

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



August 4, 2021

Laurie Gharis, Chief Clerk
Texas Commission on Environmental Quality
P.O. Box 13087, MC 105
Austin, Texas 78711-3087

Re: Final Backup Materials
NRG Texas Power, LLC - Air Quality Permit No. 7704
TCEQ Docket No. 2021-0864-AIR

Dear Ms. Gharis:

The Executive Director filed agenda backup materials for the above referenced application on July 19, 2021. The backup materials inadvertently included two identical copies of Attachment B to the permit. The Executive Director removed the extra copy of Attachment B and filed revised backup on July 29, 2021. Both versions of the backup materials contained the permit face, Special Conditions, Maximum Allowable Emissions Rate Table (MAERT), and the Technical Review Summary. However, the Special Conditions were included after the Technical Review Summary. In addition, the previous backup materials did not include a separate compliance history report because a compliance history summary is included in the Technical Review Summary. At the request of the Office of General Counsel, the Executive Director has included a full compliance history report in the enclosed materials. The Executive Director now files these final revised backup materials to correct the order of the documents and include a compliance history report.

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

1. The permit face;
2. Special Conditions;
3. MAERT;
4. The Technical Review Summary;
5. A Compliance History report for the Applicant.

If you have any questions, please do not hesitate to call Ms. Peticolas at extension 6033 or Ms. Kraynok at 0633.

Sincerely,

A handwritten signature in blue ink, appearing to read "Amanda E. Kraynok".

Amanda E. Kraynok,
Staff Attorney
Environmental Law Division

A handwritten signature in blue ink, appearing to read "Betsy Peticolas".

Betsy Peticolas,
Staff Attorney
Environmental Law Division

Enclosures



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
NRG Texas Power LLC
Authorizing the Continued Operation of
WA Parish Electric Generating Station
Located at Thompsons, Fort Bend County, Texas
Latitude 29° 28' 31" Longitude -95° 38' 3"

Permits: 7704 and PSDTX234M2

Issuance Date: _____

Expiration Date _____

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)]¹
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)] ¹
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. ¹

¹ 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	GLCmax = maximum (predicted) ground-level concentration
°F = Temperature in degrees Fahrenheit	gpm = gallon per minute
°K = Temperature in degrees Kelvin	gr/1000scf = grain per 1000 standard cubic feet
µg = microgram	gr/dscf = grain per dry standard cubic feet
µg/m ³ = microgram per cubic meter	H ₂ CO = formaldehyde
acfm = actual cubic feet per minute	H ₂ S = hydrogen sulfide
AMOC = alternate means of control	H ₂ SO ₄ = sulfuric acid
AOS = alternative operating scenario	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
AP-42 = Air Pollutant Emission Factors, 5th edition	HC = hydrocarbons
APD = Air Permits Division	HCl = hydrochloric acid, hydrogen chloride
API = American Petroleum Institute	Hg = mercury
APWL = air pollutant watch list	HGB = Houston/Galveston/Brazoria
BPA = Beaumont/ Port Arthur	hp = horsepower
BACT = best available control technology	hr = hour
BAE = baseline actual emissions	IFR = internal floating roof tank
bbl = barrel	in H ₂ O = inches of water
bbl/day = barrel per day	in Hg = inches of mercury
bhp = brake horsepower	IR = infrared
BMP = best management practices	ISC3 = Industrial Source Complex, a dispersion model
Btu = British thermal unit	ISCST3 = Industrial Source Complex Short-Term, a dispersion model
Btu/scf = British thermal unit per standard cubic foot or feet	K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
CAA = Clean Air Act	LACT = lease automatic custody transfer
CAM = compliance-assurance monitoring	LAER = lowest achievable emission rate
CEMS = continuous emissions monitoring systems	lb = pound
cfm = cubic feet (per) minute	hp = horsepower
CFR = Code of Federal Regulations	hr = hour lb/day = pound per day
CN = customer ID number	lb/hr = pound per hour
CNG = compressed natural gas	lb/MMBtu = pound per million British thermal units
CO = carbon monoxide	LDAR = Leak Detection and Repair (Requirements)
COMS = continuous opacity monitoring system	LNG = liquefied natural gas
CPMS = continuous parametric monitoring system	LPG = liquefied petroleum gas
DFW = Dallas/ Fort Worth (Metroplex)	LT/D = long ton per day
DE = destruction efficiency	m = meter
DRE = destruction and removal efficiency	m ³ = cubic meter
dscf = dry standard cubic foot or feet	m/sec = meters per second
dscfm = dry standard cubic foot or feet per minute	MACT = maximum achievable control technology
ED = (TCEQ) Executive Director	MAERT = Maximum Allowable Emission Rate Table
EF = emissions factor	MERA = Modeling and Effects Review Applicability
EFR = external floating roof tank	mg = milligram
EGU = electric generating unit	mg/g = milligram per gram
EI = Emissions Inventory	mL = milliliter
ELP = El Paso	MMBtu = million British thermal units
EPA = (United States) Environmental Protection Agency	MMBtu/hr = million British thermal units per hour
EPN = emission point number	MSDS = material safety data sheet
ESL = effects screening level	MSS = maintenance, startup, and shutdown
ESP = electrostatic precipitator	MW = megawatt
FCAA = Federal Clean Air Act	NAAQS = National Ambient Air Quality Standards
FCCU = fluid catalytic cracking unit	NESHAP = National Emission Standards for Hazardous Air Pollutants
FID = flame ionization detector	NGL = natural gas liquids
FIN = facility identification number	NNSR = nonattainment new source review
ft = foot or feet	NO _x = total oxides of nitrogen
ft/sec = foot or feet per second	
g = gram	
gal/wk = gallon per week	
gal/yr = gallon per year	
GLC = ground level concentration	

