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Maintenance Expense
Witness: *V. William Harris*
Sponsoring Party: *MoPSC Staff*
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

V. WILLIAM HARRIS

KANSAS CITY POWER AND LIGHT COMPANY

CASE NO. ER-2006-0314

Jefferson City, Missouri
October 2006

****Denotes Highly Confidential Information****

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

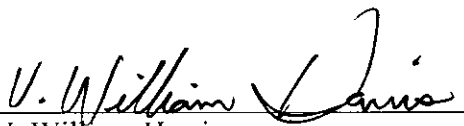
In the Matter of the Application of Kansas City)
Power & Light Company for Approval to Make)
Certain Changes in its Charges for Electric Service)
to Begin the Implementation of Its Regulatory Plan.)

Case No. ER-2006-0314

AFFIDAVIT OF V. WILLIAM HARRIS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

V. William Harris, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 21 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.




V. William Harris

Subscribed and sworn to before me this 24th day of October 2009



ASHLEY M. HARRISON
My Commission Expires
August 31, 2010
Cole County
Commission #06898978



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SURREBUTTAL TESTIMONY
OF
V. WILLIAM HARRIS, CPA, CIA
KANSAS CITY POWER AND LIGHT
CASE NO. ER-2006-0314

Q. Please state your name and business address.

A. V. William Harris, Fletcher Daniels State Office Building, Room G8, 615 East
13th Street, Kansas City, Missouri 64106.

Q. By whom are you employed and in what capacity?

A. I am a Utility Regulatory Auditor with the Missouri Public Service
Commission (Commission or PSC).

Q. Are you the same V. William Harris who previously filed direct testimony in
this proceeding?

A. Yes I am. I filed direct testimony on August 8, 2006, regarding incentive
compensation, supplemental executive retirement plan, other executive bonuses, maintenance
expense, regulatory expense, and accumulated deferred income taxes in rate base.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my surrebuttal testimony is to discuss the rebuttal testimonies
of Kansas City Power & Light (KCPL or Company) witnesses F. Dana Crawford and
John R. Marshall in the area of normalized maintenance expense and KCPL witness
David Cross in the area of incentive compensation. I also have a brief comment regarding the
rebuttal testimony of KCPL witness Lori A. Wright in the area of regulatory expense.

Q. Please state your comment regarding regulatory expense.

1 A. On page 15, lines 9 and 10, of her rebuttal testimony (filed September
2 8, 2006), Ms. Wright states “KCPL and Staff have reached agreement that the Staff
3 adjustment of \$373,468 needs to be added back to the 2005 test year.” At that time, KCPL
4 and Missouri Staff had no such agreement with respect to the regulatory expenses. However,
5 subsequent to Ms. Wright’s filed rebuttal, KCPL has provided Staff with data that has resulted
6 in Staff’s changing the adjustment from (\$373,468) to \$156,252. Staff will continue to review
7 ongoing rate case expense incurred through the period ending September 30, 2006, and make
8 the appropriate recommendations in its true-up testimony filing.

9 Q. Does Staff have any corrections or revisions to its direct-filed adjustments in
10 the areas of maintenance expense and incentive compensation?

11 A. Yes. Since filing its direct testimony on August 8, 2006, Staff has revised the
12 methodology it used in normalizing maintenance expense adjustments. I will discuss the
13 revisions at length in the maintenance expense section beginning on page 14 of my surrebuttal
14 testimony. Also, Staff corrected its incentive compensation adjustments to reflect an
15 allocation between expense and construction. Using allocation factors of 76.47% to expense
16 and 23.53% to construction has resulted in an additional ** _____ ** removal of
17 incentive compensation from test year expense.

18 **EXECUTIVE SUMMARY**

19 Q. Please summarize Staff’s position in the areas of incentive compensation and
20 normalized maintenance expense.

21 A. It is Staff’s position that incentive compensation based on financial goals tied
22 to earnings per share (EPS) primarily benefits shareholders. Therefore, the incentive
23 compensation paid to achieve an EPS goal or some other similar financial benchmark, such as

1 return on equity, should be assigned to the Company's shareholders. Conversely, incentive
2 compensation based on safety, reliability and customer service benefits ratepayers and is thus
3 properly assignable to ratepayers through cost of service.

4 Staff believes that the proper level of normalized maintenance expense should be
5 based upon an historical analysis of actual costs with additional consideration given for the
6 newer generating units and the most current actual costs.

7 **INCENTIVE COMPENSATION**

8 Q. On pages 2 and 3, of his rebuttal testimony, Mr. Cross states "The use of
9 financial measures is a very effective way to reflect performance on a broad range of
10 customer service measures and is why financial metrics ... are the most common measures
11 used in incentive plans across the utility industry". Does Staff agree that financial
12 performance necessarily equates to adequate customer service performance?

13 A. No. The Staff does not agree that financial performance, i.e. earnings per share
14 (EPS) or return on equity (ROE) are indicative of adequate customer service. If this were true
15 it would not be necessary to have incentive plan payouts tied directly to customer service
16 measurements such as "Quality survey rating by customer score" and "Percentage of requests
17 for access calls ... processed within 5 minutes" (two of KCPL's Divisional Scorecard goals
18 for 2005). KCPL and its parent company, Great Plains Energy (GPE), have incentive plans
19 that provide separate payouts based upon specific customer service related goals which
20 recognize that financial goals are not indicative of the level of customer service being
21 provided. The Staff has included all incentive plan payouts related to the provision of
22 adequate customer service.

1 Q. Can you provide an example as to how financial performance can be improved
2 and at the same time be detrimental to customer service?

3 A. Yes. Assume a utility's revenues were below normal because of an
4 abnormally cool summer. One way to protect earnings from the revenue shortfall would be to
5 reduce costs by delaying planned maintenance on generating units or reducing payroll by
6 eliminating some customer service representatives. Both of these actions would improve
7 financial performance but harm customers by slower call response times and/or increased fuel
8 costs as a result of the delay in necessary maintenance on generating units. Reducing the
9 level of planned tree trimming maintenance is another example that could enhance financial
10 performance to the detriment of customers that lose service during a storm as the result of a
11 downed tree limb.

12 Q. Has the Commission expressed this concern in a prior order?

13 A. Yes. In the Report and Order issued in Case No. GR-2004-0209, Missouri Gas
14 Energy, the Commission expressed its concern by stating:

15 The Commission agrees with Staff and Public Counsel that the
16 financial incentive portions of the incentive compensation plan should
17 not be recovered in rates. Those financial incentives seek to reward the
18 company's employees for making their best efforts to improve the
19 company's bottom line. Improvements to the company's bottom line
20 chiefly benefit the company's shareholders, not its ratepayers. **Indeed**
21 **some actions that might benefit a company's bottom line, such as a**
22 **large rate increase, or the elimination of customer service personnel,**
23 **might have an adverse effect on ratepayers.** If the company wants to
24 have an incentive compensation plan that rewards its employees for
25 achieving financial goals that chiefly benefits shareholders, it is
26 welcome to do so. However, the shareholders that benefit from that
27 plan should pay the costs of that plan. The portion of the incentive
28 compensation plan relating to the company's financial goals will be
29 excluded from the company's cost of service revenue requirement
30 (emphasis added).

1 Q. On pages 3 and 4 of his rebuttal testimony, Mr. Cross suggests four ways by
2 which he believes customers benefit from KCPL's achievement of its financial objectives.
3 Please identify these four suggested benefits.

4 A. The four benefits suggested by Mr. Cross are: 1) attracting and retaining
5 qualified employees; 2) undertaking the Comprehensive Energy Plan; 3) funding the
6 Comprehensive Energy Plan; and 4) delivering strong financial success.

7 Q. For his first point, on the bottom of page 3 of his rebuttal testimony, Mr. Cross
8 identifies the first benefit to customers that he believes results from KCPL meeting its
9 financial objectives by stating that a competitive salary package is required to attract and
10 retain qualified employees. Does Staff disagree with this statement?

11 A. As a general statement, no. Staff is not proposing to eliminate KCPL's
12 incentive compensation in total. The Staff's disallowance is related to: 1) assigning the
13 incentive plan cost, tied to EPS, to shareholders who are the beneficiaries of an incentive tied
14 to EPS and 2) eliminating the 20% payout for which defined goals were not identified. The
15 majority of KCPL's incentive compensation cost has been included by the Staff in its cost of
16 service determination. However, an incentive goal based upon maximizing EPS (and one
17 which forces ratepayers to pay incentives due in part to GPE's unregulated operations)
18 benefits shareholders, not ratepayers, and so Staff has disallowed that portion of the plan.

19 Q. How much incentive compensation cost was included in KCPL's 2005 test
20 year?

21 A. ** _____ **

22 Q. What amount has Staff included in cost of service for incentive compensation?

1 A. Prior to the allocation between expense and construction, Staff has included
2 ** ** of the ** ** total in 2005 which represents 65.28% of the
3 total 2005 cost.

4 Q. On page 4, lines 5 through 16, of his rebuttal testimony, Mr. Cross suggests a
5 second and third benefit to customers of KCPL achieving its financial objectives as being in a
6 position to “undertake” and “fund” the Comprehensive Energy Plan. Is the issue in this case
7 on incentive compensation related to KCPL’s undertaking and funding the Comprehensive
8 Energy Plan?

9 A. No. Having ratepayers pay incentive compensation based upon maximizing
10 EPS for GPE is not a requirement for undertaking the Comprehensive Energy Plan. In
11 addition, Mr. Cross has failed to mention that KCPL’s ratepayers are already committed,
12 under the Experimental Regulatory Plan Stipulation and Agreement (Stipulation and
13 Agreement), to providing additional cash flow to KCPL for the purpose of maintaining a BBB
14 credit rating during the period covered by the Comprehensive Energy Plan. If KCPL’s
15 revenue requirement, under a traditional cost of service approach in any rate case between
16 now and 2010, is insufficient to provide the cash flow required for meeting the credit metrics,
17 additional revenue will be included in cost of service in that case to make up the deficiency.
18 For a discussion of the provisions of the Stipulation and Agreement regarding cash flows, see
19 the direct and rebuttal testimonies of Staff witness Steve M. Traxler. Staff believes that any
20 rate increase from the present case will represent additional cash flow provided by ratepayers
21 for the purpose of KCPL maintaining a BBB credit rating as required under the Stipulation
22 and Agreement in the Comprehensive Energy Plan in Case No. EO-2005-0329. Mr. Cross is

1 incorrect in his implication that KCPL has the full burden of meeting the funding
2 requirements of the Comprehensive Energy Plan.

