Permit by Rule (PBR) Registration
Technical Review

Company:	Civitas Permian Operating, LLC	**Registration No.:**	177705
Nearest City:	Rankin	**Project No.:**	380757
County:	Upton	**Project Type:**	Initial
Project Reviewer:	Sarah Kyser	**Regulated Entity No.:**	RN112055017
Unit Name:	University 23-26 West Well Pad	**Customer Reference No.:**	CN605456250
PBR No(s).:	106.512	**Project Received Date:**	September 27, 2024
Physical Location:	From the INTX of HWY 349 and 67, go W on HWY 67 for 3.0 mi to HWY 220. Go S on HWY 220 for 6.3 mi. Turn L on dirt road. Go NE 0.22 mi to fork. Turn L and travel 0.75 mi N to location.		

Project Overview / Process Description
Civitas Permian Operating, LLC has chosen to certify their site and emissions under rule 106.512 using a PI-7CERT.

The site is a location on which oil wells are located. Five natural gas fired engines (ENG-1 through ENG-5) provide power for electric submersible pumps (ESPs). The engines will be used exclusively for on-site use where there is no reliable access to the electricity grid. The ESPs are used to boost the oil production from the wells. The oil is delivered via pipeline to a nearby central tank battery. The generator engines are the only emission sources at the site.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements	
Registration Fee Reference No.:	**Application fee: 723084 / 582EA000627046**
Is this registration certified?	**Yes**
Is planned MSS included in the registration?	**No**
Are there affected NSR or Title V authorizations for the project?	**No**
Are there any upstream or downstream affects associated with this registration?	**No**
Are associated upstream/downstream emissions either included in the registration OR within current permitted limits with no changes to underlying air authorizations for the applicable units regarding BACT, health and environmental impacts, or other representations.	**NA**
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	**Yes**
Are total emissions from all sitewide PBR authorized facilities less than the § 106.4(a)(4) limits, OR has the site been subject to public notice requirements?	**Yes, less than the limits**
Are there permit limits on using PBRs at the site?	**No**
Is the facility in compliance with all other applicable rules and regulations?	**Yes**

Federal Applicability	
Does this project trigger a PSD or Nonattainment review?	**No**
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	**NA**
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	**Yes**
If Yes, list applicable subparts:	**NSPS JJJJ; MACT ZZZZ**

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.512 Stationary Engines and Turbines

Gas or liquid fuel-fired stationary internal combustion reciprocating engines or gas turbines that operate in compliance with the following conditions of this section are permitted by rule.

(1) The facility shall be registered by submitting the commission's Form PI-7, Table 29 for each proposed reciprocating engine, and Table 31 for each proposed gas turbine to the commission's Office of Permitting, Remediation, and Registration in Austin within ten days after construction begins. Engines and turbines rated less than 240 horsepower (hp) need not be registered, but must meet paragraphs (5) and (6) of this section, relating to fuel and protection of air quality. Engine hp rating shall be based on the engine manufacturer's maximum continuous load rating at the lesser of the engine or driven equipment's maximum

published continuous speed. A rich-burn engine is a gas-fired spark-ignited engine that is operated with an exhaust oxygen content less than 4.0% by volume. A lean-burn engine is a gas-fired spark-ignited engine that is operated with an exhaust oxygen content of 4.0% by volume, or greater. **All engines: 582hp**

(2) For any engine rated 500 hp or greater, subparagraphs (A) - (C) of this paragraph shall apply.

(2)(A) The emissions of nitrogen oxides (NO_X) shall not exceed the following limit:

(2)(A)(i) 2.0 grams per horsepower-hour (g/hp-hr) under all operating conditions for any gas-fired rich-burn engine;

(2)(B) For such engines which are spark-ignited gas-fired or compression-ignited dual fuel-fired, the engine shall be equipped as necessary with an automatic air-fuel ratio (AFR) controller which maintains AFR in the range required to meet the emission limits of subparagraph (A) of this paragraph. An AFR controller shall be deemed necessary for any engine controlled with a non-selective catalytic reduction (NSCR) converter and for applications where the fuel heating value varies more than ±50 British thermal unit/standard cubic feet from the design lower heating value of the fuel. If an NSCR converter is used to reduce NO_X, the automatic controller shall operate on exhaust oxygen control.

(2)(C) Records shall be created and maintained by the owner or operator for a period of at least two years, made available, upon request, to the commission and any local air pollution control agency having jurisdiction, and shall include the following:

(2)(C)(i) documentation for each AFR controller, manufacturer's, or supplier's recommended maintenance that has been performed, including replacement of the oxygen sensor as necessary for oxygen sensor- based controllers. The oxygen sensor shall be replaced at least quarterly in the absence of a specific written recommendation;

(2)(C)(ii) documentation on proper operation of the engine by recorded measurements of NO_X and carbon monoxide (CO) emissions as soon as practicable, but no later than seven days following each occurrence of engine maintenance which may reasonably be expected to increase emissions, changes of fuel quality in engines without oxygen sensor-based AFR controllers which may reasonably be expected to increase emissions, oxygen sensor replacement, or catalyst cleaning or catalyst replacement. Stain tube indicators specifically designed to measure NO_X and CO concentrations shall be acceptable for this documentation, provided a hot air probe or equivalent device is used to prevent error due to high stack temperature, and three sets of concentration measurements are made and averaged. Portable NO_X and CO analyzers shall also be acceptable for this documentation;

