

GREATER MISSOURI OPERATIONS - ECORP

2014 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2014

Prepared by:



Excellence Delivered As Promised

KANSAS CITY POWER AND LIGHT COMPANY Kansas City, Missouri

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Excellence Delivered As Promised

February 22, 2016

Greater Missouri Operations - ECORP One Kansas City Place 1200 Main Kansas City, MO 64105

Attention Mr. Tim M. Rush
Director, Regulatory Affairs

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of Greater Missouri Operations - ECORP as of December 31, 2014. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

We gratefully acknowledge the assistance of Greater Missouri Operations personnel in the conduct of this study.

Respectfully submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

JOHN J. SPANOS Sr. Vice President

JJS:krm

059135



GREATER MISSOURI OPERATIONS - ECORP

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Greater Missouri Operation's ("Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the electric plant as of December 31, 2014. 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 remaining 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.

The Company's accounting policy has not changed since the last depreciation study was prepared. However, there have been changes to the life spans of generating facilities and estimates of life and net salvage. The overall effect of these changes has created a moderate impact on rates approved in the last proceeding.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service as of December 31, 2014 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.

The study results set forth an annual depreciation expense of \$10.8 million when applied to depreciable plant balances as of December 31, 2014. The results are summarized at the functional level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST AS OF DECEMBER 31, 2014	PROPOSED RATE	PROPOSED EXPENSE
Steam Production Plant	\$355,831,643.88	2.28	\$ 8,099,626
Transmission Plant	1,385,913.91	2.05	28,439
General Plant	30,803,744.95	8.67	2.671.635
Total	\$388,021,302.74	2.78	\$10,799,700

PART I. INTRODUCTION

GREATER MISSOURI OPERATIONS - ECORP DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Greater Missouri Operations - ECORP ("Company") to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of electric plant as of December 31, 2014. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to electric plant in service as of December 31, 2014.

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 2014, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the electric industry, including knowledge of service lives and net salvage estimates used for other electric companies.

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 summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. 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 electric 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 most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For

certain General Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

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 electric utility industry, and comparisons of the service life and net salvage estimates from our studies of other electric utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for electric 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 the estimated future yielded estimated survivor curves from which the average service lives were derived.

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 lowa 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 lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the 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.

The lowa curves were developed at the lowa 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,

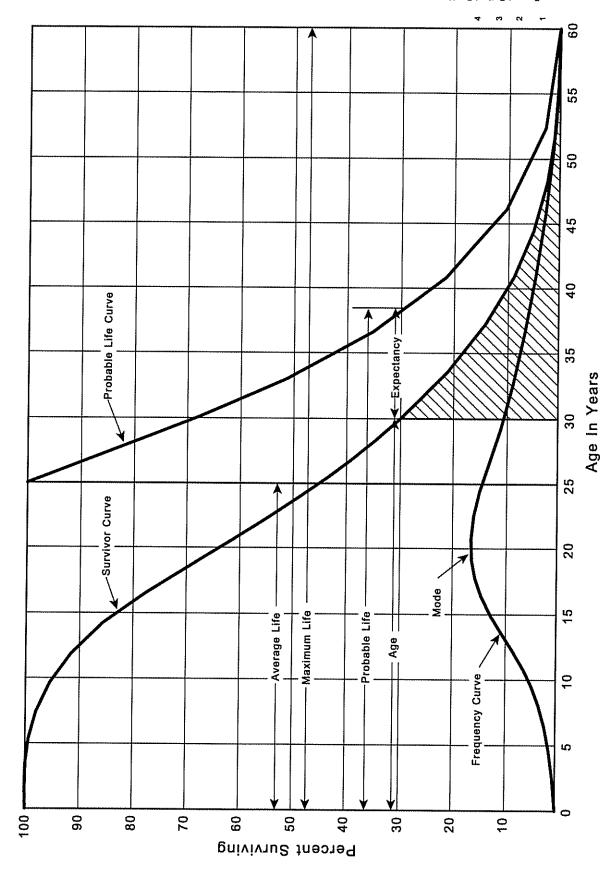


Figure 1. A Typical Survivor Curve and Derived Curves

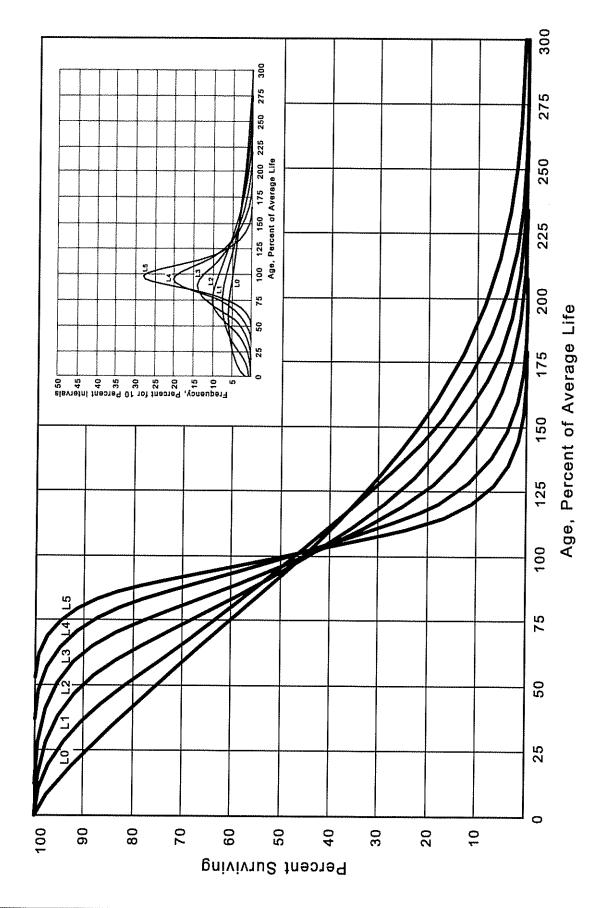
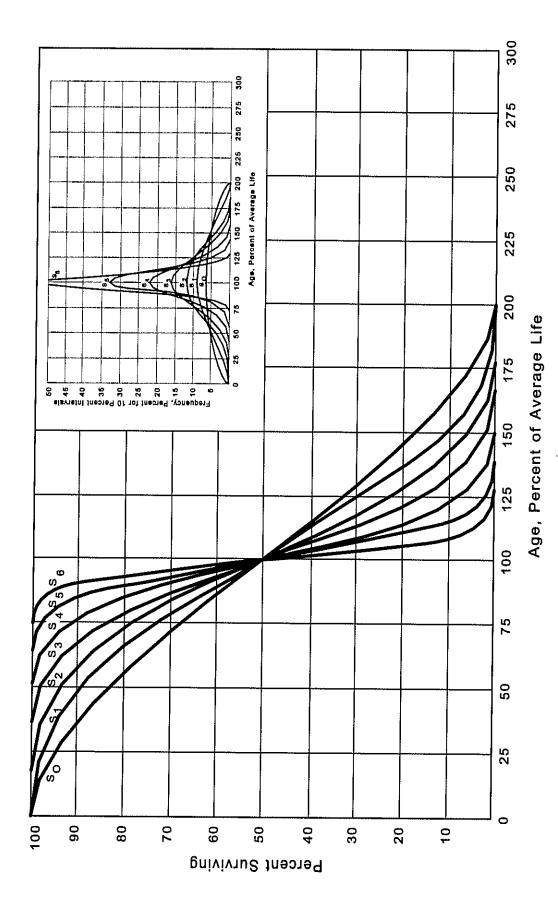
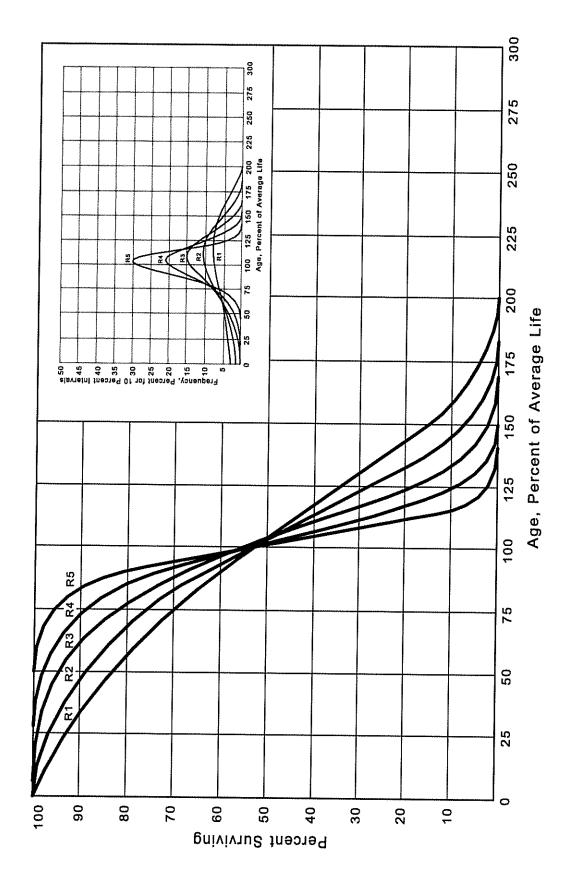


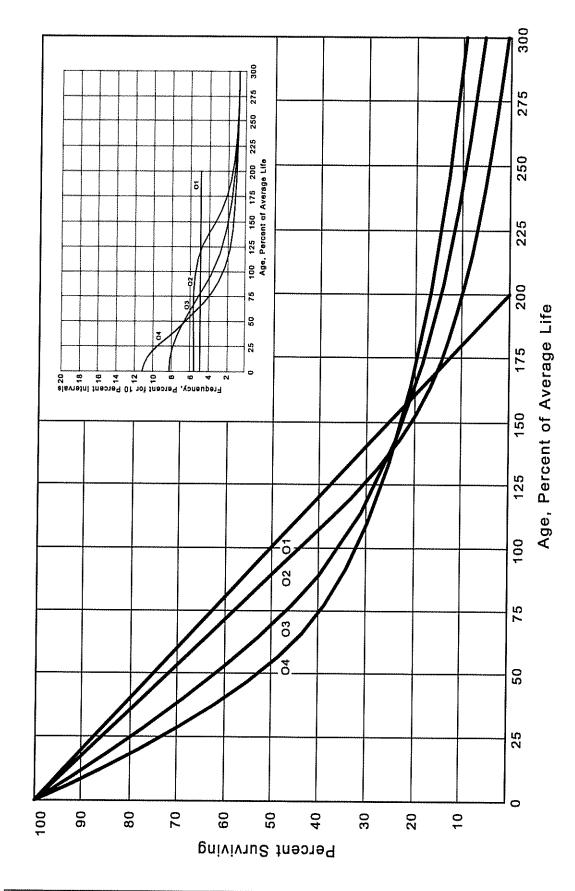
Figure 2. Left Modal or "L" lowa Type Survivor Curves



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



Right Modal or "R" lowa Type Survivor Curves Figure



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

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." 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," "Engineering Valuation and Depreciation," and "Depreciation Systems."

