#### **BEFORE THE**

## STATE OF KANSAS STATE CORPORATION COMMISSION

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In the Matter of the Applications of Westar Energy, Inc., and Kansas Gas and Electric Company for Approval to Make Certain Changes in their Charges for Electric Service.

Docket No. 05-WSEE-981-RTS

**DIRECT TESTIMONY OF** MICHAEL J. MAJOROS, JR.

**ON BEHALF OF** 

THE CITIZENS' UTILITY RATEPAYER BOARD **KANSAS INDUSTRIAL CONSUMERS UNIFIED SCHOOL DISTRICT #259** 

September 9, 2005

#### 1 Introduction

#### 2 Q. State your name, position, and business address.

A. My name is Michael J. Majoros, Jr. I am Vice President of Snavely King
Majoros O'Connor & Lee, Inc. ("Snavely King"), located at 1220 L Street, N.W.,
Suite 410, Washington, D.C. 20005.

6 Q. Descri

#### **Describe Snavely King.**

A. My firm, Snavely King, is a progressive economic consulting firm founded in
1970 to conduct research on a consulting basis into the rates, revenues, costs
and economic performance of regulated firms and industries. Snavely King
represents the interests of government agencies, businesses, and individuals
who are consumers of telecom, public utility, and transportation services.

We have a professional staff of 15 economists, accountants, engineers and cost analysts. Most of our work involves the development, preparation and presentation of expert witness testimony before Federal and state regulatory agencies. Over the course of our 35-year history, members of the firm have participated in more than 1,000 proceedings before almost all of the state commissions and all Federal commissions that regulate utilities or transportation industries.

#### 19 Q. Have you prepared a summary of your qualifications and experience?

A. Yes, Appendix A is a summary of my qualifications and experience. Appendix
 B contains a tabulation of my appearances as an expert witness before state
 and Federal regulatory agencies.

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1	Q.	For whom are you appearing in this proceeding?
2	A.	I am appearing on behalf of the following consortium of clients: Citizens' Utility
3		Ratepayer Board ("CURB"); Kansas Industrial Consumers ("KIC"); and Unified
4		School District No. 259 (Sedgwick County, Kansas).
5		
6	<u>Subj</u>	ect and Purpose of Testimony
7	Q.	What is the subject of your testimony?
8	Α.	My testimony addresses depreciation.
9	Q.	What is the purpose of your testimony?
10	Α.	My testimony presents the results of my review of and opinion concerning the
11		reasonableness of Westar Energy, Inc.'s and Kansas Gas and Electric
12		Company's (collectively, "Westar" or "the Company") depreciation proposals.
13	Q.	Do you have any specific experience in the field of public utility
14		depreciation?
15	Α.	Yes, I and other members of my firm specialize in the field of public utility
16		depreciation. We have appeared as expert witnesses on this subject before
17		the regulatory commissions of almost every state in the country. I have
18		testified in over one hundred proceedings on the subject of public utility
19		depreciation and represented various clients in several other proceedings in
20		which depreciation was an issue but was settled. I have also negotiated on
21		behalf of clients in fifteen of the Federal Communications Commissions'
22		("FCC") Triennial Depreciation Represcription conferences.

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# 1Q.Does your experience specifically include electric company2depreciation?

- A. Yes, I have appeared as an expert on the subject of electric company
   depreciation in thirty-two proceedings. Depreciation was a settled issue in
   several other electric proceedings in which I prepared testimony.
- Q. Have you ever appeared before the Kansas State Corporation
   Commission ("KCC")?
- 8 A. Yes, I have appeared before the KCC on several occasions, including
- 9 appearances on behalf of Staff as well as my clients in this proceeding.
- 10 Q. Do you have any prior experience involving Westar?
- 11 A. Yes, I prepared a Westar depreciation study as a basis for my testimony in
- 12 Docket No. 01-WSRE-436-RTS. The Commission accepted a majority of my
- 13 recommendations and my specific life proposals for Production plant:
- 14The Commission finds the Majoros depreciation study15and recommendations to be the more persuasive and16adopts them. The Majoros study is supported by a17detailed nationwide actuarial study of steam units, by18personal inspections of several of the Applicants'19plants, and by a life extension study prepared by the20Applicants.1
- 21

#### 22 Westar's Present Depreciation Rates

#### 23 Q. What did the Company propose in Docket No. 01-WSRE-436-RTS?

A. The Company proposed a depreciation expense increase based on the testimony and exhibits of Mr. James Aikman. Mr. Aikman proposed revised (mostly shorter) life spans for Westar's fossil-fuel production plants, revised

<sup>&</sup>lt;sup>1</sup> Order on Rate Applications, Docket No. 01-WSRE-436-RTS, Issued July 25, 2001, paragraph 26.

decommissioning cost estimates for those plants, and revised average service
 lives and net salvage factors for Westar's so-called mass property accounts.

#### 3 Q. What did you propose in Docket No. 01-WSRE-436-RTS?

Based on my depreciation study, I recommended longer life spans for several 4 Α. 5 of Westar's production plant units; that is, longer than Mr. Aikman had 6 proposed. I accepted a majority of the Company's life proposals for the mass 7 property accounts in the transmission, distribution and general plant functions, 8 and I accepted all of the Company's future net salvage proposals. All of my 9 recommendations resulted from my study; in other words, my acceptance of a life or net salvage parameter reflected active agreement rather than passive 10 11 acquiescence.

#### 12 Q. Please explain the calculation of the present depreciation rates.

The present rates are straight-line remaining life depreciation rates, using the 13 Α. average service life ("ASL") procedure.<sup>2</sup> The present production plant rates 14 are based on my depreciation study. Staff recommended combination of 15 Company's proposed depreciation rates for KGE's and KPL's transmission 16 The Commission accepted that recommendation.<sup>3</sup> 17 and distribution plant. Therefore, the Commission approved all of Company's average service lives in 18 19 the transmission, distribution, and general functions and all of the Company's 20 net salvage requests.

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<sup>&</sup>lt;sup>2</sup> Direct Testimony of John Spanos, ("Spanos Testimony"), page 9.

1	Q.	When did the KCC approve the Company's present depreciation rates?
2	Α.	The KCC approved the present depreciation rates as of July 2001 in Westar's
3		last rate case; Docket No. 01-WSRE-436-RTS.4
4	Q.	Did Westar book the new depreciation rates in July 2001?
5	A.	No. Mr. Kongs' testimony provides a rather confusing explanation of how and
6		why the Company did not adopt the new rates due to its appeal of this
7		Commission's decision to approve the new rates in Docket No. 01-WSRE-436-
8		RTS. <sup>5</sup> His explanation is made no more clear in his extremely complicated
9		responses to several data requests, which I have attached to this testimony as
10		Exhibit(MJM-1).
11	Q.	What is the result of Westar's failure to book the approved rates when
12		approved?
13	A.	Mr. Kongs argues for a rate base increase of \$8.1 million for Westar North and
14		\$12.0 million for Westar South. Mr. Kongs also proposes to amortize these
15		differences over ten years, outside of the Company's depreciation study.
16	Q.	Summarize the basis of Westar's depreciation-related appeal in Docket
17		No. 01-WSRE-436-RTS?
18	A.	Primarily, Westar objected to the longer production plant lives I recommended.
19		
20		
21		

 <sup>&</sup>lt;sup>3</sup> See response to CURB 58, and Order on Rate Applications, Docket No. 01-WSRE-436-RTS, Issued July 25, 2001, paragraphs 26 and 27.
 <sup>4</sup> See response to CURB 58.

<sup>&</sup>lt;sup>5</sup> Direct Testimony of Kevin Kongs, pages 6 to 7.

#### 1 Q. Do you find anything ironic about Westar's appeal in the last case?

- A. Yes, it is ironic that Westar appealed the longer production plant lives I
  proposed in that case, but it is now proposing even longer lives for production
  plant in this case.
- 5

#### 6 Westar's Appeal Adjustment

#### 7 Q. Do you agree with Westar's appeal adjustment?

8 Α. I do not oppose a rate base adjustment, as long as it is in the correct amount. 9 However, I do not believe that the amounts that Westar calculated are 10 sufficiently supported. That is because it appears that Westar has understated 11 the impact of the cost of removal and dismantling cost, which were included in 12 the rates approved in Docket No. 01-WSRE-436-RTS. This potential understatement has an impact on the proper cost of removal depreciation 13 14 rates going-forward. In fact, Westar may have inappropriately created a 15 regulatory asset instead of a regulatory liability in conjunction with its 16 implementation of SFAS No. 143.

At this point, it is incumbent for Mr. Kongs to provide a much more detailed and comprehensible explanation and quantification of what Westar actually did in this regard. Once the correct number is established, its effect belongs in the depreciation study as a component of the resulting remaining life depreciation rates rather than as a separate amortization. That is where it would be if Westar had not defied the Commission's Order in the last case.

### 1 <u>Westar's Proposed Depreciation Rates</u>

# Q. Will you summarize the Company's depreciation rate proposals in this proceeding.

A. Mr. John Spanos of Gannett Fleming sponsors Westar's depreciation study,
which again consists of separate studies for Westar North and Westar South.
Mr. Spanos' proposals would increase annual depreciation expense by \$11.5
million for Westar North and \$13.4 million for Westar South, relative to current
depreciation rates based on December 31, 2003 plant balances.<sup>6</sup> The table
below summarizes Mr. Spanos' proposals and compares the proposals to the
present rates.

11

#### Comparison of Present and Proposed Accruals Based on Plant as of December 31, 2003

	Accrual With Present Rates	Accrual With Proposed Rates	Difference
Westar North	\$71,962,598	\$ 83,505,623	\$11,543,025
Westar South	<u>65,727,660</u>	<u>79,153,232</u>	<u>13,425,572</u>
Total	\$137,690,258	\$162,658,855	\$24,968,597

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13 Q. Have you included any alternative versions of Mr. Spanos' proposed

14 depreciation rates?

A. Yes, Exhibit\_\_\_(MJM-2) shows Mr. Spanos' proposed depreciation rates
broken into two rates that sum to his proposed depreciation rate for each
account. I have shown Mr. Spanos' proposed rates relating to capital recovery
and his proposed rates relating to estimated future cost of removal for each

<sup>&</sup>lt;sup>6</sup> See response to CURB 60.

account. These separated depreciation rates do not require any changes to
 current accounting. I am providing these specifically identified depreciation
 rates merely to facilitate external reporting and for regulatory analysis and rate
 setting purposes. I will address the need for this information in more detail
 later. These rates can be combined into single capital recovery and cost of
 removal rates for Westar North and South if the Staff and Commission so
 desire.

8 As I will explain below, I disagree with certain aspects of Mr. Spanos' 9 proposed depreciation rates. However, should the KCC disagree with 10 everything I have to say below and approve Mr. Spanos' proposals in their 11 entirety, I still recommend that Westar be required to apply the separated 12 capital recovery and cost of removal rates. In that way, ratepayers at least will 13 have the ability to know how much they are paying for capital recovery versus 14 future cost of removal. Again, this does not require any change to current 15 accounting; it merely provides more and better information.

16

#### 17 Conclusions

#### 18 Q. Do you agree with Mr. Spanos' proposal?

A. I disagree with certain aspects of Mr. Spanos' proposal and his rationale. Mr.
 Spanos' proposal results in *excessive depreciation* expense and charges to
 ratepayers. I base my conclusion on my depreciation study, my analysis, and
 identification of new information brought to light by recent accounting
 pronouncements. My recommendations result in a \$2.8 million decrease

based on December 31, 2003 plant balances. This is a \$27.8 million decrease
 from Mr. Spanos' proposals.

3 Q. On what do you base your conclusions and recommendations?

4 Α. As I stated above, I have conducted a depreciation study, which provides one 5 basis for my conclusions and recommendations. Due to its voluminous nature, 6 I have included the study in my workpapers. My study addresses lives, life 7 spans and survivor curves. I have also reviewed net salvage data in my study, 8 and I have used the study to implement the depreciation rate and reserve 9 separation procedures that I will discuss in more detail below. I have 10 submitted several data requests and reviewed the Company's responses 11 thereto, in addition to the relevant responses to staff's data requests.

12 I have also updated my firm's plant tour of several of Westar's 13 production plants. My associate, Mr. William M. Zaetz, who accompanied me 14 in 2001 on our original plant tour, visited three plants and conducted interviews 15 of operating and management personnel at those plants. Mr. Zaetz is a 16 boilermaker familiar with the construction, maintenance and life extension of 17 production units similar to Westar's. Mr. Zaetz' report and resume is attached 18 as Exhibit\_\_(MJM-3).

19 I also referred to the most recent updates to my firm's national studies
20 of electric production plant lives and retirements. These are included as
21 Exhibits\_\_\_(MJM-4) and (MJM-5) respectively.

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## 1 Depreciation Concepts

# Q. Does your testimony include a discussion of the depreciation concepts that are relevant to your testimony?

A. Yes, Exhibit (MJM-6) is a brief discussion of depreciation concepts that are
relevant to my testimony. I have submitted this discussion as a separate
exhibit in an attempt to minimize the technical aspects of my direct testimony.
However, I believe that discussion may be helpful to understanding this
testimony.

9

#### 10 Credibility

# 11 Q. Explain the importance of credibility in depreciation filings and 12 testimony.

A. Depreciation is one of Westar's largest operating expenses, and yet, like rate
of return, is based largely on the analyst's judgments concerning estimated
lives, retirement patterns and the necessity to include and level of components
for future removal expenditures in depreciation rates. Given all of these
judgments, it is important to have confidence in the objectivity of the analyst,
his clients and the credibility supporting the resulting recommendations.

#### 19 Q. Why do you raise the subject of credibility?

A. I have raised credibility as a subject because Westar's depreciation proposals
lack credibility, not just Mr. Spanos' study, but also the very basis of the filing.
Earlier, I explained the irony that notwithstanding the fact that Westar
appealed the longer production plant lives that I had proposed and the
Commission approved in the last case, Westar is now proposing even longer

1		production plant lives. Nevertheless, that is not the primary reason I raise the
2		issue of credibility. There are other, more important indicators available.
3	Q.	Provide an example.
4	A.	Exhibit(MJM-7) is a copy of selected pages from Westar's May 10, 2005
5		Form 8-K/A, which is an amendment to a previously filed 8-K. It provides
6		some discussion of Westar's rate filings, both before this Commission and
7		before the Federal Energy Regulatory Commission ("FERC"). The discussion
8		has a specific section titled "Depreciation Rate Change." It states the
9		following:
10		<ul> <li>In 2001 case KCC ordered lower depreciation rates,</li> </ul>
11		based on longer lives
12		<ul> <li>Reduced annual revenues by approximately</li> </ul>
13		\$30 million
14		<ul> <li>Direct impact on cash flow, but no direct impact</li> </ul>
15		on earnings
16		<ul> <li>A subsequent KCC order required Westar to conduct</li> </ul>
17		a fresh depreciation study. Results of that study are
18		part of present rate review.
19		<ul> <li>Proposed increases in depreciation expense of \$29</li> </ul>
20		million
21		<ul> <li>Does not challenge longer plant lives</li> </ul>
22		<ul> <li>Increases cost of negative net salvage value,</li> </ul>
23		particularly on generating assets
24		
25		Westar tells the SEC and its shareholders that it no longer challenges
26		the longer plant lives upon which it based its appeal of this Commission's prior

order, and goes on to propose even longer lives. That means that its original
 appeal had no merit.

Westar also tells the SEC and its shareholders that it is now seeking to replace the prior reduction, which it now deems to have been justified, by increasing the cost of negative net salvage value that it proposed, and everybody accepted in the first place. The negative net salvage component is for estimated future cost of removal expenditures that Westar has not made; and for which Westar has no legal liability to begin with. In my opinion, this set of circumstances strains Westar's corporate credibility in the depreciation area.

## 10 Q. Do you have any examples that bring Mr. Spanos' credibility into 11 question?

- Yes, since I was a witness in Docket No. 01-WSRE-436-RTS, I know what 12 Α. 13 went into the development of the generating plant depreciation rates. I know that the generating plant decommissioning rates incorporated a dismantlement 14 factor at about \$32 per KW (of nameplate capacity) for gas-fired plants and 15 about \$39 per KW for coal-fired plants.<sup>7</sup> These resulted in negative net 16 salvage ratios of about 8.8 percent for KPL and about 13.5 percent for KGE's 17 steam production plants. As explained in the Depreciation Concepts exhibit, 18 19 factors such as these increase depreciation rates.
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<sup>&</sup>lt;sup>7</sup> Docket No. 01-WSRE-436-RTS, Direct Testimony of James H. Aikman, Appendix B. Depreciation Accrual Rate Study at December 31, 1999, page 23.

- Q. At page 19 of his Direct Testimony, Mr. Spanos states, "current
   depreciation rates do not have a component of final retirement." Is this a
   true statement?
- A. No, Mr. Spano's statement is simply not true, and it tears at Mr. Spanos'
  credibility. Further, using the untrue assertion as a backdrop, Mr. Spanos then
  proposes preposterous increases to the existing dismantlement estimates.
- Q. Did Westar personnel internally challenge Mr. Spanos' increases to the
   existing dismantlement estimates?
- 9 A. Yes, Westar management personnel challenged Mr. Spanos' generation plant
  10 dismantlement estimates. Exhibit\_\_\_(MJM-8) is a December 6, 2004 email
  11 between Mr. Dick F. Rohlfs and Mr. Spanos.
- Mr. Rohlfs asked, "I have some questions on the net salvage figures for the power plants. The concern I have is that the percent is higher than the last study. In some cases the change goes from negative 7% to negative 30%. Can you provide an explanation for the change and be able to support this on the stand?"
- Mr. Spanos responded, "as for net salvage, there is a difference in the way the net salvage was done this time versus last time. We studied net salvage on the account level this time versus the plant level the last time. Part of the reason was that we received the data in that form and the (sic) also that is how we normally study net salvage. If there is historical net salvage at the plant level I can work out some results that way as well. Either way I will support my results on the stand."
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#### 1 Q. What do you conclude from that email?

A. I conclude that Mr. Spanos did not know, or chose to ignore, how production
plant net salvage was studied in the last case. He applied a mass property
approach, and then employed his judgment to arrive at his recommended
negative net salvage ratio of approximately 30 percent. This result is
preposterous when compared to the results of the last study as well as to
Westar's own internal estimates of dismantlement costs.

8 Mr. Spanos told Mr. Rohlfs that he studied net salvage on the account 9 level this time versus the plant level last time because that is how he received 10 the data and that is how he normally studies net salvage. Nevertheless, it is 11 clear that per KW estimates similar to those used in the last study were 12 available.

#### 13 Q. Explain why it is clear that per KW estimates were available?

14 Exhibit (MJM-9) contains copies of Mr. Spanos' responses to CURB 30 and Α. 15 Staff 324. In essence, these say that Mr. Spanos started with per KW 16 estimates and then built up to his 30 percent proposals. I have included some 17 handwritten notes on page three of the exhibit. They show that for both North 18 and South steam generating plants, Westar now estimates dismantling costs 19 at \$30.27 per KW. In other words since the last study, where everybody 20 accepted Mr. Aikman's \$39.00 per KW estimate, Westar now internally 21 estimates that this cost has gone down to \$30.27 per KW. This equates to 22 negative net salvage ratio of 8.5 percent overall for steam production rather 23 than Mr. Spanos' negative 30 percent ratio.

24

## Q. Is the \$30.27 per KW a future cost estimate or a net present value estimate?

3 A. It is a net present value estimate.

15

#### 4 Q. Did Mr. Spanos rely on this \$30.27 net present value estimate?

A. No, Mr. Spanos, or the Company, inflated the \$30.27 net present value
estimate by 3 percent per year to the estimated retirement years, to arrive at
an inflated estimate of \$84.26 per KW. Interestingly, if Mr. Spanos had used
this inflated \$84.26 per KW estimate, the result would have been an overall
negative net salvage ratio of 23.74 percent.

#### 10 Q. Did Mr. Spanos rely on this inflated \$84.26 per KW estimate?

A. No, Mr. Spanos further inflated the \$84.26 per KW estimate up to \$106.45 per
 KW, to arrive at his recommended overall negative net salvage ratio of 30
 percent. There is simply no underlying justification for these inflated values.

14 Q. Do you believe the Commission should place any reliance on Mr.

Spanos' inflated estimates when setting a net salvage ratio in this case?

16 No, remember that all parties agreed to Westar's dismantlement cost Α. 17 estimates (negative net salvage) in Westar's last rate case. In the current environment, Westar internally acknowledges that Mr. Aikman's per KW 18 dismantlement estimates in the last rate case were higher than Westar's 19 current internal estimates (\$39.00 per KW Aikman estimate vrs. \$30.27 per 20 21 KW current Westar estimate), and yet Mr. Spanos more than triples Westar's 22 current internal estimates based on nothing more that his own judgment. In 23 my opinion, Mr. Spanos' recommendations concerning dismantlement costs 24 cannot be supported factually and are lacking in any credibility.

## <sup>1</sup> Excessive Depreciation

- Q. You have used the phrase "*excessive depreciation*." Have you provided
   any background information on the concept of *excessive depreciation*?
- 4 Α. Yes, an excessive depreciation rate is one that produces more depreciation 5 expense than necessary to return the cost of a company's capital asset over the life of the asset. Exhibit (MJM-10) is a brief summary of a landmark 6 7 U.S. Supreme Court decision on depreciation. I am not an attorney and I do not present this as a legal argument or conclusion. I merely present this to 8 9 demonstrate that the concept of excessive depreciation is not a new one. have also included a discussion of, and guotations from, the Financial 10 Accounting Standard Board's ("FASB") Statement of Financial Accounting 11 12 Standard No. 143 ("SFAS No. 143") demonstrating that the public accounting 13 profession is also cognizant of and concerned about excessive depreciation.

14 Q. Mr. Majoros, does the fact that accumulated depreciation reduces rate
 15 base render the concept of excessive depreciation moot?

A. No, if ratepayers are required to pay too much for depreciation expense, they
 will have paid too much. The fact that ratepayers are not required to pay a
 return on prior excessive charges does not mean that those charges were not
 excessive.

20

### 21 Depreciation Parameters

### 22 Q. What are depreciation parameters?

A. Depreciation parameters are the basic assumptions upon which depreciation
 rate calculations are based. Westar's proposed depreciation rates are based

on three fundamental parameters, all of which are estimates: an average
 service life, a retirement dispersion pattern and a net salvage ratio. These are
 discussed in more detail in Exhibit\_\_\_(MJM-6).

The two most significant parameters in this case are the average service life and the cost of removal ratio; the shorter the service life – the higher the resulting depreciation rate. Similarly, the higher the cost of removal ratio, the higher the resulting depreciation rate. In both cases, ratepayers are charged higher depreciation.

9 As I stated above, another parameter is the estimated retirement 10 dispersion pattern. Mr. Spanos used "Iowa Curves" to define these patterns. 11 These patterns have relevance in estimating average lives and they have a 12 direct impact on Mr. Spanos' remaining life calculations.

13

#### 14 **Recommended Life and Curve Parameters**

#### 15 Q. Summarize your recommended life and curve depreciation parameters.

A. I recommend approval of all of the Company's production plant lives except for
 the life of LaCygne Unit 2. For the most part, the Company extended the
 production plant life spans. This is consistent with the trends we observed in
 our national studies, and is consistent with Mr. Zaetz's findings.

20 Q. Do you agree with the Company's LaCygne Unit 2 life span proposal?

A. No. Westar built LaCygne Unit 2, sold it and then leased it back. The
Company proposes the end of the lease period as the final retirement year for
LaCygne Unit 2. This results in a life span far shorter than expected for this
unit. However, just because Westar may have worked out some favorable

1	financing deal, it should not charge excessive depreciation to its customers. I
2	recommend the same final retirement year for Unit 2 as Westar proposes for
3	LaCygne Unit 1.

- 4 Q. Do you agree with Mr. Spanos' mass property life and curve proposals?
- 5 A. Although we could have lengthened a few mass property lives, I overrode my
- 6 analyst's recommendations for those accounts in order to reduce controversy.
- 7

#### 8 Future Cost of Removal Parameters

### 9 Q. What is a future cost of removal parameter?

- A. A future cost of removal parameter is a ratio incorporated into the calculation
  of a depreciation rate to charge depreciation expense for estimated future cost
  of removal. The inclusion of future cost of removal parameters increases
  depreciation rates and expense for estimates of future removal costs. They
  result in charges to current depreciation expense for expenditures that have
  not been made and potentially will never be made.
- 16 Q. Do the current depreciation rates include cost of removal parameters?
- 17 A. Yes, they do.
- 18 Q. Has Mr. Spanos included future cost of removal parameters in the
   19 proposed depreciation rates?
- 20 A. Yes, he has.
- 21 Q. Do you object to Mr. Spanos' cost of removal proposals?
- 22 A. Yes, I object to the level of Mr. Spanos' proposals.
- 23
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#### 1 Q. Why do you object to the level of Mr. Spanos' proposals?

A. I object to the level of Mr. Spanos' inflated cost of removal parameters, as I
explained in the credibility section. Exhibit (MJM-7) demonstrates that this
Company filed a depreciation study making increases to future cost of removal
parameters the primary depreciation issue in this proceeding. Mr. Spanos
implemented Westar's policy by proposing vastly inflated cost of removal and
dismantlement parameters.

8 Even if one accepts the proposition that Westar will actually incur these 9 future expenditures, I object to Mr. Spanos' inflated cost of removal 10 parameters. The estimated cost must be measured at the fair net present 11 value, not the future inflated value.

Nuclear decommissioning cost charges are based on the fair net
present value of the estimated future decommissioning costs. It is notable that
Westar actually has a legal obligation to incur nuclear decommissioning costs
relating to its Wolf Creek plant.

Westar does not have any legal obligation to spend any money to remove any of its other plant. Thus, it is only reasonable, from a comparative standpoint, to assume that future non-nuclear removal expenditures are less likely than future nuclear removal expenditures. Notwithstanding that dichotomy, it is clearly inappropriate to give special treatment to the nonnuclear estimates by allowing them to be inflated, but not discounted back to their fair net present value.

23 Such special treatment results in charging future inflation to current 24 ratepayers. Not only is this unfair, it is unnecessary by virtue of Westar's use of the remaining life depreciation technique which is based on the concept of
 full capital recovery, including all actual cost of removal expenditures, and also
 by virtue of this Company's ability to file depreciation studies with updated
 estimates on a regular basis.

G. How much future cost of removal has Mr. Spanos incorporated into the
 Company's depreciation request?

- A. Exhibit (MJM-2) reveals that Mr. Spanos has incorporated \$43.3 million of
  annual cost of removal charges in his proposed depreciation rates based on
  December 31, 2003 plant balances.
- 10 Q. What is the Company's normal cost of removal experience?
- A. Over the five years ending 2003, Westar experienced \$14.3 million in cost of
   removal on average annually, as summarized directly from Westar's
   depreciation study.<sup>8</sup>

14 Q. Why does Westar's cost of removal request exceed its actual experience

15 to such a large degree?

16 Α. Westar's basic strategy appears to be to increase negative net salvage 17 estimates to replace the lower depreciation rates resulting from its 18 acknowledged longer lives. Mr. Spanos increased the production plant 19 dismantlement estimates by extraordinary amounts of future inflation, beyond 20 the 3 percent that Westar itself used. Mr. Spanos increased the mass property 21 cost of removal ratios by virtue of the Traditional Inflated Future Cost 22 Approach (which I will refer to as "TIFCA") he used to make his future net 23 salvage estimates.

