TCEQ STANDARD PERMIT NO. 172505 REVISION

Boiler Emissions

Oxy USA Inc.
Block 31 Gas Plant

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1. EXECUTIVE SUMMARY

Oxy USA Inc. (Oxy) is submitting this standard permit revision registration to reauthorize a previously-registered temporary boiler (B-TEMP) for long-term use at their Block 31 Gas Plant. Boiler EPN B-TEMP is authorized by NSR Standard Permit No. 172505. The boiler has been authorized for a six-month operating period. With this submittal, Oxy is authorizing the boiler for long-term service.

The permanent boiler has a rated capacity of 99.9 MMBtu/hr and fires natural gas fuel. Selective Catalytic Reduction (SCR) and a Continuous Emissions Monitoring System (CEMS) have been installed on the boiler to satisfy the standard permit requirements for permanent service. Additionally, the facility will measure ammonia slip to meet the monitoring requirements outlined in the Boiler Standard Permit.

All required supporting documentation for the standard permit registration is provided in this submittal, including a TCEQ Form PI-1S, applicable TCEQ checklists, process description, review of applicable regulatory requirements, and applicable TCEQ fees.

2. PROCESS AND PROJECT DESCRIPTION

Below is a description of each of the overall processes and proposed project authorized with this Standard Permit registration.

2.1 Process Description

The Block 31 Gas Plant handles gas produced from the Block 31 oil field. Produced gas at the Block 31 Gas Plant is processed to remove natural gas liquids (NGLs) and is then reinjected into the reservoir for pressure maintenance. It is also sold or used for fuel.

2.2 Project Description

The site has two permanent boilers. Boiler No. 4 (EPN 46) is authorized by NSR Permit No. 26131, but this boiler failed. Power Boiler No. 102 (EPN 47) is authorized by NSR Permit No. 73238 and needs repair. Standard Permit No. 172505 currently authorizes a rental boiler (EPN B-TEMP) for temporary service to satisfy steam demand normally provided by boiler EPNs 46 and 47. With this submittal, Oxy is revising the standard permit to authorize the rental boiler for long-term service.

3. CALCULATION METHODOLOGY

This section summarizes the emission calculation methodology used to calculate emissions for the project sources in this registration. Detailed emission calculations are included in Appendix A.

3.1 Boiler Emissions

Oxy has installed Selective Catalytic Reduction (SCR) to meet the standard permit requirements for long-term operation. Boiler emissions are calculated using the unit's maximum firing rate, as provided in the vendor specifications, and appropriate emission factors. NO_X, CO, and NH_3 emissions from the boiler are calculated based on the performance requirements of the standard permit. VOC and $PM/PM_{10}/PM_{2.5}$ emissions are calculated using AP-42 emission factors for natural gas firing. SO_2 emissions are calculated assuming all fuel gas sulfur is emitted as SO_2.

3.2 Fugitive Emissions

The SCR system includes a small anhydrous ammonia storage and injection system. Potential equipment leak fugitive emissions from the system are calculated using estimated component counts, SOCMI without ethylene emission factors, and AVO control credits. Audio, visual, and olfactory (AVO) checks for NH_3 leaks within the operating area will be made at least once per day as required by the standard permit.

4. FEDERAL NEW SOURCE REVIEW ANALYSIS

The Block 31 Gas Plant is located in Crane County. The area is designated as attainment for all pollutants.

The site is not a listed source category within 40 CFR §52.21(b)(1)(i). As such, the applicable Prevention of Significant Deterioration (PSD) major source threshold is 250 TPY for all criteria pollutants, not including fugitive emissions. The site is currently classified as a major source for purposes of PSD review.

As summarized in the table below and detailed in Appendix A, project emissions increases will not exceed the applicable thresholds for PSD review.

Table 5-1. Project Emission Increases

Pollutant:	VOC	NOx	CO	PM	PM_{10}	$PM_{2.5}$	SO_2
Project Emission Increases (TPY)	2.41	4.88	18.3	3.33	3.33	3.33	6.1
PSD Major Modification Threshold (TPY)	40	40	100	25	15	10	40
PSD Review Required?	No	No	No	No	No	No	No

5. GENERAL REQUIREMENTS (30 TAC §116, SUBPART F)

§116.610. Applicability. (Effective April 17, 2014)

(a) *Under the Texas Clean Air Act, §382.051, a project that meets the requirements for a standard permit listed in this subchapter or issued by the commission is hereby entitled to the standard permit, provided the following conditions listed in this section are met. For the purposes of this subchapter, project means the construction or modification of a facility or a group of facilities submitted under the same registration.*

(1) *Any project that results in a net increase in emissions of air contaminants from the project other than water, nitrogen, ethane, hydrogen, oxygen, or greenhouse gases (GHGs) as defined in §101.1 of this title (relating to Definitions), or those for which a national ambient air quality standard has been established must meet the emission limitations of §106.261 of this title (relating to Facilities (Emission Limitations)), unless otherwise specified by a particular standard permit.*

Condition (3)(A) of the Non-Rule Air Quality Standard Permit for Boilers states that the emission limitations of 30 TAC § 116.610(a)(1) do not apply to this standard permit.

(2) *Construction or operation of the project must be commenced prior to the effective date of a revision to this subchapter under which the project would no longer meet the requirements for a standard permit.*

Construction and operation of the project will commence prior to the effective date of a revision to 30 TAC Chapter 116, Subchapter F under which the project would no longer meet the requirements for a standard permit.

(3) *The proposed project must comply with the applicable provisions of the Federal Clean Air Act (FCAA), §111 (concerning New Source Performance Standards) as listed under 40 Code of Federal Regulations (CFR) Part 60, promulgated by the United States Environmental Protection Agency (EPA).*

The project authorizes a boiler that will comply with the applicable provisions of 40 CFR Part 60, Subpart Dc.

(4) *The proposed project must comply with the applicable provisions of FCAA, §112 (concerning Hazardous Air Pollutants) as listed under 40 CFR Part 61.*

Title 40 CFR Part 61 is not applicable to the project.

(5) *The proposed project must comply with the applicable maximum achievable control technology standards as listed under 40 CFR Part 63, promulgated by the EPA under FCAA, §112 or as listed under Chapter 113, Subchapter C of this title (relating to National Emissions Standards for Hazardous Air Pollutants for Source Categories (FCAA, §112, 40 CFR Part 63)).*

The project authorizes a boiler that will comply with the applicable provisions of 40 CFR Part 63, Subpart DDDDD.

(6) *If subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program) the proposed facility, group of facilities, or account must obtain allocations to operate.*

The Block 31 Gas Plant is located in Crane County. Therefore, the proposed project is not subject to the Mass Emissions Cap and Trade Program.

(b) *Any project that constitutes a new major stationary source or major modification as defined in §116.12 of this title (relating to Nonattainment and Prevention of Significant Deterioration Review Definitions) because of emissions of air contaminants other than greenhouse gases is subject to the requirements of §116.110 of this title (relating to Applicability) rather than this subchapter. Notwithstanding any provision in any specific standard permit to the contrary, any project that constitutes a new major stationary source or major modification which is subject to Subchapter B, Division 6 of this chapter (relating to Prevention of Significant Deterioration Review) due solely to emissions of greenhouse gases may use a standard permit under this chapter for air contaminants that are not greenhouse gases.*

Nonattainment new source review requirements are not applicable because the facility is not located in a nonattainment county. The proposed project does not constitute a new major stationary source or major modification for purposes of Prevention of Significant Deterioration (PSD) review, as demonstrated by the emission rate calculations included in this registration.

(c) *Persons may not circumvent by artificial limitations the requirements of §116.110 of this title.*

The proposed project will not circumvent by artificial limitations the requirements of §116.110.

(d) *Any project involving a proposed affected source (as defined in §116.15(1) of this title (relating to Section 112(g) Definitions)) shall comply with all applicable requirements under Subchapter E of this chapter (relating to Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources (FCAA, §112(g), 40 CFR Part 63)). Affected sources subject to Subchapter E of this chapter may use a standard permit under this subchapter only if the terms and conditions of the specific standard permit meet the requirements of Subchapter E of this chapter.*

The proposed project does not involve a proposed affected major source under Section 112(g).

