- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -

Application of	)	Docket No. 05-057-T01
QUESTAR GAS COMPANY	)	
To Adjust Rates for Natural Gas	)	
Service in Utah)	)	

DIRECT TESTIMONY OF
CHARLES W. KING

On Behalf of the

DIVISION OF PUBLIC UTILITIES

Concerning
DEPRECIATION

April 27, 2006

DIRECT TESTIMONY OF
CHARLES W. KING

INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Charles W. King. I am President of the economic consulting firm of Snavely King Majoros O'Connor & Lee, Inc. ("Snavely King"). My business address is 1111 14th Street, N.W., Suite 300, Washington, D.C. 20005.

Q. PLEASE DESCRIBE SNAVELY KING.

A. Snavely King, formerly Snavely, King & Associates, Inc., was founded in 1970 to conduct research on a consulting basis into the rates, revenues, costs and economic performance of regulated firms and industries. The firm has a professional staff of 12 economists, accountants, engineers and cost analysts. Most of its work involves the development, preparation and presentation of expert witness testimony before federal and state regulatory agencies. Over the course of its 36-year history, members of the firm have participated in over 1000 proceedings before almost all of the state commissions and all Federal commissions that regulate utilities or transportation industries.

Q. FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of the Utah Division of Public Utilities.

Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND EXPERIENCE?

A. Yes. Attachment A is a summary of my qualifications and experience.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN REGULATORY PROCEEDINGS?

A. Yes. Attachment B is a tabulation of my appearances as an expert witness before state and federal regulatory agencies.

Q. WHAT IS THE OBJECTIVE OF YOUR TESTIMONY?

A. The objective of my testimony is to recommend depreciation, amortization and removal cost rates and accruals for the Questar Gas Company. ("Questar" or "the Company"). In the process of developing these rates, I will comment on the depreciation study that was prepared by Gannett Fleming on behalf of Questar.

Q. HAVE YOU PREPARED ANY EXHIBITS TO ACCOMPANY YOUR TESTIMONY?

A. Yes. I have two exhibits. Exhibit_____(CWK-1) presents the schedules to which I will allude in this testimony. Exhibit_____(CWK-2) presents the detail of my study of the depreciation of Questar's plant.

Q. PLEASE DESCRIBE THE PROCESS YOU USED IN PREPARING THIS TESTIMONY AND YOUR EXHIBIT.

A. I began by examining the depreciation study and supporting workpapers submitted by Gannett Fleming on behalf of the Company. I then requested that the Company provide me with all of the data that it had provided to Gannett Fleming. I also prepared a number of data requests and carefully read the Company's responses. I then conducted a number of independent studies of the Company's plant records, which I shall describe in this testimony and which are presented in Exhibit_____(CWK-2). I then prepared the schedules found in my Exhibit____(CWK-1). These exhibits were subsequently modified in response to the technical conference among the parties held on April 26, 2005. The exhibits were prepared and the calculations were conducted either by myself or under my supervision.

SUMMARY OF RECOMMENDATIONS

Q. DO YOU RECOMMEND ANY CHANGE IN THE MANNER IN WHICH DEPRECIATION IS CALCULATED, MAINTAINED IN THE PROPERTY RECORDS, AND CHARGED TO EXPENSE?

A. Yes. For reasons I shall discuss, I recommend that depreciation and amortization be decoupled from the accrual of allowances for future costs of removal. This proposal results in two sets of rates for several of the plant accounts, one for depreciation and another for removal costs. It also means that there are two sets of reserves, again separated between deprecation and removal costs.

Q. DOES THIS PROPOSAL TO SEPARATE DEPRECIATION FROM REMOVAL COSTS RESULT IN ANY INCREASE OR DECREASE IN ACCRUALS FOR THESE TWO FUNCTIONS?

A. No. By itself, my recommendation to separate depreciation accounting from removal cost accounting does not have any effect on the composite cost of these two functions. However, when removal cost accounting is considered in isolation, it becomes very obvious that the traditional method of treating these costs significantly overstates the required accruals.

Q. HOW DO YOUR RECOMMENDED DEPRECIATION, AMORTIZATION AND REMOVAL COST RATES COMPARE WITH THOSE PROPOSED BY GANNETT FLEMING?

A. Schedule 1 of my Exhibit_____(CWK-1) compares my recommended rates for depreciation amortization and removal costs with the depreciation rates proposed by Gannett Fleming. The respective accrual rates are as follows:

Table 1
Depreciation and Removal Cost Rates

	Depreciation	Removal Cost	Composite
King Recommended			
Distribution	1.82%	0.60%	2.42%
General	4.90%		4.90%
Total	2.23%	0.52%	2.75%
GF Proposed			
Distribution			3.06%
General			4.05%
Total			3.19%

Q. HOW DO YOUR RECOMMENDED DEPRECIATION, AMORTIZATION AND REMOVAL COST ACCRUALS COMPARE WITH THOSE PROPOSED BY GANNETT FLEMING?

A. Schedule 2 of Exhibit_____(CWK-1) compares my recommended accruals with those proposed by the Company, all based on total plant in service in all jurisdictions as of December 31, 2004, which is the date to which the Gannett Fleming report is targeted.

Table 2
Depreciation and Removal Cost Accruals, Total Company Based on Year-end 2004

	Depreciation	Removal Cost	Composite

King Recommended			
Distribution	$19,011,603	$ 6,232,266	$25,243,869
General	7,856,202		7,856,202
Total	$26,867,805	$ 6,232,266	$33,100,071
GF Proposed			
Distribution			$31,894,625
General			6,506,053
Total			$38,400,678

Schedule 3 makes this same comparison for Utah jurisdictional plant as of year-end 2005. A summary of these accruals is as follows:

Table 3
Depreciation and Removal Cost Accruals, Utah Jurisdiction Based on Year-end 2005

	Depreciation	Removal Cost	Composite
King Recommended			
Distribution	$23,444,396	$ 6,351,338	$29,795,735
General	8,167,882		8,167,882
Total	$31,612,278	$ 6,351,338	$37,963,617
GF Proposed			
Distribution			$39,973,173
General			6,738,407
Total			$46,711,581

DEPRECIATION - GENERAL

Q. WHAT IS DEPRECIATION?

A. In 1958, the National Association of Railroad and Utility Commissioners sanctioned the following definition of depreciation:

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

Another commonly cited definition of depreciation is that of the American Institute of Certified Public Accountants:

> Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any) over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.[2]

If depreciation can be defined in a single sentence, I would say that it is the process of recovering the initial investment in tangible capital assets, adjusted for salvage and cost of removal, in a systematic fashion over the useful service life of the plant, recognizing that utility plant is typically a group of investments.

Q. CAN DEPRECIATION BE CALCULATED WITH PRECISION?

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[1] *Uniform System of Accounts for Class A and Class B Electric Utilities,* 1958, rev. 1962.
[2] American Institute of Certified Public Accountants, *Accounting Research and Terminology Bulletin #1*.

