

# **Air Quality Standard Permit for Electric Generating Units Application**

**HEB Humble  
Humble, Harris County, Texas**

**CN606225175**

**Submitted by:  
Enchanted Rock LLC**

**June 2025**



**ENCHANTED ROCK**

**The Power is On.**

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## SECTION 1 - INTRODUCTION

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Enchanted Rock LLC (Enchanted Rock) is providing this registration to the Texas Commission on Environmental Quality (TCEQ) to authorize the construction and operation of an electric generating facility under Standard Permit number 6005. Enchanted Rock is filing this registration pursuant to the requirements in Texas Administrative Code (TAC) Title 30, Chapter 116, Subchapter F.

### 1.1 Facility Information

Enchanted Rock is proposing to build and operate the HEB Humble Plant (HEBHumble) in Humble, Harris County, Texas. HEBHumble will serve as a backup power source for HEB and will produce and sell electricity to the grid during peak times. This standard permit registration is to authorize HEBHumble to produce and sell electricity from 2 natural gas-powered spark ignition reciprocating engines operated year-round.

The proposed HEBHumble Plant will be located at FM 1960 and HWY 59 in Humble, TX 77338.

### 1.2 Application Contents

This application is organized into the following sections:

- Section 1.3 contains the TCEQ Core Data Form and form PI-1S. The registration fee has been paid electronically using TCEQ's ePay system.
- Section 2 contains the HEBHumble area map and plot plan.
- Section 3 provides the process description and process flow diagram.
- Section 4 discusses the air emissions for the project.
- Section 5 provides the air impacts analysis.
- Section 6 discusses the regulations applicable to the standard permit registration.
- Appendix A provides the emission rate estimate calculations.
- Appendix B provides the manufacturer's data sheets.
- Appendix C provides TCEQ Table 29.

### 1.3 TCEQ Application Forms

This section contains the following completed forms and documentation as required for the Standard Permit registration:

- TCEQ Core Data Form, and
- TCEQ Form PI-1S – Registrations for Air Standard Permit, and
- Copy of Fee Payment Voucher.



TCEQ Use Only

# TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
<b>2. Customer Reference Number (if issued)</b>	<a href="#">Follow this link to search for CN or RN numbers in Central Registry**</a>	<b>3. Regulated Entity Reference Number (if issued)</b>
CN 606225175		RN

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)			
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<b>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</b>					
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
<b>7. TX SOS/CPA Filing Number</b>		<b>8. TX State Tax ID</b> (11 digits)		<b>9. Federal Tax ID</b> (9 digits)	
				<b>10. DUNS Number</b> (if applicable)	
<b>11. Type of Customer:</b>		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
				Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
<b>12. Number of Employees</b>				<b>13. Independently Owned and Operated?</b>	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following:					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:					
<b>15. Mailing Address:</b>					
1113 Vine Street, Ste 101					
City		Houston		State	TX
ZIP		77002		ZIP + 4	
<b>16. Country Mailing Information</b> (if outside USA)				<b>17. E-Mail Address</b> (if applicable)	
<b>18. Telephone Number</b>		<b>19. Extension or Code</b>		<b>20. Fax Number</b> (if applicable)	
( ) -				( ) -	

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
<i>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC.)</i>	
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)	
HEB Humble	

23. Street Address of the Regulated Entity: (No PO Boxes)	FM 1960 and HWY 59							
	City	Humble	State	TX	ZIP	77338	ZIP + 4	
24. County	Harris							
Enter Physical Location Description if no street address is provided.								
25. Description to Physical Location:								
26. Nearest City					State	ZIP Code		
27. Latitude (N) In Decimal:	30.000665999999999				28. Longitude (W) In Decimal:	- 95.160302000000001		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)			
4911			221112					
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Electric Power Generation								
34. Mailing Address:	1113 Vine Street, Ste 101							
	City	Houston	State	TX	ZIP	77002	ZIP + 4	
35. E-Mail Address:	ddelafosse@enchantedrock.com							
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
( 713 ) 412-2225						( ) -		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input checked="" type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

#### SECTION IV: Preparer Information

40. Name:	Taylor DeLaFosse	41. Title:	Environmental Compliance Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 713 ) 412- 2225		( ) -	ddelafosse@enchantedrock.com

#### SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Enchanted Rock LLC	Job Title:	Environmental Compliance Manager
Name(In Print) :	Taylor DeLaFosse	Phone:	( 281 ) 412-2225
Signature:	Signed Electronically via STEERS	Date:	

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

<b>I. Registrant Information</b>		
<b>A.</b> Company or Other Legal Customer Name:		
<b>Enchanted Rock LLC</b>		
<b>B.</b> Company Official Contact Information ( <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Other: )__		
Name: <b>Taylor DeLaFosse</b>		
Title: <b>Environmental Compliance Manager</b>		
Mailing Address: <b>1113 Vine Street, Ste 101</b>		
City: <b>Houston</b>	State: <b>TX</b>	ZIP Code: <b>77002</b>
Phone: <b>281-412-2225</b>	Fax:	
E-mail Address: <b>ddelafosse@enchantedrock.com</b>		
<i>All permit correspondence will be sent via e-mail.</i>		
<b>C.</b> Technical Contact Information ( <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Other: )__		
Name: <b>Taylor DeLaFosse</b>		
Title: <b>Environmental Compliance Manager</b>		
Company Name: <b>Enchanted Rock LLC</b>		
Mailing Address: <b>1113 Vine Street, Ste 101</b>		
City: <b>Houston</b>	State: <b>TX</b>	ZIP Code: <b>77002</b>
Phone: <b>281-412-2225</b>	Fax:	
E-mail Address: <b>ddelafosse@enchantedrock.com</b>		
<b>II. Facility and Site Information</b>		
<b>A.</b> Name and Type of Facility		
Facility Name: <b>HEB Humble</b>		
Type of Facility:	<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary	
For portable units, please provide the serial number of the equipment being authorized below.		
Serial No:	Serial No:	

TCEQ-10370 (APDG 5235v27, Revised 03/18) PI-1S  
This form is for use by facilities subject to air quality permit requirements  
and may be revised periodically.

**Texas Commission on Environmental Quality**  
**Form PI-1S**  
**Registrations for Air Standard Permit**  
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<b>II. Facility and Site Information (continued)</b>		
<b>B. Facility Location Information</b>		
Street Address: <b>FM 1960 and HWY 59</b>		
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: <b>Humble</b>	County: <b>Harris</b>	ZIP Code: <b>77338</b>
Latitude (nearest second): <b>30.000665999999999</b>	Longitude (nearest second): <b>-95.160302000000001</b>	
<b>C. Core Data Form (required for Standard Permits 6004, 6006, 6007, 6008, and 6013).</b>		
Is the Core Data Form (TCEQ Form 10400) attached?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "NO," provide customer reference number (CN) and regulated entity number (RN) below.		
Customer Reference Number (CN): <b>CN606225175</b>		
Regulated Entity Number (RN):		
<b>D. TCEQ Account Identification Number (if known):</b>		
<b>E. Type of Action:</b>		
<input checked="" type="checkbox"/> Initial Application <input type="checkbox"/> Change to Registration <input type="checkbox"/> Renewal <input type="checkbox"/> Renewal Certification		
For Change to Registration, Renewal, or Renewal Certification actions provide the following: <b>N/A</b>		
Registration Number:	Expiration Date:	
<b>F. Standard Permit Claimed: 6005 – Air Quality Standard Permit for Electric Generating Units</b>		
<b>G. Previous Standard Exemption or PBR Registration Number</b>		
Is this authorization for a change to an existing facility previously authorized under a standard exemption or PBR?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter previous standard exemption number(s) and PBR registration number(s), and associated effective date in the spaces provided below.		
Standard Exemption and PBR Registration Number(s)	Effective Date	

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**Form PI-1S**  
**Registrations for Air Standard Permit**  
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<b>II. Facility and Site Information (<i>continued</i>)</b>		
<b>H. Other Facilities at this Site Authorized by Standard Exemption, PBR, or Standard Permit</b>		
Are there any other facilities at this site that are authorized by an Air Standard Exemption, PBR, or Standard Permit?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> 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)		Effective Date
<b>I. Other Air Preconstruction Permits</b>		
Are there any other air preconstruction permits at this site?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter permit number(s) in the spaces provided below.		
<b>J. Affected Air Preconstruction Permits</b>		
Does the standard permit directly affect any permitted facility?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter permit number(s) in the spaces provided below.		
<b>K. Concrete Batch Plant</b>		
<input type="checkbox"/> Central Mix <input type="checkbox"/> Ready Mix <input type="checkbox"/> Specialty Mix <input type="checkbox"/> Enhanced Controls for Concrete Batch Plants		
1. State Legislators		
State Senator:		
State Representative:		
2. County Judge		
Name:		
Mailing Address:		
City:	State:	ZIP Code:

TCEQ-10370 (APDG 5235v27, Revised 03/18) PI-1S  
 This form is for use by facilities subject to air quality permit requirements  
 and may be revised periodically.



