



Louisville Metro Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137



## Title V Operating Permit

Permit No.: O-0223-16-V

Plant ID: 0223

Effective Date: 5/1/2015

Expiration Date: 4/30/2020

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Texas Gas Transmission, LLC  
Jeffersontown Compressor Station  
13027 Gaslight Way  
Louisville, KY 40299

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Application No. 68204

Application Received: 11/26/2014

Permit Writer: Rick Williams

Administratively Complete: 12/5/2014

Public Notice Date: 5/27/2016

Proposed Permit Date: 6T

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Air Pollution Control Officer  
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**Title V Permit Revisions/Changes**

<b>Permit Number</b>	<b>Public Notice Date</b>	<b>Issue Date</b>	<b>Type</b>	<b>Page Number</b>	<b>Description</b>
92-97-TV	3/12/2000	1/23/2001	Initial	Entire Permit	Initial Permit Issuance
92-97-TV (R1)	3/12/2000	1/23/2001	Administrative	Cover page	Corrected expiration date
92-97-TV (R2)	2/05/2010	04/26/2010	Renewal	Entire Permit	5 year Renewal, NO <sub>x</sub> RACT Amendment #2, Change RO
			Administrative	Pages 5, 55	Insignificant activities paragraphs
			Administrative	Pages 27, 53, 54	Revised pollutant columns
O-0223-16-V	4/21/2016	<b>TBD</b>	Renewal	Entire permit	Renewal

### Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by U.S.EPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO <sub>x</sub>	- Nitrogen oxides
PM	- Particulate Matter
PM <sub>10</sub>	- Particulate Matter less than 10 microns
PM <sub>2.5</sub>	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO <sub>2</sub>	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12-consecutive-month period, as determined by context

## Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. [Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]
2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

*US EPA - Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960*

*Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, KY 40203-3137*

This certification must be postmarked by 15 April of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:
  - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
  - b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.
4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation 2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - i. An emergency occurred and that the owner or operator can identify the cause of the emergency;
  - ii. The permitted facility was at the time being properly operated;
  - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and
  - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 12.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 12.2.4]

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as District-Only Enforceable Conditions, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

9. **Enforcement Action Defense**

- a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation.  
[Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]
10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.
11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit.  
[Regulation 2.16, section 4.1.13.6]
- If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. [Regulation 2.07, section 10.2]
12. **Insignificant Activities** - The owner or operator shall:
- a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, section 5]
- b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year.  
[Regulation 2.16, section 4.3.5.3.6]
13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:  
[Regulation 2.16, section 4.3.2]
- a. Enter the premises to inspect any emissions-related activity or records required in this permit.
- b. Have access to and copy records required by this permit.
- c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
- d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.
14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year.

All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be postmarked by the 60<sup>th</sup> day following the end of each reporting period, unless specified elsewhere in this permit. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5. [Regulation 2.16, section 4.1.5]
16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.
17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.
18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.
19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.
20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]
22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.
23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.
24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:
  - a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;
  - b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;
  - c. Knowingly making any false statement in any permit application;
  - d. Noncompliance with Regulation 1.07, section 4.2; or
  - e. Noncompliance with KRS Chapter 77.
25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.
26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.
27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.
28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.
29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.
30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.
31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.
32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific

circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. [Regulation 2.16, section 4.1.12]

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

***Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137***

b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5 shall be mailed to EPA at:

***US EPA - Region IV  
APTMD - 12th floor  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-3104***

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

<b>Regulation</b>	<b>Title</b>
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements

Regulation	Title
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

#### District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.00	Definitions
5.01	General Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment that normally contains fifty (50) pounds of refrigerant or more must keep servicing records documenting the date

and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;

- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F.
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls.  
[Regulation 2.16, section 4.1.5]

### STAR Requirements

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

1. The owner or operator shall submit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from any new emission unit with the notification of construction for that emission unit.
2. The owner or operator shall submit a *plant-wide* emissions-based EA Demonstration to the District showing compliance with the *plant-wide* EA goals of 7.5 for new and existing, 3.8 for all new combined, and 1.0 for each TAC from each process when a change occurs that increases emissions above *de minimis* or previously modeled values.
3. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. The form located on the APCD website (<http://louisvilleky.gov/government/air-pollution-control-district>) may be used for determining BAC and *de minimis* values.

**Emission Unit U1: Compressor Engines #1 - 6**

**Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4.3, 5
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

<b>DISTRICT-ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions (STAR)	All
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1, 2

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E1	One Cooper-Bessemer natural gas fueled, 1,500 bhp, 2-stroke, lean burn engine, (installed March 1950)	5.01, 5.02, 5.11, 6.42, 40 CFR 63, Subpart ZZZZ <sup>1</sup>	Footnote [2]	S1
E2	Same as E1			S2
E3	Same as E1			S3
E4	Same as E1			S4
E5	Same as E1, (installed January 1953)			S5
E6	Same as E1, (installed January 1953)			S6

1 Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(b)(3)(i)]

2 A Lean Emission Combustion (LEC) package was added to engine E6 in 2001 and engines E1-E5 in 2002. This package consisted of permanent modifications to the engines including a turbocharger, scavenging air cooler, high-energy ignition system, power cylinder head replacement, fuel-system modifications, air system piping, natural gas piping, intake and exhaust silencers, and larger exhaust stacks to accommodate a larger volume of exhaust gasses.

## Specific Conditions.

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Nitrogen Oxides

The owner or operator shall operate the subject emission units in accordance with the most recent NO<sub>x</sub> RACT Plan approved by the Air Pollution Control Board.<sup>3</sup>

[Regulation 6.42, section 4.3]

#### b. Toxic Air Contaminants

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>4</sup>

[Regulations 5.00 and 5.21]

ii. The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. The owner or operator shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans, animals, and plants.

