BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Missouri Pipeline Company for authority to file tariffs increasing rates for gas transportation service to customers within its service area.	))))	Case No. GR-92-314

AFFIDAVIT OF PHILIP B. THOMPSON

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Philip B. Thompson of lawful age, being first duly sworn, deposes and states:

1. My name is Philip B. Thompson. I am a Chief Public Utility Economist for the Office of the Public Counsel.

2. Attached hereto and made part hereof for all purposes is my direct testimony consisting of pages 1 through 7.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Philip B. Thompson

Subscribed and sworn to me this 11th day of December, 1992.

Bonnie S. Howard, Notary Public

My commission expires May 3, 1993

DIRECT TESTIMONY

OF

PHILIP B. THOMPSON

MISSOURI PIPELINE COMPANY

CASE NO. GR-92-314

Q. Please state your name and business address.

A. Philip B. Thompson, Office of the Public Counsel (OPC), P.O. Box 7800, Jefferson City, Missouri 65102.

Q. Please summarize your educational and employment background.

A. I have a B.A. in economics from Kent State University and a Ph. D. in economics from the University of Arizona. My graduate fields of study were Industrial Organization and Econometrics. I also taught various economics courses while at Arizona and participated in research projects investigating several aspects of the nuclear fuel cycle.

From 1982 to 1984 I was a visiting instructor in the economics department at Texas A&M University. I began my employment with the Office of the Public Counsel in 1984 as a Public Utility Economist. In 1986, I became Chief Public Utility Economist, the position I now hold. During my tenure with the Office of the Public Counsel, I have attended numerous conferences and seminars on a variety of topics related to public utility regulation, and I have made presentations at several such conferences. I currently serve as the Chair of the

Economics and Finance Committee of the National Association of State Utility Consumer Advocates.

Q. Have you previously testified before this Commission?

A. Yes. I have testified on over forty occasions. The topics on which I have testified include jurisdictional and class cost allocations, rate design, adjustments to test year consumption data, applied industrial organization theory (factors affecting the degree of competition in a market), the appropriateness and proper form of economic development rate discounts, the proper disposition of Take-or-Pay costs, and regulatory approaches to natural gas bypass and fuel switching, the effect of nuclear plant ownership on the cost of capital of an electric utility, and the recovery of COS-related revenue losses. I have testified in cases involving gas, electric, telecommunications, and water companies.

Q. What is the purpose of your testimony?

A. I will offer some comments regarding Missouri Pipeline Company's (MPC or Company) proposed method of rate design.

Q. Please describe MPC's proposed rate design.

A. As shown on Schedule 2 of Section M of Company's Minimum Filing Requirements (MFR), as well as in the proposed tariffs, MPC is proposing two service classifications-- firm and interruptible. The proposed firm demand charge has a maximum value of $5.1625 per

decatherm (Dt.) of daily contract demand per month, and a minimum value of zero. The proposed commodity charge range is $0.01 to $0.2097 per Dt. transported. There is no interruptible demand charge; the proposed interruptible commodity charge range is $0.01 to $0.3794 per Dt. transported.

Q. How were these rates developed?

A. Mr. W. Scott Keith, witness for MPC, developed these rates using the so-called modified fixed-variable (MFV) method. Under this method, costs are first classified as "fixed" or "variable." Fixed costs form the basis for the maximum firm demand charge and a portion of the maximum interruptible commodity charge. Variable costs are used to calculate the maximum firm commodity charge and the remainder of the maximum interruptible commodity charge.

Q. How did Mr. Keith classify costs into the "fixed" and "variable" categories?

A. He used what I understand to be the standard MFV approach, wherein return on equity and associated income taxes are wholly assigned to the "variable" category. He has also assigned approximately 21.5% of transmission operating costs to the "variable" category (see Section M, Schedule 2 of MPC's MFR). All remaining costs are assigned to the "fixed" category.

Q. What is your first comment regarding MPC's proposed rate design?

A. My first comment goes to the appropriateness of MPC's offering of an interruptible rate. Interruptible service, under which a customer can, under extreme weather conditions, have its service temporarily suspended, generally is priced at a discount from firm rates. Such a discount can be justified on a cost basis only if the ability of the pipeline owner to interrupt a customer results in a reduction in the cost of providing service. Since MPC is simply a carrier that neither sells gas nor takes ownership of gas, the only possible source of savings is a reduction in MPC's transmission facilities requirements. That is, does a customer's willingness to be interrupted permit MPC to maintain a lower capacity pipeline that it would otherwise need?

Q. Are you able to answer this question?

A. Not directly, but it may be possible to infer the answer from other information. MPC has stated (Taylor direct, page 6) that MPC's capacity is 80,000 thousand cubic feet (MCF) per day, and this is precisely the figure used by Mr. Keith to develop rates. MPC's proposed demand rate is thus based on the assumption that all capacity will be sold or, put another way, that there is no excess capacity. In such a situation, interruptibility has some value.

Furthermore, I have submitted a data request to MPC that seeks information on the history of interruptions on its system. Since I only very recently made this request, I have not yet received an answer. The answer I receive may have some impact on my opinion of the value of interruptible customers to MPC. If neces-

sary, I will discuss this issue further in my rebuttal testimony in this case.

Q. Does a finding that interruptibility has some value mean that interruptible customers should bear no capacity costs?

A. Not at all. Interruptible customers clearly benefit from the existence of the capacity; after all, if there were no firm customers, there could be no interruptible customers. Furthermore, the only facilities cost savings that would result from interruptibility would be peak-related marginal costs. Because of the existence of economies of scale in the construction and operation of a pipeline, the peak-related marginal cost is less, perhaps significantly so, than the average cost per unit of capacity. While it is fair to say that interruptibility may very well yield cost savings, it does not follow that interruptible customers should bear no capacity costs.

Q. Does the rate design method employed by Mr. Keith result in the payment of capacity costs by interruptible customers?

A. Yes, in two ways. First, the MFV method results in some capacity-related costs being placed in the commodity rate. For example, as can be seen on Schedule 2 of Section M, the dollars associated with equity return are collected through the commodity rate paid by both firm and interruptible customers.

Second, Mr. Keith has designed the interruptible rate to include demand charges at an assumed 100% load factor. These

included demand charges are not collected through an interruptible demand rate; there is no such rate. They are instead used to calculate the difference between the firm ($0.2097) and interruptible ($0.3794) commodity rate.

Q. Is the MFV method as employed by Mr. Keith the only way to cause interruptible customers to bear some capacity costs?

A. No, there are several other methods, but Mr. Keith's approach is reasonable. Public Counsel would not oppose its continued use by MPC. (I say "continued" because MPC's current rates were developed using this method.)

Q. Does the fact that MPC has the ability to flex rates down from the indicated maximum affect the collection of capacity costs from interruptible customers?

A. It is possible that as a result of discounting, MPC may not collect all of the capacity costs that are implicitly allocated to interruptible customers under Mr. Keith's approach. Of course, selective discounting may also allow MPC to recover a larger amount.

Neither of these possibilities is troubling. First, my concern is not so much that the capacity costs assigned to interruptibles may be under- or overrecovered. Rather, the point is that firm customers should not be forced to bear all capacity costs when interruptible customers are present. Second, in MPC's case, firm rates, including both demand and commodity charges, are also flexible. Therefore,

to the extent that a firm customer is able to bring competitive pressures to bear, it would be economically impossible to shift capacity costs to firm customers, even if regulators were to permit such a shift.

Q. Does this conclude your direct testimony?

A. Yes.