

Exhibit No.:

Issue: Steam System
Management

Witness/Type of Exhibit: Deborah
Ann Bernsen, Direct
Testimony

Sponsoring Party: Missouri Public
Service Commission

Company: Kansas City Power
and Light Company

Case No.: HO-86-139

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY DIVISION

PREPARED DIRECT TESTIMONY

OF

DEBORAH ANN BERNSEN

Jefferson City, Missouri

February, 1987

OFFICIAL CASE FILE
MISSOURI PUBLIC SERVICE COMMISSION

Exhibit No. 45
Date 4/9/87 Case No. HO-86-139
Reporter Twitney

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In The Matter Of The Investigation Of)
Steam Service Rendered by Kansas City)
Power and Light Company)

Case No. HO-86-139

AFFIDAVIT OF DEBORAH ANN BERNSEN

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Deborah A. Bernsen, of lawful age, on her oath states: That she has participated in the preparation of the attached written testimony in question and answer form, consisting of 16 pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.


Deborah Ann Bernsen

Subscribed and sworn to before me this 23rd day of February, 1987.


Notary Public

My Commission expires

June 18, 1989.

Joyce C. Neuner, Notary Public
Ozage County, State of Missouri
Commission Expires June 18, 1989

1 DIRECT TESTIMONY

2 OF

3 DEBORAH ANN BERNSEN

4 KANSAS CITY POWER AND LIGHT COMPANY

5 CASE NUMBERS HO-86-139

6
7 Q. Please state your name and business address.

8 A. Deborah Ann Bernsen, 301 W. High, Jefferson City,
9 Missouri.

10 Q. By whom are you employed?

11 A. I am employed by the Missouri Public Service Commission.

12 Q. In what capacity?

13 A. I am a management analyst in the Management Services
14 Department of the Commission's Utility Division.

15 Q. How long have you been employed by this Commission?

16 A. Since June, 1976.

17 Q. Will you please state your educational background and
18 experience.

19 A. I received a Bachelor of Science degree in Business
20 Administration with an emphasis in Marketing from the University of
21 Missouri, Columbia in 1975. I continued my formal education at the
22 University by doing graduate work in Public Administration until June
23 of 1976 when I accepted employment with the Commission. I have been
24 pursuing the completion of my graduate degree by attending evening
25 classes from the University of Missouri, Columbia.
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1 Since joining the Management Services Department, I have
2 managed, conducted, or participated in management audits, compliance
3 audits and follow-up audits of numerous utilities regulated by this
4 Commission. These audits include: Union Electric Customer Service
5 Audit, Continental Telephone Company Follow-up Audit, Gas Service
6 Chapter 13 Compliance Audit, Empire District Electric Company
7 Management Audit, Missouri Power & Light Company Management Audit,
8 General Telephone Company Follow-up Audit, Kansas City Power & Light
9 Company Management and Follow-up Audits, Missouri Public Service
10 Company Management and Follow-up Audits, Gas Service Company
11 Management and Follow-up Audits, and the Laclede Gas Company
12 Management Audit.

13 Specifically, I have reviewed and evaluated the
14 effectiveness and efficiency of management methods, systems, and
15 procedures at these utilities and made recommendations for
16 improvement, where appropriate. I have held administrative
17 responsibility as a project manager to direct the work efforts of
18 project analyst teams composed of Commission Staff. In addition to
19 audits performed by the Commission Staff, I also managed and/or
20 participated in audits conducted by outside management consulting
21 firms on Missouri utilities by order of the Commission.

22 Q. Have you previously filed testimony before this
23 Commission?

24 A. Yes. I have previously filed testimony before this
25 Commission in Case No. TR-83-253, Southwestern Bell Telephone, Case
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DIRECT TESTIMONY OF
DEBORAH ANN BERNSEN
PAGE - 3 -

1 No. GR-83-225, Gas Service Company; and Case Nos. ER-85-128 and
2 EO-85-185, Kansas City Power and Light Company.

3 Q. What is the purpose of your testimony?

4 A. The purpose of my testimony is to provide an overview
5 of the Kansas City Power and Light Company's (KCPL or Company)
6 management of its utility steam operations, focusing upon its
7 organization, planning, maintenance and marketing efforts.

8 Q. In what manner did Staff review the operations of the
9 utility steam system?

10 A. Staff obtained information on the utility steam
11 operations by a review of data information request responses, and
12 interviews with Company personnel and document search.

13 Q. What conclusions has Staff reached concerning the
14 Company's management of its utility steam operations?

15 A. Staff believes that the Company has historically been
16 negligent in the conduct of its management responsibilities with
17 respect to the utility steam system.

18 Q. How is the Staff using the term "negligent" in this
19 regard?

20 A. Staff uses the term "negligent" here to imply the
21 failure to carry out some required or expected actions.

22 Q. On what basis does the Staff believe that the Company's
23 management has been negligent?

24 A. The evidence presented here and in accompanying pieces
25 of testimony clearly demonstrate that, prior to 1982, the Company had
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1 historically devoted little management attention and resources to the
2 operation of its steam service system.

3 Staff believes that Company management has been negligent on
4 the basis of its inattention to the installation of basic management
5 systems to provide focus, responsibility and accountability to the
6 successful operation of its utility steam system.