3 Q. On page 4, lines 17 through 23, of his rebuttal testimony, Mr. Cross suggests a
4 fourth reason as to how customers benefit from KCPL's achievement of financial objectives.
5 He states that a utility can only deliver strong financial success through strong operational
6 performance. Does this statement support KCPL's position that ratepayers should be
7 responsible for 100% of KCPL's incentive compensation costs?

8 A. No. This argument is similar to Mr. Cross's earlier argument addressed above
9 that "The use of financial measures is a very effective way to reflect performance on a broad
10 range of customer service measures". As previously discussed, the Staff disagrees with the
11 premise that strong financial performance is indicative of adequate customer service. If this
12 were true it would be unnecessary for KCPL to have performance goals tied to specific
13 customer service metrics. KCPL's incentive plans contain goals tied to specific customer
14 service metrics and therefore are not consistent with Mr. Cross's premise that strong financial
15 results, such as EPS and ROE, are indicative of adequate customer service. In fact, KCPL
16 recognizes that financial goals are independent of customer service goals and measures each
17 independently under their incentive compensation plans. KCPL's ratepayers benefit from
18 incentive compensation goals tied to customer service metrics such as the percentage of
19 requests for access calls being processed within five minutes. Accordingly, Staff has included
20 all of KCPL's incentive compensation costs except those related to maximizing EPS and/or
21 ROE and those unsupported by defined goals.

1 Q. On page 5, lines 3 through 6, of his rebuttal testimony KCPL witness Cross
2 states that customers benefit from the Company providing solid financial results to help
3 maintain high operational performance. Do you agree?

4 A. Shareholders definitely benefit directly from solid financial results. Customers
5 may also benefit indirectly if the financial results are reinvested into maintaining high
6 operational performance. However, there is no guarantee that the Company will use these
7 results to maintain even a minimum operational performance. Indeed, as the Commission
8 found in the aforementioned Report and Order in MGE's Case No. GR-2005-0209, these solid
9 financial results may be obtained through a decline in operational performance such as
10 cutbacks in customer service.

11 Q. On page 7, lines 7 and 8, of his rebuttal testimony, Mr. Cross states "By using
12 EPS as the funding mechanism, the Company must be profitable in order to pay a short – term
13 incentive." Is it Staff's position that KCPL should not be permitted to fund its incentive
14 compensation plans based upon EPS?

15 A. No. KCPL may fund its incentive compensation plans any way it chooses.
16 The issue between Staff and KCPL is assigning the cost related to EPS/ROE incentives to the
17 beneficiaries of their achievement - the shareholders of the Company. The funding of the
18 KCPL and GPE annual incentive plans in 2003, 2004 and 2005 was based upon the maximum
19 EPS goal identified under the plan. Funding the 2003, 2004 and 2005 plans at the Target
20 level would have resulted in a 100% funding level. Basing the funding level on the Maximum
21 EPS goal increased the funding level by 50%. Achieving GPE's maximum EPS target is also
22 influenced by GPE's unregulated operations, primarily its subsidiary, Strategic Energy.

1 Ratepayers should not be responsible for the cost of incentive compensation tied to GPE's
2 unregulated operations.

3 Q. Why is KCPL's actual experience for 2003, 2004 and 2005 relevant to this
4 issue?

5 A. In its direct filing, KCPL's annual level of incentive compensation to be
6 recovered in cost of service is based upon an average of its actual costs for 2003, 2004 and
7 2005. KCPL has subsequently changed its annual level of incentive compensation (payroll
8 adjustment 20A) to reflect an average of its actual costs for 2004 and 2005 and budgeted costs
9 for 2006.

10 Q. Should budgeted data be used for determining the annual level of incentive
11 compensation to be included in KCPL's cost of service for this case, ER 2006-0314?

12 A. No. KCPL's cost of service should be based upon costs which are **both** known
13 and measurable as of September 30, 2006, the Commission ordered true-up date for this case.
14 Estimates or projections should not be used to determine the level of incentive compensation
15 that is reflected in rates determined in this case.

16 Q. When will KCPL's actual incentive compensation costs be known for 2006?

17 A. KCPL's actual cost for the 2006 incentive compensation plans won't be known
18 until GPE's books are closed and audited. This won't occur until some time in the first
19 quarter of 2007, after the operation-of-law date which is January 1, 2007.

20 Q. Did you request KCPL to provide its best estimate for the date that the
21 payment of 2006 incentive compensation to employees would occur?

22 A. Yes. In response to Staff Data Request 523, KCPL provided an estimated time
23 frame of February 13 to March 15, 2007, four and a half to five and a half months beyond the

1 September 30, 2006, true-up date for this case. Allowing KCPL to recover budgeted costs 4½
2 to 5½ months beyond the September 30, 2006, true-up date results in a mismatch of KCPL's
3 revenue, expenses and rate base relationship which should all be stated at September 30, 2006
4 levels.

5 Q. On page 7, lines 9 through 11, of his rebuttal testimony, Mr. Cross states that
6 he doesn't understand your comparison of GPE's 2005 EPS to KCPL's 2005 EPS. Why is a
7 comparison of GPE's EPS to KCPL's EPS relevant to this issue?

8 A. Ratepayers are responsible only for KCPL's regulated electric operations.
9 GPE's EPS included net income contribution from its unregulated subsidiary, Strategic
10 Energy, which resulted in funding the 2005 incentive plan at the "maximum level". If
11 KCPL's EPS for regulated electric operations were used for 2005, no funding would have
12 occurred.

13 KCPL's position on incentive compensation in this case is a request to have Missouri
14 electric customers pay incentive compensation based, in part, upon the performance of GPE's
15 unregulated operations. Mr. Cross fails to recognize the inequity that results when captive
16 ratepayers are expected to pay incentive compensation costs tied to the unregulated operations
17 of GPE. These unregulated operations have nothing to do with providing electric service in
18 Missouri.

19 Q. What were the Threshold, Target and Maximum EPS goals for GPE in 2005
20 used to fund the incentive compensation plans and how did they compare to GPE's and
21 KCPL's actual EPS for 2005?

22 A. The GPE corporate EPS pay-out levels used to fund the incentive
23 compensation plans for the period January 1, 2005 through December 31, 2005 were

1 established at: threshold - \$2.05 (corresponding ROE of 12.9%), target - \$2.16 (corresponding
2 ROE of 13.6%) and maximum - \$2.25 (corresponding ROE of 14.2%). GPE's actual EPS for
3 2005 was \$2.27 (corresponding ROE of 14.3% and KCPL's EPS was \$1.96 (corresponding
4 ROE of 12.4%).

5 Q. What percent of GPE's earnings resulted from its unregulated operations in
6 2004 and 2005?

7 A. In response to Staff Data Request 531, KCPL indicated that GPE's net income
8 contributed by its unregulated operations for 2004 and 2005 was 16.3% and 9.6%
9 respectively.

10 Q. What is the significance of the contribution from unregulated operations?

11 A. If the unregulated contribution is removed from GPE's EPS of \$2.27 for 2005
12 (maximum payout at 150%), it would result in an EPS of \$2.05 which only meets the
13 threshold level (payout at 50%). KCPL expects its ratepayers to not only pay the one-third of
14 its incentive compensation directly attributable to regulated operations but also the two-thirds
15 that is directly attributable to non-regulated operations.

16 Q. Would KCPL be requesting recovery of incentive compensation for 2005, if
17 the funding level were based upon KCPL's EPS for 2005?

18 A. No. The Threshold, Target and Maximum EPS goals for GPE were all above
19 KCPL's actual EPS for 2005. This means that KCPL's request for cost of service recovery of
20 its incentive compensation cost for 2005 is due entirely to GPE's other unregulated
21 operations. KCPL's ratepayers should not be responsible for incentive compensation tied to
22 GPE's unregulated operations.

1 Q Beginning at the bottom of page 9 and continuing on through page 10 of his
2 rebuttal testimony, Mr. Cross takes issue with your statement in direct testimony that “EPS is
3 the primary goal for all of the GPE and KCPL incentive plans.” What is your basis for the
4 statement?

5 A. Page 3 of the 2005 GPE ValueLink Plan Document, provided as Schedule
6 VWH 3-4 of my direct testimony, states “**There is no payment for any KCPL, Division or**
7 **Individual performance goals if the corporate EPS threshold is not met.**” Webster’s New
8 World Dictionary, Third College Edition, defines primary as 1) first in time or order of
9 development 2) from which others are derived 3) of or in the first stage of a sequence 4) first
10 in importance; chief; principal; main 5) firsthand; direct.

11 The Company’s highlighted statement referenced above (bolded and underlined by the
12 Company in its ValueLink document not by Staff) makes it clear that 1) the EPS threshold
13 goal must first be met before any payments are developed 2) payment amounts are derived
14 only after the EPS threshold goal is met 3) achievement of the EPS threshold goal precedes
15 the sequence of other goals, calculations and payments 4) the EPS threshold goal is first in
16 importance and 5) the EPS threshold goal must be met directly before any payments are
17 made.

18 Q. On page 12, lines 16 and 17, of his rebuttal testimony Mr. Cross states “... no
19 formal objectives were identified for the individual component of the 2005 Officer Plan”. On
20 page 13, lines 11 and 12, of his rebuttal testimony Mr. Cross states “The objectives used to
21 pay the individual performance piece of the ValueLink plan are very well defined.” Do you
22 agree with these statements?

1 A. I agree with Mr. Cross's statement regarding the Officer Plan that no formal
2 objectives were identified. As I stated on page 11 (lines 10 through 12) of my direct
3 testimony, KCPL did not provide the Staff with any defined goals despite the fact that Staff
4 asked on three separate occasions (Data Requests 220.2, 376 and 406). However, there
5 appears to be some inconsistency between Mr. Cross's second statement regarding the
6 ValueLink plan and data KCPL provided to Staff. Highly Confidential Data Request 0376
7 specifically asked for the individual personal goals for the 2004 and 2005 ValueLink Plan as
8 follows:

9 Staff Question 3) Provide a copy of the actual personal goals for all GPE and
10 KCPL officers and senior management under the 2004 and 2005 Annual
11 Executive Incentive Plan and ValueLink Plan.