A. No. Depreciation can no more be calculated with precision than can the required rate of return to equity investors. Both are developed from analyses that, while based on quantitative values, require considerable application of judgment. In the case of rate of return, that judgment pertains to the earnings expectation of investors as indicated by the stock market and corporate financial data. In the case of depreciation, the judgment pertains to the estimation of the future surviving life of plant as indicated by past patterns of retirements, industry trends, and corporate investment plans.

As I shall discuss, allowance for the recovery of future removal costs involves even more judgment. Not only is the timing of the removal cost unknown, but the amount of that cost is also unknown as well. Additionally, there is the problem of reflecting the present value of a future expenditure, something that the traditional procedure for removal cost accounting has heretofore ignored.

Q. HOW DOES THIS JUDGMENTAL CHARACTERISTIC OF DEPRECIATION AND REMOVAL COST ACCOUNTING INFLUENCE THE COMMISSION'S APPROACH TO THESE SUBJECTS?

A. The Commission must recognize that the development of depreciation and removal cost rates is not a refined science subject to mathematical precision. Because depreciation analysts use judgment in their estimation of depreciation, the Commission must necessarily exercise its own judgment in assessing the rationale and data that underlie alternative depreciation rates. This is why, in this proceeding, the Commission must choose among depreciation and removal cost rates that yield significantly different annual accruals.

Q. WHAT ARE THE BASIC PARAMETERS REQUIRED TO DEVELOP A DEPRECIATION RATE?

A. At its simplest level, the only parameter that is absolutely required is an estimate of the service life of the asset being retired. The reciprocal of that number can be used as the depreciation rate.

However, because most utility depreciation is applied to accounts that are groups of assets, it is usually necessary to estimate the dispersion of retirements around an average service life. In the electric utility industry, this dispersion is usually described in terms of 18 "Iowa Curves," so named because they were developed at Iowa State University. These curves describe how closely the retirements are grouped around the average service life and whether they tend to occur more rapidly before, after or coincident with the average service life.[3]

Another parameter that has traditionally been included in the calculation of a depreciation rate is net salvage. Net salvage is the difference between the positive scrap value of the asset's material and the cost of dismantling and removing the asset when it is retired. Traditionally, net salvage has been expressed as a percentage of the original cost of the asset (or asset group) and included as a subtraction (when salvage value exceeds removal cost) or an addition (when removal cost exceeds salvage) to the amount to be recovered in depreciation charges. With a few exceptions (e.g. vehicles) most gas utility plant has higher removal costs than salvage value, so that the inclusion of net salvage in depreciation adds to the amount to be recovered.

Finally, most utilities employ what is known as "remaining life depreciation." This procedure computes the depreciation rate by dividing the unrecovered net investment by the estimated remaining years of the asset's (or group of assets') service life. It effectively ensures that any past under- or over-accruals of depreciation are recovered during the remaining life of the asset.

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[3] For a complete discussion of Iowa Curves, see Appendix A, part 3 of *Public Utility Depreciation Practices*, National Association of Regulatory Utility Commissioners, August 1996.

Q. PLEASE ILLUSTRATE HOW THE PARAMETERS YOU HAVE JUST DESCRIBED ARE USED TO DEVELOP DEPRECIATON RATES.

A. Beginning with the simplest example, assume a single asset with a 20 year life. Its depreciation rate is the reciprocal of 20:

$$1/20 = 5\%$$

Now, let us assume that the asset is expected to have salvage value equivalent to 5 percent of its investment value. The depreciation rate declines:

$$\frac{1-.05}{20} = \frac{.95}{20} = 4.75\%$$

Assume next that the cost of removing this asset amounts to 15 percent of its value. The depreciation rate increases:

$$\frac{1 -.05 + .15}{20} = \frac{1.10}{20} = 5.55\%$$

This is called a "whole life" rate because it is based on the whole life of 20 years. To develop the remaining life rate, we must identify some additional items of data: the original investment, the depreciation reserve (the amount of depreciation that has already been recovered), and the remaining life of the asset.

In this illustration, let us assume that the asset originally cost $1 million and that past depreciation charges have recovered $400,000. This means that we have yet to recover $600,000 in original cost, plus a negative net salvage (i.e. net cost of removal) amounting to 10% of the original cost, or $100,000. The total amount yet to be recovered is thus $700,000. Let us further assume that the asset is 10 years old, leaving 10 years of remaining life. In remaining life depreciation, the unrecovered amount is divided by the remaining life:

$$\frac{\$700{,}000}{10 \text{ years}} = \$70{,}000 \text{ required annual accrual}$$

The depreciation rate is then calculated by dividing the annual amount to be recovered by the gross investment, in this case:

$$\frac{\$70{,}000}{\$1{,}000{,}000} = 7.0\%$$

Q. DOES THE GANNETT FLEMMING STUDY FOLLOW THESE PROCEDURES?

A. Generally yes, but with a slight modification. Gannett Fleming has not recommended the remaining life procedure as just described. Rather, it proposes separate amortizations of the imbalances between book depreciation reserves and the "theoretical reserves." Theoretical reserves are the reserves that would exist had the current life, survivor curve and net salvage assumptions been incorporated into depreciation since the inception of each account. Initially at least, this is a difference more of form than substance. As I shall discuss, however, the use of amortization rather than the remaining life procedure could introduce undesirable inflexibility into the process of adjusting for the reserve excesses in Questar's plant accounts.

SEPARATION OF DEPRECIATION FROM REMOVAL COST ACCOUNTING

Q. WHAT, SPECIFICALLY, IS MEANT BY "REMOVAL COSTS?"

A. Removals costs are the costs that must be incurred to dismantle, remove and retire plant at the end of its service life. Traditionally, removal costs have been netted against any salvage, reuse or resale value. As note earlier, with a few exceptions, removal costs are larger than positive salvage for most gas plant, particularly distribution plant. Because of the netting of salvage against removal costs, removal costs are often referred to as "negative net salvage" and are shown as negative values.

Q. HOW HAVE REMOVAL COSTS TRADITIONALLY BEEN RECOVERED BY GAS DISTRIBUTION UTILITIES?

A. Traditionally, most gas distribution utilities have recovered future removal costs through adjustments in their depreciation rates. The adjustments begin with a "net salvage ratio," which is the ratio of net salvage to plant in service. This ratio is used to inflate (or deflate in the case of positive salvage) the amount to be recovered through depreciation. The "whole life" depreciation rate is calculated as follows:

$$\frac{\text{Plant investment x (1-net salvage ratio)}}{\text{Average service life}} = \text{Depreciation rate}$$

As noted, most utilities use the remaining life technique, but the effect of the net salvage ratio is the same:

$$\frac{\text{(Plant investment x (1-net salvage ratio)) – Depreciation reserve}}{\text{Remaining Life}} = \text{Annual Accrual}$$

$$\frac{\text{Annual accrual}}{\text{Plant investment}} = \text{Depreciation rate}$$

Q. IN YOUR OPINION, IS THE TRADITIONAL PRACTICE OF ADJUSTING DEPRECIATION RATES FOR NET SALVAGE (NET REMOVAL COSTS) APPROPRIATE GOING FORWARD?

