

STATE OF MISSOURI
PUBLIC SERVICE COMMISSION
JEFFERSON CITY

January 13, 1995

CASE NO: G0-91-277

Gary W. Duffy, Brydon, Swearngen & England, P.O. Box 456, 312 East
Capitol, Jefferson City, MO 65102
Brad Ziegler, Attorney at Law, 3420 Broadway, Kansas City, MO 64111

Enclosed find certified copy of ORDER in the above-numbered case(s).

Sincerely,

A handwritten signature in cursive script that reads "David L. Rauch".

David L. Rauch
Executive Secretary

Uncertified Copy:

Office of the Public Counsel, P.O. Box 7800, Jefferson City, MO 65102

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of the review and approval)
of a cast iron main and unprotected steel) Case No. GO-91-277
main program for Western Resources, Inc.,)
d/b/a Gas Service.)

APPEARANCES: **Gary W. Duffy**, Brydon, Swearengen & England, P.O. Box 456, Jefferson City, Missouri 65102, for Missouri Gas Energy.
 Brad Ziegler, Attorney at Law, 3420 Broadway, Kansas City, Missouri 64111, for Missouri Gas Energy.
 William M. Shansey, Assistant General Counsel, Missouri Public Service Commission, P.O. Box 360, Jefferson City, Missouri 65102, for Staff of the Missouri Public Service Commission.
 Lewis R. Mills, Jr., Office of the Public Counsel, P.O. Box 7800, Jefferson City, Missouri 65102, for the Office of Public Counsel and the public.

HEARING
EXAMINER: **Joseph A. Derque, III**

REPORT AND ORDER

On October 13, 1992, the Commission issued an order in this matter, subsequently corrected on November 4, 1992, approving a plan for Western Resources, Inc., d/b/a Gas Service, for a cast iron main and unprotected steel main replacement program. On February 1, 1994, Western Resources was acquired by Southern Union Company and is now operated by Missouri Gas Energy (MGE), a division of Southern Union.

On November 16, 1994, MGE filed a motion with the Commission to modify its order in this matter to adopt a modified replacement and protection plan. The proposed plan is attached to this order, marked as Attachment A, and incorporated herein by reference.

On November 21, 1994, the Staff of the Commission filed its recommendation in this matter, approving of the proposed modifications.

After some consideration, the Commission, on December 2, 1994, issued an order concerning the proposed modification, requesting detailed responses by the parties. In that order the Commission stated:

"The Commission is, therefore, concerned with the sudden apparent abandonment by MGE and the Staff of the prioritization schedule. This concern is compounded by the lack of information furnished by the Staff as to its reasons for concluding that the MGE proposed modification is sufficient to ensure the safety of the system. The Commission would add that MGE, upon receiving authorization to purchase the WRI system, agreed to comply with this repair and replacement program as set out in the original order in this case.

As the Commission has not been furnished with sufficient detailed information by either of the parties in this case as to the reasons for concluding that the proposed modification is sufficient to ensure the public safety, the Commission will allow the parties adequate time in which to prepare additional justification as to the reasons for and the necessity of this proposal and the reasons for abandoning the original plan. The Commission would note that any submission by either of the parties should contain a full explanation as to why no compromise in public safety will result should the MGE proposal be adopted."

Responses were filed by the Staff of the Commission and Missouri Gas Energy on December 7 and 8, 1994. The Commission determined that further detailed information was still necessary for it to make an informed decision as to the wisdom of adopting the proposed modification. The Commission, therefore, set this matter for an on-the-record presentation by the parties. This presentation was held on December 29, 1994. This matter was finally submitted to the Commission on December 29, 1994.

Findings of Fact

The Missouri Public Service Commission, having considered all competent and substantial evidence, upon the whole record, makes the following findings of fact.

MGE states in its application that the current plan has been found to be impractical to administer as the result of the artificially created pipeline categories set out in the plan. MGE maintains that the current categories are unrealistic and inefficient to administer as the result of factors beyond the control of MGE, such as the nature of the construction of the system, the scheduling of public work projects, and the problems encountered providing service during replacement of the system. MGE believes that retaining the same total number of miles in the plan, but eliminating the categories, will make the program more efficient without compromising safety goals.

Currently MGE states it is not meeting mileage quotas in some categories, but is exceeding the quotas in others. MGE states it is meeting the cumulative total. MGE adds that, from January 1, 1990 to July 31, 1994, the "reporting and repair of Class 1 and 2 hazardous leaks on the . . . system . . . has dropped 51% and the total leak inventory has decreased 40%."

On November 22, 1994, the Staff of the Commission filed its recommendation. The Staff states that it has reviewed the MGE motion and proposed plan and found that the mileage schedule is maintained as in the current plan, but the proposed rationale for selection of pipe to be replaced or protected is a more flexible and "operational" approach. The Staff notes its concern that MGE has cathodically protected more, but replaced less, pipeline than prescribed in the current plan. The Staff

states that MGE provided an adequate explanation for this concern. Ultimately, the Staff does not disagree with the proposed modification of the plan.