12 Company Response 3) ** _____
13 _____
14 _____**

15 Q. Does Mr. Cross agree with Staff that the Company's Long Term Incentive
16 Compensation represents non-cash transactions?

17 A. Yes. On page 15, line 22 of his rebuttal testimony, Mr. Cross states, "The
18 view that this is not cash may be accurate, but there is clearly an expense." Staff's point is
19 that expenses that don't result in a cash outlay by a utility should not be included in the cost of
20 service for ratemaking purposes.

21 Q. Does Mr. Cross agree with Staff that the Company's Long Term Incentive
22 Compensation for the test year reflects a "double payment"?

1 A. Yes. On page 16, lines 2 through 11, Mr. Cross agrees with Staff that KCPL's
2 test year plan reflected a double payment but attempts to justify it as only being fair to KCPL
3 executives because there had been no payment the previous year. Staff does not wish to be
4 unfair to KCPL's executives but rather suggests that KCPL shareholders share in the expense
5 instead of "doubling up" on its ratepayers.

6 **MAINTENANCE EXPENSE**

7 Q. On page 2, line 6, of his rebuttal testimony, Mr. Marshall states that you
8 "removed the \$168,515 transmission adjustment". Is this statement correct?

9 A. A more precise statement is that I revised the methodology used in normalizing
10 maintenance expense which resulted in no transmission adjustment.

11 Q. Please explain.

12 A. In its direct filing, KCPL normalized non-labor production maintenance
13 expense using historical 6-year average costs multiplied by inflation factors. KCPL originally
14 did not normalize transmission and distribution (T&D) maintenance expense in its direct
15 filing. Per lines 14 and 15, of page 2, and Schedule JRM-4 of Mr. Marshall's rebuttal
16 testimony, KCPL has now included adjustments to normalize non-labor T&D maintenance
17 expense.

18 Staff initially adopted KCPL's 6-year approach but without the inflation factors in its
19 direct testimony. After additional consideration relating to discussions with the Company
20 after the August 8, 2006, direct filing, I concluded the Company's straight-across-the-board
21 approach was deficient in recognizing differences inherent in varying types of plant (nuclear
22 vs. coal-fired production, combustion turbines, transmission vs. distribution, etc.).
23 Subsequently, I analyzed each functional plant group separately and determined what

1 methodology to use for normalizing maintenance expense. I have attached my revised
2 maintenance normalization analysis as Schedule 1.

3 Q. Please describe the attached Schedule 1.

4 A. I started with the maintenance normalization work paper in Staff's direct filing
5 (using 6-year average costs) and added columns to reflect 2 and 3-year average costs and the
6 most current data for the 12-months ended June 30, 2006. The highlighted boxes indicate the
7 revised normalized adjustments.

8 Q. Please summarize the revised normalized adjustments.

9 A. The adjustments for steam production (Accounts 510 through 514) reflect
10 two-year average costs. I used two-year data because it reflects the most current historical
11 calendar year data since the Hawthorn 5 unit rebuild became fully operational. Using the
12 two-year data eliminates the need for adjustment S-16.4 in the Staff's direct filing.

13 For nuclear production adjustments (Accounts 528 through 532), I used the test year
14 ended December 31, 2005, data to give effect to more current actual costs and adjusted it to
15 reflect the Wolf Creek Outage Accrual.

16 The adjustments for other production (Accounts 551 through 554) for combustion
17 turbines (CTs) reflect the data for the 12-months ended June 30, 2006, with a projected cost
18 for one combustion inspection. The combustion inspection is preventive maintenance
19 recommended by the turbine manufacturer. Since the Company has 5 newly-owned CTs that
20 have not yet required such an inspection, Staff was forced to use a projected amount. Staff
21 chose the 12-months ended June 30, 2006, to give effect to more current pricing and because
22 the 2, 3 and 6-year average costs each includes 2004 costs that were 4 to 5 times higher than
23 any other year. The other five years averaged \$332,639 while 2004 costs were \$1,549,247.

1 For transmission maintenance (Accounts 568 through 573), I used the unadjusted test
2 year ended December 31, 2005, (as stated above). The test year appears to be reasonably
3 indicative of the most recent 5-year period and reflects the most current calendar year data.

4 For distribution maintenance (Accounts 590 through 598), I retained the original
5 six-year average costs used in Staff's direct filing. The costs in these accounts reflected large
6 fluctuations – going from \$16 and \$17 million up to almost \$29 million, back down to \$18
7 and \$17 million and back up to \$21.6 million as can be seen on Schedule 1. The use of
8 six-year average costs levels out these large fluctuations.

9 Q. Please refer to page 2, lines 8 through 15, of Mr. Marshall's rebuttal testimony
10 and page 2, lines 13 through 23, of Mr. Crawford's rebuttal testimony. These witnesses
11 contend that the "time value of money" and "escalated dollars" should be taken into account
12 when viewing historic costs. Is the Company proposing the use of escalators in any other
13 cost-of-service expense or revenue?

14 A. Not to my knowledge.

15 Q. Is this approach consistent with traditional ratemaking?

16 A. No. Specialized treatment of any one expense (or revenue) constitutes single-
17 issue ratemaking. A Company's revenue requirement is determined using various adjusted,
18 annualized and normalized expense and revenue items.

19 Q. Has this Commission allowed the use of escalators in setting rates previously?

20 A. Not to my knowledge.

21 Q. Do you agree with the use of "escalated dollars" in adjusting actual historic
22 non-labor maintenance expense?

1 A. No. Escalation or inflation may have many contributing factors, such as,
2 population growth, catastrophic weather and rising labor costs. On page 2, lines 22 and 23, of
3 his rebuttal testimony KCPL witness Crawford states “significant escalation was experienced
4 for bulk materials, labor and other costs associated with maintenance.”

5 Q. How did KCPL determine what level of inflation factor to use for its
6 maintenance adjustments?

7 A. The Company used cost trend tables from a document source known as the
8 Handy-Whitman Index of Public Utility Construction Costs (Handy-Whitman Index or
9 Index). I have attached select pages of the Handy-Whitman Index as Schedule 2.

10 Q. Why are the inflation factors contained in the Handy-Whitman Index
11 inappropriate for use in ratemaking?

12 A. The Index numbers are developed from prevailing wage rates (among other
13 things). As I noted on page 20, lines 1 through 9, of my direct testimony, payroll is
14 annualized separately in the ratemaking process; therefore, any inflation index that also
15 includes labor rates is not appropriate to use. The maintenance costs that both KCPL and
16 Staff are making adjustments for in this case relate strictly to non-labor maintenance costs. In
17 other words, maintenance costs for material and supplies excluding salaries and wages.

18 Q. Do you have any additional concerns regarding the wage rates used in the
19 Handy-Whitman Index?

20 A. Yes. The Handy-Whitman Index separates the country into large geographic
21 areas as illustrated on Schedule 2-3. KCPL lies in the North Central Region. This region
22 consists of North and South Dakota, Nebraska, Kansas, Minnesota, Iowa, Wisconsin, Illinois,
23 Indiana, Michigan, and Ohio. This is a large geographic area including many states (and

1 metropolitan areas such as Chicago) that likely have very different wage rates than KCPL and
2 would thus influence the reliability of the Index.

3 Q. Does the Handy-Whitman Index address the issue of applying broadly based
4 applications to specific locality costs?

5 A. Yes. Page IV of the forward to the Index (attached as Schedule VWH 2-5)
6 states, in part, "The Handy-Whitman Index will furnish a yardstick for the fluctuations in the
7 value of property which will be satisfactory for many purposes. **In rate cases**, when a more
8 exact determination of value is desired, however, the Index must be used carefully. Average
9 prices and cost trends are used to develop the Index, and any direct application of cost trends
10 without checking with actual local experience may not be accepted without controversy.
11 When local experience is compared with the index and the correlation between the two trends
12 is determined the result is satisfactory. Costs trended by such a method are used to assist in
13 establishing a rate base."

14 Q. What is the significance of the last statement "Cost trends by such a method
15 are used to assist in establishing a rate base."?

16 A. The Handy-Whitman Index is a measure of cost trends in capitalized
17 construction costs NOT expensed maintenance costs. This is evidenced throughout
18 Schedule 2 and specifically on the chart on page E-3-8 of the Index , attached as Schedule 2-
19 8. The chart includes a column listing Federal Energy Regulatory Commission (FERC)
20 account numbers 311 through 373 for capitalized construction. The chart illustrates the cost
21 index factors were related to these capitalized construction accounts although KCPL has
22 applied these factors to its expensed maintenance (FERC Account Nos. 510 through 598). I
23 have attached several pages from FERC's Uniform System of Accounts (USOA), including

1 Electric Plant Instructions (Schedule 3-1 and 3-2), Operating Expense Instructions (Schedule
2 3-3), Electric Plant Accounts (Schedule 3-4 and 3-5) and Operation and Maintenance Expense
3 Accounts (Schedule 3-6 and 3-7).

4 Q. Please summarize Schedule 3-1 and 3-2.

5 A. This schedule contains the first two pages of FERC's USOA Electric Plant
6 Instructions. Electric Plant Instruction 1C states "The detailed electric plant accounts (301 to
7 399, inclusive) shall be stated on the basis of cost to the utility of plant constructed by it".
8 Electric Plant Instruction 3A states "For Major utilities, the cost of construction properly
9 includable in the electric plant accounts shall include: (1) Contract work includes amounts
10 paid for work performed under contract by other companies. (2) Labor includes the pay and
11 expenses of employees of the utility engaged on construction work. (3) Materials and
12 supplies includes the purchase price at the point of free delivery. *NOTE: The cost of*
13 *individual items of equipment of small value (for example, \$500 or less) or of short life,*
14 *including small portable tools and implements, shall not be charged to utility plant accounts.*
15 *The cost shall be charged to the appropriate operating expense.*

16 Q. Please summarize Schedule 3-3.

17 A. This schedule contains the first page of FERC's USOA Operating Expense
18 Instructions. Operating Expense Instruction 2A states:

19 The cost of maintenance chargeable to the various operating expense
20 and clearing accounts includes labor, materials, overheads and other
21 expenses incurred in maintenance work. A list of work operations
22 applicable generally to utility plant is included hereunder. Other work
23 operations applicable to specific classes of plant are listed in functional
24 maintenance expense accounts.