A. No. Recent pronouncements from the Financial Accounting Standards Board ("FASB"), the Federal Energy Regulatory Commission ("FERC") and the Securities and Exchange Commission ("SEC") cast considerable doubt on the traditional practice of capturing net removal costs through adjustments in the depreciation rates.

1. <u>FINANCIAL ACCOUNTING STANDARDS BOARD</u>

Q. WHAT PRONOUNCEMENTS FROM FASB CAST DOUBT ON THE TRADITIONAL PRACTICE OF CAPTURING NET REMOVAL COSTS THROUGH ADJUSTMENTS IN DEPRECIATION?

A. In June 2001, FASB promulgated Statement of Financial Accounting Standards No. 143 ("SFAS 143"), *Accounting for Asset Retirement Obligations*. In March 2005, it issued FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations – an Interpretation of FASB Statement No. 143.*

Q PLEASE DESCRIBE SFAS 143.

A. SFAS 143 addresses long-lived assets for which there are legal obligations to incur retirement costs. A legal obligation is defined as "an obligation that a party is required to settle as a result of an existing or enacted law, statute, ordinance, or written or oral contract or by legal construction of a contract under the doctrine of promissory estoppel." A good example of such an obligation is the requirement to dismantle, entomb or decontaminate a nuclear generating plant.

When a company finds that it has a legal obligation that fits this description, it must declare the retirement cost as a liability on its balance sheet. That liability is not the ultimate cost of the retirement, but the "fair value" of that cost, defined as the cost of a contract with an independent party to retire the asset, negotiated when the asset is installed. In effect, this fair value is the present value of the future cost, using as the discount factor the risk-adjusted interest rate when the liability was recognized. The company also adds a value corresponding to that liability to the asset being booked.

The annual expense associated with this liability consists of two parts. One is the amortization of the liability, which is the initial present value of the liability divided by the life of the asset – comparable to depreciation. The second expense is the annual accretion in the present value of the liability.

Q. CAN YOU ILLUSTRATE HOW THIS PROCEDURE WORKS?

A. Assume that a gas utility installs a storage facility that it expects to last for 40 years. It is obligated to dismantle that plant when it retires at an estimated cost of \$1 million. The utility would book a liability for this retirement cost, not at \$1 million, but at \$1 million discounted at the risk-free interest rate. If the risk free interest rate over 40 years is 5 percent, then the liability would be booked as \$142,046 (\$1 mil/1.05^{40})

Each year, utility would show two items of expense. The first would be the amortization of the liability, \$142,046/40 years = \$3,551. The second expense would be the annual accretion in present value of the liability. In this instance, it would be \$1 million times 1.05^{39} - 1.05^{40}. This is \$1 million x (0.149148 - 0.142046 =.00710) or \$7,100. Total expense in the first year of operation would be \$3,551 + \$7,100 = \$10,651**.**

The first expense item, the depreciation of the initial ARO, stays the same each year throughout the asset's life. The second item, the annual accretion in the liability, increases as the present value factors increase.

Q. WHAT IS FASB INTERPRETATION NO. 47?

A. FASB Interpretation 47 was issued in March 2005 to clarify "that the term *conditional asset retirement obligation* as used in FASB Statement 143…refers to a legal obligation to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity." The Interpretation clarifies that an entity is required to recognize a liability for the fair value of a conditional asset retirement obligation when incurred if the liability's fair value can reasonably be estimated.

Q. DOES FASB INTERPRETATION NO. 47 SIGNIFICANTLY CHANGE THE UTILITIES' INTERPRETATION OF SFAS 143?

A. It should cause the utilities to reconsider their evident dismissal of what appear to be legal obligations whose specific date of retirement is indeterminate. The Interpretation emphasizes that if there is any doubt about the date of the retirement, that doubt should be reflected in the discount factor. It should not become an excuse for disregarding the obligation for purposes of SFAS 143.

Q. DOES SFAS 143 DEAL ONLY WITH LEGAL RETIREMENT OBLIGATIONS?

A. Most of SFAS 143 deals with legal retirement obligations. However, in the "Background Information and Basis for Conclusions" section of the document is found a paragraph that address non-legal obligations, and specifically non-legal obligations of rate-regulated entities. Paragraph B73 of that section states as follows:

> Many rate-regulated entities currently provide for the costs related to asset retirement obligations in their financial statements and recover those amounts in rates charged to their customers. Some of those costs related to asset retirement obligations within the scope of this Statement; others are not with in the scope of this Statement and, therefore, cannot be recognized as liabilities under its provisions. The objective of including those amounts in rates currently charged to customers is to allocate costs to customers over the lives of those assets. The amount charged to customers is adjusted periodically to reflect the excess or

deficiency of the amounts charged over the amounts incurred for the retirement of long-lived assets. The Board concluded that if asset retirement costs are charged to customers of rate-regulated entities but no liability is recognized, a regulatory liability should be recognized if the requirements of Statement 71 are met. (emphasis added)

Thus, the FASB states quite clearly that a separate regulatory liability should be recognized for non-legal asset retirement obligations if the costs of those obligations are being recovered in rates.

Q. WHAT IS THE RELEVANCE SFAS 143 TO THE ISSUES IN THIS PROCEEDING?

A. There are three ways in which SFAS 143 is relevant to this proceeding. First, with respect to legal AROs, SFAS 143 establishes a clear-cut procedure for recording these obligations on the Questar's balance sheet and a procedure for recognizing them in its income statements. This Commission does not necessarily have to adopt these procedures for ratemaking purposes. However, I believe there should be a clear and demonstrable reason for overriding SFAS 143 if the Commission decides not to use these accounting practices for regulation.

The second way in which SFAS 143 is relevant relates to paragraph B73, quoted above. It is clear that the accounting community has determined that even non-legal retirement obligations should be separately identified as regulatory liabilities.

Finally, SFAS 143 provides a template for the principles and procedures that should govern the recognition and accrual of reserves for future retirement obligations, that is, future removal and dismantlement costs. Specifically, SFAS 143 establishes that future costs should not be recognized in the current period at their future value, but rather at their present value. Furthermore, the annual recognition of those costs should reflect the depreciation of their original present value and the annual accretion in present value.

Q. DOES QUESTAR RECOGNIZE ANY LEGAL RETIREMENT OBLIGATIONS SUBJECT TO SFAS 143?

A. Yes, but none of these obligations relate to any of the distribution or general plant items at issue in this proceeding.

2. <u>FEDERAL ENERGY REGULATORY COMMISSION</u>

Q. WHAT PRONOUNCEMENT OF THE FERC CASTS DOUBT ON THE CONTINUED RECOVERY OF REMOVAL COSTS THROUGH DEPRECIATION CHARGES?

A. On April 9, 2003, FERC issued Order No. 631. It relates to accounting, financial reporting, and rate filing requirements for asset retirement obligations.