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 PM₁₀ and PM_{2.5}, as represented
 PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
 PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, 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
 SO₂ = sulfur dioxide
 SOCM = 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

Special Conditions

Permit Numbers 7704 and PSDTX234M2

Federal Applicability

1. The Pulverized Coal Boiler, identified as WA Parish Unit 8 and Emission Point Number (EPN) WAP8, shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations (40 CFR Part 60),
 - A. Subpart A, General Provisions, and
 - B. Subpart Da, Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.

These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:

- C. Subpart A, General Provisions, and
- D. Subpart UUUUU, Coal- and Oil-Fired Electric Utility Steam Generating Units.

WA Parish Unit 8 Fuel Specifications, Operating Limitations, Performance Standards, and Construction Specifications

2. Fuels fired in WA Parish Unit 8 are limited to:
 - A. low sulfur subbituminous coal;
 - B. sweet natural gas as defined in Title 30 Texas Administrative Code (30 TAC) Chapter 101; and
 - C. distillate oil.
 - D. Use of any other fuel will require prior approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ).
3. WA Parish Unit 8
 - A. WA Parish Unit 8 is limited to a maximum heat input which corresponds to an average electric generation rate of 660 megawatts (MW). Compliance with this condition shall be demonstrated by maintaining records of the hourly generation rate. Generation rates, on a three-hour average, at or below this rate comply with this condition. Any three-hour average value in excess of 660 MW shall be identified in the quarterly emission report. Demonstration of compliance with this condition shall also demonstrate compliance with the WA Parish Unit 8 emission limits on the attached table titled "Emission Sources - Maximum Allowable Emission Rates" for pollutants not monitored by continuous emission monitoring systems. Notwithstanding, the Executive Director of the TCEQ or his designated representative may also require sampling to directly measure the lb/hr emission rate, in which case the sampled lb/hr emission rate will be used to determine compliance with the applicable emission rate in the Maximum Allowable Emission Rate Table (MAERT).
 - B. Within 180 days after start-up, testing shall be performed to confirm that the unit is operating within the specified maximum heat input. The TCEQ shall be provided a copy of the test results within 45 days. If the maximum heat input is higher than the limit established above, the holder of this permit will apply for a permit amendment.

4. Emissions of nitrogen oxides (NO_x) from EPN WAP8 shall comply with applicable requirements of 30 TAC Chapter 117. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.
5. The wet limestone scrubber system shall operate with no less than 70 percent efficiency in removal of sulfur dioxide (SO₂) from the flue gas, with a 30-day averaging period, in accordance with 40 CFR § 60.43 subpart Da.
6. Opacity of emission from the steam generating unit must not exceed 10 percent as determined by EPA Reference Method 9 or by continuous opacity monitoring system (COMS) averaged over a six-minute period, except during periods of routine maintenance, start-up, or shutdown (MSS) or as otherwise allowed by law. During periods of MSS, the opacity shall not exceed 20 percent over a six-minute period.