#### 1 Q. Did Mr. Aikman also use TIFCA in Westar's last depreciation study?

Mr. Aikman used the net present value of his estimated per KW cost of 2 Α. dismantlement for production plant; but he also used TIFCA for Westar's 3 transmission, distribution and general plant functions. Even though I alluded 4 to a possible disagreement, I did not object to Mr. Aikman's TIFCA proposals 5 at the time, because it seemed clear to me that he judgmentally reduced his 6 cost of removal proposals, which in effect reduced the future inflation 7 component. As a result, there was not a wide disparity between his proposals 8 and actual annual cost of removal Westar was incurring at the time. 9

10

### 11 Hypothetical TIFCA Example

## 12 Q. Can you provide an example of how TIFCA operates and results in 13 inflated cost of removal ratios?

- 14 A. Yes, Exhibit\_\_\_(MJM-11) explains and provides examples of how TIFCA
  15 results in inflated cost of removal ratios.
- 16

### 17 Westar Controls a Majority Of The Negative Net Salvage Activity It Records

# 18 Q. Is Westar at the mercy of the "market" as far as the cost of removal it 19 incurs?

A. No, Westar is not at the mercy of the market for a majority of the annual cost
 of removal it incurs. A majority of Westar's retirements result from asset
 replacements. Westar incurs replacement project costs and then "*allocates*" a
 portion of the replacement project cost to cost of removal. This allocation is

<sup>&</sup>lt;sup>8</sup> Spanos depreciation study, Section III.

1		typically a relatively small portion of the overall replacement project cost.
2		Westar could just as easily capitalize 100 percent of the replacement cost to
3		plant in service and depreciate it, with no allocation to cost of removal.
4	Q.	What do you conclude?
5	Α.	Although Westar may indeed incur some actual cost of removal in the future,
6		the massive amounts that Mr. Spanos proposes to collect are for the most part
7		a fiction.
8		
9	Reco	ommended Approach
10	Q.	What is the solution?
11	Α.	There are alternatives to TIFCA. The following discussion addresses a "cash
12		basis" alternative, and two "accrual basis" alternatives. There are probably
13		more alternatives.
14		Alternatives to TIFCA
15		Cash Basis: - Expensing
16		Accrual Basis: - Normalized Net Salvage Allowance
17		- Net Present Value Approach
18	Q.	What do you recommend?
19	A.	I recommend the net present value approach.
20		
21	<u>Net</u>	Present Value Accrual Approach to Net Salvage
22	Q.	What is the net present value approach?
23	A.	The net present value approach merely discounts Westar's future net salvage
24		estimates, using the average remaining lives, back to 2003 values using the 3

percent inflation factor that Westar used for its inflation to the dismantlement
cost estimates.<sup>9</sup> In other words the net present value approach essentially
takes the "I" out of TIFCA. Assuming the validity of Westar's claims that it will
actually spend the money it collects for future negative net salvage on future
negative net salvage, the NPV approach resolves the concerns regarding
future inflation.

7 Q. Will the NPV approach violate the Commission's depreciation rules?

- 8 A. No, the NPV approach is consistent with the Commission's depreciation rules,
  9 and is consistent with GAAP.
- Q. What will happen if the Commission does not adopt the NPV approach,
   or one of the other alternatives to TIFCA?
- A. If the Commission does not adopt the NPV approach, or one of the other
  alternatives, the regulatory liability resulting from TIFCA will immediately jump
  by over \$43 million and will continue to grow by more than \$43 million, less
  actual cost of removal, per year. In the near future, that decision will result in
  liabilities to ratepayers in the hundreds of millions of dollars.
- 17 Q. Have you calculated the net present values of Westar's proposed future

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## net salvage estimates?

# A. Yes, Exhibit (MJM-12) calculates the net present values of Westar's proposed future net salvage values.

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- 22
- \_ \_ \_
- 23

<sup>&</sup>lt;sup>9</sup> See response CURB No. 30

## 1 Recommended Depreciation Rates

## 2 Q. Have you provided your recommended depreciation rates?

A. Yes, my recommended depreciation rates are included in Exhibit\_\_\_\_(MJM-13).
Again, I have provided my recommendations in two formats. The first is on a single rate per account basis, and the other shows the rates separated between capital recovery and cost of removal for each account. The two rates sum to the single rate.

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## 9 New Information and New Issues

## 10 Q. Identify and explain the new information.

A. The Financial Accounting Standards Board's ("FASB") Statement of Financial
Accounting Standard No. 143 ("SFAS No. 143") addresses asset retirement
obligations ("AROs") associated with long-lived plant. The Federal Energy
Regulatory Commission's ("FERC") Order No. 631 is that agency's
implementation of SFAS No. 143 for regulatory purposes.

When a company has a <u>legal ARO</u>, SFAS No. 143 requires that the discounted fair value of the liability be capitalized and depreciated as a component of the original asset's cost. If it is determined that the utility has collected too much past depreciation relating to the ARO, the excess is to be reported as a regulatory liability.<sup>10</sup> Also, if a utility has collected for future cost of removal in its depreciation rates, but does not have a legal obligation to

<sup>10</sup> SFAS No. 143.

spend the money SFAS No. 143 requires these excesses to be reported as a
 regulatory liability.<sup>11</sup>

FERC identified these latter amounts as "non-legal" asset retirement obligations, meaning that utilities do not have actual legal obligations and liabilities to incur these costs in the future. This is consistent with the SFAS No. 143 requirement to report excessive accumulated depreciation associated with legal AROs as a regulatory liability.

- 8 Westar's 2004 Annual Report to Shareholders reports the following
- 9 regarding regulatory liabilities in compliance with SFAS No. 143:
- 10 We have recovered amounts in rates to provide for 11 recovery of the probable costs of removing utility plant 12 assets, but which do not represent legal retirement 13 obligations. At December 31, 2004, Westar Energy 14 [KPL] had \$1.3 million in removal costs classified as a 15 regulatory asset and KGE had \$2.6 million in removal 16 costs classified as a regulatory liability. At December 17 31, 2003 we had \$6.6 million in removal costs classified as a regulatory asset. The net amount 18 19 related to non-legal retirement costs can fluctuate based on amounts related to removal costs recovered 20 compared to removal costs incurred.<sup>12</sup> 21
- 22 23

Q. Why has Westar reported a regulatory asset for both Companies in 2003,

- 24 but only for KPL in 2004?
- 25 A. Paragraph 20 of SFAS No. 143 states, in part:

26	An additional recognition timing difference may exist
27	when the costs related to the retirement of long-lived
28	assets are included in amounts charged to customers
29	but liabilities are not recognized in the financial
30	statements. If the requirements of Statement 71 are
31	met, a regulated entity also shall recognize a

<sup>&</sup>lt;sup>11</sup> Id., paragraph B.73.

<sup>&</sup>lt;sup>12</sup> Westar Energy 2004 Annual Report, page 60.

regulatory asset or liability for differences in the timing of recognition of the period costs associated with asset retirement obligations for financial reporting pursuant to this Statement and rate-making purposes.<sup>13</sup>

7 Reporting the cost of removal amounts as a regulatory asset indicates 8 that the Company has incurred more for cost of removal than it has accrued and that it considered that amount to be a timing difference resulting in a 9 10 regulatory asset, i.e., an amount it could collect from ratepayers. In 2003, 11 Westar North (KPL) had a regulatory asset of \$4.5 million and Westar South 12 (KGE) had a regulatory asset of \$2.1 million (a total of \$6.6 million as reported in the Annual Report).<sup>14</sup> This means that as of 2003. Westar calculated that it 13 14 had spent \$6.6 million more on cost of removal than it had accrued in its rates.

### 15 Q. Is Westar still spending more on cost of removal than it is collecting?

A. No, between 2003 and 2004, the regulatory asset for KPL decreased from
\$4.5 million to \$1.3 million, a reduction of \$3.2 million. Although there is still a
gap between what has been expended and what has been accrued, that gap
is narrowing. KGE's gap narrowed and then moved the other way. The \$2.1
million regulatory asset in 2003 has become a \$2.6 million regulatory liability in
2004, a difference of \$4.7 million. On a combined basis, Westar now has a
regulatory liability of \$1.3 million.

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<sup>&</sup>lt;sup>13</sup> SFAS No. 143, paragraph 20. Emphasis added.

<sup>&</sup>lt;sup>14</sup> Response to CURB 238.

# Q. Why are these amounts changing from a regulatory asset to a regulatory liability?

A. The change from a regulatory asset to a regulatory liability is due to more cost
of removal being collected than expended as a result of the depreciation rates
approved in the last rate case. These are cumulative amounts. While old
depreciation rates may have not included enough provision for cost of
removal, it is clear that the current rates include more than enough.
Otherwise, the regulatory asset would remain the same, or grow larger.

9 The regulatory liability is relatively small because according to Westar's 10 calculations, it experienced more actual cost of removal than it collected prior 11 to the adoption of the current depreciation rates in Docket No. 01-WSRE-436-12 RTS. Since then, cost of removal recovery has exceeded Westar's actual 13 annual experience. Thus, even at current levels the regulatory liability will 14 continue to grow.

#### 15 Q. Will Mr. Spanos' cost of removal factors increase this growth?

16 Yes, Mr. Spanos' cost of removal factors will increase this growth to an Α. 17 exorbitant level each year. As explained earlier, that is because Mr. Spanos' 18 use of TIFCA results in the incorporation of high levels of future inflation in depreciation rates, applied thereafter to ever-expanding depreciable plant 19 20 The resulting accruals vastly exceed, year-by-year, the money balances. 21 Westar will actually spend or even allocate to cost of removal. SFAS No. 143 22 and FERC Order No. 631 have recognized and highlighted the excess 23 collections, and SFAS No. 143 requires reporting them as a regulatory liability 24 for GAAP purposes.

#### Q. Explain the new issues that result from this new information provided by 1 2 SFAS No. 143 and FERC Order No. 631. 3 Α. There are two new issues. The most important new issue is for the Kansas 4 State Corporation Commission specifically to recognize the regulatory liability 5 for regulatory and ratemaking purposes. From there, the Commission should 6 require separate identification and reporting of these amounts. 7 8 The KCC Should Specifically Recognize the SFAS No. 143 Regulatory Liability 9 Q. How does GAAP define a regulatory liability? 10 Α. SFAS No. 71 – Accounting for the Effects of Certain Types of Regulation 11 defines regulatory liabilities from a GAAP perspective. Paragraph 11, which is 12 summarized below, defines a regulatory liability. Please pay particular 13 attention to paragraphs 11 and 11. b. 14 SFAS No. 71 – Regulatory Liabilities<sup>15</sup> 15 11. Rate actions of a regulator can impose a liability 16 on a regulated enterprise. Such liabilities are usually 17 obligations to the enterprise's customers. The following are the usual ways in which liabilities can be 18 19 imposed and the resulting accounting: 20 21 a. A regulator may require refunds to customers. ... 22 23 b. A regulator can provide current rates intended to 24 recover costs that are expected to be incurred in the 25 future with the understanding that if those costs are 26 not incurred future rates will be reduced by 27 corresponding amounts. If current rates are intended 28 to recover such costs and the regulator requires the 29 enterprise to remain accountable for any amounts charged pursuant to such rates and not yet expended 30 31 for the intended purpose, the enterprise shall not

<sup>&</sup>lt;sup>15</sup> SFAS No. 71, paragraph 11. Only the first sentence of each subparagraph is included.

1recognize as revenues amounts charged pursuant to2such rates. Those amounts shall be recognized as3liabilities and taken to income only when associated4costs are incurred.5

c. A regulator can require that a gain or other reduction of net allowable costs be given to customers over future periods. ...

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### Q. Does Westar agree that its collections for non-legal AROs result in a

#### 11 regulatory liability, or in some instances, a regulatory asset?

- 12 A. Westar properly reports these as a net regulatory liability in its Form 1 reports.
- 13 However, Westar is silent on the matter in its rate case filing. Furthermore,
- 14 Westar has not, in its depreciation study, specifically identified these amounts
- in separate sub-accounts of depreciation expense and accumulated
   depreciation.
- 17 Q. Why is it necessary for the KCC to recognize specifically the regulatory
- 18 liability?
- 19 A. The KCC must recognize specifically the regulatory liability, because Westar
- 20 considers the amounts in the regulatory liability account belongs to its 21 shareholders, even if it does not spend the money for cost of removal.
- 22 Q. Can you demonstrate that Westar considers these excess collections to
- 23 be its own money?
- A. Yes, CURB Data Request No. 239, attached as Exhibit (MJM-14) asked the
  following:
- 26a.Does Westar agree that the amounts in the cited27regulatory liability account are refundable obligations28to ratepayers until they are spent on their intended29purpose? If not, why not?

1 2 3 4 5 6 7 8 9 10 11 12 13 14		<ul> <li>b. Does Westar believe that amounts recorded in accumulated depreciation represent capital recovery? If not, why not?</li> <li>c. Whose capital is reflected in accumulated depreciation – shareholders' or ratepayers'?</li> <li>Westar's response, as prepared by Dick Rohlfs, was as follows: <ul> <li>a. No.</li> <li>b. Yes.</li> <li>c. Accumulated Depreciation is the return of invested capital over time. The invested capital was made by shareholders.</li> </ul> </li> </ul>
15	Q.	Have other electric utilities treated these amounts as their own money
16		and taken past collections of cost of removal into income?
17	Α.	Yes, that is exactly what other electric utilities did when their production plants
18		were deregulated. For example, American Electric Power, which had several
19		of its production plants deregulated, immediately took \$473 million from
20		accumulated depreciation and transferred it into income relating to those
21		deregulated plants. <sup>16</sup>
22		In another example, Tucson Electric Power Company ("TEP") stated
23		that:
24 25 26 27 28 29 30		TEP had accrued \$113 million for final decommissioning of its generating facilities this amount was reversed for 2002 and included as part of the cumulative effect adjustment of accounting adjustment when FAS 143 was adopted on January 1, 2003. <sup>17</sup>
31		This means that TEP took non-legal AROs into income.

 <sup>&</sup>lt;sup>16</sup> AEP 2003 Annual Report to Shareholders, page 69.
 <sup>17</sup> Tucson Electric Power Company December 31, 2004 10 K Report, page K-59.

1		TEP applied SFAS No. 71 - Accounting for the Effects of Certain Types
2		of Regulation - to its regulated operations, which include the transmission and
3		distribution portions of its business. As a result TEP recorded the cost of
4		removal collected for regulated non-legal AROs as a regulatory liability.
5		According to TEP's December 31, 2004 10K Report
6 7 9 10 11 12		As of December 31, 2004, TEP had accrued \$67 million for the net cost of removal of the interim retirements from its transmission, distribution and general plant. As of December 31, 2003, TEP had accrued \$60 million for these removal costs. The amount is recorded as a regulatory liability. <sup>18</sup>
13		However, also according to TEP's December 31, 2004 10K Report:
14 15 16 17 18 19		If TEP stopped applying FAS 71 to its remaining regulated operations, it would write off the related balances of its regulatory assets as an expense and its regulatory liabilities as income on its income statement. <sup>19</sup>
20	Q.	Have any other industries taken non-legal ARO amounts into income?
21	Α.	Yes, while regulated, the telephone industry collected substantial amounts of
22		future cost of removal through depreciation, just as Westar is proposing here.
23		Upon deregulation and the adoption of SFAS No. 143, the major telephone
24		companies took \$11.5 billion from accumulated depreciation into net income. <sup>20</sup>
25	Q.	What is FERC Order No. 631?
26	Α.	FERC Order No. 631 reflects that agency's adoption of SFAS No. 143.

<sup>&</sup>lt;sup>18</sup> Id., page K-60.

<sup>&</sup>lt;sup>19</sup> ld.

<sup>&</sup>lt;sup>20</sup> Pre-tax gains of SBC (\$5.9 billion), Verizon (\$3.5 billion), Qwest (\$0.4 billion), BellSouth (\$1.3 billion) and Sprint (\$0.4 billion). See Companies' 2003 10K Reports and 2003 Annual Reports to Shareholders.

#### 1 Q. Does FERC Order No. 631 require non-legal AROs to be reported as 2 regulatory liabilities?

3 No, FERC does not require classification and reporting of non-legal AROs as Α.

4 regulatory liabilities. Although the FERC has recognized and identified the

- amounts involved and requires separate accounting for those amounts, the 5
- FERC has deferred to the states regarding recognition of the regulatory 6
- 7 liability. FERC Order No. 631 requires that jurisdictional entities to:

8 maintain separate subsidiary records for cost of removal for 9 non-legal retirement obligations that are included as specific 10 identifiable allowances recorded in accumulated depreciation 11 in order to separately identify such information to facilitate 12 external reporting and for regulatory analysis, and rate 13 setting purposes. Therefore, the Commission [amended] the 14 instructions of accounts 108 ... in Parts 101 ... to require 15 jurisdictional entities to maintain separate records for the 16 purposes of identifying the amount of specific allowances collected in rates for non-legal retirement obligations 17 included in the depreciation accruals."<sup>21</sup> 18

#### 20 Q. Why is it necessary for the KCC to recognize a regulatory liability for the

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### non-legal cost of removal and dismantlement amounts?

- 22 Although FERC Order No. 631 provides a new transparency by requiring Α. identification of the amounts and maintenance of separate subsidiary records 23 24 for regulatory analysis and rate setting purposes, it did not establish a regulatory liability for non-legal asset retirement obligations. Therefore, there 25 26 is no regulatory recognition of such a liability and there is no provision for a 27 refund to ratepayers if the amounts they have paid are not spent on cost of
- 28 removal or dismantlement.

<sup>&</sup>lt;sup>21</sup> FERC Docket No. RM02-7-000, Order No. 631, paragraph 38.

In other words, nothing holds Westar directly accountable for these 1 2 excess collections from a regulatory standpoint. Note that regardless of the transparency provided by FERC, Westar's did not address the issue in its 3 4 depreciation study or its rate case filing in general. This is wrong. Experience indicates that it is highly unlikely that these amounts will be spent for cost of 5 removal in the magnitude that they have been collected. Nevertheless, even if 6 7 it was highly probable that this money will all be spent for cost of removal, it is 8 fair and reasonable for the KCC to specifically recognize the ratepayers' 9 security interest in these monies until they are actually spent on their intended 10 purpose. Unless they are explicitly identified as "subject to refund," they are 11 merely hidden potential income to Westar.

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## 13 Need For KCC to Require Separate Identification and Regulatory Reporting

#### 14 15

## Q. Do you recommend that the KCC require that Westar separately identify

#### 16 this regulatory liability in filings before it?

A. Yes. The KCC should require that Westar explicitly identify and report this
regulatory liability and all related activity in all future reports, rate cases, and
depreciation studies that it files with the KCC. Furthermore, the KCC's explicit
recognition of this amount as a regulatory liability should be prominently
disclosed in Westar's Form 1 reports.

# Q. Would it be sufficient to report the item as a "deferred credit" of some sort?

A. No, treatment as a deferred credit would defeat the purpose. Westar could
easily assert in the future that ratepayers have no claim to a deferred credit, in

other words, Westar could claim that a deferred credit is its money, not
 ratepayer's money. The item must be recognized by the KCC, and Westar
 must report a regulatory liability for regulatory and ratemaking purposes.

4

#### 5 How to Treat Existing Regulatory Liability

# Q. What is the appropriate treatment for regulatory liability on a going forward basis?

A. Once recognized and protected as a regulatory liability, it should be used to
develop an ongoing remaining life cost of removal depreciation rate, which is
reported separately. That is how I have treated the regulatory liability in my
depreciation study.

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#### 13 Summary of Regommendations

#### 14 Q. Summarize your recommendations.

15 Α. I recommend that Westar be required to provide a better explanation of the 16 timing underlying its "appeal adjustment," and more documentation for the 17 number, and the adjustment belongs in the depreciation study rather than as a 18 I recommend the same final retirement year for separate amortization. 19 LaCygne Unit 2 as Westar proposed for LaCygne Unit 1. I also recommend 20 discounting all of Mr. Spanos' dismantling and future cost of removal 21 parameters to their fair net present value, using a 3 percent inflation factor. I 22 recommend that the Commission split depreciation rates into separate capital 23 recovery and cost of removal components. Finally, I recommend that the KCC 24 specifically recognize the refundable regulatory liability resulting from Westar's

- 1 collection of excessive non-legal ARO charges. The KCC should recognize
- 2 this as a regulatory liability for regulatory reporting, regulatory analysis, and
- 3 ratemaking purposes in Kansas.

## 4 Q. Does this conclude your testimony?

5 A. Yes, it does.

### VERIFICATION

ss:

Washington,

District of Columbia

I, <u>Inichael J. MAJORCS</u>, JE states:

)

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That he is a consultant for the Citizens' Utility Ratepayer Board; that he has read the above and foregoing Testimony, and, upon information and belief, states that the matters therein appearing are true and correct.

SUBSCRIBED AND SWORN to before me this 7 day of Applemlee, 2005.

My Commission expires: March 14, 2006



### Experience

### Snavely King Majoros O'Connor & Lee, Inc.

### Vice President and Treasurer (1988 to Present) Senior Consultant (1981-1987)

Mr. Majoros provides consultation specializing in accounting, financial, and management issues. He has testified as an expert witness or negotiated on behalf of clients in more than one hundred thirty regulatory federal and state regulatory proceedings involving telephone, electric, gas, water, and sewerage companies. His testimony has encompassed a wide array of complex issues including taxation, divestiture accounting, revenue requirements, rate base, nuclear decommissioning, plant lives, and capital recovery. Mr. Majoros has been responsible for developing the firm's consulting services on depreciation and other capital recovery issues into a major area of practice. In addition to traditional regulatory engagements, Mr. Majoros has also provided consultation to the U.S. Department of Justice. His expertise has been called upon to address the accounting and plant life effects of electric plant modifications in environmental proceedings and lawsuits, and to estimate economic damages suffered by black farmers in discrimination suits.

### Van Scoyoc & Wiskup, Inc., Consultant (1978-1981)

Mr. Majoros conducted and assisted in various management and regulatory consulting projects in the public utility field, including preparation of electric system load projections for a group of municipally and cooperatively owned electric systems; preparation of a system of accounts and reporting of gas and oil pipelines to be used by a state regulatory commission; accounting system analysis and design for rate proceedings involving electric, gas, and telephone utilities. Mr. Majoros provided onsite management accounting and controllership assistance to a municipal electric and water utility. Mr. Majoros also assisted in an antitrust proceeding involving a major electric utility. He submitted expert testimony in FERC Docket No. RP79-12 (El Paso Natural Gas Company), and he co-authored a study entitled Analysis of Staff Study on Comprehensive Tax Normalization that was submitted to FERC in Docket No. RM 80-42.

### Handling Equipment Sales Company, Inc. Controller/Treasurer (1976-1978)

Mr. Majoros' responsibilities included financial management, general accounting and reporting, and income taxes.

### Ernst & Ernst, *Auditor (1973-1976)*

Mr. Majoros was a member of the audit staff where his responsibilities included auditing, supervision, business systems analysis, report preparation, and corporate income taxes.

### University of Baltimore - (1971-1973)

Mr. Majoros was a full-time student in the School of Business.

During this period Mr. Majoros worked consistently on a parttime basis in the following positions: Assistant Legislative Auditor – State of Maryland, Staff Accountant – Robert M. Carney & Co., CPA's, Staff Accountant – Naron & Wegad, CPA's, Credit Clerk – Montgomery Wards.

### Central Savings Bank, (1969-1971)

Mr. Majoros was an Assistant Branch Manager at the time he left the bank to attend college as a full-time student. During his tenure at the bank, Mr. Majoros gained experience in each department of the bank. In addition, he attended night school at the University of Baltimore.

### Education

University of Baltimore, School of Business, B.S. – Concentration in Accounting

### **Professional Affiliations**

American Institute of Certified Public Accountants Maryland Association of C.P.A.s Society of Depreciation Professionals

### **Publications, Papers, and Panels**

"Analysis of Staff Study on Comprehensive Tax Normalization," FERC Docket No. RM 80-42, 1980.

"Telephone Company Deferred Taxes and Investment Tax Credits – A Capital Loss for Ratepayers," Public Utility Fortnightly, September 27, 1984.

"The Use of Customer Discount Rates in Revenue Requirement Comparisons," Proceedings of the 25th Annual Iowa State Regulatory Conference, 1986

"The Regulatory Dilemma Created By Emerging Revenue Streams of Independent Telephone Companies," Proceedings of NARUC 101st Annual Convention and Regulatory Symposium, 1989.

"BOC Depreciation Issues in the States," National Association of State Utility Consumer Advocates, 1990 Mid-Year Meeting, 1990.

"Current Issues in Capital Recovery" 30<sup>th</sup> Annual Iowa State Regulatory Conference, 1991.

"Impaired Assets Under SFAS No. 121," National Association of State Utility consumer Advocates, 1996 Mid-Year Meeting, 1996.

"What's 'Sunk' Ain't Stranded: Why Excessive Utility Depreciation is Avoidable," with James Campbell, Public Utilities Fortnightly, April 1, 1999.

"Local Exchange Carrier Depreciation Reserve Percents," with Richard B. Lee, Journal of the Society of Depreciation Professionals, Volume 10, Number 1, 2000-2001

### Federal Regulatory Agencies

Date	Agency	Docket Utility	
1979	FERC-US 19/	RP79-12	El Paso Natural Gas Co.
1980	FERC-US 19/	RM80-42	Generic Tax Normalization
1996	CRTC-Canada 30/	97-9	All Canadian Telecoms
1997	CRTC-Canada 31/	97-11	All Canadian Telecoms
1999	FCC 32/	98-137 (Ex Parte)	All LECs
1999	FCC 32/	98-91 (Ex Parte)	All LECs
1999	FCC 32/	98-177 (Ex Parte)	All LECs
1999	FCC <u>32</u> /	98-45 (Ex Parte)	All LECs
2000	EPA <u>35</u> /	CAA-00-6	Tennessee Valley Authority
2003	FERC 48/	RM02-7	All Utilities
2003	FCC <u>52</u> /	03-173	All LECs
2003	FERC	ER03-409-000,	Pacific Gas and Electric Co.
		ER03-666-000	
2005	US District Court,	CV 01-B-403-NW	Tennessee Valley Authority
	Northern District of		
	AL, Northwestern		
	Division 55/56/57/		
	l		
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1982	Massachusetts <u>17/</u>	DPU 557/558	Western Mass Elec. Co.
1982	Illinois <u>16</u> /	ICC81-8115	Illinois Bell Telephone Co.
1983	Maryland <u>8</u> /	7574-Direct	Baltimore Gas & Electric Co.
1983	Maryland <u>8</u> /	7574-Surrebuttal	Baltimore Gas & Electric Co.
1983	Connecticut <u>15</u> /	810911	Woodlake Water Co.
1983	New Jersey <u>1</u> /	815-458	New Jersey Bell Tel. Co.
1983	New Jersey <u>14</u> /	8011-827	Atlantic City Sewerage Co.
1984	Dist. Of Columbia 7/	785	Potomac Electric Power Co.
1984	Maryland <u>8</u> /	7689	Washington Gas Light Co.
1984	Dist. Of Columbia 7/	798	C&P Tel. Co.
1984	Pennsylvania 13/	R-832316	Bell Telephone Co. of PA
1984	New Mexico <u>12</u> /	1032	Mt. States Tel. & Telegraph
1984	Idaho <u>18</u> /	U-1000-70	Mt. States Tel. & Telegraph
1984	Colorado <u>11</u> /	1655	Mt. States Tel. & Telegraph
1984	Dist. Of Columbia 7/	813	Potomac Electric Power Co.
1984	Pennsylvania <u>3</u> /	R842621-R842625	Western Pa. Water Co.
1985	Maryland <u>8</u> /	7743	Potomac Edison Co.
1985	New Jersey <u>1</u> /	848-856	New Jersey Bell Tel. Co.
1985	Maryland 8/	7851	C&P Tel. Co.
1985	California 10/	1-85-03-78	Pacific Bell Telephone Co.
1985	Pennsylvania <u>3</u> /	R-850174	Phila. Suburban Water Co.