25 The list of work operations generally applicable to utility plant includes:

1) Direct field supervision of maintenance.

2) Inspecting, testing, and reporting on condition of plant specifically to determine the need for repairs, replacements, rearrangements and changes and inspecting and testing the adequacy of repairs which have been made.

3) Work performed specifically for the purpose of preventing failure, restoring serviceability or maintaining life of plant.

Q. Please provide an example of a specific class of plant and its related functional maintenance expense account.

A. FERC Account No. 312, Boiler Plant Equipment, states:

This account shall include the cost installed of furnaces, boilers, coal and ash handling and coal preparing equipment, steam and feed water piping, boiler apparatus, and accessories used in the production of steam, mercury, or other vapor, to be used primarily for generating electricity. [emphasis added]

FERC Account No. 512, Maintenance of boiler plant, states “**This account shall include the cost of labor, materials used and expenses incurred in the maintenance of steam plant, the book cost of which is includable in Account 312.**” [emphasis added]

In short Account 312 is for the installed cost of furnaces and boilers; Account 512 is for the cost of maintenance on those furnaces and boilers.

Q. Can you provide a simple example of the differences between construction and maintenance?

A. Yes. Comparing the capitalized construction cost of plant to the expensed maintenance cost of the same plant would be akin to comparing the cost of an automobile to the cost of an oil change or tune-up needed to maintain the continued operation of the automobile.

1 Q. Please summarize the Staff's disagreement with the Company's use of the
2 Handy-Whitman Index for normalizing its maintenance expense.

3 A. KCPL is using inflationary factors, not generally accepted in traditional
4 ratemaking, that are based on labor related capitalized construction costs to normalize its non-
5 labor related expensed maintenance costs. The Handy-Whitman Index used by KCPL is for a
6 large region not specific to the Company's Missouri operations, therefore, it does not apply to
7 any real inflation that KCPL may or may not be experiencing for operation and maintenance
8 costs for its production, transmission and distribution facilities.

9 Q. Does this conclude your rebuttal testimony?

10 A. Yes, it does.

Kansas City Power & Light Co.
Q0423_Maintenance Normalization

Non-Labor Maintenance

Historical Maintenance Information

	12-mos. End Dec 31, 2000	12-mos. End Dec 31, 2001	12-mos. End Dec 31, 2002	12-mos. End Dec 31, 2003	12-mos. End Dec 31, 2004	12-mos. End Dec 31, 2005	Test Year	6-year total 2000-2005	6-year avg 2000-2005	Normalized Adjustments	Adjust Number	3-year total 2003-2005	3-year avg 2003-2005	Normalized Adjustments	2-year total 2004-2005	2-year avg 2004-2005	Normalized Adjustments	12-mos. End June 30, 2006	Normalized Adjustments
Electric Maintenance Expense																			
510.000	653,154	478,402	135,287	456,590	530,682	345,728		2,599,843	433,307	87,579	S-14.2	1,333,000	444,333	98,605	876,410	438,205	92,477	318,509	
511.000	2,056,268	2,107,555	1,802,420	1,859,878	1,852,229	2,431,089		12,109,439	2,018,240	(412,849)	S-15.2	6,143,196	2,047,732	(383,357)	4,283,318	2,141,659	(289,430)	2,682,608	
512.000	13,813,360	14,717,901	15,791,672	19,142,324	18,431,973	17,004,745		98,901,975	16,483,663	(521,083)	S-16.2	54,579,042	18,193,014	1,188,269	35,436,718	17,718,359	713,614	17,068,067	
513.000	3,450,304	1,668,079	3,562,704	5,174,208	3,692,809	5,211,504		22,759,668	3,793,278	(1,418,286)	S-17.2	14,078,581	4,692,860	(518,704)	8,904,373	4,452,187	(759,378)	4,394,921	
514.000	52,648	97,828	124,252	107,373	183,247	144,750		710,098	118,350	(26,400)	S-17.2	435,370	145,123	373	327,997	163,999	19,249	126,402	
Total Elect Maint Steam Plant	20,025,734	19,069,765	21,416,335	26,740,373	24,690,940	25,137,876		137,081,023	22,846,837	(2,291,039)		76,569,189	25,523,063	385,187	49,828,816	24,914,408	(223,466)	24,590,507	
Maintenance of Nuclear Plant (below)																			
528.000	1,683,431	305,381	2,148,226	2,543,562	318,824	2,646,552		9,645,976	1,607,663	(1,038,890)	S-24.2***	5,508,938	1,836,313	(810,240)	2,965,376	1,482,688	(1,163,864)	202,193	
529.000	912,739	443,189	331,377	285,145	752,366	232,420		2,957,236	492,873	260,453	S-25.2***	1,269,930	423,310	190,890	984,796	492,393	259,973	228,232	
530.000	3,377,616	6,388,679	4,520,966	3,441,878	7,459,173	3,929,089		29,117,401	4,852,900	923,812	S-26.2***	14,830,140	4,943,380	1,014,291	11,388,261	5,694,131	1,765,042	10,194,522	
531.000	1,881,783	291,250	1,583,530	2,379,236	817,391	2,181,534		9,134,703	1,522,451	(659,084)	S-27.2***	5,378,161	1,792,720	(388,814)	2,998,925	1,499,463	(682,072)	387,767	
532.000	1,208,960	1,229,161	1,068,411	819,848	999,166	918,421		6,263,967	1,043,994	125,574	S-28.2***	2,737,435	912,478	(5,943)	1,917,587	958,794	40,373	1,080,852	
Total Nuclear Plant Maintenance	9,064,508	8,657,660	9,672,510	9,469,669	10,346,919	9,908,016		57,119,282	9,519,880	(388,136)		29,724,604	9,908,201	185	20,254,935	10,127,468	219,452	12,093,566	
Total Electric Maint Other Production																			
551.000	438	2,269	159	804	275	15		3,961	660	644	S-33.2	1,095	365	349	291	146	130	258	242
552.000	175,966	50,020	(1,432)	17,495	19,402	37,130		299,581	49,764	12,634	S-34.2	74,027	24,876	(12,454)	56,532	28,266	(8,884)	62,467	25,337
553.000	273,732	197,891	225,966	272,339	1,520,776	188,242		2,676,946	446,158	259,916	S-34.2	1,979,357	659,786	473,544	1,707,018	853,509	667,267	422,477	236,235
554.000	27,985	15,567	26,812	302	8,794	103,492		182,952	30,492	(73,000)	S-34.2	112,588	37,529	(65,963)	112,286	56,143	(47,349)	88,724	(14,768)
Total Elect Maint Other Production	478,121	285,747	251,505	290,940	1,549,247	326,880		3,162,440	527,073	200,193		2,167,067	722,356	395,476	1,876,127	938,064	611,184	573,926	247,046
Total Electric Maintenance Transmission																			
568.000	3	-	20	20	315	0		358	60	(255)	S-46.2	355	118	(197)	335	168	(148)	315	
569.000	1,219	9,683	798	8,447	30,277	25,130		75,494	12,582	(12,548)	S-46.2	63,854	21,285	(3,845)	55,407	27,704	2,574	21,297	
570.000	256,020	356,065	328,998	290,162	239,873	340,344		1,811,462	301,910	(38,434)	S-46.2	870,379	290,126	(50,218)	580,217	290,109	(50,236)	284,784	
571.000	895,878	1,104,803	797,741	905,210	1,212,314	1,133,257		6,049,203	1,008,201	(125,057)	S-47.2	3,250,781	1,063,594	(49,663)	2,345,571	1,172,786	39,529	1,390,839	
572.000	7,865	11,062	25,928	(419)	92,245	18,002		154,683	25,781	7,779	S-47.2	109,828	36,609	18,607	110,247	55,124	37,122	10,997	
573.000	-	-	-	-	-	-		-	0	0		-	0	0	-	0	0	-	
Total Electric Maint Transmission	1,160,985	1,481,613	1,153,405	1,203,420	1,574,729	1,517,048		8,091,200	1,348,533	(168,515)		4,295,197	1,431,732	(85,316)	3,091,777	1,545,889	28,841	1,708,232	
Total Electric Maintenance Distribution																			
590.000	42	3,690	83,795	33,876	56,068	50,629		228,100	38,017	(12,612)	S-57.2	140,573	46,858	(3,771)	106,697	53,349	2,720	51,959	
591.000	217,650	448,494	627,091	374,055	481,259	558,227		2,706,776	451,129	(107,098)	S-58.2	1,413,541	471,180	(87,047)	1,039,486	519,743	(38,484)	425,183	
592.000	457,117	452,783	398,725	430,026	292,198	603,984		2,634,833	439,139	(164,845)	S-58.2	1,326,208	442,069	(161,915)	896,182	448,091	(155,893)	644,500	
593.000	14,181,911	14,544,959	25,434,720	15,066,386	14,393,114	17,851,471		101,472,561	16,912,094	(939,378)	S-59.2	47,310,971	15,770,324	(2,081,147)	32,244,585	16,122,293	(1,729,179)	14,392,665	
594.000	400,383	596,823	684,165	773,266	496,127	809,869		3,760,733	626,789	(183,080)	S-60.2	2,079,262	693,067	(116,782)	1,305,996	652,998	(156,871)	882,496	
595.000	209,089	130,402	191,506	239,387	330,549	350,857		1,451,790	241,965	(108,892)	S-61.2	920,793	306,931	(43,926)	681,406	340,703	(10,154)	360,818	
596.000	297,713	594,737	1,235,942	944,864	1,034,103	1,167,100		5,274,459	879,077	(288,024)	S-62.2	3,146,067	1,048,689	(118,411)	2,201,203	1,100,602	(66,499)	1,241,966	
597.000	169,836	132,237	79,336	109,262	99,998	105,911		696,581	116,097	10,186	S-63.2	315,172	105,057	(854)	205,910	102,955	(2,956)	124,358	
598.000	36,501	30,969	33,255	987	49,156	131,023		281,891	46,982	(84,041)	S-64.2	181,166	60,389	(70,634)	180,179	90,090	(40,934)	169,789	
Total Electric Maintenance Distribution	15,970,242	16,935,194	28,768,535	17,872,109	17,232,573	21,629,071		118,507,724	19,751,287	(1,877,784)		56,833,753	18,944,584	(2,684,487)	38,861,644	19,430,822	(2,198,249)	18,283,834	
ADJUST FOR WOLF CREEK OUTAGE ACCRUAL	46,699,590	46,409,979	61,262,290	55,676,511	55,394,408	58,518,891		53,993,612	(4,525,279)			56,529,937	(1,988,954)		56,956,650	(1,562,241)			
Maintenance of Nuclear Plant																			
528.000	2,646,552	0.2671	104,071	S-24.2***		517,000						5,358,029	0.1379	7,421	S-18.2***				
529.000	232,420	0.0235	9,140	S-25.2***		519,000						2,090,168	0.0538	2,895	S-20.2***				
530.000	3,929,089	0.3966	154,505	S-26.2***		520,000						9,480,259	0.2440	13,131	S-21.2***				
531.000	2,181,534	0.2202	85,785	S-27.2***		523,000						782,235	0.0196	1,056	S-22.2***				
532.000	918,421	0.0927	36,115	S-28.2***		524,000						21,165,514	0.5447	29,317	S-23.2***				
Total Nuclear Plant Maintenance	9,908,016	1.0000	389,616									38,856,205	1.0000	53,820					
Operations of Nuclear Plant																			
535.000	Oper. Supervision & Engineering											5,358,029	0.1379	7,421	S-18.2***				
536.000	Operations Coolants											2,090,168	0.0538	2,895	S-20.2***				
537.000	Gen. Reactor Operation											9,480,259	0.2440	13,131	S-21.2***				
538.000	Gen. Electric Expense											782,235	0.0196	1,056	S-22.2***				
539.000	Oper. Misc. Nuclear Expense											21,165,514	0.5447	29,317	S-23.2***				
540.000	Total Nuclear Plant Maintenance											38,856,205	1.0000	53,820					