7 For management to effectively fulfill its responsibilities,
8 management processes and practices must be designed to require and to
9 effectuate an integrated cycle of management actions that function
10 collectively to provide a sound basis for management's control.
11 Management control systems consist of goals, plans, processes and
12 procedures designed for both the short- and long-term management of
13 the function. The development of goals and objectives assists
14 management in directing its resources and tracking progress. The
15 installation of management processes allow management to plan,
16 organize and direct which provides the means for control of its
17 operations to assure that it is fulfilling its responsibility to
18 manage.

19 For example, management control systems allow management to
20 critically examine its operations, to plan for contingencies, to set
21 goals, to establish those informational documents to continually
22 monitor the results of its efforts and to take timely, informed,
23 corrective action on the basis of its monitoring of actual results.

24 Q. Can you give some examples of areas where you believe
25 the Company did not install basic management control systems?
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1 A. Yes. Staff will detail instances of this neglect in
2 the following four related areas:

- 3 . Long-Range Planning
4 . Organization Structure
5 . Maintenance Activities
6 . Marketing Efforts

7 Each of these areas will be discussed further in this testimony.

8 Q. Did the Staff note additional instances of the
9 Company's inattention to the installation of management systems for
10 the utility steam system?

11 A. Yes. In response to Staff Data Request No. 378, the
12 Company provided Functional Plans for the 1982-1987 time frame. The
13 testimony of Staff witness Haskamp examines these Functional Plans in
14 more detail. A review of these Plans verified that little management
15 attention was concentrated upon steam service prior to 1982. The only
16 mention of steam operations made in the 1982 Transmission and
17 Distribution (T&D) Functional Plan was in the Mission Statement.

18 Deliver and accurately meter electric and steam
19 energy to the customers of Kansas City Power and
20 Light Company by means of a transmission and
21 distribution system which will provide the necessary
reliability commensurate with contemporary needs and
economics of operation, while providing adequate
controls for load management.

22 The T&D group at this time still had functional responsibility for
23 utility steam operations. Specific objectives are normally delineated
24 after the Mission Statement. However, none of the objectives in the
25 1982 Plan specifically concerned utility steam operations. This
26 further demonstrates the Company's inattention to its utility steam
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1 operations prior to 1982. In 1982 the Company developed a specific
2 group with responsibilities for utility steam operations. The
3 Functional Plan for 1983 did address utility steam operations in a
4 specific detailed manner noting four (4) specific objectives.

5 In addition, the Company had not developed goals and
6 objectives for the steam system until 1982 when it reorganized its
7 organization structure. Company response to Staff Data Request No.
8 564 supports this statement and is attached as Schedule 1.

9 Long-Range Planning

10 Q. Did KCPL ever address the future requirements of its
11 utility steam system in a long-range plan?

12 A. KCPL did not address the ongoing viability or problems
13 associated with its utility steam system by a long range plan until
14 the 1981-1982 time frame when the Company apparently finally realized
15 its system had operational and financial problems.

16 Q. Why is a long-range plan an integral part of management
17 efforts to manage?

18 A. Long-term planning is a necessity for any Company that
19 wishes to effectively manage from the onset of the operations. Such a
20 plan assists the Company in examining its present situation, reviewing
21 alternatives and targeting its resources to desired end results, or
22 goals. Such a plan should encompass such factors as staffing and
23 maintenance levels and will also prove invaluable in budgeting
24 efforts. A long-term plan is reexamined every year to assure that it
25 is still a valid guideline.
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1 The Company failed to provide operating objectives for the
2 operations of its steam facilities and did not establish appropriate
3 measurable goals for the efficient and economic achievement of
4 established objectives until 1982-1983. Therefore, the Company has
5 been reactive to problems as they occurred as opposed to planning,
6 organizing and directing its utility steam operations in an aggressive
7 manner to achieve efficient and economic operational performance.
8 Staff witness Oligschlaeger discusses the planning deficiencies
9 associated with the Company's retirement of the Grand Avenue electric
10 operations.

11 Q. Why should the Company have taken such actions as the
12 establishment of a long-range plan when utility steam operations
13 represent such a small portion (1-2%) of the total Company operations
14 and revenues?

15 A. The size of the operation is not really a factor in
16 dictating the existence of a system of simple management controls.
17 While utility steam operations do represent a small portion of the
18 total Company operation, they nonetheless represent a significant
19 revenue and operating cost dollar amount. For example, 1985 year-end
20 revenues were over \$13 million and operating expenses for the same
21 period totaled over \$12 million. The level of dollars involved make
22 it even more important for the Company to develop a specific
23 accountability and dedication to the ongoing operations of its utility
24 steam system. Before 1982, the Company management was negligent in
25 not aggressively managing its utility steam system operations as a
26 part of its total business and service obligations to its customers
27 and its shareholders.
28

Organization

Q. You previously indicated that the structure of the organization regarding utility steam heat operations was a contributing factor to the Company's purported negligence of problems with the system. Please explain how this was a factor.

A. As detailed in the prepared direct testimony of Staff witness Oligachlaeger, responsibilities for steam production, operations, maintenance and marketing were assigned to the same individuals who had like responsibilities for the electric side of the business. Through Staff interviews with personnel who were responsible for management in the 1970's and are still employed by the Company, it was determined that utility steam operations actually consumed a small percentage of their total work time and attention, typically 10%. This was also clearly stated in an April 2, 1982, memorandum from KCPL Vice-President - T&D System Operations, J.R. Miller, to KCPL Chief Executive Officer, Arthur J. Doyle, where Mr. Miller states:

It is generally agreed that operation and maintenance of the steam system has been treated as a "step child", always treated with less interest and priority than the electrical system.