[Regulation 5.01, section 1]

### S2. Monitoring and Recordkeeping

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years, or other specified period, from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

#### a. Nitrogen Oxides

The owner or operator shall monitor continuously, on a real time basis, the engine parameters listed in the NO<sub>x</sub> RACT Plan.

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<sup>3</sup> Amendment 3 of the NO<sub>x</sub> RACT plan for Texas Gas was presented to, and approved by, the Air Pollution Control Board on May 18, 2016. .

<sup>4</sup> The TAC emissions from the combustion of natural gas are considered *de minimis* by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

[Regulation 5.21, section 2.7]

**b. Toxic Air Contaminants**

There are no monitoring or recordkeeping requirements for these pollutants.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollution-specific information.

**a. Nitrogen Oxides**

The owner or operator shall report the following semiannually:

- i. Emission Unit ID number and Emission point ID number;
- ii. The beginning and ending date of the reporting period;
- iii. Any deviations from the permit requirements;
- iv. Any reporting elements specified by the applicable NOx RACT Plan.

**b. Toxic Air Contaminants**

There are no reporting requirements for these pollutants.

**S4. Testing**

The owner or operator shall comply with all of the requirements of the NOx RACT Plan.

**Emission Unit U2: Compressor Engines #7 - 9****Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4.3, 5
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

<b>DISTRICT-ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions (STAR)	All
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1, 2

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E7	One Cooper-Bessemer natural gas fueled, 1,500 bhp, 2-stroke, lean burn engine, (installed December 1956)	5.01, 5.02, 5.11, 6.42, 40 CFR 63, Subpart ZZZZ <sup>5</sup>	Footnote [6]	S7
E8	Same as E7, (installed October 1962)			S8
E9	Same as E7, (installed September 1963)			S9

5 Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(b)(3)(i)]

6 A Lean Emission Combustion (LEC) package was added to these engines in 2001. This package consisted of permanent modifications to the engines including a turbocharger, scavenging air cooler, high-energy ignition system, power cylinder head replacement, fuel-system modifications, air system piping, natural gas piping, intake and exhaust silencers, and larger exhaust stacks to accommodate a larger volume of exhaust gasses.

## Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Nitrogen Oxides

The owner or operator shall operate the subject emission units in accordance with the most recent NO<sub>x</sub> RACT Plan approved by the Air Pollution Control Board.<sup>7</sup>

[Regulation 6.42, section 4.3]

#### b. Toxic Air Contaminants

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>8</sup>

[Regulations 5.00 and 5.21]

ii. The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. The owner or operator shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans, animals, and plants.

[Regulation 5.01, section 1]

### S2. Monitoring and Recordkeeping

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years, or other specified period, from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

#### a. Nitrogen Oxides

The owner or operator shall monitor continuously, on a real time basis, the engine parameters listed in the NO<sub>x</sub> RACT Plan.

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7. Amendment 3 of the NO<sub>x</sub> RACT plan for Texas Gas was presented to, and approved by, the Air Pollution Control Board on May 18, 2016. .

8 The TAC emissions from the combustion of natural gas are considered *de minimis* by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

[Regulation 5.21, section 2.7]

**b. Toxic Air Contaminants**

There are no monitoring or recordkeeping requirements for these pollutants.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollutant-specific information.

**a. Nitrogen Oxides**

The owner or operator shall report the following semiannually:

- i. Emission Unit ID number and Emission point ID number;
- ii. The beginning and ending date of the reporting period;
- iii. Any deviations from the permit requirements;
- iv. Any reporting elements specified by the applicable NOx RACT Plan

**b. Toxic Air Contaminants**

There are no reporting requirements for these pollutants.

**S4. Testing**

The owner or operator shall comply with all of the requirements of the NOx RACT plan.

**Emission Unit U20: Emergency Generator****Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4.3, 5
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

<b>DISTRICT-ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions (STAR)	All
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1, 2

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E21	Waukesha 800 bhp, natural gas-fueled, 4-stroke engine, model L36GL (VGF), (installed November 1997)	5.01, 5.02, 5.11, 6.42 40 CFR 63, subpart ZZZZ <sup>9</sup>	Footnote [10]	S21

9 Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(b)(3)(i)]

10 This engine is equipped with NO<sub>x</sub> emission equipment that limit NO<sub>x</sub> emissions to less than 2.6 g/bhp-hr, per manufacturer's guarantee, based on a thirty day rolling average period.

## Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Nitrogen Oxides

The owner or operator shall operate the subject emission units in accordance with the most recent NO<sub>x</sub> RACT Plan approved by the Air Pollution Control Board.<sup>11</sup>

[Regulation 6.42, section 4.3]

#### b. Toxic Air Contaminants

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>12</sup>

[Regulations 5.00 and 5.21]

ii. The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. A person shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans, animals, and plants.

[Regulation 5.01, section 1]

### S2. Monitoring and Recordkeeping

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

#### a. Nitrogen Oxides

The owner or operator shall maintain records of the operating hours of this engine as specified in the NO<sub>x</sub> RACT Plan.

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<sup>11</sup> Amendment 3 of the NO<sub>x</sub> RACT plan for Texas Gas was presented to, and approved by, the Air Pollution Control Board on May 18, 2016.

<sup>12</sup> The TAC emissions from the combustion of natural gas are considered *de minimis* by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

[Regulation 5.21, section 2.7]

**b. Toxic Air Contaminants**

There are no monitoring or recordkeeping requirements for these pollutants.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollutant-specific information.

**a. Nitrogen Oxides**

The owner or operator shall report the following semiannually:

- i. Emission Unit ID number and Emission point ID number;
- ii. The beginning and ending date of the reporting period;
- iii. Any deviations from the permit requirements;
- iv. Any reporting elements specified by the applicable NO<sub>x</sub> RACT Plan.