Bulletin No. 162

1912 to July 1, 2005

The
Handy-Whitman Index®
of
Public Utility
Construction Costs™

←—————→

Trends of Construction Costs

COMPILED & PUBLISHED BY
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TRENDS OF PUBLIC UTILITY CONSTRUCTION COSTS

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COST TRENDS OF GAS UTILITY CONSTRUCTION

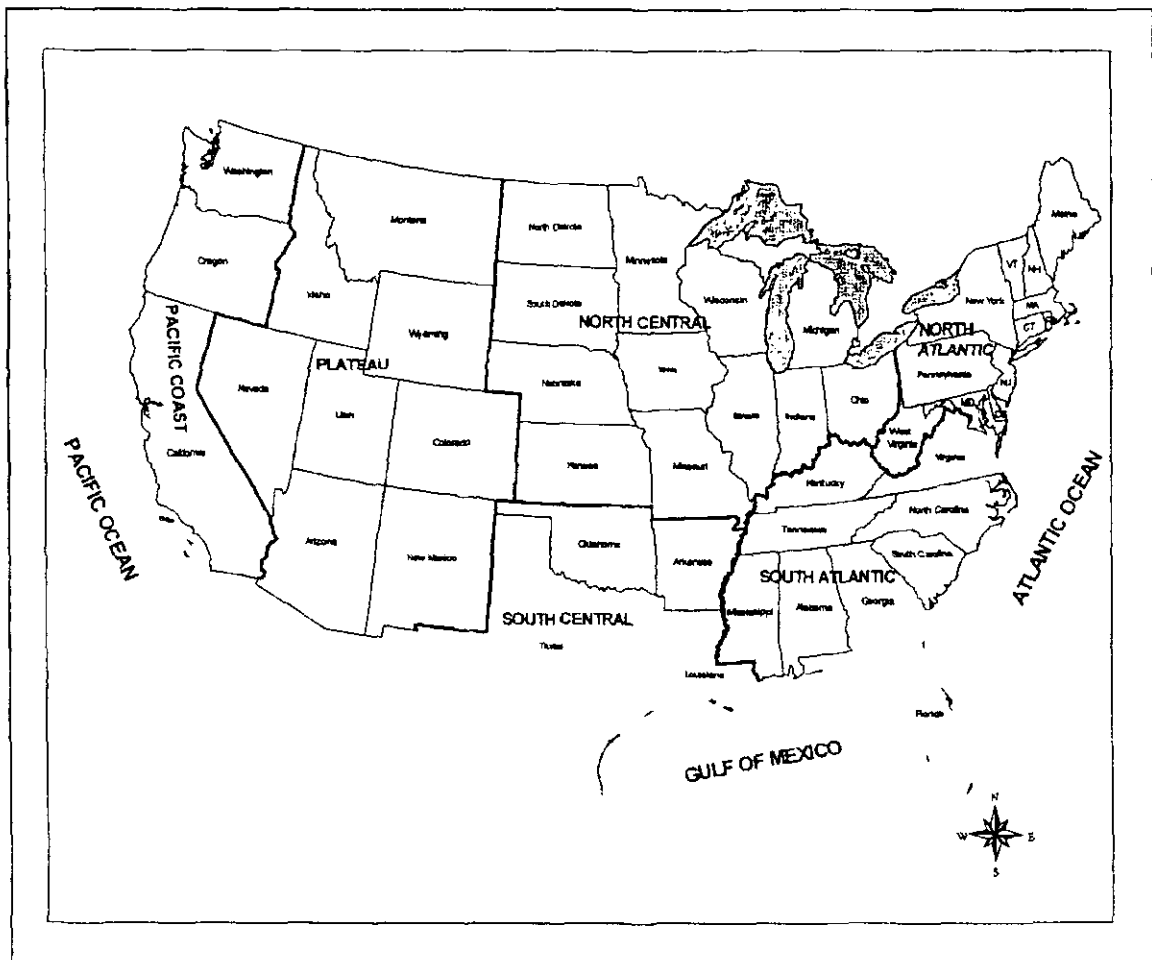
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TRENDS OF PUBLIC UTILITY CONSTRUCTION COSTS

GEOGRAPHIC REGIONS



FOREWORD

Tradition of Quality

The Handy-Whitman Index of Public Utility Construction Costs has been published continuously since 1924. Formerly the Handy Index, Bulletin Nos. 1 through 15 were developed by William W. Handy of Baltimore who had wide valuation experience in public utilities. *He believed that valuation studies should not be confined to rate cases but should be kept alive to the benefit of the utility industry.* He began publishing index numbers for electric and gas construction cost trends. Carrying on with the *tradition of quality*, after Mr. Handy's death, we continued publication for his estate beginning with Bulletin 16. Then, January 1, 1950, Whitman, Requardt and Associates, LLP purchased rights to the publication and have since been the sole publishers.

The name "Handy-Whitman Index" was adopted for Bulletin No. 53 and succeeding issues to combine the names of Mr. Handy and Ezra B. Whitman, a well-known valuation engineer. In 1957 an index of water utility construction costs was added. Mr. Whitman was a consultant on the publication of the Index until his death in 1963.

Whitman, Requardt and Associates, LLP

Ezra B. Whitman, a well-known valuation engineer was one of the founders of our firm. Major Whitman, as he was known from his World War I service, had already made a name for himself. Prior to the founding of the firm in 1915, Major Whitman had been President and Chief Engineer of the Water Board of the City of Baltimore. He designed the first rapid sand filtration plant serving a major city while he was the Baltimore Water Engineer. He was also president of the American Society of Civil Engineers and of the American Institute of Consulting Engineers and a chairman of the Public Service Commission of Maryland.

The Handy-Whitman Index is prepared especially for electric, gas and water utilities and is the only known publication of its kind available to the public. The list of subscribers is international and includes operating utilities, regulatory bodies, valuation engineers, equipment industries, insurance companies and reference libraries.

Tradition of Quality Continued

Since 1915, Whitman, Requardt and Associates, LLP, has been an independent consulting engineering firm organized to serve government, industry and private enterprise.

The firm has steadily expanded its engineering capabilities, providing complete services for civil, sanitary, structural, mechanical and electrical

engineering and architectural projects from job inception through construction management. Construction cost data from utility projects of all types are available from design and valuation assignments. The staff is composed of specialists in these and related disciplines who bring a diverse professional and academic expertise to each assignment. A full-time staff is maintained specifically for preparing the Handy-Whitman Index.

Methods of Preparation of Indexes

An index number is a percentage ratio between the cost of an item at any stated time and its cost at a base period, or:

$$\text{Index Number} = \frac{\text{cost at stated time}}{\text{cost at base period}} \times 100$$

Index numbers have been prepared for many items, including wage rates, cost-of-living, material and equipment costs, and financial transactions. In the Handy-Whitman Index, index numbers have been developed for "Building Construction", "Electric Utility Construction", "Gas Utility Construction" and "Water Utility Construction". Prices of basic materials such as cement, sand, gravel, cast iron pipe, wire, etc., are obtained from publications such as Engineering News-Record and checked against prices actually being paid for such materials. Labor cost trends are computed from labor rates obtained from sources such as the Construction Labor Research Council. Prices and cost trends of equipment are obtained from nationally recognized manufacturers, and operating utilities.

Handy-Whitman Index numbers are developed from wage rates and prices prevailing on January 1 and July 1 each year. The index numbers are generally based on 1973 = 100, although those items of recent origin are based on a later year.

The proportions of basic materials, labor, equipment and other cost components used in the Handy-Whitman Index are based on analyses developed during valuation and design assignments and on data furnished by utilities and industrial sources willing to assist with the Index. These data are reviewed continuously, and weightings and components are revised as required. This review assures that the indexes published reflect current construction practice.

FOREWORD

Geographic Regions

To reflect differing cost trends throughout the 48 contiguous states, the index has been divided into six geographical regions of similar characteristics. They are shown on the accompanying map.

Use of Index Numbers

Handy-Whitman Index numbers have been widely used to trend earlier valuations and original cost records to estimate reproduction cost at prices prevailing at a certain date. The use of indexes for an appropriate property item or group will provide a reliable guide to changes in cost. Cost trends are given for all the important items of property. The electric and gas groups are arranged by the Federal Energy Regulatory Commission Uniform System of Accounts. The water property accounts are arranged to follow the classification of the National Association of Regulatory Utility Commissioners and the American Water Works Association.