As shown in the above quote, responsibility for utility steam operations was not only fragmented and decentralized, it was also routinely considered a subordinate responsibility to electric responsibilities. There was no single position that held overall accountability on a daily basis for the management and profitability of the utility steam system. Consequently, there was the absence of an ongoing dedicated effort by

1 the Company to reasonably assure the effective operations of the utility
2 steam system and the resolution of problems as they occurred.

3 Q. What were some of the consequences of this organization
4 structure?

5 A. The overall consequence was a lack of accountability for
6 the total operations and profitability of the utility steam system. As
7 a result, management systems were not installed to assure that the
8 operations were effectively managed. For example, formalized weekly or
9 monthly reports specifically for utility steam operations, detailing
10 work activities planned and completed were not prepared and conveyed
11 through the appropriate management hierarchy.

12 Staff Data Request No. 545 asked the Company to provide any
13 such documents used prior to the 1982 period.

14 Please identify all reports/documents including
15 planning documents utilized by a) Senior
16 management, b) Management to 1) monitor and
17 control KCPL's steam operations, 2) report to the
18 conditions of steam systems, and 3) financial
19 condition of steam operations for period 1975
20 forward and/or whatever is available prior to
21 1982.

22 Please identify individuals and their capacity
23 within the Company who relied upon this
24 information.

25 The Company's response follows:

26 The only report I was aware of (sic) is the
27 monthly operating statements. These have been
28 provided in other data requests.

29 This response was prepared by a Company manager with
30 responsibility for utility steam operations prior to 1982. The "monthly
31 operating statements" referred to here consist only of financial
32 information, such as profit/loss data, which is not useful in

1 determining workload. Completed activities, problem areas or a number
2 of other factors useful to management in fulfilling its daily functional
3 responsibilities are not included. As previously noted, the Company
4 failed to establish operating objectives and measurable goals by which
5 to measure and evaluate the achievement of the Company's objectives.

6 Q. Hasn't the Company indicated that it has recently taken
7 action to address some of these problems with respect to its
8 organization that you have noted earlier?

9 A. Yes, in 1982, the Company began to take some actions
10 aimed at resolving a number of these deficiencies. Staff witness
11 Oligschlaeger details the Company's actions taken to address this
12 deficiency in the assignment of responsibility for the utility steam
13 system.

14 Q. Did the development of this new management organization
15 assist KCPL in addressing some of the deficiencies in utility steam
16 operations?

17 A. Yes, in the opinion of those KCPL officials chosen to
18 manage the utility steam operations. Mr. M. C. Mandacina, then Manager
19 of the Utility Steam Department, reported to Mr. A. J. Doyle in January,
20 1983, in a year-end "Status Report" for utility Steam Operations.

21 Concurrent with the successful addition of Corn
22 Products, we have accomplished a turnaround in the
23 formerly declining steam heat business. Positive
24 interaction among all Divisions involved in the
operation has allowed us to focus on past
problems, and produce workable solutions.

25 The formal centralization of ultimate
26 responsibility for the entire steam operation
provided the corporate emphasis necessary to
27 achieve the turnaround.
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1 The development of a specific Steam organization group and the
2 assignment of accountability and responsibility to this group has
3 assisted in the development of management systems and processes. The
4 existence and utilization of effective management systems and processes
5 helps to assure that management has the tools it needs to conduct its
6 responsibility in an effective manner.

7 Mr. Mandacina, then newly appointed Manager of the Steam
8 Department, seems to agree such tools are necessary in his September 9,
9 1982, memorandum to Mr. Doyle, wherein he states:

10 The forthcoming Long-Range Steam Heat Planning
11 Study makes reference in several areas to programs
12 that are currently underway to correct problems in
13 the steam heat operation prior to 1984. These
14 short-term "fixes" are supplemental to the
15 long-range study, and will obviously not affect
16 the bottom line of the financial page as
17 significantly. The goal of these efforts is to
18 reduce losses, increase efficiency, and operate
19 the steam company in a business-like manner.

20 . . .

21 The following is a comprehensive listing of the
22 various functions that have been reviewed,
23 investigated, formulated, or enhanced during the
24 renaissance of the Company's steam operation,
25 which began early in February, 1982:

26 Following this was a listing of forty specific programs,
27 procedures, or analyses that were addressed by the new steam
28 organization. This is included as Schedules 2.

Q. Should the Company have responded to the deficiencies
earlier and taken this organizational action?

A. Yes. In Staff's opinion, this course of action would
have been a very obvious first step toward addressing the also obvious
increasing operational and financial problems with the steam system.

Maintenance

Q. Prior to 1982, did the Company's maintenance program reflect the implementation of effective management practices?

A. No. One of the primary deficiencies in the Company's management with respect to its maintenance practices was the non-existence of a long-range plan for maintenance, as enumerated in the prefiled direct testimony of Staff consultant witness Philip E. Fuller. A long-range plan would have considered the age and condition of the utility steam system, the environment and load conditions it functioned in and evaluated alternatives in regard to an orderly progression of replacement and/or repair decisions and the staff resources necessary to implement such. Such a plan would have also assisted in budgeting for the recommended course of action.

Maintenance levels based upon such a plan would have assisted the Company in assuring that its practices were being conducted in a cost efficient manner and helped to ensure that the extent of problems were minimized as much as possible.

Until the so-called "steam renaissance" these maintenance efforts left much to be desired and seemed to be a "band-aid" approach based upon the increasing problems. On February 2, 1987, under Data Request No. 657, the Staff asked the Company to provide its evaluation used to determine the level of its maintenance efforts for the pre- and post-1981 period.