**b. Toxic Air Contaminants**

There are no reporting requirements for these pollutants.

**Emission Unit U21: Compressor turbine T-2****Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4.3, 5
40 CFR 60, Subpart A	General Provisions	
40 CFR 60, Subpart GG	Standards of Performance for Stationary Gas Turbines	
40 CFR 63, Subpart A	General Provisions	
40 CFR 63, Subpart YYYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	

<b>DISTRICT-ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions (STAR)	All
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1, 2

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E22	Solar brand 14,491 bhp, natural gas-fueled stationary turbine engine, model Mars 100-T-15000S, (installed July 2005)	5.01, 5.02, 5.11, 6.42, 40 CFR 60 Subpart A, 40 CFR 60 Subpart GG, 40 CFR 63 Subpart A, 40 CFR 63, Subpart YYYYY	Footnote [13]	S22

13 The natural gas (only) fired stationary turbine manufactured by Solar is computer controlled and monitored to insure operation in SoLoNO<sub>x</sub> mode, which limits the emissions, when the turbine is operated at greater than 50 % capacity.

## Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Nitrogen Oxides

- i. The owner or operator shall operate the subject emission units in accordance with the most recent NO<sub>x</sub> RACT Plan approved by the Air Pollution Control Board.<sup>14</sup>  
[Regulation 6.42, section 4.3]
- ii. No stationary gas turbine shall discharge any gases into the atmosphere that contain nitrogen oxides in excess of 197 ppmvd corrected to 15% O<sub>2</sub>, based on a one hour average.  
[40 CFR 60.332(a)(2)]

#### b. Sulfur Dioxide

- i. The owner or operator shall not discharge into the atmosphere any exhaust gases that contain sulfur dioxide in excess of 0.015 percent by volume on a dry gas basis corrected to 15% O<sub>2</sub>.  
[40 CFR 60.333(a)]
- ii. The owner or operator shall not allow the combustion of any fuel in the stationary turbine that contains sulfur in excess of 0.8 % by weight.  
[40 CFR 60.333(b)]

#### c. Toxic Air Contaminants

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>15</sup>  
[Regulations 5.00 and 5.21]
- ii. The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. A person shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans, animals, and plants.  
[Regulation 5.01, section 1]

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<sup>14</sup> Amendment 3 of the NO<sub>x</sub> RACT plan for Texas Gas was presented to, and approved by, the Air Pollution Control Board on May 18, 2016.

<sup>15</sup> The TAC emissions from the combustion of natural gas are considered *de minimis* by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.  
[Regulation 5.21, section 2.7]

**d. Hazardous Air Pollutants**

- i. The owner or operator shall furnish an Initial Notification as specified in 40 CFR 63.9(b)(2)(i) through (v), including a statement that the new stationary turbine has no additional emission limitation requirements, and explain the basis of the exclusion.<sup>16</sup>  
[40 CFR 63.6145]
- ii. The owner or operator need not comply with any other requirement of 40 CFR 63, subpart YYYYY until EPA takes final action to require compliance and publishes a document in the Federal Register.  
[40 CFR 63.6095(d)]

**S2. Monitoring and Recordkeeping**

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

**a. Nitrogen Oxides**

- i. The owner or operator shall continuously monitor the appropriate parameters to determine whether the lean premix stationary turbine is operating in the SoLoNO<sub>x</sub> mode.  
[40 CFR 60.334 (f)(2)]
- ii. The owner or operator shall develop and keep on-site a parameter monitoring-plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emissions controls. The plan shall include the parameter(s) monitored and the acceptable ranges(s) of the parameter(s) as well as the basis for designating the parameters(s) and acceptable range(s).  
[40 CFR 60.334(g)]
- iii. The owner or operator shall maintain records of the operating parameters of this engine as specified in the NO<sub>x</sub> RACT Plan.  
[Regulation 6.42, section 4.3]

**b. Sulfur Dioxide**

The owner or operator shall:

- i. monitor the total sulfur content of the fuel being burned in the turbine;  
[40 CFR 60.334(h)(1)]

OR

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<sup>16</sup> This notification was received by APCD on 12 October 2005.

- ii. provide the following documentation:
  - (1) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; [40 CFR 60.334(h)(3)(i)]
  - OR
  - (2) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. [40 CFR 60.334(h)(3)(ii)]

**c. Toxic Air Contaminants**

There are no monitoring or recordkeeping requirements for this pollutant class.

**d. Hazardous Air Pollutants**

There are no monitoring requirements for this pollutant class.<sup>17</sup>

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollution-specific information.

**a. Nitrogen Oxides**

The owner or operator shall report the following semiannually:

- i. Emission Unit ID number and Emission point ID number;
- ii. The beginning and ending date of the reporting period;
- iii. Any deviations from the permit requirements;
- iv. Any reporting elements specified by the applicable NO<sub>x</sub> RACT
- v. The owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c) and APCD Regulation 1.07. [40 CFR 60.334(j)(1)(iv) and Regulation 1.07]

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<sup>17</sup> 40 CFR 63 Subpart YYYYY §63.6095 (d) is a Stay of Standards for gas-fired subcategories. §63.6095 (d) specifies that if the owner or operator starts up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary turbine as defined by the subpart, they must comply with the Initial Notification requirements set forth in §63.6145, but need not comply with any other requirement of this subpart until EPA takes final action to require compliances and publishes a document in the *Federal Register*. The Initial Notification was received by the District on Oct. 12, 2005, stating that the new turbine was initially started on June 14, 2005, and placed into service July 1, 2005.

**b. Sulfur Dioxide**

There are no reporting requirements for this pollutant.

**c. Toxic Air Contaminants**

There are no compliance reporting requirements for these pollutants.

**d. Hazardous Air Pollutants**

There are no compliance reporting requirements for these pollutants.