For EPN SCRUB:

- A. In lieu of COMS, determination of compliance with opacity limits of this condition will follow procedures of 40 CFR 60.49Da(a)(3). The initial determination using this procedure shall be made within 45 days after stopping use of the existing COMS.
 - B. If during the initial 60 minutes of the observation all the 6-minute averages are less than 10 percent and all the individual 15-second observations are less than or equal to 20 percent, then the observation period may be reduced from 3 hours to 60 minutes.
 - C. If the maximum 6-minute average opacity is less than or equal to 10 percent, a subsequent EPA Method 9 performance test shall be conducted quarterly or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later.
7. Stack sampling ports and platform(s) shall be constructed and maintained on EPN WAP8 as specified in the attachment entitled "Chapter 2, Stack Sampling Facilities," or an alternate design may be required at a later date if determined necessary by the TCEQ Regional Director in Houston.
 8. The permit holder is authorized to emit from EPN SCRUB (authorized under Permit Numbers 98664, PSDTX1268, and N138) those emissions from EPN WAP8 that have been rerouted to EPN SCRUB from the existing Unit 8 duct work at a point upstream of the Unit 8 stack and downstream of the Unit 8 air quality control systems. The emissions from EPN WAP8 and EPN SCRUB shall not exceed the combined maximum allowable emission rates for those EPNs authorized under this permit and Permit Numbers 98664, PSDTX1268, and N138.

Limestone and Scrubber Sludge Waste Material Handling – Design and Operating Specifications

9. Compliance with the permitted emission limits for EPNs LH1, LH1A, LH2, LH5, and LH6 is based upon maximum throughputs of 500 tons per hour and 52,000 tons per year of limestone, as measured by railcar and truck unloading records.
10. As determined by a certified opacity observer with delegation from the Executive Director of the TCEQ, opacity of emissions averaged over a six-minute period, and according to EPA Test Method (TM) 9 or equivalent shall not exceed from any limestone:
 - A. screen or transfer point on belt conveyors - 10 percent; and

- B. crusher - 15 percent.
11. As determined by a trained observer with delegation from the Executive Director of the TCEQ, no visible fugitive emissions of limestone from the railcar unloading, crusher, screens, transfer points on belt conveyors, material storage or feed bins, or stockpiles shall leave the property. Visible emissions shall be determined by EPA TM 22 or equivalent. If this condition is violated, additional controls or process changes may be required to limit visible PM emissions.
 12. All fabric filter baghouses used to control limestone dust will operate with reverse air cleaning, shall be properly installed, and shall be maintained in good working condition. The baghouses shall not exceed 5 percent opacity averaged over a six-minute period when adjusted for uncombined water vapor.
 13. The company has represented the following regarding limestone material handling to comply with all TCEQ rules and regulations:
 - A. Permanently mounted spray nozzles shall be installed at the railcar unloading point and shall be operated to control visible emissions as needed.
 - B. Plant roads used by limestone delivery trucks shall be paved with a cohesive hard surface which can be cleaned by sweeping or washing. All roads used for limestone delivery shall be sprinkled with water and/or environmentally sensitive chemicals as necessary to maintain compliance with all TCEQ rules and regulations.
 - C. All limestone conveyors shall be enclosed. Emissions from Conveyor No. 1 shall be controlled by loading the stockpile using a telescopic chute, maintaining the stockpile covered, and an Underground Reclaim System (EPN LH2). Conveyor No. 2 feeds the limestone from the underground reclaim system to the crusher. The emissions from the crusher are vented to a Baghouse (EPN LH5). Conveyor No. 3 delivers the crushed limestone to the limestone storage silo. Emissions from the storage silo are controlled by a Baghouse (EPN LH6).
 - D. The company will maintain all abatement systems in good working order and immediately make appropriate corrections and/or repairs to any facility equipment if Special Condition Nos. 10 or 11 cannot be met. All corrections and/or repairs shall be completed within five working days or the system involved shall not be operated.
 14. As determined by a certified opacity observer with delegation from the Executive Director of the TCEQ and according to EPA TM 9 or equivalent, opacity of emissions from the pug mill scrubber stack, identified as EPN No. WH1, shall not exceed 20 percent, when adjusted for uncombined water vapor, averaged over a six-minute period, except for those times described in 40 CFR Part 60, Subpart A, § 60.11(c).