Q. PLEASE DESCRIBE FERC ORDER 631.

A. Most of FERC Order 631 deals with the effects of SFAS 143, which prescribes the treatment of future costs associated with legal obligations to retire assets. As noted, that standard requires entities to declare those future obligations as liabilities on their balance sheets, and it establishes procedures for recognizing those obligations on annual income statements.

FERC declined to apply the SFAS 143 standards to removal costs that were not legal obligations. It did, however, require all jurisdictional entities to maintain separate records for cost of removal for non-legal retirement obligations when allowances for these costs could be identified. Accordingly, the FERC added a new paragraph 2C to its instructions with regard to Account 108 – "Accumulated Provision for Depreciation of Gas Utility Plant" for Natural Gas Companies:

Separate subsidiary records shall be maintained for the amount of accrued cost of removal other than legal obligations for the retirement of plant recorded in account 108, Accumulated provision for depreciation of gas utility plant.

This new provision necessarily requires utilities to identify separately annual additions and deletions from this account. Each utility must show the annual accrual for removal costs and the annual amount of removal costs incurred.

This requirement is a major change from the previous treatment of removal costs. As note earlier, removal costs have traditionally been incorporated into depreciation by inflating depreciation rates to recover those costs. The removal cost allowances were recorded as part of depreciation expense, and plant removal expenditures were charged to depreciation reserves. Except through careful analysis, it has been impossible to identify how many dollars of annual depreciation went to recover past capital expenditures – true depreciation – and how many dollars were accrued to offset future removal costs.

Q. WHAT IS THE RELEVANCE OF FERC ORDER 631 TO THE ISSUES IN THIS CASE?

A. FERC Order 631 builds into the regulatory accounting system the requirements of SFAS 143, setting the stage for regulators to apply SFAS 143 for ratemaking purposes. Additionally, FERC Order 631 establishes a requirement to account separately for non-legal retirement obligations, specifically to separate depreciation reserves between capital recovery and reserves for future removal costs.

Several qualifiers are appropriate, however. First, FERC's accounting pronouncements are not binding on the PSCU. The Utah Commission can prescribe its own system of accounts and accounting procedures.

Additionally, it must be acknowledged that FERC has not yet decoupled removal costs accounting from depreciation. While it requires utilities to maintain subsidiary records of removal cost accruals, those accruals are still captured in the depreciation reserve.

3. SECURITIES AND EXCHANGE COMMISSION

Q. WHAT DIRECTIVES FROM THE SEC ARE RELEVANT TO THE ISSUES IN THIS PROCEEDING?

A. The accounting profession was apparently uncertain as to the interpretation of paragraph B73 of SFAS 143, and the firm of Deloitte and Touche took the lead in soliciting an interpretation from the SEC. The SEC then issued directives that all rate-regulated utilities must report as "regulatory liabilities" the accrual of reserves against future removal costs.

Q. PLEASE DEFINE THE TERM "LIABILITIES."

A. Liabilities are defined by FASB as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."[4]

Q. PLEASE DEFINE "REGULATORY LIABILITIES."

[4] FASB Concepts Statement No. 6, *Elements of Financial Statements.*

A. Paragraph 11 of Statement of Financial Accounting Standards No. 71 describes regulatory liabilities as follows:

> Rate actions of a regulator can impose a liability on a regulated enterprise. Such liabilities are usually obligations to the enterprise's customers. The following are the usual ways in which liabilities can be imposed and the resulting accounting:
>
> a. A regulator may require refunds to customers. Refunds that meet the criteria of paragraph 8 (accrual of loss contingencies) of FASB Statement No. 5, *Accounting for contingencies,* shall be recorded as liabilities and as reductions of revenue or as expenses of the regulated enterprise.
>
> b. A regulator can provide current rates intended to recover costs that are expected to be incurred in the future with the understanding that if those costs are not incurred future rates will be reduced by corresponding amounts. If current rates are intended to recover such costs and the regulator requires the enterprise to remain accountable for any amounts charged pursuant to such rates and not yet expended for the intended purpose, the enterprise shall not recognize as revenues amounts charged pursuant to such rates. Those amounts shall be recognized as liabilities and taken to income only when the associated costs are incurred.
>
> c. A regulator can require that a gain or other reduction of net allowable costs be given to customers over future periods. That would be accomplished, for rate-making purposes, by amortizing the gain or other reduction of net allowable costs over those future periods and reducing rates to reduce revenues in approximately the amount of the amortization. If a gain or other reduction of net allowable costs is to be amortized over future periods for rate-making purposes, the regulated enterprise shall not recognize that gain or other reduction of net allowable costs in income of the current period. Instead, it shall record it as a liability for future reductions of charges to customers that are expected to result.

Q. HOW WOULD YOU DEFINE THE REGULATORY LIABILITY FOR REMOVAL COSTS REQUIRED BY THE SEC?

A. This liability represents funds collected from ratepayers that the utility is expected to spend in the future to remove or dismantle plant. If it appears that the utility will not spend these funds for their intended purpose, then it should refund them to ratepayers by means of amortization that is recognized in rates.

Q. WHAT IS THE IMMEDIATE IMPACT OF THE SEC REQUIREMENT TO RECOGNIZE REMOVAL COST ACCRUALS AS REGULATORY LIABILITIES?

A. The SEC's requirement means that every utility that accrues future removal costs should account for those costs separately from depreciation. This involves identifying removal cost accrual rates, annual removal cost accruals, and removal cost reserves.

Q. HAS QUESTAR RECOGNIZED ANY REGULATORY LIABILITIES RELATING TO ACCRUED RESERVES FOR FUTURE RETIREMENT COSTS?

A. Apparently not. Indeed, the Company did not appear to recognize this type of regulatory liability when I inquired through a data request.[5]

Q. SHOULD QUESTAR RECOGNIZE ITS REMOVAL COST ACCRUALS AS A REGULATORY LIABILITY?

A. Yes. I believe it should.

Q. WOULD YOU RECOMMEND SEPARATE ACCOUNTING FOR REMOVAL COSTS ACCRUALS EVEN IF THE FOREGOING ACCOUNTING CONVENTIONS AND PRONOUNCEMENTS DID NOT APPLY TO QUESTAR?

A. Yes, I would, for the following reasons:

<u>First,</u> the separation of removal cost accounting from depreciation will provide a much needed improvement in the transparency of the Questar's accounting

[5] Response to Data Request No. 1.4.

reports. The incorporation of net salvage into depreciation rates obscures its impact on accrual rates. Except through careful and detailed analysis it is difficult to determine how much of the annual depreciation charge relates to recovery of capital – pure depreciation – and how much is accrual against future removal cost. It is virtually impossible to determine how much of the depreciation reserve relates to removal costs and how much is recovered capital. With the total separation of removal cost accounting from depreciation, the Commission will have a very clear idea of the relative impact of these two very different functions.

Second, the greater transparency of the regulatory liability treatment of removal cost accrual will enhance the ability of the Commission to monitor these accruals so that if the money collected from ratepayers is not spent, it can be refunded, or alternatively, if the costs exceed the funds collected, adjustments can be made in the accruals to compensate the utility.

