EXHIBIT JJS-2
(Abbreviated)

BLACK HILLS POWER

Rapid City, South Dakota

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO ELECTRIC PLANT

AS OF DECEMBER 31, 2012

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania

Gannett Fleming

Excellence Delivered As Promised

November 27, 2013

Black Hills Power
625 Ninth Street
Rapid City, SD 57701

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Attention Mr. Chris Kilpatrick
Director of Rates

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of Black Hills Power. The study results include annual depreciation rates as of December 31, 2012. 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 annual and accrued depreciation.

Respectfully submitted,

GANNETT FLEMING, INC.

John J. Spanos

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PART I. INTRODUCTION

BLACK HILLS POWER

DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report presents the results of the depreciation study prepared for Black Hills Power (the Company) as applied to electric plant in service as of December 31, 2012. The report relates to the concepts, methods and basic judgments which underlie recommended annual depreciation accrual rates and amounts related to current electric 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 2012; 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 life and salvage estimates used for other electric properties.

PLAN OF REPORT

Part I, Introduction, includes brief statements of the scope and basis of the study. Part II presents descriptions of the methods used in the service life and net salvage studies and the methods and procedures used in the calculation of depreciation. Part III presents the results of the study, including a summary table, survivor curve charts and life tables resulting from the retirement rate method of analysis, tabular results of the historical net salvage analyses, and detailed tabulations of the calculated remaining lives and annual accruals.

BASIS OF STUDY

Depreciation

For all 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 and common plant accounts, the annual depreciation was based on amortization accounting. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group.

Service Life Estimates

The average service life estimates were based on informed judgment which incorporated analyses of available historical service life data related to the property, a review of management's current plans and operating policies, and a general knowledge of service lives experienced and estimated in the electric industry. The use of survivor curves to reflect the expected dispersion of retirements provides a consistent method of estimating depreciation for utility property. Iowa type survivor curves were used to depict the estimated survivor curves for the plant account property groups.

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.

The Company's service life estimates used in the depreciation calculation incorporated historical data compiled through 2012 from the property records of the

Company. Such data included plant additions, retirements, transfers and other activity. Generally, retirement data for the years 1950 through 2012 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.

Net Salvage Estimates

The estimates of net salvage were based in part on historical data compiled for the years 1997 through 2012. 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 three-year moving average bases. The most recent five-year average also was calculated for consideration. The estimates of net salvage are expressed as percentages of the cost of plant retired.

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

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DEPRECIATION

Depreciation, in public utility regulation, is the loss in service value not restored by current repairs or covered by insurance.

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.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and net salvage. These subjects are discussed in the sections which follow.

SERVICE LIFE AND NET SALVAGE ESTIMATION

Average Service Life

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. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

Survivor Curves

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 years 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 and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

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 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