1985	Pennsylvania <u>3</u> /	R850178	Pennsylvania Gas & Water Co.	
1985	Pennsylvania <u>3</u> /	R-850299	General Tel. Co. of PA	
1985	Maryland 8/	7899	Delmarva Power & Light Co.	
1986	Maryland <u>8</u> /	7754	Chesapeake Utilities Corp.	
		R-850268	York Water Co.	
1986	Pennsylvania <u>3</u> /	· · · · · · · · · · · · · · · · · · ·		
1986	Maryland <u>8</u> /	7953	Southern Md. Electric Corp.	
1986	Idaho <u>9</u> /	U-1002-59	General Tel. Of the Northwest	
1986	Maryland <u>8/</u>	7973	Baltimore Gas & Electric Co.	
1987	Pennsylvania <u>3/</u>	R-860350	Dauphin Cons. Water Supply	
1987	Pennsylvania <u>3</u> /	C-860923	Bell Telephone Co. of PA	
1987	lowa <u>6</u> /	DPU-86-2	Northwestern Bell Tel. Co.	
1987	Dist. Of Columbia <u>7/</u>	842	Washington Gas Light Co.	
1988	Florida <u>4</u> /	880069-TL	Southern Bell Telephone	
1988	lowa <u>6</u> /	RPU-87-3	Iowa Public Service Company	
1988	lowa <u>6</u> /	RPU-87-6	Northwestern Bell Tel. Co.	
1988	Dist. Of Columbia 7/	869	Potomac Electric Power Co.	
1989	lowa <u>6</u> /	RPU-88-6	Northwestern Bell Tel. Co.	
1990	New Jersey <u>1</u> /	1487-88	Morris City Transfer Station	
1990	New Jersey <u>5</u> /	WR 88-80967	Toms River Water Company	
1990	Florida <u>4</u> /	890256-TL	Southern Bell Company	
1990	New Jersey <u>1</u> /	ER89110912J	Jersey Central Power & Light	
1990	New Jersey 1/	WR90050497J	Elizabethtown Water Co.	
1991	Pennsylvania 3/	P900465	United Tel. Co. of Pa.	
1991	West Virginia <u>2</u> /	90-564-T-D	C&P Telephone Co.	
1991	New Jersey <u>1</u> /	90080792J	Hackensack Water Co.	
1991	New Jersey 1/	WR90080884J	Middlesex Water Co.	
1991	Pennsylvania 3/	R-911892	Phil. Suburban Water Co.	
1991	Kansas 20/	176, 716-U	Kansas Power & Light Co.	
1991	Indiana 29/	39017	Indiana Bell Telephone	
1991	Nevada 21/	91-5054	Central Tele. Co. – Nevada	
1992	New Jersey <u>1</u> /	EE91081428	Public Service Electric & Gas	
1992	Maryland 8/	8462	C&P Telephone Co.	
1992	West Virginia <u>2</u> /	91-1037-E-D	Appalachian Power Co.	
1993	Maryland <u>8</u> /	8464	Potomac Electric Power Co.	
1993	South Carolina 22/	92-227-C	Southern Bell Telephone	
1993	Maryland 8/	8485	Baltimore Gas & Electric Co.	
1993	Georgia <u>23</u> /	4451-U	Atlanta Gas Light Co.	
1993	New Jersey <u>1</u> /	GR93040114	New Jersey Natural Gas. Co.	
1994	lowa 6/	RPU-93-9	U.S. West – Iowa	
1994	lowa 6/	RPU-94-3	Midwest Gas	
1994	Delaware <u>24</u> /	94-149	Wilm. Suburban Water Corp.	
1995	Connecticut 25/	94-10-03		
			So. New England Telephone So. New England Telephone	
1995	Connecticut <u>25/</u>	95-03-01		
1995	Pennsylvania <u>3</u> /	R-00953300	Citizens Utilities Company	
1995	Georgia <u>23</u> /	5503-0	Southern Bell	

1996	Maryland <u>8</u> /	8715	Bell Atlantic	
1996	Arizona 26/	E-1032-95-417	Citizens Utilities Company	
1996	New Hampshire 27/	DE 96-252	New England Telephone	
1997	lowa <u>6</u> /	DPU-96-1	U S West – Iowa	
1997	Ohio 28/	96-922-TP-UNC	Ameritech – Ohio	
1997	Michigan <u>28</u> /	U-11280	Ameritech – Michigan	
1997	Michigan <u>28</u> /	U-112 81	GTE North	
1997		7000-ztr-96-323		
	Wyoming <u>27</u> /	RPU-96-9	US West – Wyoming US West – Iowa	
1997 1997	lowa <u>6</u> / Illinois <u>28</u> /	96-0486-0569	Ameritech – Illinois	
		40611		
1997	Indiana <u>28/</u>		Ameritech – Indiana	
1997	Indiana <u>27</u> /	40734	GTE North	
1997	Utah <u>27/</u>	97-049-08	US West – Utah	
1997	Georgia <u>28/</u>	7061-U	BellSouth – Georgia	
1997	Connecticut <u>25/</u>	96-04-07	So. New England Telephone	
1998	Florida <u>28/</u>	960833-TP et. al.	BellSouth – Florida	
1998	Illinois <u>27/</u>	97-0355	GTE North/South	
1998	Michigan <u>33/</u>	U-11726	Detroit Edison	
1999	Maryland <u>8</u> /	8794	Baltimore Gas & Electric Co.	
1999	Maryland <u>8</u> /	8795	Delmarva Power & Light Co.	
1999	Maryland 8/	8797	Potomac Edison Company	
1999	West Virginia 2/	98-0452-E-GI	Electric Restructuring	
1999	Delaware <u>24/</u>	98-98	United Water Company	
1999	Pennsylvania <u>3/</u>	R-00994638	Pennsylvania American Water	
1999	West Virginia 2/	98-0985-W-D	West Virginia American Water	
1999	Michigan <u>33/</u>	<u>U-11495</u>	Detroit Edison	
2000	Delaware 24/	99-466	Tidewater Utilities	
2000	New Mexico <u>34</u> /	3008	US WEST Communications, Inc.	
2000	Florida <u>28</u> /	990649-TP	BellSouth -Florida	
2000	New Jersey <u>1</u> /	WR30174	Consumer New Jersey Water	
2000	Pennsylvania <u>3</u> /	R-00994868	Philadelphia Suburban Water	
2000	Pennsylvania <u>3</u> /	R-0005212	Pennsylvania American Sewerage	
2000	Connecticut 25/	00-07-17	Southern New England Telephone	
2001	Kentucky <u>36</u> /	2000-373	Jackson Energy Cooperative	
2001	Kansas <u>38/39/40</u> /	01-WSRE-436-RTS	Western Resources	
2001	South Carolina 22/	2001-93-E	Carolina Power & Light Co.	
2001	North Dakota <u>37</u> /	PU-400-00-521	Northern States Power/Xcel Energy	
2001	Indiana <u>29/41</u> /	41746	Northern Indiana Power Company	
2001	New Jersey <u>1</u> /	GR01050328	Public Service Electric and Gas	
2001	Pennsylvania <u>3</u> /	R-00016236	York Water Company	
2001	Pennsylvania <u>3</u> /	R-00016339	Pennsylvania America Water	
2001	Pennsylvania <u>3</u> /	R-00016356	Wellsboro Electric Coop.	
2001	Florida <u>4</u> /	010949-EL	Gulf Power Company	
2001	Hawaii <u>42</u> /	00-309	The Gas Company	
2002	Pennsylvania <u>3/</u>	R-00016750	Philadelphia Suburban	

2002	Nevada 43/	01-10001 &10002	Nevada Power Company
2002	Kentucky 36/	2001-244	Fleming Mason Electric Coop.
2002	Nevada 43/	01-11031	Sierra Pacific Power Company
2002		14361-U	BellSouth-Georgia
2002	Georgia 27/ Alaska 44/	U-01-34,82-87,66	Alaska Communications Systems
2002			
	Wisconsin 45/	2055-TR-102	
2002	Wisconsin 45/	5846-TR-102	
2002	Vermont 46/	6596	Citizen's Energy Services
2002	North Dakota 37/	PU-399-02-183	Montana Dakota Utilities
2002	Kansas 38/	02-MDWG-922-RTS	Midwest Energy
2002	Kentucky 36/	2002-00145	Columbia Gas
2002	Oklahoma 47/	200200166	Reliant Energy ARKLA
2002	New Jersey 1/	GR02040245	Elizabethtown Gas Company
2003	New Jersey 1/	ER02050303	Public Service Electric and Gas Co.
2003	Hawaii 42/	01-0255	Young Brothers Tug & Barge
2003	New Jersey 1/	ER02080506	Jersey Central Power & Light
2003	New Jersey 1/	ER02100724	Rockland Electric Co.
2003	Pennsylvania 3/	R-00027975	The York Water Co.
2003	Pennsylvania /3	R-00038304	Pennsylvania-American Water Co.
2003	Kansas 20/ 40/	03-KGSG-602-RTS	Kansas Gas Service
2003	Nova Scotia, CN 49/	EMO NSPI	Nova Scotia Power, Inc.
2003	Kentucky 36/	2003-00252	Union Light Heat & Power
2003	Alaska 44/	U-96-89	ACS Communications, Inc.
2003	Indiana 29/	42359	PSI Energy, Inc.
2003	Kansas 20/ 40/	03-ATMG-1036-RTS	Atmos Energy
2003	Florida 50/	030001-E1	Tampa Electric Company
2003	Maryland 51/	8960	Washington Gas Light
2003	Hawaii 42/	02-0391	Hawaiian Electric Company
2003	Illinois 28/	02-0864	SBC Illinois
2003	Indiana 28/	42393	SBC Indiana
2004	New Jersey 1/	ER03020110	Atlantic City Electric Co.
2004	Arizona 26/	E-01345A-03-0437	Arizona Public Service Company
2004	Michigan 27/	U-13531	SBC Michigan
2004	New Jersey 1/	GR03080683	South Jersey Gas Company
2004	Kentucky 36/	2003-00434,00433	Kentucky Utilities, Louisville Gas &
			Electric
2004	Florida 50/ 54/	031033-EI	Tampa Electric Company
2004	Kentucky 36/	2004-00067	Delta Natural Gas Company
2004	Georgia 23/	18300, 15392, 15393	Georgia Power Company
2004	Vermont 46/	6946, 6988	Central Vermont Public Service
2007			Corporation
2004	Delaware 24/	04-288	Delaware Electric Cooperative
2004	Missouri 58/	ER-2004-0570	Empire District Electric Company
2004	Florida 50/	041272-El	Progress Energy Florida, Inc.
2005	Florida 50/	041291-El	Florida Power & Light Company
2005			I IONUA FOWER & LIGHT COMPANY

2005	California 59/	A.04-12-014	Southern California Edison Co.
2005	Kentucky 36/	2005-00042	Union Light Heat & Power
2005	Florida 50/	050045 & 050188-EI	Florida Power & Light Co.

### PARTICIPATION AS NEGOTIATOR IN FCC TELEPHONE DEPRECIATION RATE REPRESCRIPTION CONFERENCES

COMPANY	YEARS	CLIENT
Diamond State Telephone Co. <u>24</u> / Bell Telephone of Pennsylvania <u>3</u> / Chesapeake & Potomac Telephone Co Md. <u>8</u> / Southwestern Bell Telephone – Kansas <u>20</u> / Southern Bell – Florida <u>4</u> / Chesapeake & Potomac Telephone CoW.Va. <u>2</u> / New Jersey Bell Telephone Co. <u>1</u> / Southern Bell - South Carolina <u>22</u> / GTE-North – Pennsylvania <u>3</u> /	1985 + 1988 1986 + 1989 1986 1986 1986 1987 + 1990 1985 + 1988 1986 + 1989 -	Delaware Public Service Comm PA Consumer Advocate Maryland People's Counsel Kansas Corp. Commission Florida Consumer Advocate West VA Consumer Advocate New Jersey Rate Counsel + 1992 S. Carolina Consumer Advocate PA Consumer Advocate

### PARTICIPATION IN PROCEEDINGS WHICH WERE SETTLED BEFORE TESTIMONY WAS SUBMITTED

STATE	DOCKET NO.	UTILITY
Maryland <u>8</u> /	7878	Potomac Edison
Nevada <u>21</u> /	88-728	Southwest Gas
New Jersey <u>1</u> /	WR90090950J	New Jersey American Water
New Jersey <u>1</u> /	WR900050497J	Elizabethtown Water
New Jersey <u>1</u> /	WR91091483	Garden State Water
West Virginia <u>2</u> /	91-1037-E	Appalachian Power Co.
Nevada <u>21</u> /	92-7002	Central Telephone - Nevada
Pennsylvania <u>3</u> /	R-00932873	Blue Mountain Water
West Virginia <u>2</u> /	93-1165-E-D	Potomac Edison
West Virginia <u>2</u> /	94-0013-E-D	Monongahela Power
New Jersey <u>1</u> /	WR94030059	New Jersey American Water
New Jersey <u>1</u> /	WR95080346	Elizabethtown Water
New Jersey <u>1</u> /	WR95050219	Toms River Water Co.
Maryland <u>8</u> /	8796	Potomac Electric Power Co.
South Carolina 22/	1999-077-E	Carolina Power & Light Co.
South Carolina <u>22</u> /	1999-072-E	Carolina Power & Light Co.
Kentucky <u>36</u> /	2001-104 & 141	Kentucky Utilities, Louisville Gas and Electric
Kentucky <u>36</u> /	2002-485	Jackson Purchase Energy Corporation
Florida 50/ 54/	030157-EI	Progress Energy Florida

### <u>Clients</u>

<u>1</u> / Nev	v Jersey Rate Counsel/Advocate	<u>33</u> /	Michigan Attorney General
<u>2</u> / We	st Virginia Consumer Advocate		New Mexico Attorney General
<u>3</u> / Per	insylvania OCA	<u>35</u> /	Environmental Protection Agency Enforcement Staff
<u>4</u> / Floi	ida Office of Public Advocate	<u>36</u> /	Kentucky Attorney General
<u>5</u> / Ton	ns River Fire Commissioner's	<u>37/</u>	North Dakota Public Service Commission
<u>6</u> / low	a Office of Consumer Advocate	<u>38</u> /	Kansas Industrial Group
<u>7</u> / D.C	. People's Counsel	<u>39</u> /	City of Witchita
<u>8</u> / Mar	yland's People's Counsel	<u>40</u> /	Kansas Citizens' Utility Rate Board
<u>9/</u> Idal	no Public Service Commission		NIPSCO Industrial Group
	stern Burglar and Fire Alarm		Hawaii Division of Consumer Advocacy
<u>11</u> / U.S	. Dept. of Defense	<u>43</u> /	Nevada Bureau of Consumer Protection
	I. State Corporation Comm.		GCI
	of Philadelphia		Wisc. Citizens' Utility Rate Board
	orts International		Vermont Department of Public Service
<u>15</u> / Wo	odlake Condominium Association	<u>47/</u>	Oklahoma Corporation Commission
	ois Attorney General		National Association of Utility Consumer Advocates
<u>17</u> / Mas	ss Coalition of Municipalities	<u>49</u> /	Nova Scotia Utility and Review Board
<u>18</u> / U.S	. Department of Energy	<u>50</u> /	Florida Office of Public Counsel
<u>19</u> / Ariz	ona Electric Power Corp.	<u>51</u> /	Maryland Public Service Commission
<u>20</u> / Kar	sas Corporation Commission		MCI
<u>21</u> / Pub	lic Service Comm. – Nevada	<u>53</u> /	Transmission Agency of Northern California
<u>22</u> / SC	Dept. of Consumer Affairs	<u>54</u> /	Florida Industrial Power Users Group
<u>23</u> / Geo	orgia Public Service Comm.	<u>55</u> /	Sierra Club
<u>24</u> / Dela	aware Public Service Comm.	<u>56/</u>	Our Children's Earth Foundation
<u>25</u> / Cor	n. Ofc. Of Consumer Counsel	<u>57/</u>	National Parks Conservation Association, Inc.
<u>26</u> / Ariz	ona Corp. Commission	<u>58/</u>	Missouri Office of the Public Counsel
<u>27</u> / AT8	κΤ	<u>59</u> /	The Utility Reform Network
<u>28</u> / AT8	kT/MCI		
<u>29</u> / IN C	Office of Utility Consumer		
Counsel			
	el (AT&T – Canada)		
	lic Interest Advocacy Centre		
<u>32</u> / U.S	. General Services Administration		

### Experience

# Snavely King Majoros O'Connor & Lee, Inc., Washington D.C.

Senior Consultant (2000 to present)

Mr. Zaetz provides technical expertise in all of the firm's projects involving the engineering, costing, operation, valuation, depreciation and dismantlement of electric and gas facilities. Mr. Zaetz background includes extensive experience in the construction, maintenance, and repair of fossil fuel and nuclear generating facilities. Mr. Zaetz has also dismantled generating plants. His experience specifically includes safety issues at these types of facilities. On behalf of Snavely King's clients Mr. Zaetz toured several coal and other has production facilities. He has testified on the subjects of production plant life spans, dismantlement, safety and reliability.

### Independent Consultant (2000-2001)

Mr. Zaetz provided consultation to the U.S. Department of Justice in connection with several units to enforce the nitrogen oxide ("NOX") abatement regulations of the Environmental Protection Agency. Mr. Zaetz reviewed engineering plans and work orders to determine the nature and objectives of modifications to the generation plants subject to the suit. He prepared summaries of his findings in anticipation of possible testimony before Federal Courts.

### Boilermaker Local 193 Severn, MD

General Foreman Foreman (1973-2000)

Mr. Zaetz supervised the fabrication, installation, repair, maintenance and dismantlement of boiler plant, synthetic natural gas, fuel handling equipment, and environmental abatement facilities in electric generating plants operated by both public utilities and private industrial and commercial enterprises. In the course of 180 separate projects, Mr. Zaetz supervised operations in most of the major fossil fuel and nuclear power plants throughout the Maryland, Northern Virginia and Southern Delaware area.

### Shop Steward

Mr. Zaetz represented over 100 boilermakers in labor arbitrations, safety disputes and the implementation of Federal worker protection provisions.

### Legislative Education Action Committee

Mr. Zaetz participated as committeeman and Chairman of the Education Committee in the Union's efforts to facilitate and enhance the technical training of its members.

### Education

University of Baltimore: B.S. in Business Management

Boilermaker Apprentice Program

All required (including OSHA) safety programs

## William M. Zaetz

# Testimony

2001 2002		<u>Docket</u>	<u>Utility</u>
2002	Georgia <u>1</u> / Florida <u>7</u> /	14000-U 010949-EL	Georgia Power Company Gulf Power Company
		Plant Tours	
<u>Date</u>	State/Client Code	<u>Docket</u>	<u>Utility</u>
2001 2001 2001 2001 2001 2001	Kansas <u>2</u> / <u>3</u> / <u>4</u> / Kansas <u>2</u> / <u>3</u> / <u>4</u> / New Jersey <u>5</u> / Georgia <u>1</u> / Michigan <u>6</u> / Florida <u>7</u> /	01-WSRE-436-RTS 01-WSRE-436-RTS GR0105029 14000-U U-12999 010949-EL	Kansas Power & Light Kansas Gas & Electric Public Service Electric & Gas Georgia Power Company Consumers Energy Gulf Power Company
2002	Nevada <u>8</u> /	01-11031 Clients	Sierra Pacific & Nevada Power



Home Page Change Password

Wednesday, July 06, 2005
Logged in as: [Margaret Kenney] Logout

Docket: [ 05-WSEE-981-RTS ] 2005 Rate Case Requestor: [ CURB ] [ David Springe ] Data Request: CURB 67 :: FERC Depreciation Rates Date: 2005-06-27

Question 1 (Prepared by Dave Schneweis)

Please provide a comparison by plant account of the annual FERC versus intrastate depreciation rates for the last 30 years.

#### Response:

The depreciation rates have been the same for FERC and retail rate jurisdictions prior to the KCC adoption of different depreciation rates for the Company's retail jurisdiction. For the period from August 2001 through March 2002 we did not adopt those depreciation rates for GAAP reporting purposes. The additional depreciation expense was recorded below the line for this eight-month period. We incorporated an adjustment in the current case for the eight-month period. For a complete discussion of this adjustment please refer to KCC question no. 107. The depreciation rates for Wolf Creek and La Cygne remain different for KCC retail jurisdiction, FERC jurisdiction and GAAP reporting. We did not adopt the Wolf Creek and La Cygne rates for FERC or GAAP reporting.

No Digital Attachments Found.

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Π. Friday, July 29, 2005 Home Page Change Password Logged in as: [Margaret Kenney] Logout Docket: [ 05-WSEE-981-RTS ] 2005 Rate Case Requestor: [ CURB ] [ David Springe ] Data Request: CURB 236 :: FERC Depreciation Rates Date: 2005-07-27 Question 1 (Prepared by Kevin Kongs) Follow-up to CURB 67. Why didn't you "book the rates"? Are you now asking for an increase relating to your failure to book the rates? Provide a month-by-month comparison of all of your different GAAP and jurisdictional depreciation rates. Also provide on an account-by-account basis, the different book reserves as of December 31, 2003 and 2004. Response: See the response to KCC request number 107 and the testimony of Kevin Kongs for a discussion on the adoption of the KCC approved depreciation rates. We are asking the Commission to recognize that the depreciation rates it approved in the last rate proceeding should be used for ratemaking purposes. In regards to Wolf Creek and LaCygne depreciation rates referred to in response to CURB 67 - Attached is a month-by-month calculation of the difference in depreciation rates. Attachment File Name Attachment Note CURB 236.txt

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### COMPARSION OF DEPRECIATION RATES FOR: DATA REQUEST CURB 236::FERC DEPRECIATION RATES

		KCC Book Depr. Rates (Mth.)Effective	Previous Book Depr.
Location	Account	04/01/2002	rates (Mth.)
LaCygne SES	311	0.0020333	0.0023250
10	312	0.0016250	0.0033750
	314	0.0019417	0.0022167
	315	0.0019917	0.0024333
	316	0.0023000	0.0033083
Wolf Creek Nuclear Plant	321	0.0012917	0.0021750
	322	0.0014417	0.0021750
	323	0.0016333	0.0021750
	324	0.0014417	0.0021750
	325	0.0019667	0.0021750

C:\My Documents\Rod\2005 Rate Case\Depr rates

7/26/2005

### Exhibit\_\_\_(MJM-1) Page 4 of 8

CURB DR 236

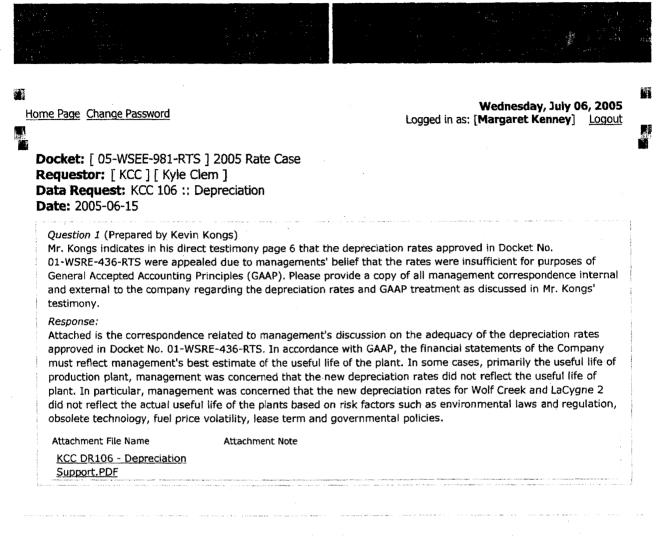
### ditional Reserve Created by Use of Original Book Depr Rates (prior to 04/01/02)

<b></b>	RETAIL	(KCC)	REGULATE	D (FERC)
		Áccum.		Accum.
	1823600 (1)	Total	4030002 (2)	Total
June 2002	3,173,233.38	3,173,233.38		
July	1,059,644.45	4,232,877.83		
August	1,061,139.86	5,294,017.69		
Sept.	1,021,043.33	6,315,061.02		
Oct.	1,116,726.92	7,431,787.94		
Nov.	1,056,737.52	8,488,525.46		
Dec.	1,054,050.51	9,542,575.97		
Jan. 2003	1,054,210.56	10,596,786.53		
Feb.	1,055,579.32	11,652,365.85		
March	1,055,774.99	12,708,140.84		
April	1,056,297.07	13,764,437.91		
Мау	1,056,319.25	14,820,757.16		
June	1,016,514.07	15,837,271.23		39,771.26
JE 21100	(558,031.15)	15,279,240.08	• •	597,802.41
July	1,016,303.95	16,295,544.03	39,763.03	637,565.44
August	1,016,367.43	17,311,911.46	39,765.52	677,330.96
Sept.	1,016,412.22	18,328,323.68	39,767.27	717,098.23
·ŧ.	1,016,542.38	19,344,866.06	39,772.36	756,870.59
•	1,018,524.33	20,363,390.39	39,849.91	796,720.50
JeC.	1,017,650.12	21,381,040.51	39,815.70	836,536.20
(1) Correction to	o 4030002 for April 2	2002 - May 2003	· · · · · · · · · · · · · · · · · · ·	· . · · · · · · · · · · · · · · · · · ·
Jan. 2004	1,017,875.46	22,398,915.97	39,824.52	876,360.72
Feb.	1,021,360.48	23,420,276.45	39,960.87	916,321.59
March	1,018,322.07	24,438,598.52	39,841.99	956,163.58
April	1,017,505.08	25,456,103.60	39,810.03	995,973.61
May	1,017,404.76	26,473,508.36	39,806.10	1,035,779.71
June	1,017,613.36	27,491,121.72	39,814.26	1,075,593.97
July	1,018,121.14	28,509,242.86	39,834.13	1,115,428.10
August	1,018,264.55	29,527,507.41	39,839.74	1,155,267.84
Sept.	1,016,880.24	30,544,387.65	39,785.58	1,195,053.42
Oct.	1,016,841.76	31,561,229.41	39,784.08	1,234,837.50
Nov.	1,016,824.77	32,578,054.18	39,783.41	1,274,620.91
Dec.	1,025,035.23	33,603,089.41	40,104.65	1,314,725.56

(1) Accumulated Reserve account - 108.9002

(2) Accumulated Reserve account - 108.9010

••• •••



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Deloitte

& Touche

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Tel: (214) 777-7000 www.us.deloitte.com

May 15, 2002

Mr. Lee Wages Controller Western Resources 818 South Kansas Avenue Topeka, Kansas 66601

Dear Mr. Wages:

I have read and reviewed the testimonies and transcripts of Mr. Aikman and Mr. Majoros on the subject of depreciation. I have further read and reviewed the Order on the Rate Application and the Order on Reconsideration. This review was conducted in early October 2001 and this letter formally finalizes my review. While these are complicated technical issues, a number of comments and observations come readily to mind.

While I believe Mr. Aikman's direct testimony to be credible and well founded, I must admit to a qualified agreement with the Kansas Corporation Commission ("KCC") that Mr. Majoros' testimony has slightly more substance. However, Mr. Majoros' positions also appear to be quite one-sided and selective. For example, Mr. Majoros adopts Mr. Aikman's positions (depreciation rates) for many asset categories and adopts all of his net salvage recommendations.