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<b>II. Facility and Site Information (continued)</b>		
<b>K. 3. Presiding Officer</b>		
Is the facility located in a municipality or extraterritorial jurisdiction of a municipality?		<input type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," list the name of the Presiding Officer for the municipality and/or extraterritorial jurisdiction:		
Presiding Officer Name:		
Title:		
Mailing Address:		
City:	State:	ZIP Code:
<b>L. Federal Operating Permit (FOP) Requirements</b>		
Is this facility located at a site that is required to obtain an FOP pursuant to 30 TAC Chapter 122?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> To Be Determined
If the site currently has an existing FOP, enter the permit number: <b>N/A</b>		
Check the requirements of 30 TAC Chapter 122 that will be triggered if this standard permit is approved ( <i>check all that apply</i> ).		
<input type="checkbox"/> Initial Application for an FOP <input type="checkbox"/> Significant Revision for an SOP <input type="checkbox"/> Minor Revision for an SOP <input type="checkbox"/> Operational Flexibility/Off Permit Notification for an SOP <input type="checkbox"/> Revision for a GOP <input type="checkbox"/> To be Determined <input checked="" type="checkbox"/> None		
Identify the type(s) of FOP issued and/or FOP application(s) submitted/pending for the site. ( <i>check all that apply</i> )		
<input type="checkbox"/> SOP <input type="checkbox"/> GOP <input type="checkbox"/> GOP application/revision (submitted or under APD review) <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SOP application/revision (submitted or under APD review)		
<b>III. Fee Information</b> (see Section IX. for address to send fee or go to <a href="http://www.tceq.texas.gov/epay">www.tceq.texas.gov/epay</a> to pay online)		
<b>A. Fee Amount: \$100</b>		
<b>B. Payment Information</b>		
Check/money order/transaction or voucher number: <b>TCEQ ePay Voucher</b>		
Individual or company name on check: <b>Enchanted Rock</b>		
Was fee paid online?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>IV. Public Notice (if applicable)</b>		
<b>A. Responsible Person</b> ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Other: ) _____		
Name:		
Title:		
Company:		
Mailing Address:		
City:	State:	ZIP Code:
Phone:	Fax No.:	
E-mail Address:		
<b>B. Technical Contact</b> ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Other: ) _____		
Name:		
Title:		
Company:		
Mailing Address:		
City:	State:	ZIP Code:
Phone No.:	Fax No.:	
E-mail Address:		
<b>C. Bilingual Notice</b>		
Is a bilingual program required by the Texas Education Code in the School District?	<input type="checkbox"/> YES <input type="checkbox"/> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
If "YES," list which language(s) are required by the bilingual program?		

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<b>IV. Public Notice (if applicable) (continued)</b>	
<b>D. Small Business Classification and Alternate Public Notice</b>	
Does this company (including parent companies and subsidiary companies) have fewer than 100 employees or less than \$6 million in annual gross receipts?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Is the site a major source under 30 TAC Chapter 122, Federal Operating Permit Program?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Are the site emissions of any individual regulated air contaminant equal to or greater than 50 tpy?	<input type="checkbox"/> YES <input type="checkbox"/> NO
Are the site emissions of all regulated air contaminant combined equal to or greater than 75 tpy?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>E. For Concrete Batch Plants</b>	
<b>1.</b> Public Works Project: Will the plant provide concrete to a public works project, and be located in or contiguous to the right of-way of the public works project? (If "YES," public notice is not required.)	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>2.</b> Application in Public Place	<input type="checkbox"/> YES <input type="checkbox"/> NO
Name of Public Place:	
Physical Address:	
City:	County:
<b>V. Renewal Certification Option</b>	
<b>A.</b> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO <b>(See Note Below)</b>
<b>B.</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)?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C.</b> Does the company and/or site have an unsatisfactory compliance history?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D.</b> Are there any applications currently under review for this standard permit registration?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>E.</b> Are scheduled maintenance, startup, or shutdown emissions required to be included in the standard permit registration at this time?	<input type="checkbox"/> YES <input type="checkbox"/> NO

Note: This registration is an initial registration and not for the renewal of an existing registration. Therefore, this section does not apply.

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<b>V. Renewal Certification Option (continued)</b>	
<b>F.</b> Are any of the following actions being requested at the time of renewal:	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>1.</b> Are there any facilities that have been permanently shutdown that are proposed to be removed from the standard permit registration?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>2.</b> Do changes need to be made to the standard permit registration in order to remain in compliance?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>3.</b> 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?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>4.</b> Are there any changes to the current emission rates table being proposed?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>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 <b>cannot</b> be used.</i>	
<i>*If notice is applicable and comments are received in response to the public notice, the application does not qualify for the renewal certification option.</i>	
<b>VI. Technical Information Including State and Federal Regulatory Requirements</b> <b>Place a check next to the appropriate box to indicate what you have included in your submittal.</b> <i>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.</i>	
<b>A.</b> 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?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Did you demonstrate that emission limitations in 30 TAC Sections 106.261 and 106.262 are met?	<input type="checkbox"/> YES <input type="checkbox"/> NO <b>(Not Applicable)</b>
Did you demonstrate that the individual requirements of the specific standard permit are met?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>B.</b> Confidential Information (All pages properly marked "CONFIDENTIAL")	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>C.</b> Process Flow Diagram	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>D.</b> Process Description	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>E.</b> Maximum Emissions Data and Calculations	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>F.</b> Plot Plan	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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**VI. Technical Information Including State and Federal Regulatory Requirements (continued)**

**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.*

**G. Projected Start Of Construction Date, Start Of Operation Date, and Length of Time at Site:** ☒ YES ☐ NO

Projected Start of Construction (provide date): **8/1/2025**

Projected Start of Operation (provide date): **TBD**

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 Web site at: [www.tceq.texas.gov/agency/delin/index.html](http://www.tceq.texas.gov/agency/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): **Taylor DeLaFosse**

Signature (original signature required): **Signed Electronically via STEERS**

Date:

## **Copy of Payment Fees**

Standard Permit registration fee payment and registration submittal were made via STEERS.

## **SECTION 2 - SITE LAYOUT AND AERIALS**

---

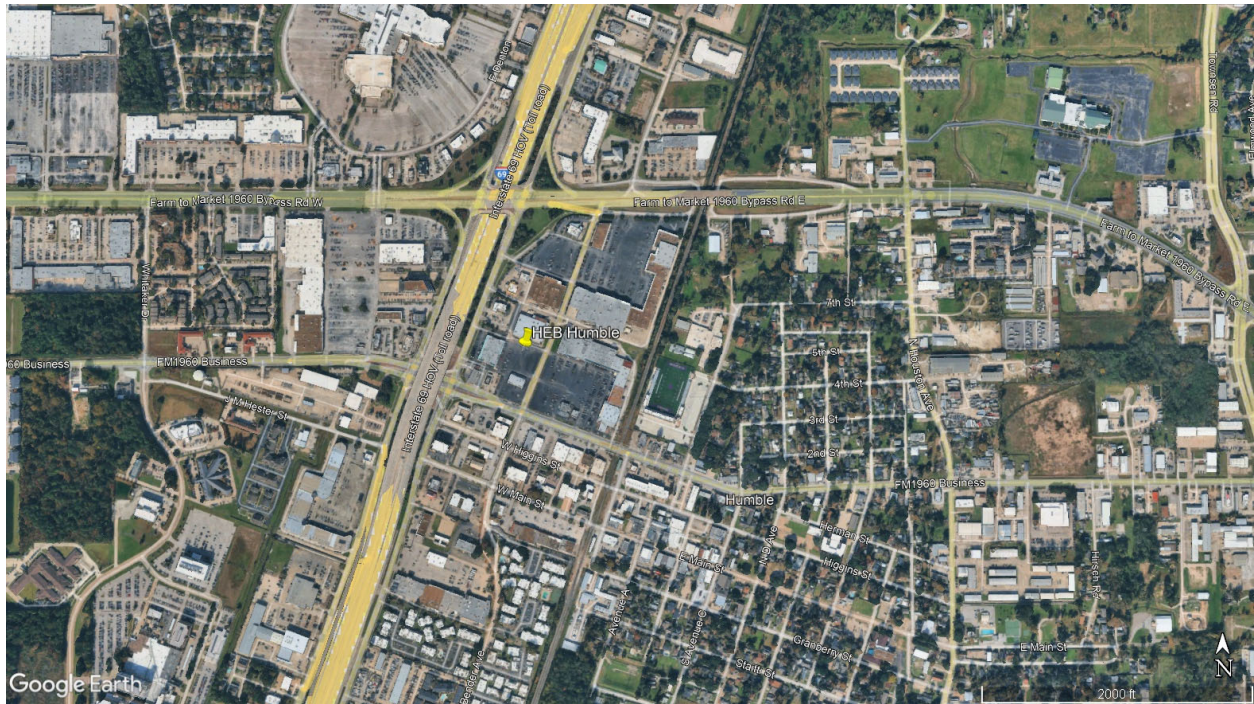
Aerials showing the location and surrounding areas of the HEBHumble site and the plot plan for HEBHumble are included in the following figures.

