



MAR 2 3 2018

Mr. Gregory Clark Lodi Gas Storage LLC PO Box 230 Acampo, CA 95220-0230

Re: Notice of Preliminary Decision – Title V Permit Renewal

Facility Number: N-4238 Project Number: N-1163204

Dear Mr. Clark:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Lodi Gas Storage LLC at 23265 N State Route 99 in Acampo, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the renewed Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely.

Ainaud Mariollet

Director of Permit Services

Enclosures

Tung Le, CARB (w/enclosure) via email CC:

CC: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin

Executive Director/Air Pollution Control Officer

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Proposed Title V Permit Renewal Evaluation Lodi Gas Storage LLC N-4238

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TITLE V PERMIT RENEWAL EVALUATION

Natural Gas Storage Operation

Engineer: Derek Fukuda

Date: March 21, 2018

Facility Number: N-4238

Facility Name: Lodi Gas Storage LLC

Mailing Address: PO Box 230

Acampo, CA 95220-0230

Contact Name: Gregory Clark

Phone: (209) 368-9277 x-21
Email: gclark@lodistorage.com

Responsible Official: Robert Russell

Title: Vice President, Field Operations

Project #: N-1163204

Deemed Complete: December 15, 2016

I. PROPOSAL

Lodi Gas Storage LLC was issued a Title V permit on September 30, 2012. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

II. FACILITY LOCATION

Lodi Gas Storage LLC is located at 23265 N State Route 99 in Acampo.

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit Templates:

A. Template SJV-UM-0-3 Facility Wide Umbrella

The applicant has requested to utilize template No. SJV-UM-0-3, <u>Facility Wide Umbrella</u>. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

Certain segments of the proposed Renewed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA or public review.

Conditions 1 through 40 of the requirements for permit unit N-4238-0-2.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated or Evaluated

- District Rule 2020, <u>Exemptions</u> (amended December 20, 2007 ⇒ amended December 18, 2014)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended December 18, 2008 ⇒ amended February 18, 2016)
- District Rule 2520, <u>Federally Enforceable Operating Permits</u> (amended June 21, 2001)
- District Rule 4702, <u>Internal Combustion Engines</u> (amended August 18, 2011 ⇒ amended November 14, 2013)
- 40 CFR Part 63, Subpart ZZZZ, <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u> (amended February 27, 2014)
- 40 CFR Part 64, <u>Compliance Assurance Monitoring</u> (adopted October 22, 1997)
- 40 CFR Part 82, Subpart B, <u>Servicing of Motor Vehicle Air Conditioners</u> (amended June 25, 2013)
- 40 CFR Part 82, Subpart F, <u>Recycling and Emission Reduction</u> (amended June 18, 2008 ⇒ amended April 10, 2015)

B. Rules Removed

There are no applicable rules that were removed since the last Title V renewal.

C. Rules Added

• District Rule 2410, <u>Prevention of Significant Deterioration</u> (Adopted June 16, 2011)

D. Rules Not Updated

- District Rule 1081, Source Sampling (amended December 17, 1992)
- District Rule 1100, Equipment Breakdown (amended December 17,1992)

- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2031, <u>Transfer of Permits</u> (amended December 17, 1992)
- District Rule 2040, <u>Applications</u> (amended December 17, 1992)
- District Rule 2070, <u>Standards for Granting Applications</u> (amended December 17, 1992)
- District Rule 2080, <u>Conditional Approval</u> (amended December 17, 1992)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4201, <u>Particulate Matter Concentration</u> (amended December 17, 1992)
- District Rule 4311, <u>Flares</u> (amended June 18, 2009)
- District Rule 4408, <u>Glycol Dehydration Systems</u> (adopted December 19, 2002)
- District Rule 4601, <u>Architectural Coatings</u> (amended December 17, 2009)
- District Rule 4701, <u>Internal Combustion Engines Phase 1</u> (amended August 21, 2003)
- District Rule 4801, <u>Sulfur Compounds</u> (Non-SIP replacement for San Joaquin County Rule 407) (amended December 17, 1992)
- District Rule 8011, <u>Fugitive Dust General Requirements</u> (amended August 19, 2004)
- District Rule 8021, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Construction, Demolition, Excavation, and Extraction Activities</u> (amended August 19, 2004)
- District Rule 8031, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Handling and Storage of Bulk Materials</u> (amended August 19, 2004)

- District Rule 8041, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Carryout and Trackout</u> (amended August 19, 2004)
- District Rule 8051, <u>Fugitive Dust Requirements for Control of Fine</u>
 Particulate Matter (PM10) from Open Area (amended August 19, 2004)
- District Rule 8061, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Paved and Unpaved Roads</u> (amended August 19, 2004)
- District Rule 8071, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Unpaved Vehicle/Equipment Areas</u> (amended September 16, 2004)
- 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u> (amended July 20, 2004)

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

A. Rules Added/Updated

No rules were added or updated.

B. Rules Not Updated

District Rule 4102, Nuisance (amended December 17, 1992)

The following conditions are based on this rule and are not Federally Enforceable through Title V:

Permit Units	Permit Conditions
N-4238-0-2	42
N-4238-7-3	1
N-4238-8-2	3, 4, and 5
N-4238-9-2	3 and 5

VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit or most recent renewal of the Title V permit.

A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

B. District Rule 2201 - New and Modified Stationary Source Review Rule (NSR)

District Rule 2201 has been amended since this facility's initial Title V permit was issued. However, the requirements of this rule are only triggered at the time the source undergoes a modification. All applicable requirements from any NSR permit actions have already been incorporated into the current Title V permit.

C. District Rule 2410 - Prevention of Significant Deterioration (PSD)

District Rule 2410 has been newly adopted since this facility's initial Title V permit was issued. However, the requirements of this rule are only triggered at the time the source undergoes a modification. This source has never been subject to this rule, therefore there are no PSD permit applicable requirements to include in the Title V permit.

D. District Rule 2520 - Federally Mandated Operating Permits

No changes to this Rule have occurred since issuance of the previous TV permit; however, greenhouse gas emissions will be addressed under Rule 2520 during this renewal.

Greenhouse Gas Discussion

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

E. District Rule 4702 – Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SOx) from internal combustion engines.

This rule applies to any internal combustion engine rated at 25 brake horsepower or greater. Therefore, the requirements of this rule apply to the four 4,445 bhp natural gas-fired engines (units N-4238-1 through -4) and the one 1,508 bhp natural gas-fired engine (unit N-4238-7) at this facility.

N-4238-1-6 through -4-6 (4,445 bhp natural gas-fired lean burn IC engines powering compressors):

Section 5.1 establishes requirements for engines rated between 25 bhp and 50 bhp. These IC engines are all rated higher than 50 bhp; therefore, the requirements of this section are not applicable to these engines.

Section 5.2 establishes emission requirements for engines rated at greater than 50 bhp. Section 5.2.1 establishes the emission limits for spark ignited engines used in non-Agricultural Operations (AO).

Emission Limits/Standards for a Spark-Ignited Internal Combustion Engine rated at >50 bhp Used Exclusively in Non-AO (All ppmv limits are corrected			
to 15% oxygen on a dry basis.)			
Engine Type	NOx	CO	VOC.
Lean-Burn			
b. All other engines	65 ppmv or 90% reduction	2000 ppmv	750 ppmv

This engine is a rich-burn spark-ignited IC engine. The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Conditions
N-4238-1-6 through -4-6	17, 18, and 19

Section 5.3 specifies requirements for units equipped with continuous emission monitoring systems (CEMS). This engines are not equipped with a CEMS. Therefore, the requirements of this section are not applicable.

Sections 5.4 and 5.5 specify requirements for engines that utilize the percent emission reduction option to comply with the NO_X emission requirements of Section 5.2. These engines do not utilize the percent emission reduction option to comply with the NO_X emission requirements of Section 5.2. Therefore, the requirements of these sections are not applicable.

Section 5.6 specifies requirements for operators that elect to pay an annual fee in lieu of complying with the NO_X emission limits specified in this rule. These engines comply with the NO_X emission limits specified in the rule. Therefore, the annual fee payment requirements of this section are not applicable.

Section 5.7 specifies emission control requirements for sulfur oxides (SO_x). Operators of non-agricultural operation (AO) spark-ignited engines and non-AO compression ignited engines shall comply with one of the following:

- 5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or
- 5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.7.3 Use California Reformulated Gasoline for gasoline-fired spark-ignited engines; or
- 5.7.4. Use California Reformulated Diesel for compression-ignited engines; or

- 5.7.5 Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or
- 5.7.6 Install and properly operate an emission control system that reduces SO_X emissions by at least 95% by weight, as determined by the test method specified in Section 6.4.6.