(2)(C)(iii) documentation within 60 days following initial engine start-up and biennially thereafter, for emissions of NO_X and CO, measured in accordance with United States Environmental Protection Agency (EPA) Reference Method 7E or 20 for NO_X and Method 10 for CO. Exhaust flow rate may be determined from measured fuel flow rate and EPA Method 19. California Air Resources Board Method A-100 (adopted June 29, 1983) is an acceptable alternate to EPA test methods. Modifications to these methods will be subject to the prior approval of the Source and Mobile Monitoring Division of the commission. Emissions shall be measured and recorded in the as-found operating condition; however, compliance determinations shall not be established during start- up, shutdown, or under breakdown conditions. An owner or operator may submit to the appropriate regional office a report of a valid emissions test performed in Texas, on the same engine, conducted no more than 12 months prior to the most recent start of construction date, in lieu of performing an emissions test within 60 days following engine start-up at the new site. Any such engine shall be sampled no less frequently than biennially (or every 15,000 hours of elapsed run time, as recorded by an elapsed run time meter) and upon request of the executive director. Following the initial compliance test, in lieu of performing stack sampling on a biennial calendar basis, an owner or operator may elect to install and operate an elapsed operating time meter and shall test the engine within 15,000 hours of engine operation after the previous emission test. The owner or operator who elects to test on an operating hour schedule shall submit in writing, to the appropriate regional office, biennially after initial sampling, documentation of the actual recorded hours of engine operation since the previous emission test, and an estimate of the date of the next required sampling.

(3) **N/A** no turbines on site.

(4) **N/A** no engine or turbine rated less than 500 hp or used for temporary replacement purposes.

(5) Gas fuel shall be limited to: **field gas**. If field gas contains more than 1.5 grains hydrogen sulfide or 30 grains total sulfur compounds per 100 standard cubic feet (sour gas), the engine owner or operator shall maintain records, including at least quarterly measurements of fuel hydrogen sulfide and total sulfur content, which demonstrate that the annual SO_2 emissions from the facility do not exceed 25 tons per year (tpy). Liquid fuel shall be petroleum distillate oil that is not a blend containing waste oils or solvents and contains less than 0.3% by weight sulfur. **0 gr/100 dSCF**

(6) There will be no violations of any National Ambient Air Quality Standard (NAAQS) in the area of the proposed facility. Compliance with this condition shall be demonstrated by the following method:

(6)(C) the total emissions of NO_X (nitrogen oxide plus NO_2) from all existing and proposed facilities on the property do not exceed the most restrictive of the following:

(6)(C)(i) 250 tpy;

(6)(C)(ii) the value (0.3125 D) tpy, where D equals the shortest distance in feet from any existing or proposed stack to the

nearest property line. **90 ft (property line distance); 28.13 tpy (Allowable NOx rate); 28.10 tpy (Actual NOx rate)**
(7) Upon issuance of a standard permit for electric generating units, registrations under this section for engines or turbines used to generate electricity will no longer be accepted, except for:
(7)(A) engines or turbines used to provide power for the operation of facilities registered under the Air Quality Standard Permit for Concrete Batch Plants;
(7)(B) engines or turbines satisfying the conditions for facilities permitted by rule under Subchapter E of this title (relating to Aggregate and Pavement); or
(7)(C) engines or turbines used exclusively to provide power to electric pumps used for irrigating crops.

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:			**October 1, 2024**
Site rating / classification:	**N/A**	Company rating / classification:	**0.23 / Satisfactory**
Has any action occurred on the basis of the compliance history or rating?			**No**

Emission Summary

EPN / Emission Source	VOC		NOx		CO		PM		SO_2		Benzene		CH_2O	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
ENG-1 / Engine 1	1.08	4.70	1.28	5.62	2.57	11.24	0.08	0.36	<0.01	0.01	0.01	0.03	0.09	0.38
ENG-2 / Engine 2	1.08	4.70	1.28	5.62	2.57	11.24	0.08	0.36	<0.01	0.01	0.01	0.03	0.09	0.38
ENG-3 / Engine 3	1.08	4.70	1.28	5.62	2.57	11.24	0.08	0.36	<0.01	0.01	0.01	0.03	0.09	0.38
ENG-4 / Engine 4	1.08	4.70	1.28	5.62	2.57	11.24	0.08	0.36	<0.01	0.01	0.01	0.03	0.09	0.38
ENG-5 / Engine 5	1.08	4.70	1.28	5.62	2.57	11.24	0.08	0.36	<0.01	0.01	0.01	0.03	0.09	0.38
TOTAL EMISSIONS (TPY):		**23.50**		**28.10**		**56.20**		**1.80**		**0.05**		**0.15**		**1.90**
											MAXIMUM OPERATING SCHEDULE:		**Hours/Year**	8,760

Ms. Sarah Kyser
Permit Reviewer
Rule Registration Section
10/16/2024
Date

Michael Partee, Manager
Rule Registrations Section
Air Permits Division
Section Manager
10/21/2024
Date