



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4  
Air, Pesticides and Toxics Management Division  
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Atlanta, Georgia 30303-8960

### FEDERAL AIR QUALITY OPERATING PERMITS PROGRAM

#### RESPONSE TO COMMENTS

<b>Permit Number:</b>	P71-JKY-001
<b>Source:</b>	<b>Louisville Gas &amp; Electric Company, Muldraugh Compressor Station,</b> on highway 31W, Muldraugh, Meade County, Kentucky

#### I. EXECUTIVE SUMMARY

Under Section 505(c) of the CAA (Clean Air Act), 42 U.S.C. § 7661d(c) and the regulations promulgated thereunder at 40 C.F.R. § 70.8(c)(4), EPA issued a draft title V permit for Louisville Gas & Electric Company, Muldraugh Compressor Station (LG&E). EPA issued this draft title V permit because the Kentucky Division for Air Quality (KYDAQ) did not resolve an EPA objection to their proposed title V permit.

The Meade County Messenger and the Louisville Courier-Journal published the draft title V permit public notice on Wednesday, June 5, 2002, and Tuesday, June 11, 2002, respectively. These two newspapers are the largest general circulation in the area of the facility.

The 30-day public comment period has passed and EPA received comments from LG&E and KYDAQ. On July 18, 2002, LG&E submitted a request to retract comments number 6, number 14 and the emission calculation attachment from their original comments. On October 07, 2002, LG&E submitted a request to add a new insignificant activity to the permit. A summary of the comments and responses is included in this document. A notice of final permit decision will be issued in the Federal Register and will become final 30 days after its publication.

#### II. CHANGES TO THE PERMIT [40 C.F.R. § 71.11(j)(1)(i)]

A markup copy of the final permit is included with this document to easily identify the changes made in the permit. The following table includes the provisions that have been changed in the final permit and reasons for the change. Typographical errors and

administrative changes are not included in this table. Those changes can be reviewed in the markup copy.

**Table 1. Provisions Changed in the Final Permit**

Permit Section	Provisions Changed	Reason(s) for Change
I.A.4. Description of Process	The word storage was added to the description of process section.	LG&E made a comment that to accurately describe the facility, the word storage should be added to the description of process. EPA agreed and added the word storage to the description of process.
I.B. Source Emissions Points, Table 1.	The description of emissions unit no. 04 was changed to accurately describe the emissions unit. The afterburner control device description was moved to the Air Pollution Control Devices column, and the afterburner was assigned identification number AB-1.	The emissions come from the natural gas purification process (which includes the sweetening units), and the afterburner is used to control the emissions from the purification process. Therefore, the afterburner (ID No. AB-1) is classified as an air pollution control device, and the purification plants are the emissions units.
I.B. Source Emissions Points, Table 1.	Emissions unit no. 04 was split. Purification plant #1 is now emissions unit no. 08.	This emissions unit was split because purification plant #1 was constructed before the applicability date of NSPS Subpart LLL. Thus, emissions unit no. 08 was created to simplify applicable requirements.
I.B. Source Emissions Points, Table 2.	One insignificant emissions unit was added to the list of insignificant emissions units. The emissions unit is a BTEX thermal oxidizer for glycol dehydration unit.	LG&E requested the inclusion of a new insignificant emissions unit to the list.
II. Requirements for specific emissions units	The description of emissions unit no. 04 was changed to accurately describe the emissions unit.	The emissions come from the natural gas purification process (which includes the sweetening units) and the afterburner is used to control the emissions from the purification process.
II. Requirements for specific emissions units	Emissions unit no. 04 was split. Purification plant #1 is now emissions unit no. 08.	This emissions unit was split because purification plant #1 was constructed before the applicability date of NSPS Subpart LLL. Thus, emissions unit no. 08 was created to simplify applicable requirements. A federally-enforceable permit to construct/operate issued by the Kentucky Division for Air Quality is the only applicable requirement for emissions unit no. 08.

