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July 9, 2002

Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
200 Madison Street, Suite 100
P.O. Box 360
Jefferson City, Missouri 65102

RE: In the matter of the Application of Atmos Energy Corporation For A Variance from the Provisions of Section 19 of 4 CSR 240-10.030 Regarding The Testing of Meters,

Case No.

Dear Mr. Roberts:

Enclosed for filing in the above-referenced matter are the original and eight (8) copies of the Application for Variance filed on behalf of Atmos Energy Corporation.

Thank you for your attention to this matter.

Sincerely,

James M. Fischer

Enclosures

cc:

Office of the Public Counsel Dan Joyce, General Counsel

BEFORE THE PUBLIC SERVICE COMMISSION STATE OF MISSOURI

In the matter of the Application of Atmos)	
Energy Corporation for a Variance from the)	Case No.
Provisions of Section 19 of 4 CSR 240-10.030)	
Regarding The Testing of Meters.)	

APPLICATION FOR VARIANCE

COMES NOW Atmos Energy Corporation ("Atmos") by and through its counsel, and for its Application pursuant 4 CSR 240-2.060(14), hereby requests a variance from the provisions of 4 CSR 240-10.030, as explained in more detail below. In support thereof, Atmos respectfully state as follows:

1. Atmos is a corporation organized and existing under the laws of the state of Texas and the Commonwealth of Virginia with its principal place of business located at Three Lincoln Center, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Atmos is a "gas corporation" and a "public utility" pursuant to Section 386.020(18) and (42), RSMo 2000, and has been granted Certificates of Convenience and Necessity to provide natural gas service within the state of Missouri. Applicant conducts all of its utility activities in the state of Missouri through its divisions, United Cities Gas Company and Greeley Gas Company. A certified copy of Atmos' Restated Articles of Incorporation and Bylaws are on file in the records of the Commission and the same are incorporated herein by reference. See Re: Atmos Energy Corporation, Case No. GM-94-6. (Application, Exhibits C and D). The Company's Certificate to Conduct Business in Missouri as a Foreign Corporation was attached to its Application in Case No. GM-2002-295 and incorporated herein by reference.

2. All correspondence, pleadings, orders, and documents in this proceeding should be addressed to:

Gerry Pickens 810 Crescent Centre Drive, Suite 600 Franklin, Tennessee 37067-6226 Telephone: (615) 771-8437

Douglas C. Walther, Esq. Senior Attorney Atmos Energy Corporation P.O. Box 650205 Dallas, Texas 75265-0205 Telephone: (972) 855-3102

James M. Fischer, Esq. Fischer & Dority, P.C. 101 Madison Street Suite 400 Jefferson City, Missouri 65101 Telephone: (573) 636-6758

3. 4 CSR 240-10.030(19) ("the Rule") requires that gas service meters be periodically removed, inspected and tested at least once every one hundred twenty (120) months or more often as necessary. The Rule expressly authorizes the Commission to issue an order prescribing a different period. As more fully described herein, Atmos seeks a variance from compliance with the Rule and requests the Commission to issue an order modifying the manner in which the number and identity of meters to be removed and tested by Atmos is determined. The requested Variance would apply to all Missouri divisions of Atmos, including the Greeley Gas Company and United Cities Gas Company divisions (including the service area previously served by Associated Natural Gas Company), and would be effective for the Calendar Year 2002, and succeeding years, unless modified by Commission order.

