

**Rebuttal Testimony and Exhibit
John J. Spanos**

**Before the South Dakota Public Utilities Commission
of the State of South Dakota**

**In the Matter of the Application of
Black Hills Power, Inc., a South Dakota Corporation**

**For Authority to Increase Rates
in South Dakota**

Docket No. EL14-026

January 15, 2015

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp
3 Hill, Pennsylvania, 17011.

4 **Q. ARE YOU ASSOCIATED WITH ANY FIRM?**

5 A. Yes. I am associated with the firm of Gannett Fleming, Inc.

6 **Q. HOW LONG HAVE YOU BEEN ASSOCIATED WITH GANNETT
7 FLEMING, INC.?**

8 A. I have been associated with the firm since college graduation in June 1986.

9 **Q. WHAT IS YOUR POSITION WITH THE FIRM?**

10 A. I am a Senior Vice President.

11 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

12 A. I am testifying on behalf of Black Hills Power, Inc. ("Black Hills Power" or the
13 "Company").

14 **Q. DID YOU FILE DIRECT TESTIMONY IN THIS DOCKET?**

15 A. Yes.

16 **II. PURPOSE OF REBUTTAL TESTIMONY**

17 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

18 A. The purpose of my testimony is to rebut the portions of the direct testimony of
19 Black Hills Industrial Intervenors' witness, Mr. Lane Kollen, related to
20 depreciation.

1 **Q. WHAT ARE THE SUBJECTS OF YOUR REBUTTAL TESTIMONY?**

2 A. The overall subject of my testimony is depreciation. Specifically, I will address
3 the proper depreciation rates for the new Cheyenne Prairie Generating Station
4 (“CPGS”) and the most appropriate net salvage percentages for steam and other
5 production accounts.

6 **III. DEPRECIATION RATES FOR CPGS**

7 **Q. HAVE YOU DETERMINED DEPRECIATION RATES FOR THE NEW**
8 **CPGS FACILITY?**

9 A. Yes. The depreciation rates were set forth on page III-8 of the Depreciation Study.
10 These rates were determined by account, based on interim survivor curves,
11 weighted net salvage percents and a 35-year life span.

12 **Q. DID ALL PARTIES AGREE WITH THE INITIAL PROPOSED RATES BY**
13 **ACCOUNT FOR CPGS?**

14 A. No. Most of the parties agreed in settlement with the concepts utilized in
15 determining the parameters, however, the settlement established a change in the
16 life span from the most commonly utilized life span of 35 years to 40 years. The
17 40-year life span is still considered reasonable for this type of facility.

18 **Q. DID MR. KOLLEN AGREE WITH ALL OF THE PARAMETERS IN THE**
19 **SETTLEMENT THAT PERTAIN TO DEPRECIATION?**

20 A. No. Mr. Kollen has agreed with the 40-year life span and developed future
21 accruals based on the negative 4 percent net salvage; however, he has incorrectly
22 determined the remaining lives which produce inappropriate annual accrual

1 amounts and rates.

2 **Q. CAN YOU SHOW THE PROPER CALCULATION REFLECTING ALL**
3 **THE APPROPRIATE PARAMETERS OF THE SETTLEMENT?**

4 A. Yes. Exhibit JJSR-1 sets forth the annual accrual amounts and rates by account
5 utilizing all the proper parameters for CPGS. These rates produce a composite
6 rate of 2.98% and \$2,097,669 in annual expense. That is \$72,069 per year higher
7 than the amount calculated by Mr. Kollen in Exhibit LK-16.

8 **Q. IS THE COMPOSITE RATE OF 2.98% FOR CPGS AGREED UPON BY**
9 **STAFF AND THE COMPANY?**

10 A. Yes.

11 **Q. DOES EXHIBIT JJSR-1 CLEARLY SET FORTH ALL THE**
12 **PARAMETERS TO BE UTILIZED IN DETERMINING THE PROPER**
13 **RATES FOR CPGS?**

14 A. Yes. The plant in service totals \$70.3M, the future accruals total \$73.1M, which
15 includes the negative 4 percent net salvage. Each account sets forth the remaining
16 life and annual accrual amount based on the 40-year life span, negative 4% net
17 salvage and interim survivor curve. Therefore, using the appropriate parameters,
18 the total annual expense for CPGS when it goes into service is \$2,097,669, not
19 \$2,025,600 as shown in Exhibit LK-16.