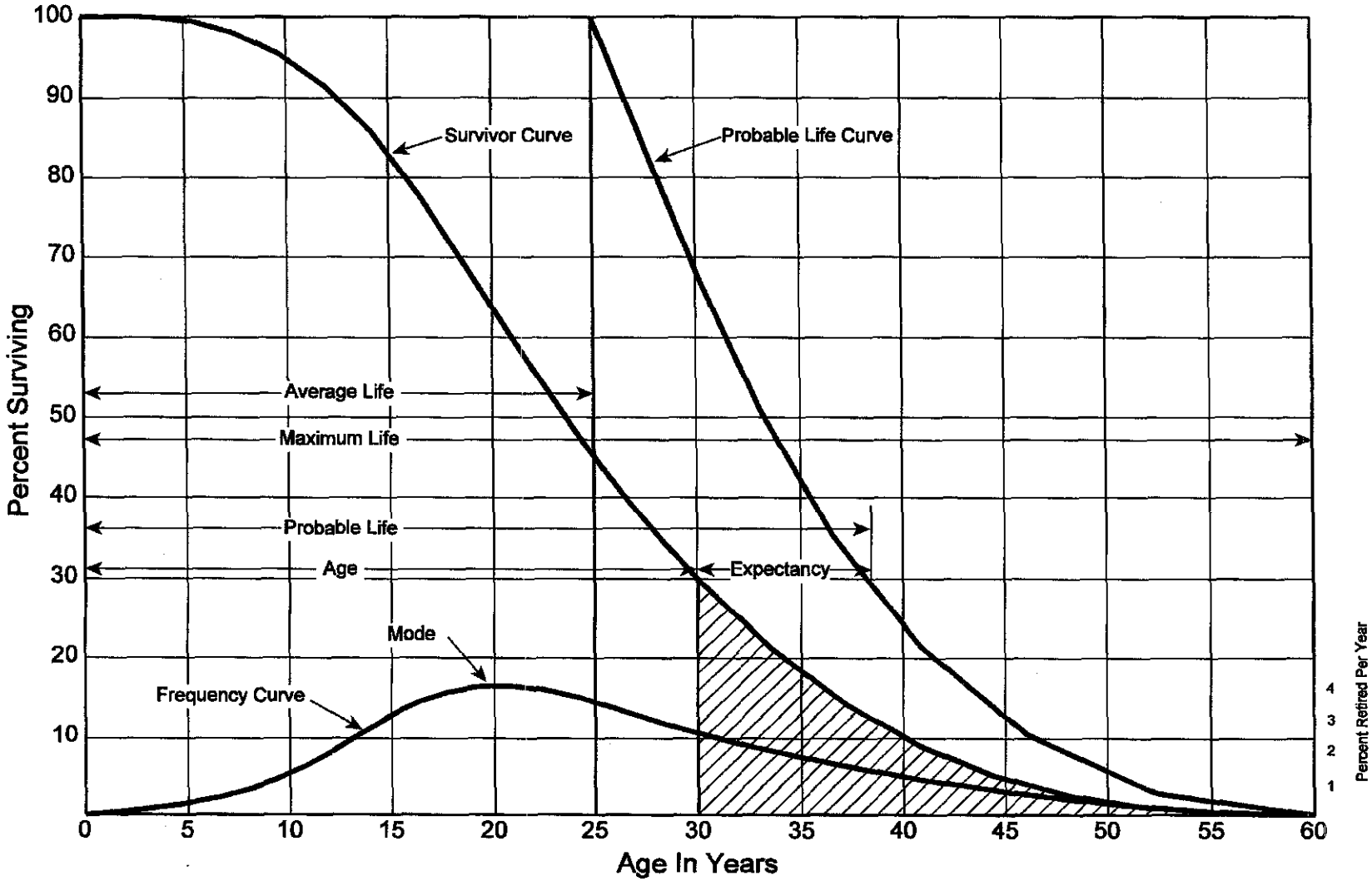

Figure 1. A Typical Survivor Curve and Derived Curves

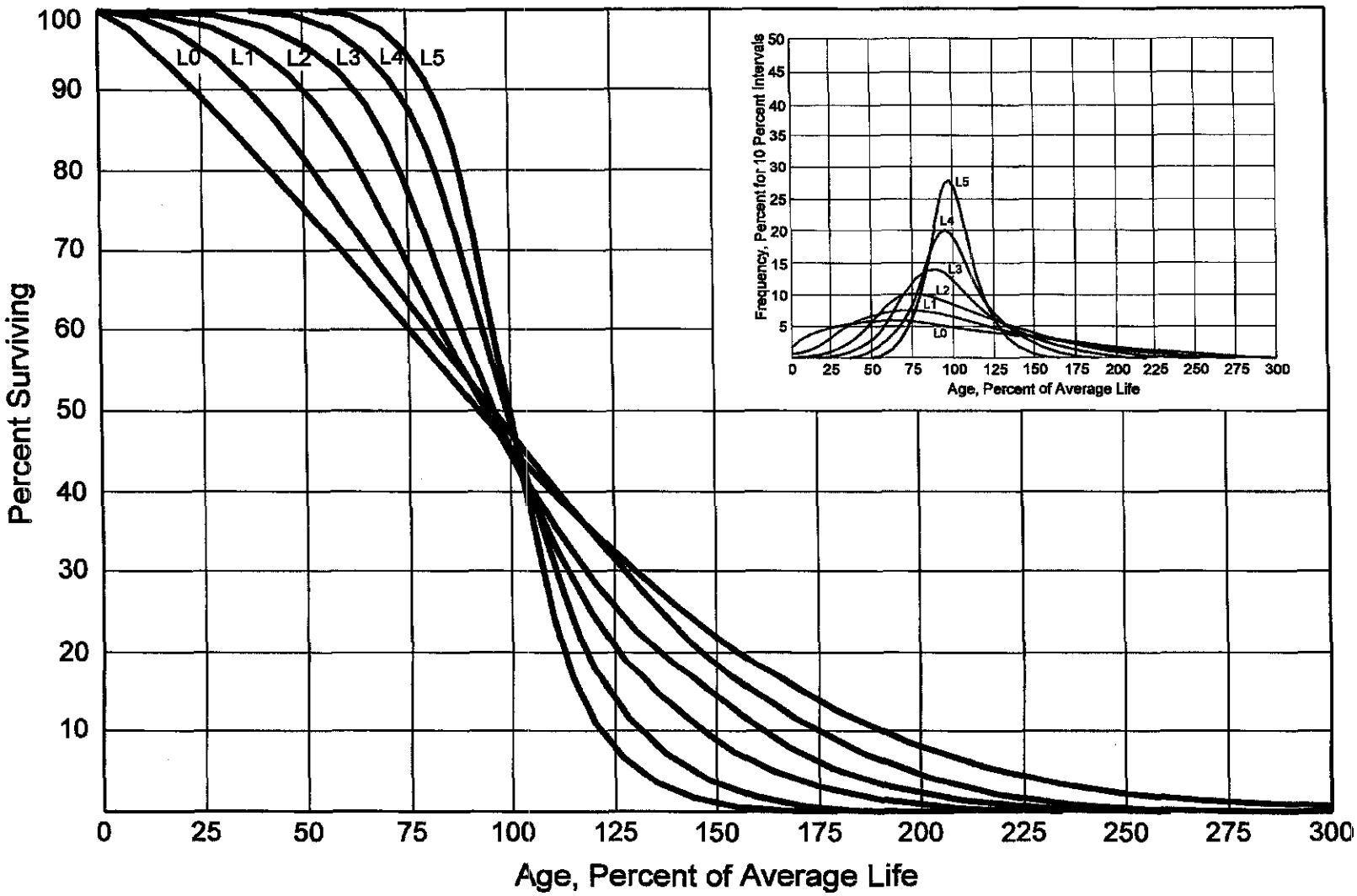

Figure 2. Left Modal or "L" Iowa Type Survivor Curves

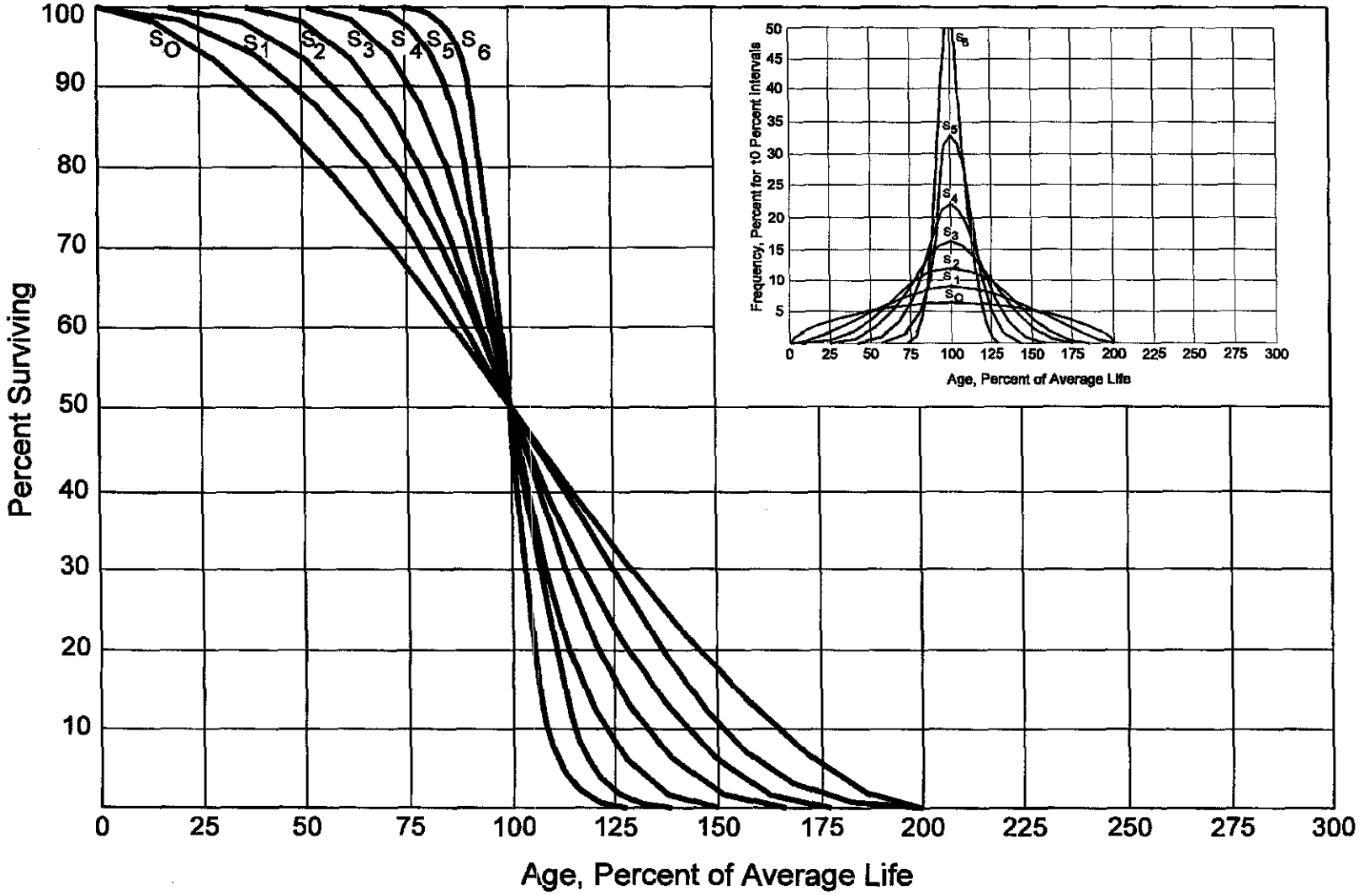

Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

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 numerical subscripts represent the relative heights of the modes of the frequency curves within each family.

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, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.[1] These type curves have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."[2] In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis[3] presenting his development of the fourth family consisting of the four O type survivor curves.

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[1]Winfrey, Robley. Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