At the on-the-record presentation various witnesses for MGE testified at length and in detail as to the evolution of the gas safety program since the approval of the repair and replacement program currently in effect. MGE stated, and the Staff agreed, that since the inception of the program two years ago, the categories of pipe presenting the most immediate danger have been replaced through the concerted efforts of MGE. MGE now maintains that the program should focus on extensive leak detection and tracking of geographical areas and the severity of those leaks. With this and other pertinent data, MGE testified that it believes it can continue to improve the safety of the system more efficiently and economically than by simply following the mileage requirements by pipe category as set out in the current plan.

During the presentation, MGE presented substantial detail in regard to its tracking and record-keeping programs and offered evidence, admitted as late-filed Exhibit P-1, that the logistics of its distribution system as it now appears, lends itself to a more flexible program regarding the specific types of pipe that require protection or replacement. In addition, MGE maintains that it is substantially more economical and efficient, at this point, to protect or repair certain areas of the system all at once rather than prioritize replacement or protection by pipe diameter.

The Staff generally supported the proposed modification. It was the Staff's testimony, given by Robert Leonberger, manager of the Gas Safety Section, that, as the system currently stands, fractures and

leakage, particularly on cast iron pipe, occur in geographical regions based on a multitude of factors having little bearing on the pipe diameter. Leonberger continued that, as MGE gathers data as to the specific areas where problems are occurring, projects can be undertaken in those geographic areas that require attention. The Staff maintains that this will result in a more efficient and economic approach without any sacrifice in the safety or integrity of the system.

The Commission, as the agency responsible for the regulation of public utilities in Missouri, considers the safety of the gas infrastructure to be a prime concern. The Commission, therefore, finds it incumbent to be as informed as possible in regard to the progress being made in the gas safety programs of the various utilities. In addition, the Commission must insure that every practical effort is being made to provide safe gas service to the public.

As a result of the on-the-record presentation, the Commission believes that it has now been fully informed as to the progress made to date by MGE, and the development of and reasons for the proposed modification.

The Commission finds that MGE's ongoing leak detection program has had significant effect in identifying hazardous and potentially hazardous types of pipe and geographical locations where problems are likely to develop. It is the Commission's understanding that this program will continue with the addition of enhancements involving computer mapping and periodic reports to the Staff of the Commission.

The Commission would also note that the current program has been effective in halting immediate safety concerns on the MGE system over the last two years.

The Commission is also aware that, due to the progress made in the safety program, that MGE is correct in maintaining that the current program should be modified to meet the current and future situation found on the MGE system. The Commission finds the proposed modified program, as presented on the record, to be a reasonable and efficient solution to current and future safety concerns. The Commission will approve the proposed modification.

In addition, and at the suggestion of the Staff, the Commission will order MGE to continue its reporting procedure currently established and, in addition, to report leak data by main material.

Finally, the Commission will leave this docket open to receive annual reports by MGE on the progress of its protection and replacement program. The first of these reports will be filed in this docket one year from the effective date of this order.

Conclusions of Law

The Missouri Public Service Commission has arrived at the following conclusions of law:

Missouri Gas Energy is a public utility engaged in the provision of natural gas service in the State of Missouri and, therefore, subject to the general jurisdiction of the Commission pursuant to Chapters 386 and 393, RSMo. (Cum. Supp. 1992).

Pursuant to 4 CSR 240-40.030 of the Missouri Public Service Commission pipeline safety regulations, the Commission prescribes minimum requirements to be submitted by operators for the establishment of inspection, replacement and protection programs for certain gas pipelines, subject to Commission review and approval.

The Commission has considered all relevant evidence presented by the parties in regard to current compliance, modification, and future plans in regard to MGE's safety program, and finds the proposed modification to be reasonable and in compliance with the above-stated regulation. The Commission finds the proposed modification to be in the public interest and will order the proposed modification.

IT IS THEREFORE ORDERED:

1. That the modification requested by Missouri Gas Energy, as set out in Attachment A of its application, and attached hereto as Attachment A and incorporated herein by reference, is hereby approved effective for the calendar year 1994.

2. That Missouri Gas Energy will continue to submit all current reports to the Staff of the Commission and will, in addition, submit leak data by type of main material.

3. That this docket will remain open for annual reports to the Commission by Missouri Gas Energy, as set out above, regarding the progress of its safety program.

4. That this Report and Order shall be effective January 24, 1995.

(S E A L)

BY THE COMMISSION



David L. Rauch
Executive Secretary

Mueller, Chm., McClure, and Perkins,
CC., Concur; and Crumpton, C., Concur
with attached opinion and certify
compliance with the provisions
of Section 536.080, RSMo 1994.
Kincheloe, C., Absent.

Dated at Jefferson City, Missouri,
on this 13th day of January, 1995.

MISSOURI GAS ENERGY
MAIN REPLACEMENT AND PROTECTION PLAN
NOVEMBER 1994

This plan is designed to meet the requirements of 4 CSR 240-40.030(15)(D) and (E).