Third, the function of depreciation is very different from the function of removal cost accrual. Depreciation recovers costs that have already been incurred. Removal cost accrual is intended to build reserves for costs that have yet to be incurred. More important, depreciation deals with historical costs that are known and certain. Removal cost accrual deals with future costs that are unknown and estimated. Given these very disparate characteristics, it is altogether appropriate that these two accounting activities be separated entirely.

DISTRIBUTION PLANT LIFE ESTIMATION

Q. TURNING NOW TO THE DEPRECIATION FUNCTION, WHAT DATA DID QUESTAR PROVIDE FOR YOUR ANALYSIS OF SERVICE LIVES?

A. Our initial data request to Questar was to provide all data that was provided to Questar's consultants, Gannett Fleming. For each distribution plant account, Questar provided the record of plant additions, retirements, transfers and balances for each year since 1960. Also for each plant account, Questar provided a record of the "vintage," i.e. date of placement, of the plant in service and the retirements in each year since 1990.

These records are not altogether what they appear to be. While Questar has records of the date of placement of all of its plant, it usually does not consult those records when it assigns a value and a date to a retirement. Rather, it assumes that the units retired are the oldest units of that type in the state. This first-in-first-out ("FIFO") procedure results in some distortion in the historical records of the Company's plant.

To illustrate, assume that a house was built in 1960 and a service line was installed at that time at a cost of $1000. Then, assume that the house is torn down in 1998 and the service line is retired. Questar will not assign the 1960 cost of $1000 as the value of that retirement. Rather it will look to see what is the oldest service line of that type in its Utah service territory. If it is, say, half-inch plastic pipe and the oldest pipe of this type was installed in 1950 at $800 per service line, then the $800, not the $1000 becomes the value of the retirement.

For this reason, the "actuarial" data supplied by Questar is somewhat distorted. Questar has no doubt retired very old pipe that is still in service, and it has not retired some newer pipe that is not in service. In terms of total footage of pipe, however, we can assume that the plant records are accurate. Only their age and valuation is subject to question.

The exception to this procedure is the feeder lines in Account 376 – Mains. When these lines are retired, Questar identifies the date and value of the initial installation and records that information as the retirement. Since feeder lines are a fairly large part of the mains account, this means that the actuarial data for Account 376 are more reliable than for the other distribution plant accounts.

Q. WHAT LIFE ESTIMATION ANALYSES WERE YOU ABLE TO PERFORM WITH THESE DATA?

A. I performed three types of life analyses, a Simulated Plant Record ("SPR") analysis of the plant records since 1960, an actuarial analysis of distribution plant balances and retirements since 1990, and a geometric mean turnover analysis for plant since 1990.

Q. WHAT IS AN SPR ANALYSIS?

A. SPR is a trial-and-error method that uses the history of additions, retirements and plant balances as its basic inputs. It applies each of the 31 Iowa curves to the annual additions and determines the age for each curve that best matches the subsequent retirements. It then calculates indices of variation to determine which curve/life combination best matches the actual record of annual retirements and annual balances. The advantage of SPR is that it requires only a history of additions, retirements and balances. The disadvantage is that it is quite imprecise, particularly if there is only a thin or irregular history of additions and retirements.

Q. WHAT DO YOU MEAN BY "ACTUARIAL ANALYSIS?"

A. Actuarial analysis is possible if there is a record of the year of placement of the dollars in the plant balances and the annual retirements. These data permit the analyst to prepare an "observed life table," which identifies the surviving dollars at each age interval and the age distribution of annual retirements. If there is a reasonable density of retirements, this information permits a fairly accurate estimate of average service life of the plant in each account and the pattern, i.e. the Iowa curve, of retirements from that account. Actuarial analysis is by far the most accurate form of life analysis, but it requires a complete record of the date of placement of plant within each account. Like SPR, its effectiveness is dependent upon some density of retirements over the years.

Q. HOW DOES THE FIFO VALUATION AND TIMING PROCEDURE USED BY QUESTAR AFFECT THE QUALITY OF YOUR ACTUARIAL ANALYSIS.

A. As noted, Questar's FIFO procedure for identifying retirements results in the premature retirement of some very old units of plant and the failure to retire some new plant. In terms of the estimation of average service life, these two effects likely cancel each other out. For this reason, I believe that the average service lives estimated through actuarial analysis are probably reliable, particularly when there is some density of retirements. However, the curve shapes will be significantly affected. The FIFO procedure will make it appear that the rate of retirement around the average service life is steeper than it actually is. For this reason, it is appropriate to adopt somewhat lower subscript Iowa curves than the actuarial analysis indicates. The curve shape has an impact on the calculation of remaining lives.

Q. WHAT IS A GEOMETRIC MEAN TURNOVER ANALYSIS?

A. Geometric mean turnover analysis measure how long it takes to "turn over" that is replace fully, the plant in an account under the assumption that there is a constant rate of growth and retirement. It is measured by the formula:

Life estimate = $\underline{\ 1\ }$

$\sqrt{ar}$

Where a is the average additions ratio

Where r is the average retirements ratio

Unlike the other two procedures, this methodology does not indicate any distribution of retirements

Q. WHAT WERE THE RESULTS OF YOUR LIFE ANALYSES OF DISTIBUTION PLANT?

A. Exhibit_____(CWK-2) presents the results of my analyses. Because of the thinness of the data and the erratic results, I have not included the SPR results in except where there are no actuarial results available. Page 4 of that exhibit shows Gannett Fleming's recommended life and survivor curve parameters for distribution plant, those indicated by my analyses, and my recommended parameters.

Q. WOULD YOU PLEASE EXPLAIN HOW YOU ARRIVED AT YOUR PROPOSED LIFE AND SURVIVOR CURVE PARAMETERS?

A. For <u>Account 375 – Structures and Improvements</u>, I accepted Gannett Fleming's 120-year life for the major buildings. These facilities are almost totally depreciated. In fact, two of them are fully depreciated. I have accepted Gannett Fleming's 40-year life estimate for the "all other" subaccount of Account 375, which accounts for slightly more than half the total account.

For <u>Account 376 – Mains</u>, Questar's largest plant account, I recommend a slightly shorter service life, 60 years compared with Gannett Fleming's 62 years, with an R4 survivor curve. As noted earlier, this is the one account for which the actuarial data are fairly reliable owing to the Company's ability to track the date of placement of its feeder lines. For this reason, I believe it appropriate to accept the best fit from our actuarial analysis. A comparison of Gannett Flemings curve with my selected curve and the recorded data is presented on page 24 of Exhibit_____(CWK-2). I should explain that the triangle at age 60 indicates the "T-cut" where we no longer consider older data. In this case, no observations older than 60 years were incorporated into the curve fitting process. This triangle is found on all charts similar to that on page 24.

For Account 377 – Compressor Station Equipment, I retained Gannett Fleming's 33 – R4 curve, even though our actuarial analysis showed that 32 R2 is a better fit.