**Figure 2-1 Zoomed-In Aerial**





**Figure 2-2 Zoomed Out Aerial**



## **SECTION 3 - PROCESS DESCRIPTION**

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The HEBHumble Plant is an electric generating power plant that will burn natural gas in spark ignition reciprocating engines to produce electricity. The proposed plant will operate as a peaking power plant and will also provide backup power to HEB located adjacent to the HEBHumble Plant.

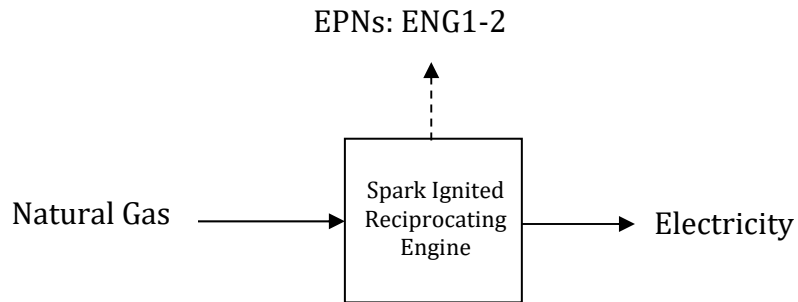
The HEBHumble Plant will only use sweet natural gas, which will be piped onto the site.

Start-up and shutdown activities will not be included in the MSS emissions. The spark ignition reciprocating engines are peaking generators and it is in the intention of the site's operation to experience constant start-up and shutdown. Therefore, the emissions from start-up and shutdown activities are accounted for in the emission factors provided in the manufacturer's data for normal operating emissions.

Figure 3-1 presents the process flow diagram depicting the basic process description outlined above.

### **3.1 Maintenance Activities**

Emissions from planned maintenance activities, including routine oil changes will be authorized under Permit by Rule or will be considered de minimis.



**LEGENDS:**

- - - - Air Emissions or Exhaust

**NOTE:**

**Figure 3-1 Process Flow Diagram**

**Air Quality Standard Permit Registration**

Humble, Harris County, TX

**Enchanted Rock LLC.**

HEB Humble



**Project Number**  
HEBHumble

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## SECTION 4 - AIR EMISSIONS SUMMARY

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This section describes the air emission calculation methodologies used to estimate hourly and annual emission rates for the facilities and activities represented in this standard permit registration. Detailed emission rate estimate calculations are confidential and provided in the tables located in Appendix A which is submitted under a separate confidential cover. The following discussion is limited to a general description of the calculation methodology and a summary of key assumptions and calculation basis data.

Emissions of air contaminants are estimated for each facility using vendor's anticipated emission rate estimates, mass balance calculations, and emission factors appropriate to the facility type from the Environmental Protection Agency's (EPA's) "Compilation of Air Pollutant Emission Factors" (AP-42).

### 4.1 Spark Ignited Reciprocating Internal Combustion Engines

The SI RICE at HEBHumble are fired with sweet natural gas. Products of combustion from the engines include the following criteria and non-criteria pollutants: NO<sub>x</sub>, CO, VOC, sulfur dioxide (SO<sub>2</sub>), particulate matter with diameters less than 10 microns (PM<sub>10</sub>), and particulate matter with diameters less than 2.5 microns (PM<sub>2.5</sub>). Table 4-1 provides a summary of the short-term and annual emission rates for each engine and total sitewide emissions.

NO<sub>x</sub> emissions are estimated using the manufacturer guaranteed emission factors and emission requirements in the Standard Permit.

VOC and CO emissions are conservatively estimated using the manufacturer guaranteed emission factors and the emission standards in Table 1 to NSPS Part 60 Subpart JJJJ.

PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub> emissions are estimated using emission factors in EPA's AP-42, Table 3.2-3 and the maximum heat input to the engine, and a natural gas sulfur content of 5 grains per 100 dry standard cubic feet (gr/100 dscf).

Hourly and annual emission calculations for Engines 1-2 are provided in Appendix A.

#### 4.1.1 Startup and Shutdown Activities

The spark ignition reciprocating engines are peaking generators and it is in the intention of the sites operation to experience constant start-up and shutdown. Therefore, the emissions from start-up and shutdown activities are accounted for in the emission factors provided in the manufacturer's data for normal operating emissions.

### 4.2 Maintenance Activities

Maintenance activities conducted at HEBHumble are authorized under 30 TAC 106.263 or are *de minimis* sources of emissions.

**Table 4-1 Emissions Summary**

<b>HEBHumble Estimated Emissions</b>																
<b>EPN(s) / Emission Sources</b>	<b>VOC</b>		<b>NO<sub>x</sub></b>		<b>CO</b>		<b>PM<sub>10</sub></b>		<b>PM<sub>2.5</sub></b>		<b>SO<sub>2</sub></b>		<b>HAPs</b>		<b>H<sub>2</sub>S</b>	
	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>	<b>lb/hr</b>	<b>tpy</b>
ENG1-2 / Engines 1-2	0.16	0.69	0.06	0.27	1.44	6.32	0.05	0.23	0.05	0.23	0.030	0.11	0.20	0.85	-	-
Total Engines	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-
Site Total:	0.32	1.38	0.12	0.54	2.88	12.64	0.10	0.46	0.10	0.46	0.06	0.22	0.40	1.70	-	-

## SECTION 5 - IMPACTS ANALYSIS

This section summarizes the air quality impacts analysis that was conducted for the HEBHumble Plant. The site-wide emissions from the plant were compared against de minimis emission limits in 30 TAC §106.352(k)(3)(C). Table 5-1 shows the HEBHumble Plant's proposed emissions are below the de minimis rates and a full impact review is not required.

**Table 5-1 NAAQS Compliance Impacts Evaluation**

<b>Air Contaminant</b>	<b>De Minimis Emission Rates <sup>a</sup></b>	<b>Project Emissions</b>	<b>Full Impact Review Required?</b>
	<b>(lb/hr)</b>	<b>(lb/hr)</b>	
H <sub>2</sub> S	0.025	0.00	Impacts Review Not Required
SO <sub>2</sub>	2	0.06	Impacts Review Not Required
NO <sub>x</sub>	4	0.12	Impacts Review Not Required

<sup>a</sup> *de minimis* emission rates per 30 TAC 106.352(k)(3)(C).

## SECTION 6 - REGULATORY APPLICABILITY

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This section presents information demonstrating how Enchanted Rock's proposed HEBHumble Plant will be in compliance with all rules and regulations of the TCEQ and the intent of the Texas Clean Air Act (TCAA), including applicable sections of 30 TAC §116. Subchapter F and the Standard Permit for Electric Generating Units. Each requirement is listed below (in italicized text) followed by a discussion of how the site meets the respective requirement.

### 6.1 State Regulatory Applicability

#### 30 TAC Chapter 101, Subchapter A – General Rules

##### *§101.2 Multiple Air Contaminant Sources or Properties –*

**Enchanted Rock does not intend to petition the TCEQ to have its property designated as a single property with any other property for the purposes of demonstrating compliance with TCEQ regulations and the control of air emissions.**

##### *§101.3 Circumvention –*

**Enchanted Rock intends to operate the facilities in accordance with the representations made in this air quality standard permit application.**

##### *§101.4 Nuisance –*

**Enchanted Rock will not discharge air contaminants in such concentration and of such duration that they will or may tend to be injurious to or adversely affect human health or welfare, animal life, vegetation, or property, or interfere with the normal use and enjoyment of animal life, vegetation, or property.**

##### *§101.5 Traffic Hazard –*

**No discharge of air contaminants, uncombined water or other materials from the project will cause or have a tendency to cause a traffic hazard or an interference with normal road use.**

##### *§101.8 Sampling –*

**All stack testing and sampling will meet requirements in §101.8 and data will be maintained and reported as required.**

##### *§101.9 Sampling Ports –*

**Enchanted Rock will comply with TCEQ requests regarding the location of sampling ports as required by §101.9.**

##### *§101.10 Emission Inventory Requirements –*

**Enchanted Rock will comply with all applicable TCEQ emission inventory requirements.**

##### *§101.20 Compliance with Environmental Protection Agency Standards –*

**As discussed below, Enchanted Rock will comply with the applicable New Source Performance Standards (40 CFR 60). HEBHumble is not subject to the National Emission Standards for Hazardous Air Pollutants under 40 CFR 61 or 40 CFR 63, and is not subject to federal prevention of significant deterioration review.**

