

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)	
ELECTRIC COMPANY TO IMPLEMENT A GAS)	CASE NO.
REGULATOR INSPECTION PROGRAM AND)	2012-00491
REQUEST FOR DEVIATION)	

ORDER

On November 9, 2012, Louisville Gas and Electric Company ("LG&E") filed an application requesting authority to implement a residential gas regulator statistical sampling inspection program ("Regulator Program"). Additionally, pursuant to 807 KAR 5:006, Section 27, LG&E requested authorization to deviate from 807 KAR 5:006, Section 26(5)(b),¹ which requires all residential regulators to be checked at the same intervals as the periodic meter test intervals, and to inspect residential regulators on a statistical basis as part of its permanent gas meter sampling plan.

LG&E responded to one round of Commission Staff information requests, and an informal conference ("IC") was held in order to discuss issues pertaining to the case. There are no intervenors in this proceeding.

BACKGROUND

In Case No. 2000-00278,² LG&E requested approval of a permanent statistical gas meter sampling plan. In the same application, LG&E asked for authorization to

¹ LG&E filed its request pursuant to 807 KAR 5:006, Section 25; however, 807 KAR 5:006 was amended effective January 30, 2013 with Section 25 regarding gas utility system inspections renumbered as Section 26. Therefore, this order will reference Section 26 throughout.

² Case No. 2000-00278, The Application of Louisville Gas and Electric Company for Approval of a Permanent Statistical Meter Sampling Plan (Ky. PSC Nov. 7, 2001).

deviate from 807 KAR 5:006, Section 26(5)(b), which would have allowed LG&E to check individual residential customer service regulators, vents, and relief valve vents when a customer's meter was changed under sample testing, instead of at the required intervals.³ On November 7, 2001, the Commission granted LG&E's request to make permanent its statistical gas meter sampling plan but denied LG&E's request for deviation from the requirements of 807 KAR 5:006, Section 26(5)(b), finding that LG&E had "not provided sufficient evidence that its proposal with regard to regulators will provide safe, reliable, and efficient service to its customers."⁴

In Case 2002-00262,⁵ LG&E requested authorization to implement a new residential service regulator inspection and replacement program, which was to be an aggressive 10-year program to replace approximately 190,554 residential regulators so that all residential regulators would have full internal relief devices equipped with vents open to the outside of the premises. LG&E also requested the authority to deviate from 807 KAR 5:006, Section 26(5)(b), upon completion of said regulator inspection and replacement program and to inspect residential regulators on a statistical basis in conjunction with, and as part of, its approved permanent statistical gas meter sampling plan.⁶ The Commission approved LG&E's plan and granted LG&E a deviation from 807 KAR 5:006, Section 26(5)(b), for the duration of the plan noting, "If LG&E wishes to

³ 807 KAR 5:006, Section 26(5)(b).

⁴ Case No. 2000-00278, *The Application of Louisville Gas and Electric Company for Approval of a Permanent Statistical Meter Sampling Plan* (Ky. PSC Nov. 7, 2001).

⁵ Case No. 2002-00262, *The Application of Louisville Gas and Electric Company for Approval of a Residential Service Regulator Inspection and Replacement Program and Request for Deviation* (Ky. PSC Aug. 29, 2002).

⁶ *Id.* at p. 1-2.

inspect residential regulators on a statistical basis in conjunction with, and as part of, its permanent statistical gas meter sampling plan, it shall request a permanent deviation at the completion of the inspection and replacement plan.”⁷ LG&E was also required to “document and report regulator performance and the repairs made to existing or new meters as part of its gas statistical meter sampling report filed on April 1 of each year.”⁸

DISCUSSION

LG&E filed the instant application seeking authority to implement the Regulator Program, as well as a deviation from the requirements of 807 KAR 5:006, Section 26(5)(b).⁹ In support of its application, LG&E notes that it has completed the ten-year gas regulator inspection and replacement program authorized in Case No. 2002-00262.¹⁰ It has also filed reports documenting regulator performance and the repairs made to new or existing regulators on April 1 of each year, as required in the final order of that case.

807 KAR 5:006, Section 26(5)(b), requires all residential customer service regulators, vents, and relief valve vents to be checked for operable conditions at intervals not to exceed the periodic meter test interval. It also requires that “[t]hese inspections shall be made as often as necessary but not less frequently than is prescribed or recommended by the Department of Transportation 49 C.F.R. Part 192

⁷ *Id.* at p. 3.