- 4. The purpose of the Rule is not safety-related nor to replace gas meters which continue to be usable, but instead is to ensure that the meters remaining in service continue to comply with the accuracy requirements of 4 CSR 240-10.030(18). Atmos proposes to implement a meter sampling program, which is described in Appendix A attached hereto, to assure compliance with such accuracy requirements.
- 5. Associated Natural Gas Company ("ANG") was granted a similar three-year variance from 4 CSR 240-10.030(19) in Case No. GO-98-567. Upon the purchase of the Missouri property of ANG by Atmos, the ANG gas meter testing program was adopted by Atmos. By its Order Granting Extension of Variance issued on March 20, 2001, the Commission extended the variance for Atmos until December 31, 2001. However, this variance has now expired, effective January 1, 2002. The purpose of this Application is to request a permanent variance from 4 CSR 240-10.030(19) to permit the adoption of a gas meter sampling program for the Atmos divisions in Missouri.
- 6. The Commission has authorized other utilities to implement gas meter sample testing in variance from the Rule. Similar variances have been granted for meter sampling programs of Union Electric Company (Case No. GO-98-25), Laclede Gas Company (Case No. GO-95-320), and Missouri Gas Energy's predecessor, Kansas Power & Light Company (Case No. GO-91-353). The proposed Atmos gas meter sampling method is similar to the gas meter sampling programs approved by the Commission in the above-referenced cases.
- 7. Atmos' proposed meter sampling program will classify gas meters with a capacity under four hundred fifty cubic feet per hour (450 ft.³/hr) by manufacturer into five groups. Each meter group will be stratified into lots by size such that each meter type can be monitored for possible problems.

- 8. Full compliance with the Commission's Rule requires that Atmos annually test approximately 6,355 gas service meters with a capacity under 450 ft.³/hr. With the proposed sampling program (assuming no lot rejections), about 2259 meters would be tested annually. This significant reduction in the overall number of meters required to be tested will result in substantial cost savings (approximately \$104,000 per year) without compromising Atmos' ability to meet the measurement accuracy standards set forth in 4 CSR 240-10.030(18). Approval of this Application would therefore be in the public interest.
- 9. Atmos desires to implement the proposed meter sample testing program for the Calendar Years 2002 and beyond. Since few, if any, gas meters are tested during the winter months, approval of this program expeditiously will allow Atmos to complete the testing required under the proposed program for the remainder of 2002. In the future, the sampling and testing of the meters will be conducted during the period of April 1 to March 31 of each year.
- 10. Atmos will submit an annual report to the Gas Safety Staff with the results of the previous meter-testing program. This report is to be submitted within two (2) months of each year-end test period.
- 11. Pursuant to 4 CSR 240-2.060(1)(K), Atmos states that it has no pending action or final unsatisfied judgments or decisions against it from any state or federal agency or court which involve customer service or rates which has occurred within three (3) years of the date of the Application.
- 12. Pursuant to 4 CSR 240-2.060(1)(L), Atmos states that no annual report or assessment fees are overdue in Missouri.
- 13. Atmos requests a review of the Application by the Commission Staff to enable it to receive the Order of the Commission authorizing the variance by September 1, 2002, if

possible. Upon approval by the Commission, Atmos intends to file revised tariff sheets for each of its divisions which reference approval of the variance by the Commission at the appropriate location in its tariffs.

WHEREFORE, Atmos Energy Corporation respectfully requests that the Commission issue an Order granting Atmos a permanent variance from the provisions of 4 CSR 240-10.030(19), in accordance with the foregoing Application, and the approval of its gas meter sampling program as described in Appendix A attached hereto.

Respectfully submitted,

James M. Fischer

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ATTORNEYS FOR ATMOS ENERGY CORPORATION

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document has been hand-delivered or mailed, postage prepaid, by U.S. Mail, First Class, this ______ day of July, 2002, to:

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

Dan Joyce General Counsel Missouri Public Service Commission P.O. Box 360 Jefferson City, MO 65102

James M. Fischer

VERIFICATION

STATE OF TENNESEE COUNTY OF))	SS.
Supervisor, of Atmos Energy Corpo	oration, ition, an	m, on his oath and in his capacity as Measurement states that he is authorized to execute this Application d has knowledge of the matters stated herein, and that of his knowledge and belief.
		Gerry Pickens
Subscribed and swor	n to bef	Fore me this standary Duly, 2002. Notary Public
My Commission Expires:	ly	26,2003

MISSOURI

EXHIBIT A

TECHNICAL DESCRIPTION OF PROPOSED METHOD FOR THE SAMPLE TESTING OF INSERVICE GAS METERS

1) INTRODUCTION

Atmos Energy Corporation (AEC) d/b/a United Cities Gas Company (UCG) and Greeley Gas Company (GGC) propose to employ a sample testing method, using fully developed and widely recognized quality control standards, principles and rules, to test in service gas meters. These standards, principles and rules can be found in standard texts and statistical sampling tables. Details of the method are described in ANSI/ASQC Z1.4¹, which is the "attributes sampling technique." Sample testing is an economical substitute for one hundred percent (100%) testing.