This engine is operated only on PUC regulated natural gas. The following condition on the draft renewed permits is a mechanism to ensure compliance with the requirement of this section:

Permits	Condition
N-4238-1-6 through -4-6	1

Section 5.8 specifies monitoring requirements for non-AO spark-ignited engines and any engine subject to the alternative emission control plan (AECP) requirements of Section 8.0. These engines are spark-ignited engines that are not used as part of an AO. Therefore, the requirements of this section are applicable to these engines.

Section 5.8.1 requires the operator with an engine equipped with an external control device to either install, operate, and maintain continuous monitoring equipment (CEMs) for NOx, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring consisting of one or more of the following:

- Periodic NO_x and CO emission concentrations,
- Engine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to engine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

While in operation, these engines are required to periodically measure NO_x and CO emissions concentrations (at least once per month). The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirement of this section:

Permits	Conditions
N-4238-1-6 through -4-6	24, 25, and 26

Section 5.8.2 establishes monitoring requirements for all other engines that are not subject to Section 5.8.1 above. As shown above, these engines are subject

to the monitoring requirements of Section 5.8.1 above; therefore, the requirements of Section 5.8.2 are not applicable.

Section 5.8.3 requires that each engine with an alternative monitoring system, submit to, and receive approval from the APCO, adequate verification of the alternative monitoring system's acceptability. These engines utilizes a preapproved alternate emissions monitoring plan that specifies that the permittee perform periodic NO_X , CO, and O_2 emissions concentrations as specified in District Policy SSP-1810. Therefore, the requirements of this section are satisfied.

Section 5.8.4 specifies requirements for engines equipped with an APCO approved CEMS. These engines are not equipped with a CEMS, therefore, the requirements of this section are not applicable.

Section 5.8.5 requires that the APCO approve the data gathering and retrieval capabilities of an installed monitoring system. These engines are not using an installed monitoring system with a data gathering system. Therefore, the requirements of this section are not applicable.

Section 5.8.6 requires an engine operator to install and operate a nonresettable elapsed time meter. In lieu of installing a nonresettable time meter, the owner or operator may use an alternative device, method, or technique in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

The following condition on the draft renewed permits are a mechanism to ensure compliance with the requirements of these sections:

Permits	Condition
N-4238-1-6 through -4-6	2

Section 5.8.7 requires that for each engine, the permittee implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5.

The following condition on the draft renewed permits are a mechanism to ensure compliance with the requirements of these sections:

Permits	Condition
N-4238-1-6 through -4-6	27

Section 5.8.8 requires that for each engine, collect data through the I & M plan in a form approved by the APCO. This facility is required to maintain records of their alternate monitoring and source test results. In addition, they are also required to track and maintenance or modifications performed on the engine. The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of these sections:

Permits	Conditions
N-4238-1-6 through -4-6	39 and 40

Section 5.8.9 requires that a portable NO_x analyzer be used to take NO_x emission readings to verify compliance with the emission requirements of Section 5.2 during each calendar quarter in which a source test is not performed and the engine is operated.

The following condition on the draft renewed permits are a mechanism to ensure compliance with the requirements of these sections:

Permits	Condition
N-4238-1-6 through -4-6	26

Section 5.8.10 requires that the APCO shall not approve an alternative monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits. The operator shall source test over the proposed range of surrogate operating parameters to demonstrate compliance with the applicable emission standards. These engines follows a pre-approved alternate monitoring scheme where the NOx, CO and O2 levels are directly measured using a District approved portable analyzer at least once per month the engines operate. This alternate monitoring scheme does not require a range to be established for specific emissions-related performance indicators to be established. Therefore, the requirements of this section are not applicable.

Section 5.8.11 specifies requirements for engines that are subject to Section 8.0 (compliance for engine groupings). This facility has not proposed to include these engines in a group; therefore, they are not subject to the requirements of Section 8.0 and the requirements of this section are not applicable.

Section 5.9 establishes monitoring requirements for all other engines that are not subject to Section 5.8 above. As shown above, these engines are subject to the monitoring requirements of Section 5.8 above; therefore, the requirements of Section 5.9 are not applicable.

Section 6.1 establishes requirements for emission control plans for each engine. The engines in this project are already subject to, and complying with, the requirements of this rule. Therefore, the emission control plan requirements are not applicable at this time.

Section 6.2 requires that the owner of an engine subject to the requirements of Section 5.2 shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine-operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.

The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Condition
N-4238-1-6 through	-4-6 40

Section 6.3 establishes the source testing requirements. Engines retrofitted with exhaust control devices must comply with Sections 6.3.2 through 6.3.4

Section 6.3.2 requires that engines demonstrate compliance with the applicable limits, ppmv or percent reduction, in accordance with the test methods in Section 6.4, as specified below:

- 6.3.2.1 At least once every 24 months, except for an engine subject to Section 6.3.2.2.
- 6.3.2.2 At least once every 60 months, for an AO spark-ignited engine that has been retro-fitted with a catalytic emission control device.
- 6.3.2.3 A portable NO_X analyzer may be used to show initial compliance with the applicable limits/standards in Section 5.2 for AO sparkignited engines, provided the criteria specified in Sections 6.3.2.3.1 to 6.3.2.3.5 are met, and a source test is conducted in accordance with Section 6.3.2 within 12 months from the required compliance date.

These engines are spark-ignited, have been retro-fitted with a catalytic emission control device, and are not used as a part of an AO operation. The following condition on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Condition
N-4238-1-6 through -4-6	30

Section 6.3.3 requires that emissions source testing be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the permit. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppm, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported.

The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Condition	
N-4238-1-6 through -4-6	34	

Section 6.3.4 requires that in addition to other information, the source test protocol shall describe what critical parameters will be measured and how the appropriate range of these parameters shall be established. The range for these parameters shall be incorporated into the I & M plan. As discussed above, these engines are not following an alternate monitoring scheme which requires parameters to be established during the source test. Therefore, the requirements of this section are not applicable.

Section 6.3.5 states that engines that are limited by permit condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions. These engines are required to fired solely on PUC regulated natural gas. Therefore, these engines are not subject to the reoccurring source test requirements for VOC emissions. The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Condition	
N-4238-1-6 through -4-6	1	

Section 6.3.6 specifies requirements for representative source testing of groups of identical engines. The facility has not proposed representative source testing requirements for the engines at their facility; therefore, the requirements of this section are not applicable.

Section 6.4 requires that the compliance with the requirements of Section 5.2 shall be determined in accordance with the following test procedures or any other method approved by EPA and the APCO:

- Oxides of nitrogen EPA Method 7E, or ARB Method 100.
- Carbon monoxide EPA Method 10, or ARB Method 100.
- Stack gas oxygen EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test.
- Operating horsepower determination any method approved by EPA and the APCO.
- Oxides of sulfur EPA Method 6C or 8, or ARB Method 100.

The following condition on the draft renewed permits are a mechanism to ensure compliance with the requirements of this section:

Permits	Condition		
N-4238-1-6 through -4-6	35		

Section 6.5 requires that the operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. These engines have an existing I & M plan that was approved by the District. The following conditions on the draft renewed permits are a mechanism to ensure compliance with the requirements of these sections:

Permits	Condition	
N-4238-1-6 through -4-6	27	

N-4238-7-3 (1,508 bhp natural gas-fired emergency standby IC engine):

Pursuant to Section 4.2, except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter.

Section 5.9 requires the owner to:

- Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
- Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
- Install and operate a nonresettable elapsed operating time meter. In lieu
 of installing a nonresettable time meter, the owner of an engine may use
 an alternative device, method, or technique, in determining operating
 time provided that the alternative is approved by the APCO and is
 allowed by Permit-to-Operate or Permit-Exempt Equipment Registration
 condition. The owner of the engine shall properly maintain and operate
 the time meter or alternative device in accordance with the
 manufacturer's instructions.

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO. The records shall include, but are not limited to, the following:

- Total hours of operation,
- The type of fuel used,
- The purpose for operating the engine,
- For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and
- Other support documentation necessary to demonstrate claim to the exemption.

The following conditions on the draft renewed permit are a mechanism to ensure compliance with the requirements of these sections.

Permit	Conditions	
N-4238-7-3	3, 4, and 9 through 14	

F. 40 CFR Part 63, Subpart ZZZZ – <u>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</u>

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations

N-4238-1-6 through -4-6 (4,445 bhp natural gas-fired lean burn IC engines powering compressors):

The existing 4,445 bhp natural gas-fired engines powering compressors (units N-4238-1-6 through -4-6) were shown to meet compliance with the requirements of this subpart in the initial TV project and later updated in ATC project N-1132438. Since that time, some sections of this subpart have been amended. However, the sections which were amended do not affect any of the conditions on these permits. Therefore, a full breakdown of the requirements of this subpart for units N-4238-1-6 through -4-6 will not be included in this evaluation.