Depreciation is, by all agreement, an estimate and is based upon interpretation and judgment. In determining the reasonableness of the depreciation rates authorized by the KCC, I must rely on both the facts presented, as well as my own experience, opinion and judgment.

First, with respect to the issue of life extension for the Steam Production Plants (Jeffrey, Lawrence and LaCygne), I am of the same philosophy and approach as Mr. Aikman, although I do believe interim additions should be included in depreciation rate calculations. Extremely long life spans for large, fossil units are not readily identifiable from historical experience. While I certainly challenge the likelihood of such long life spans being attained absent supporting capital additions, the composite depreciation rate proposed by Mr. Majoros for Steam Production Plant and authorized by the KCC may be at the extremely low end of a range of reasonableness. I would agree, however, with Mr. Aikman that periodic depreciation study updates, as required, will result in an ever-increasing depreciation rate. Therefore, the composite depreciation rate for Steam Production Plant is approaching the unreasonable range. For example, as noted by Mr. Aikman, but ignored by Mr. Majoros and the KCC, LaCygne 2 is a leased plant with a remaining lease life of approximately 14 years. The average remaining life for the LaCygne Plant used by Mr. Majoros is in excess of 25 years.

I am troubled with the acceptance of a possible license renewal for the Wolf Creek nuclear facility. I too believe that no adjustment is warranted at this time. License renewal is an involved evaluation process, requiring many man-hours of effort and up to 30 months of elapsed time. IF AND WHEN a license extension is granted is the appropriate point in time to consider the revision of depreciation rates. I believe this decrease in depreciation rate is improper and results in inadequate depreciation.



Page 2 Donaid S. Roff May 15, 2002

Recognition of a 20-year life extension for Wolf Creek resulting in a lower depreciation rate today may produce stranded cost, should the longer life not be achieved. I believe Mr. Aikman is correct that considerable capital activity will have to occur in order to achieve this extended retirement date. One alternative may be to create a regulatory asset for the difference between Mr. Aikman's depreciation rate and that authorized by the Commission. If and when relicensing actually occurs, an adjustment could be made to depreciation to reflect this difference. If relicensing or life extension does not occur, no shortfall will exist. Regulatory approval would be required for such an action.

The average service life changes for Transmission and Distribution Plant are certainly more subjective and have the appearance of "cherry-picking." My general philosophy is to move toward current indications where there is considerable change in average service life ("ASL") from existing parameters, similar to Mr. Aikman's approach. This is sometimes referred to as "gradualism." To Mr. Majoros, it appears to be "all or nothing."

His complete and total acceptance of historical average service life measurements tends to dramatically reduce annual depreciation, clearly a desirable result from his perspective. I am concerned with the magnitude of these changes (look at the percentage changes in average service life), yet the composite depreciation rates for Transmission and Distribution Plant are not unrealistic. The change to Account 353 is particularly disturbing. It would seem that a depreciation rate of at least 2.00% would be more appropriate. Using Mr. Aikman's "rule of thumb" of approximately 20%, the ASL should be more like 48 years.

From an accounting perspective, SFAS 71 recognizes the effects of regulation and essentially becomes GAAP for financial reporting purposes. Thus whatever is approved by the regulator and incorporated into a revenue stream (cost of service) is recorded for external financial statements. This presupposes that the criteria defined in SFAS 71 are met. The third criterion, probability of recovery is the most pertinent here. The application for the accounting order to create a regulatory asset for the difference in depreciation rates effectively recognizes this probability and would be permissible regulatory GAAP.

My review indicates that the Transmission and Distribution Plant depreciation rates authorized by the Kansas Corporation Commission are acceptable for recording depreciation expense for financial reporting and ratemaking. While the average service lives are at the upper end of a range of reasonableness, they are reasonable and reflective of the expected useful lives of the related facilities based upon the analysis and interpretation of history performed by Mr. Majoros.

In summary, my review, however, for Steam Production Plant indicates that the depreciation rates are approaching the unreasonable range. Finally, my review for Nuclear Production Plant indicates that the depreciation rates are improper, will result in inadequate depreciation and may lead to stranded cost. WRI may find some comfort in the fact that remaining life depreciation provides a level of protection to the Company (investors) and its customers. Additional comfort could be achieved if the KCC would permit the Company to record a regulatory asset for the difference between depreciation rates at least for Nuclear Production plant or clarify its order to assure recovery of any shortfall in depreciation. I want to emphasize that the final determination of appropriate depreciation rates is a management responsibility.

• . • .

Donald D. Raff

Donald S. Roff Director

### Home Page Change Password

Wednesday, July 06, 2005 Logged in as: [Margaret Kenney] Logout



Docket: [ 05-WSEE-981-RTS ] 2005 Rate Case

Requestor: [ KCC ] [ Kyle Clem ] Data Request: KCC 107 :: Difference in Depreciation Date: 2005-06-15

#### Question 1 (Prepared by Kevin Kongs)

Mr. Kongs is sponsoring adjustments identified as "Difference in Depreciation" in his testimony. Adjustments No. 2 to Section 5 increases the rate base, Adjustment No. 4 in Section 9 decreases operating income, and Adjustment No. 1 in Section 10 increases the amortization expense. Please provide a copy of all documentation and correspondence (including such items as external auditor letters, opinion letters, FASB pronouncements, consultant advise, etc.) relied upon or used in supporting the accounting treatment that Mr. Kongs is sponsoring through these adjustments.

#### Response:

The adjustments referred to above represent the amortization of the difference between depreciation expense under pre-July 2001 depreciation rates and the July 2001 approved rates for the months of August 2001 through March 2002. This difference exists due to the fact that management, due to its concerns as to the reasonableness of the new depreciation rates, did not adopt them (with the exception of depreciation rates for Wolf Creek and LaCygne 2) until April 2002. Under generally accepted accounting principles (GAAP), a company may not adopt new depreciation rates unless and until the company's management determines such rates are reasonable. The adjustments referred to above reflect the inclusion in cost of service of the amortization of the difference between the depreciation expense reflected in cost of service that resulted from the July 2001 rate case order and the depreciation expense recorded on our financial books from August 2001 through March 2002. This adjustment is fair and equitable to our customers because they are benefiting from the assets but this portion of the cost of such assets has not been charged to cost of service. In addition, rate base has been increased to reflect the amount of accumulated depreciation recorded for this time period for which depreciation expense was not charged to cost of service. There is no specific accounting guidance that was used to arrive at the adjustments noted above. The adjustments were made based on a method that was fair and equitable to both the company and its customers.

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		ORIGINAL	CAPITAL RE CALCUL ANNUAL A	ATED	COST OF F CALCU ANNUAL A	LATED	COMB CALCU ANNUAL A	LATED
	ACCOUNT	COST	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
S	FEAM PRODUCTION PLANT							
311.00	STRUCTURES & IMPROVEMENTS							
	JEFFREY	153,486,630	2,113,103	1.38	1,197,334	0.78	3,310,438	2.16
	TECUMSEH	14,658,030	305,348	2.08	211,913	1.45	517,260	3.53
	LAWRENCE	22,871,212	334,984	1.46	226,171	0.99	561,155	2.45
	HUTCHINSON	5,547,667	88,718	1.60	103,199	1.86	191,917	3.46
	TOTAL STRUCTURES & IMPROVEMENTS	196,563,540	2,842,153	1.45	1,738,616	0.88	4,580,770	2.33
312.00	BOILER PLANT EQUIPMENT							
	JEFFREY	291,979,243	4,362,234	1.49	3,964,898	1.36	8,327,132	2.85
	TECUMSEH	48,157,901	1,143,208	2.37	1,123,750	2.33	2,266,957	4.70
	LAWRENCE	92,419,175	1,508,628	1.63	1,507,003	1.63	3,015,631	3.26
	HUTCHINSON	16,007,287	549,549	3.43	481,432	3.01	1,030,981	6.44
	TOTAL BOILER PLANT EQUIPMENT	448,563,606	7,563,619	1.69	7,077,083	1.58	14,640,702	3.27
312.10	POLLUTION CONTROL EQUIPMENT							
	JEFFREY	<b>140,733,72</b> 1	4,581,725	3.26	3,466,043	2.46	8,047,768	5.72
	TECUMSEH	8,635,762	398,737	4.62	261,022	3.02	659,759	7.64
	LAWRENCE	11,339,226	432,776	3.82	228,491	2.02	661,267	5.84
	TOTAL POLLUTION CONTROL EQUIPMENT	160,708,709	5,413,238	3.37	3,955,556	2.46	9,368,794	5.83
312.20	BOILER PLANT EQUIPMENT - TRAIN CARS							
	JEFFREY	294,464	10,609	3.60	-	-	10,609	3.60
	TECUMSEH	5,183,981	254,553	4.91	-	-	254,553	4.91
	LAWRENCE	12,246,742	462,777	3.78		-	462,777	3.78
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	17,725,187	727,939	4.11	-	-	727,939	4.11
314.00	TURBOGENERATOR UNITS							
	JEFFREY	130,840,042	4,985,158	3.81	1,754,134	1.34	6,739,293	5.15
	TECUMSEH	21,727,970	1,417,706	6.52	538,273	2.48	1,955,979	9.00
	LAWRENCE	54,246,444	2,278,976	4.20	841,056	1.55	3,120,032	5.75 7.76
	HUTCHINSON	11,874,764	517,193_	4.36	403,944	3.40	921,137	7.70
	TOTAL TURBOGENERATOR UNITS	218,689,220	9,199,033	<b>4.2</b> 1	3,537,407	1.62	12,736,441	5.83
315.00	ACCESSORY ELECTRIC EQUIPMENT							
	JEFFREY	49,071,728	944,756	1.93	190,837	0.39	1,135,593	2.32
	TECUMSEH	11,194,779	426,292	3.81	69,261	0.62	495,553	4.43
		15,574,870	503,402	3.23	68,662	0.44	572,064	3.67
	HUTCHINSON	3,670,809_	88,736	2.42	30,513	0.83	119,248	3.25
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	79,512,186	1,963,185	2.47	359,273	0.45	2,322,458	2.92

Exhibit (MJM-2) Page 1 of 21

		ORIGINAL	CAPITAL RE CALCUL ANNUAL A	ATED	COST OF F CALCUI ANNUAL A	ATED	COMB CALCU ANNUAL A	LATED
	ACCOUNT	COST	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT							
0.000	JEFFREY	10,655,696	215,255	2.02	66,397	0.62	281,652	2.64
	TECUMSEH	3,320,277	127,519	3.84	33,479	1.01	160,997	4.85
	LAWRENCE	4,493,202	190,493	4.24	33,224	0.74	223,717	4.98
	HUTCHINSON	1,124,545	29,596	2.63	14,174	1.26	43,770	3.89
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	19,593,720	562,862	2.87	147,274	0.75	710,137	3.62
тс	TAL STEAM PRODUCTION PLANT	1,141,356,168	28,272,030	2.48	16,815,210	1.47	45,087,240	3.95
σ	THER PRODUCTION PLANT							
341.00	STRUCTURES & IMPROVEMENTS							
	JEFFREY	40,235	2,557	6.35	-	-	2,557	6.35
	TECUMSEH	41,856	45	0.11	-	-	45	0.11
	HUTCHINSON	65,860	-	-	-	-	-	-
	ABILENE	556,460	-	-	-	-	-	-
	EVANS	11,348,399	284,055	2.50		-	284,055	2.50
	TOTAL STRUCTURES & IMPROVEMENTS	12,052,811	286,656	2.38	-	-	286,656	2.38
342.00	FUEL HOLDERS, PRODUCERS & ACCESSORIES							
	TECUMSEH	144,399	-	-	-	-	-	-
	HUTCHINSON	696,810	8,092	1.16	-	-	8,092	1.16
	ABILENE	129,627	-	-	-	-	-	-
	EVANS	4,667,101	116,864	2.50		-	116,864	2.50
	TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES	5,637,936	124,956	2.22	-	-	124,956	2.22
344.00	GENERATORS							
	JEFFREY	1,202,157	75,478	6.28	-	-	75,478	6.28
	TECUMSEH	4,652,992	-	-	-	-	-	-
	HUTCHINSON	26,251,046	-	-	-	-	-	-
	ABILENE	7,089,996		-	-	-	-	-
	EVANS	84,590,308	2,574,500	3.04		-	2,574,500	3.04
	TOTAL GENERATORS	123,786,499	2,649,978	2.14	-	-	2,649,978	2.14
345.00	ACCESSORY ELECTRIC EQUIPMENT							
	JEFFREY	73,170	4,513	6.17	-	-	4,513	6.17
	TECUMSEH	214,507	1,104	0.51	-	-	1,104	0.51
	HUTCHINSON	1,272,920	36,882	2.90	-	-	36,882	2.90
	ABILENE	609,729	987	0.16	-	-	987	0.16
	EVANS	22,539,495	622,501	2.76		-	622,501	2.76
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	24,709,822	665,988	2.70	-	-	665,988	2.70

		ORIGINAL	CAPITAL RE CALCUL ANNUAL A	ATED CCRUAL	COST OF F CALCU ANNUAL A		COMB CALCUI ANNUAL A	ATED
	ACCOUNT	COST	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
346.00	MISCELLANEOUS PLANT EQUIPMENT							
	JEFFREY	17,934	1,125	6.27	-	-	1,125	6.27
	TECUMSEH	807,751	-	-	-	-	-	-
	HUTCHINSON	80,361	-	-	-	-	-	-
	ABILENE	84,206	512	0.61	-	-	512	0.61
	EVANS	145,050	3,543	2.44		-	3,543	2.44
	TOTAL MISCELLANEOUS PLANT EQUIPMENT	1,135,302	5,179	0.46	-	-	5,179	0.46
т	OTAL GAS TURBINE PLANT	167,322,371	3,732,756	2.23	-	-	3,732,756	2.23
T	RANSMISSION PLANT							
352.00	STRUCTURES & IMPROVEMENTS	9,009,446	111,530	1.24	17,996	0.20	129,526	1.44
353.00	STATION EQUIPMENT	131,589,301	2,081,909	1.58	568,291	0.43	2,650,200	2.01
354.00	TOWERS & FIXTURES	2,911,904	61,240	2.10	11,095	0.38	72,335	2.48
355.00	POLES & FIXTURES	98,677,201	1,658,138	1.68	686,129	0.70	2,344,266	2.38
356.00	OVERHEAD CONDUCTORS & DEVICES	73,132,521	1,066,683	1.46	395,689	0.54	1,462,372	2.00
357.00	UNDERGROUND CONDUIT	368,152	6,133	1.67	-	-	6,133	1.67
358.00	UNDERGROUND CONDUCTOR & DEVICES	1,084,297	24,237	2.24	<u> </u>	-	24,237	2.24
т	DTAL TRANSMISSION PLANT	316,772,823	5,009,871	1.58	1,679,199	0.53	6,689,070	2.11
D	STRIBUTION PLANT							
361.00	STRUCTURES & IMPROVEMENTS	7,435,832	133,000	1.79	30,083	0.40	163.083	2.19
362.00	STATION EQUIPMENT	91,424,380	1,599,520	1.75	493,925	0.54	2,093,445	2.29
364.00	POLES, TOWERS & FIXTURES	157,973,597	3,222,188	2.04	1,886,535	1.19	5,108,723	3.23
365.00	OVERHEAD CONDUCTORS & DEVICES	91,389,093	1,523,098	1.67	1,491,281	1.63	3,014,380	3.30
366.00	UNDERGROUND CONDUIT	19,507,626	326,979	1.68	41,287	0.21	368,266	1.89
367.00	UNDERGROUND CONDUCTORS & DEVICES	46,665,491	883,877	1.89	325,495	0.70	1,209,372	2.59
368.00	LINE TRANSFORMERS	148,391,031	2,109,271	1.42	1,073,772	0.72	3,183,042	2.14
369.00	SERVICES	46,406,634	569,402	1.23	84,001	0.18	653,402	1.41
370.00	METERS	41,239,246	734,479	1.78	(32,473)	(0.08)	702,006	1.70
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	3,146,831	-	-		-	-	-
372.00	LEASED PROPERTY ON CUSTOMERS' PREMISES	10,954,319	438,355	4.00	-	-	438,355	4.00
373.00	STREET LIGHTING & SIGNAL SYSTEMS	22,649,807	378,677	1.67	114,103	0.50	492,780	2.17
т	OTAL DISTRIBUTION PLANT	687,183,887	11,918,845	1.73	5,508,009	0.80	17,426,854	2.53

		ORIGINAL	CAPITAL RE CALCUL ANNUAL A	ATED	COST OF F CALCU ANNUAL A	LATED	COMB CALCU ANNUAL A	LATED
	ACCOUNT	COST	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
G	ENERAL PLANT							
390.00	STRUCTURES & IMPROVEMENTS	24,976,326	809,233	3.24	57,285	0.23	866,518	3.47
391.00	OFFICE FURNITURE & EQUIPMENT	12,663,729	700,146	5.53	-	-	700,146	5.53
391.10	COMPUTER & OTHER ELECTRONIC EQUIPMENT	42,304,777	4,044,707	9.56	-	-	4,044,707	9.56
392.00	TRANSPORTATION EQUIPMENT	2,034,260	213,196	10.48	-	-	213,196	10.48
393.00	STORES EQUIPMENT	2,340,944	139,171	5.95	-	-	139,171	5.95
394.00	TOOLS, SHOPS & GARAGE EQUIPMENT	6,852,216	279,333	4.08	-	-	279,333	4.08
395.00	LABORATORY EQUIPMENT	2,722,108	231,629	8.51	-	-	231,629	8.51
396.00	POWER OPERATED EQUIPMENT	1,757,132	20,478	1.17	-	-	20,478	1.17
397.00	COMMUNICATION EQUIPMENT	39,857,341	1,908,911	4.79	-	-	1,908,911	4.79
398.00	MISCELLANEOUS EQUIPMENT	275,042	9,669	3.52		-	9,669	3.52
т	DTAL GENERAL PLANT	135,783,877	8,356,474	6.15	57,285	0.04	8,413,759	6.19
Т	OTAL DEPRECIABLE PLANT	2,448,419,126	57,289,977	2.34	24,059,703	0.98	81,349,680	3.32
N 389.10	ONDEPRECIABLE PLANT LAND IN FEE	216,706						
Ť	OTAL NONDEPRECIABLE PLANT	216,706						
т	OTAL ELECTRIC PLANT	2,448,635,832	57,289,977					

\* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.

Sources: Col. (2) from Depreciation Study, pages III-7 through III-9. Col. (3) from Exhibit\_\_\_(MJM-2), pages 5-7. Col. (5) from Exhibit\_\_\_(MJM-2), pages 8-11.

#### WESTAR NORTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

		ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RE CALCUL ANNUAL A	ATED
	ACCOUNT	COST	LESS COR	PERCENT	ACCRUALS	CURVE	LIFE	AMOUNT	RATE
	(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
61	EAM PRODUCTION PLANT								
311.00	STRUCTURES & IMPROVEMENTS								
511.00	JEFFREY	153,486,630	81,429,814	0	72,056,816	75-R3 •	24.4	0 4 4 0 4 0 0	4.00
	TECUMSEH	14,658,030	9,039,634	0	5.618,397	75-R3 •	34.1 18.4	2,113,103 305,348	1.38 2.08
	LAWRENCE	22,871,212	13.860,141	0	9,011,071	75-R3 •	26.9	334,984	∠.08 1.46
	HUTCHINSON	5,547,667	4,278,992	0	1,268,674	75-R3 •	14.3	88,718	1.40
		0,011,001		Ū	1,200,014	70-100	14.5	00,710	1.00
	TOTAL STRUCTURES & IMPROVEMENTS	196,563,540	108,608,582		87,954,958		30.9	2,842,153	1.45
312.00	BOILER PLANT EQUIPMENT								
	JEFFREY	291,979,243	158.628.647	1	130,430,804	55-R1 *	29.9	4,362,234	1.49
	TECUMSEH	48,157,901	27,784,505	1	19,891,817	55-R1 •	17.4	1,143,208	2.37
	LAWRENCE	92,419,175	53,930,134	1	37.564.849	55-R1 •	24.9	1,508,628	1.63
	HUTCHINSON	16,007,287	8,428,305	1	7,418,910	55-R1 *	13.5	549,549	3.43
	TOTAL BOILER PLANT EQUIPMENT	448,563,606	248,771,590		195,306,380		25.8	7,563,619	1.69
312.10	POLLUTION CONTROL EQUIPMENT		, ,		,				
	JEFFREY	140,733,721	66,509,782	0	74,223,939	35-R2.5 *	16.2	4.581,725	3.26
	TECUMSEH	8,635,762	3,372,432	õ	5,263,330	35-R2.5 *	13.2	398,737	4.62
	LAWRENCE	11,339,226	2,770,265	õ	8,568,961	35-R2.5 *	19.8	432,776	3.82
	TOTAL POLLUTION CONTROL EQUIPMENT	160,708,709	72,652,479		88,056,230		16.3	5,413,238	3.37
								-,	
312.20	BOILER PLANT EQUIPMENT - TRAIN CARS								
	JEFFREY	294,464	71,672	0	222,792	25-R2 •	21.0	10,609	3.60
	TECUMSEH	5,183,981	1,060,221	0	4,123,760	25-R2 *	16.2	254,553	4.91
	LAWRENCE	12,246,742	2,482,142	0	9,764,600	25-R2 *	21.1	462,777	3.78
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	17,725,187	3,614,035		14,111,152		19.4	727,939	4.11
314.00	TURBOGENERATOR UNITS								
011.00	JEFFREY	130.840.042	42.167.148	3	84,747,692	30-S2 *	17.0	4,985,158	3.81
	TECUMSEH	21,727,970	8,033,233	3 3	13,042,898	30-S2 *	9.2	1,417,706	6.52
	LAWRENCE	54,246,444	19,118,108	ž	33,500,942	30-S2 *	14.7	2,278,976	4.20
	HUTCHINSON	11,874,764	8,053,330	3	3,465,192	30-S2 •	6.7	517,193	4.36
	TOTAL TURBOGENERATOR UNITS	218,689,220	77,371,820		134,756,724		14.6	9,199,033	4.21
		210,000,220	11,011,020		104,100,124		14.0	3,133,000	4.21
315.00	ACCESSORY ELECTRIC EQUIPMENT								
	JEFFREY	49,071,728	22,127,841	1	26,453,170	50-S1.5 *	28.0	944,756	1.93
	TECUMSEH	11,194,779	3,580,099	1	7,502,732	50-S1.5 *	17.6	426,292	3.81
	LAWRENCE	15,574,870	2,985,099	1	12,434,022	50-S1.5 *	24.7	503,402	3.23
	HUTCHINSON	3,670,809	2,471,661	1	1,162,440	50-S1.5 •	13.1	88,736	2.42
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	79,512,186	31,164,700		47,552,364		24.2	1,963,185	2.47
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT								
010.00	JEFFREY	10,655,696	4,695,274	2	5,747,308	35-R2 •	26.7	04E 0EF	2.02
	TECUMSEH	3,320,277	1,149,816	2	2,104,056	35-R2 *	26.7 16.5	215,255 127,519	2.02 3.84
	LAWRENCE	4,493,202	117,249	2	2,104,056	35-R2 *	16.5		3.84 4.24
	HUTCHINSON	4,493,202	711,387	2	4,286,089 390,667	35-R2 *	13.2	190,493 29,596	4.24 2.63
		1,127,040	711,007	۲		00-N2	13.2	29,090	2.03
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	19,593,720	6,673,726		12,528,120		22.3	562,862	2.87
тс	TAL STEAM PRODUCTION PLANT	1,141,356,168	548,856,932		580,265,927		20.5	28,272,030	2.48

