

Exhibit No.:
Issues: Depreciation
Witness: William M. Stout
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2007-0002
Date Testimony Prepared: January 31, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

REBUTTAL TESTIMONY

OF

WILLIAM M. STOUT, P.E.

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**St. Louis, Missouri
January, 2007**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ESTIMATION OF POWER PLANT LIFE SPANS	2
III.	RATEMAKING TREATMENT OF POWER PLANT SITE VALUE	8
IV.	INCORPORATION OF FUTURE INFLATION	11
V.	CALLAWAY LIFE SPAN	15

1

2

3

4

5

6

7

9

10

11

12

13

14

15

16

17

18

19

20

1 **II. ESTIMATION OF POWER PLANT LIFE SPANS**

2 **Q. Have you reviewed the testimony of Staff Witness Mathis related to life**
3 **span property?**

4 A. Yes, I have.

5 **Q. Do you agree with Ms. Mathis' description of the characteristics of life**
6 **span property as set forth on page 8 of her testimony?**

7 A. Yes, I do.

8 **Q. Do you agree with Ms. Mathis that these characteristics apply to**
9 **AmerenUE's steam production plants?**

10 A. Yes, I do.

11 **Q. On page 8, lines 18 and 19, Ms. Mathis, referring to the steam production**
12 **plants, states "...history has shown us that these units continue to remain in operation**
13 **as long as it is economical and feasible to do so." Do you agree with that statement?**

14 A. Yes, I do. As I described in my Direct Testimony, there have been numerous
15 power plants that have been retired because their continued operation was no longer
16 economic or feasible.

17 **Q. Is it also true, as Ms. Mathis continues on lines 19 through 21 of page 8,**
18 **that "A determination of the exact timing of the retirement of a particular facility can**
19 **only be made relatively close to the time of its anticipated retirement date."?**

20 A. Yes, it is. The exact date of the retirement of such a facility is often not
21 known until a few years or less prior to the retirement.

1 **Q. Should the absence of a date certain for the retirement of a facility**
2 **preclude the use of an estimate of this date in the determination of depreciation?**

3 A. No, it should not. The use of a life span for each power plant, based on the
4 experience and expectations of the company and the industry, is far preferable to the
5 assumption that these plants will live forever and have an infinite life. We know that the
6 plants do not have infinite lives, but we do not know for certain when they will be retired.
7 So, should we do what we know is wrong or use our best judgment to estimate when the final
8 retirement of the plant will occur? My answer to this question is that we should use informed
9 judgment, incorporating appropriate analyses and the outlook of management and the
10 industry, in the same manner that we do for mass property whose retirement dates are not
11 certain either.

12 **Q. Which of these two approaches, that is the use of a life span that may**
13 **change or the assumption of indefinite life, is fairer to customers?**

14 A. The use of a life span based on informed judgment that is periodically
15 reassessed is far more equitable than the assumption of an indefinite life. The assumption of
16 an indefinite life results in the deferral of an enormous amount of depreciation expense until
17 the last several years of a plant's life when the date of retirement becomes certain. The
18 recovery of such a large amount of depreciation expense in the final years of a plant's life is
19 not fair to the customers at that time. The use of a life span that may be incorrect creates far
20 smaller inequities.

21 **Q. Please provide an example to demonstrate your conclusion.**

22 A. I have prepared a simple two installation year example and presented it in
23 Schedule WMS-R1 in both tabular and graphical forms. In the example, a power plant is

1 installed in 1970 at a cost of \$50,000,000. It is estimated that the plant will live for 45 years.
2 During that period, interim retirements will occur in accordance with the 60-O1 survivor
3 curve. I selected the 60-O1 for simplicity as the amount of interim retirements is the same
4 each year and the original cost balance and related depreciation accruals are more easily
5 determined. In the year 2000, the plant requires additional facilities to meet regulatory
6 requirements and, given its age, is completely rehabilitated at a total cost of \$100,000,000.
7 As a result of this work, it is now expected that the plant will live another 30 years for a total
8 life span of 60 years.