§116.611. Registration to Use a Standard Permit. (Effective November 22, 2018)

(a) *If required, registration to use a standard permit shall be submitted using the electronic method designated by the executive director for the applicable standard permit. If a designated electronic method is not available, the registration shall be sent by certified mail, return receipt requested, or hand delivered to the executive director, the appropriate commission regional office, and any local air pollution program with jurisdiction, before a standard permit can be used. The registration must be submitted using the required form and must document compliance with the requirements of this section, including, but not limited to:*

(1) *the basis of emission estimates;*
(2) *quantification of all emission increases and decreases associated with the project being registered;*

(3) *sufficient information as may be necessary to demonstrate that the project will comply with §116.610(b) of this title (relating to Applicability);*
(4) *information that describes efforts to be taken to minimize any collateral emissions increases that will result from the project;*
(5) *a description of the project and related process; and*
(6) *a description of any equipment being installed.*

This standard permit revision registration is being submitted to the executive director and the appropriate commission regional office. This submittal contains the required Form PI-1S and the supporting documentation specified in §116.611(a).

(b) *Construction may begin any time after receipt of written notification from the executive director that there are no objections or 45 days after receipt by the executive director of the registration, whichever occurs first, except where a different time period is specified for a particular standard permit or the source obtains a prevention of significant deterioration permit for greenhouse gases as provided in §116.164(a) of this title (relating to Prevention of Significant Deterioration Applicability for Greenhouse Gases Sources).*

Construction of the boiler was authorized by Standard Permit Registration No. 172505. This submittal is revising that registration to demonstrate the boiler meets the requirements for a permanent installation. PSD permitting for greenhouse gases (GHG) is not applicable to the proposed project because the project will not result in a major modification with respect to non-GHG emissions.

(c) *In order to avoid applicability of Chapter 122 of this title (relating to Federal Operating Permits), a certified registration shall be submitted. The certified registration must state the maximum allowable emission rates and must include documentation of the basis of emission estimates and a written statement by the registrant certifying that the maximum emission rates listed on the registration reflect the reasonably anticipated maximums for operation of the facility. The certified registration shall be amended if the basis of the emission estimates changes or the maximum emission rates listed on the registration no longer reflect the reasonably anticipated maximums for operation of the facility. The certified registration shall be submitted to the executive director; to the appropriate commission regional office; and to all local air pollution control agencies having jurisdiction over the site. Certified registrations must also be maintained in accordance with the requirements of §116.115 of this title (relating to General and Special Conditions).*

(1) *Certified registrations established prior to December 11, 2002, shall be submitted on or before February 3, 2003.*
(2) *Certified registrations established on or after December 11, 2002, shall be submitted no later than the date of operation.*
(3) *Certified registrations established for greenhouse gases (as defined in §101.1 of this title (relating to Definitions)) on or after the effective date of EPA's final action approving amendments to §122.122 of this title (relating to Potential to Emit) into the State Implementation Plan shall be submitted:*

(A) *for existing sites that emit or have the potential to emit greenhouse gases, no later than 12 months after the effective date of EPA's final action approving amendments to §122.122 of this title as a revision to the Federal Operating Permits Program; or*

(B) *for new sites that emit or have the potential to emit greenhouse gases, no later than the date of operation.*

Does not apply. This registration is not being submitted to avoid applicability of Chapter 122.

§116.615. General Conditions. (Effective November 22, 2018)

The following general conditions are applicable to holders of standard permits, but will not necessarily be specifically stated within the standard permit document.

(1) *Protection of public health and welfare. The emissions from the facility, including dockside vessel emissions, must comply with all applicable rules and regulations of the commission adopted under Texas Health and Safety Code, Chapter 382, and with the intent of the Texas Clean Air Act (TCAA), including protection of health and property of the public.*

Emissions from the boiler will comply with this section.

(2) *Standard permit representations. All representations with regard to construction plans, operating procedures, pollution control methods, and maximum emission rates in any registration for a standard permit become conditions upon which the facility or changes thereto, must be constructed and operated. It is unlawful for any person to vary from such representations if the change will affect that person's right to claim a standard permit under this section. Any change in condition such that a person is no longer eligible to claim a standard permit under this section requires proper authorization under §116.110 of this title (relating to Applicability). Any changes in representations are subject to the following requirements:*

(A) *For the addition of a new facility, the owner or operator shall submit a new registration incorporating existing facilities with a fee, in accordance with §116.611 and §116.614 of this title, (relating to Registration to use a Standard Permit and Standard Permit Fees) prior to commencing construction. If the applicable standard permit requires public notice, construction of the new facility or facilities may not commence until the new registration has been issued by the executive director.*

(B) *For any change in the method of control of emissions, a change in the character of the emissions, or an increase in the discharge of the various emissions, the owner or operator shall submit written notification to the executive director describing the change(s), along with the designated fee, no later than 30 days after the change.*

(C) *For any other change to the representations, the owner or operator shall submit written notification to the executive director describing the change(s) no later than 30 days after the change.*

(D) *Any facility registered under a standard permit which contains conditions or procedures for addressing changes to the registered facility which differ from subparagraphs (A) - (C) of this paragraph shall comply with the applicable requirements of the standard permit in place of subparagraphs (A) - (C) of this paragraph.*

Oxy USA Inc. acknowledges that all representations regarding construction plans, operating procedures, and maximum emission rates in this standard permit registration become conditions upon which the new boiler must be operated.

(1) Standard permit in lieu of permit amendment. All changes authorized by standard permit to a facility previously permitted under §116.110 of this title shall be administratively incorporated into that facility's permit at such time as the permit is amended or renewed.

Oxy is registering this standard permit revision to reflect changes to the temporary boiler unit authorized under Standard Permit No. 172505.

(2) Construction progress. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office not later than 15 working days after occurrence of the event, except where a different time period is specified for a particular standard permit.

Oxy USA Inc considers this standard permit revision to serve as notification of start and completion of construction.

(3) Start-up notification.

(A) The appropriate air program regional office of the commission and any other air pollution control program having jurisdiction shall be notified prior to the commencement of operations of the facilities authorized by a standard permit in such a manner that a representative of the executive director may be present.

(B) For phased construction, which may involve a series of units commencing operations at different times, the owner or operator of the facility shall provide separate notification for the commencement of operations for each unit.

(C) Prior to beginning operations of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting, Remediation, and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program).

(D) A particular standard permit may modify start-up notification requirements.

Oxy USA Inc. considers this standard permit revision to serve as notification of start-up.

(4) Sampling requirements. If sampling of stacks or process vents is required, the standard permit holder shall contact the commission's appropriate regional office and any other air pollution control agency having jurisdiction prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The standard permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant.

Any sampling and testing required under this regulation will be conducted according to these requirements.

(5) Equivalency of methods. The standard permit holder shall demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and

monitoring methods proposed as alternatives to methods indicated in the conditions of the standard permit. Alternative methods must be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the standard permit.

Oxy USA Inc. is not proposing any alternatives to methods indicated in the conditions of the standard permit.

(6) Recordkeeping. A copy of the standard permit along with information and data sufficient to demonstrate applicability of and compliance with the standard permit shall be maintained in a file at the plant site and made available at the request of representatives of the executive director, the United States Environmental Protection Agency, or any air pollution control agency having jurisdiction. For facilities that normally operate unattended, this information shall be maintained at the nearest staffed location within Texas specified by the standard permit holder in the standard permit registration. This information must include, but is not limited to, production records and operating hours. Additional recordkeeping requirements may be specified in the conditions of the standard permit. Information and data sufficient to demonstrate applicability of and compliance with the standard permit must be retained for at least two years following the date that the information or data is obtained. The copy of the standard permit must be maintained as a permanent record.

Records will be kept as required by these regulations and will be retained for at least 5 years. This standard permit revision registration will be maintained as a permanent record.

(7) Maintenance of emission control. The facilities covered by the standard permit may not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. Notification for emissions events and scheduled maintenance shall be made in accordance with §101.201 and §101.211 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; and Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements).

All air pollution emission capture and abatement equipment associated with the new boiler will continue to be maintained and operated properly during normal facility operations. Notification of emission events or maintenance will be made in accordance with §101.201 and §101.211.

(8) Compliance with rules. Registration of a standard permit by a standard permit applicant constitutes an acknowledgment and agreement that the holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the claiming of the standard permit. If more than one state or federal rule or regulation or permit condition are applicable, the most stringent limit or condition shall govern. Acceptance includes consent to the entrance of commission employees and designated representatives of any air pollution control agency having jurisdiction into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the standard permit.

Oxy USA Inc. acknowledges and agrees that the boiler will continue to comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the claiming of the standard permit.