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

[3]Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

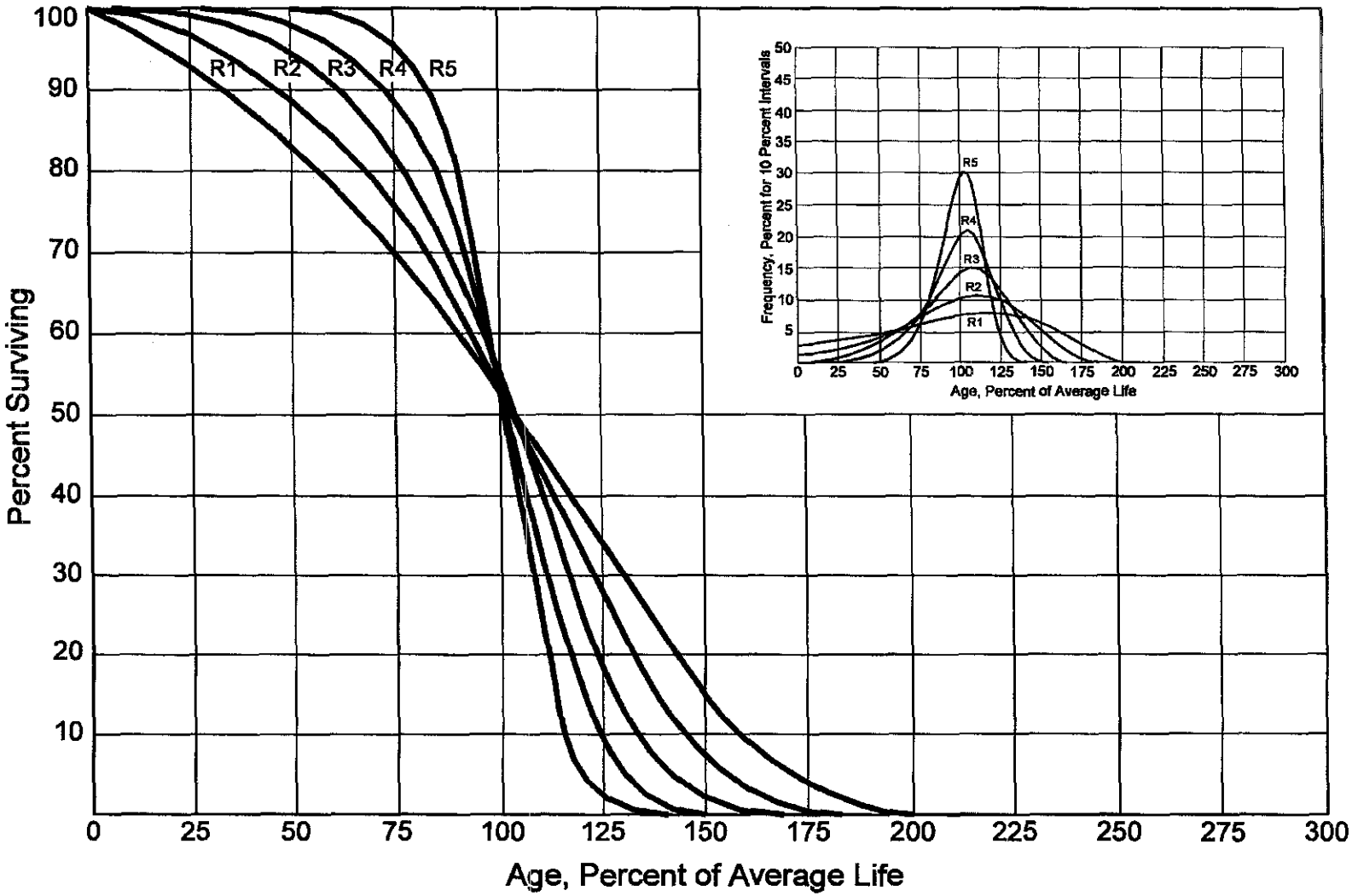

Figure 4. Right Modal or "R" Iowa Type Survivor Curves

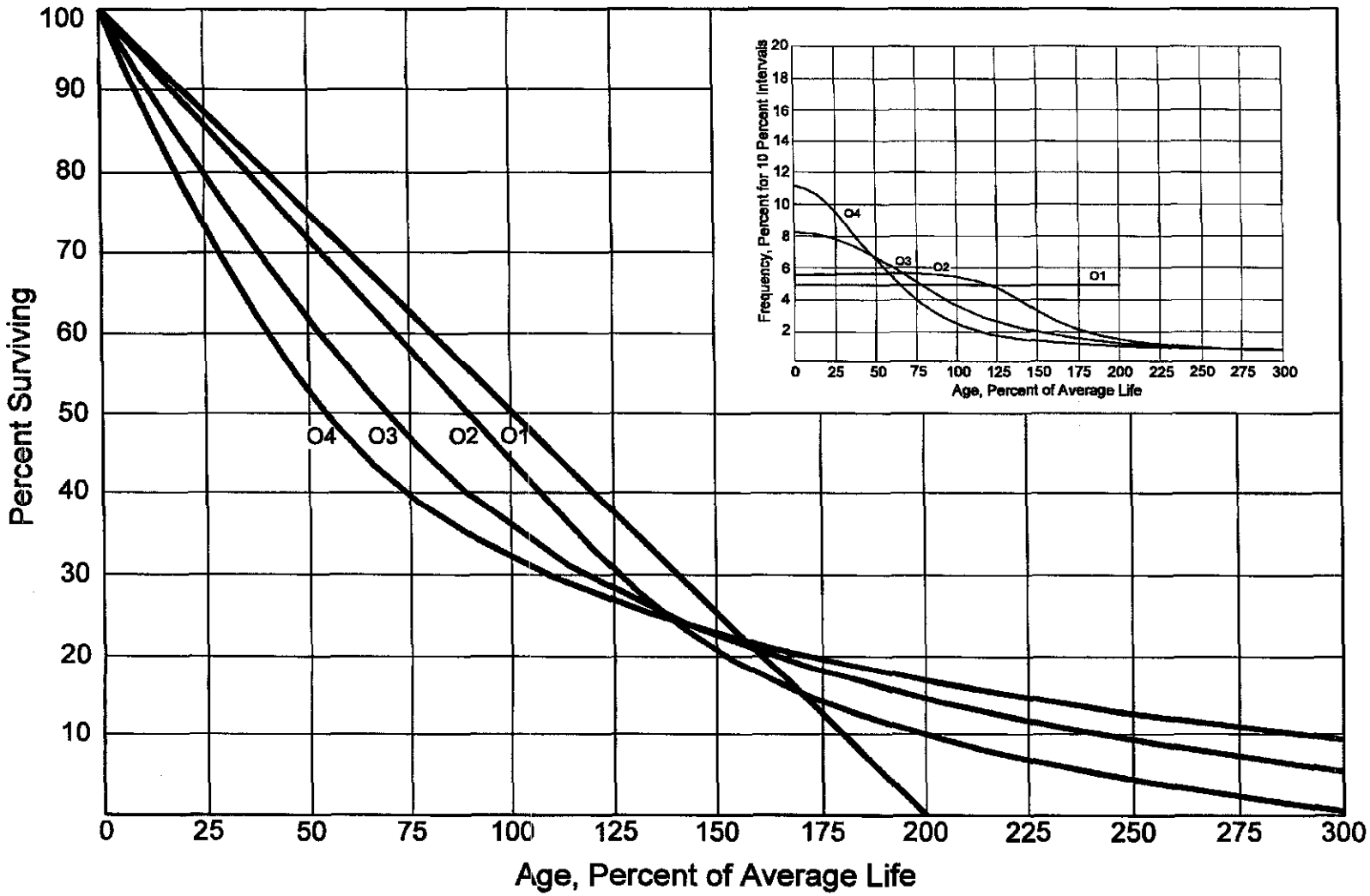

Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

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 or for which aged accounting experience is developed by statistically aging unaged amounts 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,"[4] "Engineering Valuation and Depreciation,"[5] and "Depreciation Systems."[6]

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

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[4]Winfrey, Robley, Supra Note 1.

[5]Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

[6]Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994

Schedules of Annual Transactions in Plant Records. The property group used to illustrate the retirement rate method is observed for the experience band 2003-2012 during which there were placements during the years 1998-2012. 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-12 and II-13. 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 1998 were retired in 2003. 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 stairstep line drawn on the table beginning with the 2003 retirements of 1998 installations and ending with the 2012 retirements of the 2007 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

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

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

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2003-2012
SUMMARIZED BY AGE INTERVAL

Experience Band 2003-2012

Placement Band 1998-2012

Year Placed	Retirements, Thousands of Dollars During Year										Total During Age Interval	Age Interval
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1998	10	11	12	13	14	16	23	24	25	26	26	13½-14½
1999	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2000	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2001	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2002	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2003	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2004		5	11	12	13	14	15	16	18	20	113	7½-8½
2005			6	12	13	15	16	17	19	19	124	6½-7½
2006				6	13	15	16	17	19	19	131	5½-6½
2007					7	14	16	17	19	20	143	4½-5½
2008						8	18	20	22	23	146	3½-4½
2009							9	20	22	25	150	2½-3½
2010								11	23	25	151	1½-2½
2011									11	24	153	½-1½
2012	—	—	—	—	—	—	—	—	—	13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2003-2012
SUMMARIZED BY AGE INTERVAL

Experience Band 2003-2012 Placement Band 1998-2012

Year Placed	Acquisitions, Transfers and Sales, Thousands of Dollars During Year										Total During Age Interval	Age Interval
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1998	-	-	-	-	-	-	60[a]	-	-	-	-	13½-14½
1999	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2000	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2001	-	-	-	-	-	-	-	(5)[b]	-	-	60	10½-11½
2002	-	-	-	-	-	-	-	6[a]	-	-	-	9½-10½
2003		-	-	-	-	-	-	-	-	-	(5)	8½-9½
2004		-	-	-	-	-	-	-	-	-	6	7½-8½
2005			-	-	-	-	-	-	-	-	-	6½-7½
2006				-	-	-	-	(12)[b]	-	-	-	5½-6½
2007					-	-	-	-	22[a]	-	-	4½-5½
2008						-	-	(19)[b]	-	-	10	3½-4½
2009							-	-	-	-	-	2½-3½
2010								-	-	(102)[c]	(121)	1½-2½
2011									-	-	-	½-1½
2012	—	—	—	—	—	—	—	—	—	—	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	

[a] Transfer Affecting Exposures at Beginning of Year
[b] Transfer Affecting Exposures at End of Year
[c] Sale with Continued Use
Parentheses denote Credit amount.

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-15.

The surviving plant at the beginning of each year from 2003 through 2012 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 2008 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

For the entire experience band 2003-2012, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2003-2012
SUMMARIZED BY AGE INTERVAL

Experience Band 2003-2012

Placement Band 1998-2012

Year Placed	Exposures, Thousands of Dollars — Annual Survivors at the Beginning of the Year										Total at Beginning of Age Interval	Age Interval
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1998	255	245	234	222	209	195	239	216	192	167	167	13½-14½
1999	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2000	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2001	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2002	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2003	420[a]	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2004		460[a]	455	444	432	419	405	390	374	356	1,952	7½-8½
2005			510[a]	504	492	479	464	448	431	412	2,463	6½-7½
2006				580[a]	574	561	546	530	501	482	3,057	5½-6½
2007					660[a]	653	639	623	628	609	3,789	4½-5½
2008						750[a]	742	724	685	663	4,332	3½-4½
2009							850[a]	841	821	799	4,955	2½-3½
2010								960[a]	949	926	5,719	1½-2½
2011									1,080[a]	1,069	6,579	½-1½
2012										1,220[a]	7,490	0-½
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

[a] Additions during the year.