20 **IV. NET SALVAGE FOR STEAM AND OTHER PRODUCTION ACCOUNTS**

21 **Q. DID MR. KOLLEN AGREE WITH YOUR NET SALVAGE PERCENTS**
22 **FOR ALL ACCOUNTS?**

1 A. No. Mr. Kollen accepted all net salvage percentages for assets in transmission,
2 distribution and general plant, but did not accept the net salvage percentages for
3 steam and other production plant accounts.

4 **Q. WHAT ISSUES HAVE BEEN RAISED BY MR. KOLLEN?**

5 A. Mr. Kollen challenged the inclusion of terminal net salvage, or the
6 decommissioning and dismantlement of the Company's power plants, in
7 depreciation rates. Mr. Kollen's testimony is primarily focused on terminal net
8 salvage, although he has presented other issues related to net salvage that I address
9 in this testimony.

10 **Q. PLEASE SUMMARIZE YOUR TESTIMONY RELATED TO NET**
11 **SALVAGE.**

12 A. The first issue I address is terminal net salvage for production plant. I will explain
13 that, as required by the Uniform System of Accounts and authoritative
14 depreciation texts, depreciation must incorporate net salvage. The primary
15 depreciation issue in this case is whether the Company will experience terminal
16 net salvage for their power plants when they are eventually retired. Experience
17 now shows that not only will power plants be retired, but there are significant
18 costs upon retirement related not only to the dismantlement of the plant itself, but
19 also to the remediation of features of the site such as ash ponds. Since these costs
20 are likely to be incurred, intergenerational equity and depreciation authorities
21 require that they be included in depreciation and recovered over the service lives
22 of the plants.

1 Throughout this testimony I address proper net salvage methodologies in general.
2 I respond to Mr. Kollen's comments and explain that his proposals are not
3 consistent with the Uniform System of Accounts, authoritative depreciation texts,
4 and well established practice in almost all jurisdictions in the country.

5 **Q. WHAT IS TERMINAL NET SALVAGE?**

6 A. Facilities such as power plants are referred to as "life span property." Life span
7 property is property for which an entire facility is expected to be retired at a
8 concurrent point in time. Life span property therefore experiences two types of
9 retirements. The first is referred to as "terminal" (or "final") retirements, which
10 occur when the entire plant (or an entire generating unit) is retired. At the time the
11 entire plant is retired, all assets at the site are retired as terminal retirements.
12 However, many assets will also be retired (and replaced) throughout the life of the
13 power plant in order to operate the plant safely and efficiently. These retirements
14 that occur before the final date of retirement are referred to as interim retirements.
15 The net salvage (gross salvage less cost of removal) that occurs associated with
16 the terminal retirement of the plant (either when the plant is retired or at a later
17 date) is referred to as "terminal net salvage" or "final net salvage". Terminal net
18 salvage may include the decommissioning and dismantlement of the power plant
19 itself, as well as the costs associated with the remediation of the site, such as the
20 closure of ash ponds.

21 **Q. WHAT IS INTERIM NET SALVAGE?**

22 A. Interim net salvage is net salvage that is associated with the interim retirements

1 that occur throughout the life of the power plant.

2 **Q. WHAT HAS MR. KOLLEN RECOMMENDED REGARDING NET**
3 **SALVAGE FOR GENERATING PLANTS?**

4 A. Mr. Kollen has recommended that no terminal net salvage be included in
5 depreciation. He further recommends that the current negative 5% net salvage be
6 maintained, however, he applies the negative 5% net salvage percentage to all
7 assets regardless of how they are retired.

8 I initially will focus on the issue related to terminal net salvage. I then turn my
9 attention to how Mr. Kollen calculates depreciation expense with his use of
10 interim net salvage percentages.

11 **Q. WHAT ARE THE ISSUES RELATED TO TERMINAL NET SALVAGE?**

12 A. 1. Based on a review of Mr. Kollen's testimony, there are two main issues
13 regarding terminal net salvage in this proceeding that the Commission must
14 consider. Specifically, these are as follows: Should the Company be
15 expected to experience terminal net salvage for the facilities currently in
16 service, and what does experience actually teach us regarding whether
17 companies across the country incur significant costs upon the retirement of
18 power plants?

19 2. Should terminal net salvage be allocated over the service life or lives of the
20 Company's generating facilities?