(9) Distance limitations, setbacks, and buffer zones. Notwithstanding any requirement in any standard permit, if a standard permit for a facility requires a distance, setback, or buffer from other property or structures as a condition of the permit, the determination of whether the distance, setback, or buffer is satisfied shall be made on the basis of conditions existing at the earlier of:

(A) the date new construction, expansion, or modification of a facility begins; or
(B) the date any application or notice of intent is first filed with the commission to obtain approval for the construction or operation of the facility.

Does not apply. The standard permit does not require a distance, setback, or buffer from other property or structures as a condition of the permit.

6. INDIVIDUAL REQUIREMENTS FOR BOILERS

Air Quality Standard Permit for Boilers (Effective November 3, 2006)

This standard permit authorizes boilers and modifications to boilers with a heat input greater than 40 million British thermal units per hour (MMBtu/hr) which meet all of the conditions listed below. This standard permit does not relieve the owner or operator from complying with any other applicable provision of the Texas Health and Safety Code, Texas Water Code, rules of the Texas Commission on Environmental Quality (TCEQ), or any additional state or federal regulations.

1. Applicability

(A) This standard permit may be used to authorize boilers with a heat input greater than 40 MMBtu/hr installed or modified after the effective date of this standard permit and that meet the requirements of this standard permit. This standard permit also authorizes any fugitive components associated with a boiler authorized by this standard permit.

The standard permit registration authorizes a boiler with a heat input greater than 40 MMBtu/hr and also authorizes associated fugitive components.

(B) Any project that constitutes a new major stationary source or major modification as defined in Title 30 Texas Administrative Code (30 TAC) ' 116.12, Nonattainment and Prevention of Significant Deterioration Review Definitions, cannot be authorized by this standard permit.

The project does not constitute a new major stationary source or major modification.

2. Definitions

(A) Fuel gas - any gas which is generated at a petroleum refinery or a petrochemical plant, as defined by Standard Industrial Classification Code 28, and any blends of those gases with natural gas. Fuel gas must also comply with the fuel limitations specified in subsection (4)(A).

(B) Temporary boiler - a boiler, as a replacement for an existing boiler or as an additional source, that is installed and operated for no more than 180 days at a site. At least 12 months must pass between authorizations for a temporary boiler that will perform substantially the same purpose at a site. However, if the boiler will be used for a different purpose at the site, the owner or operator may seek authorization immediately without the 12 month waiting period.

(C) Annual capacity factor - the ratio between the actual heat input during a calendar year and the potential heat input had the boiler been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

3. Administrative Requirements

(A) Boilers shall be registered in accordance with 30 TAC §116.611, Registration to Use a Standard Permit, using a current form. As part of the registration, the owner or operator of the boiler shall submit representations of the calculated short-term and long-term emission limits, including maintenance, startup, and shutdown emissions, using a current Table 1(a), Emission Point

Summary, and the annual capacity factor. These emission and operating limitations shall become an enforceable part of the authorization upon approval. Units which meet the conditions of this standard permit do not have to meet 30 TAC §116.610(a)(1), Applicability.

This registration includes the required information.

(B) Registrations shall comply with 30 TAC §116.614, Standard Permit Fees, for any single unit or combination of units to be authorized by a single registration.

This registration includes the required fee.

(C) No owner or operator of a boiler shall begin construction or operation without first obtaining written approval of registration from the executive director.

Oxy acknowledges this provision.

(D) Boilers must meet the applicable conditions, including testing and performance standards, of Title 40 Code of Federal Regulations (40 CFR) Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978; Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units; or Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

The boiler will comply with all the applicable conditions of 40 CFR Part, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

(E) Compliance with this standard permit does not exempt the owner or operator from complying with any applicable requirements of 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds.

The Block 31 Gas Plant is located in Crane County and the new boiler has no applicable requirements under 30 TAC Chapter 117.

4. General Requirements

(A) Fuel Limitations

(i) All references to emission limits and boiler sizes in this standard permit are based on the higher heating value of the fuel.

The emission limits and boiler size in this registration are based on the higher heating value of the fuel.

(ii) Fuel for a boiler may consist of fuel gas or natural gas. As fired in the boiler, the fuel must contain no greater than 10 grains of total sulfur and 10 grains of hydrogen sulfide per 100 dry standard cubic feet (scf). The permit holder is responsible for complying with 40 CFR Part 60, Subpart J, Standards of Performance for Petroleum Refineries, if applicable. Also, as fired in the boiler, the fuel must contain less than 50 percent hydrogen, contain no alkynes, and have a higher heating value of at least 900 Btu/scf.

The boiler fuel is natural gas with no greater than 10 grains of total sulfur and 10 grains of hydrogen sulfide for 100 dry standard cubic feet. The fuel contains less than 50 percent hydrogen, no alkynes, and has a higher heating value of at least 900 Btu/scf.

(iii) *Boilers may be fired up to 720 hours per year with liquid fuel that does not contain waste solvents and has a sulfur content of less than or equal to 0.05 percent by weight.*

The new boiler will not fire liquid fuel.

(iv) *For boilers with a heat input of 100 MMBtu/hr or greater, the holder of this permit shall additionally monitor and record the average hourly gaseous fuel consumption of the boiler.*

The new boiler has a heat input of less than 100 MMBtu/hr. Therefore, this requirement does not apply.

(v) *No boiler shall be authorized under this standard permit for use as a control device for a process stream. This does not preclude the use of other forms of authorization such as 30 TAC Chapter 106, Permits by Rule, to add additional fuel sources once the boiler is authorized under this standard permit.*

The new boiler will not be used as a control device for a process stream.

(B) *Emission Limits*

(i) *Hourly emissions limits are one-hour block averages for nitrogen oxides (NO_x) and three-hour block averages for carbon monoxide (CO).*

(ii) *Emissions of NO_x from any new or existing boiler not intended as a temporary boiler shall not exceed 0.01 pound (lb) per MMBtu for boilers fired on fuel deriving more than 75 percent of its heating value from natural gas or 0.015 lb/MMBtu for boilers fired on fuel deriving less than or equal to 75 percent of its heating value from natural gas.*

(iii) *Emissions of NO_x from any temporary boiler shall not exceed 0.036 lb/MMBtu.*

(iv) *For boilers with a maximum heat input of less than 100 MMBtu/hr and an annual capacity factor of 0.30 or less, in place of the NO_x emission limit in paragraph (B)(ii), the NO_x emission limit of the boiler shall be 0.036 lb/MMBtu for any fuel.*

(v) *Emissions of CO shall not exceed 50 parts per million by volume on a dry basis (ppmvd) corrected to 3 percent oxygen (O_2).*

(vi) *Emissions of ammonia (NH_3) from any boiler using NH_3 or urea-based control technology shall not exceed 10 ppmvd corrected to 3 percent O_2.*

(vii) *Opacity of emissions from the boiler shall not exceed 5 percent averaged over a six-minute period. Opacity shall be determined by the U.S. Environmental Protection Agency (EPA) Test Method 9 during the initial compliance testing and at least once per year thereafter.*

The boiler is a new boiler with a maximum heat input of less than 100 MMBtu/hr. It will comply with the NOx emission limit of 0.01 lb/MMBtu and the CO emission limit of 50 ppmvd @ 3% O_2 for normal operations. The boiler utilizes SCR technology and will comply with the ammonia

emission limit of 10 ppmvd @ 3% O_2. Opacity of emissions from the boiler will comply with the above-referenced requirements.

(C) Controls

(i) Modifications such as burner replacement or the installation of flue gas recirculation on existing boilers to meet the emissions requirements of subsection (4)(B) are authorized by this standard permit.

(ii) The installation of selective catalytic reduction (SCR) units in order to achieve the emission limits of subsection (4)(B) are authorized by this standard permit.

Additionally, any storage tanks, piping, or other equipment necessary to supply NH_3 to the SCR and their associated fugitives are authorized. Audio, olfactory, and visual checks for NH_3 leaks within the operating area shall be made at least once per day. Unless the site has undergone the appropriate review under 40 CFR Part 68, Chemical Accident Prevention Provisions, or the NH_3 kept on site is an amount less than the threshold values in 40 CFR § 68.130, List of Substances, only aqueous NH_3 no greater than 20 percent concentration by volume shall be stored on site.

The boiler utilizes SCR technology in order to meet the emission limits of subsection (4)(B) of this permit. AVO checks for NH_3 leaks within the operating area will be made at least once per day. The quantity of anhydrous NH_3 kept on site is below the 10,000 pound threshold value in 40 CFR §68.130.