The following conditions were taken from the current permits for these IC engines and have been included on the draft renewed permits as a mechanism to ensure continued compliance with the requirements of this subpart.

Permits	Conditions		
N-4238-1-6 through -4-6	4 through 14, and 41		

N-4238-7-3 (1,508 bhp natural gas-fired emergency standby IC engine):

A compliance determination for the existing 1,508 bhp natural gas-fired emergency standby engine powering an electrical generator (unit N-4238-7-6) has not performed; therefore, this engine will be evaluated below.

Emergency engines are subject to this subpart if they are operated at a major or area source of Hazardous Air Pollutant (HAP) emissions. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAPs is a facility that is not a major source of HAPs.

Pursuant to section 63.6603(c)(1), a new or reconstructed (commenced construction/reconstruction on or after June 12, 2006) stationary engine located at an area source must meet the requirements of this subpart by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this subpart.

Pursuant to section 63.6603(a), the owner or operator of an existing (commenced construction/reconstruction prior to June 12, 2006) stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions, must comply with the requirements in Table 2d to this subpart. Pursuant to Table 2d row 4, the following requirements are applicable to emergency stationary CI RICE:

- Change oil and filter every 500 hours of operation or annually, whichever comes first
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

Pursuant to Section 63.6625(e)(3), the owner or operator of an emergency stationary RICE must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop their 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.

Pursuant to Section 63.6625(f), the owner or operator of an existing emergency stationary RICE located at an area source of HAP emissions must install a non-resettable hour meter if one is not already installed.

Pursuant to Section 63.6625(h), 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.

Pursuant to Section 63.6625(i), the owner or operator of an existing emergency stationary RICE located at an area source of HAP emissions may have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the

following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

Pursuant to Section 63.6640(a), the owner or operator of an existing emergency stationary RICE located at an area source of HAP emissions may demonstrate on-going compliance with the requirements of this subpart by operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or developing and following their 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 (Table 6 row 9).

Pursuant to Section 63.6640(f): 1) There is no time limit on the use of emergency stationary RICE in emergency situations; and 2) An emergency stationary RICE may be operated for maintenance checks and readiness testing, emergency demand response, and other non-emergency situations up to a maximum of 100 hours per calendar year.

Pursuant to Section 63.6655(a)(2), the owner or operator must maintain records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control and monitoring equipment.

Pursuant to Section 63.6655(a)(4), the owner or operator must maintain records of all required maintenance performed on the air pollution control and monitoring equipment.

Pursuant to Section 63.6655(a)(5), the owner or operator must maintain records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

Pursuant to Section 63.6655(d), the owner or operator must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to them.

Pursuant to Section 63.6660, the owner or operator must maintain records in a form suitable and readily available for expeditious review, and readily accessible in hard copy or electronic form for at least 5 years.

The following conditions were added to the draft renewed permit as a mechanism to ensure compliance with the requirements of these sections:

Permit	Conditions		
N-4238-7-3	3, 9, and 15 through 20		

F. 40 CFR Part 64 - Compliance Assurance Monitoring (CAM)

40 CFR Part 64 requires Compliance Assurance Monitoring for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

Pollutant	Major Source Threshold (lb/year)
NO _X	20,000
SO _X	140,000
PM ₁₀	140,000
CO	200,000
VOC	20,000

a. N-4238-1-6 through -4-6 – 4,445 bhp Natural Gas-Fired Engines w/ SCR

During the Initial Title V permitting action performed for this facility under project N-1110698, it was determined that these engines were subject to CAM requirements for NO_X and VOC emissions. The engines have been modified since the Initial Title V project was finalized on September 11, 2012; however, none of the modifications effect the CAM applicability or CAM requirements of the engines. Therefore, these units will continue to be subject to the CAM requirements of 40 CFR 64 for NO_X and VOC emissions. The following conditions were taken from the current permits for the IC engines and will be included on the draft renewed permits as a

mechanism to ensure continued compliance with the requirements of this subpart.

Permits	Conditions		
N-4238-1-6 through 4-6	24, 28, 29, 42, 43, and 44		

b. N-4238-5-3 and -6-3 - Natural Gas Dehydration Operations Served by a Thermal Oxidizer

Units N-4238-5-3 and -6-3 are identical units. These units consist of gas dehydration equipment served by a shared thermal oxidizer. The permit contains emission limits for the dehydrating operation (VOC) and for the thermal oxidizer (NOx, SOx, PM₁₀, CO, and VOC). Since the thermal oxidizer is used to control emission from the gas dehydration equipment, it is not subject to CAM requirements. The pre-control annual PE for the gas dehydration operations is calculated below:

Pre-Control Annual PE:

EF VOC (Controlled):

0.0031 lb/MMscf of gas treated

Throughput Limit:

500 MMscf/day

VOC Control:

95%

Pre-Controlled EF = (0.0031 lb-VOC/MMscf) ÷ (1-0.95) = 0.062 lb-VOC/MMscf

Pre-Controlled PE = (500 MMscf/day) x (0.062 lb/MMscf) x (365 days/year) = 11,315 lb-VOC/year

Since the pre-control PE for this unit is below the Major Source threshold for VOC, the CAM requirements of 40 CFR 64 are not applicable to this unit and no further discussion is required.

c. N-4238-7-3 – 1,508 bhp Natural Gas-Fired Emergency Standby Engine w/ 3-way Catalyst

This emergency IC engine generates NOx, CO, VOC, PM_{10} and SO_X emissions. The permit contains emission limits for all of these pollutants, and engine is equipped with a 3-way catalyst, which controls NOx, CO, and VOC emissions. The pre-control annual PE for the engine is calculated on the following page:

Pre-Control Annual PE:

Pre-control PE = PE \div (1 – CE)

	Pre-Control Annual PE					
	EF	bbs	Annual	CF*	CE**	Pre-Control PE
	(g/bhp-hr)	bhp	Hours	(g/lb)	CE	(lb/year)
NOx	1.0	1,508	100	453.6	0.9	3,325
CO	10	1,508	100	453.6	0.8	16,623
VOC	0.1	1,508	100	453.6	0.5	66

^{*} CF = Conversion Factor

Since the pre-control PE for this unit is below the Major Source threshold for NOx, CO, and VOC, the CAM requirements of 40 CFR 64 are not applicable to this unit and no further discussion is required.

d. N-4238-8-2 – Repair and Maintenance Natural Gas Venting Operation

The repair and maintenance natural gas venting operation includes a flare which has the potential to emit NOx, SOx, PM₁₀, CO, and VOC. The permit contains emissions limits for all of these pollutants; however, the flare is not equipped with any add-on emission control device. Therefore, the CAM requirements of 40 CFR 64 are not applicable to this unit and no further discussion is required.

e. N-4238-9-2 - Emergency Gas Venting Operation

The emergency gas venting operation includes a flare which has the potential to emit NOx, SOx, PM10, CO, and VOC. The permit contains emissions limits for all of these pollutants; however, the flare is not equipped with any add-on emission control device. Therefore, the CAM requirements of 40 CFR 64 are not applicable to this unit and no further discussion is required.

G. 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners

The purpose of 40 CFR Part 82 Subpart B is to implement section 609 of the Clean Air Act, as amended regarding the servicing of motor vehicle air conditioners (MVACs), and to implement section 608 of the Clean Air Act regarding certain servicing, maintenance, repair and disposal of air conditioners in MVACs and MVAC-like appliances.

^{**} CE = Control Efficiency of 3-way Catalyst from *Update On Emissions - Form 960*, Second Edition, Waukesha Engine Division, Dresser Industries, October, 1991

These regulations apply to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner.

The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed further in this evaluation.

The following condition on the draft renewed permit is a mechanism to ensure compliance with the requirements of this section:

Permit	Condition
N-4238-0-2	28

H. 40 CFR Part 82, Subpart F – Recycling and Emissions Reductions

The purpose of 40 CFR Part 82 Subpart F is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair, and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

These regulations apply to any person servicing, maintaining, or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed further in this evaluation.

The following condition on the draft renewed permit is a mechanism to ensure compliance with the requirements of this section:

Permit	Condition
N-4238-0-2	27

IX. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

Model General Permit Template SJV-UM-0-3

By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 39 and 40 of the facility-wide requirements (N-4328-0-2).

B. Requirements not Addressed by Model General Permit Templates

The applicant is not requesting any new permit shields within this Title V renewal project. In addition, the applicant is not requesting any changes to the existing permit shields already included in their Title V operating permit. Therefore, all of the existing permit shields will be maintained on the revised permit for this renewal project.

X. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The purpose of the Title V permit renewal is to update the permit to ensure that any changes to regulations since the issuance of the initial Title V permit or most recent renewal of the Title V permit are incorporated as permit requirements.