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-17, 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 2003-2012 Placement Band 1998-2012

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval (1)	Exposures at Beginning of Age Interval (2)	Retirements During Age Interval (3)	Retirement Ratio (4)	Survivor Ratio (5)	Percent Surviving at Beginning of Age Interval (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
					35.66
Total	44,780	1,606			

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 percent 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, assuming no contrary relevant factors external to the analysis of historical data.

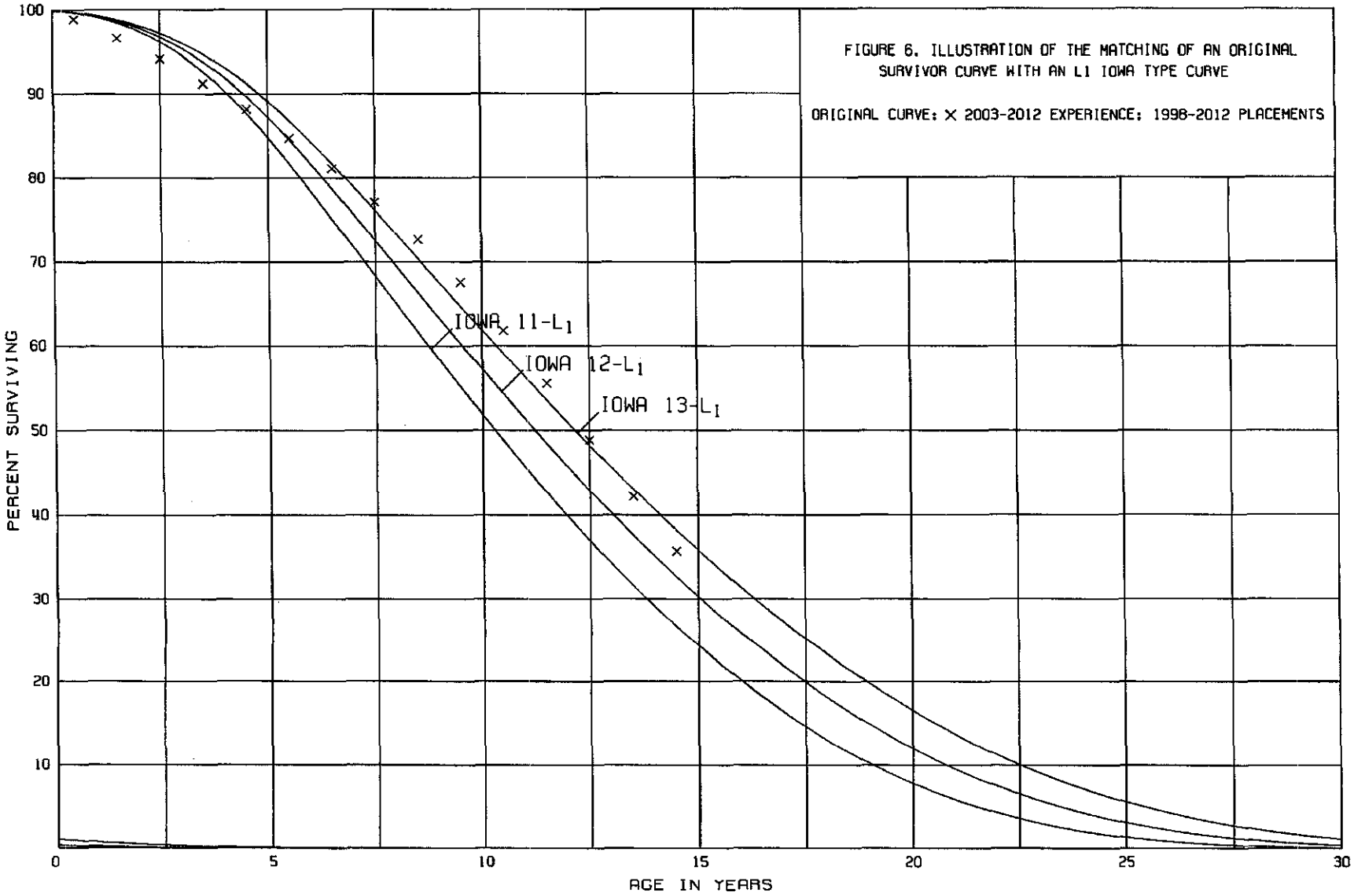
FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE
ORIGINAL CURVE: X 2003-2012 EXPERIENCE: 1998-2012 PLACEMENTS
IOWA 11-L1
IOWA 12-L1
IOWA 13-L1
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
5
10
15
20
25
30

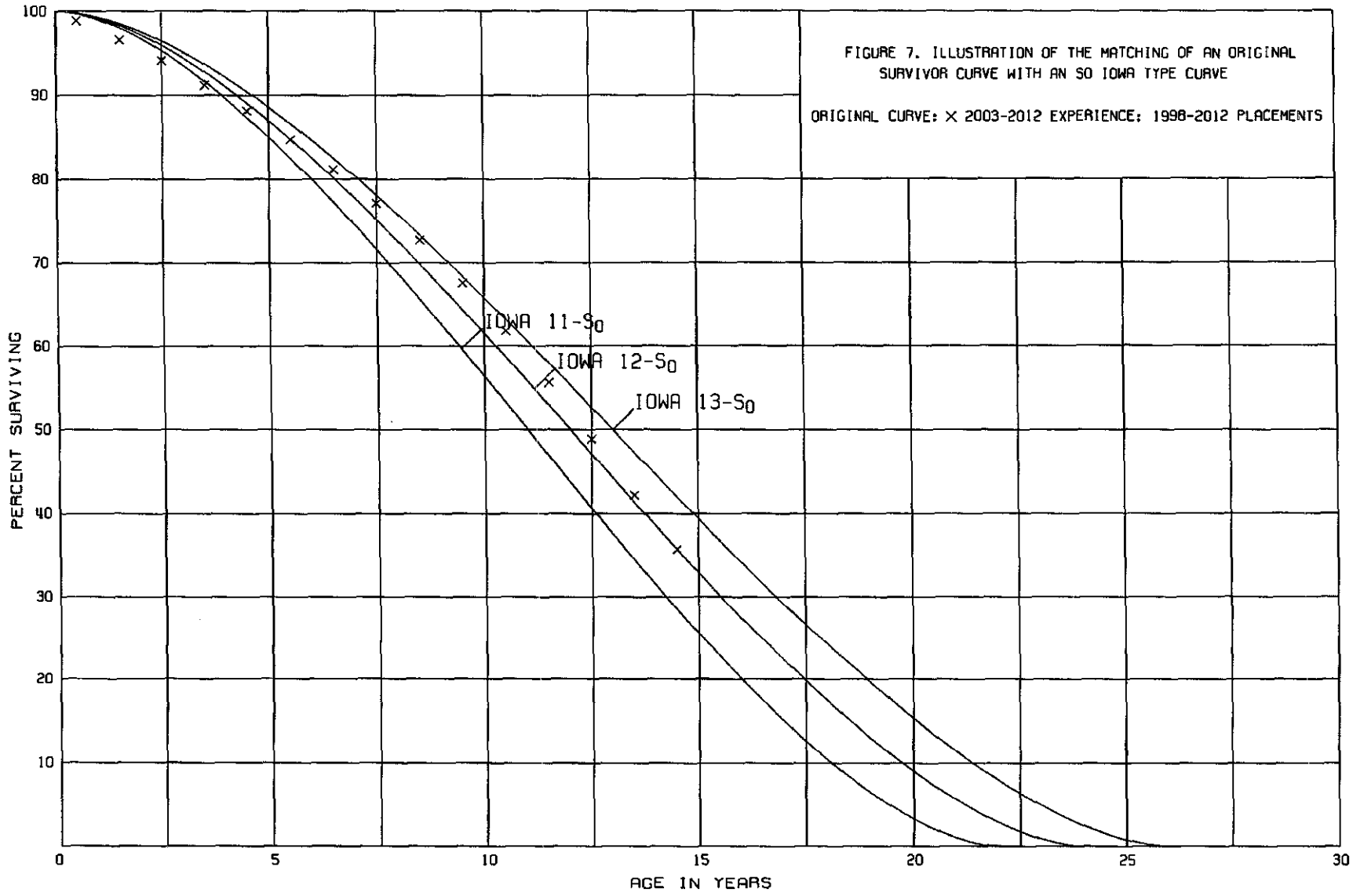
FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE
ORIGINAL CURVE: × 2003-2012 EXPERIENCE: 1998-2012 PLACEMENTS
IOWA 11-S0
IOWA 12-S0
IOWA 13-S0
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
5
10
15
20
25
30