2) **DEFINITIONS**

- a) Acceptable Quality Level (AQL) a statistically based acceptance criteria for the maximum percentage or proportion of variant units in a lot that can be considered satisfactory as a process average (see ANSI/ASQC Z1.4). The AQL to be used in sample testing gas meters is 6.5%.
- **b) Annual Sampling** a random sample taken each year from a group of meters based on guidelines set forth in ANSI/ASQC Z4.1 (inspection by attributes) using general inspection level II, Single Sampling Plans for Normal Inspection.
- c) Check Flow the measurement flow rate at twenty to forty Percent (20 40%) of the meter's rated nameplate capacity.
- d) Group meters of a particular manufacturer.

¹ ANSI/ASQC Z4.1 (Military Standard MIL-STD-105E), Sampling Procedures and Tables for Inspection by Attributes (1993)

- e) Intest Accuracy the accuracy of a meter determined during its flow test following removal from operation and before repair and adjustment. It is the sum of the open flow accuracy plus the check flow accuracy divided by two (2).
- f) Lot a collection of meters in a group having the size or throughput capacity, from which a sample is drawn and inspected to determine compliance with acceptance criteria.
- g) Meter a hard case diaphragm type gas meter with a flow capacity of less than four hundred fifty cubic feet per hour (450 ft³/hr.) (As of April 19, 2002, AEC had 63552 such meters in its Missouri service areas.
- h) Open Flow the measured flow rate at eighty to one hundred twenty percent (80 120%) of the meter's rated nameplate capacity.
- i) **Percent Accuracy** the ratio comparison of the registered volume of a meter under test to the registered volume of a standard.
- j) **Program Year** Within the scope of this variance, the program year will run from April 1 to March 31 of the following year.
- **k)** Random a statistical method of sampling that ensures that each member of a population has the same probability of being selected as any other member.
- 1) Set Year the calendar year during which a meter was installed for a customer.
- m) Specification Limits limits that define the conformance boundaries for the registration accuracy of individual meters. These limits are plus or minus two percent (± 2%) of one hundred percent (100%) accuracy.
- n) Year of Purchase the calendar year in which a meter was purchased from the manufacturer.
- o) Years in Service the number of years between the year a meter was set and the year it was removed.

3) PURPOSE

The purpose of this gas meter sample testing plan is:

- a) To determine the quality level of each meter lot by providing a reliable percentage estimate of the meters in each lot lying outside the specification limits for registration accuracy.
- b) To provide information relating to the performance of various meter lots when meter accuracy does not meet the specified quality and thus provide the basis for repair and recalibration or planned retirement of those meters which are nonconforming.

4) GENERAL METER TESTING PROCEDURES

Meters are tested in accordance with the following:

- a) With the exception of those meters removed from service specifically for known leakage, damage, tampering, noise, or non-registration, and meters that have been selected for retirement, all meters removed from service shall be tested for in-test accuracy at both check flow and open flow prior to any adjustment or repair. The meter accuracy shall be the sum of the open flow accuracy plus the check flow accuracy divided by two (2). This shall be referred to as the average intest accuracy. Those meters that have been removed from service specifically for known leakage or non-registration shall be monitored so that potential problems with certain meter types can be identified, even though the accuracy rate is acceptable.
- b) Meters shall be repaired as necessary and adjusted to within plus or minus one half percent (± 0.5%) of one hundred percent (100%) accuracy at the open and check flow rates before being returned to service.
- c) Records shall be maintained for each lot of meters showing intest accuracy of each lot for each program year. This intest accuracy data shall be organized into three (3) accuracy categories as follows:
 - i) More than 2% above 100% accuracy (fast)
 - ii) From 2% above to 2% below 100% accuracy
 - iii) More than 2% below 100% accuracy (slow)

- d) The accuracy data shall be maintained as follows with all fractions being rounded to the nearest one half percent (0.5%):
 - i) Number of years in service
 - ii) Year of purchase
 - iii) Total meters tested in lot

5) PERIODIC SAMPLING PROCEDURE

Meters shall be sample tested in accordance with the procedure described herein.