21 As I discuss later, the second issue should not be controversial; therefore, the
22 primary issue is whether the Company should be expected to experience terminal

1 net salvage. Net salvage, a component of the service value of depreciable
2 property, must be allocated over the service life of depreciable property. This
3 concept is widely supported by the Uniform System of Accounts, authoritative
4 depreciation texts, and decisions from other commissions. It is also consistent
5 with ratemaking principles such as intergenerational equity, and is consistent with
6 the approach for transmission, distribution and general plant that the Commission
7 has previously accepted. Unfortunately, Mr. Kollen appears to have challenged
8 this well-established practice for generating assets, therefore I will address his
9 claims in more detail and remind the Commission of these ratemaking and
10 accounting principles in my rebuttal testimony.

11 My focus will be on the appropriate terminal net salvage estimates for production
12 plant. Since net salvage must be included in depreciation rates, the fundamental
13 issue in this case is estimating the terminal net salvage for generating facilities.
14 Mr. Kollen has recommended that there will be no terminal net salvage for
15 production plant accounts, and provides testimony that attempts to cast doubt as to
16 whether the Company will actually incur costs upon the retirement of its
17 generating facilities. Additionally, he erroneously attempts to use the
18 circumstances with the three recently retired steam plants as a precedent for
19 recovery of existing facilities. As described below, experience has not only shown
20 that coal-fired power plants are decommissioned and dismantled upon their
21 retirement, but that these activities result in significant costs. Intergenerational
22 equity requires that these costs be recovered over the lives of the plants, so that

1 customers who benefit from the plants will pay for their full service value.

2 **Q. HAVE COMPANIES EXPERIENCED TERMINAL NET SALVAGE**
3 **RELATED TO RETIRED POWER PLANTS?**

4 A. Yes. The number of retirements of coal-fired power plants has increased
5 significantly, due in part to changing environmental regulations and the lower cost
6 of natural gas. There are also a number of plants expected to retire in the coming
7 years. As a result, there is far more evidence of the ultimate disposition of these
8 facilities upon their retirement. The retirement of these plants has typically
9 resulted in costs not only related to the dismantlement of the physical power
10 plants, but also significant costs related to the clean-up of the site.

11 **Q. CAN YOU PROVIDE EXAMPLES OF POWER PLANTS THAT HAVE**
12 **BEEN OR ARE PLANNED TO BE DECOMMISSIONED?**

13 A. Yes. There are many recent examples of plants that either have been or will be
14 decommissioned and dismantled. Based on the issues in this case, it is known that
15 Black Hills Power will decommission its Ben French, Osage and Neil Simpson I
16 plants. Black Hills Colorado Electric is in the process of decommissioning its
17 Canon City (W.N. Clark) plant and units 5 and 6 at its Pueblo plant. AmerenMO
18 has decommissioned and dismantled its retired Venice power plant. Duke Energy
19 plans to decommission a number of sites in the Carolinas, and activities related to
20 the retirements of these sites include asbestos removal, demolition and the closure
21 of ash ponds. Dominion Virginia Power is in the process of decommissioning coal
22 units at its Chesapeake Energy Center, North Branch and Yorktown sites.

1 **Q. CAN YOU DISCUSS SOME OF THESE EXAMPLES IN MORE DETAIL?**

2 A. Yes. I will discuss the Black Hills Corporation plants as well as the Venice plant
3 in more detail.

4 **Q. PLEASE DISCUSS THE BLACK HILLS CORPORATION PLANTS.**

5 A. Both Black Hills Colorado Electric and Black Hills Power have retired coal-fired
6 generating units in recent years. The Black Hills companies have begun the
7 process of decommissioning and dismantling these plants, and have solicited bids
8 for this work. The MW output and the costs to dismantle and decommission these
9 plants are provided in Table 1 below.

10 **Table 1: Decommissioning Costs for Black Hills Plants**

Plant	MW	Decommissioning Cost (\$, millions)
<u>Black Hills Power</u>		
Ben French	25	4.0
Osage	35	4.0
Neil Simpson I	22	3.0
<u>Black Hills Colorado</u>		
Canon City (Clark)	40	4.1
Pueblo Units 5 and 6	29	3.8

11

12 The decommissioning costs for these plants, shown in Table 1, correspond to a
13 terminal net salvage cost of about \$100 to \$160 per kW for each plant.