Stack Testing Demonstration of Compliance

15. If required by the Executive Director of the TCEQ, the holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from EPN WAP8. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

- A. The TCEQ Regional Office in Houston shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting.
 - (1) The notice shall include:
 - (a) Date for pretest meeting.
 - (b) Date sampling will occur.
 - (c) Name of firm conducting sampling.
 - (d) Type of sampling equipment to be used.
 - (e) Method or procedure to be used in sampling.
 - (2) The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.
 - (3) Prior to the pretest meeting, a written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ. The TCEQ Houston Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in B of this condition, for NSPS testing, or alternate or equivalent procedure proposals for NSPS testing which must have EPA approval, shall be submitted to the TCEQ Office of Air, Air Permits Division in Austin.
- B. Air contaminants emitted from EPN WAP8 to be tested for include (but are not limited to) NO_x, carbon monoxide (CO), SO₂, volatile organic compounds (VOC), and particulate matter (PM) with a diameter of less than 10 microns.
- C. Sampling shall occur as may be required by the Executive Director of the TCEQ. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires EPA approval and requests shall be submitted to the TCEQ Air Permits Division.
- D. WA Parish Unit 8 shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of a production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the unit is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.
- E. Two copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the attached conditions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:
 - (1) One copy to the TCEQ Houston Regional Office.
 - (2) One copy to the TCEQ Air Permits Division.

Continuous Demonstration of Compliance

- 16. WA Parish Unit 8

- A. The holder of this permit shall install, calibrate, operate, and maintain a continuous emissions monitoring system (CEMS) on the stacks of WA Parish Unit 8, EPN WAP8 and EPN SCRUB (authorized under Permit Numbers 98664, PSDTX1268, and N138), to measure and record the concentrations of NO_x, SO₂, and diluent (oxygen or carbon dioxide) according to the methods and procedures as set out in 40 CFR § 60.49Da. Reporting of monitoring data shall be in accordance with methods and procedures as set out in 40 CFR §§ 60.7 and 60.51Da. Compliance with the continuous emissions monitoring requirements above can be demonstrated by meeting the requirements of 40 CFR Part 75 provided that the holder of this permit demonstrates compliance with all applicable NSPS regulations.
- B. The continuous monitoring data shall also be used to determine compliance with the emission limitations in the attached MAERT.

Periodic Monitoring for Limestone and Scrubber Waste Material Handling Sources

- 17. Ongoing compliance with the opacity limits of Special Condition Nos. 10, 12, and 14, and the PM emission limits of the non-fugitive sources on the MAERT (except EPN WAP8) shall be demonstrated by observing for visible emissions and conditionally for opacity, while the facility is operating.
 - A. Observations for visible emissions using RM 22 from each source shall be made:
 - (1) monthly; and
 - (2) at least 15 feet but no more than 0.25 mile from the emission point.
 - B. Up to three emission points may be read concurrently, provided that each point read concurrently is within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for each point.
 - C. If visible emissions are observed from the source using RM 22, then either:
 - (1) within 24 hours, opacity shall be determined by 40 CFR Part 60, TM 9; or
 - (2) any visible emissions will be treated as exceeding the applicable opacity limit.
 - D. If opacity exceeds the applicable limit, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation.
 - E. For non-fugitive material handling sources, the Executive Director or his designated representative may also require sampling conducted in accordance with the methods and procedures specified in Special Condition No. 15 to directly measure the lb/hr emission rate, in which case the sampled lb/hr emission rate will be used to determine compliance with the applicable emission rate in the MAERT.
- 18. Ongoing compliance with Special Condition No. 11 and the fugitive source emission rates in the MAERT shall be demonstrated by observing each source monthly for visible emissions leaving the property using 40 CFR Part 60, TM 22.
 - A. The observation period when conducting TM 22 shall extend at least five minutes (unless visible emissions are observed, in which case the observer may stop the test and initiate action to correct the problem in accordance with C. of this Special Condition) during normal operations.
 - B. Contributions from uncombined water shall not be included in determining compliance.

- C. If visible emissions are observed crossing the property line, then an evaluation of and identification of the source and cause of the visible emissions shall be conducted within 24 hours and documented. Corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation of the visible emissions.