9 I have calculated the depreciation expense for the example using three
10 different assumptions about the life span estimate. The first example, in columns 2 through
11 5, assumes that the depreciation analyst had perfect knowledge and therefore knew in 1970
12 that the plant would have a 60-year life span. The second example, in columns 6 through 9,
13 assumes that the depreciation analyst estimated a 45-year life span in 1970 inasmuch as it
14 was unknown whether extensive rehabilitation would be performed in the future enabling the
15 extension of the plant's life span. In this example, the estimate is revised to a 60-year life
16 span once the expenditures are made in 2000. The third example, in columns 10 through 13,
17 assumes that the depreciation analyst does not estimate a life span, but rather estimates that
18 the plant will have an indefinite life. In this example, the analyst revises the estimate to
19 reflect the final retirement of the plant when it becomes a certainty - five years before it is
20 retired.

21 **Q. What do the three examples demonstrate?**

22 A. As the graph illustrates, these examples demonstrate that it is far better to
23 estimate a life span, even if it is significantly less than the actual life span, than to assume an

1 indefinite life. During the first thirty years of the plant's life, based on perfect knowledge the
2 accruals should be approximately \$29 million as shown in column 4 of the tabulation. If a
3 45-year life span estimate is used, the accruals exceed this amount by nearly \$7 million,
4 column 8 as compared to column 4. If an indefinite life is assumed, the accruals are less than
5 they should be by a little more than \$7 million, column 12 as compared to column 4.
6 Although these variances are significant, they pale in comparison to the variances that occur
7 once the rehabilitation occurs.

8 The variances that occur after the rehabilitation are greater because the
9 indefinite life assumption is applied to the \$100,000,000 addition just as it was applied to the
10 original installation cost of \$50,000,000. Both are assumed to have an average life of 60
11 years at the time of installation. In contrast, the use of the life span procedure restricts the
12 life of the later addition since it can not live beyond the retirement of the plant. Both will be
13 retired at the same time and the average life of the subsequent addition will be much less than
14 the average life of the initial installation.

15 The example illustrates this difference. During the twenty-five years after the
16 rehabilitation, 2000-2025, the use of the 60-year life span results in accruals of
17 approximately \$100 million, as shown in columns 4 and 8 of the tabulation. However, the
18 accruals under the indefinite life assumption are only \$50 million, only half of what they
19 should be. As a result of the underaccruals that are produced by the indefinite life
20 assumption, when it is learned in 2025 that the plant will be retired in 2030, the entire
21 remaining unrecovered original cost of \$77 million must be accrued in only 5 years. This
22 exceeds the accruals for the remaining five years when using the life span procedure of

1 approximately \$17 million. That is, by assuming an indefinite life, over half of the plant's
2 original cost must be accrued during the last 5 years of its 60-year life span.

3 The inequity that results from a life span estimate that is too short is far less
4 than the inequity that results from assuming an indefinite life until the time when the plant's
5 retirement date is certain - five years before it is retired. Thus, reasonable estimates of life
6 spans should be used in calculating the annual depreciation for power plants and other life
7 span property. Assuming an indefinite life will require the customers that use the plant near
8 the end of its life to pay an inordinate proportion of the plant's original cost.

9 **Q. Please summarize your testimony related to the estimation of power plant**
10 **life spans.**

11 A. Electric utility power plants are life span property. That is, they will
12 ultimately experience a concurrent retirement of all facilities at a future date. This final
13 retirement of the plant will occur because it is more economic to obtain the power from
14 another source. Although the exact date of a power plant's retirement is not known until
15 several years before it occurs, it is appropriate to make reasonable estimates of this date and
16 use such estimates in the calculation of annual depreciation rates for the plants. Many plants
17 have reached this point in the past and experienced a final retirement. This evidence along
18 with the outlook of management and the industry provide a basis for making a reasonable
19 estimate of a power plant's life span. The use of a reasonable estimate of the life span results
20 in a far more equitable allocation to customers of the plant's original cost throughout its life
21 than the alternative which is to assume an indefinite life as Ms. Mathis has done. The
22 approach of Ms. Mathis will leave an enormous amount of original cost to be allocated to

1 customers after the time that the certain date of retirement is known. This is inappropriate
2 ratemaking and should be rejected.