- a) AEC will classify its meters into groups according to manufacturer. (As of April 31, 2002, there were five (5) groups varying in size from 1034 to 27924 meters.) Type or capacity further stratifies groups into lots. Each lot in every group will be sample tested annually. Table 1 provides a detailed breakdown of groups and lots as of April 30, 2002. (Note that Table 2 indicates those meters that are being phased out over time designated as Group 6. Meters assigned to this group at start-up are to be phased out over the first 2 years of this program, thereafter, meters moved to Group 6 shall be phased out over a period not to exceed 5 years)
- b) Sampling shall be in accordance with standard sampling plans as set forth in recognized statistical quality control standards. The size of the sample will depend on the size of the lot it will represent. Sample size code letters are given in Table I of ANSI/ASQC Z4.1 for attributes plans. An additional percentage of meters needed for the sample shall be selected on a random basis as substitutes for damaged, non-registering, inaccessible, or otherwise invalid meters in the sample. All meters in the sample will be tested for their accuracy for registration, where test results are rounded to the nearest one half percent.
- c) The statistical method applied to the test data will ensure that not more than six and one half percent (6.5%) of the meters in a lot will deviate from one hundred percent (100%) accuracy of registration by more than plus or minus two percent (±2%).

d) ATTRIBUTES METHOD

- i) Sampling by attributes can be performed several ways, usually classified as "single-sampling", "double-sampling", or "multiple-sampling". The plan selected for sampling meters in Missouri is the "single-sampling" technique.
- ii) The intest accuracy of registration of each meter in the sample is classified as either being within or beyond the 98% to 102% specification limits. The decision to accept or reject a lot is then based upon the number of meters in the sample with accuracies beyond these limits. The total number of non-conforming meters is compared with the acceptance and rejection numbers in Table II-A of ANSI/ASQC Z4.1. A lot fails if the total number of meters beyond the specification limits is equal to or grater than the rejection number for the lot sample code given in Table II-A
- e) If a lot fails, AEC will remove all meters in that lot over a period not to exceed 4 years and it will replace or repair and recalibrate the meters before they can be reused. However, within a lot of meters, if a particular sub-lot can be identified from evaluation of test results which indicates an untimely performance degradation due to possible manufacturer's defect or geographical location, and is clearly not a condition brought on by age as compared to other members of the lot, the following action will be taken:
 - i) The particular sub-lot will be further sampled as appropriate to verify above indications.
 - ii) If confirmed, an accelerated removal program of this particular sub-lot will be implemented. This sub-lot will be moved to Group 6.
 - iii) In this instance the sub-lot is not indicative of the overall meter lot so the intest accuracy data will be excluded from the analysis.
- f) All other diaphragm meters, turbine meters, and rotary meters are excluded from sample testing and will be removed, inspected, and tested at least once every one hundred twenty (120) months to ensure proper operation.
- g) For each lot, the maximum permissible sampling period will be limited to thirty (30) years.