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

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

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

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

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

schedules of annual 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

The property group used to illustrate the retirement rate method is observed for the experience band 2005-2014 during which there were placements during the years 2000-2014. 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, the year of installation (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 2000 were retired in 2005. 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 $4\frac{1}{2}$ - $5\frac{1}{2}$ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2005 retirements of 2000 installations and ending with the 2014 retirements of the 2009 installations. Thus, the total amount of 143 for age interval $4\frac{1}{2}$ - $5\frac{1}{2}$ equals the sum of:

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

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

Placement Band 2000-2014

	Age	Interval	(13)	131/2-141/2	121/2-131/2	111/2-121/2	1012-1112	912-1012	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
	Total During	Age Interval	(12)	26	44	64	83	93	105	113	124	13.	143	146	150	151	153	80	1,606
		2014	(11)	26	19	18	17	20	20	20	19	19	70	23	25	25	24	13	308
		2013	(10)	25	22	22	16	19	16	18	19	19	19	22	22	23	Ţ		273
		2012	(6)	24	21	21	1 5	17	15	16	17	17	17	20	20				231
Dollars		2011	(8)	23	20	19	74	16	14	5	16	16	16	18	6				196
Retirements, Thousands of Dollars	During Year	2010	(2)	16	18	17	13	4	13	14	15	15	4	ထ					157
nents, Tho	During	2009	(9)	14	16	16	-	<u></u>	12	13	13	13	_						128
Retiren		2008	(2)	13	5	14	11	12	_	12	12	9						· ·	106
		2007	(4)	12	13	13	10	-	10	-	9								86
		2006	(3)	£	12	12	တ	10	თ	ιΩ									68
		2005	(5)	10	-	*	ထ	တ	4										53
·	Year	Placed	(2	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total

Experience Band 2005-2014

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

Placement Band 2000-2014

Experience Band 2005-2014

	Age <u>Interval</u> (13)	13½-14½	12½-13½	111/2-121/2	10½-11½	9½-10%	812-912	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	12-11/2	0-1%	
	Total During Age Interval (12)	ı	•	ř	9	•	(2)	မှ		1	1	0	ı	(121)	ı	•	(20)
\$111.5. 	2014	t	ı	ı	i	ı		1	ı	1	ı	1	•	(102) ^c	ı		(102)
	<u>2013</u> (10)	ı	ı		1	ı	•	•	ı	r	22ª	ı	,	1	•		22
f Dollars	201 <u>2</u> (9)	•	1	•	(2) _p	တီ	•	•	,	$(12)^{b}$		(19) ^b		1			(30)
onsands o	(8)	60ª	ı	•	1	1	•	ı	,	r		1	•			Whitester	09
ales, Tho Year	2010 (7)	ŧ	,	i	1	•	1	ı	,	ı	1	r					1
Acquisitions, Transfers and Sales, Thousands of Dollars During Year	(6)	1	ŧ	1	ı	•	1	•	•	ŧ	1						1
ns, Trans	2008 (5)	ı	ŧ	1	ŧ	•	1	1	ı	ı						the same of the sa	1
Acquisition	<u>2007</u> (4)	ı	t	1	ı		1	1									1
	200 <u>6</u> (3)	ı	1	•	f												1
	<u>2005</u> (2)	ı	1		1	•	ı									amana and an and an	-
	Year Placed (1)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total _

^a Transfer Affecting Exposures at Beginning of Year ^b Transfer Affecting Exposures at End of Year

Parentheses Denote Credit Amount.

^c Sale with Continued Use

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 2005 through 2014 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 2010 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 - \$19,00	0 = \$685,000
Exposures at age 3½ = \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

	Beginning of Age		(11) (12)	(-1)	/01 /01	153 131 323 12%-13%		823	1,097	1,503	1,952				685 663 4,332 3%-4%	821 799 4,955 21/-31/2			1,220 ^a 7,490	6,852 7,799 44,780	
	<u>a</u>	2012	6)	9	017	174	202	262	297	347	390	448	530	623	724	841	_e 096			6,017	
Dollars	Exposures, Triousarius of Dollars Annual Survivors at the Beginning of the Year	2011	8)	000	607	194	224	276	307	361	405	464	546	639	742	850ª				5,247	
usands of l		e Beginnin	2010	(2)	105	6	212	241	289	321	374	419	479	561	653	750^{a}					4,494
sures, Tho		2009	(9)	200	603	228	257	300	334	386	432	492	574	ee0 _a						3,872	
Expo	Annual Sun	2008	(2)	222	777	243	271	311	346	397	444	504	580ª							3,318	
		2007	4	234	7	526	284	321	357	407	455	510^{a}							***************************************	2,824	
		2006	(3)	245		268	296	330	367	416	460 ^a									2,382	
		2005	(2)	255	201	279	307	338	376	420ª									With the second	1,975	
	Year .	Placed	()	2000	,	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	

^aAdditions during the year

Experience Band 2005-2014

For the entire experience band 2005-2014, 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:

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 = 3.789,000Retirements from age $4\frac{1}{2}$ to $5\frac{1}{2}$ 143,000 Retirement Ratio = $143,000 \div 3,789,000 = 0.0377$ Survivor Ratio = 1.000 -0.0377 = 0.9623Percent surviving at age 5½ $(88.15) \times (0.9623) =$ 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 2005-2014

Placement Band 2000-2014

(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 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5 10.5 12.5 13.5	7,490 6,579 5,719 4,955 4,332 3,789 3,057 2,463 1,952 1,503 1,097 823 531 323 167	80 153 151 150 146 143 131 124 113 105 93 83 64 44 26	0.0107 0.0233 0.0264 0.0303 0.0337 0.0377 0.0429 0.0503 0.0579 0.0699 0.0848 0.1009 0.1205 0.1362 0.1362	0.9893 0.9767 0.9736 0.9697 0.9663 0.9623 0.9571 0.9497 0.9421 0.9301 0.9152 0.8991 0.8795 0.8638 0.8443	100.00 98.93 96.62 94.07 91.22 88.15 84.83 81.19 77.11 72.65 67.57 61.84 55.60 48.90 42.24
14.5 Total	44.780	1,60 <u>6</u>	3.732.	2.2	35.66

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 lowa 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 lowa 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 lowa 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 lowa 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