I. Cast Iron Main Replacements

MGE shall follow a systematic replacement program prioritized to identify and replace or eliminate cast iron mains in those areas that present the greatest potential for failure and would consequently subject people and property to a potentially hazardous situation. The following factors, which are not listed in order of priority, will be analyzed by MGE in scheduling segments of cast iron main for replacement:

- Whether the mains are of small (2", 3" and 4") diameter
- Whether the mains are located in areas of documented main breaks
- Whether the mains are located in business areas where MGE performs 90-day leak surveys
- Whether the mains are located in areas subject to flooding or where unstable soil conditions exist
- Whether the mains are located in areas of planned or active construction activity, such as highway, street or sewer projects
- Whether the mains are in an area where there is a high percentage of unprotected steel service lines, and where cast iron mains and services can be replaced at the same time
- Whether the mains are located in systems which have a high concentration of known leaks

- Whether the mains are in systems with small diameter and operating at pressures exceeding 10 psi

Replacement Schedule for Cast Iron Mains in Miles

<u>Year</u>	<u>Annual Quota</u>	<u>Cumulative Quota</u>	<u>Annual Completed</u>	<u>Cumulative Completed</u>
1992	6	6	*	*
1993	31	37	38.59	38.59
1994	39	76		
1995	32	108		
1996	36	144		
1997	36	180		
1998	36	216		
1999	36	252		
2000	36	288		
Totals	288	288		

* The Plan was effective October 23, 1992. Reporting was not required until the year ended December 31, 1993.

II. Elimination of Unprotected Steel Mains

A. MGE shall follow a systematic program to identify and either cathodically protect or replace unprotected steel mains in those areas that present the greatest potential for failure and would consequently subject people or property or both to a potentially hazardous situation. The following factors, which are not listed in order of priority, will be analyzed by MGE in scheduling segments of unprotected steel mains for replacement or, where deemed appropriate, ensuring adequate cathodic protection:

- Whether the mains are located in areas of historical and existing leaks

- Whether the mains are located in business areas where MGE performs business district leak surveys
- Whether the mains are located in areas of planned or active construction activity, such as highway, street or sewer projects.
- Whether the mains are in an area where there is a high concentration of unprotected steel service lines and where the replacement of the service and the protection or replacement of the main can be accomplished at the same time
- The results of a physical examination of the main
- Whether the mains is in a high pressure system operating at pressures exceeding 25 psi.

B. Unprotected steel mains shall be identified for replacement by evaluating those candidates selected by the leak data system. This evaluation program, known as the "5/5/3" approach, identifies candidates by segments that have experienced five (5) or more leaks within 500 linear feet over the last three (3) years.

Replacement candidates are also identified where visual examination of the main during service line replacement indicates general corrosion to the extent that the remaining pipe wall thickness is less than fifty percent (50%) of the original pipe wall.

Unprotected steel mains are cathodically protected where the pipe exhibits significant remaining useful life. The cathodic protection and verification process includes the application of current where required, the installation of test stations,

verification of system continuity, and an over-the-line survey of pipe-to-soil potentials.

Protection and Replacement Schedule for
Unprotected Steel Mains in Miles

<u>Year</u>	<u>Annual</u> <u>Quota</u>	<u>Cumulative</u> <u>Quota</u>	<u>Annual</u> <u>Completed</u>	<u>Cumulative</u> <u>Completed</u>
1992	45.9	45.9	*	*
1993	146.0	191.9	275.73	275.73
1994	146.0	337.9		
1995	127.2	465.1		
1996	128.2	593.3		
1997	<u>126.2</u>	<u>719.5</u>		
Totals	719.5**	719.5**		

* The Plan was effective October 23, 1992. Reporting was not required until the year ended December 31, 1993.

** This total may be inaccurate. The actual cumulative total may be substantially less. The 1997 cumulative number will equal all of the unprotected steel mains.

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CONCURRING OPINION OF COMMISSIONER HAROLD CRUMPTON

I concur in the decision of my distinguished colleagues in the approval of a revised cast iron main and unprotected steel main program for Western Resources Inc., d/b/a Gas Service (Company). However, I want to be most emphatic in emphasizing the determination of the Missouri Commission to provide a safe gas service for the customers of the Company. While we took note of the fact that the Company did not meet its 1994 plan commitment, we fully expect completion of the terms and conditions in GO-91-277.

After hearing the evidence, I fully expect the Company to equal or exceed the pace of the original plan. By concurring in this order, I am concurring in the acceptance of an improved and enhanced plan.

Respectfully submitted,


Harold Crumpton
Commissioner

Dated at Jefferson City, Missouri,
on this 13th day of January, 1995.

Bergue / Hagenmeyer

CASE NO. 60-91-277

Chairman

Chairman

1/11/84

Commissioner

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Commissioner

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*Compton - covering of [unclear] should
be continued to 11/13*

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STATE OF MISSOURI

OFFICE OF THE PUBLIC SERVICE COMMISSION

I have compared the preceding copy with the original on file in this office and I do hereby certify the same to be a true copy therefrom and the whole thereof.

WITNESS my hand and seal of the Public Service Commission, at Jefferson City, Missouri, this 13th day of January, 1995.

David L. Rauch

David L. Rauch
Executive Secretary