Permit Section	Provisions Changed	Reason(s) for Change
II.A.1. Emission Limitations for emission unit no. 04	II.A.1.a. and II.A.1.b. were combined into II.A.1.; additionally, the language was changed to explain that LG&E does not have to comply with the sulfur dioxide emission reduction requirements in 40 CFR § 60.642 as long as the hydrogen sulfide emissions are below 2 long tons per day.	LG&E requested clarification on the applicability of the sulfur dioxide emission reduction requirements in 40 CFR § 60.642. Therefore, II.A.1. was changed to clarify this requirement.
II.D.1.	This condition was changed to accurately describe the monitoring performed by LG&E at the facility. The continuous emissions monitoring system daily calibration checks required under 40 CFR § 60.13(d)(1) was added.	LG&E requested to change this condition to describe the monitoring performed by LG&E at the facility.
II.D.2. and II.D.3.	The language was changed to clarify how LG&E will assure compliance with the applicable requirements and what method must be used to determine compliance if at any time it is required or requested.	LG&E requested changes in the language to avoid misinterpretation or confusion.

### III. RESPONSE TO COMMENTS [40 C.F.R. § 71.11(j)(1)(ii)]

#### III.A. Kentucky Division for Air Quality Comments (July 09, 2002, Letter)

Comment # 1: *"The Kentucky Division for Air Quality continues to disagree with the determination that 40 CFR 60 Subpart LLL applies to this facility ..."*

Response: As EPA has previously advised the KYDAQ and LG&E, 40 CFR 60 Subpart LLL applies to the Muldraugh Compressor Station. 40 CFR § 60.640(a) states that Subpart LLL is applicable to facilities that process natural gas, specifically sweetening units, and sweetening units followed by sulfur recovery units. The Muldraugh Compressor Station facility uses sweetening units to process sour natural gas before distributing the natural gas to consumers. Therefore, the activities performed at the Muldraugh Compressor Station facility are subject to Subpart LLL. This determination is further explained in the addendum to the statement of basis for the permit.

## RESPONSE TO COMMENTS

Comment # 2: "Plant # 1 was constructed in 1963, and unless it has undergone a modification would be exempted from the standard."

Response: Comment acknowledged. EPA modified the permit to separate purification plant # 1 from plant # 2 and # 3 as an emissions unit. Therefore, purification plant # 1 now has its own emissions unit identification number (emissions unit no. 08) and is not subject to the requirements of Subpart LLL.

Comment # 3: "Plants # 2 and # 3 were constructed after the applicable date of the regulations, but 40 CFR 60.642(b) exempts the units from the substantive requirements of the regulation for units that have a capacity of less than 2 long tons per day of hydrogen sulfide. Kentucky's permit does limit inlet gas concentration to 20 grains per 100 ft<sup>3</sup> and annual capacity to 7,100 MM cubic feet. This gives the source a potential of less than 0.26 long tons total for exempt and non-exempt facilities, much less than the 2 long tons per day exemption for each unit."

Response: EPA changed the permit to clarify that LG&E is not currently required to comply with certain provisions of §§ 60.642 through 60.646 because their actual emissions are less than 2 long tons per day. However, EPA changed the permit to explain that if the actual emissions exceed the 2 long tons per day threshold, LG&E will be required to comply with the requirements from §§ 60.642 through 60.646.

### III.B. Kentucky Division for Air Quality Comments (June 20, 2002, and June 26, 2002, E-mails from Tom Adams)

Comment # 1: "... page 8 of 11 of the Statement of Basis, twice there was a reference to 40 CFR 70.6. I believe that Part 71 should be cite."

Response: Comment acknowledged. EPA changed the regulatory authority of the selected monitoring in the rationale for selected monitoring table, page 8 of 11, from 40 C.F.R. § 70.6(a)(3)(i)(B) to 40 C.F.R. § 71.6(a)(3)(i)(B).