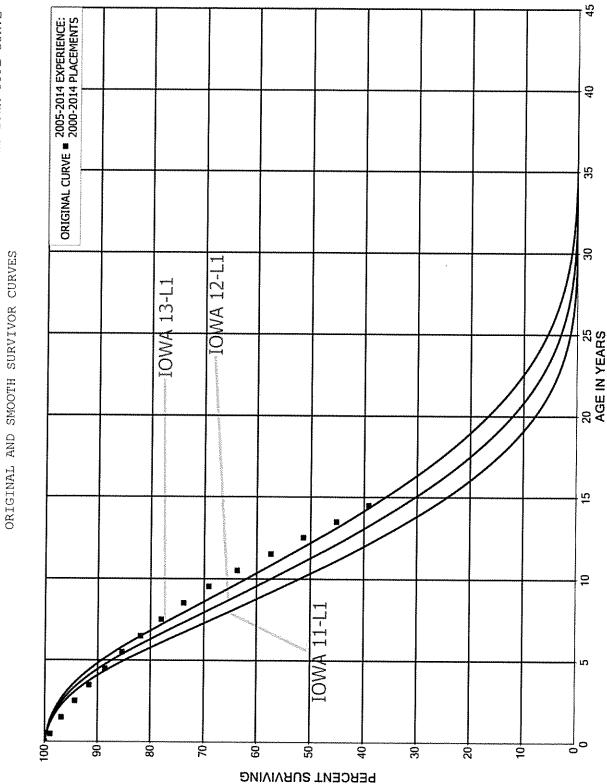


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE

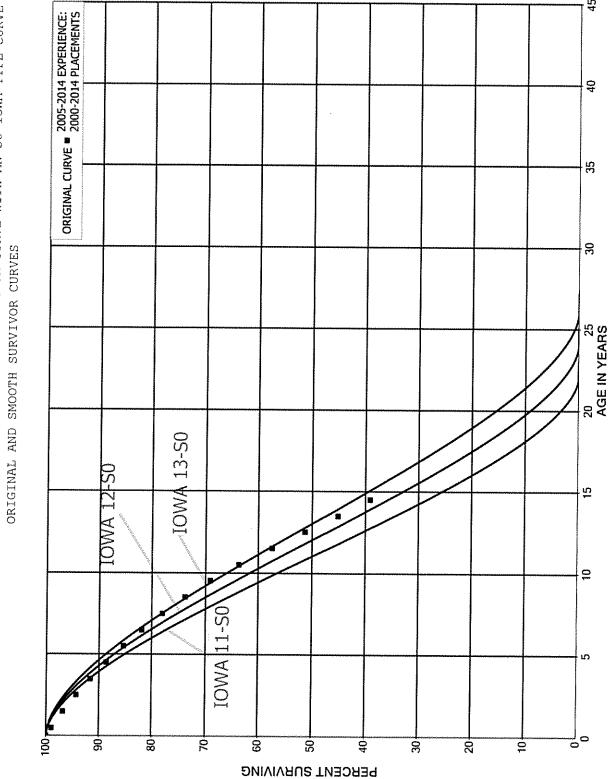
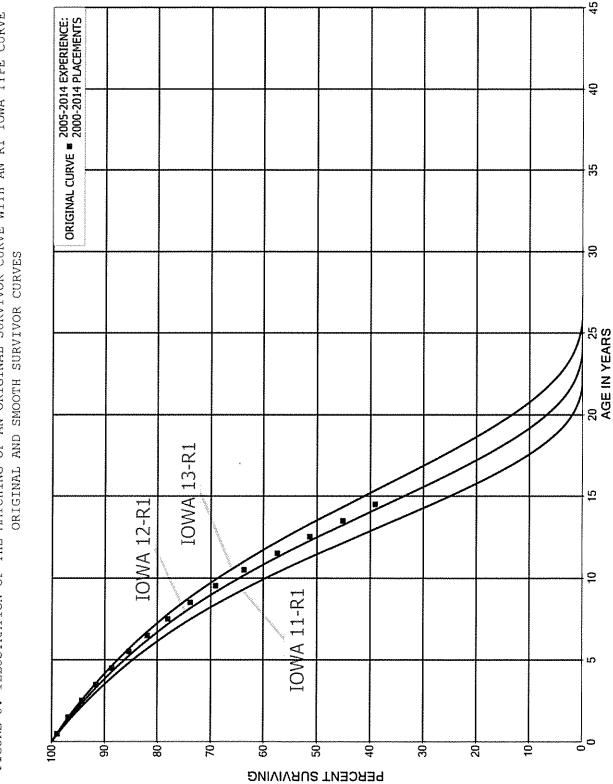


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE



SO AND RI IOWA TYPE CURVE FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1,

45 ORIGINAL CURVE # 2005-2014 EXPERIENCE: 2000-2014 PLACEMENTS 40 33 39 ORIGINAL AND SMOOTH SURVIVOR CURVES 20 25 AGE IN YEARS 5 9 S IOWA 80 70 30 20 8 20 Ó PERCENT SURVIVING

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 trips.

September 30, 2015

latan Generating Station

August 12, 2014

latan Generating Station

August 18, 2009

latan Generating Station

latan Substation

SERVICE LIFE ANALYSIS

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

For most of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analysis using the retirement rate method was inconclusive, however, the statistical analyses for the related Greater Missouri Operations jurisdictions were good to excellent indications of the survivor patterns experienced.

Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts. The analyses for Account 390, Structures and Improvements, was a strong indicator for the life characteristics of buildings. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

Life Span Estimates

The life span technique was used for the Company's Power Production accounts in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. The life span procedure is appropriate for these accounts since all of the assets within the plant will be retired concurrently. Probable retirement dates were estimated for each power plant. Life spans for each unit were estimated based on discussions with management regarding future outlook, age and condition of the plant, life spans typically experienced and estimated for similar plants. The life span and probable retirement dates used for production plants are as follows:

Depreciable Group	Major Year in <u>Service</u>	Probable Retirement <u>Year</u>	<u>Life Span</u>
Steam Production Plant latan Unit 2	2010	2070	60

Power plants typically are retired when there are other units that can generate electricity at a lower cost. Typical life spans for base load, coal-fired power plants are 50 to 65 years. For example, Unit 2 at latan was completed in 1980. The estimated probable retirement date for latan Unit 2 is 2070. Thus, the life span estimated for latan Unit 2 is 60 years, which is within the typical range. The estimated retirement dates

should not be interpreted as commitments to retire these plants on these dates, but rather, as reasonable estimates subject to modification in the future as circumstances dictate.

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 electric companies.

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

PART IV. NET SALVAGE CONSIDERATIONS

PART IV. NET SALVAGE CONSIDERATIONS

SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1999 through 2014. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and salvage data are presented in the section titled "Net Salvage Statistics" for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 1999 through 2014 contributed significantly toward the net salvage estimates for Account 390, Structures and Improvements. The estimates for the other accounts related to the assets for the other Greater Missouri Operations jurisdictions.

The overall net salvage estimates for the Company's production facility, for which the life span method is used, is based on estimates of both final net salvage and interim net salvage. Final net salvage is the net salvage experienced at the end of a production plant's life span. Interim net salvage is the net salvage experienced for interim retirements that occur prior to the final retirement of the plant. The final net salvage estimates in the study were based on a decommissioning study performed by Sega, Inc. The interim net salvage estimates were based in part on an analysis of historical interim retirement and net salvage data. Based on informed judgment that incorporated these interim net salvage analyses for each plant account, an interim net salvage estimate was established for each production account and applied to the original cost.

The interim survivor curve estimates for each account and production facility were used to calculate the percentage of plant expected to be retired as interim retirements and the final retirements. These are shown on Table 2 in the Net Salvage Statistics section on page VIII-2. These percentages were used to determine the weighted net salvage estimate for each account and production facility based on the interim and final net salvage estimates. These calculations, as well as the estimated final net salvage amounts and interim net salvage percents, are shown on Table 2 of the Net Salvage Statistics section on page VIII-2.

The net salvage estimates for most of the remaining accounts were estimated using the above-described judgment process incorporating historical indications from the other Greater Missouri Operations jurisdictions and reviewing the typical range of estimates used by other electric companies. The results of the net salvage analysis for

each plant account are presented in account sequence beginning in the section titled "Net Salvage Statistics", page VIII-3.

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

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.

Single Unit of Property

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 per year.

The accrued depreciation is:

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

Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of December 31, 2014, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2014, are set forth in the Results of Study section of the report.

Average Service Life Procedure

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

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 and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

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 proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts and their amortization periods are as follows:

		AMORTIZATION
ACCT	TITLE	PERIOD,
<u>/1001</u>	111 -	<u>YEARS</u>
391.01,	Office Furniture and Equipment	20
391.02,	Computers	8
391.04,	Software	9
393.00,	Stores Equipment	25
394.00,	Tools, Shop and Garage Equipment	25
397.00,	Communication Equipment	27
398.00,	Miscellaneous Equipment	25

For the purpose of calculating annual amortization amounts as of December 31, 2014, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater

than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

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 salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining 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 electric plant in service as of December 31, 2014. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2014, is reasonable for a period of three to five years.

DESCRIPTION OF DETAILED TABULATIONS

Table 1 is a summary of the results of the study as applied to the original cost of electric plant at December 31, 2014 presented on pages VI-4 and VI-5 of this report.

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other electric utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which where plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

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

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2014 are presented in account sequence starting on page IX-2 of the supporting documents. 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 calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.