*§101.21 The National Primary and Secondary Ambient Air Quality Standards –*

**Enchanted Rock will comply with all National Ambient Air Quality Standards.**

*§101.24 Inspection Fees –*

**The HEBHumble Plant is not subject to an inspection fee.**

*§101.27 Emission Fees –*

**The HEBHumble Plant is not required to obtain a federal operating permit and therefore is not required to submit an emission fee.**

### **30 TAC Chapter 101, Subchapter F – Emissions Events and Scheduled Maintenance, Startup, and Shutdown Activities**

*§101.201 Emissions Event Reporting and Recordkeeping Requirements –*

**Enchanted Rock will follow the notification, recordkeeping and reporting requirements in §101.201, should a reportable emissions event as defined in §101.1, occur.**

*§101.211 Scheduled MSS Reporting and Recordkeeping Requirements –*

**Enchanted Rock will comply with the MSS reporting and recordkeeping requirements in §101.211 applicable to the sources in this registration.**

*§101.221-§101.224 Operational Requirements, Demonstrations, and Actions to Reduce Excessive Emissions –*

**Enchanted Rock will comply with the requirements of these sections to the extent that they apply to the sources in this registration.**

*§101.231-§101.233 Variances –*

**Enchanted Rock reserves the right to petition for a variance, if necessary, following the procedures in §101.231-§101.233.**

### **30 TAC Chapter 101, Subchapter H – Emissions Banking and Trading**

The HEBHumble Plant is located in Harris County, which is an affected county by the Mass Emissions Cap and Trade Program of Division 3 of this chapter. The site is not subject to Division 3 because it is not a major source and does not have an uncontrolled design capacity of more than 10.0 tons per year of nitrogen oxides. Division 4 of this chapter, related to Discrete Emission Credits is not applicable to sources in this application. HEBHumble is not a source of HRVOC and is not subject to the requirements in Division 6. In January 2012, the Cross-State Air Pollution Rule (CSAPR) replaced the Clean Air Interstate Rule (CAIR) that Division 7 addresses. Enchanted Rock does not operate the types of facilities subject to Division 7.

### **30 TAC Chapter 101, Subchapter J – Expedited Permitting**

Enchanted Rock is not requesting TCEQ to expedite the processing of this registration.



### **30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter**

#### *§111.111(a) Requirements for Specified Sources –*

**Enchanted Rock will not allow visible emissions from any source, except as provided in this rule and will comply with all applicable visible emissions requirements.**

#### *§111.111(b) Compliance Determination Exclusions –*

**Enchanted Rock will not use contributions from uncombined water in determining compliance.**

#### *§111.111(c) Solid Fuel Heating Devices –*

**HEBHumble is not located in El Paso or heat solid fuel, therefore this rule is not applicable.**

#### *§111.151 Allowable Emission Limits –*

**The calculated emissions of total suspended particulates from all sources with specific stack flow rates are within the limits specified in §111.151, Table 1. The estimated exhaust flow of greater than 3,000 acfm allows for greater than 6.87 lb/hr of TSP. Each engine stack will not emit greater than 0.05 lb/hr of TSP. The Effective Stack Height based on the equation in §101.151(c) is 26 feet. The Standard Effective Stack Height based on stack affluent flow rates is taken from Table 2. The Standard Effective Stack Height for HEBHumble based on Table 2 is 17.66 feet.**

### **30 TAC Chapter 115, Control of Air Pollution from Volatile Organic Compounds**

The HEBHumble Plant does not have any sources identified in Chapter 115. Therefore, these rules do not apply.

### **30 TAC §116.610 – Standard Permit Applicability**

*§116.610(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.*

**The following section shows how Enchanted Rock will meet this subchapter.**

*§116.610(a)(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.*

**Per the administrative requirements of the Air Quality Standard Permit for Electric Generating Units, this does not apply.**

*§116.610(a)(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.*

**Enchanted Rock will comply with this rule.**

*§116.610(a)(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).*

**See Section 6.2 for applicability of Federal Regulations.**

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

**See Section 6.2 for applicability of Federal Regulations.**

*§116.610(a)(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)).*

**See Section 6.2 for applicability of Federal Regulations.**

*§116.610(a)(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 HEBHumble Plant is not subject to the Mass Emissions Cap and Trade Program.**

*§116.610(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.*

**The HEBHumble Project does not constitute a major source or modification.**

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

**Enchanted Rock will not circumvent applicable requirements.**

*§116.610(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.*

**Enchanted Rock does not have an affected source, as described.**

### **30 TAC §116.611 – Registration to Use a Standard Permit**

*§116.611(a)– If required, registration to use a standard permit 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 on 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.*

**Enchanted Rock will comply with this requirement.**

*§116.611(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).*

**Enchanted Rock will comply with this requirement.**

*§116.611(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).*

**Enchanted Rock will comply with this requirement, as applicable.**

*§116.611(c)(1) – Certified registrations established prior to December 11, 2002, shall be submitted on or before February 3, 2003.*

**This subpart does not apply.**

*§116.611(c)(2) – Certified registrations established on or after December 11, 2002, shall be submitted no later than the date of operation.*

**Enchanted Rock will comply with this requirement, as applicable.**

*§116.611(c)(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. Certified registrations established on or after December 11, 2002, shall be submitted no later than the date of operation.*

**Enchanted Rock is not certifying greenhouse gas emissions. This does not apply.**

### **30 TAC §116.615 – General Conditions**

*§116.615(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*

**The emissions from the HEBHumble Plant will comply with all applicable rules and regulations of the commission.**

*§116.615(2) – Standard permit representations. All representations with regard to construction plans, operating procedures, 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). If the facility remains eligible for a standard permit, the owner or operator of the facility shall notify the executive director of any change in conditions which will result in a 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 as compared to the representations in the original registration or any previous notification of a change in representations. Notice of changes in representations must be received by the executive director no later than 30 days after the change.*

**All representations of construction plans, operating procedures, and maximum emission rates as represented in this application will be complied with. No change shall be made unless properly authorized under §116.110 of this title.**

*§116.615(3) – 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.*

**This application is not being submitted in lieu of a permit amendment.**

*§116.615(4) – 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.*

**Start of construction, construction interruptions exceeding 45 days and completion of construction shall be reported to the appropriate regional office no later than 15 days after occurrence of the event.**

*§116.615(5) – Start-up notification*

*(A) The appropriate air program regional office of the commission and any other air pollution control agency 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.*

**Enchanted Rock will notify the proper agencies of the commencement of operations at the HEBHumble Plant.**

*§116.615(6) – 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.*

**If sampling of stacks or vents is required, the appropriate regional office and air pollution control agencies having jurisdiction shall be notified. The facility will only use approved sampling and testing procedures and will provide sampling facilities as well as conduct the sampling or contracting with an independent consultant.**

*§116.615(7) – 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.*

**Any alternatives to emission control, sampling, or other emission tests methods or monitoring that differ from the conditions of the standard permit will be authorized by the executive director prior to their use in fulfilling permit requirements.**

*§116.615(8) – 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.*

**A copy of the standard permit as well as information and data sufficient to demonstrate applicability and compliance with the standard permit shall be maintained at the site or the nearest manned site and made available upon request by representatives of the executive director, the United States Environmental Protection Agency, or air pollution control agencies having jurisdiction.**

*§116.615(9) – 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).*

**No facilities authorized by this standard permit shall be operated unless all air pollution capture and abatement equipment is maintained in good working order and operating properly. Appropriate notification shall be made in accordance with §101.201 and §101.211 of this title.**

*§116.615(10) – 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.*

**Enchanted Rock will comply with applicable rules, regulations, and orders of the commission issued in conformity with the Texas Clean Air Act.**

*§116.615(11) – 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.*

**No condition of the Air Quality Standard Permit for Electric Generating Units contains distance limitations, setbacks, or buffer zones.**

### **30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds**

The provisions of Chapter 117, Subchapter D, Division 1 Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources are applicable to the HEBHumble Plant, located in Harris County.