14 **Q. HOW DO THE EXPERIENCES OF THE BLACK HILLS AND VENICE**
15 **PLANTS IMPACT THE INCLUSION OF TERMINAL NET SALVAGE IN**
16 **THIS CASE?**

1 A. The facts surrounding the experience of these plants support that there should be
2 expected significant costs associated with the final retirement of coal-fired power
3 plants. These costs are not speculative, and instead experience shows that terminal
4 net salvage costs are likely to occur.

5 First, consider the argument that the Company's plants can be reused for other
6 purposes (such as future generation). Such a scenario has in fact occurred with the
7 Venice site. The coal facility at this site was retired in 2002, and the site continues
8 to be used for other types of generation. The reuse of the site did not prevent the
9 company from incurring significant costs related to the retirement of the
10 incumbent coal plant. The company has spent a net amount of approximately
11 \$15.6 million removing the retired power plant and remediating the site, over two
12 thirds of which was related to the closure of the ash pond. Thus, this experience
13 teaches that even when the site will be reused for new generation there will still be
14 significant costs incurred for the retirement of the old plant. These costs therefore
15 should be included prospectively in depreciation rates.

16 Regarding the argument that the estimation of terminal net salvage is speculative,
17 the recent evidence should again disprove this sentiment. The Venice costs, as
18 well as the other examples cited above, demonstrate that significant costs will be
19 incurred upon retirement for coal plants.

20 The costs and activities associated with the retirement of the ash pond at Venice
21 are also instructive. These are activities that are highly likely to be required upon
22 the retirement of the Company's power plants. Recent breaches of ash ponds at

1 sites owned by the Tennessee Valley Authority and by Duke Energy, in which the
2 contents of the ash ponds entered waterways, have increased scrutiny related to the
3 remediation of the ash ponds at coal plants across the country. It should therefore
4 be expected that the costs incurred at the Company's existing coal fleet at a
5 minimum be similar in scope to the activities that were undertaken at Venice.

6 **Q. HOW DO THE COSTS OF DECOMMISSIONING AND DISMANTLING**
7 **THE REMAINING FACILITIES COMPARE TO THE RECENTLY**
8 **RETIRED PLANTS?**

9 A. The costs for the Black Hills plants are about \$100 to \$160 per kW, which is
10 within the range I have used for the remaining steam plants. The depreciation
11 study includes a decommissioning cost of \$20 per kW estimate for other
12 production plant which is comparable to industry ranges.

13 **Q. WHAT ARE THE ARGUMENTS MADE BY MR. KOLLEN AS TO WHY**
14 **TERMINAL NET SALVAGE SHOULD BE EXCLUDED FROM**
15 **DEPRECIATION?**

16 A. There are two types of arguments made by Mr. Kollen. He first argues that net
17 salvage for production plant should not be updated from the last study regardless
18 of new analyses. These arguments are very much flawed and inconsistent with the
19 prescriptions of the Uniform System of Accounts, authoritative depreciation texts,
20 and the practice for net salvage in almost every jurisdiction in the country.

21 The second type of argument set forth by Mr. Kollen is intended to cast doubt on
22 whether the Company will incur terminal net salvage costs when its plants are

1 retired. Mr. Kollen has used this argument to support his recommendation that the
2 Company should not accrue for net salvage while the assets are in service. This is
3 clearly intergenerational inequity.

4 **Q. PLEASE EXPLAIN THE ARGUMENT RELATED TO THE TERMINAL**
5 **NET SALVAGE COSTS.**

6 A. The argument presented by Mr. Kollen is that there is reason to doubt that the
7 Company will incur terminal net salvage costs and the costs should not be
8 recovered until after the asset is retired. This argument is not supported by recent
9 events of Black Hills Power.

10 For example, Mr. Kollen states that:

11 “The Company has not justified the significant increases that it
12 proposes or provided any valid rationale to change policy. The
13 Commission should not provide premature recovery of unknown
14 future costs; the Company can seek recovery of decommissioning
15 costs in the future when the method of decommissioning can be
16 assessed and the cost can be determined based on actual bids.”¹

17 Mr. Kollen attempts to use the circumstances with the three recently retired Black
18 Hills Power units as Commission policy which erroneously contradicts the concept
19 of net salvage and recovery of the full service value of all assets.

20 **Q. HOW HAVE YOU INCORPORATED INTERIM NET SALVAGE INTO**
21 **THE DEPRECIATION RATES YOU HAVE RECOMMENDED?**

22 A. For interim retirements, I have made estimates of interim net salvage based in part

¹ Direct Testimony of Lane Kollen, pg. 48, lines 8-13.

