6.50	214
2004	12,836.42	8,023	8,741	4,095	7.50	546
2006	32,658.05	17,145	18,680	13,978	9.50	1,471
2007	2,592.76	1,232	1,342	1,251	10.50	119
2009	143,995.02	53,998	58,832	85,163	12.50	6,813
2010	189,766.62	61,674	67,196	122,571	13.50	9,079
2011	8,588.59	2,362	2,573	6,016	14.50	415
2012	17,176.43	3,865	4,211	12,965	15.50	836
2013	9,516.39	1,665	1,814	7,702	16.50	467
2016	16,610.88	415	453	16,158	19.50	829
	800,699.83	478,486	508,682	292,018		26,810

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.9 3.35