Per the California Environmental Quality Act (CEQA) Statute §21080.24, and CEQA Guidelines §15281, the issuance, modification, amendment, or renewal of any permit by an air pollution control district or air quality management district pursuant to Title V is exempt from CEQA, unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility. There will be no physical or operational change to the source or facility nor will the Title V permit renewal authorize a physical or operational change to the source or facility. Therefore, this project, a Title V permit renewal, is subject to a ministerial action that is exempt from CEQA.

XI. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

ATTACHMENTS

- A. Draft Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Summary List of Facility Permits

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: N-4238-0-2

EXPIRATION DATE: 06/30/2017

FACILITY-WIDE REQUIREMENTS

- 1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- 4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- 5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
- 6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- 7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- 8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Remit to Oberate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

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- {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

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- 22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
- 30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
- 31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
- 32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
- 33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
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- 34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
- {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation), [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
- 36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements, [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004), A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin November 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

These terms and conditions are the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4238-1-6

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST, POWERING A COMPRESSOR

PERMIT UNIT REQUIREMENTS

- 1. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- 2. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- 3. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 5. Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 6. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 7. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 8. Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 9. An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-1-6: Mar 21 2018 10:01AM - FUKUDAD

- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages, [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC 23265 N STATE ROUTE 99,ACAMPO, CA 95220 Location: 23265 N STATE N-4238-1-6: Mar 21 2018 10:01AM – FUKUDAD

- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-1-6: Mar 21 2018 10:01AM - FUKUDAD

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-4238-2-6

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST, POWERING A COMPRESSOR

PERMIT UNIT REQUIREMENTS

- 1. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- 3. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and 7. shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 8. Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC 23265 N STATE ROUTE 99, ACAMPO, CA 95220 Location:

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC

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- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-2-6: Mar 21 2018 10.00AM - FUKUDAD

PERMIT UNIT: N-4238-3-6

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4.445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST, POWERING A COMPRESSOR

PERMIT UNIT REQUIREMENTS

- 1. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 47021 Federally Enforceable Through Title V Permit
- The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas 3. chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change , requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and 7. shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part-of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC cation: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 Location:

- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-3-6: Mar 21 2018 10:00AM – FUKUDAD

- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

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- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-3-6: Mar 21 2018 10.00AM - FUKUDAD

PERMIT UNIT: N-4238-4-6

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4.445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST, POWERING A COMPRESSOR

PERMIT UNIT REQUIREMENTS

- The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title 1. V Permit
- The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- 3. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and 7. shall be replaced as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702, and 40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMITUAL REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

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- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing, [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmy, corrected to 15% oxygen. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701, and 4702] Federally Enforceable Through Title V
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

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Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220, N-4238-4-6: Mar 21 2018 10:00AM - FUKUDAD

- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 9522 N-4238-4-6: Mar 21 2018 10:00AM - FUKUDAO

PERMIT UNIT: N-4238-5-3

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6

EXPIRATION

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable 3. Through Title V Permit
- The thermal oxidizer shall be equipped with an operational temperature indicator, and the temperature shall be recorded daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit before allowing the contaminated air stream into the thermal oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate at all times when dehydration is taking place. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate in smokeless mode at all times. [District Rule 4408] Federally Enforceable Through 7. Title V Permit
- The thermal oxidizer shall be equipped with an electronically controlled ignition system with a malfunction alarm if 8. the pilot flame fails. [District Rule 4408] Federally Enforceable Through Title V Permit
- The emission control system shall be equipped with a liquid knock-out system to condense any condensible vapors. [District Rule 4408] Federally Enforceable Through Title V Permit
- 10. The thermal oxidizer shall be equipped with sight glass ports if the flame is not otherwise visible. [District Rule 4408] Federally Enforceable Through Title V Permit
- 11. Only glycol shall be used as the dehydration media. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. NOx emissions from the thermal oxidizer shall not exceed 0.06 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. SOx emissions from the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. PM10 emissions from the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part-of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-5-3: Mar 21 2018 10:01AM - FUKUDAD

- 15. CO emissions from the thermal oxidizer shall not exceed 0.2 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. VOC emissions from the thermal oxidizer shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. The combined quantity of natural gas treated by permit units N-4238-5 and N-4238-6 shall not exceed 500 MMdscf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. VOC emissions from the dehydrator/reboiler shall not exceed 0.0031 lb/MMdscf of gas throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. VOC control efficiency of the thermal oxidizer shall be at least 95%. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 20. Source testing to measure the VOC control efficiency of the thermal oxidizer shall be conducted at least once every 24 months. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 21. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 1081] Federally Enforceable Through Title V Permit
- 24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
- 25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 26. VOC emissions from the emission control system shall be determined by using EPA Method 25, 25A, 25B, or 18. Measurement of vapor flow through pipes shall be determined by EPA Methods 2 or 2A. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 27. The VOC control efficiency shall be determined by comparing the measurements of VOC emissions from the uncontrolled glycol dehydration vent with measurements of VOC emissions from the emission control system. For both measurements, the glycol dehydration system shall operate under similar conditions for the following parameters: glycol flow rate, reboiler temperature, gas flow rate, and gas moisture removal efficiency. [District Rule 4408] Federally Enforceable Through Title V Permit
- 28. VOC emissions from glycol dehydration vents shall be determined using the Glycol Material Balance Method described in Section 6.2.1, or tested according to the methods listed in Section 6.2.2 of Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
- 29. The GRI-GLYCalc software, version 3.0 or higher, may be used to determine flow rates in lieu of methods listed in Section 6.2.2.6, 6.2.2.7 and 6.3.1.2 of Rule 4408. APCO and EPA approval must be gained prior to the use of this software. [District Rule 4408] Federally Enforceable Through Title V Permit
- 30. The permittee shall keep a record of the combined amount of natural gas treated by permit units N-4238-5 and N-4238-6, in MMdscf. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 31. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRT-GLYCalc software, if used. [District Rule 4408] Federally Enforceable Through Title V Permit

PERMITUNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-5-3 Mar 21 2018 10:01AM – FUKUDAD

Facility Name: LODI GAS STORAGE LLC

32. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

> These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 952200 N-4238-5-3 : Mar 21 2018 10:01AM – FUKUDAD

PERMIT UNIT: N-4238-6-3

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6

EXPIRATION D

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis 2. over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable 3. Through Title V Permit
- The thermal oxidizer shall be equipped with an operational temperature indicator, and the temperature shall be recorded daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit before allowing the contaminated air stream into the thermal oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate at all times when dehydration is taking place. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate in smokeless mode at all times. [District Rule 4408] Federally Enforceable Through 7. Title V Permit
- The thermal oxidizer shall be equipped with an electronically controlled ignition system with a malfunction alarm if the pilot flame fails. [District Rule 4408] Federally Enforceable Through Title V Permit
- The emission control system shall be equipped with a liquid knock-out system to condense any condensible vapors. [District Rule 4408] Federally Enforceable Through Title V Permit
- 10. The thermal oxidizer shall be equipped with sight glass ports if the flame is not otherwise visible. [District Rule 4408] Federally Enforceable Through Title V Permit
- 11. Only glycol shall be used as the dehydration media. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. NOx emissions from the thermal oxidizer shall not exceed 0.06 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. SOx emissions from the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. PM10 emissions from the thermal oxidizer shall not exceed 00076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part-of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

23265 N STATE ROUTE 99,ACAMPO, CA 95220 Location: 23265 N STATE N-4238-6-3: Mar 21 2018 10:01AM - FUKUDAD

- 15. CO emissions from the thermal oxidizer shall not exceed 0.2 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. VOC emissions from the thermal oxidizer shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. The combined quantity of natural gas treated by permit units N-4238-5 and N-4238-6 shall not exceed 500 MMdscf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. VOC emissions from the dehydrator/reboiler shall not exceed 0.0031 lb/MMdscf of gas throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. VOC control efficiency of the thermal oxidizer shall be at least 95%. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 20. Source testing to measure the VOC control efficiency of the thermal oxidizer shall be conducted at least once every 24 months. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 21. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 1081] Federally Enforceable Through Title V Permit
- 24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
- 25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 26. VOC emissions from the emission control system shall be determined by using EPA Method 25, 25A, 25B, or 18. Measurement of vapor flow through pipes shall be determined by EPA Methods 2 or 2A. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 27. The VOC control efficiency shall be determined by comparing the measurements of VOC emissions from the uncontrolled glycol dehydration vent with measurements of VOC emissions from the emission control system. For both measurements, the glycol dehydration system shall operate under similar conditions for the following parameters: glycol flow rate, reboiler temperature, gas flow rate, and gas moisture removal efficiency. [District Rule 4408] Federally Enforceable Through Title V Permit
- 28. VOC emissions from glycol dehydration vents shall be determined using the Glycol Material Balance Method described in Section 6.2.1, or tested according to the methods listed in Section 6.2.2 of Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
- 29. The GRI-GLYCalc software, version 3.0 or higher, may be used to determine flow rates in lieu of methods listed in Section 6.2.2.6, 6.2.2.7 and 6.3.1.2 of Rule 4408. APCO and EPA approval must be gained prior to the use of this software. [District Rule 4408] Federally Enforceable Through Title V Permit
- 30. The permittee shall keep a record of the combined amount of natural gas treated by permit units N-4238-5 and N-4238-6, in MMdscf. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 31. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRT-GLYCalc software, if used. [District Rule 4408] Federally Enforceable Through Title V Permit