(D) Maintenance, Startup, and Shutdown

(i) Emissions of NO_x from any boiler shall not exceed 0.10 lb/MMBtu during maintenance, startup, and shutdown.

(ii) Emissions of CO from any boiler shall not exceed 500 ppmvd during maintenance, startup, and shutdown.

(iii) Opacity shall not exceed the limits set forth in 30 TAC Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter, during maintenance, startup, and shutdown.

(iv) Warm startup events shall not exceed four hours in duration. Cold startup events shall not exceed eight hours in duration. Shutdown events shall not exceed one hour.

(v) Emissions from upset events as defined in 30 TAC Chapter 101, General Air Quality Rules, are not authorized by this standard permit.

The boiler will meet these MSS requirements.

(E) Stack Height Requirement. Each boiler authorized under this standard permit shall have a stack with a minimum height as determined by the following equation:

$$H = 0.04\ Q + 8.20$$

Where:

H = Minimum stack height above ground level in feet (ft)

Q = Maximum boiler heat input in MMBtu/hr

The boiler has a maximum rating of 99.9 MMBtu/hr and will comply with the minimum stack height requirements. The stack height will be at least 13 feet.

5. Initial Compliance Testing

(A) Sampling ports and platform(s) shall be incorporated into the design of the stack according to the specifications set forth in Chapter 2 of the TCEQ guidance document entitled "Sampling Procedures Manual." Alternate sampling facility designs may be submitted for approval to the TCEQ Regional Director or the Director of the TCEQ Compliance Support Division in Austin.

(B) The holder of this standard permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the boiler. The holder of this standard permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his or her expense.

(i) The appropriate TCEQ Regional Office and local air pollution control agencies having jurisdiction shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:
- *(a) the date for pretest meeting;*
- *(b) the date sampling will occur;*
- *(c) the name of firm conducting sampling;*
- *(d) the type of sampling equipment to be used; and*
- *(e) the method or procedure to be used in sampling.*

(ii) A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The appropriate TCEQ Regional Director or the Director of the TCEQ Compliance Support Division in Austin shall approve or disapprove of any deviation from specified sampling procedures.

(iii) Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for testing under 40 CFR Part 60, Standards of Performance for New Stationary Sources, which must have the EPA approval shall be submitted to the TCEQ Compliance Support Division in Austin.

(iv) Air contaminants emitted from the boiler to be tested at maximum heat input include, but are not limited to, NO_x, CO, O_2, and NH_3, if applicable. If fuel gas will be used, the boiler must fire the maximum percentage of the non-natural gas part of the fuel gas intended during normal operation for this test. Future increases in the percentage of fuel gas in the boiler fuel or significant changes in fuel gas composition will require approval of the appropriate TCEQ Regional Director and could include retesting under this condition.

(v) Sampling shall occur within 90 days after installation or modification of the boiler. Requests for additional time to perform sampling shall be submitted to the appropriate TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 requires EPA approval, and requests shall be submitted to the TCEQ Compliance Support Division in Austin.

(vi) Copies of the final sampling report shall be submitted to the appropriate TCEQ Regional Office and any local air pollution control agencies having jurisdiction within 60 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ "Sampling Procedures Manual."

(vii) *For temporary boilers that have been tested at another site located in Texas, the previous testing shall be acceptable and another initial test is not necessary, provided the last sampling report was deemed acceptable by the TCEQ Regional Office to which it was submitted.*

Oxy will comply with the applicable requirements for initial compliance testing.

6. Continuous Demonstration of Compliance

(A) *The holder of this standard permit for a boiler with a maximum potential heat input of 100 MMBtu/hr or greater and any boiler with a SCR shall install, calibrate, maintain, and operate a continuous emission monitor system (CEMS) to determine the in-stack concentration of NO_x. Additionally, a CEMS is required for CO for a boiler with a maximum potential heat input of 250 MMBtu/hr or greater. Boilers without a CEMS for NO_x shall perform the testing procedure of section (5) every three years after the completion of the initial boiler testing. For this continuous demonstration of compliance, paragraph (5)(B)(v) shall mean 90 days after the anniversary date of the completion of the initial test.*

The boiler will utilize CEMS to determine the in-stack concentration of NOx.

(B) *CEMS requirements. The owner or operator of any CEMS must comply with the following.*

(i) *The CEMS shall meet the requirements of 40 CFR Part 60 as follows:*
- (a) *Section 60.13, Monitoring Requirements;*
- (b) *Appendix B, Performance Specifications:*
  - (1) *Performance Specification 2, for NO_x in terms of lb/MMBtu. An alternative relative accuracy requirement of " 2.0 ppmv from the reference method mean value is allowed;*
  - (2) *Performance Specification 3, for diluent; and*
  - (3) *Performance Specification 4, for CO, for owners or operators required to use a CO CEMS.*
- (c) *Appendix F, Quality Assurance Procedures:*
  - (1) *For boilers with a heat input of less than 250 MMBtu/hr, conduct audits for NO_x, CO, and diluent analyzers in accordance with ' 5.1 of Appendix F, except that a cylinder gas audit (CGA) or relative accuracy audit may be performed in lieu of the annual relative accuracy test audit (RATA) required in ' 5.1.1. However, if the optional alternative relative accuracy requirement of subclause (b)(1) (or equivalent) from the reference method mean value is used, then an annual RATA must be performed.*
  - (2) *For boilers with a heat input of 250 MMBtu/hr or greater, conduct audits for NO_x, CO, and diluent analyzers in accordance with ' 5.1 of Appendix F. There shall be a verbal notification to the appropriate TCEQ Regional Office of the date of any CEMS RATA at least 15 days prior to such date followed by written notification within 15 days after testing is completed.*

(ii) *Monitor diluent, either O_2 or carbon dioxide.*

(iii) *Sharing of CEMS.*
- (a) *One CEMS may be shared among units, provided:*
  - (1) *the exhaust stream of each stack is analyzed separately; and*

(2) *the CEMS meets the certification requirements of paragraph (i) for each stack while the CEMS is operating in the time-shared mode.*

(b) *Exhaust streams of units which vent to a common stack do not need to be analyzed separately.*

(iv) *If subject to 40 CFR Part 75, Continuous Emission Monitoring, as an alternative to paragraph (i), an owner or operator may choose to comply with the CEMS requirements of 40 CFR Part 75.*

(v) *The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO_x CEMS is off-line:*

(a) *use the missing data procedures specified in 40 CFR Part 75, Subpart D, Missing Data Substitution Procedures; or*

(b) *use the maximum block one-hour emission rate as measured during the initial demonstration of compliance.*

Oxy will comply with the applicable CEMS requirements.

(C) *One of the following NH_3 monitoring procedures shall be used to demonstrate compliance with the NH_3 emission limit of subsection (4)(B) for boilers which inject urea or NH_3 into the exhaust stream for NO_x control.*

(i) *Mass balance. Calculate NH_3 emissions as the difference between the input NH_3, measured by the NH_3 injection rate, and the NH_3 reacted, measured by the differential NO_x upstream and downstream of the control device which injects urea or NH_3 into the exhaust stream. The equation is:*

$$NH_3 = [(1.71) \times (a/b) \times (10^6) - c] \times d$$

Where:

NH_3 = NH_3 concentration on a dry basis in ppmv at 3 percent O_2

a = NH_3 injection rate in lb/hr

b = dry exhaust flow rate in lb/hr

c = change in measured NO_x concentration across catalyst in ppmv at 3 percent O_2

d = correction factor, the ratio of measured slip to calculated NH_3slip, where the measured slip is obtained from the stack sampling for NH_3 required by section (5), using either the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method 27.

(ii) *Oxidation of NH_3 to nitric oxide (NO). Convert NH_3 to NO using molybdenum oxidizer and measure NH_3 slip by difference using a NO analyzer. The NO analyzer shall be quality-assured in accordance with manufacturer's specifications and with a quarterly CGA with a ten ppmv reference sample of NH_3 passed through the probe and confirming monitor response to within " 2.0 ppmv.*

(iii) *Stain tubes. Measure NH_3 using a sorbent or stain tube device specific for NH_3 measurement in the 5.0 to 10.0 ppmv range. The frequency of sorbent or stain tube testing shall be daily for the first 60 days of operation, after*
which the frequency may be reduced to weekly testing if operating procedures being introduced in the control device and when operation of the control procedures have been developed to prevent excess amounts of NH_3 from device has been proven successful with regard to controlling NH_3 slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. Every effort shall be made to take at least one weekly sample near the normal highest NH_3 injection rate.