Recordkeeping Requirements

- 19. Records shall be kept for at least five years rather than the two-year period specified in General Condition No. 7 on the permit face. The five-year record retention requirement does not apply to records generated before December, 2010. The records shall reflect compliance with 30 TAC § 116.115(b)(2)(E) and shall include the following:
 - A. Daily and annual amounts of limestone unloaded by rail and truck;
 - B. Daily cleaning of roads used by the limestone delivery trucks; and
 - C. Records of all repair and maintenance of limestone dust abatement systems.
 - D. Records of monthly observations for visible emissions or opacity required by Special Condition Nos. 17 and 18.
 - E. The CEMS data of NO_x, SO₂, and diluent emissions from EPN WAP8 and EPN SCRUB to demonstrate compliance with the emission limits in the MAERT.
 - F. Raw data files of all CEMS data including calibration checks, adjustments, and maintenance performed on these systems in a permanent form suitable for inspection.

Consolidation by Reference of Related Authorizations

- 20. Boiler and economizer ash truck loading
 - A. The boiler stack hourly emission rates of NO_x, CO, and ammonia on the MAERT are authorized by Standard Permit Number 45779, issued March 29, 2001, with changes to permit representations dated December 22, 2006.
 - B. The economizer ash truck loading emissions on the MAERT are authorized by Standard Permit Number 45779, issued March 29, 2001.

Routine Maintenance, Startup, and Shutdown

- 21. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities listed in Attachment A, Attachment B, or the MAERT attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies the planned MSS activities that are non-ILE planned maintenance activities that this permit authorizes to be performed.
- 22. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility.

23. The CO and NH₃ mass emissions limits in the MAERT attached to this permit that apply during planned MSS activities constitute alternative case specific specifications for the CO and NH₃ concentration limits in Title 30 Texas Administrative Code (30 TAC) Chapter 117.1210(b) during planned MSS activities.
24. Emissions during planned startup and shutdown activities will be minimized by limiting the duration of operation in planned startup and shutdown mode as follows:
 - A. A planned startup of the electric generating facility (EGF), WA Parish Unit 8, is defined as the period that begins with initial fuel flow to the boiler and is complete when the boiler is released to dispatch. A planned startup event shall not exceed 2,880 minutes in duration. Extended startups lasting longer than 2,880 minutes in duration are allowed provided the total hours of extended startups do not exceed 600 hours per unit per year.
 - B. Startup of SCRUB (MS2) is defined as the period that begins with the startup of the blower and opening of the inlet flow damper and is complete 240 minutes following both the startup of the blower and the opening of the inlet damper. Startup of SCRUB shall not exceed 240 minutes in duration.
 - C. A planned shutdown of the EGF, WA Parish Unit 8, is defined as the period that commences when dispatched requests a shutdown due to market conditions, or when plant personnel request a shutdown for maintenance and ends when fuel is no longer fired. A planned shutdown event shall not exceed 2,880 minutes in duration. Extended shutdowns lasting longer than 2,880 minutes in duration are allowed provided the total hours of extended shutdowns do not exceed 600 hours per unit per year.
25. When a planned maintenance activity identified in Attachment B is associated with a VOC liquid storage facility and may result in VOC emissions from that facility, the permit holder shall not open that facility to the atmosphere in connection with the planned maintenance activity until the VOC liquids are removed from that facility to the maximum extent practicable.
26. No vacuum pump on a vacuum truck that is used to move solids (such as ash) during planned maintenance activities shall be operated unless the vacuum system exhaust is routed to a filtering system.
27. Vacuum trucks that are used to move liquids with a vapor pressure greater than 0.5 psia during planned maintenance activities shall utilize submerged loading.
28. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows.
 - A. For each pollutant emitted during ILE planned maintenance activities, the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all ILE planned maintenance activities (See Attachment A) shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.
 - B. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions are measured using a CEMS, as per Special Condition No. 29A, the permit holder shall compare the pollutant's short-term (hourly) emissions during planned MSS activities as

measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.