3 **Q. Is it possible that the single average survivor curve estimated by Ms.**
4 **Mathis for all installation years in each power plant account represents a reasonable**
5 **estimate of the account's overall average service life?**

6 **A.** No, it is not possible. As I described on pages 15 and 16 of my direct
7 testimony, the use of a single average survivor curve for all of the installation years of a
8 power plant, given the variation in life for each year of installation, does not properly allocate
9 the original cost to each year of service. Further, obtaining a statistical basis for making such
10 an estimate is impossible as the mix of historical interim and final retirements will not be the
11 same as the future mix of such retirements.

12 In the case of the average survivor curves that Ms. Mathis has estimated, the
13 mix of final and interim retirements in the historical analyses is totally inappropriate to serve
14 as a basis for forecasting a survivor curve that describes the overall average life of the power
15 plants. Ms. Mathis' estimates are based on analyses of interim retirements only. That is, her
16 estimates, which rely primarily on retirement rate analyses of historical retirements, only
17 incorporated historical interim retirements in the analysis. Historical final retirements were
18 excluded. Ms. Mathis' estimates could not possibly represent an appropriate estimation of
19 average life as only the rate of interim retirements is reflected in her analyses.

1 **Q. Do other state commissions allow the use of the life span procedure for**
2 **determining the annual depreciation rates for power plant accounts?**

3 A. Yes. Most, if not all, state commissions recognize that power plants represent
4 life span property. The mainstream approach is to allow the use of the life span procedure in
5 the determination of annual depreciation rates for power plants.

6 **III. RATEMAKING TREATMENT OF POWER PLANT SITE VALUE**

7 **Q. On pages 12 through 20 of MIEC witness Selecky's direct testimony, he**
8 **proposes to exclude terminal net salvage from the determination of depreciation rates**
9 **for production plants. What are the bases for his proposal?**

10 A. The bases for Mr. Selecky's proposal to exclude terminal net salvage are what
11 he characterizes as the stated policy of this Commission and his opinion that the power plant
12 site has significant value that should be recognized in the estimates of terminal net salvage.

13 **Q. What is your position regarding the Commission's terminal net salvage**
14 **policy?**

15 A. I have already described by views of the Commission's policy on pages 27
16 and 28 of my direct testimony.

17 **Q. Do you agree with Mr. Selecky that AmerenUE's proposed retirement**
18 **dates are speculative and arbitrary which is the premise of the Commission's policy?**

19 A. No, I do not. While it is true that AmerenUE will not retire all of its Steam
20 Production Plants in the year 2026, it also is not appropriate to describe the use of this
21 retirement date for all power plants as speculative and arbitrary. As I stated in my direct
22 testimony, this date represented a mid-point of a period during which these plants will be
23 retired. AmerenUE, through its witness Mark Birk, has refined these dates in its rebuttal

1 position. The revised retirement dates range from 2021 to 2037, a period of 16 years, and
2 reflect a life span of 60 years from the initial installation of most units. These plants were
3 built over this same range of time and it is reasonable to anticipate that they will be retired
4 over a similar range of years. The 60-year life span is at the upper end of the typical range of
5 lives and longer than the 55-year life span that Mr. Selecky has proposed for the Rush Island
6 station. Life span estimates that are longer than the life span proposed by Mr. Selecky for
7 AmerenUE's newest steam production plant and that result in replacement of these units over
8 a period that is the same as the period during which they were installed is neither speculative
9 nor arbitrary.

10 **Q. Should the value of the plant site be recognized in a determination of**
11 **terminal net salvage as proposed by Mr. Selecky?**

12 A. No, it should not. The value of the site is the value of the land. Land is a
13 nondepreciable asset. Any salvage value obtained from the site, i.e., the sale of the land,
14 should not be recognized in the determination of annual depreciation rates of the depreciable
15 assets located on the site.