(iv) Other methods. Monitor NH_3 using another CEMS or predictive emissions monitoring system procedure subject to prior approval of the executive director. For purposes of this paragraph, the executive director is the TCEQ, Compliance Support Division.

The facility will measure ammonia slip to meet the specified monitoring requirements.

7. Recordkeeping

(A) Records, written or electronic, shall be maintained for a period of at least five years and made readily available, upon request, for inspection by the executive director, the EPA, and any local air pollution control agency having jurisdiction. Additionally, a copy of the initial permit application and initial testing reports shall be kept on site for the life of the permit.

The rental boiler standard permit records will be maintained and made readily available for at least five years.

(B) All boilers must keep the following records.

(i) Startup and shutdown records. Hourly records shall be made of startup and/or shutdown events. These records shall include (but are not limited to) the following: type of fuel burned; quantity of each type of fuel burned; emissions from the event; and the date, time, and duration of the event.

(ii) Maintenance records. Records shall be made of maintenance events. These records shall include (but are not limited to) the following: type of fuel burned; quantity of each type of fuel burned; emissions from the event; and the date, time, and duration of the procedure.

(iii) Emissions records. Records shall be made to demonstrate that the emissions of the unit have not exceeded the limits set forth in this standard permit. These records shall include (but are not limited to) the type of fuel burned and quantity of each type of fuel burned.

(iv) NH_3 monitoring for units using NH_3 or urea. The owner or operator shall maintain records which are sufficient to demonstrate compliance with the requirements of the appropriate paragraph of subsection (6)(C). For the sorbent or stain tube option, these records shall include the NH_3 injection rate and NO_x stack emissions measured during each sorbent or stain tube test.

(v) Temporary boilers. Records shall be made to demonstrate that all temporary boilers authorized by this standard permit comply with subsection (2)(B) and paragraph (4)(B)(iii).

Oxy will keep the appropriate records for boiler startup/shutdowns, maintenance, emissions, and NH_3 monitoring. The boiler is being authorized for long-term service, and is therefore not subject to the requirements of (7)(B)(v).

(C) For boilers with a CEMS, records shall include:

(i) raw CEMS data;

(ii) monitoring records of hourly emissions and fuel usage (or stack exhaust flow). Emissions must be recorded in units of lb/MMBtu for NO_x, ppm for CO, and lb/hr for NO_x and CO; and

(iii) records of the results of any certification testing, evaluations, calibrations, checks, adjustments, and maintenance of any CEMS.

The facility will comply with the recordkeeping requirements of 7(C) for CEMS.

(8) *Reporting for Boilers with CEMS*

(A) The owner or operator of any boiler required to install a CEMS under 40 CFR Part 60 shall comply with the reporting requirements of that regulation.

(B) The owner or operator of any boiler electing to install a CEMS shall submit annual reports to the appropriate TCEQ Regional Office and local air pollution control agencies having jurisdiction which include the following information:

(i) the magnitude of excess emissions computed in accordance with 40 CFR § 60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the unit operating time during the reporting period;

(ii) specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted;

(iii) the date and time identifying each period during which the CEMS was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments;

(iv) when no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted, such information shall be stated in the report; and

(v) if the total duration of excess emissions for the reporting period is less than 1.0 percent of the total unit operating time for the reporting period and the CEMS downtime for the reporting period is less than 5.0 percent of the total unit operating time for the reporting period, only a summary report form (as outlined in the latest edition of the TCEQ guidance document entitled "Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports") shall be submitted, unless otherwise requested by the executive director. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0 percent of the total operating time for the reporting period or the CEMS downtime for the reporting period is greater than or equal to 5.0 percent of the total operating time for the reporting period, a summary report and an excess emission report shall both be submitted.

The facility will comply with the applicable reporting requirements for CEMS utilization.

7. FEDERAL REQUIREMENTS

This section summarizes the applicable federal requirements for the rental boiler (EPN B-TEMP) at the Block 31 Gas Plant.

Table 8-1. Federal Applicability Review

Federal Standard	Description	Applicability
NSPS Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Applies. The boiler is subject to NSPS Subpart Dc and Oxy will comply with the applicable requirements.
NESHAPS	Various	Does not apply. The boiler is not subject to NESHAPS in 40 CFR Part 61.
MACT Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Applies. The boiler is subject to MACT subpart DDDDD and Oxy will comply with the applicable requirements.

S

APPENDIX A. EMISSION CALCULATIONS

Rental Boiler - Standard Permit for Long-Term Operation

EPN: B-TEMP
FIN: B-TEMP

Maximum Duty:	99.9	MM Btu/hr (HHV)	
Hours of Operation:	8760	hr/yr	
Maintenance, Startup and Shutdown Hours	100	hr/yr	
Sulfur Content in Fuel =	5	gr/100 dscf	
Fuel Heating Value:	1000	Btu/scf	(HHV basis)
Fuel F-Factor:	8710	dscf/MM Btu	40 CFR Part 60, Appendix A, Table 19-2 value for natural gas

Annual Capacity Factor: 1

Pollutant	Assumed MW	Emission Factor				Emissions per Heater	
		lb/MM scf	lb/MM Btu	ppmvd @ 3% O2	Source	lb/hr	(ton/yr)
VOC	44.09	5.5		N/A	AP-42 Table 1.4-2	0.55	2.41
NO_X	46.01		0.01	8	Boiler SP Conditions	1.00	4.88
NO_X - MSS	46.01		0.1		Boiler SP Conditions	9.99	
CO	28.01		0.0375	50	Boiler SP Conditions	3.75	18.30
CO - MSS	28.01		0.38	500	Boiler SP Conditions	38.00	
SO_2	64.06			NA	Sulfur Content	1.4	6.1
$PM/PM_{10}/PM_{2.5}$	NA	7.6		NA	AP-42 Table 1.4-2	0.76	3.33
NH_3	17.03		0.0047	10	Boiler SP Conditions	0.47	2.06

Sample Calculations (VOC):

Hourly Emissions = (5.5 lb/MM scf) (MM scf/1,000,000 scf) / (1000 Btu/scf) (1,000,000 Btu/MMBtu) (99.9 MM Btu/hr) = 0.55 lb/hr

Sample Calculations (NOx):

Hourly Emissions = (0.0375 lb/MM Btu) (99.9 MM Btu/hr) = 3.75 lb/hr

Sample Calculations (SO2):

Hourly Emissions = (5 gr/100 dscf) (99.9 MM Btu/hr) / (1000 Btu/dscf) (10^6 Btu/MM Btu) (1 lb S/7000 gr S) (2 lb SO2/1 lb S) = 1.4 lb/hr

Rental Boiler - Piping Fugitives from SCR System

EPN: FUG-SCR
FIN: FUG-SCR

Ammonia (NH_3) Specific Fugitive Emsisions Calculation

Equipment Type	Estimated Component Count	Emission Factor[1] (lb/hr-component)	Control Efficiency[2]	NH3 Concentration (wt %)	NH_3 Emission Rate (lb/hr)	NH_3 Emission Rate (tons/yr)
Flanges / Connectors - GV	30	0.0029	0.97	100%	0.003	0.011
Flanges / Connectors - LL	60	0.0005	0.97	100%	0.001	0.004
Pressure Relief Valves - GV	2	0.2293	0.97	100%	0.014	0.06
Pressure Relief Valves - LL	2	0.0035	0.97	100%	0.0002	0.0009
Valves - GV	5	0.0089	0.97	100%	0.001	0.006
Valves - LL	10	0.0035	0.97	100%	0.001	0.005
				Total	**0.02**	**0.09**

[1] The emission factors are from the TCEQ's 2000 "Equipment Leak Fugitives" for SOCMI without Ethylene Components.

[2] The control efficiency reflects use of an AVO inspection program.