KCP&L - GREATER MISSOURI OPERATIONS ECORP

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2014

(8) (9) (9) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10			ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2014	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT RA	RUAL RATE	COMPOSITE REMAINING LIFE
STATISTICAL SADE AND ACCESSION OF A CASE AS A CASE A CASE AS A CAS			(1)	(2)	6	(4)	1	(9)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
Third composition of the property Third composition of the pro	133		TEAM PRODUCTION PLANT STRUCTULES AND IMPROVEMENTS IATAN UNIT 2 IATAN COMMON	2070 2070	100-50.5	(6) (22)	29,106,931,12 10,107,617,44	2,461,744	28,391,603	551,968 218,393	1,90 2,16	51.4 51.4
Part			TOTAL STRUCTURES AND IMPROVEMENTS				39,214,548.56	3,585,719	39,598,921	770,361	96	51.4
TOTAL DOLEMENT TOTA	32.	2.00	BOILER PLANT EQUIPMENT BATAN UNIT 2 BATAN COMMON	2070 2070	55-R1 •	(11)	192,962,340.61 28,764,048.81	19,482,608	194,705,590	4,496,571	2.33	43.3 43.0
UNIONIZABLEATOR UNITS			TOTAL BOILER PLANT EQUIPMENT				221,726,389.42	23,184,891	225,520,166	5,212,577	2.35	43.3
TOTAL TURBOGENERATOR UNITS	3,	80.	TURBOGENERATOR UNITS IATAN UNIT 2 IATAN COMMON	2070 2070	60-R1.5 *	(7) (18)	70,652,184,05 968,983,68	4,987,381	70,610,456 1,054,149	1,539,358	2.18	45.9 45.6
ACCESSORY ELECTRIC COURMENT AND SESSES TO THE COMMON SESSES T			TOTAL TURBOGENERATOR UNITS				71,621,167.73	5,076,633	71,564,605	1,562,478	2.18	45.9
TOTAL ACCESSORY ELECTRIC EQUIPMENT 2070 55-505 0 1,126.846.25 29.030 1,027.786 22.517.190 20.201 2	£,	9.00	ACCESSORY ELECTRIC EQUIPMENT IATAN UNIT 2 IATAN COMMON	2070 2070	55-S0.5 55-S0.5	(4)	17,598,269,99 4,226,655,11	1,235,191	17,946,923	416,016	2.36	43.1
MISCELLAMEOULS POWER PLANT EQUIPMENT 2070 55-SO 5 0 1,126.816.35 99.000 1,027.766 23.818 2.11 2.32 MATAN UMIT C 2070 25-SO 5 0 1,126.816.35 29.000 1,136.520 31,739 2.15 MATAN UMIT C 2070 25-SO 5 0 31,739 2.15 2.32 MATAN LOWING			TOTAL ACCESSORY ELECTRIC EQUIPMENT				21,824,925.10	1,610,110	22,517,190	523,031	2.40	43.1
TOTAL BOLER PLANT EQUIPMENT 1,444613 07 128,608 1,344,306 31,719 2.16 TOTAL BOLER PLANT EQUIPMENT TOTAL STEAM PRODUCTION PLANT 56,811,641,88 11,866,261 316,645,188 8,099,626 2.28 STRUCTURES AND IMPROVEMENTS 50,R25 (10) 54,861,13 1,331,622,784 27,473 20,66 TOTAL TRANSMISSION PLANT 1,331,622,784 1,316,249 7,316,249 27,473 20,66 TOTAL TRANSMISSION PLANT 25,51 (10) 1,264,131,35 144,703 1,316,249 26,439 20,66 GENERAL PLANT STRUCTURES AND IMPROVEMENTS 25,51 (10) 1,264,1431,35 169,036 1,316,249 26,439 7,66 OFFICE FURNITURE AND EQUIPMENT 8,50 0 4,735,835,44 3,222,084 1,614,768 593,793 7,66 TOTAL OFFICE FURNITURE AND EQUIPMENT 9,50 0 7,099,779,779 26,633,709 7,699,779,779 26,643 7,636,741 9,70	3#	9.00	MISCELLANEOULS POWER PLANT EQUIPMENT IATAN UNIT 2 IATAN COMMON	2070 2070	55-50.5	0 (6)	1,126,816,35	99,030 29,878	1,027,766 316,520	23,818	2.11	43.2 43.0
TOTAL STEAM PRODUCTION PLANT 555,831,643.88 315,66,261 360,645,168 6,099,626 2.28 TRANSMISSION PLANT 50-R25 (10) 54,861.13 1,832 86,515 206 1,76 STRUCTURES AND IMPROVEMENTS 50-R25 (5) 1,331,652.78 1,316,249 2,56 1,76 TOTAL TRANSMISSION PLANT 25-S1 (10) 1,251,734 1,316,249 2,65 1,76 GENERAL PLANT 25-S1 (10) 1,264,431,35 169,036 1,3756,539 993,743 7,66 OFFICE FURNITURE AND EQUIPMENT 8-SO 0 4,736,835,44 3,222,684 1,614,789 5,919 SOFTWARE 9-SO 0 7,099,279,79 4,181,878 1,627,441 9,70			TOTAL BOILER PLANT EQUIPMENT				1,444,613.07	128,908	1,344,306	31,179	2.16	43.1
TRANSMISSION PLANT 54,861.13 \$4,861.13 \$4,861.13 \$6,573 \$66 \$176 \$66 STRUCTURES AND IMPROVEMENTS 50-R2.5 (5) 1,331,022.78 133,022.78 20,66 1,76 20,66 1,76 20,66 1,76 20,66 1,76 20,66 1,76 20,67 1,316,249 28,439 20,6 1,76 20,67 1,316,249 1,316,249 20,6 1,77 1,76 1,77 <t< td=""><td></td><td>۲</td><td>OTAL STEAM PRODUCTION PLANT</td><td></td><td></td><td></td><td>355,831,643.88</td><td>33,586,261</td><td>360,645,188</td><td>8,039,626</td><td>2.28</td><td>44.5</td></t<>		۲	OTAL STEAM PRODUCTION PLANT				355,831,643.88	33,586,261	360,645,188	8,039,626	2.28	44.5
COMPLIERS TOTAL OFFICE FURNITURE AND EQUIPMENT 1,316,243 1,316,249 26,51 (10) 12,641,431,35 169,036 13,736,538 26,53 7,86 8,86 7,86 8,86 <t< td=""><td>35.55</td><td></td><td>RANSMISSION PLANT STRUCTURES AND IMPROVEMENTS STATION EQUIPMENT</td><td></td><td>65-R3 50-R2.5</td><td>(10) (5)</td><td>54,861,13 1,331,052,78</td><td>1,832 139,871</td><td>58,515 1,257,734</td><td>966 27,473</td><td>1.76 2.06</td><td>60.6 45.8</td></t<>	35.55		RANSMISSION PLANT STRUCTURES AND IMPROVEMENTS STATION EQUIPMENT		65-R3 50-R2.5	(10) (5)	54,861,13 1,331,052,78	1,832 139,871	58,515 1,257,734	966 27,473	1.76 2.06	60.6 45.8
GENERAL PLANT STRUCTURES AND IMPROVEMENTS 25-S1 (10) 12,641,431,35 169,036 13,736,538 993,743 7.86 1.86 STRUCTURES AND IMPROVEMENTS 2D-SQ 0 4,936,852.21 3,322,084 1,614,788 246,843 1 OFFICE FURNITURE AND EQUIPMENT B-SQ 0 4,735,835,44 3,022,995 1,711,840 591,879 1 SOFTWARE SOFTWARE BSS_270 RSS_270 788,619 1 1,614,788 1,614,788 1,614,788 1,711,840 1,614,788 1,711,840 1,711,8		۲	OTAL TRANSMISSION PLANT				1,385,913.91	141,703	1,316,249	28,439	2.05	46.3
OFFICE FURNITURE AND EQUIPMENT 20-SQ 0 4,936,852.21 3,322,084 1,614,768 246,643 *** OFFICE FURNITURE AND EQUIPMENT 4,735,835,44 3,023,995 1,711,840 591,979 *** SOFTWARE 50FTWARE 65,243,010 855,270 788,089 4,181,878 1,627,441 9,70	396		ENERAL PLANT STRUCTURES AND IMPROVEMENTS		25-51	(10)	12,641,431,35	169,036	13,736,538	993,743	7.86	13.8
16,770,967.44 12,589,089 4,181,878 1,627,441 9,70	3 3 3	101	OFFICE FURNITURE AND EQUIPMENT OFFICE FURNITURE AND EQUIPMENT COMPUTERS SOFTWARE		20-50 8-50 9-50	000	4,936,852.21 4,735,835,44 7,098,279,79	3,322,084 3,023,995 6,243,010	1,614,768 1,711,840 855,270	246,843 591,979 788,619	:::	6.6 4.4 2.0
			TOTAL OFFICE FURNITURE AND EQUIPMENT				16,770,967.44	12,589,089	4,181,878	1,627,441	9.70	2.6



TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2014

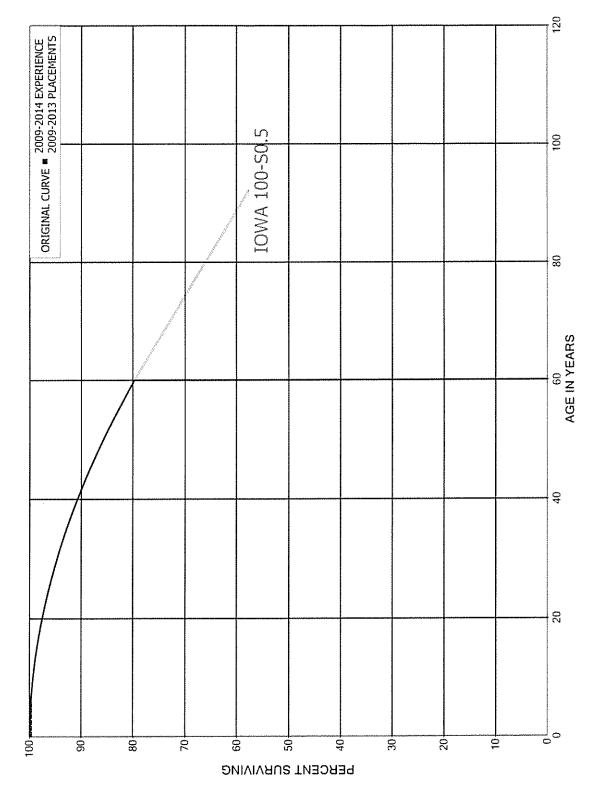
COMPOSITE REMAINING LIFE (10)=(7)/(8)	. 00 6.1 0.81 1.3.5	7.0		
REP.				
TED CRUAL RATE (9)=(8)((5)	1	8.67		
CALCULATED ANNUAL ACCRUAL AMOUNT R/	0 412 897 0 46,071	2,671,635		10,799,700
FUTURE ACCRUALS (7)	(1,229) 4,134 1,1813 (8,546) 832,591 41,488	18,788,667		380,750,104
BOOK RESERVE (6)	14,517 6,166 20,622 26,443 412,564 35,280	13,273,717		47,001,681
ORIGINAL COST AS OF DECEMBER 31, 2014 (5)	15,632.55 10,300.26 22,435.29 21,055.40 1,245,155.11 76,767.55	30,803,744,95	36,491.77	388,057,794.51
NET SALVAGE PERCENT (4)	£ 0 0 0			
SURVIVOR CURVE (3)	9-L4 25-SQ 25-SQ 20-51 27-SQ 25-SQ			
PROBABLE RETIREMENT DATE (2)				
ACCOUNT (1)	TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS STORES EQUIPMENT TOOLS, SHOPS AND GARAGE EQUIPMENT POWER OPERATED EQUIPMENT COMMUNICATION EQUIPMENT MISCELLANEOUS EQUIPMENT	TOTAL GENERAL PLANT TOTAL DEPRECIABLE PLANT	NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED LAND TOTAL NONDEPRECIABLE PLANT AND ACCOUNTS NOT STUDIED	FOIAL ELECTRIC PLANT
	392.05 393.00 394.00 396.00 397.00 398.00	,	389.00	

Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.
 Annual Accrual calculated using the accrual rate consistent with amortization period. The rate for the account is:

Rate	5.00%	12.50%	11.11%	4.00%	4.00%	3,70%	4.00%
Account	391.01	391.02	391.04	393.00	394.00	397.00	398.00

PART VII. SERVICE LIFE STATISTICS

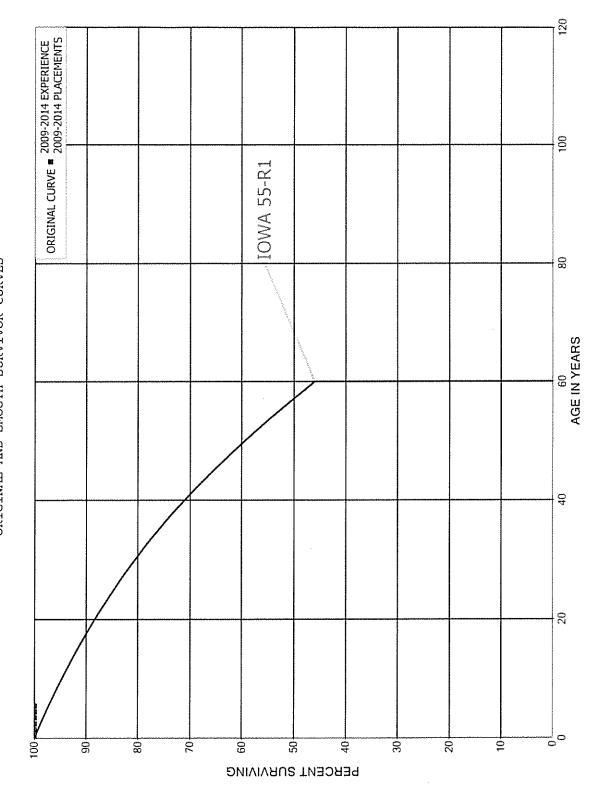
KCP&L - GREATER MISSOURI OPERATIONS
ECORP
ACCOUNT 311 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 2009-2013		EXPER	RIENCE BAN	D 2009-2014
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	39,828,414		0.0000	1.0000	100.00
0.5	72,914,146		0.0000	1.0000	100.00
1.5	72,805,292		0.0000	1.0000	100.00
2.5	48,711,333		0.0000	1.0000	100.00
3.5	47,551,270		0.0000	1.0000	100.00
4.5	8,160,677		0.0000	1.0000	100.00
5.5					100.00