16 **Q. How does Mr. Selecky propose to recognize the site value in the**
17 **ratemaking process?**

18 A. Mr. Selecky's proposal is essentially this: Since ratepayers during the life of
19 the first plant paid a return on the value of the land, they are somehow entitled to the value of
20 such land. Rather than providing them with the value of this land, which they do not own,
21 Mr. Selecky chooses to give them a pass on responsibility for the dismantling costs of the
22 power plants that have provided them with electricity over the previous 60 years. Instead, he

1 will require future customers to pay for the costs of such dismantling as a part of the cost of
2 the new plant.

3 **Q. Is this a sound approach to ratemaking?**

4 A. No, it is not. The costs of dismantling a power plant should be borne by the
5 customers that receive service from the plant, not by those that receive service from the next
6 generation plant. The next generation of customers should be responsible for the cost of
7 dismantling the plant that serves them, not the cost of dismantling the plant that served their
8 ancestors.

9 **Q. Please summarize your rebuttal testimony related to the value of a power**
10 **plant site.**

11 A. The value of a power plant site should not be recognized in the determination
12 of the annual depreciation rates for the depreciable property located on the site. Mr.
13 Selecky's citation of a case in which such value was considered in a plant siting proceeding
14 is not worthy of consideration in a ratemaking proceeding. I am not aware of any
15 commission that has recognized the value of land in the determination of depreciation rates
16 for depreciable plant. Recognizing site value by requiring subsequent generations to pay for
17 the cost of dismantling these depreciable facilities is not equitable as they will have to pay
18 the costs of their own power plant and its related cost of dismantlement.

19 Terminal net salvage should be incorporated in the determination of annual
20 depreciation rates for power plants. The dates of retirement are not speculative. Avoiding
21 any recovery of such costs due to the lack of a date certain creates even worse inequities than
22 applying Ms. Mathis' indefinite life assumption when determining the average life of each
23 installation year. The costs appropriately assigned to current ratepayers are not only

1 inadequate in Mr. Selecky's proposal, they are nonexistent. Terminal net salvage should be
2 allocated to the customers receiving the related service value based on a reasonable
3 determination of the plant's life span. Although this could result in amounts recovered that
4 vary from the amount based on perfect knowledge (the date of retirement and the cost of
5 dismantling), it is far better and fairer than ignoring the issue by not permitting any amounts
6 to be recovered.

7 **IV. INCORPORATION OF FUTURE INFLATION**

8 **Q. Both Messrs. Selecky and Dunkel have adjusted the net salvage estimates**
9 **of Mr. Wiedmayer to reduce the amount of future inflation that is reflected in such**
10 **estimates. Is such an adjustment appropriate?**

11 A. No, it is not. The estimates of future net salvage are based on historical
12 analyses of net salvage as a percent of the original cost of the facilities that are retired. In
13 order to rely on these historical percents as a basis for forecasting future net salvage percents,
14 the total amount of inflation that is reflected in the historical retirements and the total amount
15 of inflation that will be reflected in future retirements should be approximately the same. By
16 the total amount of inflation I mean the change in price level between the time plant is
17 installed and the time plant is retired.

18 Messrs. Selecky and Dunkel and others have an expectation that future rates
19 of inflation will be less than they have been over the past 30 or 40 years given the high levels
20 of inflation during the 1970's and early 1980's. Based on this expectation, they have
21 considered the amount of inflation reflected in the historical percents as compared to the
22 amount of inflation that they expect to occur prior to future retirements. This is an
23 appropriate exercise. However, there are two flaws in their analysis: the average age at

1 which historical retirements have occurred and the average age at which future retirements
2 will occur. In their considerations, they have overstated the historical average age of
3 retirement and understated the future average age of retirement, thus invalidating their
4 conclusions.

5 **Q. How did they overstate the average age of historical retirements?**

6 A. The analyses of both Messrs. Selecky and Dunkel overstate the average age
7 of historical retirements because they assume that the historical retirements occurred at an
8 average age equal to the estimated average service life. This is simply not the case. The
9 average age of the historical retirements is significantly less than the estimated average
10 service life. Most of the retirements that have occurred over the past 45 years have occurred
11 during the early part of the survivor curve at ages less than the average life. Further, as a
12 result of real and inflationary growth the younger retirements have a greater original cost.
13 This further reduces the dollar-weighted average age of these retirements. For example, the
14 average age of retirements in Account 364, Poles and Fixtures, during the period 1961 to
15 2005 was not 43 years as used by Mr. Dunkel, but rather 26.3 years, and the average age of
16 retirements for all Transmission, Distribution, and General Plant accounts for the same
17 period was not 46 years as used by Mr. Selecky, but rather 19.7 years.