**S4. Testing**

[Regulation 2.16, section 4.1.9.1.2]

**a. Nitrogen Oxides**

The owner or operator shall comply with all of the requirements of the NO<sub>x</sub>-RACT Plan.

**Emission Unit U25: Cold solvent parts cleaners (IA)****Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1, 2, 3, 4

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E26	Graymills, model PL36-A, nonhalogenated cold solvent parts cleaner, fifteen gallon capacity reservoir (Insignificant)	6.18	N/A	Fugitive
E27	Custom made, non-halogenated cold solvent parts cleaner, two hundred twenty-five gallon capacity reservoir (Insignificant)	6.18	N/A	Fugitive

**Specific Conditions****S1. Standards**

[Regulation 2.16, section 4.1.1]

**a. Volatile Organic Compounds**

[Regulation 6.18, sections 4.1, 4.2, 4.3.2]

- i. The owner or operator shall install, maintain, and operate the control equipment as follows:
  - 1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand.  
[Regulation 6.18, section 4.1.1]
  - 2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be

external if the District determines that an internal type cannot fit into the cleaning system.

[Regulation 6.18, section 4.1.2]

- 3) A permanent, conspicuous label summarizing the operating requirements specified in Specific Condition 1.b. shall be installed on or near the cold cleaner.  
[Regulation 6.18, section 4.1.3]
- 4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner.  
[Regulation 6.18, section 4.1.4]
- 5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner.  
[Regulation 6.18, section 4.1.6]
- 6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks.  
[Regulation 6.18, section 4.1.8]

ii. The owner or operator shall observe at all times the following operating requirements:

[Regulation 6.18, section 4.2]

- 1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
- 2) The solvent level in the cold cleaner shall not exceed the fill line.
- 3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner.
- 4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses
- 5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
- 6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a

- covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities.
- 7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm<sub>Hg</sub> (0.019 psi) measured at 20°C (68°F). [Regulation 6.18, section 4.3.2]

## **S2. Monitoring and Recordkeeping**

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

### **a. Volatile Organic Compounds**

- i. The owner or operator shall maintain records that include the following for each purchase:  
[Regulation 6.18, section 4.4.2]
  - 1) The name and address of the solvent supplier,
  - 2) The date of the purchase,
  - 3) The type of the solvent, and
  - 4) The vapor pressure of the solvent measured in millimeters of mercury at 20°C (68°F).
- ii. The owner or operator shall keep a record of the MSDS for the solvent.

## **S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollution-specific information.

### **a. Volatile Organic Compounds**

There are no routine compliance reporting requirements for this pollutant.

**Emission Unit U26:** Auxiliary air compressor**Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.42	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4.3, 5
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

<b>DISTRICT-ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions (STAR)	All
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1, 2

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E28	Wisconsin, model W41770, Natural Gas-fired 4-cylinder, 4-stroke rich burn, reciprocating engine, rated at 35 bhp, 27 cubic inches per cylinder (1993)	5.01, 5.21, 6.18, 40 CFR 63, Subpart ZZZZ	N/A	S28

## Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Nitrogen Oxides

- i. The owner or operator shall operate the subject emission units in accordance with the most recent NO<sub>x</sub> RACT Plan approved by the Air Pollution Control Board.<sup>18</sup>  
[Regulation 6.42, section 4.3]
- ii. In lieu of periodic oil changes specified in the NO<sub>x</sub> RACT plan, the owner or operator may implement an oil analysis program to extend the specified oil change frequency. This oil analysis must be performed at the same frequency as the oil change specified in 40 CFR 63, Table 2c and must include, at a minimum, these parameters:
  - (1) Total Acid Number; limit of less than three milligrams of potassium hydroxide (KOH) per gram increase from the Total Acid Number measured when the oil was new;
  - (2) Viscosity; limit is a change of no more than 20 percent from the value measured when the oil was new;
  - (3) Water content; limit is no more than 0.5 percent by volume.If any of these limits is exceeded the oil must be changed within two days of receiving the results of the analysis, or, if the engine is not operating, the oil must be changed before commencing operation of the engine.  
[40 CFR 63.6625(j)]

#### b. Toxic Air Contaminants

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>19</sup>  
[Regulations 5.00 and 5.21]
- ii. The owner or operator of a process or process equipment from which a toxic air contaminant is or may be emitted shall provide the utmost care and consideration to prevent the potential harmful effects of the emissions resulting from the process or process equipment. A person shall not allow any process or process equipment to emit a toxic air contaminant in a quantity or duration as to be harmful to the health and welfare of humans,

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18 Amendment 3 of the NO<sub>x</sub> RACT plan for Texas Gas was presented to, and approved by, the Air Pollution Control Board on May 18, 2016.

19 The TAC emissions from the combustion of natural gas are considered *de minimis* by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.  
[Regulation 5.21, section 2.7]

animals, and plants.  
[Regulation 5.01, section 1]

**c. Hazardous Air Pollutants**

The owner or operator must institute the following work practices:<sup>20</sup>  
[40 CFR 63.6602 and Table 2c, element 7.]

- i. Oil change
  - (1) Change the oil and filter annually or every 1440 hours of operation, whichever comes first;
  - OR
  - (2) Institute an oil analysis program as described in 40 CFR 63.6625(j), with the same frequency as specified in S1.c.i.(1).
- ii. Inspect the spark plugs annually or every 1440 hours of operation, whichever comes first, and replace as necessary.
- iii. Inspect all hoses and belts annually or every 1440 hours of operation, whichever comes first, and replace as necessary.
- iv. The owner or operator must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.  
[40 CFR 63.6625(e)(1)]
- v. The owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]

**S2. Monitoring and Recordkeeping**

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

**a. Nitrogen Oxides**

- i. The owner or operator shall record the -monthly hours of operation and the 12-month rolling total hours of operation at the end of each calendar week.
- ii. If the owner or operator has elected to implement the oil analysis program described in S1.a.ii., records of the parameters that are analyzed as part of

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<sup>20</sup> The owner or operator can petition the Administrator for alternative work practices pursuant to 40 CFR 63.6(g).

the program, the results of the analyses, and the oil changes for the engine must be kept. The analysis program must be part of the maintenance plan for the engine.

