



## Texas Commission on Environmental Quality Air Quality Permit

*A Permit Is Hereby Issued To*  
**NRG CEDAR BAYOU 5 LLC**  
*Authorizing the Construction and Operation of*  
**Electric Generating Unit 5**  
*Located at* **Baytown, Chambers County, Texas**  
*Latitude 29° 44' 54" Longitude -94° 55' 38"*

Permits: 160538, PSDTX1582 and GHGPSDTX204

Issuance Date: March 17, 2021

Expiration Date: March 17, 2031

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]<sup>1</sup>
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify 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). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement 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 permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must 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 permit. Alternative methods shall 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 permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources-- Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]<sup>1</sup>
9. **Maintenance of Emission Control.** The permitted facilities shall 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. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.<sup>1</sup>

<sup>1</sup> Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

## Common Acronyms in Air Permits

°C = Temperature in degrees Celsius  
°F = Temperature in degrees Fahrenheit  
°K = Temperature in degrees Kelvin  
µg = microgram  
µg/m<sup>3</sup> = microgram per cubic meter  
acfm = actual cubic feet per minute  
AMOC = alternate means of control  
AOS = alternative operating scenario  
AP-42 = Air Pollutant Emission Factors, 5th edition  
APD = Air Permits Division  
API = American Petroleum Institute  
APWL = air pollutant watch list  
BPA = Beaumont/ Port Arthur  
BACT = best available control technology  
BAE = baseline actual emissions  
bbl = barrel  
bbl/day = barrel per day  
bhp = brake horsepower  
BMP = best management practices  
Btu = British thermal unit  
Btu/scf = British thermal unit per standard cubic foot or feet  
CAA = Clean Air Act  
CAM = compliance-assurance monitoring  
CEMS = continuous emissions monitoring systems  
cfm = cubic feet (per) minute  
CFR = Code of Federal Regulations  
CN = customer ID number  
CNG = compressed natural gas  
CO = carbon monoxide  
COMS = continuous opacity monitoring system  
CPMS = continuous parametric monitoring system  
DFW = Dallas/ Fort Worth (Metroplex)  
DE = destruction efficiency  
DRE = destruction and removal efficiency  
dscf = dry standard cubic foot or feet  
dscfm = dry standard cubic foot or feet per minute  
ED = (TCEQ) Executive Director  
EF = emissions factor  
EFR = external floating roof tank  
EGU = electric generating unit  
EI = Emissions Inventory  
ELP = El Paso  
EPA = (United States) Environmental Protection Agency  
EPN = emission point number  
ESL = effects screening level  
ESP = electrostatic precipitator  
FCAA = Federal Clean Air Act  
FCCU = fluid catalytic cracking unit  
FID = flame ionization detector  
FIN = facility identification number  
ft = foot or feet  
ft/sec = foot or feet per second  
g = gram  
gal/wk = gallon per week  
gal/yr = gallon per year  
GLC = ground level concentration  
GLC<sub>max</sub> = maximum (predicted) ground-level concentration  
gpm = gallon per minute  
gr/100scf = grain per 100 standard cubic feet  
gr/dscf = grain per dry standard cubic feet  
H<sub>2</sub>CO = formaldehyde  
H<sub>2</sub>S = hydrogen sulfide  
H<sub>2</sub>SO<sub>4</sub> = sulfuric acid  
HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C  
HC = hydrocarbons  
HCl = hydrochloric acid, hydrogen chloride  
Hg = mercury  
HGB = Houston/Galveston/Brazoria  
hp = horsepower  
hr = hour  
IFR = internal floating roof tank  
in H<sub>2</sub>O = inches of water  
in Hg = inches of mercury  
IR = infrared  
ISC3 = Industrial Source Complex, a dispersion model  
ISCST3 = Industrial Source Complex Short-Term, a dispersion model  
K = Kelvin; extension of the degree Celsius scaled-down to absolute zero  
LACT = lease automatic custody transfer  
LAER = lowest achievable emission rate  
lb = pound  
hp = horsepower  
hr = hour  
lb/day = pound per day  
lb/hr = pound per hour  
lb/MMBtu = pound per million British thermal units  
LDAR = Leak Detection and Repair (Requirements)  
LNG = liquefied natural gas  
LPG = liquefied petroleum gas  
LT/D = long ton per day  
m = meter  
m<sup>3</sup> = cubic meter  
m/sec = meters per second  
MACT = maximum achievable control technology  
MAERT = Maximum Allowable Emission Rate Table  
MERA = Modeling and Effects Review Applicability  
mg = milligram  
mg/g = milligram per gram  
mL = milliliter  
MMBtu = million British thermal units  
MMBtu/hr = million British thermal units per hour  
MSDS = material safety data sheet  
MSS = maintenance, startup, and shutdown  
MW = megawatt  
NAAQS = National Ambient Air Quality Standards  
NESHAP = National Emission Standards for Hazardous Air Pollutants  
NGL = natural gas liquids  
NNSR = nonattainment new source review  
NO<sub>x</sub> = total oxides of nitrogen  
NSPS = New Source Performance Standards  
PAL = plant-wide applicability limit  
PBR = Permit(s) by Rule

PCP = pollution control project  
PEMS = predictive emission monitoring system  
PID = photo ionization detector  
PM = periodic monitoring  
PM = total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
PM<sub>2.5</sub> = particulate matter equal to or less than 2.5 microns in diameter  
PM<sub>10</sub> = total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
POC = products of combustion  
ppb = parts per billion  
ppm = parts per million  
ppmv = parts per million (by) volume  
psia = pounds (per) square inch, absolute  
psig = pounds (per) square inch, gage  
PTE = potential to emit  
RA = relative accuracy  
RATA = relative accuracy test audit  
RM = reference method  
RVP = Reid vapor pressure  
scf = standard cubic foot or feet  
scfm = standard cubic foot or feet (per) minute  
SCR = selective catalytic reduction  
SIL = significant impact levels  
SNCR = selective non-catalytic reduction  
SO<sub>2</sub> = sulfur dioxide  
SOCMI = synthetic organic chemical manufacturing industry  
SRU = sulfur recovery unit  
TAC = Texas Administrative Code  
TCAA = Texas Clean Air Act  
TCEQ = Texas Commission on Environmental Quality  
TD = Toxicology Division  
TLV = threshold limit value  
TMDL = total maximum daily load  
tpd = tons per day  
tpy = tons per year  
TVP = true vapor pressure  
VOC = volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
VRU = vapor recovery unit or system