The Company's response stated that they were unaware of any evaluation of the level of their maintenance efforts.

Q. Did the Company ever realize its maintenance practices were less than effective?

1 A. Yes. In his 1982 year end status report to Mr. Doyle and
2 Mr. J.R. Miller, Mr. Mandacina admits that maintenance practices had not
3 been comprehensive:

4 One area of major concern continues to be the
5 large amount of steam lost. Twenty-five major
6 leaks were repaired the last seven months of 1982.
7 The impact of these repairs was not nearly as
8 great as originally anticipated. Therefore, a
9 main priority of 1983 will be a concentrated
10 effort to repair the 10 to 15 major leaks we now
11 know of, and to continue to identify causes and
12 locations of new leaks. After many years without
13 a comprehensive maintenance program, we are facing
14 much time and expense in order to get the system
15 up to acceptable standards.

16 Q. Do the deficiencies associated with the Company's overall
17 maintenance program relate to the high steam losses experienced by the
18 Company?

19 A. Yes. As detailed in the prefled direct testimony of
20 Staff consultant Fuller, percent of steam loss started to climb into the
21 20's in 1974. In 1978, they reached 30% and steadily climbed to
22 approximately 45% in 1981.

23 Again, an orderly planned maintenance program based upon a
24 systematic evaluation of equipment age, usage and repair or replacement
25 guidelines would have addressed at the very least some of the mechanical
26 problems that increased losses.

27 Effective management control systems would have tracked these
28 losses and at the first significant increase caused management to
29 examine the causes and initiate corrective action.

30 Q. Was centralized management of utility steam operations
31 considered important in solving the steam loss problem?

1 A. Yes. Schedule 3, a February 18, 1982 memorandum written
2 by Mr. Mandacina, has an attachment entitled "Loss Reduction Program",
3 which lists as its first point "promote a person to full time Steam
4 Supervisor, give him authority and accountability over operations
5 personnel."

6 Q. Could the Company provide any explanation for its lack of
7 response to these increasing steam losses?

8 A. Yes. Staff Data Request No. 579 asked the Company to
9 provide detailed explanation for all reasons why KCPL did not start to
10 address the line losses until 1982.

11 The Company responded:

12 KCPL did begin to address the losses prior to 1982
13 as evidenced by the Corporate Planning Study
14 completed in December 1981. Work began on this
15 report in the summer of 1981. The loss figure for
16 1978 would not have been published until
17 1979--During 1978 KCPL experienced a 6 month
18 strike and that high loss figure may have been
19 attributed to that fact. The loss figure for 1979
20 would have been published in 1980, and it was only
21 then that a trend began to be established. Once
22 the resulting loss figure for 1980 was published
23 in 1981 a clear trend was established, and KCPL
24 began to take the action necessary to correct the
25 situation.

26 During Staff interviews, it was determined that Company
27 management responsible for directing utility steam operations and minor
28 maintenance activities (such as inspections) during the time period from
1972 to 1981 were unaware of what the losses were. The interview notes
confirmed by the Company under Data Request No. 643 are attached as
Schedule 4.

 Company management responsible for maintenance activities to
correct these leaks indicated that they "looked at" the loss situation

1 in the late 1970's, but that losses kept increasing and that they could
2 not explain why. The interview notes confirmed by the Company under
3 Data Request No. 644 are attached as Schedule 5.

4 Q. Does the Staff feel that this response was an appropriate
5 rationale for not taking significant actions towards reducing losses at
6 an earlier point in time?

7 A. No. At the very least, in 1979 the Company should have
8 thoroughly analyzed the reasons for the monthly losses it encountered in
9 1978 to determine how much of that was actually attributable to the
10 labor strike. Waiting until 1981, when "...a clear trend was
11 established," caused them to endure additional mounting losses which may
12 have been minimized by prompt management action taken in 1979.

13 Marketing

14 Q. Did the Company take an aggressive posture with respect
15 to marketing steam to the community?

16 A. No. As detailed in the prefiled direct testimony of
17 Staff witness Haskamp, the Company did not aggressively market steam
18 service. In fact, the Company actually "demarketed" steam by its
19 actions.

20 Q. Please explain.

21 A. As customer load began to dwindle, the Company should
22 have reevaluated its efforts and taken actions to aggressively pursue
23 any opportunities present. This would have sent signals to the "market"
24 that steam was an ongoing viable option to provide heat service.

25 Q. Could this have increased the number of customers
26 desiring steam service?
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DIRECT TESTIMONY OF
DEBORAH ANN BERNSEN
PAGE - 16 -

1 A. It is impossible to say. It certainly would not have
2 reduced the number of these customers and most probably would have
3 increased the number of businesses that would have at least considered
4 steam service.

5 Q. Does this relate to the prior assertions made regarding a
6 "... lack of management systems and controls"?

7 A. Yes. A long-range plan would have continually assessed
8 and updated the Company's options in terms of the available market. The
9 Company may have easily been able to show a potential long-term benefit
10 from an increased emphasis on marketing steam.