The Handy-Whitman Index will furnish a yardstick for the fluctuations in value of property which will be satisfactory for many purposes. In rate cases, when a more exact determination of value is desired, however, the Index must be used carefully. Average prices and cost trends are used to develop the Index, and any direct application of cost trends without checking with actual local experience may not be accepted without controversy. When local experience is compared with the index and the correlation between the two trends is determined, the result is satisfactory. Costs trended by such a method are used to assist in establishing a rate base.

Indexes in these bulletins are used to trend earlier valuations or original cost records for insurance purposes.

The Handy-Whitman Index has a general application in valuations of all types of property. The building construction cost trends may be used wherever similar items of property are to be compared. Many of the other trends may be used for related items in other industries because of their similarity.

State-of-the-art changes often affect costs independently of inflation. New regulatory and environmental requirements, changes in work rules and improved design standards, for instance, increase construction costs even though the price of wages, materials and equipment may be static. Trended construction costs will not reflect such changes. However, trended costs are a reasonably accurate measure of the cost of reproducing actual plant.

Although every effort is made to maintain accuracy, Whitman, Requardt and Associates, LLP disclaim any responsibility for the use of these indexes, because local conditions may vary.

No guarantee or warranty of any kind is made in the sale of the Handy-Whitman Index. Published numbers are occasionally subject to change based upon receipt of new or different information. These numbers will be bolded.

Further inquiries on electric, gas and water indexes should be addressed to Whitman, Requardt and Associates, LLP.

Total Electric Plant and Function

Three indexes are provided for total plant. The first is for all steam generation and the other two for weighted combinations of steam and nuclear, and steam and hydro generation. Indexes are also provided for each function.

Indexes are not maintained for plant accounts 323,324,325,341,345 and 346. We believe that indexes for comparable accounts in other functions are sufficiently accurate for these accounts.

The indexes for total nuclear production and total other production incorporate comparable indexes from the steam production function for the accounts not listed.

Value of Index Numbers

We believe that present-day reproduction cost of any property can be calculated more accurately using index numbers than by repricing a complete inventory.

Trending the controlling items of property in any utility by the index method saves time and effort in arriving at a valuation. Analyzing and determining cost trends for all of the great numbers of articles of plant that represent only a very small proportion of the value of the utility is not necessary. They may be assumed to follow in general the trend of the controlling items, and the fluctuations in value above or below the trends of the controlling items will tend to offset each other and have a very slight effect on the total value.

Comments on Bulletin No. 162

During the twelve month period ending July 1, 2005, the average index of all geographical regions for Total Gas Plant decreased 0.4% and the comparable index for Electric Plant-All Steam Generation increased 1.6%.

November, 2005
Whitman, Requardt and Associates, LLP

Cost Trends Of

Building Construction

COST TREND TABLES
1912 to July 1, 2005

Cost Trends Of

Electric Utility Construction

COST TREND TABLES
1912 to July 1, 2005

NORTH CENTRAL REGION (1973=100)

L i n e	CONSTRUCTION AND EQUIPMENT	F E R C	COST INDEX NUMBERS													
			1999		2000		2001		2002		2003		2004		2005	
			Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1	Jan. 1	Jul. 1
1	Total Plant-All Steam Generation		358	360	364	378	381	390	395	402	411	410	418	434	453	460
2	Total Plant-All Steam & Nuclear Gen.		357	359	363	376	380	389	393	401	409	409	417	433	452	459
3	Total Plant-All Steam & Hydro Gen.		357	359	363	377	380	389	393	401	409	409	417	433	452	459
4																
5	Steam Production Plant															
6	Total Steam Production Plant		374	380	386	401	404	414	417	428	438	436	446	456	477	481
7	Structures & Improvements-Indoor	311	330	333	338	354	357	371	371	383	389	386	398	413	435	438
8	Structures & Improvements-Semi-Outdoor	311	323	329	338	346	348	358	360	364	369	369	396	404	418	425
9	Boiler Plant Equipment-Coal Fired	312	397	401	405	423	426	440	442	453	458	454	459	475	495	499
10	Boiler Plant Equipment-Gas Fired	312	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	Boiler Plant Piping Installed		336	336	335	348	350	359	360	367	373	370	381	394	439	443
12	Turbogenerator Units	314	366	372	381	393	396	394	400	410	433	434	438	441	464	461
13	Accessory Electrical Equipment	315	398	409	414	435	446	463	472	493	505	504	513	522	562	572
14	Misc. Power Plant Equipment	316	397	404	410	425	427	439	441	452	457	453	465	479	511	513
15																
16	Nuclear Production Plant															
17	Total Nuclear Production Plant		349	354	359	371	374	382	386	395	404	405	410	422	447	449
18	Structures & Improvements	321	314	321	326	338	338	353	354	364	370	367	378	388	406	410
19	Reactor Plant Equipment	322	348	351	355	366	368	376	379	387	391	393	396	413	439	441
20																
21	Hydro Production Plant															
22	Total Hydraulic Production Plant		331	338	342	349	350	356	357	363	367	368	382	384	397	400
23	Structures & Improvements	331	330	333	338	354	357	371	371	383	389	386	398	413	435	438
24	Reservoirs, Dams & Waterways	332	311	319	322	329	328	338	337	346	348	348	364	370	384	388
25	Water Wheels, Turbines & Generators	333	378	384	392	393	398	385	395	390	396	402	410	393	399	397
26																
27	Other Production Plant															
28	Total Other Production Plant		394	399	405	434	441	412	417	429	436	439	430	437	428	435
29	Fuel Holders, Producers & Accessories	342	359	359	360	371	373	382	383	392	397	397	402	427	454	460
30	Gas Turbogenerators	344	399	403	410	395	402	413	418	430	437	439	428	434	420	427
31															471	
32	Transmission Plant															
33	Total Transmission Plant		372	369	371	393	396	406	410	413	418	417	427	454	471	485
34	Station Equipment	353	368	373	377	398	401	414	417	423	428	424	427	466	483	495
35	Towers & Fixtures	354	341	344	355	361	366	372	381	382	389	390	417	424	436	439
36	Poles & Fixtures	355	401	406	399	408	412	427	432	436	442	444	453	457	476	493
37	Overhead Conductors & Devices	356	424	382	384	436	438	448	451	442	447	448	455	487	511	542
38	Underground Conduit	357	328	325	326	336	338	350	354	367	377	376	388	404	436	436
39	Underground Conductors & Devices	358	446	459	448	452	464	447	451	460	467	469	473	523	529	547
40																
41	Distribution Plant															
42	Total Distribution Plant		326	325	326	335	339	346	352	359	367	369	373	391	408	417
43	Station Equipment	362	374	377	378	380	383	387	388	383	387	386	391	441	457	464
44	Poles, Towers & Fixtures	364	368	374	373	381	384	395	399	411	419	423	425	434	453	457
45	Overhead Conductors & Devices	365	379	365	369	400	404	416	422	427	439	442	449	468	489	512
46	Underground Conduit	366	317	326	332	338	342	352	356	374	383	380	393	395	420	422
47	Underground Conductors & Devices	367	310	316	314	322	330	319	324	329	333	335	337	354	382	393
48	Line Transformers	368	230	225	226	227	230	237	241	247	248	253	244	264	275	283
49	Pad Mounted Transformers	368	323	325	326	328	328	350	351	362	359	359	387	457	492	541
50	Services-Overhead	369	312	315	318	326	330	338	344	349	362	362	371	378	395	402
51	Services-Underground	369	229	230	236	245	247	246	249	260	264	264	268	269	279	292
52	Meters Installed	370	220	207	203	204	216	235	256	270	282	282	319	319	306	306
53	Street Lighting-Overhead	373	391	394	397	402	407	416	423	442	467	471	474	480	499	508
54	Mast Arms & Luminaires Installed	373	404	406	406	412	417	421	427	433	438	444	447	453	482	496
55	Street Lighting-Underground	373	391	394	398	404	409	419	426	450	481	484	488	492	510	517
56																

from the difference between the amount of the liability for the asset retirement obligation in account 230, Asset retirement obligations, and the amount paid to settle the obligation, shall be accounted for as follows:

(1) Gains shall be credited to account 421, Miscellaneous nonoperating income, and;

(2) Losses shall be charged to account 426.5, Other deductions.

E. Separate subsidiary records shall be maintained for each asset retirement obligation showing the initial liability and associated asset retirement cost, any incremental amounts of the liability incurred in subsequent reporting periods for additional layers of the original liability and related asset retirement cost, the accretion of the liability, the subsequent measurement changes to the asset retirement obligation, the depreciation and amortization of the asset retirement costs and related accumulated depreciation, and the settlement date and actual amount paid to settle the obligation. For purposes of analyses a utility shall maintain supporting documentation so as to be able to furnish accurately and expeditiously with respect to each asset retirement obligation the full details of the identity and nature of the legal obligation, the year incurred, the identity of the plant giving rise to the obligation, the full particulars relating to each component and supporting computations related to the measurement of the asset retirement obligation.

Electric Plant Instructions

1. *Classification of electric plant at effective date of system of accounts (Major utilities).*

A. The electric plant accounts provided herein are the same as those contained in the prior system of accounts except for inclusion of accounts for nuclear production plant and some changes in classification in the general equipment accounts. Except for these changes, the balances in the various plant accounts, as determined under the prior system of accounts, should be carried forward. Any remaining balance of plant which has not yet been classified, pursuant to the requirements of the prior system, shall be

classified in accordance with the following instructions.

B. The cost to the utility of its unclassified plant shall be ascertained by analysis of the utility's records. Adjustments shall not be made to record in utility plant accounts amounts previously charged to operating expenses or to income deductions in accordance with the uniform system of accounts in effect at the time or in accordance with the discretion of management as exercised under a uniform system of accounts, or under accounting practices previously followed.