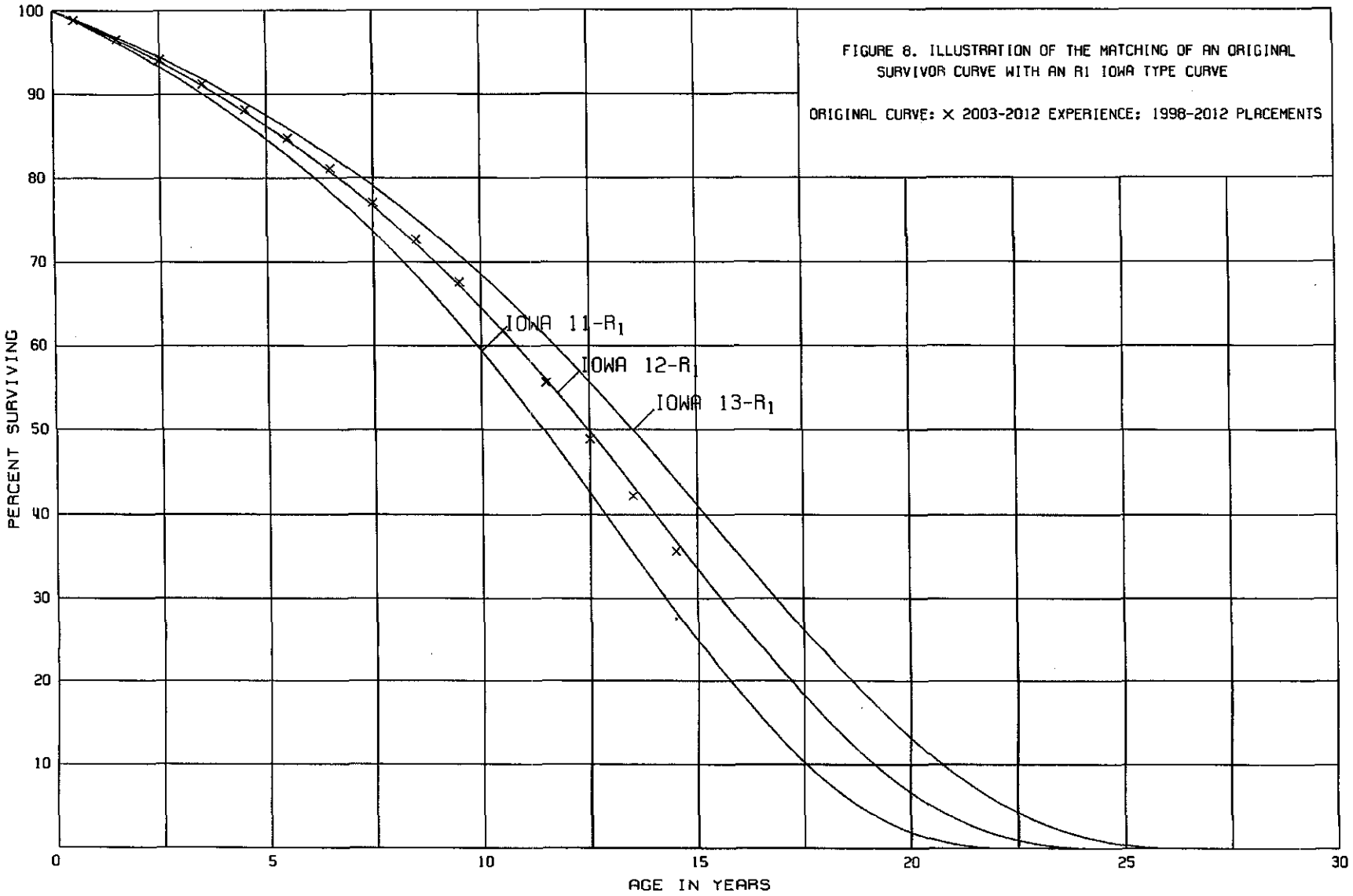
FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE
ORIGINAL CURVE: X 2003-2012 EXPERIENCE: 1998-2012 PLACEMENTS
IOWA 11-R1
IOWA 12-R1
IOWA 13-R1
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
5
10
15
20
25
30

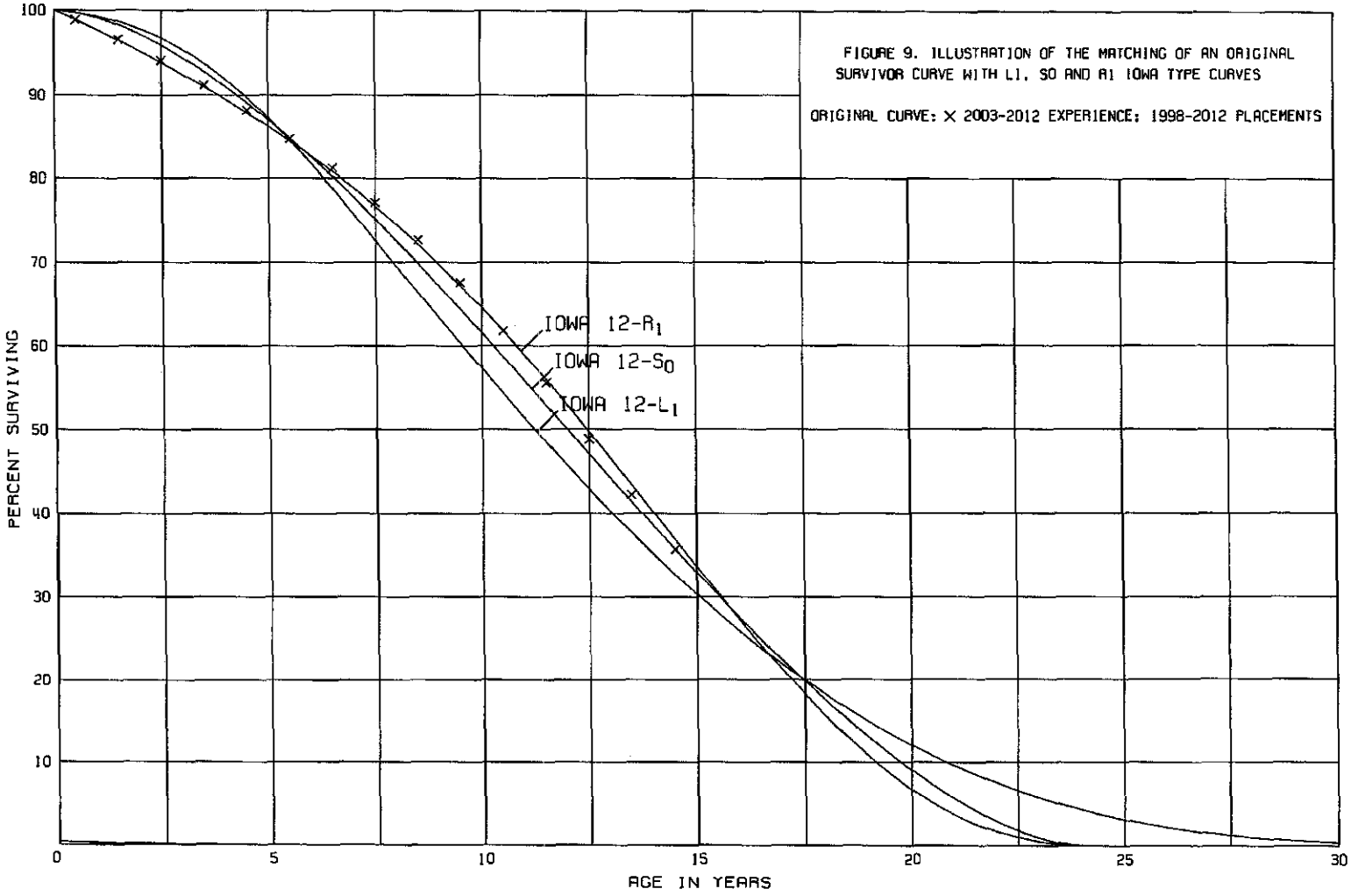

FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH L1, S0 AND R1 IOWA TYPE CURVES

ORIGINAL CURVE: X 2003-2012 EXPERIENCE; 1998-2012 PLACEMENTS

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 conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

For 30 of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 51 percent of depreciable plant. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page III-9.