For Account 378 – Measuring and Regulating Station Equipment, I again accepted the Gannett Fleming's 34 SO life/curve combination. A 41 LO curve better fits the Company's data, but the difference only shows up in the older vintages of plant, where the quality of the actuarial data is most suspect.

For Account 380 – Services, I could find no support for Gannett Fleming's 47 year life. As demonstrated on pages 50 and 51 of Exhibit_____(CWK-2), the pattern of retirements to date suggests a much longer life, even with the effects of FIFO retirements considered. While the actuarial studies suggest an even longer life, I propose 52 years because generally service lines have a somewhat shorter service life than mains. My study shows an R3 curve, but in light of the FIFO treatment of retirements, I recommend retaining the R2 curve proposed by Gannett Fleming.

Account 381 – Meters has three subaccounts: meters, telemetry equipment and transponders. I can find no support for Gannett Fleming's 28 year life. My studies suggest an average service life of 36 years. This finding is supported by the industry survey provided by Gannett Fleming which indicates that 35 years is the norm. I do not see why Questar should have shorter-lived meters than other gas companies. For this reason, I have adopted the 36 year, R0.5 indication that is the best fit from our studies. Gannett Fleming has picked 10 S2 as the life/curve combination for the very small telemetry subaccount. I have no basis for challenging that estimate. On the other hand, I see no basis for shortening the life of the transponder subaccount. I propose that the current 15 year life be retained. I accept Gannett Fleming's R2 curve for this subaccount.

Our studies support Gannett Fleming's selection of life and survivor curve combinations for the remaining distribution plant accounts, <u>382—Meter installations, 383 – House Regulators, 384 – House Regulator Installations, and 387 – Other Equipment</u>

Q. HOW HAVE YOU DEVELOPED YOUR RECOMMENDED DEPRECIATION RATES?

A. Schedule 4 in Exhibit_____(CWK-1) shows the development of my recommended distribution plant depreciation rates. Column A shows the plant balances as of year-end 2004. Column B presents the "theoretical reserve" for each account. The theoretical reserve is the reserve that would exist if my estimates of life and survivor curve were accurate and had been applied since the initiation of each account. It is derived by forecasting the future accruals of depreciation over the remaining life of each account and subtracting that amount from the plant balance.

Column C shows the distribution of the theoretical reserve among the distribution plant accounts. Column D distributes the book reserve among the plant accounts based on the distribution of the theoretical reserve. The book reserve is Questar's quantification of the reserve for all distribution plant accounts less the theoretical reserve for future removal costs – which I am assuming as the actual removal cost reserve. There are two exceptions to this distribution. Account 375.0001 and 375.0003 are fully depreciated, so the reserve allocated to them is the same as their original cost.

Column E on schedule 4 shows the remaining amount to be recovered in each account. Columns F and G present the average service life and the remaining life. Column H is the annual accrual, which is the amount to be recovered, Column E, divided by the remaining life, Column G. Finally, Column I presents the depreciation rate, computed by dividing the annual accrual, Column H, by the plant balance, Column A.

Q. HOW DOES YOUR ANALYTICAL PROCEDURE DIFFER FROM THAT IN THE GANNETT FLEMING STUDY?

A. Gannett Fleming did not perform actuarial studies on Questar's aged account data. Instead, Gannett Fleming used the "Computed Mortality" procedure which ages surviving balances and retirements by simulation. This procedure requires the analyst to assume a survivor curve and then determine the age that best simulates the history of retirements and plant balances. It is similar to the SPR except for the *a priori* assumption of a survivor curve for each account. Gannett Fleming's survivor curve assumptions were apparently based on its experience in conducting studies of distribution plant accounts for other gas companies.

Q. HOW DO THE RESULTS OF YOUR ANALYSIS OF DISTRIBUTION PLANT ACCOUNT LIVES AND SURVIVOR CURVES COMPARE WITH THOSE OF GANNETT FLEMING?

A. Page 4 of Exhibit_____(CWK-2) compares my recommended life and survivor curves with those of Gannett Fleming.

GENERAL PLANT AMORTIZATION

Q. WHAT IS THE DIFFERENCE BETWEEN DEPRECIATION AND AMORTIZATION?

A. Depreciation is the systematic allocation of the cost of an asset or asset group over its useful life, based on a study of the expected service life and retirement dispersion of the units within a plant account. Amortization is a vintage-by-vintage allocation of asset or asset group cost recognition over a specific period of time under the assumption that the period of time corresponds approximately with the asset's service life. The principal difference in practice is that amortization does not require the specific recognition or recordation of retirements each year. It simply assumes that a constant portion of each vintage's asset value is retired and removed from service each year.

Q. WHAT IS QUESTAR'S PROPOSAL WITH RESPECT TO AMORTIZATION?

A. Questar proposes to amortize each of its General Plant accounts except 390 – Structures and Improvements, 392 – Transportation Equipment, and 396 – Power Operated Equipment. The plant accounts that Questar proposes be amortized all consist of many relatively small items that a quite difficult to keep track of. They are:

A/C	Description	Amortization Period

		(Years)
391.01	Office Furniture	20
391.02	Office Equipment	7
391.03	Computer Hardware	4
391.04	Computer Software	10
393	Stores Equipment	20
394.1	Small Tools	10
394.2	Shop Equipment	20
394.4	CNG Equipment	10
395	Laboratory Equipment	15
397.1	Mobile Radio	5
397.3	Base Stations	10
397.4	Telemetry	10
397.5	Communications Equipment Other	10
398	Miscellaneous Equipment	15

Q, WHAT IS THE BASIS FOR THESE AMORTIZATION PERIODS?

A. Gannett Fleming states that these amortization periods are based on industry experience, including Gannett Fleming's own experience in performing depreciation studies of utility plant.

Q. DO YOU AGREE WITH QUESTAR'S PROPOSAL TO AMORTIZE THESE ACCOUNTS?

A. Yes. My experience is that the difficulty in maintaining records of retirements from these accounts results in plant accounts that are unreliable and often overstated. For this reason, it is beneficial both to the Company and to ratepayers to switch to amortization accounting for these accounts.

Q. DO YOU AGREE WITH GANNETT FLEMING'S AMORTIZATION PERIODS?

A. Given the unreliable nature of the records for these accounts, there is no way to test the propriety of these amortization periods. For this reason, I recommend accepting Gannett Fleming's proposed amortization periods, with one exception. The exception is account 391.04, computer software, for which Questar (apparently not Gannett Fleming) proposes a 10-year amortization. Ten years seems quite long for computer software, particularly when computer hardware is being amortized over only four years. I understand that Questar lengthened its life estimate for this account from 5 to 10 years in 2004, presumably for good reasons. Possibly 5 years was too short, but 7 or 8 years seems more appropriate than 10 years. I therefore recommend a life for this account of 7.5 years.