#### **§117.2000 – Applicability**

*§117.2000 – This division (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources) applies in the Houston-Galveston-Brazoria ozone nonattainment area to the following equipment at any stationary source of nitrogen oxides (NO<sub>x</sub>) that is not a major source of NO<sub>x</sub>:*

- (1) boilers and process heaters;*
- (2) stationary, reciprocating internal combustion engines; and*
- (3) stationary gas turbines, including duct burners.*

**The HEBHumble Plant has reciprocating internal combustion engines.**

#### **§117.2003 – Exemptions**

*§117.2003(a) – This division (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources) does not apply to the following, except as specified in §§117.2030(c), 117.2035(g), and 117.2045(b) and (c) of this title (relating to Operating Requirements; Monitoring and Testing Requirements; and Recordkeeping and Reporting Requirements):*

- (1) boilers and process heaters with a maximum rated capacity of 2.0 million British thermal units per hour (MMBtu/hr) or less;*
- (2) the following stationary engines:*
  - (A) engines with a horsepower (hp) rating of less than 50 hp;*
  - (B) engines used in research and testing;*
  - (C) engines used for purposes of performance verification and testing;*
  - (D) engines used solely to power other engines or gas turbines during startups;*
  - (E) engines operated exclusively in emergency situations, except that operation for testing or maintenance purposes is allowed for up to 52 hours per year, based on a rolling 12-month average. Any new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, is ineligible for this exemption. For the purposes of this subparagraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 Code of Federal Regulations (CFR) §60.15 (December*

16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account;

(F) engines used in response to and during the existence of any officially declared disaster or state of emergency;

(G) engines used directly and exclusively by the owner or operator for agricultural operations necessary for the growing of crops or raising of fowl or animals;

(H) diesel engines placed into service before October 1, 2001, that:

(i) operate less than 100 hours per year, based on a rolling 12-month average; and

(ii) have not been modified, reconstructed, or relocated on or after October 1, 2001.

For the purposes of this clause, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title and 40 CFR §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title, a used engine from anywhere outside that account; and

(I) new, modified, reconstructed, or relocated stationary diesel engines placed into service on or after October 1, 2001, that:

(i) operate less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and

(ii) meet the corresponding emission standard for non-road engines listed in 40 CFR §89.112(a), Table 1 (October 23, 1998) and in effect at the time of installation, modification, reconstruction, or relocation. For the purposes of this subparagraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title and 40 CFR §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title, a used engine from anywhere outside that account; and

(3) stationary gas turbines rated at less than 1.0 megawatt with initial start of operation on or before October 1, 2001.

**None of these exemptions apply to this site.**

§117.2003(b) – At any stationary source of nitrogen oxides that is not subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), the following are exempt from the requirements of this division, except for the totalizing fuel flow requirements of §117.2035(a) and (d) and §117.2045(a)(1) of this title:

(1) any boiler or process heater with a maximum rated capacity greater than 2.0 MMBtu/hr and less than 5.0 MMBtu/hr that has an annual heat input less than or equal to 1.8 (109) British thermal units (Btu) per calendar year; and

(2) any boiler or process heater with a maximum rated capacity equal to or greater than 5.0 MMBtu/hr that has an annual heat input less than or equal to 9.0 (109) Btu per calendar year

**None of these exemptions apply to this site.**

### **§117.2010 – Emissions Specifications**

§117.2010(a) – For sources that are subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), the nitrogen oxides (NOX) emission



rate values used to determine allocations for Chapter 101, Subchapter H, Division 3 of this title must be the lower of any applicable permit limit in a permit issued before January 2, 2001; any permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001; any limit in a permit by rule under which construction commenced by January 2, 2001; or the emission specifications in subsection (c) of this section. The averaging time must be as specified in Chapter 101, Subchapter H, Division 3 of this title.

**The HEBHumble Plant is not subject to the MECT Program.**

§117.2010(b) – For sources that are not subject to Chapter 101, Subchapter H, Division 3 of this title, NO<sub>x</sub> emissions are limited to the lower of any applicable permit limit in a permit issued before January 2, 2001; any permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001; any limit in a permit by rule under which construction commenced by January 2, 2001; or the emission specifications in subsection (c) of this section. The averaging time must be as follows:

- (1) If the unit is operated with a NO<sub>x</sub> continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) under §117.2035(c) of this title (relating to Monitoring and Testing Requirements), either as:
  - (A) a rolling 30-day average period, in the units of the applicable standard;
  - (B) a block one-hour average, in the units of the applicable standard; or
  - (C) a block one-hour average, in pounds per hour, for boilers and process heaters, calculated as the product of the boiler's or process heater's maximum rated capacity and its applicable limit in pounds per million British thermal units (lb/MMBtu); or if the unit is not operated with a NO<sub>x</sub> CEMS or PEMS under §117.2035(c) of this title, a block one-hour average, in the units of the applicable standard.
- (2) if the unit is not operated with a NO<sub>x</sub> CEMS or PEMS under §117.2035(c) of this title, a block one-hour average, in the units of the applicable standard.

**The HEBHumble Plant is not operated with a NO<sub>x</sub> CEMS or PEMS, therefore it will comply with the emission specifications in subsection (c) below as a block one-hour average.**

§117.2010(c) – The following NO<sub>x</sub> emission specifications must be used in conjunction with subsection (a) of this section to determine allocations for Chapter 101, Subchapter H, Division 3 of this title, or in conjunction with subsection (b) of this section to establish unit-by-unit emission specifications, as appropriate:

- (1) from boilers and process heaters:
  - (A) gas-fired, 0.036 lb/MMBtu heat input (or alternatively, 30 parts per million by volume (ppmv) at 3.0% oxygen (O<sub>2</sub>), dry basis); and
  - (B) liquid-fired, 0.072 lb/MMBtu heat input (or alternatively, 60 ppmv at 3.0% O<sub>2</sub>, dry basis).
- (2) from stationary, gas-fired, reciprocating internal combustion engines:
  - (A) fired on landfill gas, 0.60 gram per horsepower-hour (g/hp-hr); and
  - (B) all others, 0.50 g/hp-hr;
- (3) from stationary, dual-fuel, reciprocating internal combustion engines, 5.83 g/hp-hr;
- (4) from stationary, diesel, reciprocating internal combustion engines:

- (A) placed into service before October 1, 2001, that have not been modified, reconstructed, or relocated on or after October 1, 2001, the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data. For the purposes of this paragraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 Code of Federal Regulations §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account; and
- (B) for engines not subject to subparagraph (A) of this paragraph:
- (i) with a horsepower (hp) rating of 50 hp or greater, but less than 100 hp, that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2003, 6.9 g/hp-hr;
    - (II) on or after October 1, 2003, but before October 1, 2007, 5.0 g/hp-hr; and
    - (III) on or after October 1, 2007, 3.3 g/hp-hr;
  - (ii) with a horsepower rating of 100 hp or greater, but less than 175 hp, that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2002, 6.9 g/hp-hr;
    - (II) on or after October 1, 2002, but before October 1, 2006, 4.5 g/hp-hr; and
    - (III) on or after October 1, 2006, 2.8 g/hp-hr;
  - (iii) with a horsepower rating of 175 hp or greater, but less than 300 hp, that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2002, 6.9 g/hp-hr;
    - (II) on or after October 1, 2002, but before October 1, 2005, 4.5 g/hp-hr; and
    - (III) on or after October 1, 2005, 2.8 g/hp-hr;
  - (iv) with a horsepower rating of 300 hp or greater, but less than 600 hp, that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2005, 4.5 g/hp-hr; and
    - (II) on or after October 1, 2005, 2.8 g/hp-hr;
  - (v) with a horsepower rating of 600 hp or greater, but less than or equal to 750 hp, that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2005, 4.5 g/hp-hr; and
    - (II) on or after October 1, 2005, 2.8 g/hp-hr; and
  - (vi) with a horsepower rating of 750 hp or greater that are installed, modified, reconstructed, or relocated:
    - (I) on or after October 1, 2001, but before October 1, 2005, 6.9 g/hp-hr; and
    - (II) on or after October 1, 2005, 4.5 g/hp-hr;
- (5) from stationary gas turbines (including duct burners), 0.15 lb/MMBtu; and
- (6) as an alternative to the emission specifications in paragraphs (1) - (5) of this subsection for units with an annual capacity factor of 0.0383 or less, 0.060 lb/MMBtu heat input. For units placed into service on or before January 1, 1997, the 1997 - 1999 average annual capacity factor must be used to determine whether the unit is eligible for the emission specification of this paragraph. For units placed into service after January 1, 1997, the annual capacity factor must be calculated from two consecutive years in the first five years of operation to determine whether the unit is eligible for the emission specification of this paragraph, using the same two consecutive years chosen for the

*activity level baseline. The five-year period begins at the end of the adjustment period as defined in §101.350 of this title (relating to Definitions).*

**The engines are stationary, gas-fired, reciprocating internal combustion engines. The engines are not fired on landfill gas, therefore they meet the 0.50 g/hp-hr NO<sub>x</sub> emission specifications.**

*§117.2010(d) – The maximum rated capacity used to determine the applicability of the emission specifications in subsection (c) of this section must be:*

*(1) the greater of the following:*

*(A) the maximum rated capacity as of December 31, 2000; or*

*(B) the maximum rated capacity after December 31, 2000; or*

*(2) alternatively, the maximum rated capacity authorized by a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) on or after January 2, 2001, for which the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001, provided that the maximum rated capacity authorized by the permit issued on or after January 2, 2001, is no less than the maximum rated capacity represented in the permit application as of January 2, 2001.*