**b. Toxic Air Contaminants**

There are no monitoring or recordkeeping requirements for these pollutants.

**c. Hazardous Air Pollutants**

The owner or operator must maintain written records of all oil changes; oil analyses; results of inspections of spark plugs, belts and hoses; records of any of these components that were changed for any reason, including required inspections, failure during operation, or as a preventative measure prior to failure; the date of any such inspection, oil change or analysis. In addition, the owner or operator must calculate the cumulative hours of operation since the last inspection and oil change or analysis at the end of each calendar week.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollution-specific information.

**a. Nitrogen Oxides**

The owner or operator shall report the following semiannually:

- i. Emission Unit ID number and Emission point ID number;
- ii. The beginning and ending date of the reporting period;
- iii. Any deviations from the permit requirements;
- iv. Any reporting elements specified by the applicable NO<sub>x</sub> RACT.

**b. Toxic Air Contaminants**

There are no reporting requirements for these pollutants.

**c. Hazardous Air Pollutants**

The owner or operator shall report each instance in which you did not meet each operating limitation in 40 CFR 63, Subpart ZZZZ, Table 2c that applies to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650.

[40 CFR 63.6640(b)]

**Emission Unit U27: Natural Gas-Fired Boilers.****Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
7.06	Reasonable Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	1, 2, 3, 4, 5
40 CFR 63, Subpart DDDDD	National Emissions Standards for Hazardous Air Pollutants for Industrial Boilers and Process Heaters	§63.7500

<b>Permitted Equipment</b>				
<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E29	“Turbine” boiler, to heat fuel gas for turbine compressor. Model PH1670 by LAARS; 1.67 MMBtu/hr (2005)	7.06, 40 CFR 63, Subpart DDDDD	N/A	S29
E30	“Recip” boiler, to heat fuel gas for RICE engines, Model 211A-12-SP-I-LHL by Peerless; 2.31 MMBtu/hr (2008)	7.06, 40 CFR 63, Subpart DDDDD	N/A	S30

**Specific Conditions****S1. Standards**

[Regulation 2.16, section 4.1.1]

**a. Particulate Matter**

The owner or operator shall not allow the emission of particulate matter into the atmosphere at a rate greater than 0.56 pounds per million British thermal units (lb/MMBtu) of actual heat input from either of the boilers that comprise this emission unit.

[Regulation 7.06, section 4.1.1]

**b. Opacity**

The owner or operator shall not allow the opacity of any emissions from either of the boilers that comprise this emission unit to exceed 20%, except that:  
[Regulation 7.06, section 4.2]

- i. Emissions of up to 40% opacity are permissible for not more than two consecutive minutes in any period of 60 consecutive minutes;
- ii. Opacity of any amount is allowed while bringing the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendation.

**c. Sulfur Dioxide**

The owner or operator shall not allow the emission of sulfur dioxide into the atmosphere at a rate greater than 1.0 pounds per million British thermal units (lb/MMBtu) of actual heat input from either of the boilers that comprise this emission unit.

[Regulation 7.06, section 4.1.1]

**d. Hazardous Air Pollutants**

- i. The owner or operator must perform a one-time energy assessment for both boilers.<sup>21</sup> [40 CFR 63.7510(e)]
- ii. The owner or operator must complete an initial boiler tune-up on each boiler.<sup>22</sup> [40 CFR 63.7510(e)] This tune-up must be repeated every five years. [40 CFR 63.7540(a)(12)] Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. [40 CFR 63.7515(d)] The tune-up must consider, at a minimum, the following elements:  
[40 CFR 63.7540(a)(10)]
  - (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown);
  - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
  - (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available;
  - (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after

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21 This one-time energy assessment was completed by the required deadline and notification sent to the U.S. EPA on March 23, 2016.

22 The initial tune-up was completed on December 3, 2015 and notification sent to the US-EPA on March 23, 2016.

the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

- iii. If an emission unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.  
[40 CFR 63.7540(a)(13)]

## **S2. Monitoring and Recordkeeping**

[Regulation 2.16, section 4.1.9.1]

Records of all required monitoring data and support information shall be retained for a period of five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

### **a. Particulate Matter**

There are no monitoring or recordkeeping requirements for this pollutant.

### **b. Opacity**

There are no monitoring or recordkeeping requirements for this standard.

### **c. Sulfur Dioxide**

There are no monitoring or recordkeeping requirements for this pollutant.

### **d. Hazardous Air Pollutants**

- i. The owner or operator shall keep a copy of each notification and report that you submitted to comply with this 40 CFR 63, Subpart DDDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).  
[40 CFR 63.7555(a)(1)]
- ii. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).  
[40 CFR 63.7560(a)]
- iii. As specified in 40 CFR 63.10(b)(1), the owner or operator shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.  
[40 CFR 63.7560(b)]
- iv. The owner or operator shall keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance,

corrective action, report, or record, according to 40 CFR 63.10(b)(1). The owner or operator may keep the records off site for the remaining 3 years.  
[40 CFR 63.7560(c)]

### **S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that meet the requirements of General Condition 14 and include the following pollution-specific information.

#### **a. Particulate Matter**

There are no compliance reporting requirements for this pollutant.

#### **b. Opacity**

There are no compliance reporting requirements for this standard.

#### **c. Sulfur Dioxide**

There are no compliance reporting requirements for this pollutant.