PERMITURE REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

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32. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-6-3: Mar 21 2018 10:01AM – FUKUDAD

PERMIT UNIT: N-4238-7-3

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

1,508 BHP WAUKESHA MODEL VHP7100GSI RICH BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR. THE ENGINE IS SERVED BY A 3-WAY CATALYTIC CONVERTER

PERMIT UNIT REQUIREMENTS

- 1. The exhaust stack height shall be at least 25 feet above ground level. [District Rule 4102]
- 2. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
- 3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, and 40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 4. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 6. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 7. Only PUC-quality natural gas shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Emissions from this IC engine shall not exceed any of the following limits: 1.0 g-NOx/bhp-hr; 10 g-CO/bhp-hr; 0.1 g-VOC/bhp-hr; 0.1 g-PM10/bhp-hr; or 0.0066 g-SOx/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District Rules 2201, 4701, and 4702, and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
- 11. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220

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- 12. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
- 13. The permittee shall maintain monthly records of emergency and non-emergency operation and of the type of fuel used. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 14. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 15. The permittee must collect and submit an annual report including location, dates and times of operation if the engine operates for more than 15 hours and up to 100 hours per year for emergency demand response. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 16. The permittee 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 Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 17. The engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 18. The engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 19. The engine's spark plugs shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 20. The engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220

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PERMIT UNIT: N-4238-8-2

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

REPAIR AND MAINTENANCE NATURAL GAS VENTING OPERATIONS SERVED BY A 1,250 MMBTU/HR FLARE WITH

ONE KALDAIR MODEL I-12-H-VS TIP

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally 1. Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The maintenance flare (N-4238-8) and the emergency flare (N-4238-9) shall not operate simultaneously. The flares shall be equipped with an interlock system that prevents simultaneous operation. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 120,000 scf during any one hour while other fuel burning equipment is operating. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 350,000 scf during any one hour while no other fuel burning equipment is operating. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 371,645 scf during any one day and shall not exceed 624,175 scf during any one calander quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
- The NOx emissions shall not exceed 0.14 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- The CO emissions shall not exceed 0.43 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- The VOC emissions shall not exceed 0.11 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The SOx emissions shall not exceed 0.00285 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The PM10 emissions shall not exceed 0.0075 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. The flare shall operate with smokeless combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. A flame shall be present at all times that combustible gases are being vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
- 14. A pilot flame shall be present at all times that combustible gases are beng vented through the flare or the outlet shall be equipped with an automatic ignition system. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC 23265 N STATE ROUTE 99, ACAMPO, CA 95220 Location:

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- 15. Except for flares equipped with a flow-sensing system, a heat sensing device such as as thermocouple, ultraviolet beam sensor, infrared sensor, capable of continuously detecting at least one pilot flame or the flare flame shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
- 16. Flares that use flow-sensing automatic ignition systems and do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
- 17. Flaring is prohibited unless it is consistent with an approved Flare minimization Plan (FMP). The FMP shall be updated at least once every 5 years. [District Rule 4311, 5.8 and 6.5] Federally Enforceable Through Title V Permit
- 18. Inoperation of the flare monitoring equipment shall not exceed 14 days during any 18-consecutive-month period. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1 and 6.9.2] Federally Enforceable Through Title V Permit
- 19. Periods of flare monitoring system inoperation of greater than 24 continuous hours shall be reported to the District by the following working day, followed by notification of resumption of monitoring. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit
- 20. The permittee shall report unplanned flaring events within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever comes first. The notification shall include the flare source identification, the start date and time and the end date and time. [District Rule 4311, 6.2.1] Federally Enforceable Through Title V Permit
- 21. The permittee shall submit an Annual Monitoring Report in accordance with section 6.2.3 of Rule 4311. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 22. All required monitoring and recording devices shall be maintained in accordance with the applicable manufacturer's specifications. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit
- 23. Vent gas composition monitoring shall be conducted by one of the methods specified in section 6.6 of District Rule 4311 (Flares). [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit
- 24. Volumetric flows of both the pilot gases and purge gases shall be monitored utilizing flow measuring devices or other methods approved by the District or they may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit
- 25. The operator shall monitor and record the water level and pressure of the water seal each day that the flare operates. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit
- 26. The following records shall be kept: (1) a copy of the approved Flare Minimization Plan; (2) a copy of the annual reports that were submitted to the District; (3) vent gas composition records; (4) pilot and purge gas flow records; (5) water seal monitoring records; (6) records of inoperation of the flare monitoring systems. [District Rule 4311, 6.1.5, 6.1.6, and 6.1.7] Federally Enforceable Through Title V Permit
- 27. Records of the hourly, daily, quarterly and annual fuel consumption, in standard cubic feet, shall be kept. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 28. All records shall be maintained, retained on site for a minimum of five years and shall be made available to the District, ARB or EPA upon request. [District Rules 2201, 4102, and 4311, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-8-2: Mar 21 2018 10:01AM – FUKUDAD

PERMIT UNIT: N-4238-9-2

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

EMERGENCY GAS VENTING OPERATION SERVED BY A 5,000 MMBTU/HR FLARE WITH FOUR KALDAIR MODEL I-

12-H-VS TIPS

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally 1. Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis 2. over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The emergency flare (N-4238-9) and the maintenance flare (N-4238-8) shall not operate simultaneously. The flares 3. shall be equipped with an interlock system that prevents simultaneous operation. [District Rule 4102]
- The flare shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- The quantity of natural gas burned for testing and maintenance purposes shall not exceed 120,000 scf during any one hour. [District Rule 4102]
- The quantity of natural gas burned shall not exceed 371,645 scf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. The NOx emissions shall not exceed 0.14 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- The CO emissions shall not exceed 0.43 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through 8. Title V Permit
- The VOC emissions shall not exceed 0.11 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The SOx emissions shall not exceed 0.00285 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The PM10 emissions shall not exceed 0.0075 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. The flare shall operate with smokeless combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. A flame shall be present at all times that combustible gases are being vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
- 14. A pilot flame shall be present at all times that combustible gases are beng vented through the flare or the outlet shall be equipped with an automatic ignition system. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

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- 15. Except for flares equipped with a flow-sensing system, a heat sensing device such as as thermocouple, ultraviolet beam sensor, infrared sensor, capable of continuously detecting at least one pilot flame or the flare flame shall be installed and operated, [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
- 16. Flares that use flow-sensing automatic ignition systems and do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
- 17. Inoperation of the flare monitoring equipment shall not exceed 14 days during any 18-consecutive-month period. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, 6.9.1 and 6.9.2] Federally Enforceable Through Title V Permit
- 18. Periods of flare monitoring system inoperation of greater than 24 continuous hours shall be reported to the District by the following working day, followed by notification of resumption of monitoring. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit
- 19. The permittee shall report unplanned flaring events within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever comes first. The notification shall include the flare source identification, the start date and time and the end date and time. [District Rule 4311, 6.2.1] Federally Enforceable Through Title V Permit
- 20. The permittee shall submit an Annual Monitoring Report in accordance with section 6.2.3 of Rule 4311. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 21. All required monitoring and recording devices shall be maintained in accordance with the applicable manufacturer's specifications. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit
- 22. Vent gas composition monitoring shall be conducted by one of the methods specified in 6.6 of District Rule 4311 (Flares). [District Rule 4311, 6.6] Federally Enforceable Through Title V Permit
- 23. Volumetric flows of both the pilot gases and purge gases shall be monitored utilizing flow measuring devices or other methods approved by the District or they may be calculated based on pilot design and the parameters monitored. [District Rule 4311, 6.7] Federally Enforceable Through Title V Permit
- 24. The operator shall monitor and record the water level and pressure of the water seal each day that the flare operates. [District Rule 4311, 6.8] Federally Enforceable Through Title V Permit
- 25. The following records shall be kept: (1) for emergency operation, the duration of flare operation, amount of fuel burned and the nature of the emergency situation; (2) a copy of the annual reports that were submitted to the District; (3) vent gas composition records; (4) pilot and purge gas flow records; (5) water seal monitoring activities; (6) records of inoperation of the flare monitoring systems; [District Rule 4311, 6.1.3, 6.1.5, 6.1.6, and 6.1.7] Federally Enforceable Through Title V Permit
- 26. Records of the hourly and daily fuel consumption, in standard cubic feet, shall be kept. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 27. All records shall be maintained, retained on site for a minimum of five years and shall be made available to the District, ARB or EPA upon request. [District Rules 2201, 4102, and 4311, 6.1] Federally Enforceable Through Title V Permit

These terms and conditions of the Facility-wide Permit to Operate.