ELECTRIC PLANT

Steam Plant

311.00	Structures and Improvements
315.00	Accessory Electric Equipment
316.00	Miscellaneous Power Plant Equipment

Transmission Plant

352.00	Structures and Improvements
353.00	Station Equipment
355.00	Poles and Fixtures
356.00	Overhead Conductors and Devices

Distribution Plant

361.00	Structures and Improvements
361.05	Land Improvements
362.00	Station Equipment
364.00	Poles, Towers and Fixtures
365.00	Overhead Conductors and Devices
366.00	Underground Conduit
367.00	Underground Conductors and Devices
368.01	Line Transformers - Other Equipment
368.02	Line Transformers - Conventional
368.03	Line Transformers - Padmount
369.01	Services - Overhead
369.02	Services - Underground

370.01	Meters
371.00	Installations on Customer Premises
373.00	Street Lighting and Signal Systems

General Plant

390.01	Structures and Improvements
392.01	Transportation Equipment - Subunit
392.02	Transportation Equipment - Cars
392.03	Transportation Equipment - Light Trucks
392.04	Transportation Equipment - Medium Trucks
392.05	Transportation Equipment - Heavy Trucks
392.06	Transportation Equipment - Trailers
397.01	Communication Equipment - Towers

Electric Plant Account 362.00 Station Equipment, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Aged plant accounting data for the distribution plant have been compiled for the years 1946 through 2012. These data have been coded in the course of the Company's normal record keeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the electric plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate is based on the statistical indications for the period 1946 through 2012. The Iowa 45-R2 is a reasonable fit of the stub original survivor of station equipment. The 45-year service life is within the typical service life range of 35 to 55 years for station equipment. The 45-year life reflects the Company's plans to continue to upgrade equipment when necessary with expectations that some assets based on demand could be in service well beyond the average life.

Account 364.00, Poles, Towers and Fixtures, is another large account for which the statistical analyses was a strong indicator of life characteristics. Aged plant accounting data have been compiled for the years 1950 through 2012. The Iowa 50-R2 is a good fit of the stub original curve of poles. The 50-year service life reflects the statistical

indications, Company plans to replace poles primarily due to wear and tear as well as load upgrades, and the range of estimates of other electric utilities for poles.

Inasmuch as production plant consists of large generating units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differ from account to account. The interim survivor curves estimated for steam and other production plant related to Black Hills Power stations were based on the retirement rate method.

The life span estimates for power generating stations were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the units. Final decisions as to date of retirement will be determined by management on a unit by unit basis.

The life span estimates for the steam, base-load units is 45-61 years, which is within the typical range of life spans for such units. The life span estimates for other production units is 45-54 years which is slightly long for combustion turbines and diesel units.

A summary of the year in service, life span and probable retirement year for each power production unit follows:

Depreciable Group	Year in Service	Probable Retirement Year	Life Span
Steam Production Plant			
Ben French	1962	2014	52
Neil Simpson I	1969	2014	45
Neil Simpson II	1998	2045	47

Depreciable Group	Year in Service	Probable Retirement Year	Life Span
Osage	1953	2014	61
Wygen 3	2010	2060	50
Wyodak	1991	2039	48
Other Production Plant			
Ben French CT	1977	2030	53
Lange CT	2003	2048	45
Neil Simpson CT	2001	2046	45
Ben French Diesel	1966	2020	54

The survivor curve estimates for the remaining accounts were based on judgment incorporating the statistical analyses and previous studies for this and other electric and gas utilities.

Salvage Analysis

The estimates of net salvage by account were based in part on historical data compiled through 2012. 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 1997 through 2012 contributed significantly toward the net salvage estimates for 20 plant accounts, representing 83 percent of the depreciable plant, as follows:

ELECTRIC PLANT

Steam Production Plant

312.01	Boiler Plant Equipment
314.00	Turbogenerators
316.00	Miscellaneous Power Plant Equipment

Other Production Plant

342.00	Fuel Holders and Accessories
344.01	Generators

Transmission Plant

352.00	Structures and Improvements
353.00	Station Equipment
355.00	Poles and Fixtures

Distribution Plant

362.00	Station Equipment
364.00	Poles, Towers and Fixtures
365.00	Overhead Conductors and Devices
366.00	Underground Conduit
367.00	Underground Conductors and Devices
369.01	Services - Overhead
369.02	Services - Underground
370.01	Meters
370.04	Meters - AMI
371.00	Installations on Customer Premises
373.00	Street Lighting and Signal Systems

General Plant

390.01	Structures and Improvements

The Electric Plant analyses for Account 365.00, Overhead Conductors and Devices, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 1997 through 2012 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements.

Three-year moving averages for the 1997-1999 through 2010-2012 periods were computed to smooth the annual amounts.

Cost of removal fluctuated during the 16-year period. The primary cause of cost of removal was the effort needed to replace overhead conductor. Cost of removal for the most recent five years averaged 47 percent.

Gross salvage has fluctuated throughout the period. The years 2007 and 2008 had high reuse salvage which is not expected to occur annually. The most recent five-year average of 24 percent gross salvage reflects some of the reuse salvage for early retirements.

The net salvage percent based on the overall period 1997 through 2012 is 20 percent negative net salvage and based on the most recent five-year period is negative 24 percent. The range of estimates made by other electric companies for overhead conductors is negative 15 to negative 75 percent. The net salvage estimate for overhead conductor is negative 20 percent, is within the range of other estimates and reflects expectations of the future for negative net salvage.

The net salvage percents for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other electric and gas utilities.

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

After the survivor curve and salvage are estimated, the annual depreciation accrual rate can be calculated. In the average service life procedure, the annual accrual rate is computed by the following equation:

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

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which will not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as a basis for straight line depreciation accounting.

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 the estimated survivor curve. The accrued depreciation ratios are calculated as follows:

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

The application of these procedures is described for a single unit of property and a group of property units. Salvage is omitted from the description for ease of application.

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:

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

Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of 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.

Remaining Life Annual Accruals. For the purpose of calculating remaining life accruals as of December 31, 2012 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, 2012 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:

$$Ratio = 1 - \frac{Average\ Remaining\ Life}{Average\ Service\ Life}.$$

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization, as defined in the Uniform System of Accounts, 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 periods 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 electric and gas plant in service. The accounts and their amortization periods are as follows:

Account		Amortization Period, Years
GENERAL PLANT		
391.01	Office Furniture and Equipment	20
391.03	Computer Hardware	5
391.05	System Development	5
393.00	Stores Equipment	20
394.00	Tools, Shop and Garage Equipment	25
395.00	Laboratory Equipment	25
397.00	Communication Equipment	20
398.00	Miscellaneous Equipment	20

For the purpose of calculating annual amortization amounts as of December 31, 2012, the book or ratemaking book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The

remaining 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 III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual depreciation accrual amounts and rates 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, gas and common plant in service as of December 31, 2012. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2012, is reasonable for a period of three to five years.

DESCRIPTION OF STATISTICAL SUPPORT

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management and consideration of estimates made for other electric 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 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

Summaries of the results of the study, as applied to the original cost of electric plant as of December 31, 2012, are presented on pages III-4 through III-8 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to electric plant.

The tables of the calculated annual depreciation accruals are presented in account sequence in the section titled "Depreciation Calculations." The tables indicate the estimated survivor curve and 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.

BLACK HILLS POWER

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE
AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2012