11 Q. Does this conclude your prepared direct testimony?

12 A. Yes.
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No. 564Class

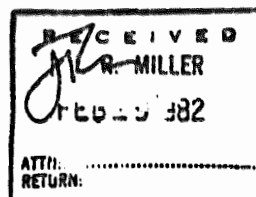
**Data Information Request
Kansas City Power & Light Company
Case No. HO-86-139**

Requested From: Steve CatronDate Requested: January 13, 1987Information Requested: Please provide all planning documents
used to develop and establish goals and objectives
of the Steam operations:① prior to 1982② post 1982* If there have already been provided, please
indicate which Data request responses.Requested By: C. FeatherstoneInformation Provided: ① prior to 1982 I don't know of any.② See data request 378 in which Functional
plans were provided, and attached material

The attached information provided to the Missouri Public Service Commission Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the Missouri Public Service Commission Staff if, during the pendency of Case No. HO-86-139 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the KCP&L Kansas City, Missouri office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title, number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Kansas City Power & Light Company and its employees, contractors, agents or others employed by or acting in its behalf.

Signed By: Joseph B. HansonDate Received: 2/4/87LGC 2-5-87



February 18, 1982

TO: J. L. Hogan
W. Wieha
F. S. Nelson
R. L. Wright

RE: STEAM HEAT SYSTEM LOSSES

Over the last several months, there has been much discussion concerning the apparent increase in indicated losses in the Steam Heat System. Many meetings have been held and suggestions made, but I have not been able to locate any definitive "plan of action". Since the majority of the steam heating load is essentially diminished by the end of March each year, if any plans for loss reduction are going to be implemented this season, we must begin immediately.

Obviously, we are not going to be able to significantly reduce all of the losses in a month's time, but we should take advantage of the ability to visually observe the system while there is significant load on it. Therefore, I would appreciate your attendance at a meeting on Tuesday, February 23 at 1:30 PM in the 13th Floor Conference Room, 1330 Baltimore.

The purpose of the meeting will be to outline steam loss reduction procedures and set a timetable for implementation. Any of your personnel who could have significant input in this implementation are also invited.

Please advise as soon as possible if the day or time conflicts with your schedule, so we can alter it as necessary; my extension is 2989. Attached is a listing of the areas which have been suggested or reviewed for possible loss reduction. We will define an implementation feasibility and time schedule on these, as well as any other suggestions you may have.

M. C. Mandacina
M. C. Mandacina

MCM:rm
Attachment

cc: ~~Jr-R-Miller~~
D. T. McPhee
J. A. Mayberry
A. L. Samuels



February 3, 1987

To: Mr. Steve Cattron

Re: MPSC Data Request #643

Following are corrections and comments germane to the notes included with the above request.

Second page, first paragraph, 13th line:

Should say; Mr. Jameson also had the Internal Services...

Second page, third paragraph:

What I was trying to say in response to some questions was, that from the viewpoint of a person responsible for operating the system, I naturally want more upgrading while from the viewpoint of a person having to commit resources to effect the upgrading Mr. Huttshell was less inclined toward upgrading. That is to say that had our roles been reversed, we probably would have also found our opinions of upgrading reversed.

Third page, next to last paragraph:

The 100% of time on steam during the 1978 strike was only during the fall period when steam customers who discontinue service during the summer months request reconnection for the winter.

A handwritten signature in dark ink, appearing to read "Larry T. Pettus", written in a cursive style.

Larry T. Pettus

LTP:cs

No. 642

Class _____

Data Information Request
Kansas City Power & Light Company
Case No. HO-86-139

Requested From: Steve Catton / Larry PettusDate Requested: January 26, 1987Information Requested: Please confirm the following meeting notes from
meeting with Larry Pettus - Director of Distribution System
dated January 14, 1987. Please make any necessary comments and
corrections.Requested By: C. Featherstone

Information Provided: _____

The attached information provided to the Missouri Public Service Commission Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the Missouri Public Service Commission Staff if, during the pendency of Case No. HO-86-139 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the KCP&L Kansas City, Missouri office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title, number, author, date of publication and publisher, address, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Kansas City Power & Light Company and its employees, contractors, agents or others employed by or acting in its behalf.

Signed By: _____

Date Received: LGC 2-5-87

MEETING NOTES FROM INTERVIEW WITH LARRY PETTUS
 KCPL DIRECTOR OF DISTRIBUTION SYSTEM
 JANUARY 14, 1987, 9:00-10:00 A.M.

PARTICIPANTS:

Larry Pettus, KCPL Director of Distribution System
 Bob Williams, KCPL
 Debbie Bernsen, MPSC Staff
 Mark Oligschlaeger, MPSC Staff
 Cary Featherstone, MPSC Staff

Mr. Pettus' current position with KCPL is Director of Distribution System. He has held this position since June of 1983, although in May of 1985 he received a title change with the job remaining essentially the same, but adding a few additional responsibilities. He reports to Ed McBurney, Vice President of Transmission and Distribution. Mr. Pettus has no responsibility for the steam operations at this time.

Mr. Pettus was involved in the steam operations in late 1972 to early February, 1981. In February, 1981, he went to Johnson County's Distribution Department. During the time he was associated with the steam operations, he held the title of Superintendent of Distribution Operations, reporting to Warren Wieha. Mr. Pettus had a group of six people reporting to him, whose responsibility was operations rather than actual replacement and repair of steam lines. These individuals from time to time would be assisting in some of the repairs, but this was not their principal function. These six individuals were dedicated totally to the steam operations and they had as their responsibility the following:

- Inspection of Customer Premises - this inspection was done generally on a monthly basis at the time of the meter reading. The inspection was to uncover condensation leaks. A more thorough inspection of the entire building was done on a less frequent basis. These inspections were to control losses from leaks in the condensation return lines so that sales may be recorded through condensate meter.
- Meter Reading
- Minor Maintenance - which consisted of packing valves, switching and operating valving equipment which would involve taking customers off and adding customers to the system and troubleshooting.