Facility Name: LOD! GAS STORAGE LLC Location:

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ATTACHMENT B

Previous Title V Operating Permit

FACILITY: N-4238-0-1 EXPIRATION DATE: 06/30/2017

FACILITY-WIDE REQUIREMENTS

- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later 1. than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
- A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- 7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: LODI GAS STORAGE LLC

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-0-1: Mar 20 2018 4/05PM - FUKUDAD

- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
- 30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

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- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. On September 30, 2012, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

Facility Name: LODI GAS STORAGE LLC Location:

ocation: 23265 N STATE ROUTE 99,ACAMPO, CA 95220

PERMIT UNIT: N-4238-1-7

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

- 1. The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- 2. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- 3. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 5. Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 6. The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 7. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 8. Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 9. An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-1-7: Mar 20 2018 4:05PM – FUKUDAD

- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmy, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-1-7: Mar 20 2018 4:05PM - FUKUDAD

- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

Facility Name: LODI GAS STORAGE LLC Location:

23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-1-7 : Mar 20 2018 4:05PM -- FUKUDA

PERMIT UNIT: N-4238-2-7

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

- The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- 2. The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas 3. chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 7. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later, [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

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ocation: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 4239-2-7: Mar 20 2018 405PM - FUKUDAD Location:

- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

Facility Name: LODI GAS STORAGE LLC

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- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with \\$63,6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

Facility Name: LODI GAS STORAGE LLC

23265 N STATE ROUTE 99, ACAMPO, CA 95220 Location:

4238-2-7 : Mar 20 2018 4:05PM – FUKUDAD

PERMIT UNIT: N-4238-3-7

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4.445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

- The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 2. 4702] Federally Enforceable Through Title V Permit
- 3. The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 7. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change 8. requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-3-7: Mar 20 2018 4:08PM – FUKUDAD

- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages, [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing, [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

n: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 Location: N-4238-3-7: Ma

- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

Facility Name: LODI GAS STORAGE LLC 23265 N STATE ROUTE 99, ACAMPO, CA 95220 238-3-7 : Mar 20 2018 4:06PM -- FUKUDAD

Location:

PERMIT UNIT: N-4238-4-7

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

4.445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS-FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.

PERMIT UNIT REQUIREMENTS

- The engine shall be fired solely on PUC-quality natural gas. [District Rule 4702] Federally Enforceable Through Title V Permit
- The engine shall be equipped and operated with a properly maintained nonresettable elapsed time meter. [District Rule 4702] Federally Enforceable Through Title V Permit
- The facility shall install and properly maintain a fuel flow meter, a pressure and temperature transmitter and a gas chromatograph for the purpose of monitoring the fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4. [District Rule 2201] Federally Enforceable Through Title V Permit
- The engine shall be in compliance with all applicable requirements of 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine shall change the oil and filter every 2,160 hours of operation or annually, whichever comes first, or utilize the oil analysis program prescribed in this permit to extend this oil change requirement. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- The engine's spark plugs shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 7. The engine's hoses and belts shall be inspected every 2,160 hours of operation or annually, whichever comes first, and shall be replaced as necessary. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- Owners and operators of the engine may utilize an oil analysis program in order to extend the specified oil change 8. requirement contained in this permit. The oil analysis must be performed at the same frequency specified for changing the oil. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- An oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The not to exceed limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V **Permit**
- 10. If the oil analysis shows that none of the stated parameter limits are exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

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- 11. The owner or operator must keep records, including dates, of the baseline data for each parameter when the oil is new, when the oil is analyzed as part of the program, the results of each analysis, and the oil changes for the engine. The oil analysis program must be part of the maintenance plan for the engine. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 12. Owners and operators of the engine that meet the definition of remote stationary RICE in §63.6675 of 40 CFR Part 63 Subpart ZZZZ as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 13. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 14. The owners or operators 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 Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 15. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 16. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 17. The NOx emission concentration shall not exceed 11.9 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 18. The CO emission concentration shall not exceed 40.5 ppmvd @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 19. The VOC emission concentration shall not exceed 34.1 ppmvd, as methane, @ 15% O2. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 20. The SOx emission concentration shall not exceed 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 21. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. The ammonia emission concentration shall not exceed 10 ppmvd @ 15% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
- 23. The combined fuel usage of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall not exceed 127,279 MMBtu during any one calendar quarter and shall not exceed 424,264 MMBtu during any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. The permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month using a portable emission monitor that meets District specifications. Monitoring for a given calendar month shall not be required if the engine is not operated during that calendar month (i.e. the engine need not be started solely to perform monitoring), or the engine is operated for less than 60 minutes after completing manufacturer recommended maintenance not related to engine's emission control equipment and the engine/compressor assembly is not used to conduct its primary function of compressing natural gas into a storage bunker or moving gas into the pipeline. For all other activities, monitoring shall be performed within 72 hours after restarting the engine unless monitoring has been performed during that month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies as well as records of all manufacturer recommended maintenance activities including the date, name of each maintenance activity performed, total time the engine stayed in operation after completing each maintenance activity. [District Rules 4701, 4702 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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- 25. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 26. All portable analyzer emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 27. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 28. With the exception of engine startups, shutdowns, and nonoperation, the catalyst inlet temperature shall be maintained between 400 degrees Fahrenheit and 1,350 degrees Fahrenheit. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 29. The permittee shall monitor and record the catalyst inlet temperature at least once every 15 minutes. The data shall be reduced to 4 hour rolling averages, [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 30. Source testing for NOx, CO, VOC and ammonia slip shall be conducted annually. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 31. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 32. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. VOC, NOx, and CO concentrations shall be reported in ppmy, corrected to 15% oxygen. [District Rules 1081, 4701] and 4702] Federally Enforceable Through Title V Permit
- 35. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, CO (ppmv) EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) -EPA Method 18, 25A or 25B, or ARB Method 100, where methane and ethane are exempt compounds, shall be excluded from the result of the test. [District Rules 1081, 4701 and 4702] Federally Enforceable Through Title V Permit
- 36. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

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- 37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 38. Records of the quarterly and the annual fuel consumption, in Btu, of the engines operating under N-4238-1, N-4238-2, N-4238-3 and N-4238-4 shall be kept. [District Rule 2201] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of the exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information; (1) Total hours of operation; (2) type and quantity of fuel burned (in cubic feet); (3) maintenance or modifications performed; (4) monitoring data; (5) compliance source test results; (6) the purpose of engine operation; (7) any other information necessary to demonstrate compliance with District Rules 4701 and 4702. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 41. The permittee shall maintain monthly records of the following: (1) the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment, and (2) actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
- 42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 43. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 45. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4701 and 4702 and 40 CFR Part 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-4238-5-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6

PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 3. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 4. The thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. The thermal oxidizer shall be equipped with an operational temperature indicator, and the temperature shall be recorded daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit before allowing the contaminated air stream into the thermal oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. The thermal oxidizer shall operate at all times when dehydration is taking place. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. The thermal oxidizer shall operate in smokeless mode at all times. [District Rule 4408] Federally Enforceable Through Title V Permit
- 9. The thermal oxidizer shall be equipped with an electronically controlled ignition system with a malfunction alarm if the pilot flame fails. [District Rule 4408] Federally Enforceable Through Title V Permit
- 10. The emission control system shall be equipped with a liquid knock-out system to condense any condensible vapors. [District Rule 4408] Federally Enforceable Through Title V Permit
- 11. The thermal oxidizer shall be equipped with sight glass ports if the flame is not otherwise visible. [District Rule 4408] Federally Enforceable Through Title V Permit
- 12. Only glycol shall be used as the dehydration media. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. NOx emissions from the thermal oxidizer shall not exceed 0.06 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. SOx emissions from the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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- 15. PM10 emissions from the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. CO emissions from the thermal oxidizer shall not exceed 0.2 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. VOC emissions from the thermal oxidizer shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. The combined quantity of natural gas treated by permit units N-4238-5 and N-4238-6 shall not exceed 500 MMdscf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. VOC emissions from the dehydrator/reboiler shall not exceed 0.0031 lb/MMdscf of gas throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. VOC control efficiency of the thermal oxidizer shall be at least 95%. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 21. Source testing to measure the VOC control efficiency of the thermal oxidizer shall be conducted at least once every 24 months. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing, [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 1081] Federally Enforceable Through Title V Permit
- 25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
- 26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. VOC emissions from the emission control system shall be determined by using EPA Method 25, 25A, 25B, or 18. Measurement of vapor flow through pipes shall be determined by EPA Methods 2 or 2A. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 28. The VOC control efficiency shall be determined by comparing the measurements of VOC emissions from the uncontrolled glycol dehydration vent with measurements of VOC emissions from the emission control system. For both measurements, the glycol dehydration system shall operate under similar conditions for the following parameters: glycol flow rate, reboiler temperature, gas flow rate, and gas moisture removal efficiency. [District Rule 4408] Federally Enforceable Through Title V Permit
- 29. VOC emissions from glycol dehydration vents shall be determined using the Glycol Material Balance Method described in Section 6.2.1, or tested according to the methods listed in Section 6.2.2 of Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
- 30. The GRI-GLYCalc software, version 3.0 or higher, may be used to determine flow rates in lieu of methods listed in Section 6.2.2.6, 6.2.2.7 and 6.3.1.2 of Rule 4408. APCO and EPA approval must be gained prior to the use of this software. [District Rule 4408] Federally Enforceable Through Title V Permit
- 31. The permittee shall keep a record of the combined amount of natural gas treated by permit units N-4238-5 and N-4238-6, in MMdscf. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