- C. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions occur through a stack, but are not measured using CEMS as per Special Condition No. 29A, the permit holder shall determine the total emissions of the pollutant through the stack that result from such non-ILE planned MSS activities in accordance with Special Condition No. 29B.
 - D. For each pollutant emitted during non-ILE planned MSS activities (See Attachment B) whose emissions do not occur through a stack, the permit holder shall do the following for each calendar month.
 - (1) Determine the total emissions of the pollutant from such non-ILE planned MSS activities in accordance with Special Condition No. 29B.
 - (2) Once monthly emissions have been determined in accordance with Special Condition No. 28D(1) for 12 months after the MSS permit amendment has been issued, the permit holder shall compare the sum of the rolling 12-month emissions, for the pollutant for all non-ILE planned MSS activities and the annual potential to emit for the pollutant from all ILE planned MSS activities (as referenced in Special Condition 28A), to the annual emissions limit for the pollutant in the MAERT.
29. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 28 as follows.
- A. For each pollutant whose emissions during normal facility operations are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.
 - B. For each pollutant not described in Special Condition No. 29A, the permit holder shall calculate the pollutant's emissions during all occurrences of each type of planned MSS activity for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application. In lieu of using the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application to calculate such emissions, the permit holder may determine the emissions of the pollutant during the planned MSS activity using an appropriate method, including but not limited to, any of the methods described in paragraphs 1 through 4 below, provided that the permit holder maintains appropriate records supporting such determination:
 - (1) Use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations.
 - (2) Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
 - (3) Use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.

(4) Use of parametric monitoring system (PEMS) data applicable to the facility.

30. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until 180 days after issuance of the permit amendment that added such conditions.

Permits by Rule and Standard Permits

31. The following maintenance activities at the site are currently authorized by permits by rule (PBR) under 30 TAC Chapter 106 or PBR predecessor standard exemptions (SE) to 30 TAC Chapter 116. This list is not intended to be all inclusive and can be altered at the site without modification to this permit. The standard permit identified below was issued under 30 TAC Chapter 116.

Description	PBR, SE, Standard Permit No.
Comfort Heating System Maintenance and Repair	SE 003, 106.102
Bench Scale laboratory Equipment	SE 034, 106.122
Brazing, Soldering, and Welding	SE 039, 106.227
Enclosed and Outdoor Dry Abrasive Blasting	106.263
Miscellaneous Surface Coating	106.263
Hand-Held Equipment for Buffing, Polishing, Cutting, Drilling, Sawing, Grinding, Turning, or Machining Wood, Metal or Plastic	SE 040, 106.265
Refrigeration System maintenance and Repair	SE 103, 106.373
Solvent Cleaning-Parts Degreaser	SE 107, 106.454
Portable Engines	SE 005, 106.511
Water and Wastewater Treatment	SE 061, 106.532
Standard Permit for Pollution Controls	45779
Cooling Tower	106.371

32. The following facilities are authorized by Standard Permit and are incorporated by Reference:

Facility	Registration Number
CERT Refined Coal System	97958
Activated carbon injection (ACI) system	108189

Date: _____

Attachment A

Permit Numbers 7704 and PSDTX234M2

Inherently Low Emitting (ILE) Planned Maintenance Activities

Planned Maintenance Activity	Emissions					
	NH ₃ /Urea	VOC	NO _x	CO	PM	SO ₂
Water-based washing		X				
Miscellaneous particulate filter maintenance ¹					X	
Catalyst handling and maintenance					X	
Maintenance of storage vessels storing material with vapor pressure <0.5 psia	X	X				
Boiler general maintenance ²					X	
Gaseous fuel venting (pipe length < 100 feet)		X				
Management of sludge from pits, ponds, sumps, and water conveyances ³		X				
Organic chemical usage, not covered by "manual surface coating or solvent cleaning operations" or by "use and disposal of aerosol products"		X				
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, PEMS		X	X	X		X
Deslagging of boiler ⁴		X	X	X	X	
Material handling system maintenance ⁵					X	
Small equipment and fugitive component repair/replacement in VOC and inorganic service ⁶	X	X				

Notes:

- Includes, but is not limited to, baghouse filters, ash silo/transfer filters, coal handling filters, process-related building air filters, and combustion turbine air intake filters.
- Includes pre-heater basket handling and maintenance, refractory change-out, fan maintenance and balancing, damper, air heater, and soot blower maintenance, and any other general boiler maintenance that does not exceed the worst-case emissions representation in the application.
- Includes, but is not limited to, management by vacuum truck/dewatering of materials in open pits and ponds, and sumps, tanks and other closed or open vessels. Materials managed include water and sludge mixtures containing miscellaneous VOCs such as diesel, lube oil, and other waste oils.
- Includes, but is not limited to, explosive blasting, clinker shooting, and other boiler deslagging activities; does not include dry abrasive blasting that may occur in boilers.