Comment # 2: "On pages 6 and 7 of 31, there is reference to 401 KAR 52:030 as the basis for Synthetic Minor limits of a S-95 permit. The correct regulation would have been 401 KAR 50:035; 52:030 only applies to a source that is accepting source wide limitation to avoid the need to have a Part 70 permit. Limitation for the avoidance of PSD at a Title V Source are currently permitted under 401 KAR 52:020. All three/four permit regulations used to be contained in 401 KAR 52:035, and that was the regulation in effect at the time of issuance."

## RESPONSE TO COMMENTS

Response: Comment acknowledged. The regulatory authority for these limitations is the construction permit S-95-093 issued on May 15, 1995. Therefore, the permit was modified to include this regulatory authority only.

### III.C. Louisville Gas & Electric Comments (July 10, 2002, Letter)

Comment # 1: "As we have previously advised, LG&E continues to believe that Subpart LLL of the New Source Performance Standards does not apply to the Muldraugh Compressor Station."

Response: Please see response to comment # 1 in section III.B.

Comment # 2: "We request that appropriate revisions be added to the permit to clarify the non-applicability of the SO<sub>2</sub> emissions reduction efficiency and performance testing requirements."

Response: The permit was changed to reflect that LG&E does not have to comply with most of the requirements of §§ 60.642 through 60.646 if actual emissions are below the 2 long tons per day threshold. Additionally, the permit was changed to include a requirement that if actual emissions exceed the 2 long tons per day threshold, then LG&E needs to comply with the requirements from §§ 60.642 through 60.646.

Comment # 3: "Statement of Basis, Section II - Typo, Maulraugh should be changed to Muldraugh."

Response: Section II. of the statement of basis was changed to correct the spelling of Muldraugh.

Comment # 4: "Statement of Basis, Section II.A., Table 2 - it has been discovered that the rating of the BTEX afterburner is actually 3 MMBtu/hr rather than 2 MMBtu/hr. The description should be changed from 2 to 3 MMBtu/hr."

Response: The emissions unit description in Section II.A., Table 2 of the statement of basis, was changed from 2 to 3 MMBtu/hr to reflect the correct heat input rating of the BTEX afterburner.

Comment # 5: "Statement of Basis, Section III, Table 4 - Emissions Unit ID 04, delete the reference to applicability of Subpart LLL."

Response: Please see response to comment # 1 in section III.B.

## RESPONSE TO COMMENTS

Comment # 6: Retracted per July 18, 2002 LG&E letter.

Comment # 7: *“Statement of Basis, Section III, Table 5 - Delete the reference to applicability of Subpart LLL. Clarify that the calculations currently employed by LG&E are acceptable to U.S. EPA. See comment 15 below.”*

Response: Please see response to comment # 1 in section III.B.

Comment # 8: *“Section I.A.4., First sentence - Typo, Muldraugh should be changed to Muldraugh.”*

Response: The first sentence of Section I.A.4. was changed to correct the spelling of Muldraugh.

Comment # 9: *“Section I.A.4., First sentence - Change ‘Muldraugh Compressor Station (the permittee) is a NG (natural gas) compression and purification station.’ To ‘Muldraugh (the permittee) is a NG (natural gas) compression and storage station’ in order to more accurately describe the facility.”*

Response: To accurately describe the facility operations at Muldraugh Compressor Station, EPA is changing the description of the facility to the following: “Muldraugh Compressor Station (the permittee) is a NG (natural gas) compressor, storage and purification station.” This facility processes and purifies sour natural gas before distributing the natural gas to consumers. Therefore, we believe that the inclusion of the term purification station is needed in the description of the facility.

Comment # 10: *“Section I.B., Table 2 - It has been discovered that the rating of the BTEX afterburner is actually 3 MMBtu/hr rather than 2 MMBtu/hr. The description should be changed from 2 to 3 MMBtu/hr for the BTEX afterburner.”*

Response: The emissions unit description in Section I.B., Table 2 was changed from 2 to 3 MMBtu/hr to reflect the correct heat input rating of the BTEX afterburner.

Comment # 11: *“Section I.C., - Delete the reference to applicability of Subpart LLL.”*

Response: Please see response to comment # 1 in section III.B.