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ECORP
ACCOUNT 312 BOILER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES

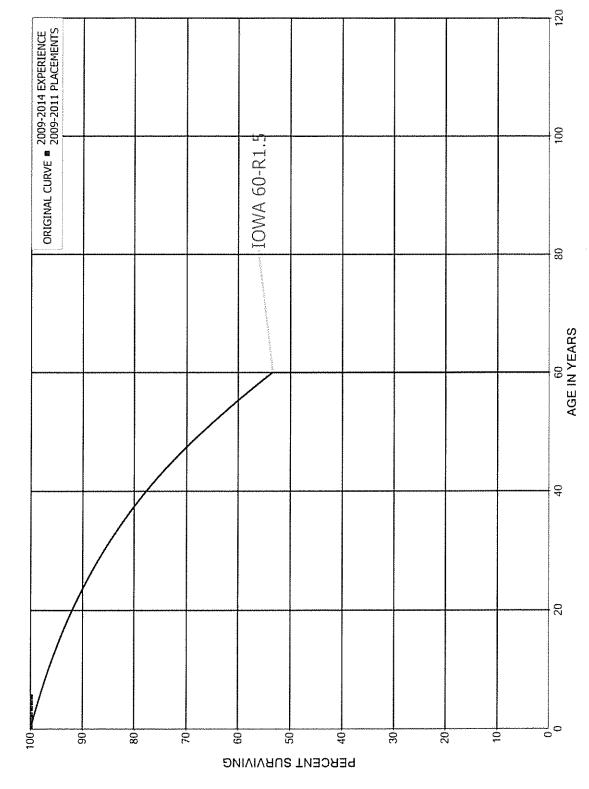


$\begin{array}{cccc} \text{KCP\&L} & \text{-} & \text{GREATER MISSOURI OPERATIONS} \\ & & \text{ECORP} \end{array}$

ACCOUNT 312 BOILER PLANT EQUIPMENT

PLACEMENT	BAND 2009-2014		EXPE	RIENCE BAN	D 2009-2014
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	226,029,804		0.0000	1.0000	100.00
0.5	225,934,259		0.0000	1.0000	100.00
1.5	459,537,682		0.0000	1.0000	100.00
2.5	250,238,045		0.0000	1.0000	100.00
3.5	248,533,743		0.0000	1.0000	100.00
4.5	27,022,452		0.0000	1.0000	100.00
5.5					100.00

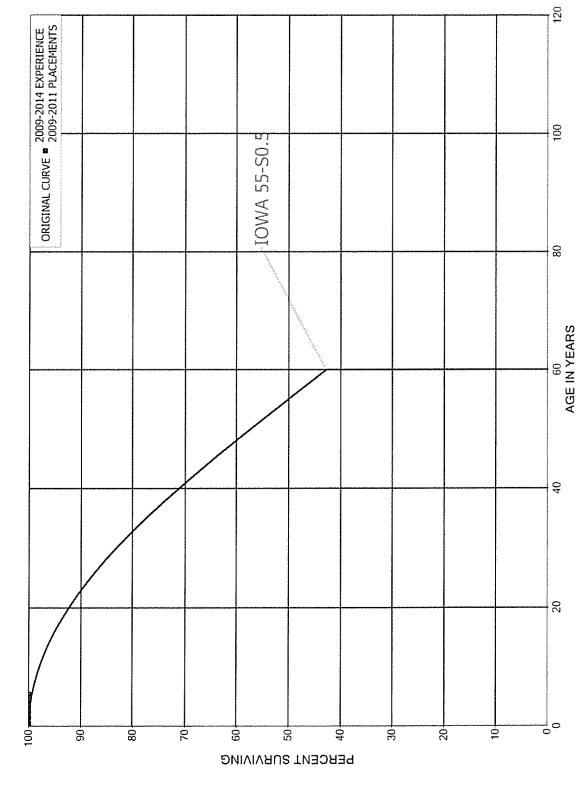
KCP&L - GREATER MISSOURI OPERATIONS
ECORP
ACCOUNT 314 TURBOGENERATOR UNITS
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 314 TURBOGENERATOR UNITS

PLACEMENT	BAND 2009-2011		EXPE	RIENCE BAND	2009-2014
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 0.5 1.5	71,768,203 71,768,203 102,401,734		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00
2.5 3.5	71,986,350 72,347,325		0.0000 0.0000	1.0000	100.00 100.00
4.5 5.5	913,472		0.0000	1.0000	100.00 100.00

KCP&L - GREATER MISSOURI OPERATIONS
ECORP
ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES

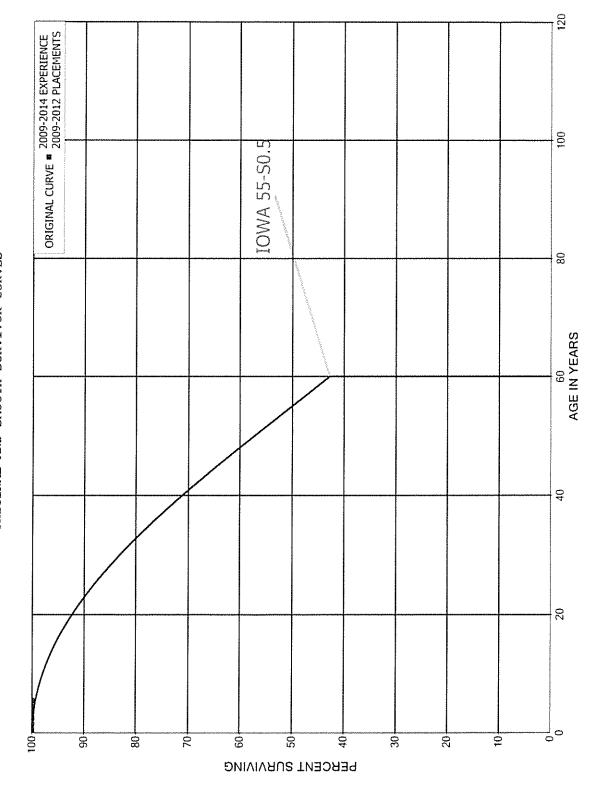


ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

PLACEMENT	BAND 2009-2011		EXPER	RIENCE BANI	2009-2014
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	3,895,036		0.0000	1.0000	100.00
0.5	3,895,036		0.0000	1.0000	100.00
1.5	14,805,464		0.0000	1.0000	100.00
2.5	21,832,907		0.0000	1.0000	100.00
3.5	21,582,986		0.0000	1.0000	100.00
4.5	3,981,252		0.0000	1.0000	100.00
5.5					100.00

KCP&L - GREATER MISSOURI OPERATIONS

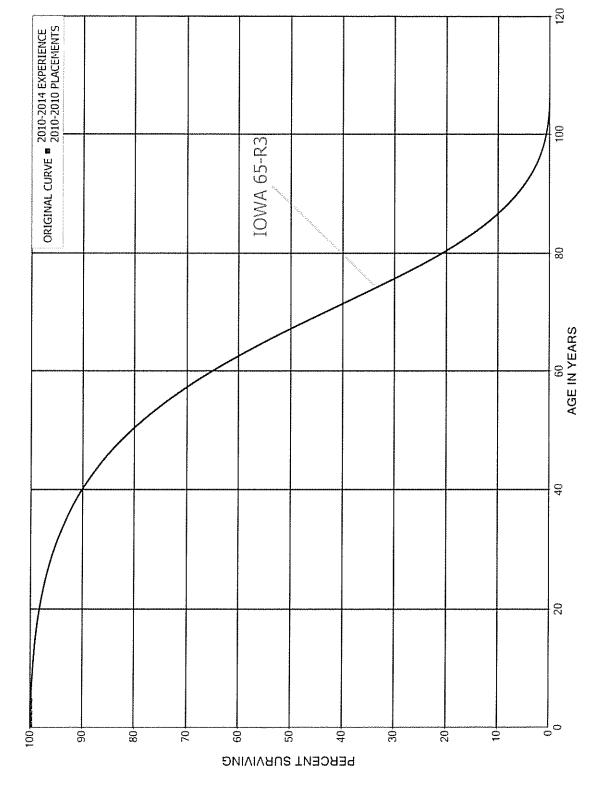
ECORP
ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 2009-2012		EXPE	RIENCE BAN	D 2009-2014
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 0.5 1.5 2.5 3.5 4.5 5.5	1,452,304 1,452,304 2,618,344 1,409,379 1,347,776 194,533		0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00

KCP&L - GREATER MISSOURI OPERATIONS ECORP ACCOUNT 352 STRUCTURES AND IMPROVEMENTS ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