1 on the statistical analyses of the Companies' historical interim net salvage data.
2 This process is the same as for the estimates of net salvage for transmission,
3 distribution and general plant. The historical data are shown on pages III-121
4 through III-129 of the depreciation study, and the recommendations I have made
5 for an interim net salvage estimate for steam production plant is negative 20
6 percent and for other production plant is negative 5 percent.

7 The interim net salvage estimate only applies to retirements that will occur as
8 interim retirements, whereas terminal retirements will experience terminal net
9 salvage. I have therefore determined the estimated percentage of the investment at
10 each generating unit that will be retired as interim retirements and the percentage
11 that will be retired as terminal retirements. The interim and terminal net salvage
12 estimates are then composited based on these percentages to determine the
13 weighted net salvage percent for each generating unit. The calculations of these
14 weighted net salvage percentages can be found in Tables 1 and 2 on pages III-119
15 and III-120 of the depreciation study.

16 **Q. WHAT HAS MR. KOLLEN RECOMMENDED REGARDING INTERIM**
17 **NET SALVAGE?**

18 A. Mr. Kollen has objected to the inclusion of more up to date net salvage analyses
19 and recommends a negative 5% net salvage be maintained. He does not address
20 any distinctions of how the past percentage was determined. Although he does not
21 discuss in detail, Mr. Kollen's calculations apply negative 5% net salvage to all
22 assets regardless of how they are retired.

1 **Q. DO THE COMPANY'S HISTORICAL DATA DEMONSTRATE THAT**
2 **NET SALVAGE FOR PRODUCTION PLANT SHOULD INCORPORATE**
3 **INTO DEPRECIATION RATES A NET SALVAGE PERCENT**
4 **DIFFERENT THAN NEGATIVE 5 PERCENT?**

5 A. Yes. The historical interim net salvage data for steam and other production plant
6 are shown on pages III-121 through III-129 of the depreciation study. The
7 historical data shows that the Company has experienced interim net salvage in
8 almost every year for which data is available. The Company has experienced a
9 total steam negative net salvage amount of \$5.5 million for \$27.0 million of
10 associated retirements or 20 percent for the full period 1997-2012. Similarly, the
11 historical net salvage for other production is slightly less than 5 percent for the
12 associated retirements during the 1997-2012 period.

13 It is clearly shown in my Study that the Company experiences interim net salvage
14 and will continue to do so in the future. Therefore, the negative 20 percent net
15 salvage for steam and negative 5 percent for other production assets is well
16 supported for interim net salvage. This is only part of the net salvage component
17 for production plant. The other component is terminal net salvage which should
18 include costs comparable to the three recently retired Black Hills plants and
19 industry averages for other production plant.

20 **V. NET SALVAGE METHODOLOGY**

21 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR REBUTTAL**
22 **TESTIMONY?**

1 A. In this section, I explain that depreciation authorities and the established precedent
2 of this and other commissions is that net salvage is to be incorporated into
3 depreciation. First, I will discuss the prescriptions of the Uniform System of
4 Accounts (“USofA”) and explain that the USofA requires that net salvage be
5 incorporated into depreciation. Next, I explain that with the exception of a
6 handful of states, the vast majority of jurisdictions (including South Dakota)
7 incorporate net salvage into depreciation. I then explain the recommendations of
8 authoritative depreciation texts regarding net salvage. The collective discussion of
9 these authorities should make clear that Mr. Kollen’s recommendations are
10 inappropriate, and that terminal and interim net salvage must be incorporated into
11 depreciation for production plant facilities.

12 A. **UNIFORM SYSTEM OF ACCOUNTS**

13 **Q. DOES THE UNIFORM SYSTEM OF ACCOUNTS ADDRESS THE ISSUE**
14 **OF HOW NET SALVAGE COSTS SHOULD BE ACCOUNTED FOR, AND**
15 **IF SO, HOW?**

16 A. Yes. The USofA prescribes that net salvage costs should be accrued over the
17 course of an asset’s service life (*i.e.*, recognized in each period in which the asset
18 provides service) in a systematic and rational manner. Net salvage costs should
19 not be recognized in the period in which any salvage-related costs are paid and
20 should not be recovered after these costs are incurred.