18 **Q. How did Messrs. Selecky and Dunkel use their overstated average ages in**
19 **adjusting the net salvage estimates?**

20 A. Both Messrs. Selecky and Dunkel endeavored to remove the historical
21 inflation from the net salvage percent and then put back an amount to reflect future inflation.
22 Mr. Selecky did this using a 46 year period for the inflation based on the overall average life
23 of the Transmission, Distribution and General accounts. Mr. Dunkel did this for selected

1 transmission and distribution accounts. Their approach was to effectively develop a ratio of
2 the amount of future inflation to the amount of historical inflation and then multiply this ratio
3 by the net salvage percents, in the case of Mr. Selecky, or the average experienced net
4 salvage during the most recent ten years, in the case of Mr. Dunkel.

5 For example, Mr. Selecky assumed a cumulative historical inflation factor
6 equal to 6.075 (1.04^{46}). That is, an increase of 6.075 times in the price level between the
7 installation and retirement of plant. He further assumed a future cumulative inflation factor
8 of 3.257 (1.026^{46}). The ratio of future inflation to historical inflation is 0.54 ($3.257/6.075$)
9 which he rounded to 0.55 and concluded that all net salvage percents should be multiplied by
10 this factor to better reflect future inflation.

11 **Q. What is the result of overstating the average age of historical**
12 **retirements?**

13 A. The result of overstating the average age of historical retirements is the
14 removal of far too much inflation from the historical net salvage percents before adjusting
15 them to reflect future inflation. For example, rather than removing 46 years of inflation at 4
16 percent, Mr. Selecky should have removed 20 (19.7) years at 4 percent. As a result, his
17 adjustment would have been based on a historical cumulative inflation factor of 2.191
18 (1.04^{20}) and a future cumulative inflation factor of 3.257. This would suggest a need to
19 increase the net salvage percents by a factor of 1.49 ($3.257/2.191$) rather than decreasing
20 them by using the factor of 0.55.

1 **Q. How did Mr. Selecky and Mr. Dunkel understate the average age of**
2 **future retirements?**

3 A. The average age of future retirements used by Messrs. Selecky and Dunkel
4 was the average service life. This is incorrect. The average age of future retirements is not
5 the average service life, but rather is the average probable life. The average probable life is
6 the same as the average service life when an asset is first placed in service, but as time
7 passes, the average probable life continues to increase beyond the average service life. This
8 is no different than with humans who have lived for a number of years and now have life
9 expectancies that are greater than they were at birth. The use of the probable life would
10 result in more future inflation than was recognized by either Messrs. Selecky or Dunkel,
11 further invalidating their conclusions and adjustments.

12 **Q. Please summarize your rebuttal testimony related to the incorporation of**
13 **future inflation in net salvage.**

14 A. Contrary to the adjustments made by Messrs. Selecky and Dunkel to reduce
15 the future net salvage percents, an appropriate consideration of historical and future inflation
16 would suggest that such percents be increased. The average age of historical retirements is
17 significantly less than the average life of the account. Thus, less inflation, not more, has
18 occurred between the time of installation and retirement for these historical retirements than
19 will be the case for future retirements.