The steam operations would include a steam leak man, troubleshooter and inspector. They generally were not involved in fixing leaks or repairing mains in the street unless they got behind and needed these individuals' assistance. They were not welders and did not know how to operate the excavating equipment. They were individuals who were involved in interfacing with the customers at the customer's place of business.

Inspections were done to check on the condensate lines, checking for leaks, taps and intentional diversions. These inspections were important so as to be sure that the condensate would flow through the condensate meter for billing purposes. If there was a leak or intentional diversion on the other side of the condensate meter, a customer's bill would be understated and KCPL would not collect from the customer the proper revenue amount. These would show up as part of the line loss calculation. Mr. Wiehe reported to Stanley Jameson, who was Vice President of Transmission and Distribution. Mr. Jameson left KCPL in October of 1981. Mr. Jameson reported to Chief Executive Officer and President of the Company. He submitted a monthly report to the CEO which addressed all of the transmission and distribution departments, including the steam operations. Mr. Pettus also had the Internal Services Department report to him, which at that time was vehicle maintenance and shop. The Internal Services Department supported the steam operations in supplying welders, equipment, and carpenters.

Mr. Jameson
Mr. Pettus feels his department had a major responsibility for operating the steam system that was involved in this troubleshooting. It was his overall responsibility to find leaks in the system. Ray Hutsell, who retired in 1985, was responsible for the construction and the overall repair of the steam system. His crews were responsible for the actual digging and excavation of the steam lines. Mr. Pettus indicated he did not file a formal report to Mr. Wiehe, he had only verbal communication with him.

Mr. Pettus' overall impression of the steam system when he was involved in that operation was that it was an old system needing to have some pipe replacement. He felt personally they needed to do more pipe replacing than they did. He said essentially that this was a judgment call to the extent and degree of replacing pipe. As an operational person, he wanted to replace more of the pipe, but since he was not responsible for the actual overall replacement or construction of the pipe, it was easy for him to take that position. He indicated those in the construction phase would not want to replace as much pipe but rather repair pipe because of resource limitations, both manpower and financial. He did say there were times when they replaced less pipe than he wanted to. When asked to differentiate between replacement and repair, Mr. Pettus indicated that there were various ways to repair a leak. You could repair the leak by fixing only a small section of the line or you could get devices that you could put on the pipe to repair the leak. A replacement could be replacing entire sections of the steam line, which you could replace blocks of the city steam line. He again indicated that operational people always wanted to do more replacing while construction people want to limit or defer construction projects. He indicated that Mr. Hutsell and himself had a philosophical difference. Mr. Hutsell, being responsible for the construction, held the point of view that he wanted to defer jobs while Mr. Pettus took the operational point of view in wanting to replace more pipe.

Mr. Pettus indicated there were times that Mr. Hutsell and himself made a presentation to Mr. Jameson on replacing some steam lines. He recalled one instance where they replaced some "pure" water lines. They

had a meeting regarding the steam line at MoBay and ultimately decided to reconstruct the MoBay steam line from Hawthorn to MoBay overground since the underground line was causing KCPL problems. He stated that a decision on major replacement involving a large sum of money and capital expenditure would have been the responsibility of Mr. Jameson to approve.

Mr. Pettus indicated he generally was not aware of steam loss percentage numbers either on a monthly or yearly basis regarding line losses of the steam system. The Steam Department started keeping records of trouble causes on "DSR's". These were sent to the Construction and Maintenance people. Mr. Pettus also stated he was not aware of the financial condition of steam operations, profit/loss information. He stated he did not receive the Monthly Operating Reports until he left the steam operations and started to request these reports some time in the 1980's, principally because he was attending business school and wanted to review those documents.

Mr. Pettus indicated he was not involved in the budgeting process at all. He stated at that time budgets were generally put together by one of Mr. Jameson's clerks, who happened to be very good but who was not an engineer.

He did state that Mr. Huttshell would be involved in the budgeting process. Mr. Pettus would insert minor projects from time to time in the budget, but that was the extent of it. Mr. Pettus stated most of the time he did not know what his budget was.

In response to a question of who had the overall responsibility for planning for the system and the replacement of the steam lines, Mr. Pettus indicated that would be an operational matter which would be himself. He indicated it would be his responsibility to have cited problems or trouble on the steam system and report back that something needed to be done. Mr. Pettus stated that Mr. Jameson also had the overall responsibility for the losses.

Mr. Pettus stated there were no goals or objectives on fixing of leaks and on the percent of losses. For the nine year period of time he was associated with steam he would estimated he had spent approximately 10-15%, some times less, some times more, of his time regarding the steam operations. He indicated that in 1978 during the strike, *some days of it - 1/2 to 1/3* he spent 100% of his time on steam,.

In response to a question asking what Mr. Pettus' opinion would be on the systematic replacement of parts of the steam line over a period of time, he stated, "That although I probably shouldn't say this because I was in the steam operations for a long time, I would have to know more about the system to say if KCPL should have replaced part of the system periodically." He stated age alone is not a factor and that in some cases they would uncover a pipe that had been in the ground for long periods of time that was still in good condition.

ASAP

JAN 29 1987

No. 644

Class _____

Data Information Request

Kansas City Power & Light Company

Case No. HO-86-139

Requested From: _____

Steve Catron / Warren Wiche

Date Requested: _____

January 28, 1987

Information Requested: _____

from meeting with Warren Wiche - Director of Transmission and Substations dated January 15, 1987. Please confirm the following meeting notes and corrections.