#### WESTAR NORTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

ACCOUNT         COST         LESS COP         PERCENT         ACCRUALS         CURVe         LIFE         MAGUNT         RATE           01         01         02         03         04         03         04         03         04         03         04         03         04         03         04         03         04         03         04         03         04         03         04         04         03         04         04         03         04			ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RE CALCUL ANNUAL A	ATED
OTHER PROJUCTION PLANT           341.00         STRUCTURES & MMROVEMENTS           341.00         STRUCTURES & MMROVEMENTS           45.00         41.473         0         31.968         SQUARE         12.5         2.557         6.35           1         ASTRUCTURES & MMROVEMENTS         41.473         0         13.968         SQUARE         8.5         46         0.11           1         ABLENE         64.860         727.977         0         (170.377)         SQUARE         0.00         0         1.           EVANS         113.463.599         690.355         0         10.952.044         SQUARE         7.5         .284.066         2.80           TOTAL STRUCTURES & MPROVEMENTS         12.02.811         1.553.378         10.499.433         36.6         286.55         2.39           MICON         PLEX.NDERS PRODUCERS & ACCESSORIES         115.862.0         0         1.68.984         0         4382.407         SQUARE         10.0         0         0         1.68.982         1.69.984         0         4382.407         SQUARE         1.20.157         15.87.936         1.331.995         4.399.941         32.2         1.22.5         1.16.864         2.20         1.22.67.57         1.55         1.5.		•			PERCENT		CURVE	LIFE	AMOUNT	RATE
341.00       STRUCTURES & MURROVEMENTS         941.00       STRUCTURES & MURROVEMENTS       41,856       84,174       0       31,968       SQUARE -       8.5       4.5       0.1         MURCHINESON       65,860       728,797       0       (17,037)       SQUARE -       0.0       0       -         MURCHINESON       65,860       728,797       0       (17,037)       SQUARE -       0.0       0       -         TOTAL STRUCTURES & MPROVEMENTS       11,34,399       690,353       0       (10,620,104       36,6       280,656       2.38         342.00       FUEL HOLDERS, PRODUCERS & ACCESSORIES       12,052,811       1,553,378       10,499,433       36,6       280,656       2.38         342.00       FUEL HOLDERS, PRODUCERS & ACCESSORIES       144,389       183,652       0       (39,253)       SQUARE -       11,04,506       1,16         MURCHINESON       650,810       523,755       0       \$30,555       SQUARE -       11,04       6,02       1,06 <th></th> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> <th>(5)=(2)*(1-(4))-(3)</th> <th>(6)</th> <th>(7)</th> <th>(8)=(5)/(7)</th> <th>(9)=(8)/(2)</th>		(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
341.00       STRUCTURES & MURROVEMENTS         941.00       STRUCTURES & MURROVEMENTS       41,856       84,174       0       31,968       SQUARE -       8.5       4.5       0.1         MURCHINESON       65,860       728,797       0       (17,037)       SQUARE -       0.0       0       -         MURCHINESON       65,860       728,797       0       (17,037)       SQUARE -       0.0       0       -         TOTAL STRUCTURES & MPROVEMENTS       11,34,399       690,353       0       (10,620,104       36,6       280,656       2.38         342.00       FUEL HOLDERS, PRODUCERS & ACCESSORIES       12,052,811       1,553,378       10,499,433       36,6       280,656       2.38         342.00       FUEL HOLDERS, PRODUCERS & ACCESSORIES       144,389       183,652       0       (39,253)       SQUARE -       11,04,506       1,16         MURCHINESON       650,810       523,755       0       \$30,555       SQUARE -       11,04       6,02       1,06 <td>от</td> <td>HER PRODUCTION PLANT</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	от	HER PRODUCTION PLANT								
JEFFREY         40.236         8.277         0         31,965         SCUARE         12.5         2.557         6.35           HUTCHINSON         65,860         80,475         0         (14,515)         SCUARE         0.0         0         -           ABLENE         556,460         72,777         0         (170,337)         SCUARE         0.0         0         -           EVANS         11,348,399         696,355         0         10,652,044         SCUARE         37.5         224,056         2.28           342.00         FUEL HOLDERS, RECORCERS & ACCESSORIES         114,399         183,652         0         692,253         SCUARE         0.0         0         -           HUTCHINSON         666,810         603,755         0         633,652         0         632,637         SCUARE         10.0         0         -         -           HUTCHINSON         666,810         603,755         0         63,637         SCUARE         10.0         0         -										
TECUMSEH         41,866         41,474         0         322         SQUARE         -         6.5         6.011           HUTCHNSON         65,860         80,475         0         (17,037)         SQUARE         0.0         0         -           ABLENE         556,460         728,797         0         (170,337)         SQUARE         0.0         0         -           FURL         FURL         FURL         FURL         SQUARE         1.04,894         SQUARE         0.0         0         -           342.00         FUEL         FUEL         FUEL         FUEL         SQUARE         144,398         163,552         0         (39,253)         SQUARE         0         0         -           4100         FUEL         FUEL         FUEL         FUEL         SQUARE         115         8,982         116           ABLENE         123,27         165,864         0         (38,257)         SQUARE         37.5         116,864         2.50           TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES         123,276,864         0         943,473         30,43         12.5         75,478         6.28           344.00         GEMERATORS         220,217         258,864			40.235	8.277	D	31 958	SOUARE *	12.5	2 557	6 35
HUTCHINSON         65,860         26,757         0         (14,615)         SCUARE         0.0         0         -           ABLENE         556,640         72,777         0         (170,371)         SCUARE         37.5         234,055         2.50           TOTAL STRUCTURES & IMPROVEMENTS         12,092,211         1,553,378         10,499,433         36.6         286,656         2.33           342.00         FUEL HOLDERS, PRODUCERS & ACCESSORIES         14,399         183,562         0         (39,253)         SQUARE         0.0         0         -           MUTCHINSON         693,267         0         39,253)         SQUARE         0.0         0         -           MUTCHINSON         4,697,101         224,654         0         33,257         SQUARE         37.5         11.6         8.092         -         1.6         -         -         -         -         -         -         -         -         -         -         -         -         0.0         -				,						
ABILENE         556,460         726,797         0         (170,337)         SQUARE         0         <					-					-
EVANS         11.348.399         696.355         0         10.852.044         SQUARE         37.5         284.005         2.50           TOTAL STRUCTURES & IMPROVEMENTS         12.052.811         1,553.378         10.499.433         36.6         286.656         2.38           342.00         FUEL HOLDERS, PRODUCERS & ACCESSORIES         144.399         103.652         0         (39.253)         SQUARE         0         0         -           HUTCHINSON         696.810         603.755         0         33.055         SQUARE         0.0         0         -           EVANS         4.667,101         284.695         0         4.322.407         SQUARE         37.5         116.864         0.0         0         - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td>									-	-
342.00         FUEL HOLDERS, PRODUCERS & ACCESSORIES         144,399         183,652         0         (39,253)         SQUARE         0.0         0         -           ABLENE         129,627         165,840         0         (36,277)         SQUARE         0.0         0         -           ABLENE         129,627         165,840         0         (36,277)         SQUARE         0.0         0         -           TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES         5,637,936         1.237,995         4,399,941         36.2         12.5         75,478         6.28           344.00         GENERATORS         -         -         4,553,992         5,722,889         9         (48,989)         30,633         1.00         0         -           TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES         5,637,936         1,227,889,280         (48,989)         30,633         1.00         0         -         -         -         6,28         -         -         -         6,28         -         -         -         6,28         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -									-	2.50
TECUMSEH         144.399         183.652         0         (39.253)         SQUARE         0.0         0         -           ABILENE         129.627         105.894         0         (39.257)         SQUARE         0.0         0         -           EVANS		TOTAL STRUCTURES & IMPROVEMENTS	12,052,811	1,553,378		10,499,433		36.6	286,656	2.38
TECUMSEH         144.399         183.652         0         (39.253)         SQUARE         0.0         0         -           ABILENE         129.627         105.894         0         (39.257)         SQUARE         0.0         0         -           EVANS	342.00									
HUTCHINSON         696,810         603,755         0         53,055         SQUARE         115         8,092         1,16           EVANS	U-12.00		144 300	183 652	0	(30 253)	SOLIARE *	0.0	0	_
ABILENE         129.627         165.894         0         (36.287)         SOUARE         0 <t< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>-</td><td>1 16</td></t<>					-				-	1 16
EVANS         4,667,101         284,694         0         4,382,407         SQUARE         37.5         116,894         2.50           TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES         5,637,936         1,237,995         4,399,941         35.2         124,956         2.22           344.00         GENERATORS										-
344.00         GENERATORS           JEFREY         1.202,157         258,684         0         943,473         30.53         1.25         75,478         6.29           TECUMSEH         4.652,992         5,122,858         0         (469,866)         30.53         0.0         0         -           ABILENE         7,089,996         7,782,228         0         (1618,209)         30.53         0.0         0         -           EVANS         7,089,996         7,782,228         0         (162,230)         30.53         0.0         0         -           TOTAL GENERATORS         12,3,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT         24,507         205,119         9,338         40.53         12,5         4,513         6.17           HUTCHINSON         1,272,920         907,793         0         365,127         40.53         9,9         36,882         2.90           ABILENE         609,729         600,349         0         21,165,042         40.53         9,9         36,882         2.90           TOTAL ACCESSORY ELECTRIC EQUIPMENT         22,539,495         1,374,453         0									v	2.50
JEFFREY TECUMSEH         1.202,157         228,884         0         943,473         30.83         12.5         75,478         6.29           HUTCHINSON         4,652,992         5,122,858         0         (469,866)         30.83         0.0         0         -           ABILENE         7,089,996         7,782,226         0         (692,230)         30.83         28.1         2,574,500         3.0           TOTAL GENERATORS         123,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         9.9         36,882         2.90           JEFFREY         73,170         16,754         0         56,416         40.83         9.9         36,		TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES	5,637,936	1,237,995		4,399,941		35.2	124,956	2.22
JEFFREY TECUMSEH         1.202,157         228,884         0         943,473         30.83         12.5         75,478         6.29           HUTCHINSON         4,652,992         5,122,858         0         (469,866)         30.83         0.0         0         -           ABILENE         7,089,996         7,782,226         0         (692,230)         30.83         28.1         2,574,500         3.0           TOTAL GENERATORS         123,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         12.5         4,513         6,17           JEFFREY         73,170         16,754         0         56,416         40.83         9.9         36,882         2.90           JEFFREY         73,170         16,754         0         56,416         40.83         9.9         36,	344.00	GENERATORS								
TECUMSEH         4652.992         5.122.858         0         (469.966)         30.53         0.0         0         1           ABLENE         26,251.046         27,869.255         0         (1,181.209)         30.53         0.0         0         .           EVANS         84.590.308         12,246.866         0         72,343,442         30.53         28.1         2,574,500         3.04           TOTAL GENERATORS         123,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT         - <td></td> <td></td> <td>1 202 157</td> <td>258 684</td> <td>0</td> <td>943 473</td> <td>30-53 •</td> <td>12.5</td> <td>75 478</td> <td>6 28</td>			1 202 157	258 684	0	943 473	30-53 •	12.5	75 478	6 28
HUTCHINSON         26,251,046         27,889,255         0         (1)\$18,200)         30,53         0         0         0         .           ABILENE         7,089,996         7,782,226         0         (692,230)         30-53         28.1         2,574,500         30.4           TOTAL GENERATORS         123,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT         73,170         16,754         0         56,416         40.83         12.5         4,513         6.17           JEFFREY         73,170         16,754         0         56,416         40.83         12.5         4,513         6.17           HUTCHINSON         1,272,920         907,793         0         365,127         40-53         9.9         36,882         2.90           ABILENE         609,729         600,349         0         9,380         40-53         9.9         36,882         2.90           ABILENE         22,539,495         1,374,453         0         21,165,042         40-53         34.0         622,597         0.16           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,65,354						•				-
ABILENE         7/089/996         7/782/226         0         (692/230)         30.53         .         0.0         0         .           EVANS									•	-
EVANS         84,590,308         12,246,866         0         72,343,442         30-83         28.1         2,574,500         3.04           TOTAL GENERATORS         123,786,499         53,279,889         70,506,610         26.6         2,649,978         2.14           345.00         ACCESSORY ELECTRIC EQUIPMENT JEFFREY         73,170         16,754         0         56,416         40-S3         12.5         4,513         6.17           TECUMSEH         214,507         205,119         0         9,388         40-S3         9.9         36,882         2.90           ABILENE         609,729         600,749         0         21,165,042         40-S3         9.5         987         0.16           EVANS         22,539,495         1.374,453         0         21,165,042         40-S3         34.0         622,501         2.76           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         666,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT         17,934         3.876         14,058         SQUARE *         12.5         1,125         6.7           JEFFREY         17,934         3.876         14,058         SQUARE *         0.0										-
345.00       ACCESSORY ELECTRIC EQUIPMENT         JEFFREY       73,170       16,754       0       56,416       40.53       12.5       4,513       6,17         TECUMSEH       214,507       205,119       0       9,388       40.53       8.5       1,104       0.51         HUTCHINSON       1,272,920       907,793       0       365,127       40.53       9.9       38,882       2.90         ABILENE       609,729       600,349       0       9,380       40.53       9.5       987       0.16         EVANS       22,539,495       1,374,453       0       21,65,042       40.53       34.0       622,501       2.76         TOTAL ACCESSORY ELECTRIC EQUIPMENT       24,709,822       3,104,468       21,605,354       32.4       665,988       2.70         346.00       MISCELLANEOUS PLANT EQUIPMENT       17,934       3,876       0       14,058       SQUARE       12.5       1,125       6,27         TECUMSEH       807,751       1,031,602       0       (22,3851)       SQUARE       0       0       -         JEFFREY       17,934       3,876       0       14,058       SQUARE       00       0       -       -       - <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2,574,500</td><td>3.04</td></td<>									2,574,500	3.04
JEFFREY         73,170         16,754         0         56,416         40-S3         *         12.5         4,513         6.17           TECUMSEH         214,507         205,119         0         9,388         40-S3         *         8.5         1,104         0.51           HUTCHINSON         1,272,920         907,753         0         365,127         40-S3         *         9.9         36,882         2.90           ABILENE         609,729         600,349         0         9,380         40-S3         *         9.5         987         0.16           EVANS         22,539,495         1,374,453         0         21,165,042         40-S3         *         34.0         622,501         2.76           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         665,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT         17,934         3,876         0         14,058         SQUARE         12.5         1,125         6.27           TECUMSEH         807,751         1,031,602         0         (223,851)         SQUARE         0.0         0         -           JEFFREY         17,934         3,876		TOTAL GENERATORS	123,786,499	53,279,889		70,506,610		26.6	2,649,978	2.14
JEFFREY         73,170         16,754         0         56,416         40-S3         *         12.5         4,513         6.17           TECUMSEH         214,507         205,119         0         9,388         40-S3         *         8.5         1,104         0.51           HUTCHINSON         1,272,920         907,753         0         365,127         40-S3         *         9.9         36,882         2.90           ABILENE         609,729         600,349         0         9,380         40-S3         *         9.5         987         0.16           EVANS         22,539,495         1,374,453         0         21,165,042         40-S3         *         34.0         622,501         2.76           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         665,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT         17,934         3,876         0         14,058         SQUARE         12.5         1,125         6.27           TECUMSEH         807,751         1,031,602         0         (223,851)         SQUARE         0.0         0         -           JEFFREY         17,934         3,876	345.00	ACCESSORY ELECTRIC FOLJIPMENT								
TECUMSEH         214,507         205,119         0         9,388         40.53         •         8.5         1,104         0.51           HUTCHINSON         1,272,920         907,793         0         365,127         40.53         •         9.9         36,882         2.90           ABILENE         609,729         600,349         0         9,380         40.53         •         9.5         987         0.16           EVANS         22,539,495         1,374,453         0         21,165,042         40.53         •         9.5         987         0.16           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         665,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         665,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT         1,031,602         0         (22,3,851)         SQUARE •         1,125         6.27           TECUMSEH         80,361         99,627         0         (19,266)         SQUARE •         0.0         0         -           ABILENE         84,206         79,346         0         4,860			73 170	16 754	0	56 416	40-53 *	12.5	4 513	6 17
HUTCHINSON       1,272,920       907,793       0       365,127       40-S3       9.9       36,882       2.90         ABILENE       609,729       600,349       0       9,380       40-S3       9.5       987       0.16         EVANS       22,539,495       1,374,453       0       21,165,042       40-S3       34.0       622,501       2.76         TOTAL ACCESSORY ELECTRIC EQUIPMENT       24,709,822       3,104,468       21,605,354       32.4       665,988       2.70         346.00       MISCELLANEOUS PLANT EQUIPMENT       24,709,822       3,104,468       21,605,354       32.4       665,988       2.70         346.00       MISCELLANEOUS PLANT EQUIPMENT       1,125       6.27       6.27       6.27       6.27       6.23,851       SQUARE       1.2.5       1,125       6.27         JEFFREY       17,934       3,876       0       14,058       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       132,844       SQUARE       37.5       3,543       2.44         TOTAL MISCELLANEOUS PLANT EQUIPMENT										
ABILENE       609,729       600,349       0       9,380       40-\$3       9.5       987       0.16         EVANS       22,539,495       1,374,453       0       21,165,042       40-\$3       34.0       622,501       2.76         TOTAL ACCESSORY ELECTRIC EQUIPMENT       24,709,822       3,104,468       21,605,354       32.4       665,988       2.70         346.00       MISCELLANEOUS PLANT EQUIPMENT       17,934       3,876       0       14,058       SQUARE       12.5       1,125       6.27         TECUMSEH       807,751       1,031,602       0       (223,851)       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       37.5       3,543       2.44         TOTAL MISCELLANEOUS PLANT EQUIPMENT       1,135,302       1,226,657       (91,355)       (17.6)       5,179       0.46										
EVANS         22,539,495         1,374,453         0         21,165,042         40-S3         34.0         622,501         2.76           TOTAL ACCESSORY ELECTRIC EQUIPMENT         24,709,822         3,104,468         21,605,354         32.4         665,988         2.70           346.00         MISCELLANEOUS PLANT EQUIPMENT JEFFREY         17,934         3,876         0         14,058         SQUARE         12.5         1,125         6.27           TECUMSEH         807,751         1,031,602         0         (223,851)         SQUARE         0.0         0         -           HUTCHINSON         80,361         99,627         0         (19,266)         SQUARE         9.5         512         0.61           EVANS         145,050         12,206         0         132,844         SQUARE         37.5         3,543         2.44		ABILENE				,				
346.00       MISCELLANEOUS PLANT EQUIPMENT         JEFFREY       17,934       3,876       0       14,058       SQUARE       12.5       1,125       6.27         TECUMSEH       807,751       1,031,602       0       (223,851)       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       0.0       0       -         ABILENE       84,206       79,346       0       4,860       SQUARE       9,5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       37.5       3,543       2.44         TOTAL MISCELLANEOUS PLANT EQUIPMENT       1,135,302       1,226,657       (91,355)       (17.6)       5,179       0.46		EVANS			0					
JEFFREY       17,934       3,876       0       14,058       SQUARE       12.5       1,125       6.27         TECUMSEH       807,751       1,031,602       0       (223,851)       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       0.0       0       -         ABILENE       84,206       79,346       0       4,860       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       37.5       3,543       2.44		TOTAL ACCESSORY ELECTRIC EQUIPMENT	24,709,822	3,104,468		21,605,354		32.4	665,988	2.70
JEFFREY       17,934       3,876       0       14,058       SQUARE       12.5       1,125       6.27         TECUMSEH       807,751       1,031,602       0       (223,851)       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       0.0       0       -         ABILENE       84,206       79,346       0       4,860       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       37.5       3,543       2.44	346.00	MISCELLANEOUS PLANT EQUIPMENT								
TECUMSEH       807,751       1,031,602       0       (223,851)       SQUARE       0.0       0       -         HUTCHINSON       80,361       99,627       0       (19,266)       SQUARE       0.0       0       -         ABILENE       84,206       79,346       0       4,860       SQUARE       9.5       512       0.61         EVANS       145,050       12,206       0       132,844       SQUARE       37.5       3,543       2.44         TOTAL MISCELLANEOUS PLANT EQUIPMENT       1,135,302       1,226,657       (91,355)       (17.6)       5,179       0.46			17,934	3,876	0	14,058	SQUARE •	12.5	1,125	6.27
HUTCHINSON     80,361     99,627     0     (19,266)     SQUARE     0.0     0       ABILENE     84,206     79,346     0     4,860     SQUARE     9,5     512     0,61       EVANS     145,050     12,206     0     132,844     SQUARE     37.5     3,543     2.44       TOTAL MISCELLANEOUS PLANT EQUIPMENT     1,135,302     1,226,657     (91,355)     (17.6)     5,179     0.46		TECUMSEH	807.751	1.031.602	0		SQUARE .			-
ABILENE         84,206         79,346         0         4,860         SQUARE         9.5         512         0.61           EVANS         145,050         12,206         0         132,844         SQUARE         37.5         3,543         2.44           TOTAL MISCELLANEOUS PLANT EQUIPMENT         1,135,302         1,226,657         (91,355)         (17.6)         5,179         0.46		HUTCHINSON	80,361		0				Ō	-
TOTAL MISCELLANEOUS PLANT EQUIPMENT     1,135,302     1,226,657     (91,355)     (17.6)     5,179     0.46		ABILENE	84,206	79,346	0		SQUARE .	9.5	512	0.61
		EVANS	145,050	12,206	0		SQUARE *		3,543	2.44
TOTAL GAS TURBINE PLANT 167,322,371 60,402,387 106,919,984 28.6 3,732,756 2.23		TOTAL MISCELLANEOUS PLANT EQUIPMENT	1,135,302	1,226,657		(91,355)		(17.6)	5,179	0.46
	тс	TAL GAS TURBINE PLANT	167,322,371	60,402,387		106,919,984		28.6	3,732,756	2.23

#### WESTAR NORTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

		ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RE CALCUL ANNUAL A	ATED
	ACCOUNT	COST	LESS COR	PERCENT	ACCRUALS	CURVE	LIFE	AMOUNT	RATE
	(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
	TRANSMISSION PLANT	0.000.440		•			10.1	111 500	4.04
352.00	STRUCTURES & IMPROVEMENTS	9,009,446	4,503,628	0	4,505,818	55-S2	40.4	111,530	1.24
353.00		131,589,301	53,600,344	5	71,409,492	50-R2.5	34.3	2,081,909	1.58
354.00		2,911,904	1,212,423	2	1,641,243	60-R3	26.8	61,240	2.10
355.00		98,677,201	41,329,966	3	54,386,919	42-S0	32.8	1,658,138	1.68
356.00		73,132,521	32,339,974	4	37,867,246	50-R1.5	35.5	1,066,683	1.46
357.00	UNDERGROUND CONDUIT	368,152	83,560	0	284,592	55-R3	46.4	6,133	1.67 2.24
358.00	UNDERGROUND CONDUCTOR & DEVICES	1,084,297	214,206	0	870,091	40-R3	35.9	24,237	2.24
	TOTAL TRANSMISSION PLANT	316,772,823	133,284,101		170,965,402		34.1	5,009,871	1.58
	DISTRIBUTION PLANT								
361.00	STRUCTURES & IMPROVEMENTS	7,435,832	3,060,131	0	4,375,701	45-R2.5	32.9	133,000	1.79
362.00	STATION EQUIPMENT	91,424,380	28,790,583	5	58,062,578	48-R1.5	36.3	1,599,520	1.75
364.00	POLES, TOWERS & FIXTURES	157,973,597	60,466,721	4	91,187,932	34-R0.5	28.3	3,222,188	2.04
365.00		91,389,093	36,405,088	5	50,414,550	40-R0.5	33.1	1,523,098	1.67
366.00		19,507,626	4,335,802	0	15,171,824	55-R3	46.4	326,979	1.68
367.00	UNDERGROUND CONDUCTORS & DEVICES	46,665,491	13,760,561	1	32,438,275	41-R1.5	36.7	883,877	1.89
368.00	LINE TRANSFORMERS	148,391,031	78,130,061	3	65,809,240	37-R1	31.2	2,109,271	1.42
369.00	SERVICES	46,406,634	19,758,639	0	26,647,995	50-R1	46.8	569,402	1.23
370.00	METERS	41.239.246	19,498,674	0	21,740,572	33-01	29.6	734,479	1.78
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	3,146,831	3,385,081	0	(238,250)	20-\$3	0.0	0	-
372.00		10,954,319	3,633,797	0	7,320,522	20-01	16.7	438,355	4.00
373.00		22,649,807	12,616,277	2	9,580,533	27-01	25.3	378,677	1.67
	TOTAL DISTRIBUTION PLANT	687,183,887	283,841,415		382,511,473		32.1	11,918,845	1.73
	GENERAL PLANT								
390.00		24,976,326	7,335,051	0	17,641,275	35-R3	21.8	809,233	3.24
391.00		12,663,729	3.141.737	0	9,521,992	25-SQ	13.6	700,146	5.53
391.10		42,304,777	27,743,831	ő	14,560,946	5-SQ	3.6	4,044,707	9.56
392.00		2,034,260	482,814	5	1,449,733	15-L3	6.8	213,196	10.48
393.00		2,340,944	1.185.822	ő	1,155,122	25-SQ	8.3	139,171	5.95
394.00		6,852,216	3,304,691	ŏ	3,547,525	25-SQ	12.7	279,333	4.08
395.00		2,722,108	845,910	ő	1,876,198	25-5Q	8.1	231,629	8.51
396.00		1,757,132	1,362,305	10	219,114	13-R4	10.7	20,478	1.17
397.00		39,857,341	18,668,434	0	21,188,907	15-SQ	11.1	1,908,911	4.79
398.00		275,042	161,910	õ	113,132	15-SQ	11.7	9,669	3.52
	TOTAL GENERAL PLANT	135,783,877	64,232,505		71,273,946		8.5	8.356.474	6.15
		,	- ,,,						
	TOTAL DEPRECIABLE PLANT	2,448,419,126	1,090,617,340		1,311,936,732		22.9	57,289,977	2.34
	NONDEPRECIABLE PLANT								
389.10	LAND IN FEE	216,706	500						
	TOTAL NONDEPRECIABLE PLANT	216,706	500						
	TOTAL ELECTRIC PLANT	2,448,635,832	1,090,617,840		1,311,936,732			<b>57,289,97</b> 7	

\* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.

#### Sources:

Cols. (2) and (6) from Depreciation Study, pages III-7 through III-9.

Col. (3) from Exhibit (MJM-13), pages 12-15.

Col. (4) from response to CURB 29. Col. (7) from "westarNorth-CURB227b.bt" These are the remaining lives without Spanos net salvage adjustment.

	ACCOUNT	ORIGINAL COST	SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR in RESERVE		REM.	ACCRUAL	
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
<b>ST</b> 311.00	EAM PRODUCTION PLANT STRUCTURES & IMPROVEMENTS JEFFREY	153,486,630	-30.00%	46,045,989	5,216,884	40,829,106	34.1	1,197,334	0.78
	TECUMSEH LAWRENCE HUTCHINSON	14,658,030 22,871,212 5,547,667	-30.00% -30.00% -30.00%	4,397,409 6,861,364 1,664,300	498,214 777,374 188,561	3,899,195 6,083,990 1,475,739	18.4 26.9 14.3	211,913 226,171 103,199	1.45 0.99 1.86
	TOTAL STRUCTURES & IMPROVEMENTS	196,563,540		58,969,062	6,681,032	52,288,030		1,738,616	
312.00	BOILER PLANT EQUIPMENT JEFFREY TECUMSEH LAWRENCE HUTCHINSON	291,979,243 48,157,901 92,419,175 16,007,287	-36.00% -36.00% -36.00% -36.00%	105,112,527 17,336,844 33,270,903 5,762,623	(13,437,928) (2,216,399) (4,253,461) (736,713)	118,550,456 19,553,243 37,524,364 6,499,336	29.9 17.4 24.9 13.5	3,964,898 1,123,750 1,507,003 481,432	1.36 2.33 1.63 3.01
040.40		448,563,606		161,482,898	(20,644,500)	182,127,398		7,077,083	
312.10	POLLUTION CONTROL EQUIPMENT JEFFREY TECUMSEH LAWRENCE	140,733,721 8,635,762 11,339,226	-40.00% -40.00% -40.00%	56,293,489 3,454,305 4,535,690	143,591 8,811 1,569	56,149,898 3,445,494 4,524,121	16.2 13.2 19.8	3,466,043 261,022 228,491	2.46 3.02 2.02
312.20	TOTAL POLLUTION CONTROL EQUIPMENT	160,708,709		64,283,484	163,971	64,119,513		3,955,556	
512.20	JEFFREY TECUMSEH LAWRENCE	294,464 5,183,981 12,246,742	0.00% 0.00% 0.00%	- - -	0 0 0	0 0 0	21.0 16.2 21.1	0 0 0	- -
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	17,725,187		-	0	0		0	
314.00	TURBOGENERATOR UNITS JEFFREY TECUMSEH LAWRENCE HUTCHINSON	130,840,042 21,727,970 54,246,444 11,874,764	-23.00% -23.00% -23.00%	30,093,210 4,997,433 12,476,682 2,731,196	272,927 45,324 113,156 24,770	29,820,283 4,952,110 12,363,526 2,706,426	17.0 9.2 14.7 6.7	1,754,134 538,273 841,056 403,944	1.34 2.48 1.55 3.40
	TOTAL TURBOGENERATOR UNITS	218,689,220		50,298,521	456,176	49,842,345		3,537,407	
315.00	ACCESSORY ELECTRIC EQUIPMENT JEFFREY TECUMSEH LAWRENCE HUTCHINSON	49,071,728 11,194,779 15,574,870 3,670,809	-11.00% -11.00% -11.00% -11.00%	5,397,890 1,231,426 1,713,236 403,789	54,463 12,425 17,286 4,074	5,343,427 1,219,001 1,695,950 399,715	28.0 17.6 24.7 13.1	190,837 69,261 68,662 30,513	0.39 0.62 0.44 0.83
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	79,512,186		8,746,340	88,248	8,658,092		359,273	

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	ACCOUNT	ORIGINAL COST	SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR in RESERVE	FUTURE ACCRUALS	RËM. LIFE	COST OF ACCRUAL	REMOVAL RATE
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
		(-)	(•)	(() (=)	(-)		(.,		(-) (-) (-)
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT								
	JEFFREY	10,655,696	-17.00%	1,811,468	38,657	1,772,812	26.7	66,397	0.62
	TECUMSEH	3,320,277	-17.00%	564,447	12,045	552,402	16.5	33,479	1.01
	LAWRENCE	4,493,202	-17,00%	763,844	16,300	747,544	22.5	33,224	0.74 1.26
	HUTCHINSON	1,124,545	-17.00%	191,173	4,080	187,093	13.2	14,174	1.20
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	19,593,720		3,330,932	71,082	3,259,850		147,274	
то	TAL STEAM PRODUCTION PLANT	1,141,356,168		347,111,237	(13,183,991)	360,295,228		16,815,210	
от	HER PRODUCTION PLANT								
341.00	STRUCTURES & IMPROVEMENTS								
	JEFFREY	40,235	0.00%	-	0	0	12.5	0	-
	TECUMSEH	41,856	0.00%	-	0	0	8.5	0	-
	HUTCHINSON	65,860	0.00%	-	0	0	0.0	0	-
	ABILENE	556,460	0.00%	-	0	0	0.0	0	-
	EVANS	11,348,399	0.00%	<u> </u>	0_	0	37.5	0	-
	TOTAL STRUCTURES & IMPROVEMENTS	12,052,811		-	0	0		0	
342.00	FUEL HOLDERS, PRODUCERS & ACCESSORIES								
	TECUMSEH	144,399	0.00%	-	0	0	0.0	0	-
	HUTCHINSON	696,810	0.00%	-	0	0	11.5	0	-
	ABILENE	129,627	0.00%	-	0	0	0.0	0	-
	EVANS	4,667,101	0.00%	<u> </u>	0	0	37.5	0	-
	TOTAL FUEL HOLDERS, PRODUCERS & ACCESSORIES	5,637,936		-	0	0		0	
344.00	GENERATORS								
	JEFFREY	1,202,157	0.00%	-	0	0	12.5	0	-
	TECUMSEH	4,652,992	0.00%	-	0	0	0.0	0	-
	HUTCHINSON	26,251,046	0.00%	-	0	0	0.0	0	-
	ABILENE	7,089,996	0.00%	-	0	0	0.0	0	-
	EVANS	84,590,308	0.00%	<u> </u>	0	0	28.1	0	-
	TOTAL GENERATORS	123,786,499		-	0	0		0	
345.00	ACCESSORY ELECTRIC EQUIPMENT								
	JEFFREY	73,170	0.00%	-	0	0	12.5	0	-
	TECUMSEH	214,507	0.00%	-	0	0	8.5	0	-
	HUTCHINSON	1,272,920	0.00%	-	0	0	9.9	0	-
	ABILENE	609,729	0.00%	-	0	0	9.5	0	-
	EVANS	22,539,495	0.00%		0	0_	34.0	0	-
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	24,709,822		-	0	0		0	