Q. ARE THE AMORTIZATION RATES SIMPLY THE RECIPROCAL OF THE AMORTIZATION PERIODS?

A. No. Gannett Fleming has identified very substantial reserve excesses which it proposes to amortize along with the remaining plant in these accounts. The actual amortization rates are thus the result of subtracting the reserve excesses from the plant balances and then dividing the remainder by the amortization periods. This exercise is performed on Table C of the Gannett Fleming report.

Q. WHAT ARE YOUR RECOMMENDED AMORTIZATION RATES?

A. My recommended amortization rates are shown Column D of Schedule 1 of Exhibit_____(CWK-1). They are identical to those proposed by Gannett Fleming with the exception of Computer Software, where I have adopted a 7.5 year amortization period in lieu of the 10 year period used by Gannett Fleming.

REMOVAL COSTS

Q. HOW HAS GANNETT FLEMING CALCULATED THE REMOVAL COSTS THAT IT PROPOSED TO INCORPORATE INTO QUESTAR'S DEPRECIATION RATES?

A. Gannett Fleming employs what my firm has labeled the Traditional Inflated Future Cost Approach, or "TIFCA." This approach compares the original cost of plant recently retired with the associated cost of removal to derive a "negative net salvage ratio," which can be expressed as a positive "removal cost ratio." That ratio is then used to inflate the total amount of cost that must be recovered over the service life of the plant.

Q. CAN YOU SUPPLY SOME EXAMPLES OF TIFCA?

A. Yes Schedule 5 of my exhibit is a copy of the workpapers from which Gannett Fleming developed its proposed net salvage ratios for Account 376 – Mains and Account 380 – Services. Gannett Fleming is proposing net salvage ratios of -45 percent for its Distribution Mains Account 376 and -90 percent for its Services Account 280. A -90 percent negative salvage ratio means that the Questar would collect $.90 in removal cost allowance for every $1.00 it collects capital recovery.

At the top of each page of Schedule 5 are the raw data. They show the original cost of the retirements each year from 1990 through 2003, the reuse amounts (which are zero), the salvage proceeds, and the costs of removal. The final columns show the net salvage ratios, that is, the ratios of net salvage (salvage less removal costs) to the plant balances. The ten-year average for mains is -48 percent, and for services it is -90 percent.

The remaining tabulations show averages for several years: rolling three-year bands and the latest five-year average. Gannett Fleming's proposed -45 percent mains ratio is slightly below the 1990-2005 average of -48 percent but is higher than the most recent five-year average of -.37 percent. The -90 percent for services matches exactly the average experience between 1990 and 2003.

Q. WHAT IS THE RATIONALE BEHIND TIFCA?

A. The rationale underlying TIFCA is set forth on page 157 of Public Utility Depreciation Practices, published by the National Association of Regulatory Utility Commissioners in August 1996:

> 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 its retirement, the original cost recovered through depreciation should be reduced by that amount. Closely associated with this reasoning are 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.

The TIFCA procedure purports to forecast the future cost of removal associated with plant currently in service, and it charges that cost to the ratepayers that use that plant.

Q. IS THIS RATIONALE VALID?

A. The rationale is arguably valid for large, single units of plant, such as power plants. It is highly questionable for mass property accounts using the TIFCA procedure, for the following reasons:

- Removal costs for plant replaced *in situ* are often determined quite arbitrarily.
- TIFCA always results in removal cost allowances that are multiples of removal cost experience.
- The TIFCA procedure projects past inflation rates into the future.
- Even when adjusted for future inflation, the TIFCA procedure charges present ratepayers the undiscounted cost of future removal activities.

Q. WHY DO YOU SAY THAT THE REMOVAL COSTS FOR PLANT REPLACED *IN SITU* ARE OFTEN DETERMINED QUITE ARBITRARILY?

A. When plant is replaced with like plant in the same location, it is difficult – in some cases impossible – to distinguish between the costs associated with removing the old plant and costs involved in placing the new plant. In those situations, utilities typically apply somewhat arbitrarily allocations to separate removal costs from placement. Unfortunately, the TIFCA procedure provides an incentive to inflate allocations to removal cost and deflate the allocations to new capital.

Questar claims that it does not charge removal costs when it replaces plant in exactly the same location. This statement is somewhat belied by the appearance of substantial removal costs for both mains and services. I suspect that Questar does charge removal costs when the main or service is placed parallel to, but not exactly in the same trench as the previous main or service. When that happens, there is still a fair amount of "common" cost incurred for both removing the old pipe and installing the new pipe. The allocation of that common cost is necessarily somewhat arbitrary.

Q. WHY DO YOU SAY THAT THE TIFCA PROCEDURE PROVIDES AN INCENTIVE TO INFLATE REMOVAL COST ALLOCATIONS?

A. When a cost is allocated to the replacement plant, it is treated as new capital. It is recovered, dollar for dollar, over the life of the plant. But when a cost is allocated to removal, it serves to inflate removal cost recoveries on <u>all</u> plant by several multiples. This inflation can be demonstrated by examining the effect of the negative salvage ratios recommended by Gannett Fleming.

For Account 376, Gannett Fleming recommends a removal cost ratio of 45 percent. When applied to the December 31, 2004 balance of $518,368,514 in this account, the total amount to be accrued for removal costs comes to $233,265,831. When this number is divided by the 62 years that Gannett Fleming recommends as the average service life of mains, the annual removal cost accrual is $3,762,352. That number is more than 12 times the annual removal cost experience of $306,030 during the period 1990-2003. Thus, by classifying a cost as removal-related, the Company can realize dramatic markup of cash received relative to cash expended.

Q. HOW DOES THIS DRAMATIC MARKUP OF CASH RECEIVED RELATIVE TO CASH EXPENDED OCCUR?

A. This inflation of removal costs allowances is a function of the ratioing procedure used in TIFCA. TIFCA does not compare current removal costs to current construction costs or to plant balances. Instead, TIFCA ratios current removal costs to the <u>original</u> costs of the plant being removed. Those original costs are quite small relative to the current costs incurred in removing or dismantling plant.

Take the example of services. Questar's record of aged retirements of services during the first ten months of 2005 reveals that the average service retired during that period was 40 year old, which means it was placed in 1965. In 1965, the dollar was worth 6.2 times its value in 2005, as measured by the Consumer Price Index.[6] If 1965 dollars applied to 2005 removal costs are compared in dollars of 2005 value, then Gannet Fleming's removal cost ratio of 90 percent for services falls to 15 percent, as follows:

$$\frac{90}{100 \times 6.2} = \frac{90}{620} = 15\%$$

Q. HOW WOULD QUESTAR APPLY ITS REMOVAL COST RATIOS?

A. Questar would apply Gannett Flemings removal cost ratios to <u>all</u> plant investment, even that which was placed just this year. This practice results in annual removal cost accruals that vastly exceed annual removal cost experience.

Q. IS THERE A RATIONALE TO SUPPORT THESE APPARENTLY EXCESSIVE REMOVAL COST ALLOWANCES?

A. Yes. The rationale is that by the time the plant currently being placed is removed from service, the dollar will depreciate at the same rate it has in the past. Thus, the TIFCA ratio method assumes that removal costs will have inflated to the point where, in the case of Questar's gas services, it amounts to 90 percent of present construction cost, and in the case of gas distribution mains it comes to 45 percent of today's construction cost.