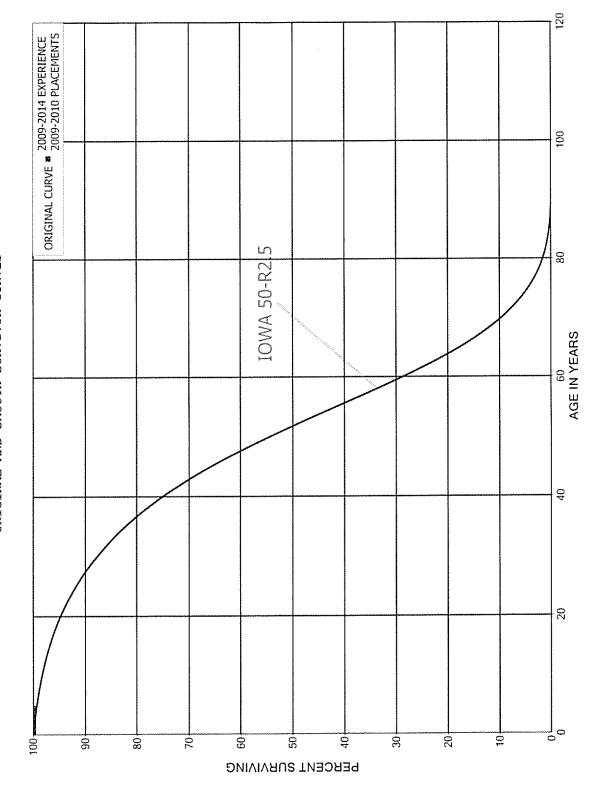
PLACEMENT	BAND 2010-2010		EXPE	RIENCE BANI	2010-2014
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	54,861		0.0000	1.0000	100.00
0.5	54,861		0.0000	1.0000	100.00
1.5	54,861		0.0000	1.0000	100.00
2.5	54,861		0.0000	1.0000	100.00
3.5	54,861		0.0000	1.0000	100.00
4.5					100.00

KCP&L - GREATER MISSOURI OPERATIONS

ECORP

ACCOUNT 353 STATION EQUIPMENT

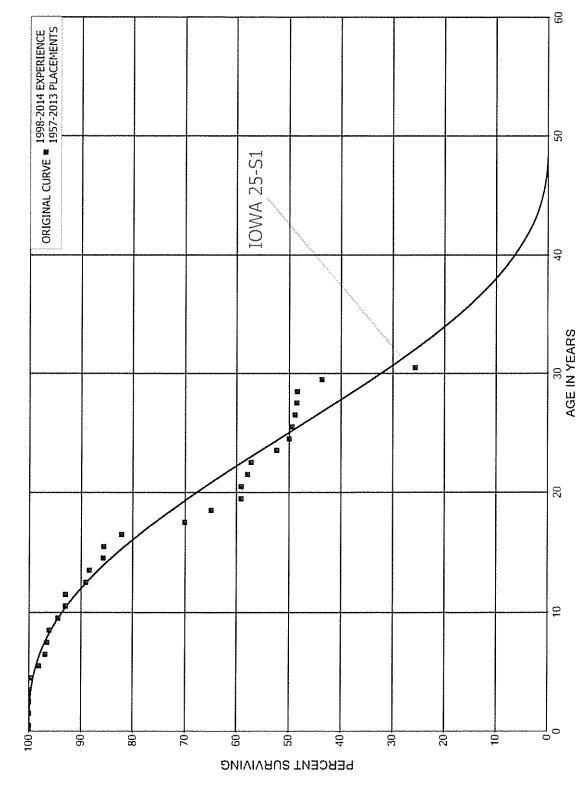
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 353 STATION EQUIPMENT

PLACEMENT	BAND 2009-2010		EXPER	RIENCE BAND	2009-2014
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
INIEKVAL	AGE INTERVAL	INIEKVAD			
0.0	1		0.0000	1.0000	100.00
0.5	1		0.0000	1.0000	100.00
1.5	1,385,915		0.0000	1.0000	100.00
2.5	1,729,790		0.0000	1.0000	100.00
3.5	1,729,790		0.0000	1.0000	100.00
4.5					100.00

KCP&L - GREATER MISSOURI OPERATIONS
ECORP
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

PLACEMENT	BAND 1957-2013		EXPE	RIENCE BAN	D 1998-2014
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	23,929,541		0.0000	1.0000	100.00
0.0 0.5	23,929,541		0.0000	1.0000	100.00
1.5	63,426,711	29,400	0.0005	0.9995	100.00
2.5	60,353,475	2,866	0.0000	1.0000	99.95
3.5	60,323,473	110,769	0.0018	0.9982	99.95
4.5	64,021,762	1,069,903	0.0167	0.9833	99.77
5.5	64,027,727	790,839	0.0124	0.9876	98.10
6.5	62,403,473	238,597	0.0038	0.9962	96.89
7.5	54,771,579	262,244	0.0048	0.9952	96.52
8.5	53,717,718	918,951	0.0171	0.9829	96.05
0.5	23,727,720	J. U. J.			
9.5	52,399,727	780,148	0.0149	0.9851	94.41
10.5	51,533,013	670	0.0000	1.0000	93.01
11.5	8,535,560	358,507	0.0420	0.9580	93.00
12.5	6,253,405	51,016	0.0082	0.9918	89.10
13.5	3,187,046	94,825	0.0298	0.9702	88.37
14.5	4,202,827	8,861	0.0021	0.9979	85.74
15.5	4,324,443	171,684	0.0397	0.9603	85.56
16.5	3,949,097	584,146	0.1479	0.8521	82.16
17.5	2,349,621	171,294	0.0729	0.9271	70.01
18.5	2,178,327	191,237	0.0878	0.9122	64.91
19.5	1,987,090		0.0000	1.0000	59.21
20.5	1,972,591	40,187	0.0204	0.9796	59.21
21.5	1,640,992	19,827	0.0121	0.9879	58.00
22.5	1,408,411	119,724	0.0850	0.9150	57.30
23.5	1,110,676	52,882	0.0476	0.9524	52.43
24.5	1,031,146	10,481	0.0102	0.9898	49.93
25.5	1,009,753	12,741	0.0126	0.9874	49.43
26.5	997,012	6,221	0.0062	0.9938	48.80
27.5	662,297	1,765	0.0027	0.9973	48.50
28.5	519,820	50,807	0.0977	0.9023	48.37
29.5	467,357	193,325	0.4137	0.5863	43.64
30.5	353	353	1.0000		25.59
31.5	1,464	1,464	1.0000		
32.5	1,832	1,832	1.0000		
33.5	284	284	1.0000		
34.5					
35.5					
36.5	291	291	1.0000		
37.5	397	397	1.0000		
38.5	616	616	1.0000		

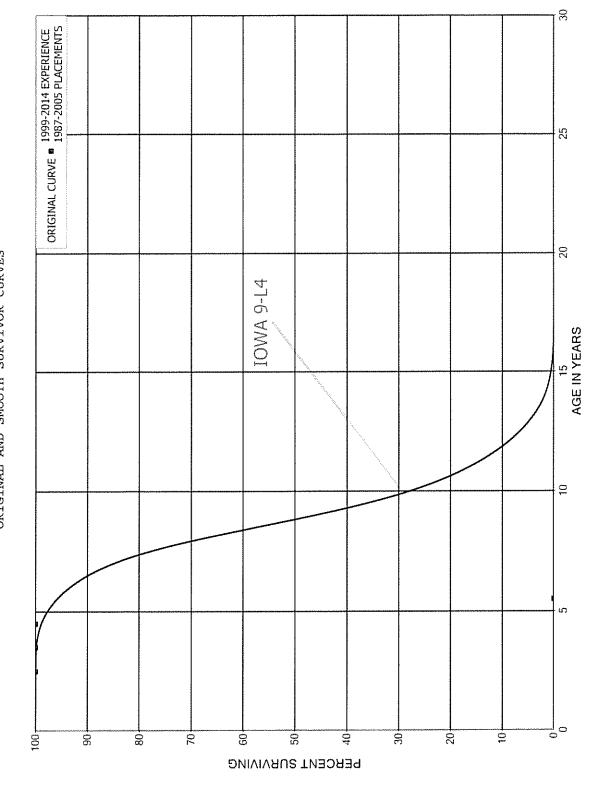
ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1957-2013		EXPER	IENCE BANI	1998-2014
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	9,131	9,131	1.0000		
40.5	33,889	33,889	1.0000		
41.5	802,970	791,141	0.9853		
42.5	11,828		0.0000		
43.5	11,828	11,828	1.0000		
44.5					

KCP&L - GREATER MISSOURI OPERATIONS

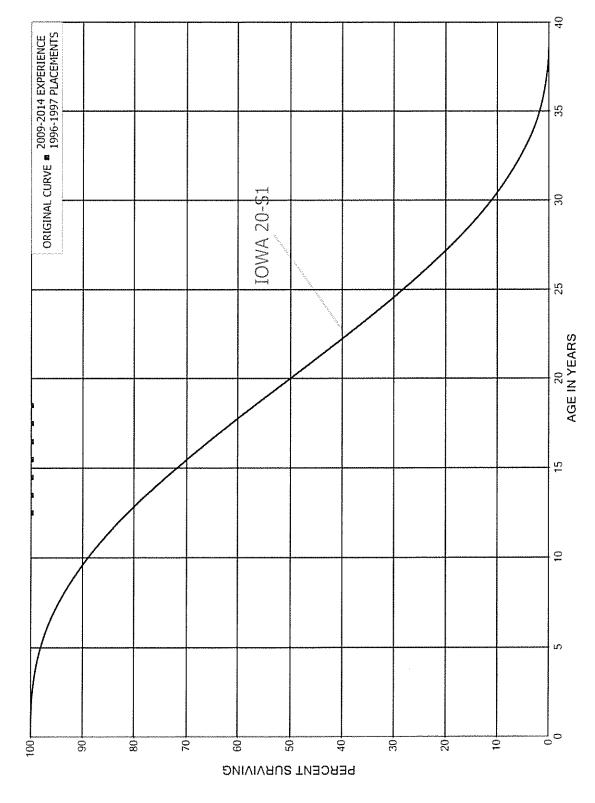
ECORP
ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

PLACEMENT	BAND 1987-2005		EXPE	RIENCE BAND	1999-2014
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 0.5 1.5 2.5	5,002		0.0000	1.0000	100.00
3.5 4.5 5.5 6.5 7.5 8.5	5,002 5,002 17,425 55,363 55,363 37,937	5,002		1.0000	100.00
9.5 10.5 11.5 12.5	22,305 22,305 22,305	22,305	0.0000 0.0000 1.0000		