C. The detailed electric plant accounts (301 to 399, inclusive) shall be stated on the basis of cost to the utility of plant constructed by it and the original cost, estimated if not known, of plant acquired as an operating unit or system. The difference between the original cost, as above, and the cost to the utility of electric plant after giving effect to any accumulated provision for depreciation or amortization shall be recorded in account 114, Electric Plant Acquisition Adjustments. The original cost of electric plant shall be determined by analysis of the utility's records or those of the predecessor or vendor companies with respect to electric plant previously acquired as operating units or systems and the difference between the original cost so determined, less accumulated provisions for depreciation and amortization and the cost to the utility with necessary adjustments for retirements from the date of acquisition, shall be entered in account 114, Electric Plant Acquisition Adjustments. Any difference between the cost of electric plant and its book cost, when not properly includible in other accounts, shall be recorded in account 116, Other Electric Plant Adjustments.

D. Plant acquired by lease which qualifies as capital lease property under General Instruction 19, *Criteria for Classifying Leases*, shall be recorded in Account 101.1, Property under Capital Leases, or Account 120.6, Nuclear Fuel under Capital Leases, as appropriate.

2. *Electric Plant To Be Recorded at Cost.*

A. All amounts included in the accounts for electric plant acquired as an

operating unit or system, except as otherwise provided in the texts of the intangible plant accounts, shall be stated at the cost incurred by the person who first devoted the property to utility service. All other electric plant shall be included in the accounts at the cost incurred by the utility, except for property acquired by lease which qualifies as capital lease property under General Instruction 19. *Criteria for Classifying Leases*, and is recorded in Account 101.1, Property under Capital Leases, or Account 120.6, Nuclear Fuel under Capital Leases. Where the term *cost* is used in the detailed plant accounts, it shall have the meaning stated in this paragraph.

B. When the consideration given for property is other than cash, the value of such consideration shall be determined on a cash basis (see, however, definition 9). In the entry recording such transition, the actual consideration shall be described with sufficient particularity to identify it. The utility shall be prepared to furnish the Commission the particulars of its determination of the cash value of the consideration if other than cash.

C. When property is purchased under a plan involving deferred payments, no charge shall be made to the electric plant accounts for interest, insurance, or other expenditures occasioned solely by such form of payment.

D. The electric plant accounts shall not include the cost or other value of electric plant contributed to the company. Contributions in the form of money or its equivalent toward the construction of electric plant shall be credited to accounts charged with the cost of such construction. Plant constructed from contributions of cash or its equivalent shall be shown as a reduction to gross plant constructed when assembling cost data in work orders for posting to plant ledgers of accounts. The accumulated gross costs of plant accumulated in the work order shall be recorded as a debit in the plant ledger of accounts along with the related amount of contributions concurrently be recorded as a credit.

3. *Components of construction cost.*

A. For Major utilities, the cost of construction properly includible in the electric plant accounts shall include,

where applicable, the direct and overhead cost as listed and defined hereunder:

(1) *Contract work* includes amounts paid for work performed under contract by other companies, firms, or individuals, costs incident to the award of such contracts, and the inspection of such work.

(2) *Labor* includes the pay and expenses of employees of the utility engaged on construction work, and related workmen's compensation insurance, payroll taxes and similar items of expense. It does not include the pay and expenses of employees which are distributed to construction through clearing accounts nor the pay and expenses included in other items hereunder.

(3) *Materials and supplies* includes the purchase price at the point of free delivery plus customs duties, excise taxes, the cost of inspection, loading and transportation, the related stores expenses, and the cost of fabricated materials from the utility's shop. In determining the cost of materials and supplies used for construction, proper allowance shall be made for unused materials and supplies, for materials recovered from temporary structures used in performing the work involved, and for discounts allowed and realized in the purchase of materials and supplies.

NOTE: The cost of individual items of equipment of small value (for example, \$500 or less) or of short life, including small portable tools and implements, shall not be charged to utility plant accounts unless the correctness of the accounting therefor is verified by current inventories. The cost shall be charged to the appropriate operating expense or clearing accounts, according to the use of such items, or, if such items are consumed directly in construction work, the cost shall be included as part of the cost of the construction

(4) *Transportation* includes the cost of transporting employees, materials and supplies, tools, purchased equipment, and other work equipment (when not under own power) to and from points of construction. It includes amounts paid to others as well as the cost of operating the utility's own transportation equipment. (See item 5 following.)

(5) *Special machine service* includes the cost of labor (optional), materials and

distribution facilities according to the purpose for which used.

E. Land (other than rights of way) and structures used jointly for transmission and distribution purposes shall be classified as transmission or distribution according to the major use thereof.

15. *Hydraulic production plant (Major Utilities).*

For the purpose of this system of accounts hydraulic production plant means all land and land rights, structures and improvements used in connection with hydraulic power generation, reservoirs dams and waterways, water wheels, turbines, generators, accessory electric equipment, miscellaneous powerplant equipment, roads, railroads, and bridges, and structures and improvements used in connection with fish and wildlife, and recreation.

16. *Nuclear Fuel Records Required (Major Utilities).*

Each utility shall keep all the necessary records to support the entries to the various nuclear fuel plant accounts classified under "Assets and Other Debits," Utility Plant 120.1 through 120.6, inclusive, account 518, Nuclear Fuel Expense and account 157, Nuclear Materials Held for Sale. These records shall be so kept as to readily furnish the basis of the computation of the net nuclear fuel costs.

Operating Expense Instructions

1. *Supervision and Engineering (Major Utilities).*

The supervision and engineering includible in the operating expense accounts shall consist of the pay and expenses of superintendents, engineers, clerks, other employees and consultants engaged in supervising and directing the operation and maintenance of each utility function. Wherever allocations are necessary in order to arrive at the amount to be included in any account, the method and basis of allocation shall be reflected by underlying records.

ITEMS

Labor

1. Special tests to determine efficiency of equipment operation.

2. Preparing or reviewing budgets, estimates, and drawings relating to operation or maintenance for departmental approval.

3. Preparing instructions for operations and maintenance activities.

4. Reviewing and analyzing operating results.

5. Establishing organizational setup of departments and executing changes therein.

6. Formulating and reviewing routines of departments and executing changes therein.

7. General training and instruction of employees by supervisors whose pay is chargeable hereto. Specific instruction and training in a particular type of work is chargeable to the appropriate functional account (See Electric Plant Instruction 3(19)).

8. Secretarial work for supervisory personnel, but not general clerical and stenographic work chargeable to other accounts.

Expenses

9. Consultants' fees and expenses.

10. Meals, traveling and incidental expenses.

2. Maintenance.

A. The cost of maintenance chargeable to the various operating expense and clearing accounts includes labor, materials, overheads and other expenses incurred in maintenance work. A list of work operations applicable generally to utility plant is included hereunder. Other work operations applicable to specific classes of plant are listed in functional maintenance expense accounts.

B. Materials recovered in connection with the maintenance of property shall be credited to the same account to which the maintenance cost was charged.

C. If the book cost of any property is carried in account 102, Electric Plant Purchased or Sold, the cost of maintaining such property shall be charged to the accounts for maintenance of property of the same class and use, the book cost of which is carried in other electric plant in service accounts. Maintenance of property leased from others shall be treated as provided in operating expense instruction 3.

ITEMS

1. Direct field supervision of maintenance.
2. Inspecting, testing, and reporting on condition of plant specifically to determine the need for repairs, replacements, rearrangements and changes and inspecting and testing the adequacy of repairs which have been made.

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2. PRODUCTION PLANT

A. STEAM PRODUCTION

- 310 Land and land rights.
- 311 Structures and improvements.
- 312 Boiler plant equipment.
- 313 Engines and engine-driven generators.
- 314 Turbogenerator units.
- 315 Accessory electric equipment.
- 316 Miscellaneous power plant equipment

B. NUCLEAR PRODUCTION

- 320 Land and land rights (Major only).
- 321 Structures and improvements (Major only).
- 322 Reactor plant equipment (Major only).
- 323 Turbogenerator units (Major only).
- 324 Accessory electric equipment (Major only).
- 325 Miscellaneous power plant equipment (Major only).

C. HYDRAULIC PRODUCTION

- 330 Land and land rights.
- 331 Structures and improvements.
- 332 Reservoirs, dams, and waterways.
- 333 Water wheels, turbines and generators.
- 334 Accessory electric equipment.
- 335 Miscellaneous power plant equipment.
- 336 Roads, railroads and bridges.

D. OTHER PRODUCTION

- 340 Land and land rights.
- 341 Structures and improvements.
- 342 Fuel holders, producers, and accessories.
- 343 Prime movers.
- 344 Generators.
- 345 Accessory electric equipment.
- 346 Miscellaneous power plant equipment.

3. TRANSMISSION PLANT

- 350 Land and land rights.
- 351 [Reserved]
- 352 Structures and improvements.
- 353 Station equipment.
- 354 Towers and fixtures.
- 355 Poles and fixtures.
- 356 Overhead conductors and devices.
- 357 Underground conduit.
- 358 Underground conductors and devices.
- 359 Roads and trails.

4. DISTRIBUTION PLANT

- 360 Land and land rights.
- 361 Structures and improvements.
- 362 Station equipment.
- 363 Storage battery equipment.
- 364 Poles, towers and fixtures.
- 365 Overhead conductors and devices.
- 366 Underground conduit.
- 367 Underground conductors and devices.
- 368 Line transformers.
- 369 Services.
- 370 Meters.
- 371 Installations on customers' premises

- 372 Leased property on customers' premises.
- 373 Street lighting and signal systems.

5. GENERAL PLANT

- 389 Land and land rights.
- 390 Structures and improvements.
- 391 Office furniture and equipment.
- 392 Transportation equipment.
- 393 Stores equipment.
- 394 Tools, shop and garage equipment.
- 395 Laboratory equipment.
- 396 Power operated equipment.
- 397 Communication equipment.
- 398 Miscellaneous equipment.
- 399 Other tangible property.

Electric Plant Accounts

301 Organization.

This account shall include all fees paid to federal or state governments for the privilege of incorporation and expenditures incident to organizing the corporation, partnership, or other enterprise and putting it into readiness to do business.

ITEMS

1. Cost of obtaining certificates authorizing an enterprise to engage in the public-utility business.
2. Fees and expenses for incorporation.
3. Fees and expenses for mergers or consolidations.
4. Office expenses incident to organizing the utility.
5. Stock and minute books and corporate seal.