#### **d. Hazardous Air Pollutants**

- i. The owner or operator shall include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to 40 CFR 63, Subpart DDDDD, Table 3 and is an accurate depiction of your facility at the time of the assessment.  
[40 CFR 63.7530(e)]
- ii. The owner or operator shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the following requirements in 40 CFR 63.7545(e) before the close of business on the 60th day following the completion of all initial compliance demonstrations.  
[40 CFR 63.7530(f) and 63.7545(e)]
  - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and a description of the fuel(s) burned.  
[40 CFR 63.7545(e)(1)]
  - b. A signed certification that you have met all applicable emission limits and work practice standards.  
[40 CFR 63.7545(e)(6)]
  - c. If you had a deviation from any work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.  
[40 CFR 63.7545(e)(7)]

- d. In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:  
[40 CFR 63.7545(e)(8)]
  - 1. “This facility complies with the required initial tune-up according to the procedures in §63.7540(a)(10)(i) through (vi).”
  - 2. “This facility has had an energy assessment performed according to §63.7530(e).”
- iii. The owner or operator shall submit a compliance report every 5 years according to the requirements in 40 CFR 63.7550(b).  
[40 CFR 63.7550(a)]
- iv. Each 5-year compliance report shall be postmarked or submitted no later than January 31.
- v. The compliance report shall include the following information required in 40 CFR 63.7550(c)(5)(i) through (c)(5)(iv) and (xiv).  
[40 CFR 63, Subpart DDDDD, Table 9, item 1.a. and 40 CFR 63.7550(c)(1)]
  - a. Company and Facility name and address.
  - b. Process unit information and operating parameter limitations.
  - c. Date of report and beginning and ending dates of the reporting period.
  - d. The total operating time during the reporting period.
  - e. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to §63.7540(a) (12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
- vi. If you have a deviation from a work practice standard during the reporting period, the report must contain the information in 40 CFR 63.7550(d).  
[40 CFR 63, Subpart DDDDD, Table 9, item 1.b.]

### **Permit Shield**

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

### **Off-Permit Documents**

There are no off-permit documents associated with this Title V permit.

### **Alternative Operating Scenario**

There is no Alternative Operating Scenario associated with this Title V permit.

### **Compliance Assurance Monitoring**

Texas Gas Transmission, LLC is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*, since each emission point has no supplementary control device for NO<sub>x</sub> or CO emissions for which the company is a major source and each emission point is not capable of exceeding the standard for NO<sub>x</sub> and CO.

### Insignificant Activities

Equipment	Potential To Emit (tons/yr)	Basis for Exemption
Brazing, soldering or welding	PM/PM <sub>10</sub> : 0.006	Regulation 1.02, A3.4
Emergency relief vents	Note #8	Regulation 1.02, A3.10
Gasoline storage tank < 250 gal (TK09, 220 gal, installed 1979)	VOC: 0.1454	Regulation 1.02, A3.23
Pipeline distillate storage tank, (TK15, 4,400 gal, installed 1996) [Formerly U16-E20]	VOC: 0.0282	Regulation 1.02, A3.9.2
Diesel fuel storage tank (TK06, 300 gal, installed 1974)	VOC: 10 <sup>-4</sup>	Regulation 1.02, A3.9.2
Diesel fuel storage tank (TK07, 300 gal, installed 1974)	VOC: 10 <sup>-4</sup>	Regulation 1.02, A3.9.2
Portable pipeline fluid storage tank (TK11, 165 gal, installed date unknown)	VOC: 2x10 <sup>-3</sup>	Regulation 1.02, A3.24
Waste lubricating oil storage tank (TK12, 575 gal, installed date unknown)	VOC: 5x10 <sup>-6</sup>	Regulation 1.02, A3.9.2
Lubricating oil recovery tank (TK14, 1,615 gal, installed 1953)	VOC: 5x10 <sup>-6</sup>	Regulation 1.02, A3.9.2
Mixed lubricating oil/water storage tank (TK16, 6,000 gal, installed 1998)	VOC: 1.5x10 <sup>-5</sup>	Regulation 1.02, A3.9.2
Mixed lubricating oil/water storage tank with submerged fill pipe (TK21, 135 gal, installed 1999)	VOC: 5x10 <sup>-6</sup>	Regulation 1.02, A3.24
Diesel fuel storage tank (TK24, 50 gal, installed 2009)	VOC: 3.5x10 <sup>-5</sup>	Regulation 1.02, A3.9.2
Combustion sources < 1 MMbtu/hr Heaters for offices, break rooms and warehouse, etc.	CO: 1.84 NOx: 2.52	Regulation 1.02, A1.1
Fugitive emissions from pipeline fittings	VOC: 0.77 HAP: 0.013	Regulation 2.16, section 1.23.1.2

### IA Comments

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
3. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
6. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
7. The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.
8. Emissions from emergency relief valve releases shall be treated as an Upset Condition and notification of the condition and the resulting emissions shall be reported to District as required by Regulation 1.07 and in the annual emissions inventory.

**Non-Emitting Equipment**

<b>Equipment</b>
Ethylene glycol storage tank, split tank, one-half pure ethylene glycol and one-half mixed ethylene glycol (TK20, 4000 gal, installed 1999) [Formerly U16-E17]
Mixed ethylene glycol overflow storage tank for RICE surge tanks, with submerged fill pipe (TK22, 310 gal, installed 1999) [Formerly U16-E18]
Ethylene glycol maintenance storage tank, capacity 955 gallons (TK23, installed 2000) [Formerly U16-E19]

This equipment has been determined to have criteria pollutant emissions of less than 0.01 tons per year and HAP emissions of less than 0.01 pounds per year.

Emissions from equipment listed in this list need not be reported in the annual Emission Inventory submitted for this facility.