APPENDIX B. TCEQ FORMS

Form PI-1S
Air Quality Standard Permit for Boilers (AQSPB) Checklist
Table 1(A)

Form PI-1S
Registrations for Air Standard Permit
(Page 1)
Texas Commission on Environmental Quality

I. Registrant Information
A. Company or Other Legal Customer Name:
Oxy USA Inc.
B. Company Official Contact Information (☐ Mr. ☐ Mrs. ☒ Ms. ☐ Other:)_____
Name: Mellitanya Stephenson
Title: Senior AIr Quality Engineer
Mailing Address: 5 Greenway Plaza, Suite 110
City: Houston
State: TX
ZIP Code: 77046
Telephone No.: 432-685-5962
Fax No.:
Email Address: Mellitanya_Stephenson@oxy.com
All permit correspondence will be sent via email.
C. Technical Contact Information (☐ Mr. ☐ Mrs. ☒ Ms. ☐ Other:)_____
Name: Miranda Cheatham
Title: Principal Consultant
Company Name: Trinity Consultants
Mailing Address: 9737 Great Hills Trail, Suite 340
City: Austin
State: TX
ZIP Code: 78759
Telephone No.: 512-349-5800
Fax No.:
Email Address: miranda.cheatham@trinityconsultants.com
II. Facility and Site Information
A. Name and Type of Facility
Facility Name: Block 31 Gas Plant
Type of Facility: ☒ Permanent ☐ Temporary

Form PI-1S
Registrations for Air Standard Permit
(Page 2)
Texas Commission on Environmental Quality

II. Facility and Site Information *(continued)*
For portable units, please provide the serial number of the equipment being authorized below.
Serial No(s):
B. Facility Location Information
Street Address: 1501 FM 1601
If there is no street address, provide written driving directions to the site and provide the closest city or town, county, and ZIP code for the site (attach description if additional space is needed).
City: Crane
County: Crane
ZIP Code: 79731
C. Core Data Form (**required** for Standard Permits 6006, 6007, and 6013).
Is the Core Data Form (TCEQ Form 10400) attached? ☐ Yes ☒ No
Customer Reference Number (CN): 604677401
Regulated Entity Number (RN): 100223569
D. TCEQ Account Identification Number (if known):
E. Type of Action
☐ Initial Application ☒ Change to Registration ☐ Renewal ☐ Renewal Certification
For Change to Registration, Renewal, or Renewal Certification actions provide the following:
Registration Number: 172505
Expiration Date: 4/18/33
F. Standard Permit Claimed: 6011
G. Previous Standard Exemption or PBR Registration Number:
Is this authorization for a change to an existing facility previously authorized under a standard exemption or PBR? ☐ Yes ☒ No
If "Yes," enter previous standard exemption number(s) and PBR registration number(s) and associated effective date in the spaces provided below.

Form PI-1S
Registrations for Air Standard Permit
(Page 3)
Texas Commission on Environmental Quality

II. Facility and Site Information *(continued)*
H. Other Facilities at this Site Authorized by Standard Exemption, PBR, or Standard Permit
Are there any other facilities at this site that are authorized by an Air Standard Exemption, PBR, or Standard Permit? ☒ Yes ☐ No
If "Yes," enter standard exemption number(s), PBR registration number(s), and Standard Permit registration number(s), and associated effective date in the spaces provided below.
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s) and Effective Date(s)
Please refer to Title V Permit O547
I. Other Air Preconstruction Permits
Are there any other air preconstruction permits at this site? ☒ Yes ☐ No
If "Yes," enter permit number(s) in the spaces provided below.
26131, 73238
J. Affected Air Preconstruction Permits
Does the standard permit directly affect any permitted facility? ☐ Yes ☒ No
If "Yes," enter permit number(s) in the spaces provided below.
K. Federal Operating Permit (FOP) Requirements
Is this facility located at a site that is required to obtain a FOP pursuant to 30 TAC Chapter 122? ☒ Yes ☐ No ☐ To Be Determined
Check the requirements of 30 TAC Chapter 122 that will be triggered if this standard permit is approved (*check all that apply).*
☐ Initial Application for a FOP ☐ Significant Revision for a SOP ☐ Minor Revision for a SOP
☐ Operational Flexibility/Off Permit Notification for a SOP ☐ Revision for a GOP
☒ To be Determined ☐ None
Identify the type(s) of FOP issued and/or FOP application(s) submitted/pending for the site. *(check all that apply)*
☒ SOP ☐ GOP ☐ GOP application/revision (submitted or under APD review) ☐ N/A
☒ SOP application/revision (submitted or under APD review)

III. Fee Information *(go to www.tceq.texas.gov/epay to pay online)*
A. Fee Amount: $900
B. Voucher number from ePay: pay through STEERS ePay
IV. Public Notice *(if applicable)*
A. Responsible Person (☐ Mr. ☐ Mrs. ☐ Ms. ☐ Other:)_____
Name:
Title:
Company:
Mailing Address:
City:
State:
ZIP Code:
Telephone No.:
Fax No.:
Email Address:
B. Technical Contact (☐ Mr. ☐ Mrs. ☐ Ms. ☐ Other):_____
Name:
Title:
Company:
Mailing Address:
City:
State:
ZIP Code:
Telephone No.:
Fax No.:
Email Address:
C. Bilingual Notice
Is a bilingual program required by the Texas Education Code in the School District? ☐ Yes ☐ No
Are the children who attend either the elementary school or the middle school closest to your facility eligible to be enrolled in a bilingual program provided by the district? ☐ Yes ☐ No

IV.	**Public Notice *(continued)*** *(if applicable) (continued)*	
If "Yes," list which language(s) are required by the bilingual program below?		
D.	Small Business Classification and Alternate Public Notice	
Does this company (including parent companies and subsidiary companies) have fewer than 100 employees or less than $6 million in annual gross receipts?		☐ Yes ☐ No
Is the site a major source under 30 TAC Chapter 122, Federal Operating Permit Program?		☐ Yes ☐ No
Are the site emissions of any individual regulated air contaminant equal to or greater than 50 tpy?		☐ Yes ☐ No
Are the site emissions of all regulated air contaminant combined equal to or greater than 75 tpy?		☐ Yes ☐ No
V.	**Renewal Certification Option**	
A.	Does the permitted facility emit an air contaminant on the Air Pollutant Watch List, and is the permitted facility located in an area on the watch list?	☐ Yes ☐ No
B.	For facilities participating in the Houston/Galveston/Brazoria area (HGB) cap and trade program for highly reactive VOCs (HRVOCs), do the HRVOCs need to be speciated on the maximum allowable emission rates table (MAERT)?	☐ Yes ☐ No
C.	Does the company and/or site have an unsatisfactory compliance history?	☐ Yes ☐ No
D.	Are there any applications currently under review for this standard permit registration?	☐ Yes ☐ No
E.	Are scheduled maintenance, startup, or shutdown emissions required to be included in the standard permit registration at this time?	☐ Yes ☐ No
F.	Are any of the following actions being requested at the time of renewal:	☐ Yes ☐ No
1.	Are there any facilities that have been permanently shutdown that are proposed to be removed from the standard permit registration?	☐ Yes ☐ No
2.	Do changes need to be made to the standard permit registration in order to remain in compliance?	☐ Yes ☐ No
3.	Are sources or facilities that have always been present and represented, but never identified in the standard permit registration, proposed to be included with this renewal?	☐ Yes ☐ No
4.	Are there any changes to the current emission rates table being proposed?	☐ Yes ☐ No
*Note: If answers to all of the questions in Section V. Renewal Certification Option are "No," use the certification option and skip to Section VII. of this form. If the answers to any of the questions in Section V. Renewal Certification Option are "Yes," the certification option **cannot** be used.*		
*If notice is applicable and comments are received in response to the public notice, the application does not qualify for the renewal certification option.		

VI. Technical Information Including State and Federal Regulatory Requirements		
Place a check next to the appropriate box to indicate what you have included in your submittal. *Note: Any technical or essential information needed to confirm that facilities are meeting the requirements of the standard permit must be provided. Not providing key information could result in an automatic deficiency and voiding of the project*.		
A. Standard Permit requirements (Checklists are optional; however, your review will go faster if you provide applicable checklists.)		
Did you demonstrate that the general requirements in 30 TAC Sections 116.610 and 116.615 are met?	☒ Yes	☐ No
Did you demonstrate that the individual requirements of the specific standard permit are met?	☒ Yes	☐ No
B. Confidential Information (All pages properly marked "CONFIDENTIAL").	☐ Yes	☒ No
C. Process Flow Diagram.	☐ Yes	☒ No
D. Process Description.	☒ Yes	☐ No
E. Maximum Emissions Data and Calculations.	☒ Yes	☐ No
F. Plot Plan.	☐ Yes	☒ No
G. Projected Start Of Construction Date, Start Of Operation Date, and Length of Time at Site:	☒ Yes	☐ No
Projected Start of Construction (provide date): 04/13/2023		
Projected Start of Operation (provide date): 07/31/2023		
Length of Time at the Site: N/A		
VII. Delinquent Fees and Penalties		
This form **will not be processed** until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ website at: www.tceq.texas.gov/agency/financial/fees/delin/index.html.		