NOTE A: This account shall not include any discounts upon securities issued or assumed; nor shall it include any costs incident to negotiating loans, selling bonds or other evidences of debt or expenses in connection with the authorization, issuance or sale of capital stock.

NOTE B: Exclude from this account and include in the appropriate expense account the cost of preparing and filing papers in connection with the extension of the term of incorporation unless the first organization costs have been written off. When charges are made to this account for expenses incurred in mergers, consolidations, or reorganizations, amounts previously included herein or in similar accounts in the books of the companies concerned shall be excluded from this account.

302 Franchises and consents.

A. This account shall include amounts paid to the federal government, to a state or to a political subdivision thereof in consideration for

franchises, consents, water power licenses, or certificates, running in perpetuity or for a specified term of more than one year, together with necessary and reasonable expenses incident to procuring such franchises, consents, water power licenses, or certificates of permission and approval, including expenses of organizing and merging separate corporations, where statutes require, solely for the purpose of acquiring franchises.

B. If a franchise, consent, water power license or certificate is acquired by assignment, the charge to this account in respect thereof shall not exceed the amount paid therefor by the utility to the assignor, nor shall it exceed the amount paid by the original grantee, plus the expense of acquisition to such grantee. Any excess of the amount actually paid by the utility over the amount above specified shall be charged to account 426.5, Other Deductions.

C. When any franchise has expired, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or to account 111, Accumulated Provision for Amortization of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for Depreciation and Amortization of Electric Plant), as appropriate.

D. Records supporting this account shall be kept so as to show separately the book cost of each franchise or consent.

NOTE: Annual or other periodic payments under franchises shall not be included herein but in the appropriate operating expense account.

303 Miscellaneous intangible plant.

A. This account shall include the cost of patent rights, licenses, privileges, and other intangible property necessary or valuable in the conduct of utility operations and not specifically chargeable to any other account.

B. When any item included in this account is retired or expires, the book cost thereof shall be credited hereto and charged to account 426.5, Other Deductions, or account 111, Accumulated Provision for Amortization of Electric Utility Plant (for Nonmajor utilities, account 110, Accumulated Provision for

Depreciation and Amortization of Electric Plant), as appropriate.

C. This account shall be maintained in such a manner that the utility can furnish full information with respect to the amounts included herein.

310 Land and land rights.

This account shall include the cost of land and land rights used in connection with steam-power generation. (See electric plant instruction 7.)

311 Structures and improvements.

This account shall include the cost in place of structures and improvements used in connection with steam-power generation. (See electric plant instruction 8.)

NOTE: Include steam production roads and railroads in this account.

312 Boiler plant equipment.

This account shall include the cost installed of furnaces, boilers, coal and ash handling and coal preparing equipment, steam and feed water piping, boiler apparatus and accessories used in the production of steam, mercury, or other vapor, to be used primarily for generating electricity.

ITEMS

1. Ash handling equipment, including hoppers, gates, cars, conveyors, hoists, sluicing equipment, including pumps and motors, sluicing water pipe and fittings, sluicing trenches and accessories, etc., except sluices which are a part of a building.

2. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drives.

3. Boiler plant cranes and hoists and associated drives.

4. Boilers and equipment, including boilers and baffles, economizers, superheaters, soot blowers, foundations and settings, water walls, arches, grates, insulation, blow-down system, drying out of new boilers, also associated motors or other power equipment.

5. Breeching and accessories, including breeching, dampers, soot spouts, hoppers and gates, cinder eliminators, breeching insulation, soot blowers and associated motors.

6. Coal handling and storage equipment, including coal towers, coal lorries, coal cars,

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Account 253, Other Deferred Credits, and amortized by credits to this account over a period not to exceed 5 years.

Operation and Maintenance Expense Chart of Accounts

I. POWER PRODUCTION EXPENSES

A. STEAM POWER GENERATION

Operation

- 500 Operation supervision and engineering.
- 501 Fuel.
- 502 Steam expenses (Major only).
- 503 Steam from other sources.
- 504 Steam transferred—Credit.
- 505 Electric expenses (Major only).
- 506 Miscellaneous steam power expenses (Major only).
- 507 Rents.
- 508 Operation supplies and expenses (Nonmajor only).
- 509 Allowances.

Maintenance

- 510 Maintenance supervision and engineering (Major only).
- 511 Maintenance of structures (Major only).
- 512 Maintenance of boiler plant (Major only).
- 513 Maintenance of electric plant (Major only).
- 514 Maintenance of miscellaneous steam plant (Major only).
- 515 Maintenance of steam production plant (Nonmajor only).

B. NUCLEAR POWER GENERATION

Operation

- 517 Operation supervision and engineering (Major only).
- 518 Nuclear fuel expense (Major only).
- 519 Coolants and water (Major only).
- 520 Steam expenses (Major only).
- 521 Steam from other sources (Major only).
- 522 Steam transferred—Credit. (Major only).
- 523 Electric expenses (Major only).
- 524 Miscellaneous nuclear power expenses (Major only).
- 525 Rents (Major only).

Maintenance

- 528 Maintenance supervision and engineering (Major only).
- 529 Maintenance of structures (Major only).
- 530 Maintenance of reactor plant equipment (Major only).
- 531 Maintenance of electric plant (Major only).
- 532 Maintenance of miscellaneous nuclear plant (Major only).

C. HYDRAULIC POWER GENERATION

Operation

- 535 Operation supervision and engineering.

536 Water for power.

537 Hydraulic expenses (Major only).

538 Electric expenses (Major only).

539 Miscellaneous hydraulic power generation expenses (Major only).

540 Rents.

540.1 Operation supplies and expenses (Nonmajor only).

Maintenance

- 541 Maintenance supervision and engineering (Major only).
- 542 Maintenance of structures (Major only).
- 543 Maintenance of reservoirs, dams and waterways (Major only).
- 544 Maintenance of electric plant (Major only).
- 545 Maintenance of miscellaneous hydraulic plant (Major only).
- 545.1 Maintenance of hydraulic production plant (Nonmajor only).

D. OTHER POWER GENERATION

Operation

- 546 Operation supervision and engineering.
- 547 Fuel.
- 548 Generation expenses (Major only).
- 549 Miscellaneous other power generation expenses (Major only).
- 550 Rents.
- 550.1 Operation supplies and expenses (Nonmajor only).

Maintenance

- 551 Maintenance supervision and engineering (Major only).
- 552 Maintenance of structures (Major only).
- 553 Maintenance of generating and electric plant (Major only).
- 554 Maintenance of miscellaneous other power generation plant (Major only).
- 554.1 Maintenance of other power production plant (Nonmajor only).

E. OTHER POWER SUPPLY EXPENSES

555 Purchased power.

556 System control and load dispatching (Major only).

557 Other expenses.

2. TRANSMISSION EXPENSES

Operation

- 560 Operation supervision and engineering.
- 561 Load dispatching (Major only).
- 562 Station expenses (Major only).
- 563 Overhead line expenses (Major only).
- 564 Underground line expenses (Major only).
- 565 Transmission of electricity by others (Major only).
- 566 Miscellaneous transmission expenses (Major only).
- 567 Rents.
- 567.1 Operation supplies and expenses (Nonmajor only).

512 Maintenance of boiler plant (Major only).

A. This account shall include the cost of labor, materials used and expenses incurred in the maintenance of steam plant, the book cost of which is includible in account 312, Boiler Plant Equipment. (See operating expense instruction 2.)

B. For the purpose of making charges hereto and to account 513, Maintenance of Electric Plant, the point at which steam plant is distinguished from electric plant is defined as follows:

1. Inlet flange of throttle valve on prime mover.
2. Flange of all steam extraction lines on prime mover.
3. Hotwell pump outlet on condensate lines.
4. Inlet flange of all turbine-room auxiliaries.
5. Connection to line side of motor starter for all boiler-plant equipment.

513 Maintenance of electric plant (Major only).

This account shall include the cost of labor, materials used and expenses incurred in the maintenance of electric plant, the book cost of which is includible in account 313, Engines and Engine-Driven Generators, account 314, Turbogenerator Units, and account 315, Accessory Electric Equipment. (See operating expense instruction 2 and paragraph B of account 512.)

514 Maintenance of miscellaneous steam plant (Major only).

This account shall include the cost of labor, materials used and expenses incurred in maintenance of miscellaneous steam generation plant, the book cost of which is includible in account 316, Miscellaneous Power Plant Equipment. (See operating expense instruction 2.)

515 Maintenance of steam production plant (Nonmajor only).

This account shall include the cost of labor, materials used and expenses incurred in the maintenance of steam production plant the book cost of which is includible in plant accounts 311 to 316, inclusive. (See operating expense instruction 2.)

517 Operation supervision and engineering (Major only).

This account shall include the cost of labor and expenses incurred in the general supervision and direction of the operation of nuclear power generating stations. Direct supervision of specific activities, such as fuel handling, reactor operations, generator operations, etc., shall be charged to the appropriate account. (See operating expense instruction 1.)

518 Nuclear fuel expense (Major only).

A. This account shall be debited and account 120.5, Accumulated Provision for Amortization of Nuclear Fuel Assemblies, credited for the amortization of the net cost of nuclear fuel assemblies used in the production of energy. The net cost of nuclear fuel assemblies subject to amortization shall be the cost of nuclear fuel assemblies plus or less the expected net salvage of uranium, plutonium, and other byproducts and unburned fuel. The utility shall adopt the necessary procedures to assure that charges to this account are distributed according to the thermal energy produced in such periods.

B. This account shall also include the costs involved when fuel is leased.

C. This account shall also include the cost of other fuels, used for ancillary steam facilities, including superheat.

D. This account shall be debited or credited as appropriate for significant changes in the amounts estimated as the net salvage value of uranium, plutonium, and other byproducts contained in account 157, Nuclear Materials Held for Sale and the amount realized upon the final disposition of the materials. Significant declines in the estimated realizable value of items carried in account 157 may be recognized at the time of market price declines by charging this account and crediting account 157. When the declining change occurs while the fuel is recorded in account 120.3, Nuclear Fuel Assemblies in Reactor, the effect shall be amortized over the remaining life of the fuel.

519 Coolants and water (Major only).

This account shall include the cost of labor, materials used and expenses incurred for heat transfer materials and