### Attachment A - NOx RACT Plan - Amendment 3

#### Reciprocating Engines E1-E9 (U1 and U2)

1. The oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emissions from each engine shall not exceed 3 grams per brake-horsepower-hour (g/bhp-hr).  
[Regulation 6.42, section 4.3]
2. Existing Lean Emission Combustion (LEC) equipment modifications to the engines, completed in October 2002 under construction permit 68-01-C, shall remain in place.  
[Regulation 6.42, section 4.3]
3. For each engine, the following parameters shall be monitored continuously on a real time basis, but no regular interval recording shall be required. Engines will continue to be properly maintained and operated based on monitored parameters. Texas Gas shall record all periods when the required information in this Condition was not available, the reason for the loss of data, and any corrective actions taken to resolve the problem. Each record shall be maintained for a minimum of 5 years and made available upon request.
  - a. Engine speed,
  - b. Engine load,
  - c. Fuel gas flow,
  - d. Air manifold temperature,
  - e. Air manifold pressure,
  - f. Ignition timing,

#### Turbine Engine E22 (U21)

4. The oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emissions from the turbine shall not exceed 37.5 parts per million by volume on a dry gas basis corrected to 15% O<sub>2</sub>, based on a one hour average.  
[Regulation 6.42]
5. The turbine shall not discharge any gases into the atmosphere which contain nitrogen oxides in excess of 197 parts per million by volume on a dry gas basis corrected to 15% O<sub>2</sub>, based on a one hour average.  
[40 CFR 60.332 (a) (2)]
6. Texas Gas shall record all periods of time when the turbine is not operating in the SoLoNO<sub>x</sub> mode, and startup and shutdown time periods. Each record shall be maintained for a minimum of 5 years and made available upon request.
7. The owner or operator shall continuously monitor the appropriate parameters to determine whether the lean premix stationary turbine is operating in the SoLoNO<sub>x</sub> mode.  
[40 CFR 60.334 (f)(2)]
8. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NO<sub>x</sub> emissions controls. The plan shall include

the parameter(s) monitored and the acceptable ranges(s) of the parameter(s) as well as the basis for designating the parameters(s) and acceptable range(s).

[40 CFR 60.334(g)]

### **Emergency Generator Engine E20 (U21)**

9. The oxides of nitrogen (NO<sub>x</sub> expressed as NO<sub>2</sub>) emissions from this engine shall not exceed 2.6 grams per brake horsepower-hour<sup>1</sup>.  
[Regulation 6.42, section 4.3]
10. Texas Gas shall record the monthly hours of operation. The twelve-consecutive-month period total hours of operation shall be calculated and recorded each month. These records shall be maintained for a minimum of 5 years and made available upon request.

### **Auxiliary Air Compressor E28 (U26)**

11. This engine shall be operated in accordance with the work practice standards set forth in 40 CFR 63, Subpart ZZZZ:  
[40 CFR 63.6602 and Table 2c, element 7]
  - a. Minimize the engine's time spent at idle;
  - b. Minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes;
  - c. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;<sup>2</sup>
  - d. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;
  - e. Inspect all hoses and belts every 1440 hours of operation or annually, whichever comes first, and replace as necessary.
12. The oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emissions from each engine shall not exceed 2.21 lb/MMBtu.  
[Regulation 6.42, section 4.3.2]
13. The owner or operator shall limit the operation of the standby generator to one thousand hours in any twelve-consecutive-month period.  
[Regulation 6.42, section 4.3.1]
14. Texas Gas shall record the monthly operating hours of operation and the cumulative hours of operation since the last engine servicing required by 40 CFR 63.6602 and Table 2c. These records shall be maintained for a minimum of 5 years and made available upon request.

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<sup>1</sup> This emission limit is provided as a manufacturer's guarantee.

<sup>2</sup> Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement.

**Periodic Testing Requirements**

15. Texas Gas shall conduct NO<sub>x</sub> performance tests for the equipment identified in this Condition according to the following schedule:
  - a. Reciprocating Compressor Engines E1 – E9
    - i. Each of the engines E1-E9 must be tested periodically according to the procedures specified in Condition 16 of this Plan. These tests must be repeated for each engine at an interval of not more than 72 calendar months since the last test that demonstrated compliance with the standards set forth in Conditions 1 and 2 of this Plan. Any engine that has exceeded the 72-month test limit shall not be operated for normal pipeline operations until testing that demonstrates compliance with the established standards has been demonstrated. Operation of such an engine beyond the 72-month testing window for purposes of compliance testing shall be allowed.
    - ii. If any engine E1 - E9 does not demonstrate compliance with the standards set forth in Conditions 1 and 2 of this plan at any time, that engine shall be taken out of service until maintenance intended to bring the engine back into compliance with the relevant standards has been performed. Any such non-compliant engine shall be re-tested and must demonstrate compliance with the established standards before it may be operated in normal pipeline operations. A second compliance test shall be performed within 15 calendar months of the first test. After satisfactory completion of two consecutive annual tests, Texas Gas may resume testing of the engine on a 72-month cycle as described in Condition 15.a.i.
    - iii. If any of the engines E1 – E9 undergone a major power-side overhaul it shall not be operated during the ozone season until performance testing as described in Condition 16 of this plan has been successfully completed. (A ‘major power-side overhaul’ shall be defined as the removal of all power heads for diagnostic and/or maintenance purposes.)
  - b. Turbine Compressor E22
    - i. The turbine E22 must be tested periodically according to the procedures specified in Condition 16 of this Plan. These tests must be repeated at an interval of not more than 72 calendar months since the last test that demonstrated compliance with the standards set forth in Conditions 4 and 5 of this Plan. If the turbine has exceed the 72-month test limit it shall not be operated for normal pipeline operations until testing that demonstrates compliance with the established standards has been demonstrated. Operation of the turbine beyond the 72-month test window for purposes of compliance testing shall be allowed.
    - ii. If the turbine E22 does not demonstrate compliance with the standard set forth in Conditions 4 and 5 of this plan at any time, the turbine shall be taken out of service until maintenance intended to bring the turbine back into compliance with the relevant standards has been performed. The turbine shall be re-tested and must demonstrate compliance with the established standards before it may be operated in normal pipeline operations. A second compliance test shall be performed within 15 calendar months of the first test. After satisfactory completion of two consecutive annual tests, Texas Gas may resume testing of the turbine on a 72-month cycle as described in Condition 15.b.i.
    - iii. If the turbine E22 has been disassembled for maintenance operations it shall not be operated during the ozone season until performance testing as described in Condition 16 of this plan has been successfully completed.
16. Performance testing shall meet the following requirements:
  - a. Emissions concentrations and the mass determinations shall be obtained using Reference Methods of 40 CFR Part 60 Appendix A. The following methods shall be used:
    - i. Method 1 or 1A, which furnishes guidance in site and traverse selection for sampling velocity at traverse points in stationary sources,