Requested By: _____

C. Platterstone

Information Provided: _____

The attached information provided to the Missouri Public Service Commission Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the Missouri Public Service Commission Staff if, during the pendency of Case No. HO-86-139 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the KCP&L Kansas City, Missouri office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title, number, author, date of publication and publisher, address, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Kansas City Power & Light Company and its employees, contractors, agents or others employed by or acting in its behalf.

Signed By: _____

Date Received: _____

2/4/87 M.O.



February 5, 1977

TO: Mr. Steve Cattron

RE: MPSC Data Request #644

Following are comments and corrections applicable to the notes included with Request #644.

Second Page, Paragraph Three

The same philosophy was followed even with Vulkene cable. In this case the insulation failure rate increased so rapidly (each failure caused an interruption of electric service) that type of cable had to be replaced. Certain aerial cable was also replaced because of its high failure rate and service interruptions.

Fourth Page, Paragraph Three

Steam pipe was not dug up unless it did have a leak or a service was to be added or removed. It was not dug up just to inspect the pipe.

Warren Wiehe
Warren Wiehe

WW:dg

MEETING NOTES FROM INTERVIEW WITH WARREN WIEHE
KCPL DIRECTOR OF TRANSMISSION AND SUBSTATIONS
JANUARY 15, 1987, 9:00-10:30 A.M.

PARTICIPANTS:

Warren Wiehe, KCPL
Bob Williams, KCPL
Debbie Bernsen, MPSC Staff
Mark Oligachlaeger, MPSC Staff
Cary Featherstone, MPSC Staff

Warren Wiehe's current position with KCPL is Director of Transmission and Substations. He reports to Ed McBurney, Vice President of Transmission and Distribution. His current responsibilities include transmission, maintenance and construction, substation metering, and traffic signals.

Mr. Wiehe was involved in the steam operations in the 1970's up through 1981. His title was Manager of Transmission and Distribution (T&D) Operations, which included distribution operation maintenance, substation maintenance, and the district steam operations which was part of transmission and distribution operations. He reported to Stanley Jameson, Vice President Transmission and Distribution. Mr. Jameson reported to the Chief Executive Office (CEO).

Larry Pettus, who supervised T&D operations including steam, reported to Mr. Wiehe. Mr. Pettus supervised six bargaining unit people who were totally dedicated to the steam operations. These individuals were responsible for inspecting the system, both at the customer premise, doing meter inspections, and the distribution system in the street. They were also responsible for reading meters and did valving which would isolate sections of the pipe so that repairs could be made. The steam operation people would do monthly inspections at the time of the meter reading to check for leaks or diversions of the condensate line on the customer side of the condensate meters. This inspection was not a difficult task because they simply looked at the pipe around the location of the meter. Mr. Wiehe remembers that a more thorough inspection was done on a less frequent basis, but he could not remember how often these types of inspections were made. A more thorough inspection not only looked at the area around the meter but throughout the building as well. He indicated that in some cases it was difficult to do an inspection of the pipe in the building because in some cases, walls had been erected covering up the pipe.

Mr. Wiehe indicated that T&D did actual repairs of leaks under the supervision of Ray Huttzell.

Mr. Wiehe stated Mr. Jameson prepared a monthly report which was submitted to the CEO. Mr. Wiehe indicated that his section was generally prepared by Larry Pettus. Mr. Pettus would prepare the document, give it to Mr. Wiehe, who in turn would give it to Mr. Jameson. Mr. Wiehe said that Mr. Pettus generally reported to Mr. Wiehe on a verbal basis. Mr.

JANUARY 15, 1987, 9:00-10:30 A.M.

PAGE 2

Wiehe indicated that his people would know the condition of the pipe of the district steam system.

The employees working on the construction crews under the direction of Mr. Huttshell were not generally dedicated 100% to district steam operations. These employees were Transmission and Distribution construction crews who would be borrowed from the electric operations to work on the district steam lines. Mr. Wiehe stated that Mr. Huttshell generally did try to get the same individuals to the extent possible working on the district steam lines. Mr. Wiehe indicated that welders had to come out of the maintenance department and carpenters came out of the shop department. Both of these departments were part of KCPL's Internal Services Organization.

Mr. Wiehe indicated that in some cases the Company would hire outside contractors to repair leaks, particularly during strikes.

The organization of the district steam operations included one lead man, two troubleshooters, inspector and meter man. Mr. Wiehe indicated it was responsibility of the district steam operations' lead man, who would be overseeing the repair by T&D construction, to remove the hold tag of the steam flow and to okay the start of the flow of steam in the repaired pipe. Mr. Wiehe stated the steam flow would be re-established through the pipe prior to the backfill of the hole to see if the repair of the leak was fixed.

Mr. Wiehe also indicated it was the responsibility of district steam operations to do the inspection and maintenance of the reducing stations, Numbers 1 and 2. His crews also maintained the condensate meters used to bill customers. These crews would recondition condensate meters and place them back in service.

Mr. Wiehe was also superintendent of KCPL's Underground Department in the early 1960's, which lasted for a couple of years. This department did both construction and maintenance of all underground facilities in the downtown network, electric and steam, and was responsible for the cable and pipe repair.