⁸ *Id.*

⁹ Case No. 2012-00491, *In the Matter of: The Application of Louisville Gas and Electric Company to Implement a Gas Regulator Inspection Program and Request for Deviation, Application* (Ky. PSC Nov. 9, 2012).

¹⁰ *Id.* at p. 3.

Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, for the various classes of facilities.” 807 KAR 5:006, Section 28 states that “[i]n special cases, for good cause shown, the commission shall permit deviations from this administrative regulation.”

At the IC held in conjunction with this case, LG&E stated that inspecting regulators, vents, and relief valves pursuant to the Commission's regulations would involve approximately 33,000 regulators a year and would add an incremental cost of approximately \$3.5 million annually.¹¹ LG&E noted that it is already on the customer's property every one, three, and/or five years for operational and maintenance activities such as meter reading, patrolling, and leak surveys.¹² Under the proposed sampling program, LG&E would inspect approximately 7,000 regulators annually while it is already on the customer's property for these other reasons.¹³ LG&E stated this would allow it to avoid the additional cost of inspections if conducted pursuant to the requirements of the regulations.¹⁴ Moreover, LG&E plans to develop a special reporting system database to monitor the regulator inspections and estimates an up-front cost of \$10,000, but no additional costs.¹⁵

LG&E has provided sufficient evidence that its proposal with regard to its regulator program will provide safe, reliable, and efficient service to its customers.

¹¹ Case No. 2012-00491, *Application of Louisville Gas and Electric Company to Implement a Gas Regulator Inspection Program and Request for Deviation*, Informal Conference Memo (April 30, 2013).

¹² *Id.* at p. 1.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

LG&E has up-to-date records concerning its regulators, including the date when all of the regulators were installed, and has the capability to monitor the regulators on a year-to-year basis.¹⁶ LG&E now has information about the make and model of each regulator, and can determine if and when a specific group of regulators may need to be replaced.¹⁷ LG&E pointed out that regulators today have fail-safe features that were not included with previous regulators, such as internal relief valves that relieve pressure in the event of failure or over-pressurization.¹⁸

FINDINGS

Having reviewed the application and being otherwise sufficiently advised, the Commission finds that LG&E should be granted the authority to implement the Regulator Program. The Commission further finds that there are no federal requirements with 49 C.F.R. 192 that prescribe or recommend intervals for the inspection of regulators, vents, or relief valves, and that good cause exists to grant LG&E a deviation from 807 KAR 5:006, Section 26(5)(b). Finally, the Commission finds that LG&E should continue to document and report regulator performance and inspection results, including, at a minimum, the number of regulators inspected, number passed, number failed, number excluded from testing, control groups rejected, and number of regulators removed from service, as part of its gas statistical meter sampling report filed on April 1 of each year.

¹⁸ *Id.* at p. 2.

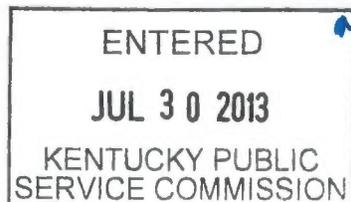
¹⁷ *Id.*

¹⁸ *Id.*

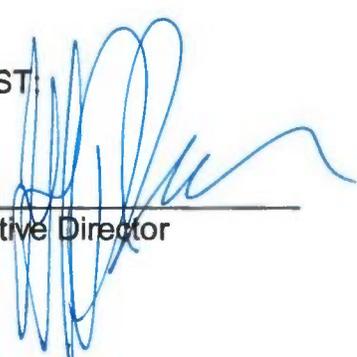
IT IS THEREFORE ORDERED that:

1. LG&E is granted permission to implement its gas regulator inspection program, attached here as the Appendix.
2. LG&E is granted permission to deviate from 807 KAR 5:006, Section 26(5)(b), and to inspect residential regulators on a statistical basis in conjunction with, and as part of, its permanent statistical gas meter sampling plan.
3. LG&E shall include as a part of its statistical gas meter sampling report filed April 1 of each year the information listed in the findings above.
4. Any documents filed pursuant to ordering paragraph No. 3 of this Order shall reference the number of this case and Case No. 2000-00278 and shall be retained in the utility's general correspondence file.