**Enchanted Rock will comply with these requirements.**

*§117.2010(e) – A unit's classification is determined by the most specific classification applicable to the unit as of December 31, 2000. For example, a unit that is classified as a stationary gas-fired engine as of December 31, 2000, but subsequently is authorized to operate as a dual-fuel engine, is classified as a stationary gas-fired engine for the purposes of this chapter.*

**Enchanted Rock will comply with these requirements, as applicable.**

*§117.2010(f) – Changes after December 31, 2000, to a unit subject to an emission specification in subsection (c) of this section (ESAD unit) that result in increased NO<sub>x</sub> emissions from a unit not subject to an emission specification in subsection (c) of this section (non-ESAD unit), such as redirecting one or more fuel or waste streams containing chemical-bound nitrogen to an incinerator or a flare, is only allowed if:*

*(1) the increase in NO<sub>x</sub> emissions at the non-ESAD unit is determined using a CEMS or PEMS that meets the requirements of §117.2035(c) of this title, or through stack testing that meets the requirements of §117.2035(e) of this title; and*

*(2) either of the following conditions is met:*

*(A) for sources that are subject to Chapter 101, Subchapter H, Division 3 of this title, a deduction in allowances equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit is made as specified in §101.354 of this title (relating to Allowance Deductions); or*

*(B) for sources that are not subject to Chapter 101, Subchapter H, Division 3 of this title, emission credits equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit are obtained and used in accordance with §117.9800 of this title (relating to Use of Emission Credits for Compliance).*

**Enchanted Rock will comply with these requirements, as applicable.**

*§117.2010(g) – A source that met the definition of major source on December 31, 2000, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2000,*

but at any time after December 31, 2000, becomes a major source, is from that time forward always classified as a major source for purposes of this chapter.

**Enchanted Rock will comply with these requirements.**

§117.2010(h) – The availability under subsection (c)(6) of this section of an emission specification for units with an annual capacity factor of 0.0383 or less is based on the unit's status on December 31, 2000. Reduced operation after December 31, 2000, cannot be used to qualify for a more lenient emission specification under subsection (c)(6) of this section than would otherwise apply to the unit.

**This subsection does not apply.**

§117.2010(i) – No person shall allow the discharge into the atmosphere from any unit subject to NO<sub>x</sub> emission specifications in subsection (c) of this section, emissions in excess of the following, except as provided in §117.2025 of this title (relating to Alternative Case Specific Specifications):

(1) carbon monoxide (CO), 400 ppmv at 3.0% O<sub>2</sub>, dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines):

(A) on a rolling 24-hour averaging period, for units equipped with CEMS or PEMS for CO; and

(B) on a one-hour average, for units not equipped with CEMS or PEMS for CO; and

(2) for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions of 10 ppmv at 3.0% O<sub>2</sub>, dry, for boilers and process heaters; 15% O<sub>2</sub>, dry, for stationary gas turbines (including duct burners used in turbine exhaust ducts) and gas-fired lean-burn engines; and 3.0% O<sub>2</sub>, dry, for all other units, based on:

(A) a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia; or

(B) a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia.

**Enchanted Rock will comply with these requirements.**

### **§117.2025 –Alternative Case Specifications**

§117.2025(a) – Where a person can demonstrate that an affected unit cannot attain the carbon monoxide (CO) or ammonia specifications of §117.2010(i) of this title (relating to Emission Specifications), the executive director may approve emission specifications different from the CO or ammonia specifications in §117.2010(i) of this title for that unit. The executive director:

(1) shall consider on a case-by-case basis the technological and economic circumstances of the individual unit;

(2) shall determine that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of controls to meet the nitrogen oxides emission specifications of §117.2010 of this title; and

(3) in determining whether to approve alternative emission specifications, may take into consideration the ability of the plant where the unit is located to meet emission specifications through system-wide averaging at maximum capacity.

§117.2025(b) – Any owner or operator affected by the executive director's decision to deny an alternative case specific emission specification may file a motion to overturn the executive director's decision. The requirements of §50.139 of this title (relating to Motion to Overturn Executive Director's Decision) apply.

**Enchanted Rock will comply with these requirements.**

**§117.2030 – Operating Requirements**

*§117.2030(a) – The owner or operator shall operate any unit subject to §117.2010 of this title (relating to Emission Specifications) in compliance with those requirements.*

**Enchanted Rock will comply with the emission specifications in §117.2010(c).**

*§117.2030(b) – All units subject to §117.2010 of this title must be operated so as to minimize nitrogen oxides (NO<sub>x</sub>) emissions, consistent with the emission control techniques selected, over the unit's operating or load range during normal operations. Such operational requirements include the following.*

- (1) Each boiler must be operated with oxygen (O<sub>2</sub>), carbon monoxide (CO), or fuel trim.*
- (2) Each boiler and process heater controlled with forced flue gas recirculation (FGR) to reduce NO<sub>x</sub> emissions must be operated such that the proportional design rate of FGR is maintained, consistent with combustion stability, over the operating range.*
- (3) Each unit controlled with post-combustion control techniques must be operated such that the reducing agent injection rate is maintained to limit NO<sub>x</sub> concentrations to less than or equal to the NO<sub>x</sub> concentrations achieved at maximum rated capacity.*
- (4) Each stationary internal combustion engine controlled with nonselective catalytic reduction must be equipped with an automatic air-fuel ratio (AFR) controller that operates on exhaust O<sub>2</sub> or CO control and maintains AFR in the range required to meet the engine's applicable emission limits.*
- (5) Each stationary internal combustion engine must be checked for proper operation according to §117.8140(b) of this title (relating to Emission Monitoring for Engines).*

**Enchanted Rock will comply with these requirements.**

*§117.2030(c) – No person shall start or operate any stationary diesel or dual-fuel engine for testing or maintenance between the hours of 6:00 a.m. and noon, except:*

- (1) for specific manufacturer's recommended testing requiring a run of over 18 consecutive hours;*
- (2) to verify reliability of emergency equipment (e.g., emergency generators or pumps) immediately after unforeseen repairs. Routine maintenance such as an oil change is not considered to be an unforeseen repair; or*
- (3) firewater pumps for emergency response training conducted in the months of April through October.*

**This section does not apply.**

**§117.2035 – Monitoring and Testing Requirements**

*§117.2035(a) – Totalizing fuel flow meters.*

- (1) The owner or operator of each unit subject to §117.2010 of this title (relating to Emission Specifications) and subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), or of each unit claimed exempt under §117.2003(b) of this title (relating to Exemptions) shall install, calibrate, maintain, and operate totalizing fuel flow meters with an accuracy of  $\pm 5\%$ , to individually and continuously measure the gas and liquid fuel usage. A computer that collects, sums, and stores electronic data from continuous fuel flow meters is an*

acceptable totalizer. The owner or operator of units with totalizing fuel flow meters installed prior to March 31, 2005, that do not meet the accuracy requirements of this subsection shall either recertify or replace existing meters to meet the  $\pm 5\%$  accuracy required as soon as practicable, but no later than March 31, 2007. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled.

(2) The following are alternatives to the fuel flow monitoring requirements of this subsection.

(A) Units operating with a nitrogen oxides ( $\text{NO}_x$ ) and diluent continuous emissions monitoring system (CEMS) under subsection (c) of this section may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(B) Units that vent to a common stack with a  $\text{NO}_x$  and diluent CEMS under subsection (c) of this section may use a single totalizing fuel flow meter.

(C) Diesel engines operating with run time meters may meet the fuel flow monitoring requirements of this subsection through monthly fuel use records.

(D) Units of the same category of equipment subject to Chapter 101, Subchapter H, Division 3 of this title may share a single totalizing fuel flow meter provided:

- (i) the owner or operator performs a stack test in accordance with subsection (e) of this section for each unit sharing the totalizing fuel flow meter; and
- (ii) the testing results from the unit with the highest emission rate (in pounds per million British thermal units or grams per horsepower-hour) are used for reporting purposes in §101.359 of this title (relating to Reporting) for all units sharing the totalizing fuel flow meter.