- ii. Method 2, 2A, 2B, 2C, 2D, 2E, 2F, 2G, or 2H, which applies to measurements of gas volumetric flow rates,
  - iii. Method 3, 3A, 3B, or 3C, which is applicable for determining the concentrations of one or more of the following gases: carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), carbon monoxide (CO), nitrogen, and methane,
  - iv. Method 4, which determines the moisture content in stack gases, and
  - v. Method 7, 7A, 7B, 7C, 7D, or 7E, which provides the analytical method for determining the concentration of NO<sub>x</sub> emissions from stationary sources.
  - vi. Method 19, which is acceptable for determine the exhaust flow rate.
- b. The use of other Reference Methods that are added to 40 CFR Part 60 Appendix A, alternative tests, or modifications to the Reference Methods listed in NO<sub>x</sub> RACT Plan paragraph 13(a) may be proposed by Texas Gas as part of the testing protocol required by paragraph 13(d). Such methods may be used if approved in writing by the Louisville Metro Air Pollution Control District (District).
  - c. Performance testing shall meet the requirements of Regulation 1.04 *Performance Tests* that are not addressed in this Condition. All testing shall be conducted at 90% or greater of the maximum rated heat input capacity of the equipment.
  - d. A test protocol shall be submitted to the District at least 25 working days in advance of the projected starting date for the performance test. The protocol shall include the proposed test methods to be used.
  - e. If a pre-test conference to discuss the proposed test methods is deemed necessary by the District, a pre-test conference shall be arranged by District personnel.
  - f. At least 10 working days' prior notice of the scheduled starting date for the performance test shall be provided to the District.
  - g. A performance test report shall be submitted to the District within 60 days of completion of performance testing. The report shall include the calculations used to determine emissions. The NO<sub>x</sub> emission rate for each engine E1 – E9 for which performance testing is required in paragraph 12(a), (b), and (e) shall be expressed in pounds-per-hour and grams-per-brake-horsepower-hour. The NO<sub>x</sub> emission rate for the turbine E22 shall be expressed in parts-per-million by volume on a dry gas basis, corrected to 15% O<sub>2</sub> when testing is required by Condition 12(c), (d), or (e). The raw data shall be retained by Texas Gas for a minimum of 12 years and made available upon request. Selected portions of the raw data used to calculate the emissions shall be included in the report in a format provided by the District.

## Reporting Requirements

17. Texas Gas shall keep a record identifying all deviations from the requirements of this NO<sub>x</sub> RACT Plan and shall submit to the District a written report of all deviations that occurred during the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period. The report shall contain the following information:
  - a. The equipment designation;
  - b. The beginning and ending date of the reporting period;
  - c. The cumulative operating hours since the last performance test and the date of that test for each engine;
  - d. Identification of all periods during which a deviation occurred, including the loss of data as required by paragraphs 3, 7, 10, and 14;
  - e. A description, including the magnitude, of the deviation;

- f. If known, the cause of the deviation;
- g. A description of all corrective actions taken to abate the deviation.

### Modification to NO<sub>x</sub> RACT Plan

18. In lieu of the requirements in this NO<sub>x</sub> RACT Plan, Texas Gas may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, record keeping, or reporting, provided the following conditions are met:
- a. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16 *Title V Operating Permits*,
  - b. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as grams per brake horsepower-hour,
  - c. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either:
    - i. If the public comment period preceded the EPA review period, then the District had transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or
    - ii. If the EPA and public comment periods ran concurrently, then the District had transmitted any public comments concerning the alternative requirements to EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of this NO<sub>x</sub> RACT Plan.

History:	Approved:	11-8-1999;	effective 1-1-2000:
	amended:	a1/12-20-2000;	effective 01-01-2001;
		a2/06-17-2009;	effective 06-17-2009;
		a2(R1)/10-20-2010	effective 10-20-2010;
	a3/05-18-2016	effective 05-18-2016	

## Attachment B - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

1. Facility name, location, and ID #;
2. Responsible Official and environmental contact names;
3. Permit numbers that are requiring the test to be conducted;
4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
5. Alternative test methods or description of modifications to the test methods to be used;
6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
8. Maximum rated production capacity of the system;
9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
10. Method to be used for determining rate of production during the performance test;
11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
12. Description of normal operation cycles;
13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
14. Process flow diagram;
15. The type and manufacturer of the control equipment, if any;
16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance;
17. How quality assurance and accuracy of the data will be maintained, including;
  - o Sample identification and chain-of-custody procedures
  - o If audit samples are required for this test method, audit sample provider and number of audit samples to be used
18. Pipe, duct, stack, or flue diameter to be tested;
19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
  - o Method 1 if stack diameter is >12"
  - o Method 1a if stack diameter is greater than or equal to 4" and less than 12"
  - o Alternate method of determination for <4"
  - o If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
21. The Stack Test Review fee shall be submitted with each stack test protocol.