Exhibit (MJM-2) Page 9 of 21

	ACCOUNT	ORIGINAL COST	SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR In RESERVE	FUTURE ACCRUALS	REM. LIFE	COST OF ACCRUAL	REMOVAL RATE
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
346.00	MISCELLANEOUS PLANT EQUIPMENT								
040.00	JEFFREY	17.934	0.00%	_	0	0	12.5	0	_
	TECUMSEH	807,751	0.00%	_	0	0	0.0	0	
	HUTCHINSON	80.361	0.00%	-	õ	ő	0.0	0	_
	ABILENE	84,206	0.00%	-	õ	Ő	9.5	Ő	_
	EVANS	145,050	0.00%	<u> </u>	0	0	37.5	0	-
	TOTAL MISCELLANEOUS PLANT EQUIPMENT	1,135,302		-	0	0		0	
то	DTAL GAS TURBINE PLANT	167,322,371		•	0	0		0	
TF	RANSMISSION PLANT								
352.00	STRUCTURES & IMPROVEMENTS	9,009,446	-10.00%	900.945	173.897	727.048	40.4	17.996	0.20
353.00	STATION EQUIPMENT	131,589,301	-15.00%	19,738,395	246,019	19,492,376	34.3	568,291	0.43
354.00	TOWERS & FIXTURES	2,911,904	-32.00%	931,809	634,463	297,346	26.8	11.095	0.38
355.00	POLES & FIXTURES	98,677,201	-28.00%	27,629,616	5,124,601	22,505,015	32.8	686,129	0.70
356.00	OVERHEAD CONDUCTORS & DEVICES	73,132,521	-19.00%	13,895,179	(151,775)	14,046,954	35.5	395,689	0.54
357.00	UNDERGROUND CONDUIT	368,152	0.00%	•	0	0	46.4	0	-
358.00	UNDERGROUND CONDUCTOR & DEVICES	1,084,297	0.00%		0	0	35.9	0	-
то	DTAL TRANSMISSION PLANT	316,772,823		63,095,945	6,027,205	57,068,740		1,679,199	
DI	STRIBUTION PLANT								
361.00	STRUCTURES & IMPROVEMENTS	7,435,832	-10.00%	743,583	(246,151)	989,734	32.9	30,083	0,40
362.00	STATION EQUIPMENT	91,424,380	-20.00%	18,284,876	355,398	17,929,478	36.3	493,925	0.54
364.00	POLES, TOWERS & FIXTURES	157,973,597	-34.00%	53,711,023	322,089	53,388,934	28.3	1,886,535	1.19
365.00	OVERHEAD CONDUCTORS & DEVICES	91,389,093	-45.00%	41,125,092	(8,236,325)	49,361,417	33.1	1,491,281	1.63
366.00	UNDERGROUND CONDUIT	19,507,626	-10.00%	1,950,763	35,043	1,915,720	46.4	41,287	0.21
367.00	UNDERGROUND CONDUCTORS & DEVICES	46,665,491	-26.00%	12,133,028	187,356	11,945,672	36.7	325,495	0.70
368.00	LINE TRANSFORMERS	148,391,031	-23.00%	34,129,937	628,255	33,501,682	31.2	1,073,772	0.72
369.00	SERVICES	46,406,634	-25.00%	11,601,658	7,670,432	3,931,226	46.8	84,001	0.18
370.00	METERS	41,239,246	0.00%	-	961,192	(961,192)	29.6	(32,473)	(0.08)
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	3,146,831	0.00%	-	0	0	0.0	0	-
372.00	LEASED PROPERTY ON CUSTOMERS' PREMISES	10,954,319	0.00%	-	0	0	16.7	0	-
373.00	STREET LIGHTING & SIGNAL SYSTEMS	22,649,807	-17.00%	3,850,467	963,671	2,886,796	25.3	114,103	0.50
т	OTAL DISTRIBUTION PLANT	687,183,887		177,530,427	2,640,960	174,889,467		5,508,009	

	ACCOUNT	ORIGINAL COST	SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR in RESERVE	FUTURE ACCRUALS	REM.	ACCRUAL	REMOVAL RATE
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
G	ENERAL PLANT								
390.00	STRUCTURES & IMPROVEMENTS	24,976,326	-5.00%	1,248,816	0	1,248,816	21.8	57,285	0.23
391.00	OFFICE FURNITURE & EQUIPMENT	12,663,729	0.00%	-	0	0	13.6	0	-
391.10	COMPUTER & OTHER ELECTRONIC EQUIPMENT	42,304,777	0.00%	-	0	0	3.6	0	-
392.00	TRANSPORTATION EQUIPMENT	2,034,260	0.00%	-	0	0	6.8	0	-
393.00	STORES EQUIPMENT	2,340,944	0.00%	-	0	0	8.3	0	-
394.00	TOOLS, SHOPS & GARAGE EQUIPMENT	6,852,216	0.00%	•	0	0	12.7	0	-
395.00	LABORATORY EQUIPMENT	2,722,108	0.00%	-	0	0	8.1	0	-
396.00	POWER OPERATED EQUIPMENT	1,757,132	0.00%	-	0	0	10.7	0	-
397.00	COMMUNICATION EQUIPMENT	39,857,341	0.00%	-	0	0	11.1	0	-
398.00	MISCELLANEOUS EQUIPMENT	275,042	0.00%		0	0	11.7	0	-
Т	OTAL GENERAL PLANT	135,783,877		1,248,816	0	1,248,816		57,285	
Т	OTAL DEPRECIABLE PLANT	2,448,419,126		588,986,425	(4,515,826)	593,502,251		24,059,703	

Sources:

Sources: Col. (2) from Depreciation Study, pages III-7 through III-9. Col. (3) from response to CURB 29. Col. (5) from Exhibit\_\_\_(MJM-13), pages 12-15, based on response to CURB 238. Col. (7) from "westarNorth-CURB227b.txt" These are the remaining lives without Spanos net salvage adjustment.

		ORIGINAL	CAPITAL RE CALCULA ANNUAL AC	ATED	COSTOE	REMOVAL	COMB	
	ACCOUNT	COST	AMOUNT	RATE	ACCRUAL	RATE	ACCRUAL	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
ST	EAM PRODUCTION PLANT							
311.00	STRUCTURES & IMPROVEMENTS							
	JEFFREY	48,670,387	522,355	1.07	448,531	0.92	970,886	1.99
	RIPLEY	2,111,828	(43,037)	-2.04	151,272	7.16	108,235	5.12
	NEOSHO	2,683,172	75,444	2.81	156,606	5.84	232,050	8.65
	MURRAY GILL	5,224,995	34,341	0.66	143,200	2.74	177,541	3.40
	GORDAN EVANS	4,074,654	37,229	0.91	74,233	1.82	111,462	2.73
	LACYGNE UNIT 1	25,508,581	463,810	1.82	281,108	1.10	744,918	2.92
	LACYGNE UNIT 2	1,691,460	94,317	5.58	15,711	0.93	110,028	6.51
	TOTAL STRUCTURES & IMPROVEMENTS	89,965,078	1,184,459	1.32	1,270,661	1.41	2,455,121	2.73
312.00	BOILER PLANT EQUIPMENT							
	JEFFREY	92,602,293	1,583,394	1.71	1,172,328	1.27	2,755,721	2.98
	RIPLEY	613,728	413,783	67.42	52,799	8.60	466,582	76.02
	NEOSHO	5,302,976	236,952	4.47	378,741	7.14	615,693	11.61
	MURRAY GILL	20,797,771	(101,950)	-0.49	735,752	3.54	633,803	3.05
	GORDAN EVANS	29,092,095	441,350	1.52	667,405	2.29	1,108,755	3.81
	LACYGNE UNIT 1	86,057,779	1,320,596	1.53	1,229,257	1.43	2,549,853	2.96
	LACYGNE UNIT 2	23,880,703	1,426,993	5.98	335,381	1.40	1,762,375	7.38
	TOTAL BOILER PLANT EQUIPMENT	258,347,346	5,321,119	2.06	4,571,663	1.77	9,892,782	3.83
312.10	POLLUTION CONTROL EQUIPMENT							
	JEFFREY	43,513,437	796,133	1.83	1,216,113	2.79	2,012,247	4.62
	LACYGNE UNIT 1	40,563,914	(10,050)	-0.02	717,851	1.77	707,801	1.75
	TOTAL POLLUTION CONTROL EQUIPMENT	84,077,351	786,083	0.93	1,933,965	2.30	2,720,048	3.23
312.20	BOILER PLANT EQUIPMENT - TRAIN CARS							
	JEFFREY	92,020	2,997	3.26	92	0.10	3,089	3.36
	LACYGNE UNIT 2	1,286,716	0	-		0.00		0.00
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	1,378,736	2,997	0.22	92	0.01	3,089	0.23
314.00	TURBOGENERATOR UNITS							
	JEFFREY	42,501,768	1,844,061	4.34	629,950	1.48	2,474,010	5.82
	NEOSHO	4,376,391	332,037	7.59	322,363	7.37	654,400	14.96
	MURRAY GILL	23,125,022	379,353	1.64	515,702	2.23	895,055	3.87
	GORDAN EVANS	22,735,282	115,172	0.51	325,083	1.43	440,255	1.94
	LACYGNE UNIT 1	23,324,011	851,310	3.65	539,954	2.32	1,391,264	5.97
	LACYGNE UNIT 2	5,606,664	406,080	7.24	56,606	1.01	462,686	8.25
	TOTAL TURBOGENERATOR UNITS	121,669,137	3,928,012	3.23	2,389,657	1.96	6,317,669	5.19

Exhibit (MJM-2) Page 12 of 21

		ORIGINAL	CAPITAL RE CALCUL ANNUAL AC	ATED	COST OF	REMOVAL	COMB CALCUL	
	ACCOUNT	COST	AMOUNT	RATE	ACCRUAL	RATE	ACCRUAL	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
315.00	ACCESSORY ELECTRIC EQUIPMENT							
	JEFFREY	15,519,164	286,796	1.85	68,305	0.44	355,101	2.29
	WICHITA	196,685	0	-	-	0.00	-	0.00
	RIPLEY	658,792	(63,201)	-9.59	20,369	3.09	(42,832)	-6.50
	NEOSHO	1,937,671	72,835	3.76	44,379	2.29	117,213	6.05
	MURRAY GILL	5,919,304	78,791	1.33	64,218	1.08	143,009	2.41
	GORDAN EVANS	5,770,813	73,961	1.28	41,255	0.71	115,216	1.99
	LACYGNE UNIT 1	12,239,428	236,127	1.93	63,602	0.52	299,729	2.45
	LACYGNE UNIT 2	2,133,732	93,860	4.40	11,137	0.52	104,997	4.92
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	44,375,588	779,169	1.76	313,265	0.71	1,092,434	2.47
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT							
	JEFFREY	3,634,656	103,851	2.86	26, <b>9</b> 45	0.74	130,796	3.60
	RIPLEY	300,132	24,310	8.10	13,404	4.47	37,714	12.57
	NEOSHO	482,389	50,799	10.53	18,402	3.81	69,201	14.34
	MURRAY GILL	1,431,423	58,017	4.05	25,202	1.76	83,219	5.81
	GORDAN EVANS	1,349,651	41,390	3.07	15,543	1.15	56,933	4.22
	LACYGNE UNIT 1	4,210,990	112,268	2.67	32,128	0.76	144,396	3.43
	LACYGNE UNIT 2	1,253,341	55,146	4.40	6,760	0.54	61,906	4.94
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	12,662,581	445,781	3.52	138,385	1.09	584,166	4.61
тс	DTAL STEAM PRODUCTION PLANT	612,475,817	12,447,621	2.03	10,617,688	1.73	23,065,309	3.76
N	JCLEAR PRODUCTION PLANT							
321.00	STRUCTURES AND IMPROVEMENTS	399,941,190	5,963,717	1.49	531,837	0.13	6,495,554	1.62
322.00	REACTOR PLANT EQUIPMENT	626,162,397	10,341,772	1.65	1,979,249	0.32	12,321,021	1.97
323.00	TURBOGENERATOR UNITS	166,568,932	2,931,832	1.76	1,009,509	0.61	3,941,340	2.37
324.00	ACCESSORY ELECTRIC EQUIPMENT	131,138,532	2,741,340	2.09	-	0.00	2,741,340	2.09
325.00	MISCELLANEOUS POWER PLANT EQUIPMENT	61,643,030	1,884,904	3.06		0.00	1,884,904	3.06
тс	DTAL NUCLEAR PRODUCTION PLANT	1,385,454,082	23,863,565	1.72	3,520,594	0.25	27,384,159	1.97
G	AS TURBINE PLANT							
341.00	STRUCTURES & IMPROVEMENTS JEFFREY	10.491	659	6,28		0.00	659	6.28
		10,451	009	0.20	-	0.00	009	0.20
344.00	GENERATORS							
	JEFFREY	376,494	24,325	6.46	-	0.00	24,325	6.46
	GORDAN EVANS	1,549,285	43,603	2.81	·	0.00	43,603	2.81
	TOTAL GENERATORS	1,925,779	67,928	3.53	-	0.00	67,928	3.53

Exhibit (MJM-2) Page 13 of 21

		ORIGINAL	CAPITAL RECOVERY CALCULATED ANNUAL ACCRUAL		COST OF REMOVAL		COMBINED CALCULATED	
	ACCOUNT	COST	AMOUNT	RATE	ACCRUAL	RATE	ACCRUAL	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
345.00	ACCESSORY ELECTRIC EQUIPMENT							
	JEFFREY	22,776	1,429	6.27	-	0.00	1,429	6.27
346.00	MISCELLANEOUS PLANT EQUIPMENT						• • •	
	JEFFREY	5,545	349	6.30		0.00	349	6.30
т	OTAL GAS TURBINE PLANT	1,964,591	70,365	3.58	-	0.00	70,365	3.58
т	RANSMISSION PLANT							
352.00	STRUCTURES & IMPROVEMENTS	4,508,216	60,043	1.33	6,677	0.15	66,720	1.48
353.00	STATION EQUIPMENT	116,243,326	1,324,702	1.14	375,787	0.32	1,700,489	1.46
354.00	TOWERS & FIXTURES	6,891,043	58,737	0.85	53,286	0.77	112,022	1.62
355.00	POLES & FIXTURES	85,569,105	914,080	1.07	541,690	0.63	1,455,770	1.70
356.00	OVERHEAD CONDUCTORS & DEVICES	60,772,529	1,152,915	1.90	367,732	0.61	1,520,647	2.51
357.00	UNDERGROUND CONDUIT	419,469	6,118	1.46	-	0.00	6,118	1.46
358.00	UNDERGROUND CONDUCTOR & DEVICES	490,540	10,819	2.21	-	0.00	10,819	2.21
359.00	ROADS & TRAILS	19,910	266	1.33		0.00	266	1.33
т	OTAL TRANSMISSION PLANT	274,914,138	3,527,680	1.28	1, <b>345</b> ,171	0.49	4,872,851	1.77
D	ISTRIBUTION PLANT							
361.00	STRUCTURES & IMPROVEMENTS	3,496,570	48,328	1.38	5,272	0.15	53,600	1.53
362.00	STATION EQUIPMENT	54,632,243	618,529	1.13	243,991	0.45	862,519	1.58
364.00	POLES, TOWERS & FIXTURES	100,204,589	1,795,864	1.79	1,010,090	1.01	2,805,954	2.80
365.00	OVERHEAD CONDUCTORS & DEVICES	81,262,390	1,231,256	1.52	1,057,901	1.30	2,289,158	2.82
366.00	UNDERGROUND CONDUIT	35,516,093	532,676	1.50	232,381	0.65	765,057	2.15
367.00	UNDERGROUND CONDUCTORS & DEVICES	64,032,273	1,154,128	1.80	583,545	0.91	1,737,674	2.71
368.00	LINE TRANSFORMERS	137,521,034	2,176,089	1.58	424,079	0.31	2,600,169	1.89
369.00	SERVICES	62,182,754	290,595	0.47	503,522	0.81	794,117	1.28
370.00	METERS	41,300,588	1,055,419	2.56	-	0.00	1,055,419	2.56
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	1,776,650	99,227	5.59	-	0.00	99,227	5.59
372.00	LEASED PROPERTY ON CUSTOMERS' PREMISES	6,304,347	399,991	6.34	-	0.00	399,991	6.34
373.00	STREET LIGHTING & SIGNAL SYSTEMS	22,893,863	1,150,308	5.02	286,052	1.25	1,436,360	6.27
т	OTAL DISTRIBUTION PLANT	611,123,393	10,552,411	1.73	4,346,834	0.71	14,899,245	2.44

		ORIGINAL	CAPITAL RECOVERY CALCULATED ANNUAL ACCRUAL		COST OF REMOVAL			
	ACCOUNT	COST	AMOUNT RATE		ACCRUAL RATE		ACCRUAL	RATE
	(1)	(2)	(3)	(4)=(3)/(2)	(5)	(6)=(5)/(2)	(7)=(3)+(5)	(8)=(4)+(6)
G	ENERAL PLANT							
390.00	STRUCTURES & IMPROVEMENTS	13,633,024	555,022	4.07	40,334	0.30	595,356	4.37
391.00	OFFICE FURNITURE & EQUIPMENT	5,078,757	322,762	6.36	-	0.00	322,762	6.36
391.10	COMPUTER & OTHER ELECTRONIC EQUIPMENT	12,755,104	2,252,942	17.66	-	0.00	2,252,942	17.66
392.00	TRANSPORTATION EQUIPMENT	1,454,533	0	-	-	0.00	-	0.00
393.00	STORES EQUIPMENT	1,071,717	58,660	58,660 5.47	-	0.00	58,660	5.47
394.00	TOOLS, SHOPS & GARAGE EQUIPMENT	3,713,962	214,544	5.78	-	0.00	214,544	5.78
395.00	LABORATORY EQUIPMENT	2,595,828	178,961	6.89	- - (597,258)	0.00 0.00 -1.55	178,961 13,103 3,000,358	6.89 1.56 7.79
396.00	POWER OPERATED EQUIPMENT	841,791	13,103	1.56				
397.00	COMMUNICATION EQUIPMENT	38,537,911	3,597,617	9.34				
398.00	MISCELLANEOUS EQUIPMENT	182,207	2,443	1.34		0.00	2,443	1.34
т	OTAL GENERAL PLANT	79,864,834	7,196,055	9.01	(556,924)	-0.70	6,639,131	8.31
т	OTAL DEPRECIABLE PLANT	2,965,796,856	57,657,697	1.94	19,273,363	0.65	76,931,060	2.59
N	ONDEPRECIABLE PLANT							
303.00	INTANGIBLE MISCELLANEOUS PLANT	(692,038)						
310.10	LAND	(34,487)						
314.00	TURBOGENERATOR UNITS - RIPLEY	-						
340.10	LAND	2						
350.10	LAND	(26,805)						
350,20	LAND	73,936						
360.10	LAND	45,931						
360.20	LAND	172,684						
389.10	LAND	(399,749)						
390.20	LEASEHOLD IMPROVEMENTS	158,619						
TOTAL NONDEPRECIABLE PLANT		(701,907)						
т	OTAL ELECTRIC PLANT	2,965,094,949	57,657,697		19,273,363		76,931,060	

\* Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.

Sources:

Col. (2) from Depreciation Study, pages III-4 through III-6. Col. (3) from Exhibit\_\_\_(MJM-2), pages 16-18. Col. (5) from Exhibit\_\_\_(MJM-2), pages 19-21.

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

		ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RECOVERY CALCULATED ANNUAL ACCRUAL	
	ACCOUNT	COST	LESS COR	PERCENT	ACCRUALS	CURVE	LIFE	AMOUNT	RATE
	(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
ST	EAM PRODUCTION PLANT								
311.00	STRUCTURES & IMPROVEMENTS								
	JEFFREY	48,670,387	30,805,835	0	17,864,552	75-R3 *	34.2	522,355	1.07
	RIPLEY	2,111,828	2,301,193	0	(189,365)	75-R3 *	4.4	(43,037)	-2.04
	NEOSHO	2,683,172	2,275,772	0	407,400	75-R3 *	5.4	75,444	2.81
	MURRAY GILL	5,224,995	4,830,072	0	394,923	75-R3 *	11.5	34,341	0.66
	GORDAN EVANS	4,074,654	3,430,595	0	644,059	75-R3 *	17.3	37,229	0.91
	LACYGNE UNIT 1	25,508,581	12,243,629	0	13,264,952	75-R3 *	28.6	463,810	1.82
	LACYGNE UNIT 2	1,691,460	521,923	0	1,169,537	75-R3 *	12.4	94,317	5.58
	TOTAL STRUCTURES & IMPROVEMENTS	89,965,078	56,409,020		33,556,058		28.3	1, <b>184,459</b>	1.32
312.00	BOILER PLANT EQUIPMENT								
	JEFFREY	92,602,293	44,332,801	1	47,343,469	55-R1 *	29.9	1,583,394	1.71
	RIPLEY	613,728	(1,213,057)	1	1,820,647	55-R1 *	4.4	413,783	67.42
	NEOSHO	5,302,976	3,994,102	1	1,255,845	55-R1 *	5.3	236,952	4.47
	MURRAY GILL	20,797,771	21,680,653	1	(1,090,860)	55-R1 *	10.7 1/	(101,950)	-0.49
	GORDAN EVANS	29,092,095	21,518,896	1	7,282,278	55-R1 *	16.5	441,350	1.52
	LACYGNE UNIT 1	86,057,779	50,201,411	1	34,995,790	55-R1 *	26.5	1,320,596	1.53
	LACYGNE UNIT 2	23,880,703	6,756,782	0	17,123,921	55-R1 *	12.0	1,426,993	5.98
	TOTAL BOILER PLANT EQUIPMENT	258,347,346	147,271,588		108,731,091		20.4	5,321,119	2.06
312.10	POLLUTION CONTROL EQUIPMENT								
	JEFFREY	43,513,437	28,716,313		2/ 13,056,587	35-R2.5 *	16.4	796,133	1.83
	LACYGNE UNIT 1	40,563,914	39,201,650	4 2	2/ (260,293)	35-R2.5 *	25.9	(10,050)	-0.02
	TOTAL POLLUTION CONTROL EQUIPMENT	84,077,351	67,917,963		12,796,294		16.3	786,083	0.93
312.20	BOILER PLANT EQUIPMENT - TRAIN CARS								
	JEFFREY	92,020	29,075	0	62,945	25-R2 *	21.0	2,997	3.26
	LACYGNE UNIT 2	1,286,716	1,616,085	0	(329,369)	25-R2 *	0.00	0	-
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	1,378,736	1,645,160		(266,424)			2,997	0.22
314.00	TURBOGENERATOR UNITS								
	JEFFREY	42,501,768	10,984,122	3	30,242,593	30-S2 *	16.4	1,844,061	4.34
	NEOSHO	4,376,391	3,149,379	3	1,095,721	30-S2 *	3.3	332,037	7.59
	MURRAY GILL	23,125,022	18,296,323	3	4,134,949	30-S2 *	10.9	379,353	1.64
	GORDAN EVANS	22,735,282	20,095,307	3	1,957,916	30-S2 *	17.0	115,172	0.51
	LACYGNE UNIT 1 LACYGNE UNIT 2	23,324,011 5,606,664	13,685,538 1,058,563	3 0	8,938,753 4,548,101	30-S2 * 30-S2 *	10.5 11.2	851,310 406,080	3.65 7.24
	TOTAL TURBOGENERATOR UNITS	121,669,137	67,269,231	Ū	50,918,032	30-32	13.0	3,928,012	3.23
		121,000,101	01,200,201		00,010,002		10.0	5,520,012	0.20
315.00	ACCESSORY ELECTRIC EQUIPMENT JEFFREY	15,519,164	7,304,996	1	8 0E9 076	50-51.5 *	29.4	296 706	4 05
	WICHITA	196,685	229,332	1	8,058,976 (34,614)	50-S1.5 * 50-S1.5 *	28.1 0.00	286,796 0	1.85
	RIPLEY	658,792	229,332 905,008	1	(34,614) (252,804)	50-S1.5 *		-	- -9.59
	NEOSHÓ	1,937,671	1,524,987	1	(252,804) 393,307	50-S1.5 *	4,0 5.4	(63,201) 72,835	-9.59 3.76
	MURRAY GILL	5,919,304	4,961,890	1	898,220	50-S1.5 *	5.4 11.4	72,635	1.33
	GORDAN EVANS	5,770,813	4,901,890	1	1,279,525	50-S1.5 50-S1.5	11.4	73,961	1.33
	LACYGNE UNIT 1	12,239,428	6,497,221	1	5,619,813	50-S1.5 50-S1.5 *	23.8	236,127	1.93
	LACYGNE UNIT 2	2,133,732	988,636	o	1,145,096	50-S1.5 *	12.2	93,860	4.40
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	44,375,588	26,845,650		17,107,519		22.0	779,169	1.76