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- 32. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District Rule 4408] Federally Enforceable Through Title V Permit
- 33. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-4238-6-2

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6

PERMIT UNIT REQUIREMENTS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] 1.
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall only be fired on PUC-quality natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall be equipped with an operational temperature indicator, and the temperature shall be recorded daily. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit before allowing the contaminated air stream into the thermal oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate at all times when dehydration is taking place. [District Rule 2201] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall operate in smokeless mode at all times. [District Rule 4408] Federally Enforceable Through Title V Permit
- The thermal oxidizer shall be equipped with an electronically controlled ignition system with a malfunction alarm if the pilot flame fails. [District Rule 4408] Federally Enforceable Through Title V Permit
- 10. The emission control system shall be equipped with a liquid knock-out system to condense any condensible vapors. [District Rule 4408] Federally Enforceable Through Title V Permit
- 11. The thermal oxidizer shall be equipped with sight glass ports if the flame is not otherwise visible. [District Rule 4408] Federally Enforceable Through Title V Permit
- 12. Only glycol shall be used as the dehydration media. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. NOx emissions from the thermal oxidizer shall not exceed 0.06 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. SOx emissions from the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-6-2: Mar 20 2018 4:06PM - FUKUDAD

- 15. PM10 emissions from the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. CO emissions from the thermal oxidizer shall not exceed 0.2 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. VOC emissions from the thermal oxidizer shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. The combined quantity of natural gas treated by permit units N-4238-5 and N-4238-6 shall not exceed 500 MMdscf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. VOC emissions from the dehydrator/reboiler shall not exceed 0.0031 lb/MMdscf of gas throughput. [District Rule 2201] Federally Enforceable Through Title V Permit
- 20. VOC control efficiency of the thermal oxidizer shall be at least 95%. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 21. Source testing to measure the VOC control efficiency of the thermal oxidizer shall be conducted at least once every 24 months. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit
- 22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
- 23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 1081] Federally Enforceable Through Title V Permit
- 25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
- 26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. VOC emissions from the emission control system shall be determined by using EPA Method 25, 25A, 25B, or 18. Measurement of vapor flow through pipes shall be determined by EPA Methods 2 or 2A. [District Rules 1081 and 4408] Federally Enforceable Through Title V Permit
- 28. The VOC control efficiency shall be determined by comparing the measurements of VOC emissions from the uncontrolled glycol dehydration vent with measurements of VOC emissions from the emission control system. For both measurements, the glycol dehydration system shall operate under similar conditions for the following parameters: glycol flow rate, reboiler temperature, gas flow rate, and gas moisture removal efficiency. [District Rule 4408] Federally Enforceable Through Title V Permit
- 29. VOC emissions from glycol dehydration vents shall be determined using the Glycol Material Balance Method described in Section 6.2.1, or tested according to the methods listed in Section 6.2.2 of Rule 4408. [District Rule 4408] Federally Enforceable Through Title V Permit
- 30. The GRI-GLYCalc software, version 3.0 or higher, may be used to determine flow rates in lieu of methods listed in Section 6.2.2.6, 6.2.2.7 and 6.3.1.2 of Rule 4408. APCO and EPA approval must be gained prior to the use of this software. [District Rule 4408] Federally Enforceable Through Title V Permit
- 31. The permittee shall keep a record of the combined amount of natural gas treated by permit units N-4238-5 and N-4238-6, in MMdscf. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

- 32. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District Rule 4408] Federally Enforceable Through Title V Permit
- 33. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2201 and 4408] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-4238-7-2 EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

1,508 BHP WAUKESHA MODEL VHP7100GSI RICH BURN NATURAL GAS-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR. THE ENGINE IS SERVED BY A 3-WAY CATALYTIC CONVERTER.

PERMIT UNIT REQUIREMENTS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] 1.
- 2. The exhaust stack height shall be at least 25 feet above ground level. [District Rule 4102]
- 3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
- This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 6. The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- 7. Only PUC-quality natural gas or LPG shall be used as fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions, shall not exceed any of the following limits: NOx, 1.0 g/bhp-hr; CO, 10 g/bhp-hr; VOC, 0.1 g/bhp-hr; PM10, 0.1 g/bhp-hr; and SOx, 0.0066 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
- This engine shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per year. [District Rules 2201, 4701 and 4702] Federally Enforceable Through Title V Permit
- 10. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
- 11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99,ACAMPO, CA 95220 N-4238-7-2: Mar 20 2018 4:08PM – FUKUDAD

- 12. The permittee shall maintain monthly records of emergency and non-emergency operation and of the type of fuel used. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
- 13. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-4238-8-1

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

REPAIR AND MAINTENANCE NATURAL GAS VENTING OPERATIONS SERVED BY A 1,250 MMBTU/HR FLARE WITH ONE KALDAIR MODEL I-12-H-VS TIP

PERMIT UNIT REQUIREMENTS

- 1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The maintenance flare (N-4238-8) and the emergency flare (N-4238-9) shall not operate simultaneously. The flares shall be equipped with an interlock system that prevents simultaneous operation. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 120,000 scf during any one hour while other fuel burning equipment is operating. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 350,000 scf during any one hour while no other fuel burning equipment is operating. [District Rule 4102]
- The quantity of natural gas burned by this flare shall not exceed 371,645 scf during any one day and shall not exceed 624,175 scf during any one calander quarter. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. The NOx emissions shall not exceed 0.14 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- The CO emissions shall not exceed 0.43 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The VOC emissions shall not exceed 0.11 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The SOx emissions shall not exceed 0.00285 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. The PM10 emissions shall not exceed 0.0075 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The flare shall operate with smokeless combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. A flame shall be present at all times that combustible gases are being vented through the flare. [District Rule 4311, Section 5.2] Federally Enforceable Through Title V Permit
- 15. A pilot flame shall be present at all times that combustible gases are being vented through the flare or the outlet shall be equipped with an automatic ignition system. [District Rule 4311, Section 5.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-8-1: Mar 20 2018 4:06PM – FUKUDAD

- 16. Except for flares equipped with a flow-sensing system, a heat sensing device such as as thermocouple, ultravilot beam sensor, infared sensor, capable of continuously detecting at least one pilot flame or the flare flame shall be installed and operated. [District Rule 4311, Section 5.4] Federally Enforceable Through Title V Permit
- 17. Flares that use flow-sensing automatic ignition systems and do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, Section 5.5] Federally Enforceable Through Title V Permit
- 18. Flaring is prohibited unless it is consistent with an approved Flare minimization Plan (FMP). The FMP shall be updated at least once every 5 years. [District Rule 4311, Sections 5.8 and 6.5] Federally Enforceable Through Title V Permit
- 19. Inoperation of the flare monitoring equipment shall not exceed 14 days during any 18-consecutive-month period. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, Section 6.9.1 and 6.9.2] Federally Enforceable Through Title V Permit
- 20. Periods of flare monitoring system inoperation of greater than 24 continuous hours shall be reported to the District by the following working day, followed by notification of resumption of monitoring. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit
- 21. The permittee shall report unplanned flaring events within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever comes first. The notification shall include the flare source identification, the start date and time and the end date and time. [District Rule 4311, 6.2.1] Federally Enforceable Through Title V Permit
- 22. The permittee shall submit an Annual Monitoring Report in accordance with section 6.2.3 of Rule 4311. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 23. All required monitoring and recording devices shall be maintained in accordance with the applicable manufacturer's specifications. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit
- 24. Vent gas composition monitoring shall be conducted by one of the methods specified in section 6.6 of District Rule 4311 (Flares). [District Rule 4311, Section 6.6] Federally Enforceable Through Title V Permit
- 25. Volumetric flows of both the pilot gases and purge gases shall be monitored utilizing flow measuring devices or other methods approved by the District or they may be calculated based on pilot design and the parameters monitored. [District Rule 4311, Section 6.7] Federally Enforceable Through Title V Permit
- 26. The operator shall monitor and record the water level and pressure of the water seal each day that the flare operates. [District Rule 4311, Section 6.8] Federally Enforceable Through Title V Permit
- 27. The following records shall be kept: (1) a copy of the approved Flare Minimization Plan; (2) a copy of the annual reports that were submitted to the District; (3) vent gas composition records; (4) pilot and purge gas flow records; (5) water seal monitoring records; (6) records of inoperation of the flare monitoring systems. [District Rule 4311, sections 6.1.5, 6.1.6 and 6.1.7] Federally Enforceable Through Title V Permit
- 28. Records of the hourly, daily, quarterly and annual fuel consumption, in standard cubic feet, shall be kept. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 29. All records shall be maintained, retained on site for a minimum of five years and shall be made available to the District, ARB or EPA upon request. [District Rules 2201, 4102 and 4311, Section 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-4238-9-1