VIII. Signature Requirements
The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7; the Texas Health and Safety Code, Chapter 382, the Texas Clean Air Act (TCAA) the air quality rules of the Texas Commission on Environmental Quality; or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I understand my signature indicates that this application meets all applicable nonattainment, prevention of significant deterioration, or major source of hazardous air pollutant permitting requirements. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.
Name (printed): Electronically signed and submitted in STEERS
Signature (original signature required):
Date:
IX. Copies of the Registration
The PI-1S application must be submitted through ePermits. No additional copies need to be sent to the Regional Office or local Air Pollution Control Program(s). The link to ePermits can be found here: www3.tceq.texas.gov/steers/.

Texas Commission on Environmental Quality
Air Quality Standard Permit for Boilers (AQSPB) Checklist

Site Name: Block 31 Gas Plant	RN Number: 100223569
Unit Name: Rental Boiler	EPNs: B-TEMP

The following checklist covers all boilers greater than 40 MMBtu/hr requested to be authorized at any site in the state of Texas under the AQSPB. Note that the boiler still needs to be in compliance with the requirements of 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, if applicable. Maintenance, startup, and shutdown (MSS) emissions must be authorized under the AQSPB. Fugitive components associated with the boiler can also be authorized under the AQSPB. Any ammonia storage tanks, piping, and other equipment necessary to supply ammonia to a selective catalytic reduction (SCR) unit can be authorized under the AQSPB. Pollution control cannot be authorized under, or in tandem with, the AQSPB. If you have any questions, please contact the TCEQ, Air Permits Division.

Please complete a separate checklist for each boiler. If boilers are identical (all characteristics, uses, and physical features are exactly the same), this checklist can be completed one time for that group of boilers, but list all individual boiler EPNs and names above.

Definitions

Fuel Gas: Any gas which is generated at a petroleum refinery or a petrochemical plant, as defined by Standard Industrial Classification (SIC) Code 28, and any blends of those gases with natural gas. Fuel gas must also comply with the fuel limitations specified in subsection (4)(A).

Temporary Boiler: A boiler, as a replacement for an existing boiler or as an additional source that is installed and operated for no more than 180 days at a site. At least 12 months must pass between authorizations for a temporary boiler that will perform substantially the same purpose at the site. However, if the boiler will be used for a different purpose at the site, the owner or operator must seek authorization within the 12 month period.

Annual Capacity Factor (ACF): The ratio between the actual heat input during a calendar year and the potential heat input had the boiler been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.

Boiler Identifying Features

Boiler Type: ☐ Fire Tube ☒ Water Tube

Heat Input: _____ MMBtu/hour: 99.9

Boiler Horsepower: 150 based on evaporation of 34.5 lb/hr of steam from

5 square feet of heating surface at 212° Fahrenheit.

How many identical boilers are being claimed? 1

Do the boilers have the same common header? YES ☒ NO

Operating temperature of the boiler: _____ °F

Boiler feed water temperature: _____ °F

Peak Efficiency of Boiler _____ % of it rating

Fuel Used: Natural Gas

Texas Commission on Environmental Quality
Air Quality Standard Permit for Boilers (AQSPB) Checklist

Section I: Requirements that Apply to All Boilers Under the AQSPB		
Rule	**Applicable Requirement**	
(1)(A)	Will heat input for the boiler be greater than 40 MMBtu/hr? *If YES, continue.* *If NO, STOP. The boiler cannot be authorized under the AQSPB.*	☒ YES ☐ NO
(1)(B)	Is this project a new major source or a major modification with respect to Prevention of Significant Deterioration (PSD) or Nonattainment New Source Review (NNSR)? *If YES, STOP. The boiler cannot be authorized under the AQSPB.* *If NO, continue.*	☐ YES ☒ NO
(4)(A)(v)	Is the boiler an air pollution control device? *If YES, STOP. The boiler cannot be authorized under the AQSPB.* *If NO, continue.*	☐ YES ☒ NO
Rule	**Part 1 (This row is used for reference on the checklist only.)**	
(3)	Check the appropriate box if the following administrative requirements have been met:	
(3)(A)	☒ Registration of boiler in accordance with 30 TAC 116.611:	
(3)(A)	☒ Submittal of calculated short- and long-term emissions as specified in (3)(A)	
(3)(B)	☒ Registration compliance with fees stipulated under 30 TAC 116.614.	
(3)(C)	☒ Obtaining written approval of registration prior to construction or operation.	
(3)(D)	☒ Compliance with applicable conditions, including testing and performance standards stipulated under Title 40 Code of Federal Regulations (40 CFR) Part 60. Subparts Da, Db, and Dc	
(3)(E)	☒ Compliance with applicable requirements of 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds.	
(4)(A)(i)	Are references to emission limits and boiler sizes in this standard permit based on the higher heating value of the fuel?	☒ YES ☐ NO
(4)(A)(ii)	Will fuel fired in the boiler meet the specifications outlined under " Definitions" above and also comply with 40 CFR Part 60, Subpart J, Standards of Performance for Petroleum Refineries, if applicable?	☒ YES ☐ NO
(3)(A) and (3)(B)	Except for 116.110(a)(1), does the boiler meet the general requirements for standard permits?	☒ YES ☐ NO
(3)(A)	Is Form PI-1S included in this registration?	☒ YES ☐ NO
(3)(A)	Are maximum lb/hr emission calculations, maximum tpy emission calculations, and Table 1(a) included in this registration? *Calculation spreadsheets for boiler exhaust emission calculations are available on the TCEQ website.*	☒ YES ☐ NO

Texas Commission on Environmental Quality
Air Quality Standard Permit for Boilers (AQSPB) Checklist

Section I: Requirements that Apply to All Boilers Under the AQSPB		
Part 1 (This row is used for reference on the checklist only.)		
Rule	**Applicable Requirement**	
(4)(D)(i) and (4)(D)(ii)	During MSS, are: • NO_x emissions ≤ 0.10 lb/MMBtu • CO emissions ≤ 500 parts per million by volume dry (ppmvd)?	☒ YES ☐ NO
(4)(D)(iv)	During MSS, is: • warm startup ≤ four hours • cold startup ≤ eight hours • shutdown ≤ one hour?	☒ YES ☐ NO
(4)(D)(iii)	Does opacity exceed limits in 30 TAC Chapter 111 during MSS?	☐ YES ☒ NO
(3)(A)	Is the annual capacity factor calculation included in this registration?	☒ YES ☐ NO
(4)(B)(i)	Is compliance with emission limits based on: • one-hour block averages for NOx • three hour block averages for CO?	☒ YES ☐ NO
(4)(B)(v)	During normal operations, are CO emissions ≤ 50 ppmvd, corrected to 3% oxygen?	☒ YES ☐ NO
(4)(B)(vii)	Is opacity determined by 40 CFR Part 60, Appendix A, Method 9, for: • initial compliance testing • testing at least once per year, thereafter?	☒ YES ☐ NO
(4)(B)(vii)	Is the opacity of emissions ≤ 5%, averaged over a six-minute period?	☒ YES ☐ NO
(4)(A)(i)	Are all emission calculations and the maximum heat input based on the higher heating values of fuels?	☒ YES ☐ NO
(4)(A)(ii)	Is gaseous fuel: • fuel gas and/or natural gas only • sulfur content ≤ 10 grains per 100 dry standard cubic feet (dscf) • total hydrogen sulfide content ≤ 10 grains per 100 standard cubic feet (scf) • < 50% hydrogen by volume • free of alkynes • higher heating value ≥ 900 Btu/scf?	☒ YES ☐ NO
(4)(A)(iii)	Is liquid fuel: • used for ≤ 720 hours per calendar year • total sulfur content ≤ 0.05% by weight • waste solvent free?	☐ YES ☒ NO

Texas Commission on Environmental Quality
Air Quality Standard Permit for Boilers (AQSPB) Checklist