21 **Q. PLEASE EXPLAIN.**

22 A. The USofA defines depreciation as follows:

1 *Depreciation*, as applied to depreciable electric plant, means the loss
2 in service value not restored by current maintenance, incurred in
3 connection with the consumption or prospective retirement of
4 electric plant in the course of service from causes which are known
5 to be in current operation and against which the utility is not
6 protected by insurance. Among the causes to be given consideration
7 are wear and tear, decay, action of the elements, inadequacy,
8 obsolescence, changes in the art, changes in demand and
9 requirements of public authorities.²

10 Depreciation accrual rates are used to allocate, for accounting purposes, the
11 service values of assets over their service lives. As a result, each year of service
12 (and each generation of customers) is charged with the portion of the asset
13 consumed or used in that year. Total annual depreciation is based on a system of
14 depreciation accounting which aims to distribute the cost of fixed capital assets,
15 less net salvage, over the estimated useful life of the unit, or group of assets, in a
16 systematic and rational manner.

17 **Q. YOU REFERRED TO DEPRECIATION AS THE “LOSS IN SERVICE**
18 **VALUE.” WHAT IS SERVICE VALUE?**

19 A. Service value, as defined in the USofA, is “the difference between original cost
20 and net salvage value of electric plant.”³

21 **Q. DOES THE USOFA ALSO DEFINE WHAT IT MEANS BY “NET**
22 **SALVAGE VALUE?”**

² 18 CFR, Chapter 1, Part 101 Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. Definition 12.

³ 18 CFR, Chapter 1, Part 101 Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. Definition 36.

1 A. Yes, it does. “Net salvage value’ means the salvage value of property retired less
2 the cost of removal.”⁴ Net salvage is described as “positive net salvage” if the
3 salvage value exceeds removal costs, and described as “negative net salvage” (*i.e.*,
4 a net cost) if removal costs exceed the salvage value.

5 **Q. DOES THE USOFA PRESCRIBE A METHOD OF DEPRECIATION**
6 **ACCOUNTING?**

7 A. Yes. Both the electric and gas Uniform System of Accounts include General
8 Instruction 11, “Accounting to be on accrual basis,” which states, “The utility is
9 required to keep its accounts on the accrual basis.” Further, General Instruction
10 22, “Depreciation Accounting,” pertains to electric utilities and states that
11 “Utilities must use a method of depreciation that allocates in a systematic and
12 rational manner the service value of depreciable property over the service life of
13 the property.” (Emphasis added.)

14 **Q. PLEASE EXPLAIN WHY YOU HAVE EMPHASIZED CERTAIN PARTS**
15 **OF GENERAL INSTRUCTION 22?**

16 A. The emphasized portions in this section are definitive in stating that net salvage
17 must be included in depreciation. The USofA states that utilities “must” use a
18 method of depreciation that allocates the “service value” – defined as original cost
19 less net salvage – “over the service life of the property.”

20 **Q. WHAT IS THE ACCRUAL BASIS OF ACCOUNTING REFERRED TO IN**
21 **GENERAL INSTRUCTION 11?**

⁴ *Id.* Definition 19.

1 A. Under the accrual basis of accounting, transactions are counted when the order is
2 made, the item is delivered, or the service occurs, regardless of when any money
3 for such orders, items, or services is actually received or paid. The accrual basis
4 recognizes economic events without regard to when the related cash transaction
5 occurs. Thus, net salvage costs are traditionally recognized when the service is
6 rendered, *i.e.*, during each year of an asset's service life, rather than when the
7 actual salvage-related costs are incurred. To recognize the costs only at the time
8 any net salvage-related dollars change hands would be to follow the "cash" basis
9 of accounting, contrary to the instructions of the Uniform System of Accounts.

10 **Q. BASED ON THE FOREGOING DEFINITIONS AND INSTRUCTIONS,**
11 **WHAT DO YOU CONCLUDE THE USOFA REQUIRES REGARDING**
12 **NET SALVAGE?**

13 A. The USofA, which I understand South Dakota electric utilities are required to
14 follow, requires that net salvage, as a component of service value, must be
15 allocated or accrued over the service life of the property in a systematic and
16 rational manner.