20 **Q. Did Mr. Selecky make any other proposal regarding the net salvage**
21 **allowance for Transmission, Distribution and General Plant?**

22 A. Yes. Prior to making his recommendations related to the adjustment for
23 inflation in the estimates of net salvage percents, which represented a fall back position,

1 Mr. Selecky recommended his preferred approach to net salvage for these accounts - an
2 allowance based on current net salvage expenditures. This is the same approach that the
3 Commission rejected in Case No. GR-99-315, Laclede Gas Company, and Case No. ER-
4 2004-0570, Empire District Electric Co., and should be rejected once again. As the
5 Commission stated in the Laclede Gas Company case: "...the fundamental goal of
6 depreciation accounting is to allocate the full cost of an asset, including its net salvage cost,
7 over its economic or service life so that utility customers will be charged for the cost of the
8 asset in proportion to the benefit they receive from its consumption." Mr. Selecky's proposal
9 does not meet this goal. Incorporation of net salvage in the depreciation rate as proposed by
10 Mr. Wiedmayer for AmerenUE does meet this goal.

11 **V. CALLAWAY LIFE SPAN**

12 **Q. Several witnesses have recommended the use of a 60-year life span for the**
13 **Callaway Nuclear Generating Station. Please comment.**

14 A. As I described in my direct testimony, I believe the use a 40-year life span
15 which coincides with the expiration of the current operating license continues to be the most
16 reasonable estimate. It provides for consistent treatment of the recovery of original cost and
17 the provision for decommissioning. The provision for decommissioning must be based on
18 the current operating license in accordance with this Commission's regulations.

19 The use of a 60-year life span assumes that the operating license will be
20 extended. While this may well occur, there are many hurdles that remain and there will be
21 both significant additions and retirements during the remaining life of this plant. The
22 retirements will likely be far greater than those reflected in the interim survivor curves. For
23 example, significant additions and retirements occurred in 2004 and 2005 at approximately

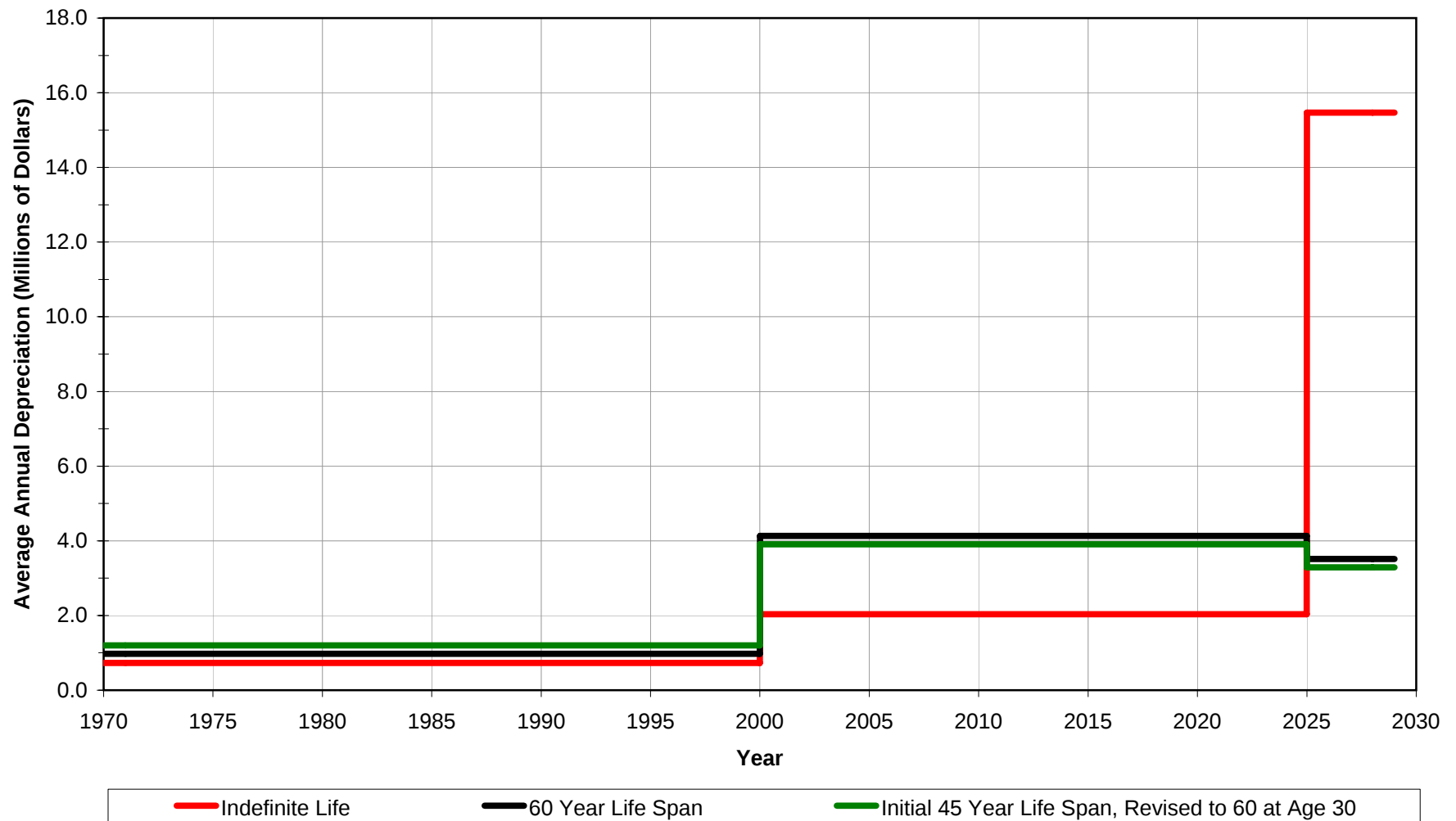
1 age 20. As described in the Rebuttal Testimony of Charles Naslund, similar retirements, or
2 even more retirements, will likely occur throughout the remaining life of this facility in order
3 to achieve a total life span of 60 years. These types of retirements are not reflected in the
4 interim survivor curves for the nuclear accounts. Thus, under the assumption of an operating
5 license extension, the average life span of major retirements not reflected in the interim curve
6 should be used and must consider (1) the significant retirements at ages 20 and 21 in 2004
7 and 2005, (2) additional significant retirements beyond those in the curve that would occur,
8 and (3) the final retirements at 60 years. The result would be an average life span for these
9 components that is far less than 60 years.