TABLE 1
General Inspection Level II - Single Sample Plan for Normal Inspection

General I	nspection Lev	el II - Single	Sample F	Plan for Normal	Inspection			
	Group	1 American	Meter					
Lot	Model	Size	Code Sample Ac		Ac	Rc		
1-1	250B	15	В	3	0	1		
1-2	5B-225	2278	K	125	14	15		
1-3	AC-150	4	Α	2	0	1		
1-4	AC-175	84	E	13	2	3		
1-5	AC-250	12400	М	315	21	22		
1-6	AL-175	1409	K	125	14	15		
1-7	AL-200	284	Н	50	7	8		
1-8	AL-225	174	G	32	5	6		
1-9	AL-250	7614	L	200	21	22		
1-10	AL-425	836	J	80	10	11		
	•	25098	-	945				
	C 2	Deelessell/Ee						
Lot	Model	Rockwell/Eq		Sample	۸۵	De		
2-1	wodei #4	Size 31	Code D	Sample	Ac	Rc		
2-1 2-2	#4 R-175			8	1	2		
		2083	K	125	14	15		
2-3	R-200	1716	K	125	14	15		
2-4	R-250	291	H	50	7	8		
2-5	R-275	4048	L	200	21	22		
2-6	R-310	3	A	2	0	1		
2-7	R-415	64	E 13		2	3		
		8236		523				
	Group 3	National/Lai	ncaster					
Lot	Model	Size	Code	Sample	Ac	Rc		
3-1	L-175	127			2	3		
3-2	L-250	925	925 J 80		10	11		
		1052	·	100				
	0	4 0						
Lot	Model	oup 4 Spragu Size	Code	Sample	Ac	Po		
4-1	#4	38	D	Sample		Rc		
4-2	# ** #5	36 41	D	8 8	1 1	2 2		
4-3	#5 S-175	23299	M					
4-3 4-4	S-170	23299 7	A	315	21 0	22		
4- 4 4-5	S-190 S-1A	2689		2	14	1		
4-3 4-6	S-1A S-250	1854	K	K 125 K 125		15		
4-0	3-230	27928	N.	583	14	15		
		21320		303				
Group 5 Superior								
Lot	Model	Size	Code	Sample	Ac	Rc		
5-1	SU-175	878	J	80	10	11		
5-2	SU-250	113	F 20		2	3		
5-3	SU-340	43	D	8	1	2		
		1034		108				

TABLE 2

Group 6 Five Year Retirement Program						
Lot	Model	Size				
6-1	AM 10BIC	19				
6-2	AM 20BIC	1				
6-3	AM 5BIC	88				
6-4	Roc. 3R	6				
6-5	Sp #2	63				
6-6	Sp #3	27				
		204				

TABLE 3
Historical Meter Test Data
1998 - 2001

		Group 1		Gro	Group 2		Group 3		Group 4		Group 5	
		Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	
Fast	10%	0.0%	0	0.0%	0	0.0%	_ 0	0.0%	0	0.0%	Ö	
Fast	9%	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	
Fast	8%	0.0%	0	0.0%	1	0.0%	0	0.0%	5	0.0%	0	
Fast	7%	0.0%	. 3	0.0%	0	0.0%	0	0.0%	0	0.0%	0	
Fast	6%	0.1%	7	0.0%	1	0.0%	0	0.1%	14	0.5%	1	
Fast	5%	0.2%	14	0.3%	10	0.0%	0	0.0%	5	0.9%	2	
Fast	4%	0.3%	20	0.7%	20	0.4%	1	0.1%	9	0.0%	0	
Fast	3%	2.4%	185	3.1%	90	3.9%	10	0.6%	86	0.0%	0	
Fast	2%	9.1%	690	20.5%	590	29.7%	76	6.4%	870	14.2%	31	
Fast.	1%	49.1%	3740	32.6%	937	30.5%	78	36.8%	5028	26.0%	57	
	1%	29.6%	2253	26.7%	766	22.3%	57	45.5%	6224	29.2%	64	
⊸ Slow™	*** 2% ·	6.6%	506	13.7%	393	6.6%	17	7.8%	1065	17.8%	39	
Slow	3%	1.1%	87	0.9%	27	4.3%	11	1.8%	240	7.3%	16	
Slow	4%	0.4%	27	0.4%	12	2.0%	5	0.4%	54	3.2%	7	
Slow	5%	0.3%	25	0.7%	20	0.4%	1.	0.2%	27	0.5%	1	
Slow	6%	0.3%	23	0.1%	2	0.0%	0	0.2%	32	0.0%	0	
Slow	7%	0.2%	15	0.1%	2	0.0%	0	0.1%	18	0.0%	0	
Slow	8%	0.2%	17	0.0%	1	0.0%	0	0.0%	0	0.5%	1	
Slow	9%	0.2%	12	0.0%	0	0.0%	0	0.0%	5	0.0%	0	
Slow	10%	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	
·		100.0%	7624	100.0%	2872	100.0%	256	100.0%	13680.6	100.0%	219	
%<+/- 2%		94.3%	7189	93.5%	2686	89.1%	228	96.4%	13186.83	87.2%	191	