17 **Q. ARE MR. KOLLEN'S PROPOSALS CONSISTENT WITH THE USOFA?**

18 A. No. Mr. Kollen recommends ignoring recent historical indications because net
19 salvage has become more negative and a utility does not have the right to accrue
20 for some net salvage while the asset is in service. Further, Mr. Kollen states in his
21 testimony "this may represent an undisclosed proposal to change the
22 Commission's policy for decommissioning cost recovery from recovery *after* the

1 retirement of the plants (as is the case in this proceeding for the three retired coal-
2 fired plants) to recovery *before* the future retirement of the plants.”⁵ His proposal,
3 by his own admission, does not allocate the full service value (including all net
4 salvage) of these assets over their service lives. His proposal is therefore not
5 consistent with the USofA.

6 **B. ACCEPTANCE OF NET SALVAGE METHODS**

7 **Q. IS THE CONCEPT THAT NET SALVAGE MUST BE INCORPORATED**
8 **INTO DEPRECIATION WIDELY ACCEPTED IN THE U.S.?**

9 A. Yes, it is. To my knowledge, only three states currently do not incorporate
10 estimates of future net salvage into depreciation rates. All other states, as well as
11 the FERC, incorporate net salvage into depreciation rates. Further, the three states
12 that do not incorporate estimates of net salvage allow for an allowance for net
13 salvage incurred by the utility.

14 **Q. DOES SOUTH DAKOTA INCORPORATE NET SALVAGE INTO**
15 **DEPRECIATION RATES?**

16 A. Yes. The Company’s existing depreciation rates, approved by the Commission,
17 incorporate net salvage into depreciation rates for all plant accounts.

18 **C. TREATMENT IN PREEMINENT DEPRECIATION TEXTS**

19 **Q. DO AUTHORITATIVE TEXTS ON DEPRECIATION ADDRESS THE**
20 **ISSUE OF WHETHER NET SALVAGE SHOULD BE ACCRUED DURING**
21 **THE LIFE OF THE RELATED PLANT?**

⁵ Direct Testimony of Lane Kollen, p. 47, lines 16-19. (Emphasis in original).

1 A. Yes, they do.

2 **Q. WHAT DO THESE TEXTS PROVIDE?**

3 A. The National Association of Regulatory Utility Commissioner's *Public Utility*
4 *Depreciation Practices* ("NARUC" or "NARUC Manual") and *Depreciation*
5 *Systems* by Wolf and Fitch ("*Depreciation Systems*" or "Wolf and Fitch") are
6 preeminent texts on the subject of depreciation, and each explains that net salvage
7 should be ratably accrued over the life of the related property.

8 *Public Utility Depreciation Practices*, published in 1996 states the
9 following:

10 Historically, most regulatory commissions have required that
11 both gross salvage and cost of removal be reflected in
12 depreciation rates. The theory behind this requirement is that,
13 since most physical plant placed in service will have some
14 residual value at the time of retirement, the original cost
15 recovered through depreciation should be reduced by that
16 amount. Closely associated with this reasoning is the
17 accounting principle that revenues be matched with costs and the
18 regulatory principle that utility customers who benefit from the
19 consumption of plant pay for the cost of that plant, no more, no
20 less. The application of the latter principle also requires that the
21 estimated cost of removal of plant be recovered over its life.⁶

22 The 1994 edition of *Depreciation Systems*, another highly regarded authoritative
23 text on depreciation matters states:

24 The matching principle specifies that all costs incurred to produce a

⁶ NARUC, *Public Utility Depreciation Practices*, 1996, p. 157

1 service should be matched against the revenue produced. Estimated
2 future costs of retiring of an asset currently in service must be
3 accrued and allocated as part of the current expenses.⁷

4 **Q. MR. KOLLEN HAS RAISED THE ISSUES OF TERMINAL AND**
5 **INTERIM NET SALVAGE. DOES EITHER OF THESE TEXTS ADDRESS**
6 **THESE ISSUES?**

7 A. Yes. NARUC discusses net salvage for life span categories on page 161.
8 NARUC explains that estimates of both interim and final (or terminal) net salvage
9 are made for life span property (such as power plants):

10 Net salvage associated with final retirements must be composited
11 with interim net salvage resulting from expected piecemeal
12 retirements in order to develop an estimate of future net salvage.⁸

13 **Q. HOW DO THESE AUTHORITIES IMPACT YOUR ANALYSIS?**

14 A. They show that accruing net salvage costs over the life of the related asset has the
15 virtue of being not only the majority approach accepted by the vast majority of
16 regulatory commissions, but is also the approach supported by authoritative
17 depreciation texts.