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

		ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RE CALCUL ANNUAL AC	ATED
	ACCOUNT	COST	LESS COR	PERCENT	ACCRUALS	CURVE		AMOUNT	RATE
	(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT								
	JEFFREY	3,634,656	996,848	2	2,565,115	35-R2 *	24.7	103,851	2.86
	RIPLEY	300,132	194,457	2	99,672	35-R2 *	4.1	24,310	8.10
	NEOSHO	482,389	228,904	2	243,836	35-R2 *	4.8	50,799	10.53
	MURRAY GILL	1,431,423	799,418	2	603,376	35-R2 *	10.4	58,017	4.05
	GORDAN EVANS	1,349,651	664,562	2	658,096	35-R2 *	15.9	41,390	3.07
	LACYGNE UNIT 1	4,210,990	1,432,331	2	2,694,439	35-R2 *	24.0	112,268	2.67 4.40
		1,253,341	608,136	0	645,205	35-R2 *	11.7	55,146	
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	12,662,581	4,924,657		7,509,740		16.8	445,781	3.52
т	DTAL STEAM PRODUCTION PLANT	612,475,817	372,283,269		230,352,310		18.5	12,447,621	2.03
	JCLEAR PRODUCTION PLANT								
321.00	STRUCTURES AND IMPROVEMENTS	399,941,190	175,705,417	0	224,235,773	90-S0.5 *	37.6	5,963,717	1.49
322.00	REACTOR PLANT EQUIPMENT	626,162,397	260,007,110	1	359,893,663	60-R2 *	34.8	10,341,772	1.65
323.00	TURBOGENERATOR UNITS	166,568,932	74,496,461	3	87,075,403	50-S1.5 *	29.7	2,931,832	1.76
324.00	ACCESSORY ELECTRIC EQUIPMENT	131,138,532	49,172,453	0	81,966,079	50-S1.5 *	29.9	2,741,340	2.09
325.00	MISCELLANEOUS POWER PLANT EQUIPMENT	61,643,030	8,677,240	0	52,965,790	40-R0-5 *	28.1	1,884,904	3.06
то	DTAL NUCLEAR PRODUCTION PLANT	1,385,454,082	568,058,681		806,136,709		33.8	23,863,565	1.72
G	AS TURBINE PLANT								
341.00	STRUCTURES & IMPROVEMENTS								
••••••	JEFFREY	10,491	2,253	0	8,238	SQUARE *	12.5	659	6.28
			_	-	-,				
344.00	GENERATORS								
	JEFFREY	376,494	75,593	0	300,901	30-S3 *	12.4	24,325	6.46
	GORDAN EVANS	1,549,285	324,048	0	1,225,237	30-S3 *	28.1	43,603	2.81
	TOTAL GENERATORS	1,925,779	399,641		1,526,138		22.5	67,928	3.53
345.00	ACCESSORY ELECTRIC EQUIPMENT								
	JEFFREY	22,776	4,912	0	17,864	40-S3 *	12.5	1,429	6.27
346.00	MISCELLANEOUS PLANT EQUIPMENT								
	JEFFREY	5,545	1,181	0	4,364	SQUARE *	12.5	349	6.30
тс	DTAL GAS TURBINE PLANT	1,964,591	407,987		1,556,604		22.1	70,365	3.58
TF	ANSMISSION PLANT								
352.00	STRUCTURES & IMPROVEMENTS	4,508,216	2,040,441	0	2,467,775	55-S2	41.1	60,043	1.33
353.00	STATION EQUIPMENT	116,243,326	48,964,969	5	61,466,191	58-R1.5	46.4	1,324,702	1.14
354.00	TOWERS & FIXTURES	6,891,043	4,485,986	2	2,267,236	65-R3	38.6	58,737	0.85
355.00	POLES & FIXTURES	85,569,105	44,336,434	3	38,665,598	50-R1.5	42.3	914,080	1.07
356.00	OVERHEAD CONDUCTORS & DEVICES	60,772,529	22,140,082	4	36,201,546	50-R2	31.4	1,152,915	1.90
357.00	UNDERGROUND CONDUIT	419,469	196,792	0	222,677	65-R3	36.4	6,118	1.46
358.00	UNDERGROUND CONDUCTOR & DEVICES	490,540	240,619	0	249,921	49-R4	23.1	10,819	2.21
359.00	ROADS & TRAILS	19,910	12,975	0	6,935	65-R4	26.1	266	1.33
тс	DTAL TRANSMISSION PLANT	274,914,138	1 <b>22,418,298</b>		141,547,879		40.1	3,527,680	1.28

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED CAPITAL RECOVERY RATE AS OF DECEMBER 31, 2003

		ORIGINAL	BOOK RESERVE	GROSS SALVAGE	FUTURE	SURVIVOR	REMAINING	CAPITAL RE CALCUL ANNUAL A	ATED
	ACCOUNT	COST	LESS COR	PERCENT	ACCRUALS	CURVE	LIFE	AMOUNT	RATE
	(1)	(2)	(3)	(4)	(5)=(2)*(1-(4))-(3)	(6)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
	ISTRIBUTION PLANT								
361.00	STRUCTURES & IMPROVEMENTS	2 406 570	4 450 040	0	2 044 054	55 Bo	40.0	40.000	4.00
362.00	STATION EQUIPMENT	3,496,570	1,452,316 24,437,956	5	2,044,254	55-R3	42.3	48,328	1.38
364.00	POLES, TOWERS & FIXTURES	54,632,243		5 4	27,462,674	55-R2	44.4	618,529	1.13
365.00	OVERHEAD CONDUCTORS & DEVICES	100,204,589 81,262,390	36,573,714 34,967,174	4 5	59,622,691 42,232,097	42-R1	33.2	1,795,864	1.79 1.52
366.00	UNDERGROUND CONDUIT	35,516,093	7,017,927	0		45-R1.5	34.3	1,231,256 532,676	1.52
367.00	UNDERGROUND CONDUCTORS & DEVICES	64,032,273	15.894.019	2	28,498,166 46,857,609	65-R2.5 49-R2	53.5 40.6	1,154,128	1.80
368.00	LINE TRANSFORMERS	137.521.034	50,991,168	2	83.779.445	49-R2 50-R2	38.5	2,176,089	1.58
369.00	SERVICES	62,182,754	48,321,362	0	13,861,392	51-S1.5	47.7	290,595	0.47
370.00	METERS	41,300,588	17,342,587	0	23.958.001	35-L2.5	22.7	1.055.419	2.56
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	1,776,650	1.091.982	õ	684,668	20-S2.5	6.9	99,227	5.59
372.00	LEASED PROPERTY ON CUSTOMERS' PREMISES	6,304,347	1,144,458	õ	5,159,889	19-S1	12.9	399,991	6.34
373.00	STREET LIGHTING & SIGNAL SYSTEMS	22,893,863	6,791,795	2	15,644,191	19-L0.5	13.6	1,150,308	5.02
010.00		22,035,005	0,191,195	2	15,044,191	19-20.5	15.0	1,150,500	5.02
т	OTAL DISTRIBUTION PLANT	611,123,393	246,026,458		349,805,077		33.1	10,552,411	1.73
G	ENERAL PLANT								
390.00	STRUCTURES & IMPROVEMENTS	13,633,024	4,253,156	0	9,379,868	35-R3	16.9	555.022	4.07
391.00	OFFICE FURNITURE & EQUIPMENT	5,078,757	1,980,246	õ	3,098,511	25-SQ	9.6	322,762	6.36
391.10	COMPUTER & OTHER ELECTRONIC EQUIPMENT	12,755,104	7.573.337	0	5,181,767	5-SQ	2.3	2.252,942	17.66
392.00	TRANSPORTATION EQUIPMENT	1,454,533	2,162,370	15	(926,017)	9-R1	0.00	2,20-10.2	-
393.00	STORES EQUIPMENT	1,071,717	244,609	0	827,108	25-SQ	14.1	58,660	5.47
394.00	TOOLS, SHOPS & GARAGE EQUIPMENT	3,713,962	1,010,706	0	2,703,256	25-SQ	12.6	214,544	5.78
395.00	LABORATORY EQUIPMENT	2,595,828	967,279	0	1,628,549	25-SQ	9.1	178,961	6.89
396.00	POWER OPERATED EQUIPMENT	841,791	445,275	25	186,069	16-S0	14.2	13,103	1.56
397.00	COMMUNICATION EQUIPMENT	38,537,911	10,836,263	0	27.701.648	15-SQ	7.7	3,597,617	9.34
398.00	MISCELLANEOUS EQUIPMENT	182,207	169,502	0	12,705	15-SQ	5.2	2,443	1.34
т	OTAL GENERAL PLANT	79,864,834	29,642,743		49,793,463		6.9	7,196,055	9.01
т	OTAL DEPRECIABLE PLANT	2,965,796,856	1,338,837,436		1,579,192,042		27.4	57,657,697	1.94
N	ONDEPRECIABLE PLANT								
303.00	INTANGIBLE MISCELLANEOUS PLANT	(692,038)							
310.10	LAND	(34,487)	(2,130)						
314.00	TURBOGENERATOR UNITS - RIPLEY	-	(909,823)						
340.10	LAND	2	(						
350.10	LAND	(26,805)							
350.20	LAND	73,936							
360.10	LAND	45,931	(274)						
360.20	LAND	172,684	(2.1)						
389.10	LAND	(399,749)							
390.20	LEASEHOLD IMPROVEMENTS	158,619							
т	OTAL NONDEPRECIABLE PLANT	(701,907)	(912,227)						
т	OTAL ELECTRIC PLANT	2,965,094,949	1,337,925,209		1 570 402 442			E7 8E7 607	
		2,000,004,043	1,001,020,200		1,579,192,042			57,657,697	

• Curve shown is interim survivor curve. Each facility in the account is assigned an individual probable retirement year.

Sources:

Cols. (2) and (6) from Depreciation Study, pages III-4 through III-6. Col. (3) from Exhibit\_\_\_(MJM-13), pages 26-29. Col. (4) from response to CURB 29.

Col. (7) from "westarSouth-CURB227a.txt" These are the remaining lives without Spanos net salvage adjustment.

1/ Spanse did not provide the unadjusted remaining life for this account. 10.7 is his adjusted remaining life.
 2/ CURB 29 showed a 0% gross salvage ratio and a -44% COR ratio. However, to achieve a 40% net salvage ratio, the gross salvage ratio must be 4%.

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED COST OF REMOVAL RATE AS OF DECEMBER 31, 2003

	ACCOUNT (1)	ORIGINAL COST (2)	SPANOS INFLATED FUTURE COR % (3)	SPANOS INFLATED FUTURE COR \$ (4)=(2)*-(3)	TOTAL COR In RESERVE (5)	FUTURE ACCRUALS (6)=(4)-(5)	REM. IFE (7)	COST OF I ACCRUAL (8)=(6)/(7)	REMOVAL <u>RATE</u> (9)=(8)/(2)
	(1)	(2)	(3)	(4)-(2) (3)	(0)	(*)-(*)-(*)	(7)		
ST 311.00	EAM PRODUCTION PLANT STRUCTURES & MPROVEMENTS								
	JEFFREY	48,670,387	-30.00%	14,601,116	(738,639)	15,339,755	34.2	448,531	0.92
	RIPLEY	2,111,828	-30.00%	633,548	(32,050)	665,598	4.4	151,272	7.16
	NEOSHO	2,683,172	-30.00%	804,951	(40,721)	845,672	5.4	156,606	5.84
	MURRAY GILL	5,224,995	-30.00%	1,567,499	(79,296)	1,646,795	11.5	143,200	2.74
	GORDAN EVANS	4,074,654	-30,00%	1,222,396	(61,838)	1,284,235	17.3	74,233	1.82
	LACYGNE UNIT 1	25,508,581	-30.00%	7,652,574	(387,127)	8,039,702	28.6	281,108	1.10
	LACYGNE UNIT 2	1,691,460	-10.00%	169,146	(25,670)	194,816	12.4	15,711	0.93
	TOTAL STRUCTURES & IMPROVEMENTS	89,965,078		26,651,231	(1,365,342)	28,016,573		1,270,661	
312.00	BOILER PLANT EQUIPMENT								
0.2.00	JEFFREY	92,602,293	-36.00%	33,336,826	(1,715,772)	35,052,598	29.9	1,172,328	1.27
	RIPLEY	613,728	-36.00%	220,942	(11,371)	232,313	4.4	52,799	8.60
	NEOSHO	5,302,976	-36.00%	1,909,072	(98,256)	2,007,327	5.3	378,741	7.14
	MURRAY GILL	20,797,771	-36.00%	7,487,198	(385,349)	7,872,547	10.7 1	735,752	3.54
	GORDAN EVANS	29,092,095	-36.00%	10,473,154	(539,030)	11,012,184	16.5	667,405	2.29
	LACYGNE UNIT 1	86,057,779	-36.00%	30,980,800	(1,594,513)	32,575,313	26.5	1,229,257	1.43
	LACYGNE UNIT 2	23,880,703	-15.00%	3,582,105	(442,471)	4,024,577	12.0	335,381	1.40
	TOTAL BOILER PLANT EQUIPMENT	258,347,346		87,990,097	(4,786,762)	92,776,859		4,571,663	
312.10	POLLUTION CONTROL EQUIPMENT								
512.10	JEFFREY	43.513.437	-44.00%	19,145,912	(798,345)	19,944,257	16.4	1,216,113	2.79
	LACYGNE UNIT 1	40,563,914	-44.00%	17,848,122	(744,229)	18,592,352	25.9	717,851	1.77
					(1,542,574)	38,536,608		1,933,965	
	TOTAL POLLUTION CONTROL EQUIPMENT	84,077,351		36,994,034	(1,042,074)	30,330,000		1,855,805	
312.20	BOILER PLANT EQUIPMENT - TRAIN CARS								
	JEFFREY	92,020	0.00%	-	(1,929)	1,929	21.0	92	0.10
	LACYGNE UNIT 2	1,286,716	0.00%		(26,969)	26,969	0.00	0	-
	TOTAL BOILER PLANT EQUIPMENT - TRAIN CARS	1,378,736		-	(28,898)	28,898		92	
314.00	TURBOGENERATOR UNITS								
	JEFFREY	42,501,768	-23.00%	9,775,407	(555,773)	10,331,179	16.4	629,950	1.48
	NEOSHO	4,376,391	-23.00%	1,006,570	(57,228)	1,063,798	3.3	322,363	7.37
	MURRAY GILL	23,125,022	-23.00%	5,318,755	(302,394)	5,621,149	10.9	515,702	2.23
	GORDAN EVANS	22,735,282	-23.00%	5,229,115	(297,297)	5,526,412	17.0	325,083	1.43
	LACYGNE UNIT 1	23,324,011	-23.00%	5,364,523	(304,996)	5,669,518	10.5	539,954	2.32
	LACYGNE UNIT 2	5,606,664	-10.00%	560,666	(73,315)	633,982	11.2	56,606	1.01
	TOTAL TURBOGENERATOR UNITS	121,669,137		27,255,035	(1,591,002)	28,846,038		2,389,657	

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED COST OF REMOVAL RATE AS OF DECEMBER 31, 2003

	ACCOUNT		SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR In RESERVE	FUTURE	REM. LIFE	COST OF I	RATE
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
315.00	ACCESSORY ELECTRIC EQUIPMENT								
	JEFFREY	15,519,164	-11.00%	1,707,108	(212,256)	1,919,364	28.1	68,305	0.44
	WICHITA	196,685	-11.00%	21,635	(2,690)	24,325	0.00	0	-
	RIPLEY	658,792	-11.00%	72,467	(9,010)	81,477	4.0	20,369	3.09
	NEOSHO	1,937,671	-11.00%	213,144	(26,502)	239,645	5.4	44,379	2.29 1.08
		5,919,304	-11.00% -11.00%	651,123 634,789	(80,958) (78,928)	732,082 713,717	11.4 17.3	64,218 41,255	0.71
	GORDAN EVANS LACYGNE UNIT 1	5,770,813 12,239,428	-11.00%	1,346,337	(167,399)	1,513,736	23.8	63,602	0.52
	LACYGNE UNIT 2	2,133,732	-5.00%	106,687	(29,183)	135,870	12.2	11,137	0.52
	TOTAL ACCESSORY ELECTRIC EQUIPMENT	44,375,588		4,753,291	(606,926)	5,360,217		313,265	
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT								
010.00	JEFFREY	3,634,656	-17.00%	617,892	(47,645)	665,537	24.7	26,945	0.74
	RIPLEY	300,132	-17.00%	51,022	(3,934)	54,957	4.1	13,404	4.47
	NEOSHO	482,389	~17.00%	82,006	(6,323)	88,330	4.8	18,402	3.81
	MURRAY GILL	1,431,423	-17.00%	243,342	(18,764)	262,106	10.4	25,202	1.76
	GORDAN EVANS	1,349,651	-17.00%	229,441	(17,692)	247,133	15.9	15,543	1.15 0.76
	LACYGNE UNIT 1 LACYGNE UNIT 2	4,210,990 1,253,341	-17.00% -5.00%	715,868 62,667	(55,200) (16,430)	771,069 79,097	24.0 11.7	32,128 6,760	0.76
	TOTAL MISCELLANEOUS POWER PLANT EQUIPMENT	12,662,581		2,002,238	(165,989)	2,168,227		138,385	
т	DTAL STEAM PRODUCTION PLANT	612,475,817		185.645.927	(10,087,493)	195,733,420		10,617,688	
				,	(,,,	,,			
	UCLEAR PRODUCTION PLANT		=	10 007 000	<u>^</u>	10 007 000	07.0	504 007	0.40
321.00	STRUCTURES AND IMPROVEMENTS	399,941,190	-5.00%	19,997,060	0 0	19,997,060 68,877,864	37.6 34.8	531,837 1,979,249	0.13 0.32
322.00 323.00	REACTOR PLANT EQUIPMENT TURBOGENERATOR UNITS	626,162,397 166,568,932	<del>-</del> 11.00% -18.00%	68,877,864 29,982,408	0	29,982,408	29.7	1,009,509	0.61
323.00	ACCESSORY ELECTRIC EQUIPMENT	131,138,532	0.00%	23,302,400	ő	23,302,400	29.9	1,000,000	-
325.00	MISCELLANEOUS POWER PLANT EQUIPMENT	61,643,030	0.00%		0	<u>0</u>	28.1	0	-
т	DTAL NUCLEAR PRODUCTION PLANT	1,385,454,082		118,857,331	-	118,857,331		3,520,594	
G	AS TURBINE PLANT								
341.00	STRUCTURES & IMPROVEMENTS								
	JEFFREY	10,491	0.00%	-	0	0	12.5	0	-
344.00	GENERATORS								
	JEFFREY	376,494	0.00%	-	0	0	12.4	0	-
	GORDAN EVANS	1,549,285	0.00%		0	0	28.1	0	-
	TOTAL GENERATORS	1,925,779		-	0	0		0	
345.00	ACCESSORY ELECTRIC EQUIPMENT								
	JEFFREY	22,776	0.00%	-	0	0	12.5	0	-
346.00	MISCELLANEOUS PLANT EQUIPMENT								
	JEFFREY	5,545	0.00%		0	0_	12.5	0	<b>.</b>
т	OTAL GAS TURBINE PLANT	1,964,591		-	-	-		-	

#### WESTAR SOUTH CALCULATION OF COMPANY PROPOSED COST OF REMOVAL RATE AS OF DECEMBER 31, 2003

	ACCOUNT	ORIGINAL COST	SPANOS INFLATED FUTURE COR %	SPANOS INFLATED FUTURE COR \$	TOTAL COR In RESERVE	FUTURE	REM. LIFE	COST OF F	
	(1)	(2)	(3)	(4)=(2)*-(3)	(5)	(6)=(4)-(5)	(7)	(8)=(6)/(7)	(9)=(8)/(2)
т	RANSMISSION PLANT								
352.00	STRUCTURES & IMPROVEMENTS	4,508,216	-10.00%	450,822	176,397	274,425	41.1	6,677	0.15
353.00	STATION EQUIPMENT	116.243.326	-15.00%	17.436.499	0	17.436.499	46.4	375.787	0.32
354.00	TOWERS & FIXTURES	6,891,043	-32.00%	2,205,134	148,305	2,056,829	38.6	53,286	0.77
355.00	POLES & FIXTURES	85,569,105	-28.00%	23,959,349	1.045.870	22,913,479	42.3	541,690	0.63
356.00	OVERHEAD CONDUCTORS & DEVICES	60,772,529	-19.00%	11,546,781	0	11,546,781	31.4	367,732	0.61
357.00	UNDERGROUND CONDUIT	419,469	0.00%	-	Ő	0	36.4	0	-
358.00	UNDERGROUND CONDUCTOR & DEVICES	490,540	0.00%	-	0	Ō	23.1	Ō	-
359.00	ROADS & TRAILS	19,910	0.00%		0	0	26.1	0	-
Т	OTAL TRANSMISSION PLANT	274,914,138		55,598,584	1,370,572	54,228,012		1,345,171	
D	ISTRIBUTION PLANT								
361.00	STRUCTURES & IMPROVEMENTS	3,496,570	-10.00%	349.657	126.639	223,018	42.3	5,272	0.15
362.00	STATION EQUIPMENT	54,632,243	-20.00%	10,926,449	93,260	10.833,189	44,4	243,991	0.45
364.00	POLES, TOWERS & FIXTURES	100,204,589	-34.00%	34,069,560	534,582	33,534,978	33.2	1,010,090	1.01
365.00	OVERHEAD CONDUCTORS & DEVICES	81,262,390	-45.00%	36,568,076	282,067	36,286,009	34.3	1,057,901	1.30
366.00	UNDERGROUND CONDUIT	35,516,093	-35.00%	12,430,633	(1,773)	12,432,406	53.5	232,381	0.65
367.00	UNDERGROUND CONDUCTORS & DEVICES	64,032,273	-37.00%	23,691,941	0	23,691,941	40.6	583,545	0.91
368.00	LINE TRANSFORMERS	137,521,034	-12.00%	16,502,524	175,470	16,327,054	38.5	424,079	0.31
369.00	SERVICES	62,182,754	-40.00%	24,873,102	855,114	24,017,988	47.7	503,522	0.81
370.00	METERS	41,300,588	0.00%	-	0	0	22.7	0	-
371.00	INSTALLATIONS ON CUSTOMERS' PREMISES	1,776,650	0.00%	-	0	0	6.9	0	-
372.00	LEASED PROPERTY ON CUSTOMERS' PREMISES	6,304,347	0.00%	-	0	0	12.9	0	-
373.00	STREET LIGHTING & SIGNAL SYSTEMS	22,893,863	-17.00%	3,891,957	1,649	3,890,308	13.6	286,052	1.25
т	OTAL DISTRIBUTION PLANT	611,123,393		163,303,897	2,067,008	161,236,889		4,346,834	
G	ENERAL PLANT								
390.00	STRUCTURES & IMPROVEMENTS	13,633,024	-5.00%	681,651	0	681,651	16.9	40,334	0.30
391.00	OFFICE FURNITURE & EQUIPMENT	5,078,757	0.00%	-	0	0	9.6	0	-
391.10	COMPUTER & OTHER ELECTRONIC EQUIPMENT	12,755,104	0.00%	-	0	0	2.3	0	-
392.00	TRANSPORTATION EQUIPMENT	1,454,533	0.00%	-	0	0	0.00	0	-
393.00	STORES EQUIPMENT	1,071,717	0.00%	-	0	0	14.1	0	-
394.00	TOOLS, SHOPS & GARAGE EQUIPMENT	3,713,962	0.00%	-	0	0	12.6	0	-
395.00	LABORATORY EQUIPMENT	2,595,828	0.00%	-	0	0	9.1	0	-
396.00	POWER OPERATED EQUIPMENT	841,791	0.00%	-	0	0	14.2	0	-
397.00	COMMUNICATION EQUIPMENT	38,537,911	0.00%		4,598,889	(4,598,889)	7.7	(597,258)	(1.55)
398.00	MISCELLANEOUS EQUIPMENT	182,207	0.00%	-	0	0	5.2	0	-
т	OTAL GENERAL PLANT	79,864,834		681,651	4,598,889	(3,917,238)		(556,924)	
т	OTAL DEPRECIABLE PLANT	2,965,796,856		524,087,390	(2,051,024)	526,138,414		19,273,363	

Sources:

Col. (2) from Depreciation Study, pages III-4 through III-6.

Col. (3) from response to CURB 29.

Col. (5) from Tesponse to CURB 23.
 Col. (5) from Exhibit\_\_\_(MJM-13), pages 26-29, based on response to CURB 238.
 Col. (7) from "westarSouth-CURB227a.txt" These are the remaining lives without Spanos net salvage adjustment.
 1/ Spanos did not provide the unadjusted remaining life for this account. 10.7 is his adjusted remaining life.

# Westar Plants Site Visit Report

by

William M. Zaetz - Senior Consultant Snavely King Majoros O'Connor & Lee, Inc.

#### **Introduction**

At 8:30 am Tuesday, August 23, 2005, I arrived at Westar Headquarters in Topeka to meet with Westar representatives Dick Rohlfs and Chuck Hodson to plan the day's site visit to plants Jeffrey, Tecumseh and Lawrence. Our plan was to visit the three plants that day and then travel to Witchita the following day to visit Hutchinson, Murray Gill and Gordon Evans. We started out from the Capitol Plaza Hotel and were on our way to Jeffrey. Chuck Hodson, Executive Director of Safety and Support Services, Generation and Marketing, would be my escort and driver for the day.

The weather that day was intermittent showers. Kansas had already had over 9 inches of rain that month and the forecast was for more. I was hoping to get a break in the weather to take my photos.

#### **Jeffrey Energy Center**

Jeffrey Energy Center had not changed in its appearance since I had last visited the plant back in 2001. There were <u>no</u> retired units at this site, so my focus would be a discussion of the modifications to the units that would be considered "life-extension". We were greeted and led to the conference room by Leonard Lee, Engineer VI Generation & Marketing, Jeffrey Energy Center.

I started the camcorder and asked Leonard to outline the modifications to the units that had taken place since 2001. He was very prepared for this question and provided me with an Excel file that depicted all the major construction projects at Jeffrey from 1992 to the present and also showed some future additions that were printed in red.

Leonard Lee is a most competent engineer whose knowledge of the inner workings of the boilers at Jeffrey impressed me a great deal. The major inner components of the boiler, the two superheater sections and the reheat section had been replaced with stainless steel tubes. This was an opportunity to get a first hand education from an expert so I asked, "How are they holding up, Leonard?"

He began to explain, in great detail, the evolution of the decisions to go to stainless in each portion of these sections. Apparently, there was a little trial and error before the success that they now enjoy was achieved. One of the hurdles that he overcame was the problem of the stainless steel welds cracking at the point where they joined with a dissimilar metal. The <u>metallurgy</u> was not the problem, but uneven expansion was causing stress on the front of the tube bank. Leonard explained that by adding more soot blowers in other sections of the component, the stress would be relieved. He stated that no stainless tube had ever leaked since its installation.

The most impressive fact that Mr. Lee revealed was that Jeffrey had not had a "forced outage" that lasted more than 24 hours in over a year. As we walked the boiler down from the top of Unit 3, Leonard pointed to the penthouse doors that they had installed and shouted over the noise of the boiler: "That's the reason for that outage rate!" They had installed access doors in the penthouse. This was one of those improvements that make the workers say, "It's about time." When a boiler is shut down, there is a gang that opens all the doors on the boiler for as much ventilation as possible. Boiler penthouses are notorious for the small manholes that provide access to all the headers. If there were material of any size to be passed in, an access hole would have to be cut in the casing and then re-welded when the job was done. By installing these quick opening access doors, the work can be completed much faster and the added ventilation allows the work to begin sooner.

As we finished our walk down I took a few photos to show that the outside appearance was very good. It looked like there might be some patching here and there on some ductwork, but overall the plant is in excellent condition. The added service life of the new stainless components makes the new service life for the boiler the same as for a new unit. These units are running conservatively. This means that they are not close to producing the MW they were designed to generate. The explanation that I got here and at the other units is that they must burn much <u>more</u> of the PRB coal to produce the same amount of BTU's as the old Colorado coal. We left Jeffrey and started out for Tecumseh.

#### **Tecumseh Energy Center**

I had not seen Tecumseh in my 2001 visit and I was curious about the status of all the retired boilers at the plant. According to the documentation provided, Tecumseh had about 8 units that were retired at the site. Plant Director Herb Unrein was our guide and fielded my questions concerning the retired units.

The retired units were housed in a brick building at the far end of the plant. One brick building had been the turbine deck but now was a machine shop. The turbines had been removed and the shop was pretty impressive. The boilers had been retired in place. The actual number of units there is a little bit confusing because they were not all baseload units.

Some of the boilers were 400# auxiliary units that produced steam for various purposes. While we were standing atop Unit 5, Herb and Chuck pointed to a factory in the distance that had once been a customer for the processed steam. It had previously been a cellophane film plant owned by Dupont. When a plastics company bought the factory, the market for the steam ended and the decision was made to retire the boilers.