## RESPONSE TO COMMENTS

Comment # 12: *"Section II, Requirements for Specific Emissions Units, 04 - Delete the reference to applicability of Subpart LLL."*

Response: Please see response to comment # 1 in section III.B.

Comment # 13: *"LG&E hereby requests that these paragraphs, 1a and 1b, be deleted as they are inconsistent with the positions previously communicated by U.S. EPA staff."*

Response: EPA changed the wording of paragraph 1. in the emission limitations for emissions unit no. 4 to clarify the applicability of the sulfur dioxide emission reductions required in 40 CFR § 60.642(a) and (b). The language now clarifies that LG&E does not have to comply with the sulfur dioxide emission reductions required in 40 CFR § 60.642(a) and (b) as long as the hydrogen sulfide emissions are below 2 long tons per day. However, at any time that hydrogen sulfide emissions are greater than or equal to 2 long tons per day, LG&E must comply with the sulfur dioxide emissions reduction efficiencies required in 40 CFR § 60.642(a) and (b).

Comment # 14: Retracted per July 18, 2002 LG&E letter.

Comment # 15: *"Section II.D., Monitoring of Emissions and Operations for Emissions Unit 04, 1a-d - LG&E is requesting clarification that this requirement can be achieved via calculations currently employed by LG&E which we understand are acceptable to U.S. EPA. LG&E requests the removal of paragraphs 1a-1d and suggests the following changes/language: ..."*

Response: Comment acknowledged. EPA changed to language to LG&E's proposed language.

Comment # 16: *"Section II.D., Monitoring and Testing Requirements for Emissions Unit 05 and 07, 2 - In order to alleviate possible confusion or misinterpretation, LG&E is requesting that the sentence, 'Compliance with emissions limitations for emissions unit no. 05 in section II.A. above shall be determined by the following methods' be changed to 'Compliance with the emissions limitations for emissions unit no. 05 in section II.A. above shall be determined by the compliance or monitoring method.'"*

Response: Comment acknowledged. For clarification, we changed the language in section II.D. to the following: "Assurance of compliance with the emission limitations for emissions unit no. 05 in section II.A. above shall be determined by

## RESPONSE TO COMMENTS

the monitoring method below. If requested or required, compliance with the emission limitations for emissions unit no. 05 in section II.A. above shall be determined by the compliance methods below.”

Comment # 17: “*Section II.D., Monitoring and Testing Requirements for Emissions Unit 05 and 07, 3 - In order to alleviate possible confusion or misinterpretation, LG&E is requesting that the sentence, ‘Compliance with emissions limitations for emissions unit no. 07 in section II.A. above shall be determined by the following methods’ be changed to ‘Compliance with the emissions limitations for emissions unit no. 07 in section II.A. above shall be determined by the compliance or monitoring method.’*”

Response: Comment acknowledged. For clarification, we changed the language in section II.D. to the following: “Assurance of compliance with the emission limitations for emissions unit no. 07 in section II.A. above shall be determined by the monitoring method below. If requested or required, compliance with the emission limitations for emissions unit no. 07 in section II.A. above shall be determined by the compliance methods below.”

Comment # 18: “*Section II.E., Recordkeeping Requirements for Emissions Unit 04 From 40 CFR 60:647, 2 - Based on a June 12, 2002 telephone conversation with Mr. Zapata and prior discussions with other U.S. EPA staff, it is LG&E’s understanding that a performance test would not be required for emissions units 04. LG&E does not have a sulfur recovery unit. LG&E hereby requests that paragraph 2 be deleted from the permit as it is inconsistent with prior positions communicated by U.S. EPA staff.’*”

Response: Paragraph 2 of Section II.E. refers to the measurements and calculations (monitoring) that need to be performed to assure compliance with the requirements of 40 CFR § 60.642(a) and (b). This paragraph does not require LG&E to conduct performance tests for emissions unit no. 04. Paragraph 2 requires LG&E to retain the monitoring requirements records of section II.D.1. for at least 5 years. EPA believes that LG&E may have misunderstood paragraph 2. Therefore, no changes will be made to this paragraph.