18 **Q. IS THERE A DIFFERENCE IN THE NET SALVAGE COMPONENT FOR**
19 **PRODUCTION PLANT THAN ALL OTHER ASSETS?**

20 A. No. The net salvage component for all assets in the Depreciation Study represent
21 the recovery of the full service value of the assets within the account. The only
22 difference is the nature of when the assets are retired. For the mass accounts, you

⁷ *Depreciation Systems*, W. C. Fitch and Frank K. Wolf, 1994, p. 7.

⁸ NARUC, *Public Utility Depreciation Practices*, 1996, p. 161.

1 have retirements annually with associated cost of removal and gross salvage for
2 each asset recorded. A percentage of the assets in each account are retired or
3 replaced each year which is the expectation of mass property accounts. For
4 production accounts, there are annual retirements or replacements each year, just
5 like mass property accounts; however, there is also an expected major retirement
6 at a concurrent date which represents the life span of the facility. Therefore, the
7 assets in production accounts do not have perpetual life characteristics. This does
8 not mean you do not have the opportunity to recover the portion of service value
9 related to these assets as Mr. Kollen would make one believe.

10 **Q. HAS MR. KOLLEN ACCEPTED ALL THE NET SALVAGE**
11 **PERCENTAGES FOR TRANSMISSION, DISTRIBUTION AND**
12 **GENERAL PLANT?**

13 A. Yes.

14 **Q. HAS MR. KOLLEN CONDUCTED A NET SALVAGE ANALYSIS FOR**
15 **ANY ASSETS?**

16 A. No. Mr. Kollen has accepted the net salvage estimates recommended in the
17 Depreciation Study for transmission, distribution and general plant which includes
18 statistical analyses through 2012. However, he has disregarded any statistical
19 analyses for steam and other production assets and randomly suggested
20 maintaining the current estimate of negative 5 percent for all accounts.

21 **Q. WAS THE NET SALVAGE ANALYSES IN THE DEPRECIATION STUDY**

1 **FOR PRODUCTION PLANT CONDUCTED IN THE SAME FASHION AS**
2 **THE OTHER PLANT ACCOUNTS?**

3 A. Generally, yes. In all cases, the net salvage percent is based on judgment which
4 includes as a primary factor, the statistical analyses through 2012 of retirements
5 and their associated cost of removal and gross salvage. The process is described
6 on pages II-26 through II-28 of the Depreciation Study and the statistical analysis
7 is set forth on pages III-118 through III-148 of the Depreciation Study. The only
8 difference between production plant and the other functional plant is the
9 component for terminal net salvage. The tables which set forth how interim and
10 terminal net salvage are derived and then weighted to produce one net salvage
11 percent by location is set forth on pages III-118 and III-119 of the Depreciation
12 Study.

13 **Q. DOES THE INCLUSION OF TERMINAL NET SALVAGE JUSTIFY THE**
14 **ELIMINATION OF RECENT HISTORICAL INDICATIONS?**

15 A. Absolutely not. As a matter of fact, the tables on pages III-118 and III-119 of the
16 Depreciation Study more accurately assign net salvage amounts to the assets
17 which will be retired on an interim basis and those retired on a terminal basis.

18 **Q. IS THERE CONSIDERABLE SUPPORT FOR THE NET SALVAGE**
19 **PERCENTAGES UTILIZED IN THE DEPRECIATION STUDY?**

20 A. Yes. The interim net salvage percentages are supported with the most recent 16-
21 year period, 1997-2012. The terminal net salvage percentages are supported by

1 the dismantlement component of other recently retired Black Hills Power facilities
2 and industry ranges.

3 **Q. ARE MR. KOLLEN'S CALCULATIONS IN EXHIBIT LK-20 BASED ON**
4 **ALL THE PROPER PARAMETERS?**

5 A. No. Mr. Kollen uses the same remaining lives in the depreciation study, however,
6 he changes parameters and utilizes a different plant in service amount from a
7 different time period. This in itself causes inconsistencies in his work.

8 **Q. HAVE THE DEPRECIATION RATES AND PARAMETERS IN THE**
9 **DEPRECIATION STUDY BEEN APPROVED BY THE WYOMING**
10 **PUBLIC SERVICE COMMISSION?**

11 A. Yes. The Wyoming Public Service Commission approved settled 2.98%
12 composite rate for CPGS and the generating rates for all other assets which are
13 being challenged by Mr. Kollen.

14 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

15 A. Yes.