10 Given these factors and the uncertainty related to the extension of the
11 operating license, it would be more prudent to use the 40-year life span until further
12 information is available.

13 **Q. Does this conclude your rebuttal testimony?**

14 A. Yes, it does.

COMPARISON OF AVERAGE ANNUAL DEPRECIATION USING LIFE SPANS AND ASSUMING INDEFINITE LIFE



AMERENUE - ELECTRIC

COMPARISON OF ANNUAL DEPRECIATION USING LIFE SPANS AND ANNUAL DEPRECIATION ASSUMING INDEFINITE LIFE
 ASSUMPTIONS: \$50,000,000 ADDED IN 1970; \$100,000,000 ADDED IN 2000; ACTUAL RETIREMENT IN 2030; AND 60-O1 INTERIM SURVIVOR CURVE

Year	60 Year Life Span	Initial 45 Year Life Span, Revised to 60 at Age 30	Indefinite Life
1970	0.972	1.197	0.729
1971	0.972	1.197	0.729
1972	0.972	1.197	0.729
1973	0.972	1.197	0.729
1974	0.972	1.197	0.729
1975	0.972	1.197	0.729
1976	0.972	1.197	0.729
1977	0.972	1.197	0.729
1978	0.972	1.197	0.729
1979	0.972	1.197	0.729
1980	0.972	1.197	0.729
1981	0.972	1.197	0.729
1982	0.972	1.197	0.729
1983	0.972	1.197	0.729
1984	0.972	1.197	0.729
1985	0.972	1.197	0.729
1986	0.972	1.197	0.729
1987	0.972	1.197	0.729
1988	0.972	1.197	0.729
1989	0.972	1.197	0.729
1990	0.972	1.197	0.729
1991	0.972	1.197	0.729
1992	0.972	1.197	0.729
1993	0.972	1.197	0.729
1994	0.972	1.197	0.729
1995	0.972	1.197	0.729
1996	0.972	1.197	0.729
1997	0.972	1.197	0.729
1998	0.972	1.197	0.729
1999	0.972	1.197	0.729
1999.999	0.972	1.197	0.729
2000	4.130	3.906	2.031
2001	4.130	3.906	2.031
2002	4.130	3.906	2.031
2003	4.130	3.906	2.031
2004	4.130	3.906	2.031
2005	4.130	3.906	2.031
2006	4.130	3.906	2.031
2007	4.130	3.906	2.031
2008	4.130	3.906	2.031
2009	4.130	3.906	2.031
2010	4.130	3.906	2.031
2011	4.130	3.906	2.031
2012	4.130	3.906	2.031
2013	4.130	3.906	2.031
2014	4.130	3.906	2.031
2015	4.130	3.906	2.031
2016	4.130	3.906	2.031
2017	4.130	3.906	2.031
2018	4.130	3.906	2.031
2019	4.130	3.906	2.031
2020	4.130	3.906	2.031
2021	4.130	3.906	2.031
2022	4.130	3.906	2.031
2023	4.130	3.906	2.031
2024	4.130	3.906	2.031
2024.999	4.130	3.906	2.031
2025	3.515	3.291	15.469
2026	3.515	3.291	15.469
2027	3.515	3.291	15.469
2028	3.515	3.291	15.469
2029	3.515	3.291	15.469