KCP&L - GREATER MISSOURI OPERATIONS
ECORP
ACCOUNT 396 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



ACCOUNT 396 POWER OPERATED EQUIPMENT

PLACEMENT	BAND 1996-1997		EXPE	RIENCE BAN	ID 2009-2014
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 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5					
9.5 10.5 11.5 12.5 13.5 14.5	4,396 21,055 21,055		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00
15.5 16.5 17.5 18.5	21,055 21,055 16,659		0.0000	1.0000	100.00 100.00 100.00

PART VIII. NET SALVAGE STATISTICS

KCP&L - GREATER MISSOURI OPERATIONS ECORP JURISDICTION

TABLE 2. CALCULATION OF WEIGHTED NET SALVAGE PERCENT FOR GENERATION PLANT AS OF DECEMBER 31, 2014

	TERMINA	ERMINAL RETIREMENTS		MIER	NTERIM RETIREMENTS		TOTAL		ESTIMATED
		NET	NET	AND THE RESIDENCE OF A SECURIAR WAS A SECURIAL A SECURIAR A SECURI	I I		NET		NET
	RETIREMENTS	SALVAGE	SALVAGE	RETIREMENTS	SALVAGE	SALVAGE	SALVAGE	TOTAL	SALVAGE
ACCOUNT	(5)	€	3	8	(%)	€	€	RETIREMENTS	(%)
()	(2)	(3)	(4)=(3)√2)	(5)	(9)	(7)=(5)×(6)	(8)=(3)+(7)	(9)=(5)+(5)	(10)=(9)/(9)
STEAM PRODUCTION PLANT									
MTAN 2									
1.00 STRUCTURES AND MAPROVEMENTS	23,362,906	106,346	6	5,744,026	(30)	1,723,208	1,829,553	29,106,931	(6)
2.00 BOLLER PLANT EQUIPMENT	92,187,835	419,629	Ð	100,774,506	(gg)	20,154,901	20,574,531	192,962,343	(11)
4.00 TURBOGENERATOR UNITS	38,835,832	176,777	6	31,816,352	(15)	4,772,453	4,949,229	70,652,184	(3)
5.09 ACCESSORY ELECTRIC EQUIPMENT	7,683,588	34,975	6	9,914,652	(12)	1,487,202	1,522,177	17,598,270	6
6.00 MISCELLANEOUS POWER PLANT EQUIPMENT	492,358	2,241	6	634,459	0	THE STREET, STATE OF THE STATE	2.241	1,126,815	c)
TOTAL LATAN 2	162,562,518	739,968	6	148,884,025		28,137,764	28,877,732	311,446,542	(8)
MATAN COMMON						,			
1.00 STRUCTURES AND IMPROVEMENTS	8,071,258	1,602,880	(20)	2,036,360	(30)	610,908	2,213,787	10,107,617	(52)
2.00 BOLER PLANT EQUIPMENT	13,440,939	2,669,250	(20)	15,323,110	(20)	3,064,622	5,733,872	28,764,049	62
4.00 TURBOGENERATOR UNITS	521,410	103,547	(50)	447,573	(15)	67,136	170,683	968,984	(18)
5.00 ACCESSORY ELECTRIC EQUIPMENT	1,794,529	356,377	(20)	2,432,126	(15)	364,319	721,196	4,226,655	(17)
6.00 MISCELLANEOUS POWER PLANT EQUIPMENT	137,548	27,316	(20)	180.249	o	ACC.	27,316	317,797	(8)
Total latan common	23,965,554	4,759,371	(20)	20,419,417		4,107,485	2,866,855	44,385,102	(20)
TOTAL DEPRECIABLE PRODUCTION PLANT	186,528,202	5,499,338		169,303,442	•	37,245,249	17,744,587	355,811,644	

* THE TERMINAL NET SALVAGE AMOUNTS SHOWN ARE ALLOCATED TO EACH PLANT ACCOUNT BASED ON THE TERMINAL RETHREMENT AMOUNTS AND ARE ESCALATED TO THE RETHREMENT DATE OF EACH GENERATING UNIT,



ACCOUNT 353 STATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVAL		GROSS SALVAG	E	NET SALVAGE	
YEAR	RETIREMENTS	TRUOMA	PCT	TNUOMA	PCT	TNUOMA	PCT
2012		292				292-	
2013							
2014							
TOTAL		292				292-	
THREE-YE	AR MOVING AVERAG	ES					
12-14		97				97-	

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1999	930,896		0	155	0	155	0
2000	41,831		0		0		0
2001	2,780,428		0		0		0
2002	745,987		0		0		0
2003	1,441,500	65,872	5		0	65,872-	5-
2004	_,,,	,					
2005							
2006	116,643	718	1		0	718~	1-
2007	1,835,847		0		0		0
2008	_,,						
2009							
2010	113,584	5,000	4		0	5,000-	4 -
2011	·						
2012	131,797	65,447	50		0	65,447-	50-
2013	87,114	3,000	3		0	3,000-	3 -
2014	395,085	140,778	36		0	140,778-	36-
TOTAL	8,620,711	280,815	3	155	0	280,660-	3 -
THREE-YE	AR MOVING AVERAG	ES					
99-01	1,251,052		0	52	0	52	0
00-02	1,189,415		0		0		0
01-03	1,655,972	21,957	1		0	21,957-	1-
02-04	729,162	21,957	3		0	21,957-	3 -
03-05	480,500	21,957	5		0	21,957-	5 -
04-06	38,881	239	1		0	239-	1-
05-07	650,830	239	0		0	239-	0
06-08	650,830	239	0		0	239-	0
07-09	611,949		0		0		0
08-10	37,861	1,667	4		0	1,667-	4
09-11	37,861	1,667	4		0	1,667-	4 ~
10-12	81,794	23,482	29		0	23,482-	29-
11-13	72,970	22,816	31		0	22,816-	31-
12-14	204,665	69,742	34		0	69,742-	34-
FIVE-YEA	R AVERAGE						
10-14	145,516	42,845	29		0	42,845-	29-

ACCOUNT 392 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
		A1.00141		ANOUN I		A100111	
1999	75,657		0		0		0
2000			_		_		_
2001	42,606		0		0		0
2002							
2003	20.20			2 0 5 5	71.5"	2 255	٦.
2004	22,305		0	3,255	15	3,255	15
2005							
2006 2007							
2007							
2008							
2010							
2011							
2012							
2013							
2014							
TOTAL	140,568		0	3,255	2	3,255	2
THREE-YE	AR MOVING AVERAGES						
99-01			0		0		0
00-02	39,421 14,202		0		0		0
01-03	14,202		0		0		0
02-04	7,435		0	1,085	15	1,085	15
02-04	7,435		0	1,085	15	1,085	15
04-06	7,435		0	1,085	15	1,085	15
05-07	77135		Ů	1,000	J. W	1,000	
06-08							
07-09							
08-10							
09-11							
10-12							
11-13							
12-14							

FIVE-YEAR AVERAGE

10-14



PART IX. DETAILED DEPRECIATION CALCULATIONS

ACCOUNT 311 STRUCTURES AND IMPROVEMENTS

YEAR		CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 2 RIM SURVIVOR CURVI ABLE RETIREMENT YI BALVAGE PERCENT	EAR 6~2070				
2010	28,690,277.98	2,406,782	2,447,075	27,964,619	51.43	543,741
2011	18,057.41	1,200	1,220	17,921	51.60	347
2012	77,140.71	3,724	3,786	77,983	51.77	1,506
2013	321,455.02	9,503	9,662	331,080	51.94	6,374
	29,106,931.12	2,421,209	2,461,744	28,391,603		551,968
INTER PROBA	COMMON IM SURVIVOR CURVI BLE RETIREMENT YI BLVAGE PERCENT	EAR 6-2070				
2009	8,160,676.50	945,723	961,556	8,994,470	51.26	175,468
2010	•	70,664	71,847	821,055	51.43	15,965
2011	1,107,558.05	84,681	86,099	1,265,122	51.60	24,518
2012		1,915	1,947	40,103	51.77	775
2013	73,028.94	2,485	2,527	86,569		1,667
	10,107,617.44	1,105,468	1,123,975	11,207,318		218,393
	39,214,548.56	3,526,677	3,585,719	39,598,921		770,361
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCEN	Г 51.4	1.96

ACCOUNT 312 BOILER PLANT EQUIPMENT

YEAR	COST		ALLOC. BOOK RESERVE (4)	ACCRUALS	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 2 IM SURVIVOR CURV BLE RETIREMENT N ALVAGE PERCENT.	YEAR 6-2070				
2010	192,751,997.08	15,958,882	19,474,089	194,480,627	43.30	4,491,469
2011	33,082.38	2,156	2,631	34,091	43.60	782
2012	81,716.13	3,879	4,733	85,971	43.88	1,959
2014	95,545.02	946	1,154	104,901	44.44	2,361
	192,962,340.61	15,965,863	19,482,608	194,705,590		4,496,571
INTER PROBA	COMMON IM SURVIVOR CURV BLE RETIREMENT Y ALVAGE PERCENT.	YEAR 6-2070				
2009	27,022,451.83	2,910,318	3.551.364	28,875,578	43.00	671.525
	50,267.00	4,499	5,490		43.30	1,266
2011	·	•	145,429	1,884,167	43.60	43,215
	28,764,048.81	3,033,995	3,702,283	30,814,576		716,006
	221,726,389.42	18,999,858	23,184,891	225,520,166		5,212,577
	COMPOSITE REMAIN	NING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	43.3	2.35

ACCOUNT 314 TURBOGENERATOR UNITS

YEAR		CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)		REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 2 IM SURVIVOR CURVI BLE RETIREMENT YE ALVAGE PERCENT	EAR 6-2070				
2010 2011	, ,	5,810,662 1,029	4,986,498 883	70,594,427 16,029	45.87 46.16	1,539,011 347
	70,652,184.05	5,811,691	4,987,381	70,610,456		1,539,358
INTER PROBA	COMMON IM SURVIVOR CURVE BLE RETIREMENT YE ALVAGE PERCENT	AR 6-2070				
2009	913,472.34	100,018	85,832	992,065	45.56	21,775
2011	55,511.34	3,985	3,420	62,084	46.16	1,345
	968,983.68	104,003	89,252	1,054,149		23,120
	71,621,167.73	5,915,694	5,076,633	71,664,605		1,562,478
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	45.9	2.18