As we stood next to the mothballed units, I asked Herb if there were any plans that he knew of to dismantle the boilers. He shook his head and replied; "That takes money." His statement was the simplest explanation of why dismantlement will not occur. There are many more priorities that will always supercede spending money for no necessary reason. The roof of the old building is in need of repair (it leaks) and he said that it was difficult to find the budget money to do the repairs. Some of those boilers have been retired for over twenty years and they will be in the same predicament for twenty more.

One other point is worth mentioning before I leave Tecumseh. There are two Combustion Turbines at the site that are reliable and fully operational. Herb stated, "All you have to do is push the button and they'll run, but it costs too much to run them." The CT's have a listed service life of 40 years. I think that it should mean 40 years if they are being <u>used</u>, not on standby. Why can't the 40-year life be based on the total hours that the unit is capable of running and not just sitting there on standby?

The two base load units that are running at Tecumseh are reliable and have a very low forced outage rate according to Herb Unrein. There have been no life extension modifications to the boilers and they are running at about 60 to 70% of their capacity because of the coal heat rate. We left Tecumseh and headed for our last stop - Lawrence.

#### Lawrence Energy Center

Lawrence Energy Center has a total of five units at the site. Units 3, 4 and 5 are baseload and running. Units 1 and 2 have been retired in place. Jeff Culp is the Operations Superintendent and he was our guide. Jeff and his chief engineer Fred Campbell answered my questions.

Lawrence had undergone some modifications that would be considered life extension. The number 5 turbine had an efficiency upgrade in 2001 to get more load. There was extensive boiler work and in 2001 the high temperature superheater was upgraded to stainless steel. Unit 3 also had a stainless upgrade and Unit 5 already had stainless. Unit 5 also had the low nox burners installed. Units 3 and 4 had the low nox burners and Unit 5 replaced the reheater and economizer.

The turbine for the retired Unit 1 had been removed from the turbine deck but the other turbine for the retired Unit 2 was left in place. The boilers for Units 1 and 2 were retired in place. The common building for Units 1, 2 and 3 make dismantlement of the two retired boilers highly unlikely. I left Lawrence with the feeling that my original premise had been correct. The <u>only</u> time these retired components are removed is when the space is needed for another purpose.

#### <u>Wichita</u>

Originally the plan was to travel to Wichita on Wednesday to see the other three steam plants. After a conversation with Chuck over the actual travel time to get the visit done, I decided to cancel the trip. None of the units had any retirements and they were not base-load units. None had undergone any life extension modifications either. I felt that I had gathered enough data and photos that day to make our point.

#### **Conclusion**

I returned to Baltimore on Wednesday and began editing the photos and downloading the video the following day. I was dismayed to find out that the "auto focus" on the camcorder had malfunctioned. During my site visit, I had tried several times to zoom in and tried to focus manually, but it did not work. Viewing the video on the 2-inch camcorder screen did not show the focus to be that noticeable but it is noticeably blurry when viewed on a larger screen. It is not a total loss because the sound portion provided the information that I needed to complete my report. I processed the photographs and prepared a PowerPoint file to show them, along with commentary about each photo. My complete site visit report consists of this narrative and the PowerPoint presentation. Additional photographs and the video taken during the tour are available upon request.

# SITE VISIT TO WESTAR PLANTS

# JEFFREY, TECUMSEH

# and LAWRENCE

August 23, 2005

**Prepared by** 

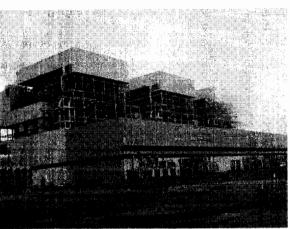
William M. Zaetz - Senior Consultant

Snavely King Majoros O'Connor & Lee, Inc.

# Westar Energy's Plant Guides

#### Leonard Lee

Engineer VI Generation & Marketing Jeffrey Energy Center





#### Herb Unrein

Plant Director Tecumseh Energy Center

#### Jeff Culp

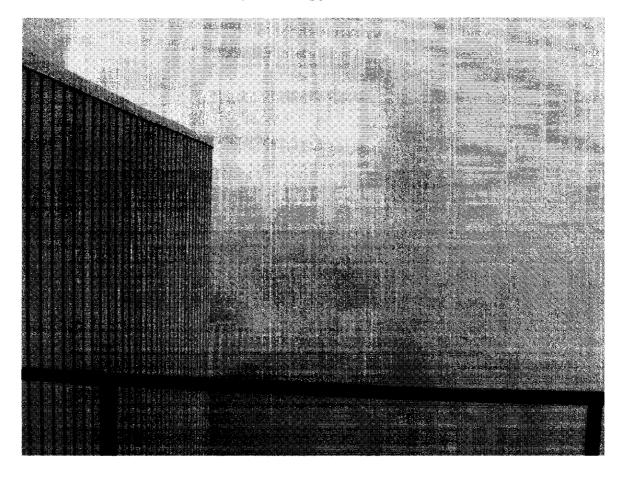
Operations Superintendent Generation & Marketing Lawrence Energy Center

Transportation for the day was provided by Chuck Hodson-Executive Director, Safety Support Services Generation & Marketing

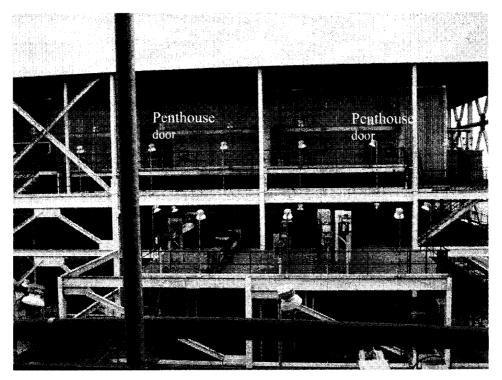
My assignment from Mike Majoros, and the purpose of these of these site visits, was to focus on the modifications performed at each plant that would be considered "life extension" modifications. I would note any revisions that had taken place at the plant since our last visit in February of 2001.

I would also focus on the retired units at these locations and illustrate their present condition and status. By illustrating the fact that these retired units have been "retired in place", with no plans to dismantle them, dismantlement costs are shown to be unjustified.

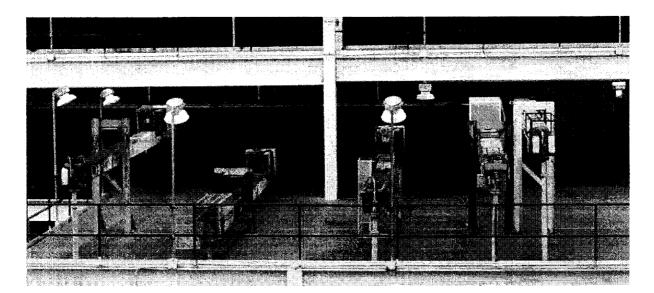
#### Jeffrey Energy Center



We were concerned that the weather would prevent us from completing the tour. This was our view after our first step out of the elevator atop Jeffrey. Visibility was so bad that the stack could barely be seen! This is the coal field side of the location, or the rear of the boilers. We decided to try another side.



This is a side view photo taken between units 2 and 3. Two of the modifications to the unit are the installation of the penthouse doors (at the top of the photo) and the installation of additional soot blowers to prevent welds from cracking in the reheat and superheater sections of the boiler.



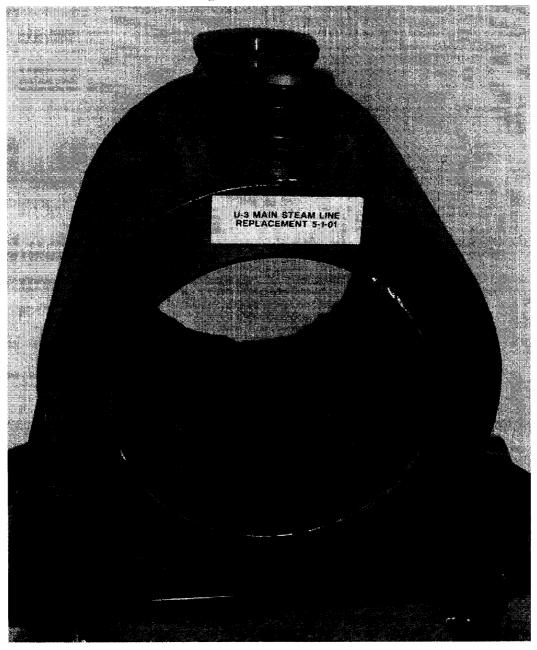


Operations of the facility are closely monitored in the control room at Jeffrey. Chief Engineer, Leonard Lee, stated that they no longer experience any "forced" outages that last longer than 24 hours.

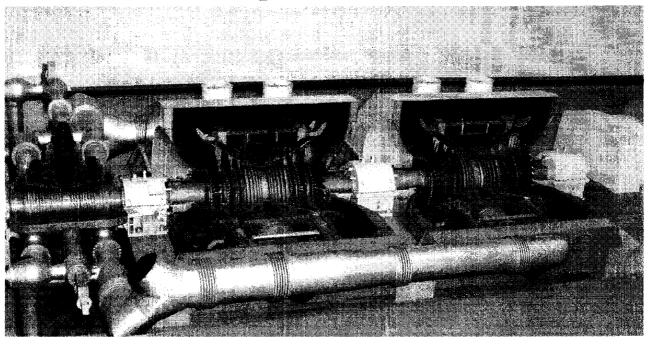
The installation of stainless steel components in the reheat and superheater sections of the boilers account for a significant reduction of fly ash buildup. There have been absolutely NO leaks in them since their installation. The original problem of the welds cracking at the joint with another metal alloy was alleviated by the additional soot blowers. They provide a more uniform cooling effect on the tubes. The actual service life of these components will be significantly greater than the previous alloy that was used in the original components.

Exhibit\_\_\_(MJM-3) Page 12 of 27

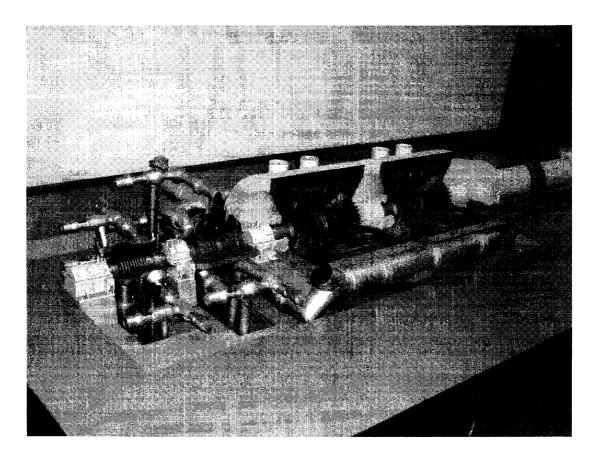
## SITE VISIT TO WESTAR PLANTS August 23, 2005



The reason for the replacement of the main steam line in May of 2001 was its incompatibility with the new "seamless" piping that it linked. The wall of this tube is approximately 3 inches thick.



This model of the turbines used at Jeffrey was provided by Siemans.



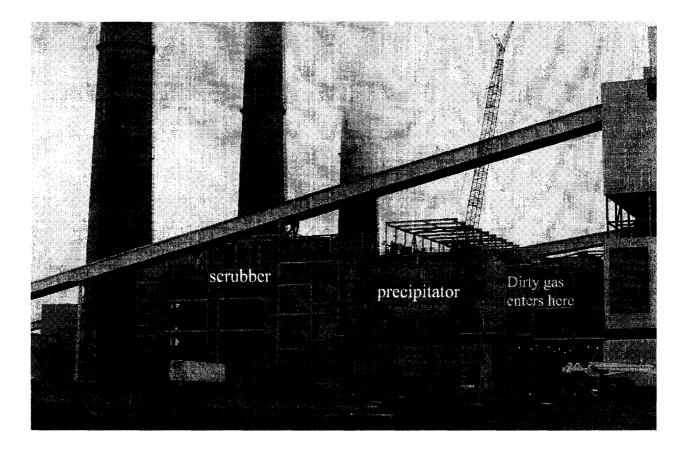
Exhibit\_\_\_(MJM-3) Page 14 of 27

# SITE VISIT TO WESTAR PLANTS August 23, 2005

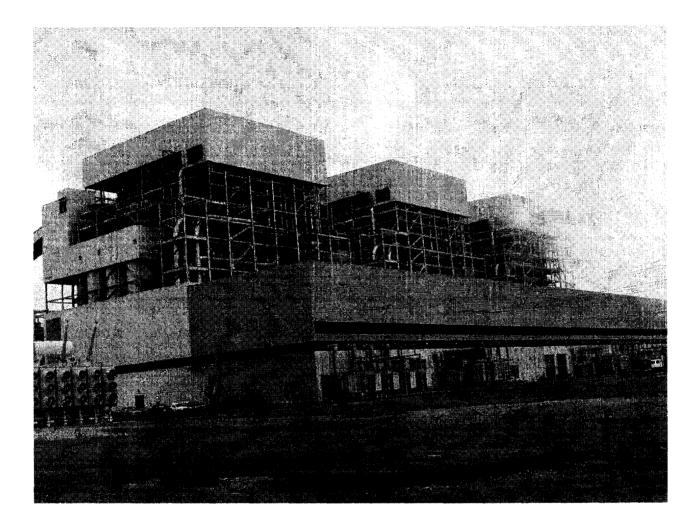


The turbine deck at Jeffrey has room for their spare turbine blade alongside.

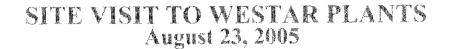


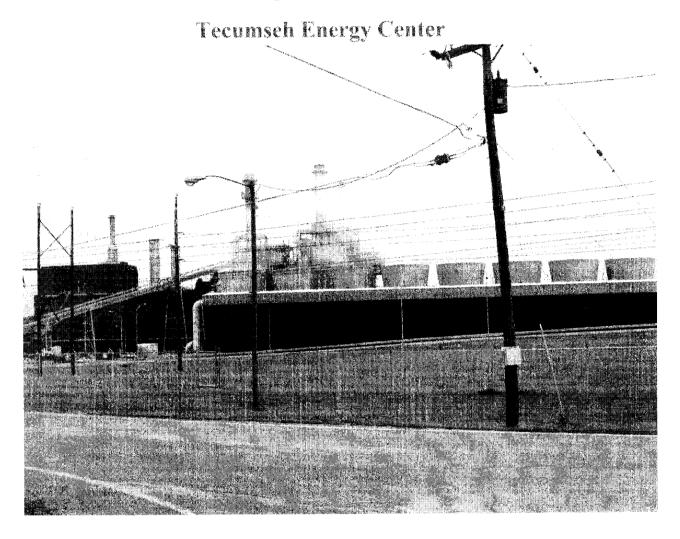


Jeffrey's emission controls are provided by the scrubber and the electrostatic precipitator. The slanted structure houses the conveyor that is the coal feed from the coal pile.

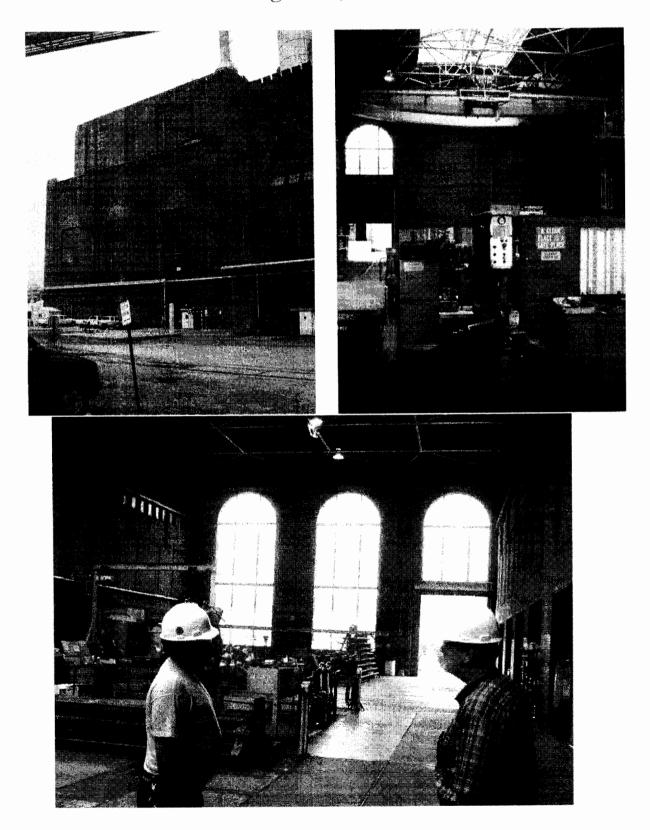


The only available position to take a photo of all three units on this day was from here. The teal colored building and the adjacent structure house the turbines. These three base-load units at Jeffrey will produce with high reliability for many years.



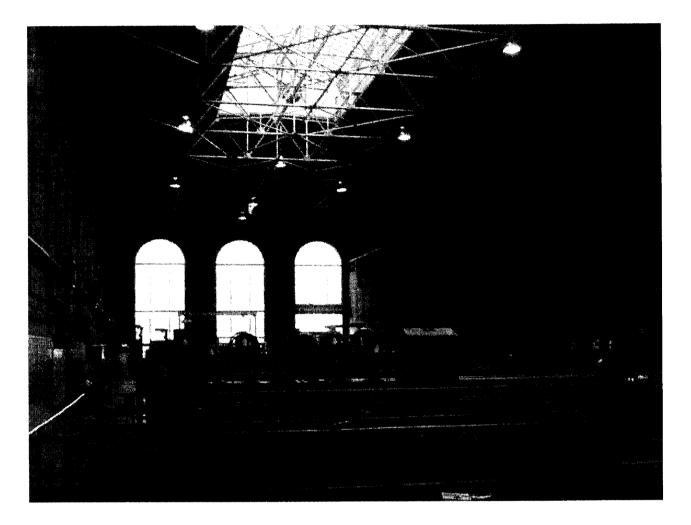


Tecumseh Energy Center has their retired boilers housed in the red brick building to the left. They remain intact. The asbestos covering on the piping has been removed and the pipes painted white. The turbine deck has been cleared of its turbines and the area is a machine shop. The two units to the right are reliable baseload units.

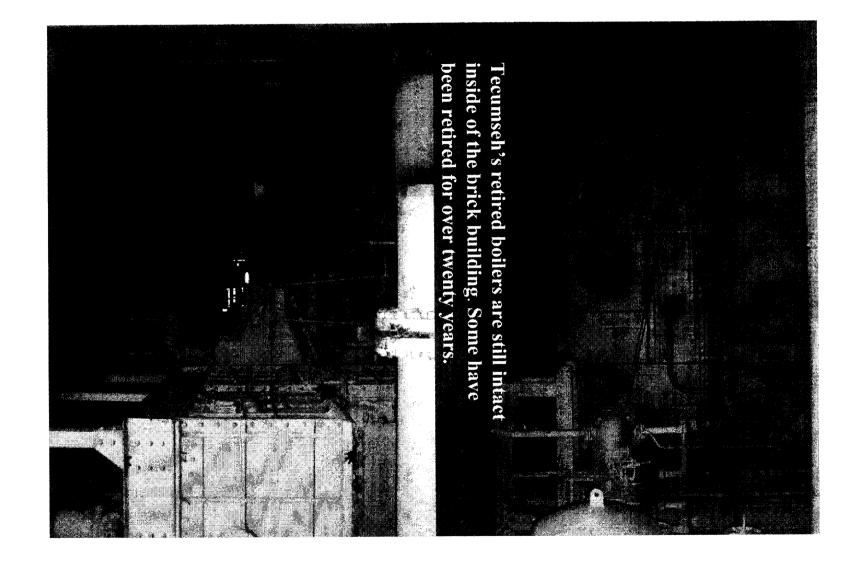


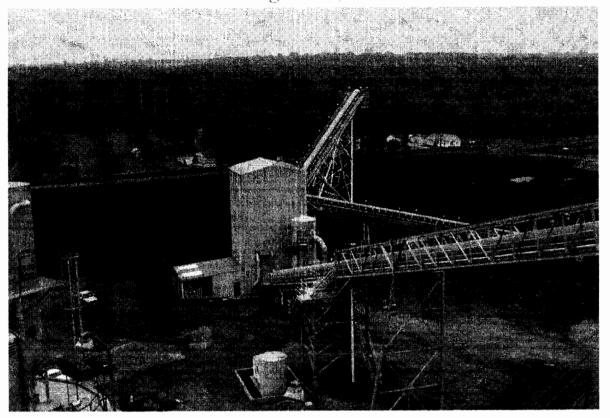
Exhibit\_\_\_(MJM-3) Page 19 of 27

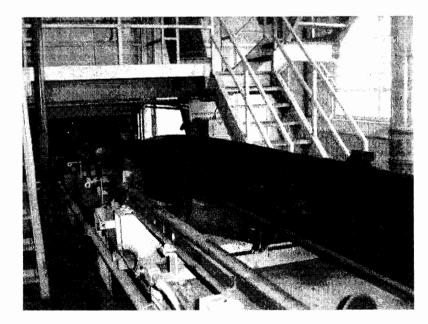
#### SITE VISIT TO WESTAR PLANTS August 23, 2005



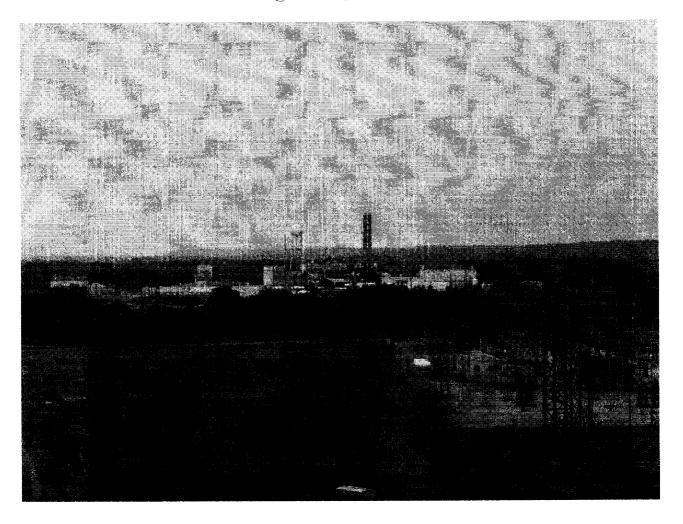
The old building provides the space for the plant's excellent machine shop. This part is still maintained and any possibility of dismantlement is highly remote.





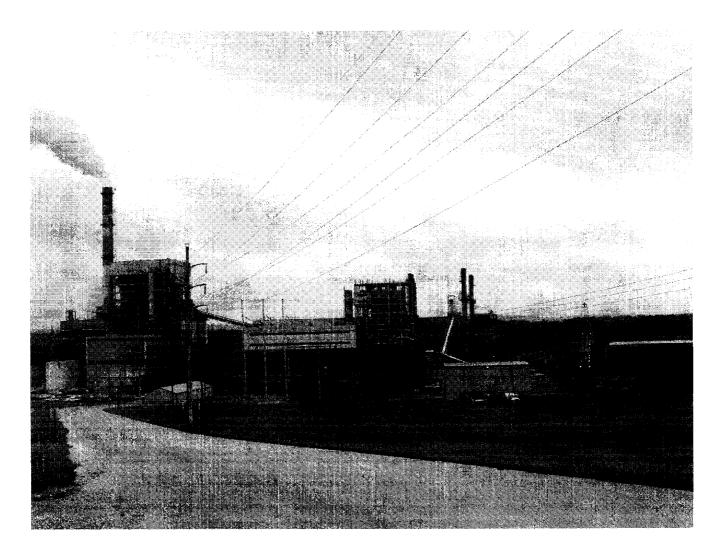


Westar plants are using Powder River Basin coal from Wyoming. The coal has a lower sulfur content, which is good; however, it does not have the same heat rate as the former coal (from Colorado). Previously Tecumseh burned about 3 to 400,000 tons per year. This year Tecumseh will burn 1,000,000 tons of PRB coal.



This plastics factory can be seen from the top of Tecumseh's boilers. It used to be a cellophane film producer that was owned by Dupont. For many years they purchased steam that was produced in Tecumseh's 400 lb. auxiliary boilers. Part of the reason to retire these units was the loss of this market.

#### Lawrence Energy Center



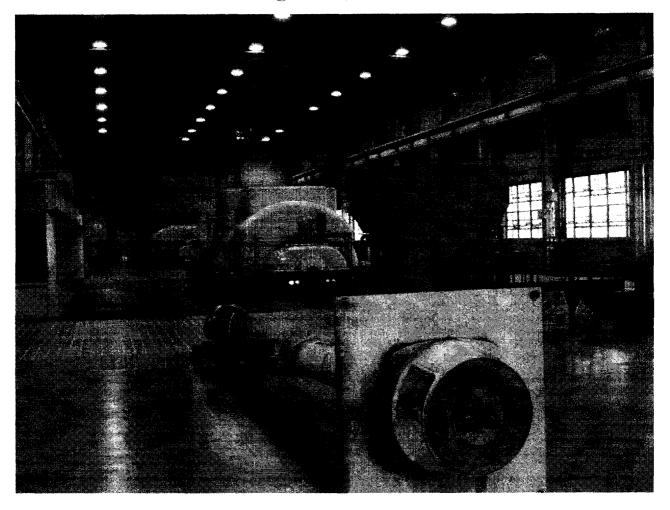
Lawrence Energy Center presently has three units that are reliable base-load units. Unit 5 is to the far left, with smoke coming out the stack. Unit 4 is to the far right of the photo. Housed in the building in the middle are units 1, 2 and 3, with 3 being the only one running. Units 1 and 2 have been retired in place.



This photo was taken while standing on the grating of the retired boiler Unit 1. The boiler is intact, with no plans for dismantlement, but the turbine has been removed.

Exhibit\_\_\_(MJM-3) Page 25 of 27

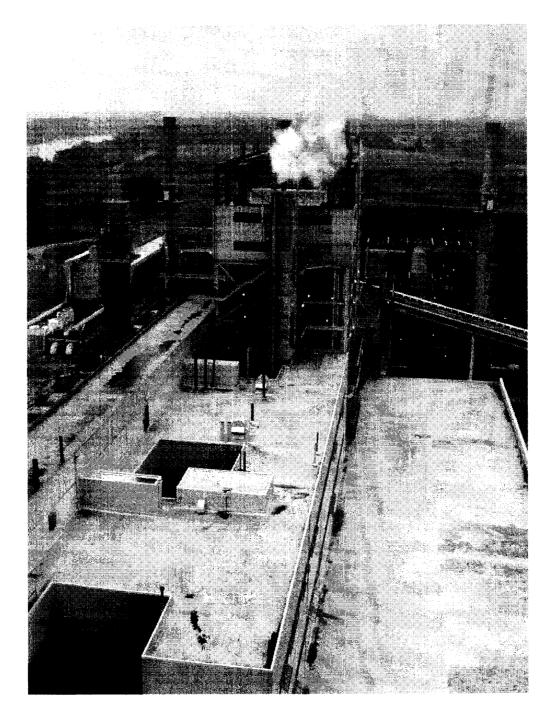
## SITE VISIT TO WESTAR PLANTS August 23, 2005



This photo was taken from where the turbine from Unit 1 once stood. Retired Unit 2 remains intact from the boiler to the turbine. The turbine for Unit 3 can be seen in the distance.



This Maintenance and Purchasing Office is a conversion from the former Unit 1 control room at Lawrence.



This building, between units 5 & 4 at Lawrence, has units 1, 2 and 3 sharing the common area. Dismantlement of units 1 and 2 would disrupt the operation of unit 3. It is obvious that dismantlement will not occur.