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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Exhibits

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND ADDRESS.

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

Q. ARE YOU ASSOCIATED WITH ANY FIRM?

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

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

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

Q. WHAT IS YOUR POSITION WITH THE FIRM?

A. I am a Senior Vice President.

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

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

Q. DID YOU FILE DIRECT TESTIMONY IN THIS DOCKET?

A. Yes.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

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

Q. WHAT ARE THE SUBJECTS OF YOUR REBUTTAL TESTIMONY?

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

III. DEPRECIATION RATES FOR CPGS

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

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

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

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

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

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

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

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

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

A. Yes.

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

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

IV. NET SALVAGE FOR STEAM AND OTHER PRODUCTION ACCOUNTS

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

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

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

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

Q. PLEASE SUMMARIZE YOUR TESTIMONY RELATED TO NET SALVAGE.

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

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

Q. WHAT IS TERMINAL NET SALVAGE?

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

Q. WHAT IS INTERIM NET SALVAGE?

A. Interim net salvage is net salvage that is associated with the interim retirements that occur throughout the life of the power plant.

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

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

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

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

A.

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

As I discuss later, the second issue should not be controversial; therefore, the primary issue is whether the Company should be expected to experience terminal net salvage. Net salvage, a component of the service value of depreciable property, must be allocated over the service life of depreciable property. This concept is widely supported by the Uniform System of Accounts, authoritative depreciation texts, and decisions from other commissions. It is also consistent with ratemaking principles such as intergenerational equity, and is consistent with the approach for transmission, distribution and general plant that the Commission has previously accepted. Unfortunately, Mr. Kollen appears to have challenged this well-established practice for generating assets, therefore I will address his claims in more detail and remind the Commission of these ratemaking and accounting principles in my rebuttal testimony.

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

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

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

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

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

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

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

Q. PLEASE DISCUSS THE BLACK HILLS CORPORATION PLANTS.

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

Table 1: Decommissioning Costs for Black Hills Plants

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

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

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

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

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

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

The costs and activities associated with the retirement of the ash pond at Venice are also instructive. These are activities that are highly likely to be required upon the retirement of the Company's power plants. Recent breaches of ash ponds at sites owned by the Tennessee Valley Authority and by Duke Energy, in which the contents of the ash ponds entered waterways, have increased scrutiny related to the remediation of the ash ponds at coal plants across the country. It should therefore be expected that the costs incurred at the Company's existing coal fleet at a minimum be similar in scope to the activities that were undertaken at Venice.

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

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

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

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

The second type of argument set forth by Mr. Kollen is intended to cast doubt on whether the Company will incur terminal net salvage costs when its plants are retired. Mr. Kollen has used this argument to support his recommendation that the Company should not accrue for net salvage while the assets are in service. This is clearly intergenerational inequity.

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

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

For example, Mr. Kollen states that:

> "The Company has not justified the significant increases that it proposes or provided any valid rationale to change policy. The Commission should not provide premature recovery of unknown future costs; the Company can seek recovery of decommissioning costs in the future when the method of decommissioning can be assessed and the cost can be determined based on actual bids."[1]

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

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

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.

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

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

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

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

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

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

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

V. NET SALVAGE METHODOLOGY

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

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

A. UNIFORM SYSTEM OF ACCOUNTS

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

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

Q. PLEASE EXPLAIN.

A. The USofA defines depreciation as follows:

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

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

Q. YOU REFERRED TO DEPRECIATION AS THE "LOSS IN SERVICE VALUE." WHAT IS SERVICE VALUE?

A. Service value, as defined in the USofA, is "the difference between original cost and net salvage value of electric plant."[3]

Q. DOES THE USOFA ALSO DEFINE WHAT IT MEANS BY "NET SALVAGE VALUE?"

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[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.

A. Yes, it does. "'Net salvage value' means the salvage value of property retired less the cost of removal."[4] Net salvage is described as "positive net salvage" if the salvage value exceeds removal costs, and described as "negative net salvage" (*i.e.*, a net cost) if removal costs exceed the salvage value.

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

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

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

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

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

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[4] *Id.* Definition 19.

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

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

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

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

A. No. Mr. Kollen recommends ignoring recent historical indications because net salvage has become more negative and a utility does not have the right to accrue for some net salvage while the asset is in service. Further, Mr. Kollen states in his testimony "this may represent an undisclosed proposal to change the Commission's policy for decommissioning cost recovery from recovery *after* the retirement of the plants (as is the case in this proceeding for the three retired coal-fired plants) to recovery *before* the future retirement of the plants."[5] His proposal, by his own admission, does not allocate the full service value (including all net salvage) of these assets over their service lives. His proposal is therefore not consistent with the USofA.

B. ACCEPTANCE OF NET SALVAGE METHODS

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

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

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

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

C. TREATMENT IN PREEMINENT DEPRECIATION TEXTS

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

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

A. Yes, they do.

Q. WHAT DO THESE TEXTS PROVIDE?

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

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

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

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

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

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

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

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

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

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

Q. HOW DO THESE AUTHORITIES IMPACT YOUR ANALYSIS?

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

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

A. No. The net salvage component for all assets in the Depreciation Study represent the recovery of the full service value of the assets within the account. The only 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.

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

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

A. Yes.

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

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

Q. WAS THE NET SALVAGE ANALYSES IN THE DEPRECIATION STUDY

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

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

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

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

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

A. Yes. The interim net salvage percentages are supported with the most recent 16-year period, 1997-2012. The terminal net salvage percentages are supported by the dismantlement component of other recently retired Black Hills Power facilities and industry ranges.

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

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

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

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

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.