Section I: Requirements that Apply to All Boilers Under the AQSPB		
Part 1 (This row is used for reference on the checklist only.)		
Rule	**Applicable Requirement**	
(4)(E)	Is the minimum boiler stack height calculation in this registration?	☒ YES ☐ NO
(4)(E)	What is the minimum boiler stack height in feet? 12.2	feet
(4)(E)	What is the actual boiler stack height in feet? >13	feet
If all the questions under Part 1 are answered YES, continue. *If any of the questions under Part 1 are answered NO, STOP. The boiler cannot be authorized under the AQSPB.*		
Rule	**Part 2 (This row is used for reference on the checklist only.)**	
(3)(D)	Does the boiler comply with 40 CFR Part 60, Subpart Da?	☐ YES ☐ NO ☒ NA
(3)(D)	Does the boiler comply with 40 CFR Part 60, Subpart Db?	☐ YES ☐ NO ☒ NA
(3)(D)	Does the boiler comply with 40 CFR Part 60, Subpart Dc?	☒ YES ☐ NO ☐ NA
(3)(E)	Does the boiler comply with 30 TAC Chapter 117?	☐ YES ☐ NO ☒ NA
(4)(A)(ii)	Does the boiler comply with 40 CFR Part 60, Subpart J?	☐ YES ☐ NO ☒NA
If all the questions under Part 2 are answered YES or NA, continue. *If any of the questions under Part 2 are answered NO, STOP. The boiler cannot be authorized under the AQSPB.*		
*The following address the possible choices under the AQSPB. Check the **one** box in the first column that applies, and complete the corresponding Sections indicated in the last column. If you have any questions, please contact the TCEQ.*		
Temporary boiler, <100 MMBtu/hr:		
☐	No SCR, no CEMS .	Section II
☐	No SCR, CEMS with no shared stacks and no common stack	Section II
☐	No SCR, CEMS with shared stacks or a common stack	Section II
☐	SCR (CEMS required), CEMS with no shared stacks and no common stack	Sections II and IV
☐	SCR (CEMS required), CEMS with shared stack or a common stack	Sections II and IV
Temporary boiler, ≥ 100 MMBtu/hr maximum rated input:		
☐	CEMS required/no shared stacks and no common stack, no SCR	Section II
☐	CEMS required/shared stacks or a common stack, no SCR	Section II
☐	CEMS required/no shared stacks and no common stack, SCR	Sections II and IV
☐	CEMS required/shared stacks or a common stack, SCR	Sections II and IV

Texas Commission on Environmental Quality
Air Quality Standard Permit for Boilers (AQSPB) Checklist

Section I: Requirements that Apply to All Boilers Under the AQSPB		
Part 2 (This row is used for reference on the checklist only.)		
Permanent boiler, <100 MMBtu/hr:		
☐	No SCR, no CEMS	Section III
☐	No SCR, CEMS with no shared stacks and no common stack	Section III
☐	No SCR, CEMS with shared stacks or a common stack	Section III
☒	SCR (CEMS required), CEMS with no shared stacks and no common stack	Sections III and IV
☐	SCR, (CEMS required), CEMS with shared stacks or a common stack	Sections III and IV
Permanent boiler, ≥ 100 MMBtu/hr maximum rated input:		
☐	CEMS required/no shared stacks and no common stack, no SCR	Section III
☐	CEMS required/shared stacks or a common stack, no SCR	Section III
☐	CEMS required/no shared stacks and no common stack, SCR	Sections III and IV
☐	CEMS required/shared stacks or a common stack, SCR	Sections III and IV

Rule	**Section II: Requirements that Apply to All Temporary Boilers Under the AQSPB**	
(4)(B)(iii)	During normal operations, are NOx emissions ≤ 0.036 lb/MMBtu? *If YES, continue.* *If NO, STOP. The boiler cannot be authorized under the AQSPB.*	☐ YES ☐ NO
(5)(B)(vii)	Was stack testing performed on this temporary boiler at another site in the state of Texas, and was this stack testing acceptable to the TCEQ Regional Office with jurisdiction over the other site? *If YES, and you are using the stack test emission results for emissions under this registration, attach supporting information.*	☐ YES ☐ NO

Rule	**Section III: Requirements that Apply To All Permanent Boilers Under the AQSPB**	
*The next three rows address the possible choices for NOx emission limits during normal operations. Check the **one** box that applies.*		
(4)(B)(ii)	☐	maximum heat input < 100 MMBtu/hr, annual capacity factor ≤ 0.30, ≤ 0.036 lb NO_x/MMBtu
(4)(B)(ii)	☒	> 75% of the fuel heating value due to natural gas, ≤ 0.01 lb NOx/MMBtu
(4)(B)(ii)	☐	≤ 0.015 lb NOx/MMBtu

Section IV: Requirements that Apply To All Boilers Using an Ammonia or Urea Injection SCR for Boiler Exhaust Emission Controls Under the AQSPB	
Rule	**Part 2 (This row is used for reference on the checklist only.)**
The next three boxes address ammonia storage. Check at least one box.	
(4)(C)(ii)	☐ The site has an acceptable review under 40 CFR 68.
(4)(C)(ii)	☒ Ammonia is being stored on site in quantities less than the threshold values in 40 CFR 68, citation 68.130.
(4)(C)(ii)	☐ Ammonia is being stored on site in ≤ 20% by volume aqueous solution.
Rule	**Part 3 (This row is used for reference on the checklist only.)**
(4)(B)(vi)	During all operations, are ammonia emissions from the boiler ≤ 10 ppmvd, corrected to 3% oxygen? ☒ YES ☐ NO
(4)(C)(ii)	Are audio, olfactory, and visual checks for ammonia leaks performed at least once per day in the operating area? ☒ YES ☐ NO *If all the questions under Part 3 are answered YES, Section IV is complete.* *If any of the questions under Part 3 are answered NO, STOP. The boiler cannot be authorized under the AQSPB.*

PRINT FORM RESET FORM

Texas Commission on Environmental Quality
Table 1(a) Emission Point Summary
Air Contaminant Data (Page 1)

Date:	**May 2024**
Permit No.:	**172505**
Regulated Entity No.:	**RN100223569**
Area Name:	**Block 31 Gas Plant**
Customer Reference No.:	**CN604677401**

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

EPN	FIN	Name	Component or Air Contaminant Name	Air Contaminant Emission Rate lb/hr	Air Contaminant Emission Rate TPY
~~B-TEMP~~	~~B-TEMP~~	~~Temporary Boiler~~	~~VOC~~	~~0.55~~	~~1.19~~
			~~NOx~~	~~3.60~~	~~7.78~~
			~~CO~~	~~3.75~~	~~8.10~~
			~~SO_2~~	~~0.17~~	~~0.37~~
			~~$PM/PM_{10}/PM_{2.5}$~~	~~0.76~~	~~1.64~~
B-TEMP	B-TEMP	~~Temporary Boiler~~ Rental Boiler	VOC	0.55	2.41
			NOx	1.00	4.88
			NOx - MSS	9.99	
			CO	3.75	18.30
			CO - MSS	38.00	
			SO_2	1.40	6.10
			$PM/PM_{10}/PM_{2.5}$	0.76	3.33
			NH_3	0.47	2.06
FUG-SCR	FUG-SCR	SCR Piping Fugitives	NH_3	0.02	0.09

EPN = Emission Point Number
FIN = Facility Identification Number

Texas Commission on Environmental Quality
Table 1(a) Emission Point Summary
Air Contaminant Data (Page 2)

Date:	**May 2024**
Permit No.:	**172505**
Regulated Entity No.:	**RN100223569**
Area Name:	**Block 31 Gas Plant**
Customer Reference No.:	**CN604677401**

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

EPN	FIN	Name	UTM Coordinates of Emission Point Zone	UTM Coordinates of Emission East (Meters)	UTM Coordinates of Emission North (Meters)	Emission Point Discharge Parameters Building Height (ft)	Emission Point Discharge Parameters Height Above Ground (ft)	Stack Exit Data Diameter (ft)	Stack Exit Data Velocity (FPS)	Stack Exit Data Temperature (°F)	Fugitives Length (ft)	Fugitives Width (ft)	Fugitives Axis Degrees
~~B-TEMP~~	~~B-TEMP~~	~~Temporary Boiler~~	~~13~~	~~741218~~	~~3481161~~		~~23~~	4	~~47 (est.)~~	~~400 (est.)~~			
B-TEMP	B-TEMP	~~Temporary Boiler~~ Rental Boiler	13	741218	3481161		33	4	47 (est.)	400 (est.)			
FUG-SCR	FUG-SCR	SCR Piping Fugitives	13	741218	3481161		3 (est.)				5	5	0

EPN = Emission Point Number
FIN = Facility Identification Number