EXPIRATION DATE: 06/30/2017

SECTION: 13 TOWNSHIP: 4N RANGE: 6E

EQUIPMENT DESCRIPTION:

EMERGENCY GAS VENTING OPERATION SERVED BY A 5,000 MMBTU/HR FLARE WITH FOUR KALDAIR MODEL I-12-H-VS TIPS

PERMIT UNIT REQUIREMENTS

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801] Federally Enforceable Through Title V Permit
- The emergency flare (N-4238-9) and the maintenance flare (N-4238-8) shall not operate simultaneously. The flares shall be equipped with an interlock system that prevents simultaneous operation. [District Rule 4102] Federally Enforceable Through Title V Permit
- The flare shall be operated only for maintenance, testing, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed 200 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- The quantity of natural gas burned for testing and maintenance purposes shall not exceed 120,000 scf during any one hour. [District Rule 4102]
- The quantity of natural gas burned shall not exceed 371,645 scf during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- The NOx emissions shall not exceed 0.14 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- The CO emissions shall not exceed 0.43 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The VOC emissions shall not exceed 0.11 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. The SOx emissions shall not exceed 0.00285 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. The PM10 emissions shall not exceed 0.0075 lb/MMBtu of heat input. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. The flare shall operate with smokeless combustion. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. A flame shall be present at all times that combustible gases are being vented through the flare. [District Rule 4311, Section 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: LODI GAS STORAGE LLC

Location: 23265 N STATE ROUTE 99, ACAMPO, CA 95220 N-4238-9-1; Mar 20 2018 4:08PM - FUKUDAD

- 15. A pilot flame shall be present at all times that combustible gases are beng vented through the flare or the outlet shall be equipped with an automatic ignition system. [District Rule 4311, Section 5.3] Federally Enforceable Through Title V Permit
- 16. Except for flares equipped with a flow-sensing system, a heat sensing device such as as thermocouple, ultravilot beam sensor, infared sensor, capable of continuously detecting at least one pilot flame or the flare flame shall be installed and operated. [District Rule 4311, Section 5.4] Federally Enforceable Through Title V Permit
- 17. Flares that use flow-sensing automatic ignition systems and do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, Section 5.5] Federally Enforceable Through Title V Permit
- 18. Inoperation of the flare monitoring equipment shall not exceed 14 days during any 18-consecutive-month period. During periods of inoperation of flow monitors, flow shall be calculated using good engineering practices. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311, Section 6.9.1 and 6.9.2] Federally Enforceable Through Title V Permit
- 19. Periods of flare monitoring system inoperation of greater than 24 continuous hours shall be reported to the District by the following working day, followed by notification of resumption of monitoring. [District Rule 4311, 6.9.1] Federally Enforceable Through Title V Permit
- 20. The permittee shall report unplanned flaring events within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever comes first. The notification shall include the flare source identification, the start date and time and the end date and time. [District Rule 4311, 6.2.1] Federally Enforceable Through Title V Permit
- 21. The permittee shall submit an Annual Monitoring Report in accordance with section 6.2.3 of Rule 4311. [District Rule 4311, 6.2.3] Federally Enforceable Through Title V Permit
- 22. All required monitoring and recording devices shall be maintained in accordance with the applicable manufacturer's specifications. [District Rule 4311, 6.9.3] Federally Enforceable Through Title V Permit
- 23. Vent gas composition monitoring shall be conducted by one of the methods specified in 6.6 of District Rule 4311 (Flares). [District Rule 4311, Section 6.6] Federally Enforceable Through Title V Permit
- 24. Volumetric flows of both the pilot gases and purge gases shall be monitored utilizing flow measuring devices or other methods approved by the District or they may be calculated based on pilot design and the parameters monitored.

 [District Rule 4311, Section 6.7] Federally Enforceable Through Title V Permit
- 25. The operator shall monitor and record the water level and pressure of the water seal each day that the flare operates. [District Rule 4311, Section 6.8] Federally Enforceable Through Title V Permit
- 26. The following records shall be kept: (1) for emergency operation, the duration of flare operation, amount of fuel burned and the nature of the emergency situation; (2) a copy of the annual reports that were submitted to the District; (3) vent gas composition records; (4) pilot and purge gas flow records; (5) water seal monitoring activities; (6) records of inoperation of the flare monitoring systems; . [District Rule 4311, sections 6.1.3, 6.1.5, 6.1.6 and 6.1.7] Federally Enforceable Through Title V Permit
- 27. Records of the hourly and daily fuel consumption, in standard cubic feet, shall be kept. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 28. All records shall be maintained, retained on site for a minimum of five years and shall be made available to the District, ARB or EPA upon request. [District Rules 2201, 4102 and 4311, Section 6.1] Federally Enforceable Through Title V Permit

ATTACHMENT C

Detailed Summary List of Facility Permits

3/20/18 4:08 pm

Detailed Facility Report
For Facility=4238 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

LODI GAS STORAGE LLC 23265 N STATE ROUTE 99 ACAMPO, CA 95220	GE LLC 2011E 99 20		FAC# STATUS: TELEPHO	S: HONE:	N 4238 A		TYPE: TitleV EXPIRE ON: 06/30/2017 TOXIC ID: 70164 AREA: 10 / INSP. DATE: 08/18
PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	ΔТУ	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-4238-1-7	4,445 BHP	3020-10 F	-	820.00	820.00	∢	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GAS- FIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2- WAY OXIDATION CATALYST.
N-4238-2-7	4,445 BHP	3020-10 F		820.00	820.00	∢	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GASFIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-3-7	4,445 bhp	3020-10 F		820.00	820.00	⋖	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GASFIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-4-7	4,445 BHP	3020-10 F		820.00	820.00	⋖	4,445 BHP CATERPILLAR MODEL G3616 LEAN BURN NATURAL GASFIRED IC ENGINE POWERING A COMPRESSOR. THE ENGINE IS SERVED BY A SELECTIVE CATALYTIC REDUCTION SYSTEM AND A 2-WAY OXIDATION CATALYST.
N-4238-5-2	10 MMBtu/hr	3020-02 G		893.00	893.00	∢	NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6
N-4238-6-2	10 MMBtu/hr	3020-02 G		893.00	893.00	∢	NATURAL GAS DEHYDRATION OPERATION SERVED BY A 4.1 MMBTU/HR PERTREX GLYCOL REBOILER (PERMIT EXEMPT), 3-PHASE SEPARATOR SYSTEM, AND A 10.0 MMBTU/HR FIRECAT MODEL #2.10.12 THERMAL OXIDIZER SHARED WITH PERMIT UNIT N-4238-5 AND N-4238-6
N-4238-7-2	1,508 bhp	3020-10 F	-	820.00	820.00	∢	1,508 BHP WAUKESHA MODEL VHP7100GSI RICH BURN NATURAL GAS- FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR. THE ENGINE IS SERVED BY A 3-WAY CATALYTIC CONVERTER.
N-4238-8-1	1,250 MMBtu/hr	3020-02 H	~	1,128.00	1,128.00	∢	REPAIR AND MAINTENANCE NATURAL GAS VENTING OPERATIONS SERVED BY A 1,250 MMBTU/HR FLARE WITH ONE KALDAIR MODEL I- 12-H-VS TIP
N-4238-9-1	5,000 MMBtu/hr	3020-02 H		1,128.00	1,128.00	Υ	EMERGENCY GAS VENTING OPERATION SERVED BY A 5,000 MMBTU/HR FLARE WITH FOUR KALDAIR MODEL I-12-H-VS TIPS

Number of Facilities Reported: 1