(E) The owner or operator of a unit or units claimed exempt under §117.2003(b) of this title, located at an independent school district may demonstrate compliance with the exemption by the following:

- (i) in addition to the records required by §117.2045(a)(1) of this title (relating to Recordkeeping and Reporting Requirements), maintain the following monthly records in either electronic or written format. These records must be kept for a period of at least five years and must be made available upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction;
  - (I) total fuel usage for the entire site;
  - (II) the estimated hours of operation for each unit;
  - (III) the estimated average operating rate (e.g., a percentage of maximum rated capacity) for each unit; and
  - (IV) the estimated fuel usage for each unit; and
- (ii) within 60 days of written request by the executive director, submit for review and approval all methods, engineering calculations, and process information

*used to estimate the hours of operation, operating rates, and fuel usage for each unit.*

*(F) The owner or operator of units claimed exempt under §117.2003(b) of this title may share a single totalizing fuel flow meter to demonstrate compliance with the exemption, provided that:*

- (i) all affected units at the site qualify for the exemption under §117.2003(b) of this title; and*
- (ii) the total fuel usage for all units at the site is less than: and*
  - (I) the annual fuel usage limitation in §117.2003(b)(1) of this title; or*
  - (II) the annual fuel usage limitation in §117.2003(b)(2) of this title when all affected units at the site are equal to or greater than 5.0 million British thermal units per hour.*

*(G) Stationary reciprocating internal combustion engines and stationary gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system must be installed, calibrated, maintained, and operated according to manufacturer's procedures.*

**The site is not subject to the MECT Program or claimed exempt under §117.2003(b), therefore this section does not apply.**

*§117.2035(b) – Oxygen (O<sub>2</sub>) monitors. If the owner or operator installs an O<sub>2</sub> monitor, the criteria in §117.8100(a) of this title (relating to Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources) should be considered the appropriate guidance for the location and calibration of the monitor.*

**This section does not apply.**

*§117.2035(c) – NO<sub>x</sub> monitors. If the owner or operator installs a CEMS or predictive emissions monitoring system (PEMS), it must meet the requirements of §117.8100(a) or (b) of this title. If a PEMS is used, the PEMS must predict the pollutant emissions in the units of the applicable emission specifications of this division (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources).*

**The HEBHumble Plant does not have a CEMS or PEMS, therefore this section does not apply.**

*§117.2035(d) – Monitor installation schedule. Installation of monitors must be performed in accordance with the schedule specified in §117.9200 of this title (relating to Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources).*

**This section does not apply.**

*§117.2035(e) – Testing requirements. The owner or operator of any unit subject to §117.2010 of this title shall comply with the following testing requirements.*

- (1) Each unit must be tested for NO<sub>x</sub>, carbon monoxide (CO), and O<sub>2</sub> emissions.*
- (2) One of the ammonia monitoring procedures specified in §117.8130 of this title (relating to Ammonia Monitoring) must be used to demonstrate compliance with the ammonia emission specification of §117.2010(i)(2) of this title for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control.*
- (3) For units not equipped with CEMS or PEMS, all testing must be conducted according to §117.8000 of this title (relating to Stack Testing Requirements). In lieu of the test*

*methods specified in §117.8000 of this title, the owner or operator may use American Society for Testing and Materials (ASTM) D6522-00 to perform the NO<sub>x</sub>, CO, and O<sub>2</sub> testing required by this subsection on natural gas-fired reciprocating engines, combustion turbines, boilers, and process heaters. If the owner or operator elects to use ASTM D6522-00 for the testing requirements, the report must contain the information specified in §117.8010 of this title (relating to Compliance Stack Test Reports).*

- (4) Test results must be reported in the units of the applicable emission specifications and averaging periods. If compliance testing is based on 40 CFR Part 60, Appendix A reference methods, the report must contain the information specified in §117.8010 of this title.*
- (5) For units equipped with CEMS or PEMS, the CEMS or PEMS must be installed and operational before testing under this subsection. Verification of operational status must, at a minimum, include completion of the initial monitor certification and the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.*
- (6) Initial compliance with §117.2010 of this title for units operating with CEMS or PEMS must be demonstrated after monitor certification testing using the NO<sub>x</sub> CEMS or PEMS.*
- (7) For units not operating with CEMS or PEMS, the following apply.*
  - (A) Retesting as specified in paragraphs (1) - (4) of this subsection is required within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.*
  - (B) Retesting as specified in paragraphs (1) - (4) of this subsection may be conducted at the discretion of the owner or operator after any modification that could reasonably be expected to decrease the NO<sub>x</sub> emission rate, including, but not limited to, installation of post-combustion controls, low-NO<sub>x</sub> burners, low excess air operation, staged combustion (for example, overfire air), flue gas recirculation, and fuel-lean and conventional (fuel-rich) reburn.*
  - (C) The NO<sub>x</sub> emission rate determined by the retesting must establish a new emission factor to be used to calculate actual emissions from the date of the retesting forward. Until the date of the retesting, the previously determined emission factor must be used to calculate actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.*
- (8) Testing must be performed in accordance with the schedule specified in §117.9200 of this title.*
- (9) All test reports must be submitted to the executive director for review and approval within 60 days after completion of the testing.*

**Enchanted Rock will comply with these requirements.**

**§117.2035(f) – Emission allowances.**

- (1) For sources that are subject to Chapter 101, Subchapter H, Division 3 of this title, the NO<sub>x</sub> testing and monitoring data of subsections (a) - (e) of this section, together with the level of activity, as defined in §101.350 of this title (relating to Definitions), must be used to establish the emission factor calculating actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.*



(2) *The emission factor in subsection (e)(7) of this section or paragraph (1) of this subsection is multiplied by the unit's level of activity to determine the unit's actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.*

**The HEBHumble Plant is not subject to Chapter 101, Subchapter H, Division 3, therefore this section does not apply.**

*§117.2035(g) – Run time meters. The owner or operator of any stationary diesel engine claimed exempt using the exemption of §117.2003(a)(2)(E), (H), or (I) of this title shall record the operating time with an elapsed run time meter. Any run time meter installed on or after October 1, 2001, must be non-resettable.*

**The HEBHumble Plant does not have diesel engines, therefore this section does not apply.**

### **§117.2045 – Recordkeeping and Reporting Requirements**

*§117.2045(a) – Recordkeeping. The owner or operator of a unit subject to §117.2010 of this title (relating to Emission Specifications) or claimed exempt under §117.2003(b) of this title (relating to Exemptions) shall maintain written or electronic records of the data specified in this subsection. Such records must be kept for a period of at least five years and must be made available upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction. The records must include:*

*(1) records of annual fuel usage;*

*(2) for each unit using a continuous emission monitoring system (CEMS) or predictive emission monitoring system (PEMS) in accordance with §117.2035(c) of this title (relating to Monitoring and Testing Requirements), monitoring records of:*

*(A) hourly emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a block one-hour average; and*

*(B) daily emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a rolling 30-day average. Emissions must be recorded in units of:*

*(i) pounds per million British thermal units heat input; and*

*(ii) pounds or tons per day;*

*(3) for each stationary internal combustion engine subject to §117.2010 of this title, records of:*

*(A) emissions measurements required by §117.2030(b)(5) of this title (relating to Operating Requirements); and*

*(B) catalytic converter, air-fuel ratio controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken;*

*(4) records of carbon monoxide measurements specified in §117.2030(b)(5) of this title;*

*(5) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems;*

*(6) records of the results of performance testing, including the testing conducted in accordance with §117.2035(e) of this title; and*

*(7) records of daily average horsepower and total daily hours of operation for each stationary reciprocating internal combustion engine or stationary gas turbine that the*

*owner or operator elects to use the alternative monitoring system allowed under §117.2035(a)(2)(G) of this title. Units that are monitored according to §117.2035(a)(2)(G) of this title are not required to keep records of annual fuel usage as required by paragraph (1) of this subsection.*

**Enchanted Rock will comply with the applicable requirements in this section.**

*§117.2045(b) – Records for exempt engines. Written records of the number of hours of operation for each day's operation must be made for each engine claimed exempt under §117.2003(a)(2)(E), (H), or (I) of this title or §117.2030(b)(5) of this title. In addition, for each engine claimed exempt under §117.2003(a)(2)(E) of this title, written records must be maintained of the purpose of engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation. The records must be maintained for at least five years and must be made available upon request to representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency having jurisdiction.*

**Enchanted Rock will comply with the applicable requirements in this section.**

*§117.2045(c) – Records of operation for testing and maintenance. The owner or operator of each stationary diesel or dual-fuel engine shall maintain the following records for at least five years and make them available upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction:*

- (1) date(s) of operation;*
- (2) start and end times of operation;*
- (3) identification of the engine; and*
- (4) total hours of operation for each month and for the most recent 12 consecutive months.*

**The HEBHumble site does not operate diesel engines, therefore this section does not apply.**

### **30 TAC Chapter 118, Control of Air Pollution Episodes**

Enchanted Rock will implement all reasonably available emission reduction methods in the event of a Level I air pollution episode and will comply with the TCEQ directions to reduce or curtail emission rates in the event of a Level II episode.

### **30 TAC Chapter 122, Federal Operating Permits**

The HEBHumble Plant does not include one or more of the sources listed in §122.120(1), and therefore is not subject to the requirements in Chapter 122.