AMERENUE - ELECTRIC
 COMPARISON OF ANNUAL DEPRECIATION USING LIFE SPANS AND ANNUAL DEPRECIATION ASSUMING INDEFINITE LIFE
 ASSUMPTIONS: \$50,000,000 ADDED IN 1970; \$100,000,000 ADDED IN 2000; ACTUAL RETIREMENT IN 2030; AND 60-O1 INTERIM SURVIVOR CURVE

		<u>60 Year Life Span</u>					<u>Initial 45 Year Life Span, Revised to 60 at Age 30</u>				<u>Indefinite Life</u>			
<u>YEARS</u>		<u>I.Y.1970</u>	<u>I.Y.2000</u>	<u>Total</u>	<u>Average per Year</u>		<u>I.Y.1970</u>	<u>I.Y.2000</u>	<u>Total</u>	<u>Average per Year</u>	<u>I.Y.1970</u>	<u>I.Y.2000</u>	<u>Total</u>	<u>Average per Year</u>
<u>(1)</u>		<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>		<u>(6)</u>	<u>(7)</u>	<u>(8)</u>	<u>(9)</u>	<u>(10)</u>	<u>(11)</u>	<u>(12)</u>	<u>(13)</u>
1970	1999 1970-2000	29,166,667		29,166,667	972,222		35,899,891		35,899,891	1,196,663	21,875,000		21,875,000	729,167
2000	2024 2000-2025	17,939,815	85,317,460	103,257,275	4,130,291		12,328,795	85,317,460	97,646,255	3,905,850	13,454,861	37,326,389	50,781,250	2,031,250
2025	2029 2025-2030	2,893,519	14,682,540	17,576,058	3,515,212		1,771,315	14,682,540	16,453,854	3,290,771	14,670,139	62,673,611	77,343,750	15,468,750
Total		50,000,000	100,000,000	150,000,000			50,000,000	100,000,000	150,000,000		50,000,000	100,000,000	150,000,000	-

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Company's Missouri Service Area.)

Case No. ER-2007-0002

AFFIDAVIT OF WILLIAM M. STOUT

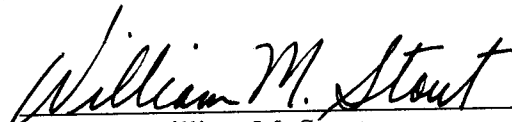
STATE OF PENNSYLVANIA)
)**ss**
COUNTY OF CUMBERLAND)

William M. Stout, being first duly sworn on his oath, states:

1. My name is William M. Stout. I work in Camp Hill, Pennsylvania and I am President of the Valuation and Rate Division of Gannett Fleming, Inc.

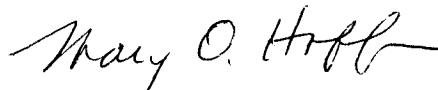
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 17 pages, and Schedule WMS-R1 all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



William M. Stout

Subscribed and sworn to before me this 29th day of January, 2007.



Notary Public

My commission expires:

6/2/07