5. Material handling system equipment includes, but is not limited to, silos, transport systems, coal bunkers, coal crushing equipment, coal handling, nuvafeders, hoppers, FGD sludge handling system. Materials handled include coal, ash, limestone, gypsum, mercury, and sorbents.
6. Includes, but is not limited to, (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in natural gas, fuel oil, diesel oil, ammonia, lube oil, and gasoline service, (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service, and (iii) off-line NO_x control device maintenance (including maintenance of the anhydrous ammonia systems and aqueous ammonia systems associated with SCR systems and SNCR systems)

Date: _____

Attachment B

Permit Numbers 7704 and PSDTX234M2

Non-Inherently Low Emitting Planned MSS Activities

Planned Maintenance Activity	EPN	Emissions					
		NH ₃ /Urea	VOC	NO _x	CO	PM	SO ₂
Combustion optimization ¹	WAP8, SCRUB	X	X	X	X	X	X
Vacuum truck solids loading ² and unloading	MSSFUG ⁵					X	
NO _x control device maintenance - unit online	WAP8, SCRUB	X	X				
PM control device maintenance - unit online	WAP8, SCRUB					X	
SO ₂ control device maintenance - unit online	WAP8, SCRUB						X
Flue gas conditioning system maintenance - unit online	WAP8, SCRUB	X				X	
Flue gas conditioning system maintenance fugitives - unit offline ³	MSSFUG ⁵	X				X	
Maintenance of storage vessels storing gasoline or other material with vapor pressure >0.5 psia that does not require clearing of the vessels to allow for entry of personnel	MSSFUG ⁵	X	X				
Gaseous fuel venting (pipe length > 100 feet)	MSSFUG ⁵		X				
Portable small engines ⁴	MSSFUG ⁵	X	X	X	X	X	X
Use of fans during maintenance - unit offline	WAP8, SCRUB					X	
Transfer between single and dual stack operation	WAP8, SCRUB					X	
Main unit Planned Startup and Planned Shutdown	WAP8, SCRUB	X	X	X	X	X	X

Notes:

- Includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.
- Includes site-wide solids vacuuming operations (e.g., SCR, baghouse, ESP, ducts, furnace, loop seals, stripper coolers, and airlocks).
- Includes, but is not limited to, maintenance of anhydrous ammonia systems and aqueous ammonia systems used to condition flue gas before it is controlled by a PM control device.

4. Includes engines used onsite for longer than twelve consecutive months.
5. Emission point MSSFUG represents permitted site-wide MSS fugitive emissions. MSSFUG emissions are quantified in the maximum allowable emissions rate table in Permit No. 7704 and PSDTX234M2.

Date: _____

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 7704 and PSDTX234M2

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4), (5)	TPY (4), (6)
WAP8	WA Parish Unit No. 8 Pulverized Coal Boiler Stack (6,700 MMBtu/hr)	NO _x (7), (8)	2,000	6,658.00
		SO ₂ (9)	2,063	4,081
		CO (8)	2,010	4,402
		VOC	20.1	53
		PM	172	639
		PM ₁₀	172	639
		H ₂ SO ₄	10.1	40
		NH ₃ (8)	44.3	194
		Pb	0.33	0.13
		HF	34	29.3
		As	0.12	0.05
		Be	0.21	0.02
		Cd	0.04	0.04
		Cl	5.06	20
		Cr	0.13	0.17
		Hg (21)	1.54	0.22
		Mn	0.11	0.44
		Ni	0.32	0.25
		Se	0.51	0.11