Mr. Wiehe was asked his opinion on the condition of the system in the 1960's and then again in the 1970's when he was again working in the district steam operations. He indicated the steam system was very old and had a mixture of new pipe and older pipe. He stated that a lot of new pipe was put in with the reducing stations. He felt the condition of the district steam lines varied. Mr. Wiehe stated they tracked losses and losses were always a problem, although they were more prominent in the latter part of the 1970's. He felt that the district steam system was an operating system which had leaks then and now as well. Mr. Wiehe indicated that Accounting kept track of the losses. Mr. Wiehe stated he was aware of the losses from the accounting reports and said engineering people would track losses, too.

MEETING NOTES FROM INTERVIEW WITH WARREN WIEHE
JANUARY 15, 1987, 9:00-10:30 A.M.
PAGE 3

Mr. Wiehe stated that from an operational standpoint, he would have liked to see a new district steam system. That is, he would have liked to see all the district steam systems in new condition. He also stated that from an economical standpoint and practical standpoint this couldn't be done. Mr. Wiehe said he never felt the Company should have replaced whole blocks of pipe in the district steam system.

Mr. Wiehe indicated that the district steam system's lead man in operations and the Transmission and Distribution supervisor of construction made most of the decisions on how much steam pipe to actually replace to fix the leaks. Zeller was supervisor in T&D and was involved with a lot of the repairs of the steam system. Since he worked a lot on the construction steam lines, Mr. Huttzell relied on Zeller to fix leaks in the steam system. Zeller retired December 31, 1986. There were no written guidelines or procedures on how to make a decision on steam leak repair and steam pipe replacement. The decision of how much steam pipe to replace was based on experience of steam operations and T&D construction employees and they occasionally would confer with Larry Pettus and Warren Wiehe. Mr. Wiehe stated there was no discussion on the replacement of whole sections of the steam system, only to repair leaks. Mr. Wiehe also stated the replacement of the steam system would not be done just because of age. KCPL would only replace the steam pipe necessary if it had a leak and would replace only what it took to repair it.

Stanley Jameson was involved with the district steam system for a long time. Mr. Wiehe indicated he could answer more of these questions. Mr. Jameson's philosophy was not to replace a whole system, rather to repair a small area just to fix a particular leak. Mr. Wiehe got the impression of the "Jameson philosophy" from conversations he had with him. Mr. Jameson had the philosophy if it's not broke, don't fix it. It would take a lot of money to replace the steam system. Mr. Wiehe indicated this was the same philosophy for the electrical T&D side of KCPL's operations. However, Mr. Wiehe did know there were some instances this philosophy was not followed on the electrical side in the T&D department. An example was an URD cable. This was a General Electric (GE) Volcan cable which was giving the utility industry a great deal of problems when it was first introduced. Time proved that the cable deteriorated rapidly and caused a great deal of failure requiring repair. KCPL decided that the first failure of the cable would be repaired, the second failure KCPL went ahead and replaced the cable with eventually replacing all of the GE Volcan cable. Mr. Wiehe indicated this was a judgment call. Another example is in the late 1970's when some aerial cable had to be replaced that was causing the system a lot of trouble. After some failures, KCPL simply replaced this type of aerial cable.

In the late 1970's, the Company did a lot of looking at the ¹⁹⁵⁵ ~~last~~ numbers on the district steam system. Mr. Wiehe indicated they went to an infra red system for street scanning for major leaks, looking for hot spots in the pavement. Mr. Wiehe indicated that major leaks as defined by KCPL were not kept track of, although they increased in numbers in the late 1970's, causing increasing losses. Mr. Wiehe said he could not explain why these losses started to increase. He said there was no overall explanation

for the losses, although several individuals and departments at KCPL looked at the loss problem. During the meeting it was discussed that the increase in losses could be a result of 1) steam leaks on the system, 2) metering problems at the customer's premises, 3) metering problems at Grand Avenue, 4) inaccurate accounting records. Mr. Wiehe indicated that even with the above potential reasons, he still cannot explain the losses. He agreed it was difficult to correct the problem of increasing losses when ~~no one could determine what was causing the losses.~~ *there were so many factors affecting losses.*

Mr. Wiehe indicated the steam operational crews in the T&D department transferred to the district steam department when it was set out as a separate organization in 1982. When the steam department was set up as a separate organization. He talked to Mike Manacine, Manager of steam operations in 1982, about the infra red system that they were using to discover steam leaks and introduced him to the steam personnel. Mr. Wiehe indicated there was a short transition period.

Mr. Wiehe indicated that in hindsight, perhaps the Company ^{could} ~~should~~ have replaced more of the steam pipe. He said they never dug up a steam pipe that did not have leaks. Although he indicated the steam business was a small part of KCPL's operation, it was an important part.

Mr. Wiehe indicated the steam budget was mostly prepared by Stanley Jameson and George Hoagland who was the budget man in T&D. Mr. Wiehe indicated he saw numbers for the steam maintenance but does not remember if it was broken out any further. Mr. Wiehe stated that his level of management is more involved with the budgetary process today than they were at that time.

Mr. Wiehe indicated there were no goals or objectives in the district steam operations. He stated there were no long term planning for the district steam operations. They would repair steam leaks as they occurred.

Mr. Wiehe stated it was his feeling when he was associated with steam operations that some day KCPL would be out of the steam business although he believed it would be a long time down the road. He felt this because of his observation of the decline of steam customers and he was observing what was happening in other steam systems such as St. Joseph Missouri's discontinuance of steam operations. Mr. Wiehe stated he saw a decline in the downtown economics during the 1960's and 1970's causing the steam system to deteriorate.

Mr. Wiehe stated he spent approximately 10% or less of his time with regard to the steam operations. He indicated he spent a little time each day on the district steam system.