ACCOUNT 315 ACCESSORY ELECTRIC EQUIPMENT

YEAR	COST	ACCRUED	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)		ANNUAL ACCRUAL (7)
INTER PROBA	UNIT 2 IM SURVIVOR CURVI BLE RETIREMENT YE ALVAGE PERCENT	EAR 6-2070				
2010	17,598,269.99	1,738,667	1,235,191	17,946,923	43.14	416,016
	17,598,269.99	1,738,667	1,235,191	17,946,923		416,016
INTER PROBA	COMMON IM SURVIVOR CURVE BLE RETIREMENT YE ALVAGE PERCENT	EAR 6-2070				
2009	3,981,251.87	507,077	360,240	4,297,825	42.65	100,770
2010	•			3,792		
2011	241,939.16	20,296	14,419	268,650	43.63	6,157
	4,226,655.11	527,740	374,919	4,570,267		107,015
	21,824,925.10	2,266,407	1,610,110	22,517,190		523,031
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAI	RATE, PERCEN	г 43.1	2.40

ACCOUNT 316 MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)			FUTURE BOOK ACCRUALS (5)		ANNUAL ACCRUAL (7)
PROBAB	UNIT 2 M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2070				
2010	1,099,378.93	99,648	97,113	1,002,266	43.14	23,233
2011	27,437.42	1,967	1,917			
	1,126,816.35	101,615	99,030	1,027,786		23,818
PROBAB	COMMON M SURVIVOR CURV LE RETIREMENT Y LVAGE PERCENT	EAR 6-2070				
2009	194,532.54	23,083	20,844	191,196	42.65	4,483
2010	53,864.52	5,322	4,806	53,906		•
2011	34,499.75	2,696	2,435	35,170	43.63	
2012	34,899.91	1,986	1,793	36,248	44.12	822
	317,796.72	33,087	29,878	316,520		7,361
	1,444,613.07	134,702	128,908	1,344,306		31,179

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 43.1 2.16

ACCOUNT 352 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA AGE PERCENT					
2010	54,861.13	4,095	1,832	58,515	60.59	966
	54,861.13	4,095	1,832	58,515		966

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 60.6 1.76

ACCOUNT 353 STATION EQUIPMENT

YEAR	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	VOR CURVE IOWA ALVAGE PERCENT					
2010	1,331,052.78	117,958	139,871	1,257,734	45.78	27,473
	1,331,052.78	117,958	139,871	1,257,734		27,473
	COMPOSITE REMAIN	ING LIFE AND	ANNUAL ACCRUAL	RATE, PERCENT	r 45.8	2.06

ACCOUNT 390 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR	ORIGINAL COST	CALCULATED ACCRUED	ALLOC. BOOK RESERVE	FUTURE BOOK ACCRUALS	REM.	ANNUAL ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI	VOR CURVE IOWA	25-S1				
NET S.	ALVAGE PERCENT	-10				
1984	274,032.84	230,297	7,188	294,248	5.90	49,873
1985	4,596.56	3,790	118	4,938	6.26	789
1986	140,711.60	113,672	3,548	151,235	6.64	22,776
1987	330,259.04	261,275	8,155	355,130	7.02	50,588
1989	11,871.41	8,974	280	12,779	7.82	1,634
1990	26,647.65	19,651	613	28,699	8.24	3,483
1991	192,355.86	138,212	4,314	207,277	8.67	23,907
1992	213,692.12	149,405	4,664	230,397	9.11	25,291
1993	311,238.60	211,306	6,596	335,766	9.57	35,085
1994	54,686.34	35,997	1,124	59,031	10.04	5,880
1997	1,015,329.49	600,425	18,742	1,098,120	11.56	94,993
1998	203,662.03	115,599	3,608	220,420	12.10	18,217
1999	52,601.96	28,561	892	56,970	12.66	4,500
2000	65,131.39	33,673	1,051	70,594	13.25	5,328
2001	3,216,588.46	1,576,643	49,214	3,489,033	13.86	251,734
2002	2,073,220.13	957,828	29,898	2,250,644	14.50	155,217
2003	47,781.99	20,688	646	51,914	15.16	3,424
2005	356,772.30	132,177	4,126	388,324	16.58	23,421
2006	772,241.17	260,616	8,135	841,330	17.33	48,548
2007	514,426.35	155,727	4,861	561,008	18.12	30,961
2008	310,021.74	82,801	2,584	338,440	18.93	17,878
2009	76,589.67	17,557	548	83,701	19.79	4,229
2010	343,925.64	65,525	2,045	376,273	20.67	18,204
2011	95,388.67	14,312	447	104,481	21.59	4,839
2012	1,256,951.39	136,052	4,246	1,378,401	22.54	61,154
2013	680,706.95	44,627	1,393	747,385	23.51	31,790
	12,641,431.35	5,415,390	169,036	13,736,538		993,743

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.8 7.86

ACCOUNT 391.01 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

	ORIGINAL	CALCULATED	ALLOC, BOOK	FUTURE BOOK	REM.	ANNUAL
YEAR	COST	ACCRUED	RESERVE	ACCRUALS	LIFE	ACCRUAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	OR CURVE 20-S	-				
NET SA	LVAGE PERCENT	0				
1995	176,606.33	172,191	171,946	4,660	0.50	4,660
1996	19,458.70	17,999	17,973	1,486	1.50	991
1997	70,219.53	61,442	61,355	8,865	2.50	3,546
1998	141,677.93	116,884	116,718	24,960	3.50	7,131
1999	390,390.86	302,553	302,123	88,268	4.50	19,615
2000	59,998.63	43,499	43,437	16,562	5.50	3,011
2001	2,755,518.76	1,859,975	1,857,328	898,191	6.50	138,183
2002	1,054,519.47	659,075	658,138	396,381	7.50	52,851
2003	10,940.80	6,291	6,282	4,659	8.50	548
2004	2,247.16	1,180	1,178	1,069	9.50	113
2005	25,854.88	12,281	12,264	13,591	10.50	1,294
2006	62,897.67	26,732	26,694	36,204	11.50	3,148
2007	32,772.88	12,290	12,272	20,501	12.50	1,640
2008	77,759.92	25,272	25,236	52,524	13.50	3,891
2010	2,313.14	520	519	1,794	15.50	116
2011	38,474.92	6,733	6,724	31,751	16.50	1,924
2012	15,200.63	1,900	1,897	13,304	17.50	760
	4,936,852.21	3,326,817	3,322,084	1,614,768		243,422

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.6 4.93

ACCOUNT 391.02 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE 8-SQI LVAGE PERCENT					
2007	1,450,155.75	1,359,521	1,438,292	11,864	0.50	11,864
2008	246,644.50	200,399	212,010	34,634	1.50	23,089
2009	1,094,079.57	752,180	795,762	298,318	2.50	119,327
2010	533,553.44	300,124	317,514	216,039	3.50	61,725
2011	247,261.88	108,177	114,445	132,817	4.50	29,515
2013	521,756.10	97,829	103,497	418,259	6.50	64,348
2014	642,384.20	40,149	42,475	599,909	7.50	79,988
	4,735,835.44	2,858,379	3,023,995	1,711,840		389,856

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.4 8.23

ACCOUNT 391.04 OFFICE FURNITURE AND EQUIPMENT - SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVO	OR CURVE 9-SQ	UARE				
NET SAL	VAGE PERCENT	0				
2006	4 800 760 03	4 554 000	4 630 074	300 400	2 = 2	
2006	4,822,762.03	4,554,809	4,632,274	190,488	0.50	190,488
2007	932,269.72	776,888	790,101	142,169	1.50	94,779
2009	1,217,611.11	744,094	756,749	460,862	3.50	131,675
2010	125,636.93	62,818	63,886	61,751	4.50	13,722
	7,098,279.79	6,138,609	6,243,010	855,270		430,664

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.0 6.07

ACCOUNT 392.05 TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	OR CURVE IOWA LVAGE PERCENT					
2005	15,632.55	10,778	14,517	1,229-		
	15,632.55	10,778	14,517	1,229-		
CC	OMPOSITE REMAIN:	ING LIFE AND	ANNUAL ACCRUAI	L RATE, PERCENT	r o.o	0.00

ACCOUNT 393 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-5 VAGE PERCENT					
1996	4,224.91	3,126	3,127	1,098	6.50	169
2002	6,075.35	3,038	3,039	3,036	12.50	243
	10,300.26	6,164	6,166	4,134		412

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.0 4.00

ACCOUNT 394 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 25-S VAGE PERCENT	-				
1990 1991	10,584.21 11,851.08	10,373 11,140	9,943 10,679	641 1,172	0.50 1.50	641 781
	22,435.29	21,513	20,622	1,813		1,422

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 1.3 6.34

ACCOUNT 396 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE IOWA	20-S1 +15				
1996	16,659.35	9,162	14,160			
1997	4,396.05	2,334	12,283	8,546-		
	21,055.40	11,496	26,443	8,546-		

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

ACCOUNT 397 COMMUNICATIONS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	R CURVE 27-S JAGE PERCENT	-				
1999	18,802.79	10,794	10,746	8,057	11.50	701
2002	283,286.20	131,150	130,565	152,721	14.50	10,532
2003	69,995.86	29,813	29,680	40,316	15.50	2,601
2006	586,326.84	184,582	183,759	402,568	18.50	21,760
2008	176,264.92	42,434	42,245	134,020	20.50	6,538
2009	55,884.03	11,384	11,333	44,551	21.50	2,072
2011	16,502.13	2,139	2,129	14,373	23.50	612
2013	38,092.34	2,116	2,107	35,985	25.50	1,411
	1,245,155.11	414,412	412,564	832,591		46,227

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.0 3.71

ACCOUNT 398 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
	CURVE 25-S VAGE PERCENT	~				
2001	54,768.34	29,575	29,588	25,180	11.50	2,190
2002	1,473.48	737	737	736	12.50	59
2006	9,586.81	3,260	3,261	6,326	16.50	383
2008	5,185.19	1,348	1,349	3,836	18.50	207
2013	5,753.73	345	345	5,409	23.50	230
	76,767.55	35,265	35,280	41,488		3,069

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.5 4.00