## **6.2 Air Quality Standard Permit for Electric Generating Units**

### *(1) Applicability*

*(A) This standard permit may be used to authorize electric generating units installed or modified after the effective date of this standard permit and that meet the requirements of this standard permit.*

*(B) This standard permit may not be used to authorize boilers. Boilers may be authorized under the Air Quality Standard Permit for Boilers; 30 TAC § 106.183,*

*Boilers, Heaters, and Other Combustion Devices; or a permit issued under the requirements of 30 TAC Chapter 116.*

**This registration is authorizing electric generating units.**

*(3) Administrative Requirements*

- (A) Electric generating units shall be registered in accordance with 30 TAC §116.611, Registration to Use a Standard Permit, using a current Form PI-1S. Units that meet the conditions of this standard permit do not have to meet 30 TAC § 116.610(a)(1), Applicability.*
- (B) Registration applications shall comply with 30 TAC § 116.614, Standard Permit Fees, for any single unit or multiple units at a site with a total generating capacity of 1 megawatt (MW) or greater. The fee for units or multiple units with a total generating capacity of less than 1 MW at a site shall be \$100.00. The fee shall be waived for units or multiple units with a total generating capacity of less than 1 MW at a site that have certified nitrogen oxides (NOx) emissions that are less than 10 percent of the standards required by this standard permit. Renewable fuel - fuel produced or derived from animal or plant products, byproducts or wastes, or other renewable biomass sources, excluding fossil fuels. Renewable fuels may include, but are not limited to, ethanol, biodiesel, and biogas fuels.*
- (C) No owner or operator of an electric generating unit shall begin construction and/or operation without first obtaining written approval from the executive director.*
- (D) Records shall be maintained and provided upon request to the Texas Commission on Environmental Quality (TCEQ) for the following:*
  - (i) Hours of operation of the unit;*
  - (ii) Maintenance records, maintenance schedules, and/or testing reports for the unit to document re-certification of emission rates as required by subsection (4)(G) below; and*
  - (iii) Records to document compliance with the fuel sulfur limits in subsection (4)(C).*
- (E) Electric generators powered by gas turbines must meet the applicable conditions, including testing and performance standards, of Title 40 Code of Federal Regulations (CFR) Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, and applicable requirements of 40 CFR Part 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.*
- (F) 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, or 30 TAC Chapter 114, Control of Air Pollution from Motor Vehicles.*

**The HEBHumble Plant is being registered in accordance with section 116.611 with a PI-1S Form. A fee of \$100 accompanies this registration. Written approval will be obtained before construction of the units begins. Applicable records shall be maintained and provided upon request. Gas Turbines do not power the units.**

*(4) General Requirements*

- (A) Emissions of NOx from the electric generating unit shall be certified by the manufacturer or by the owner or operator in pounds of pollutant per megawatt hour (lb/MWh). This certification must be displayed on the name plate of the unit or on a*

*label attached to the unit. Test results from U.S. Environmental Protection Agency (EPA) reference methods, California Air Resources Board methods, or equivalent alternative testing methods approved by the executive director used to verify this certification shall be provided upon request to the TCEQ. The unit must operate on the same fuel(s) for which the unit was certified.*

**Each electric generating unit installed will be certified by the manufacturer.**

*(B) Electric generating units that use combined heat and power (CHP) may take credit for the heat recovered from the exhaust of the combustion unit to meet the emission standards in subsections (4)(D), (4)(E), and (4)(F). Credit shall be at the rate of one MWh for each 3.4 million British Thermal Units of heat recovered. The following requirements must be met to take credit for CHP for units not sold and certified as an integrated package by the manufacturer...*

**This section does not apply, as heat is not recovered for other processes.**

*(C) Fuels combusted in these electric generating units are limited to:*

- (i) Natural gas containing no more than ten grains total sulfur per 100 dry standard cubic feet.*

**The fuel will be sweet natural gas.**

*(D) Except as provided in subsections (4)(F) and (4)(H), NO<sub>x</sub> emissions for units 10 MW or less shall meet the following limitations based upon the date the unit is installed and the region in which it operates:*

*East Texas Region:*

- (ii) Units installed on or after January 1, 2005 and*

- (a) Operating more than 300 hours per year, with a capacity greater than 250 kilowatts (kW) – 0.14 lb/MWh;*

**NO<sub>x</sub> emissions are certified to be equal to or less than 0.1388 lb/MWh.**

*(E) Except as provided in subsections (4)(F) and (4)(H), NO<sub>x</sub> emissions for units greater than 10 MW shall meet the following limitations:....*

**HEBHumble units are less than 10 MW, therefore this section is not applicable.**

*(F) Electric generating units firing any gaseous or liquid fuel that is at least 75 percent landfill gas, digester gas, stranded oil field gas, or renewable fuel content by volume, shall meet a NO<sub>x</sub> emission limit of 1.90 lb/MWh. Units in West Texas with a capacity of 10 MW or less that fire at least 75 percent landfill gas, digester gas, stranded oilfield gases, or gaseous or liquid renewable fuel by volume, must comply with the applicable West Texas NO<sub>x</sub> limit in subsection (4)(D).*

**HEBHumble units will not use the fuel described, therefore this does not apply.**

*(G) To ensure continuing compliance with the emissions limitations, the owner or operator shall re-certify a unit every 16,000 hours of operation, but no less frequently than every three years. Re-certification may be accomplished by following a maintenance schedule that the manufacturer certifies will ensure continued compliance with the required NO<sub>x</sub> standard or by third party testing of the unit using appropriate EPA reference methods, California Air Resources Board methods, or equivalent alternative testing methods approved by the executive director to demonstrate that the unit still meets the required emission standards. After re-*

*certification, the unit must operate on the same fuel(s) for which the unit was re-certified.*

**Each engine will be re-certified as applicable.**

*(H) The NO<sub>x</sub> emission limits in subsections (4)(D)-(4)(F) are subject to the following exceptions:*

- (i) The hourly NO<sub>x</sub> emission limits do not apply at times when the ambient air temperature at the location of the unit is less than 0 degrees Fahrenheit.*
- (ii) At times when a unit is operating at less than 80% of rated load, an alternative NO<sub>x</sub> emission standard for that unit may be determined by multiplying the applicable emission standard in subsections (4)(D)-(4)(F) by the rated load of the EGU (in MW), to produce an allowable hourly mass NO<sub>x</sub> emission rate. In order to use this alternative standard, an owner or operator must maintain records that demonstrate compliance with the alternative emission standard, and make such records available to the TCEQ or any local air pollution control agency with jurisdiction upon request.*

**Enchanted Rock will comply with this section as applicable.**

### **6.3 Federal Regulatory Applicability**

A regulatory applicability analysis has been performed for 40 Code of Federal Regulations (CFR) parts 60, 61, and 63. The following sections contain potentially applicable regulations to the HEBHumble Plant, along with how each will be met.

#### **40 CFR Part 60 – Standards of Performance for New Stationary Sources**

HEBHumble is subject to the requirements of 40 CFR Part 60 as discussed in the following section.

##### *Subpart A – General Provisions*

**HEBHumble is subject to the requirements in §60.1 for obtaining a permit for affected facilities, §60.7 for notifications and recordkeeping of affected facilities, §60.11 for compliance with standards and maintenance requirements, and §60.19 for general notification and reporting requirements.**

##### *Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

**HEBHumble is subject to this subpart because the engines on site are certified natural gas burn, non-emergency stationary spark-ignited internal combustion engines with rated hp greater than 500, and manufactured after July 1, 2010. Enchanted Rock will comply with the below specified emission standards and all applicable requirements under this subpart.**

Pollutant	Emission Standards (g/Hp-hr)
NO <sub>x</sub>	1
CO	2
VOC	0.7

#### **40 CFR Part 61 – National Emission Standards for Hazardous Air Pollutants**

HEBHumble is not subject to the requirements of 40 CFR Part 61.

#### **40 CFR Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories**

*Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

**HEBHumble does have a stationary reciprocating internal combustion engine on site. HEBHumble will adhere to the requirements in §63.6590(c), which states that compliance is achieved by complying with all applicable requirements of 40 CFR 60 Subpart JJJJ.**

## **APPENDIX A – EMISSION RATE CALCULATIONS**

## **Emissions Calculations – Internal Combustion Engines**

Pages 46-48 of this application contain confidential information and is submitted under a separate Confidential Information Cover.



## **APPENDIX B – MANUFACTURER’S DATA SHEETS**

## **Manufacturer's Data Sheets**

Pages 50-53 of this application contain confidential information, and is submitted under a separate Confidential Information Cover

## **APPENDIX C – TCEQ TABLE 29**

## **TCEQ Table 29 – Reciprocating Engines**

Page 55 of this application contains confidential information, and is submitted under a separate Confidential Information Cover