[6] 1965 CPI = 31.6; April 2005 CPI = 194.6; 194.6/31.6 = 6.2

Q. ACCEPTING THE VALIDITY OF THIS RATIONALE, IS THE TIFCA CALCULATION OF FUTURE REMOVAL COST RATIOS APPROPRIATE?

A. No. From a purely computational standpoint, this procedure is flawed. It presumes that the change in the value of the dollar in the future will match that in the past. As noted, the 1965 dollar was 6.2 times the value of the 2005 dollar. The presumption embedded in the TIFCA calculation is that this same rate of decline in the dollar's value will continue between now and 2045, the year when Consumers' dollar-weighted average existing (in 2005) service line will be retired.

There is not a shred of evidence to support for this assumption. The rates of inflation currently and prospectively are far less than they were during the 1970s and 1980s. There is no basis for assuming that those old inflation rates will be repeated in the future.

Q. CAN THIS ERROR BE CORRECTED?

A. The error can be corrected by back-casting historical price indices as though the currently forecast rate of inflation had existed in the past. The original cost of the retirements can then be restated to eliminate the effect of differences between past and forecast inflation.

Currently, the Congressional Budget Office forecasts a rate of inflation through 2016 of 2.2 percent. Possibly this very low rate is overly optimistic as an expression of inflation over the coming three or four decades. For this reason, I am assuming a future inflation rate of 3.0 percent. As noted earlier, the Company has assigned dates of placement to all of its retirements. I have revalued these retirements by back-casting the inflation indices by 3.0 percent and then comparing those restated indices to the actual price indices. The revalued retirements represent the level of retired dollars that would have existed had inflation been 3.0 percent annually in the past.

The results of this exercise are as follows:

Account	Description	GF Ratio	Revised Ratio
376	Mains	-45%	-32%
377	Compressor Station Eqpt	-5%	-3%
378	Measuring & Regulating Eqpt	-35%	-29%
380	Services	-90%	-73%
382	Meter Installations	-10%	-6%

Q. IF THE COMMISSION CHOOSES TO CONTINUE TO ACCEPT TIFCA FOR THE COMPUTATION OF REMOVAL COST ALLOWANCES, SHOULD IT ADJUST FOR DIFFERENCES BETWEEN PAST AND FORECAST INFLATION?

A. Yes. If the Commission chooses to continue to accept the TIFCA procedure for calculating removal costs allowances, it should adjust the TIFCA net removal cost ratios for the differences between past and forecast inflation rates.

Q. HAVE YOU CALCULATED THE REMOVAL COST RATES THAT REFLECT YOUR ADJUSTED RATIOS?

A. Yes. That calculation is presented in Schedule 6 of Exhibit_____(CWK-1). The exhibit covers only the five accounts for which there is any significant cost of removal experience. It follows the structure of Schedule 4 upon which I calculated depreciation rates. The principal difference with this schedule is that I have adopted the theoretical reserve as the actual reserve and have subtracted it from the composite depreciation/removal cost reserve on the Company’s books. The amount to be recovered in Column G is thus the total removal cost allowance (Column C) less the theoretical reserve. I have divided these amounts by the remaining life years to derive the annual accrual, and then divided that accrual by the plant balance to develop the removal cost rates. As the exhibit shows, the total accrual for removal costs based on year-end 2004 plant is $6,232,266. This accrual should be posted to a reserve account amounting to $73,025,008.

Q. DO YOU RECOMMEND THAT THE COMMISSION CONTINUE TO ACCEPT TIFCA-BASED REMOVAL COST ALLOWANCES?

A. That is a policy question that requires the Commission to consider the tradeoff between conceptual purity, the impact on Questar's cash flow, and the forum in which this change should be considered.

Q. WHY IS CONCEPTUAL PURITY AN ISSUE IN THE CONTINUED USE OF TIFCA TO ESTMATE REMOVAL COSTS?

A. From a conceptual standpoint, the TIFCA procedure is inappropriate even when corrected for overstated future inflation rates. That is because TIFCA charges ratepayers now for the projected cost of removal that will be incurred at the time of plant's retirement. Under my proposed removal cost factors, when Questar places a customer service line in 2006, it effectively adds a removal cost allowance of 73 cents to each dollar of construction cost recovered through depreciation. Yet that 73 cents will not be spent for another 52 years, or until the year 2058. A dollar spent in 2058 is worth far less than a dollar collected in 2006. Not only will inflation erode the value of the 2058 dollar, but the holder of the dollar has the benefit of its earning (or spending) value in the intervening 52 years.

The TIFCA procedure simply ignores this relationship between present and future dollars. It assumes that a dollar collected now has exactly the same value as a dollar spent 52 years from now.

Q. HOW CAN THIS CONCEPTUAL DEFECT BE RESOLVED?

A. The resolution is to employ the same procedures for non-legal removal cost obligations as SFAS 143 uses for legal retirement obligations. This means discounting the future value of removal costs to their present value as of the date of placement of the plant that ultimately will be removed. This value is depreciated over the life of the plant. Additionally, there is recognition of the annual accretion in the present value of the future removal cost obligation.

This procedure could be implemented fairly simply by treating mass property accounts as though they were a single asset. The future removal cost would be forecast as of the terminal date of the composite remaining life of the account. That value would be discounted back to the placement date of the average unit within the account. The accretion allowance would reflect the change in present value between the current year and next year.

Q. DO YOU ADVOCATE THIS APPROACH IN THIS CASE?

A. No, for two reasons. First, there is the practical consideration of its impact on Questar's cash flow. The Company is already experiencing a severe reduction in its depreciation charges owing to the restatement of plant lives, most of which are much longer than the 33 years assumed in the past. Additionally, I have recommended that removal cost ratios be reduced from those recommended by Gannett Fleming, further reducing the company's recovery of a non-cash expense. Added to these adjustments is the remaining life concept, which reduces yet further the accruals in order to flow back past over-recoveries of depreciation. To layer the SFAS 143 procedure on top of these adjustments would result in a yet lower set of accrual rates, resulting in a severe cash flow loss to the Company.

The second reason for not implementing the SFAS 143 procedure is that it represents a major procedural change from past practices that have been used for years by the other utilities in Utah. Such a fundamental change in policy should be considered on a generic level through a generalized rule change applicable to all utilities. It should not be introduced in a single rate proceeding, particularly one for a utility that has never before conducted a depreciation study.

Q. HOW WOULD YOU PROPOSE THAT THE TREATMENT OF REMOVAL COSTS BE ADDRESSED BY THE COMMISSION?

A. I recommend that the Commission convene a rulemaking proceeding to determine whether, and if so how the present treatment of removal cost allowances should be treated for regulatory reporting and ratemaking purposes by all utilities subject to the Commission's jurisdiction. Such a proceeding has recently been convened in Michigan.[7]

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes. It does.

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[7] Michigan P.S.C. Case No. U-14292.