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	STEAM PRODUCTION PLANT								
	BEN FRENCH STATION								
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	* (28)	2,251,067.03	2,470,217	411,149	225,045	10.00	1.8
312.01	BOILER PLANT EQUIPMENT	55-S0.5	* (28)	6,842,535.53	6,971,855	1,786,590	985,304	14.40	1.8
314.00	TURBOGENERATOR UNITS	55-S0.5	* (28)	3,956,115.75	3,267,891	1,795,937	987,811	24.97	1.8
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	* (28)	756,487.01	617,196	151,107	83,050	10.98	1.8
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	* (28)	461,437.84	529,424	61,216	33,837	7.33	1.8
	TOTAL BEN FRENCH STATION			14,267,643.16	14,056,583	4,205,999	2,315,047	16.23	1.8
	NEIL SIMPSON I								
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	* (13)	2,263,790.00	2,055,490	502,593	275,250	12.16	1.8
312.01	BOILER PLANT EQUIPMENT	55-S0.5	* (13)	14,327,824.99	10,348,851	5,841,591	3,210,557	22.41	1.8
314.00	TURBOGENERATOR UNITS	55-S0.5	* (13)	3,916,967.11	2,797,900	1,628,273	896,130	22.88	1.8
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	* (13)	1,334,432.06	622,246	885,662	484,612	36.32	1.8
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	* (13)	424,995.16	434,602	45,643	25,339	5.96	1.8
	TOTAL NEIL SIMPSON I			22,268,009.32	16,259,089	8,903,762	4,891,888	21.97	1.8
	NEIL SIMPSON II								
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	* (14)	15,863,029.45	5,523,394	12,560,460	412,027	2.60	30.5
312.01	BOILER PLANT EQUIPMENT	55-S0.5	* (14)	76,897,107.11	26,330,450	61,332,252	2,211,622	2.88	27.7
314.00	TURBOGENERATOR UNITS	55-S0.5	* (14)	41,534,097.95	11,029,471	36,319,401	1,278,221	3.08	28.4
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	* (14)	8,429,093.00	2,511,631	7,097,535	230,583	2.74	30.8
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	* (14)	875,989.44	165,386	833,242	31,072	3.55	26.8
	TOTAL NEIL SIMPSON II			143,599,316.95	45,560,332	118,142,890	4,163,525	2.90	28.4
	OSAGE PLANT								
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	* (22)	4,233,377.67	4,422,755	741,966	406,009	9.59	1.8
312.01	BOILER PLANT EQUIPMENT	55-S0.5	* (22)	7,454,702.13	7,272,558	1,822,179	1,005,395	13.49	1.8
314.00	TURBOGENERATOR UNITS	55-S0.5	* (22)	4,780,167.64	4,641,657	1,190,148	656,960	13.74	1.8
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	* (22)	1,054,887.74	1,198,790	88,173	48,528	4.60	1.8
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	* (22)	455,950.73	459,478	96,782	53,529	11.74	1.8
	TOTAL OSAGE PLANT			17,979,085.91	17,995,238	3,939,248	2,170,421	12.07	1.8
	WY GEN 3								
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	* (13)	6,799,493.56	417,254	7,266,174	166,503	2.45	43.6
312.01	BOILER PLANT EQUIPMENT	55-S0.5	* (13)	57,567,754.14	4,343,796	60,707,766	1,517,622	2.64	40.0
314.00	TURBOGENERATOR UNITS	55-S0.5	* (13)	58,398,596.28	3,202,879	62,787,535	1,569,482	2.69	40.0
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	* (13)	6,737,220.28	377,879	7,235,180	163,953	2.43	44.1
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	* (13)	709,079.57	28,882	772,378	21,429	3.02	36.0
	TOTAL WY GEN 3			130,212,143.83	8,370,690	138,769,033	3,438,989	2.64	40.4

BLACK HILLS POWER

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE
AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2012

	ACCOUNT (1)	SURVIVOR CURVE (2)		NET SALVAGE PERCENT (3)	ORIGINAL COST (4)	BOOK DEPRECIATION RESERVE (5)	FUTURE ACCRUALS (6)	CALCULATED ANNUAL ACCRUAL AMOUNT (7)	CALCULATED ANNUAL ACCRUAL RATE (8)=(7)/(4)	COMPOSITE REMAINING LIFE (9)=(6)/(7)
	WYODAK PLANT									
311.00	STRUCTURES AND IMPROVEMENTS	80-R1.5	*	(13)	9,164,989.89	7,214,391	3,142,048	125,770	1.37	25.0
312.01	BOILER PLANT EQUIPMENT	55-S0.5	*	(13)	76,887,888.24	29,347,729	57,535,585	2,378,850	3.09	24.2
313.00	ENGINES AND GENERATORS	50-S1.5	*	(13)	341,748.14	216,828	169,347	6,793	1.99	24.9
314.00	TURBOGENERATOR UNITS	55-S0.5	*	(13)	15,192,790.87	5,557,047	11,610,807	482,632	3.18	24.1
315.00	ACCESSORY ELECTRIC EQUIPMENT	65-R2.5	*	(13)	6,616,782.96	5,008,048	2,468,917	99,004	1.50	24.9
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	45-S0	*	(13)	1,007,314.51	427,522	710,743	31,411	3.12	22.6
	TOTAL WYODAK PLANT				109,211,514.61	47,771,565	75,637,447	3,124,460	2.86	24.2
	TOTAL STEAM PRODUCTION PLANT				**437,537,713.78**	**150,013,497**	**349,598,379**	**20,104,330**	**4.59**	**17.4**
	OTHER PRODUCTION PLANT									
	BEN FRENCH CT									
341.00	STRUCTURES AND IMPROVEMENTS	55-R3	*	(13)	22,448.14	18,574	6,792	437	1.95	15.5
342.00	FUEL HOLDERS AND ACCESSORIES	50-S0.5	*	(13)	1,375,821.53	903,454	651,224	40,929	2.97	15.9
344.10	GENERATORS	45-R2	*	(13)	16,549,367.07	12,793,447	5,907,338	415,401	2.51	14.2
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S2	*	(13)	672,968.54	427,262	333,192	29,853	4.44	11.2
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	30-S1.5	*	(13)	14,717.62	12,177	4,454	569	3.87	7.8
	TOTAL BEN FRENCH CT				18,635,322.90	14,154,914	6,903,000	487,189	2.61	14.2
	BEN FRENCH DIESEL									
342.00	FUEL HOLDERS AND ACCESSORIES	50-S0.5	*	(22)	51,864.25	47,265	16,009	2,215	4.27	7.2
344.10	GENERATORS	45-R2	*	(22)	828,868.97	774,635	236,585	36,709	4.43	6.4
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S2	*	(22)	110,823.34	60,434	74,770	11,226	10.13	6.7
	TOTAL BEN FRENCH DIESEL				991,556.56	882,334	327,364	50,150	5.06	6.5
	LANGE CT									
341.00	STRUCTURES AND IMPROVEMENTS	55-R3	*	(5)	324,886.40	102,053	239,078	7,174	2.21	33.3
342.00	FUEL HOLDERS AND ACCESSORIES	50-S0.5	*	(5)	1,722,516.16	526,052	1,282,590	43,258	2.51	29.6
344.10	GENERATORS	45-R2	*	(5)	26,182,995.19	9,824,794	17,667,351	593,903	2.27	29.7
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S2	*	(5)	2,095,868.47	792,608	1,408,054	50,943	2.43	27.6
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	30-S1.5	*	(5)	16,611.59	6,306	11,136	527	3.17	21.1
	TOTAL LANGE CT				30,342,877.81	11,251,813	20,608,209	695,805	2.29	29.6
	NEIL SIMPSON CT									
341.00	STRUCTURES AND IMPROVEMENTS	55-R3	*	(5)	176,358.69	78,850	106,327	3,405	1.93	31.2
342.00	FUEL HOLDERS AND ACCESSORIES	50-S0.5	*	(5)	2,116,073.40	616,956	1,604,921	56,038	2.65	28.6
344.10	GENERATORS	45-R2	*	(5)	25,644,954.15	8,133,641	18,793,561	660,704	2.58	28.4
345.00	ACCESSORY ELECTRIC EQUIPMENT	40-S2	*	(5)	1,987,599.72	927,847	1,159,133	45,006	2.26	25.8
346.00	MISCELLANEOUS POWER PLANT EQUIPMENT	30-S1.5	*	(5)	51,538.76	24,278	29,838	1,316	2.55	22.7
	TOTAL NEIL SIMPSON CT				29,976,524.72	9,781,572	21,693,780	766,469	2.56	28.3
	TOTAL OTHER PRODUCTION PLANT				**79,946,281.99**	**36,070,633**	**49,532,353**	**1,999,613**	**2.50**	**24.8**

BLACK HILLS POWER

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE
AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2012