By the Commission



ATTEST:



Executive Director

Case No. 2012-00491

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE
COMMISSION IN CASE NO. 2012-00491 DATED **JUL 30 2013**

LOUISVILLE GAS AND ELECTRIC COMPANY

**Response to Commission Staff's
First Request for Information Dated March 13, 2013**

Case No. 2012-00491

Question No. 3

Witness: Barry Russell Walker

- Q-3.** Refer to the Louisville Gas & Electric Gas Meter Performance Control Program, Attachment 1 to LG&E's November 9, 2012 application. Provide additional details of how the regulator sampling program will work. The explanation should include whether the samples being tested are in the same quantities as the Meter Sampling program, as well as Test Criteria, Control Group Sampling, and Sample Sizes.
- A-3.** See Attached Residential Gas Regulator Performance Control Program. When a meter serving a residential account is tested under the Gas Meter Performance Control Program, the associated regulator will also be tested if one is present. Since some meters do not have an associated regulator, less regulators than meters in total will be tested. However, the number of samples tested for a given sized control group may be larger in the Residential Gas Regulator Performance Control Program than in the Gas Meter Performance Control Program. When this occurs, the accept/reject levels will be adjusted accordingly. In the event the number of samples tested for a given sized control group is smaller in the Residential Gas Regulator Performance Control Program than in the Gas Meter Performance Control Program, data from future years will be used to complete the evaluation. Details are explained further in the Residential Gas Regulator Performance Control Program. The test criteria for the regulators will be that the regulator will be considered "passed" if the regulator has positive shut off and does not allow the downstream pressure to climb above the appropriate level during a regulator lock up test.

**LOUISVILLE GAS AND ELECTRIC COMPANY
 RESIDENTIAL GAS REGULATOR
 PERFORMANCE CONTROL PROGRAM**

Introduction

Louisville Gas and Electric Company's Residential Gas Regulator Performance Control Program is a procedure designed to provide a continuous high level of performance of gas regulators while controlling inspection and replacement costs.

General Description of Program

LG&E's Residential Gas Regulator Performance Control Program leverages LG&E's Gas Meter Performance Control Program to test the protective capability of all classes of residential regulators. Under Performance Control, LG&E's residential gas regulator population will be classified into homogeneous control groups representing like regulators. A control group would be subject to random sample testing during LG&E's Gas Meter Performance Control Program activities. Specifically, when a meter serving a residential account is tested under the Gas Meter Performance Control Program, the associated regulator will also be tested if one is present.

Sampling Criteria

Sample sizes and reject levels will be established by the following table:

Control Group Size	Sample Size	Accept Failure Level	Reject Failure Level
1	1	0	1
2-15	2	0	1
16-50	8	1	2
51-90	13	2	3
91-150	20	3	4
151-280	32	5	6
281-500	50	7	8
501-1,200	80	10	11
1,201-3,200	125	14	15
3,201 or more	200	21	22

Table 1: Sample Sizes and Reject Levels

The results of each year's random sample tests of residential regulators conducted during LG&E's Gas Meter Performance Control Program activities will be evaluated using Table 1 above.

If a particular sample size is larger than necessary for the control group, the accept failure level and reject failure level will be adjusted on a percentage basis. An example of this is shown in Table 2.

Control Group Size	Defined Sample Size	Defined Reject Failure Level	Actual Sample Size	Percentage of Actual to Defined Sample Size	New Reject Failure Level
151-280	32	6	59	184%	11

Table 2: Example Adjusted Reject Failure Level

If a particular sample size gathered in a single year is less than required for a given control group, the test period for that control group will be extended annually until an adequate sample size is gathered or up to 10 years, whichever comes first. If after 10 years an adequate sample size has not been tested, action will be taken in the next year to test regulators from within the control group to acquire an adequate sampling. The requirements of the Gas Meter Performance Control Program will ensure this will be a minimal number of occurrences.

Test Criteria

Each regulator tested as part of this program will be considered "passed" if the regulator has positive shut off and does not allow the downstream pressure to climb above the appropriate level during a regulator lock up test. Each regulator tested as part of this program will be considered "failed" if the regulator does not have positive shut off and does allow the downstream pressure to climb above the appropriate level during a regulator lock up test.

Test Exclusion

Regulators shall be excluded from the sample if damage not associated with normal operating conditions has artificially altered how the regulator was actually performing while in service.

Rejected Control Groups

When a control group is classified as "rejected" and a poor performing sub-group can be identified for separation from the original control group, this may be done. Regulators within the rejected control group, or rejected sub-group if applicable, will be removed from service.

J. Gregory Cornett
Senior Corporate Attorney
LG&E and KU Energy LLC
220 West Main Street
Louisville, KENTUCKY 40202

Honorable Robert M Watt, III
Attorney At Law
STOLL KEENON OGDEN PLLC
300 West Vine Street
Suite 2100
Lexington, KENTUCKY 40507-1801