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	TRANSMISSION PLANT								
352.00	STRUCTURES AND IMPROVEMENTS	50-S4	(10)	1,782,604.36	663,629	1,297,236	32,627	1.83	39.8
353.00	STATION EQUIPMENT	42-S0	(5)	49,207,432.58	14,189,839	37,477,965	1,045,761	2.13	35.8
354.00	TOWERS AND FIXTURES	60-R2	(20)	864,826.03	201,748	836,043	15,029	1.74	55.6
355.00	POLES AND FIXTURES	55-R3	(30)	28,042,178.61	7,653,538	28,801,294	768,083	2.74	37.5
356.00	OVERHEAD CONDUCTORS AND DEVICES	60-R2.5	(20)	29,442,220.30	8,331,379	26,999,285	604,638	2.05	44.7
359.00	ROADS AND TRAILS	60-S4	0	6,920.28	3,176	3,744	119	1.72	31.5
	TOTAL TRANSMISSION PLANT			**109,346,182.16**	**31,043,309**	**95,415,567**	**2,466,257**	**2.26**	**38.7**
	DISTRIBUTION PLANT								
361.00	STRUCTURES AND IMPROVEMENTS	40-S1	(5)	659,707.01	153,649	539,043	16,194	2.45	33.3
361.05	LAND IMPROVEMENTS	40-S1	(5)	47,783.26	657	49,515	1,286	2.69	38.5
362.00	STATION EQUIPMENT	45-R2	(10)	72,055,912.50	23,390,537	55,870,967	1,638,639	2.27	34.1
364.00	POLES, TOWERS AND FIXTURES	50-R2	(70)	68,260,183.69	24,123,729	91,918,583	2,486,400	3.64	37.0
365.00	OVERHEAD CONDUCTORS AND DEVICES	50-R1.5	(20)	42,228,224.86	13,891,548	36,782,322	954,411	2.26	38.5
366.00	UNDERGROUND CONDUIT	37-R1	(5)	4,085,013.44	494,158	3,795,106	114,803	2.81	33.1
367.00	UNDERGROUND CONDUCTORS AND DEVICES	40-R2	(5)	39,568,735.94	13,938,668	27,608,505	917,643	2.32	30.1
368.01	LINE TRANSFORMERS - OTHER EQUIPMENT	36-R1.5	0	2,254,569.34	381,303	1,873,266	61,742	2.74	30.3
368.02	LINE TRANSFORMERS - CONVENTIONAL	36-R1.5	0	13,091,278.10	5,064,696	8,026,582	320,622	2.45	25.0
368.03	LINE TRANSFORMERS - PADMOUNT	36-R1.5	0	19,896,434.33	6,765,246	13,131,188	468,469	2.35	28.0
	TOTAL LINE TRANSFORMERS			35,242,281.77	12,211,245	23,031,036	850,833	2.41	27.1
369.01	SERVICES - OVERHEAD	62-R2.5	(50)	8,107,256.27	2,533,355	9,627,529	196,837	2.43	48.9
369.02	SERVICES - UNDERGROUND	62-R2.5	(50)	20,822,507.10	6,780,554	24,453,207	467,045	2.24	52.4
	TOTAL SERVICES			28,929,763.37	9,313,909	34,080,736	663,882	2.29	51.3
370.01	METERS	21-L0	0	1,026,068.51	301,036	725,033	56,414	5.50	12.9
370.04	METERS - AMI	21-L0	0	6,018,676.65	203,672	5,815,005	301,309	5.01	19.3
371.00	INSTALLATIONS ON CUSTOMER PREMISES	30-R1	(10)	2,174,339.20	840,423	1,551,350	69,981	3.22	22.2
373.00	STREET LIGHTING AND SIGNAL SYSTEMS	25-L0.5	(15)	1,721,562.86	813,101	1,166,696	68,224	3.96	17.1
	TOTAL DISTRIBUTION PLANT			**302,018,253.06**	**99,676,332**	**282,933,897**	**6,140,019**	**2.70**	**34.8**
	GENERAL PLANT								
390.01	STRUCTURES AND IMPROVEMENTS - OWNED	40-R1	(10)	12,789,236.43	7,132,242	6,935,918	214,020	1.67	32.4
391.01	OFFICE FURNITURE AND EQUIPMENT								
	FULLY ACCRUED	Fully Accrued	0	439,368.05	439,368	0	0	-	-
	AMORTIZED	20-SQ	0	2,833,405.36	1,230,525	1,602,880	133,570	4.71 **	12.0
	TOTAL OFFICE FURNITURE AND EQUIPMENT			3,272,773.41	1,669,893	1,602,880	133,570	4.08	12.0
391.03	COMPUTER HARDWARE								
	FULLY ACCRUED	Fully Accrued	0	17,662.46	17,662	0	0	-	-
	AMORTIZED	5-SQ	0	1,656,308.57	329,591	1,326,718	402,931	24.33 **	3.3
	TOTAL COMPUTER HARDWARE			1,673,971.03	347,253	1,326,718	402,931	24.07	3.3

BLACK HILLS POWER

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE
AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2012

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
391.04	COMPUTER SOFTWARE	9-S2.5	0	3,651,575.26	1,690,032	1,961,543	288,228	7.89	6.8
391.05	SYSTEM DEVELOPMENT	5-SQ	0	59,725.18	32,332	27,393	10,957	18.35 **	2.5
392.01	TRANSPORTATION EQUIPMENT - SUBUNIT	13-S0	10	131,626.96	96,167	22,297	2,033	1.54	11.0
392.02	TRANSPORTATION EQUIPMENT - CARS	13-S0	10	215,057.80	40,669	152,883	14,960	6.96	10.2
392.03	TRANSPORTATION EQUIPMENT - LIGHT TRUCKS	13-S0	10	2,871,325.77	1,448,754	1,135,439	108,226	3.77	10.5
392.04	TRANSPORTATION EQUIPMENT - MEDIUM TRUCKS	13-S0	10	803,668.92	362,133	361,169	35,265	4.39	10.2
392.05	TRANSPORTATION EQUIPMENT - HEAVY TRUCKS	13-S0	10	2,853,372.77	1,705,290	862,745	81,089	2.84	10.6
392.06	TRANSPORTATION EQUIPMENT - TRAILERS	13-S0	10	628,623.37	383,415	182,346	17,587	2.80	10.4
	TOTAL TRANSPORTATION EQUIPMENT			7,503,675.59	4,036,428	2,716,879	259,160	3.45	10.5
393.00	STORES EQUIPMENT								
	FULLY ACCRUED	Fully Accrued	0	186,168.41	186,168	0	0	-	-
	AMORTIZED	20-SQ	0	136,266.21	1,886	134,380	30,063	22.06 **	4.5
	TOTAL STORES EQUIPMENT			322,434.62	188,054	134,380	30,063	9.32	4.5
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT								
	FULLY ACCRUED	Fully Accrued	0	197,599.87	197,600	0	0	-	-
	AMORTIZED	25-SQ	0	4,109,027.80	1,675,628	2,433,400	143,467	3.49 **	17.0
	TOTAL TOOLS, SHOP AND GARAGE EQUIPMENT			4,306,627.67	1,873,228	2,433,400	143,467	3.33	17.0
395.00	LABORATORY EQUIPMENT	25-SQ	0	318,024.39	5,569	312,455	23,721	7.46 **	13.2
396.01	POWER OPERATED EQUIPMENT - SHORT LIFE	30-S1.5	20	52,741.62	37,100	5,093	233	0.44	21.9
396.02	POWER OPERATED EQUIPMENT - LONG LIFE	30-S1.5	20	792,630.34	185,556	448,548	16,731	2.11	26.8
397.00	COMMUNICATION EQUIPMENT								
	FULLY ACCRUED	Fully Accrued	0	139,781.98	139,782	0	0	-	-
	AMORTIZED	20-SQ	0	3,666,737.20	880,781	2,785,956	229,558	6.26 **	12.1
	TOTAL COMMUNICATION EQUIPMENT			3,806,519.18	1,020,563	2,785,956	229,558	6.03	12.1
397.10	COMMUNICATION EQUIPMENT - TOWERS	20-L1.5	0	4,403,055.70	890,216	3,512,840	229,649	5.22	15.3
398.00	MISCELLANEOUS EQUIPMENT								
	FULLY ACCRUED	Fully Accrued	0	13,139.05	13,139	0	0	-	-
	AMORTIZED	20-SQ	0	184,159.00	33,461	150,698	11,438	6.21 **	13.2
	TOTAL MISCELLANEOUS EQUIPMENT			197,298.05	46,600	150,698	11,438	5.80	13.2
	TOTAL GENERAL PLANT			**43,150,288.47**	**19,155,066**	**24,354,701**	**1,993,726**	**4.62**	**12.2**
	TOTAL DEPRECIABLE PLANT			**971,998,719.46**	**335,958,837**	**801,834,897**	**34,703,945**	**3.57**	**23.1**

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BLACK HILLS POWER

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK DEPRECIATION RESERVE
AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2012

	ACCOUNT	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)=(6)/(7)
	NONDEPRECIABLE PLANT								
310.01	LAND			333,639.32	31,963				
340.01	LAND			2,705.00					
350.01	LAND			1,053,181.88					
350.02	LAND RIGHTS/RIGHTS OF WAY - NONDEPRECIABLE			4,692,747.84					
360.01	LAND			956,864.59	(21,473)				
360.02	LAND RIGHTS/RIGHTS OF WAY - NONDEPRECIABLE			1,138,377.52	(21,552)				
389.01	LAND			856,913.03					
	TOTAL NONDEPRECIABLE PLANT			9,034,429.18	(11,062)				
	TOTAL ELECTRIC PLANT			981,033,148.64	335,947,775	801,834,897	34,703,945		

* LIFE SPAN PROCEDURE USED. CURVE SHOWN IS INTERIM SURVIVOR CURVE.

** ADDITIONS AS OF JANUARY 1, 2013 WILL UTILIZE THE STANDARD AMORTIZATION RATE.

NOTE: RATES FOR THE CHEYENNE PRAIRIE COMBINED CYCLE UNIT ARE AS FOLLOWS:

ACCOUNT	RATE
341.00	3.08
342.00	3.30
344.00	3.29
345.00	3.27
346.00	3.80
COMPOSITE	3.29