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4), (5)	TPY (4), (6)
WAP8 and SCRUB (20)	WA Parish Unit No. 8 Pulverized Coal Boiler Stack and Rerouted Exhaust Vent Stream Stack	SO ₂ (9)	1,370	4,081 (14)
		SO ₂ (9)	1,370	3,981 (15)
		SO ₂ (9)	1,370	3,881 (16)
		SO ₂ (9)	1,370	3,781 (17)
		SO ₂ (9)	1,370	3,681 (18)
		NO _x (7)	1,260	6,307 (19)
MCT8	Cooling Tower (10)	PM	0.95	4.1
		PM ₁₀	0.95	4.1
LH1	Railcar Unloading to Track Hopper Limestone Fugitives (11)	PM	30	1.6
		PM ₁₀	15	0.8
LH1A	Track Hopper Feed to Conveyor #1 Limestone Fugitives (11)	PM	0.54	0.05
		PM ₁₀	0.26	0.02
LH2	Limestone Stockpile (11)	PM	0.003	0.13
		PM ₁₀	0.0015	0.06
LH5	Limestone Stockpile Reclaim, Conveyor #2, and Crusher Baghouse	PM ₁₀	2.1	1.1
LH6	Limestone Storage Silo Baghouse	PM ₁₀	0.39	0.2
WH1	Pug Mill Scrubber Stack (Wet Venturi Dust Collector) (12)	PM	1.7	1.4
		PM ₁₀	1.7	1.4
WH2	Fly Ash Feed Tank Baghouse - Stack (12)	PM	0.43	0.25
		PM ₁₀	0.43	0.25
WH3	Radial Conveyor / Stack out of Scrubber Sludge/Fly Ash Blend (11), (12)	PM	0.03	0.02
		PM ₁₀	0.014	0.01
WH4	Stabilized Sludge Storage Pile (11), (12)	PM	0.2	0.87
		PM ₁₀	0.1	0.41

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour (4), (5)	TPY (4), (6)
8EA	Economizer Ash Truck Loading (12), (13)	PM	0.62	0.03
MSSFUG	Miscellaneous Site-Wide Maintenance Activities	SO ₂	0.02	0.01
		NH ₃	7.67	1.08
		CO	0.12	0.05
		NO _x	0.32	0.16
		VOC	75.97	4.74
		PM	14.8	4.97
		PM ₁₀	3.55	2.47
		PM _{2.5}	3.37	1.23

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 CO - carbon monoxide
 NH₃ - ammonia
 H₂SO₄ - sulfuric acid
 Pb - lead
 HF - hydrogen fluoride
 As - arsenic
 Be - beryllium
 Cd - cadmium
 Cl - chlorine
 Cr - chromium
 Hg - mercury
 Mn - manganese
 Ni - nickel
 Se - selenium
- (4) The pound per hour (lb/hr) and ton per year (tpy) emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities, unless otherwise noted.
- (5) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (6) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (7) The hourly emission rate is based on a 30-day rolling average.
- (8) Hourly emission rates of NO_x, CO, and NH₃ are those authorized by Standard Permit Number 45779, issued March 29, 2001, with changes to permit representations dated December 22, 2006.
- (9) The hourly emission rate is based on a three-hour averaging period.
- (10) Cooling tower emissions are authorized by 30 TAC 106.371.

Emission Sources - Maximum Allowable Emission Rates

- (11) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (12) Scrubber sludge waste handling emission limits are based on, and the facilities are limited by, the following production rates:
 - Pug Mills A or B - 200 tons/hour
 - Fly Ash Silo - 75 tons/hour
 - Radial Stacker Conveyor - 200 tons/hour
 - Economizer Ash Silo/Tank - 11.2 tons/day
- (13) Economizer ash truck loading emissions are authorized by Standard Permit Number 45779.
- (14) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber (EPN SCRUB) operates 0 - 500 hours in a rolling 12-month period.
- (15) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber (EPN SCRUB) operates 501 - 2000 hours in a rolling 12-month period.
- (16) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber (EPN SCRUB) operates 2001 - 4000 hours in a rolling 12-month period.
- (17) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber (EPN SCRUB) operates 4001 - 6000 hours in a rolling 12-month period.
- (18) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber (EPN SCRUB) operates 6001 - 8760 hours in a rolling 12-month period.
- (19) Combined (EPNs WAP8 and SCRUB) annual emission limit when the enhanced scrubber operates during a rolling 12-month period.
- (20) EPN SCRUB is authorized under Permit Numbers 98664, PSDTX1268, and N138.
- (21) The hourly emission rate is based on a 30-day rolling average.

Date: _____

Permit Renewal Source Analysis & Technical Review

Company	NRG Texas Power LLC	Permit Number	7704
City	Thompsons	Project Number	318444
County	Fort Bend	Regulated Entity Number	RN100888312
Project Type	Renewal	Customer Reference Number	CN603207218
Project Reviewer	Laura Gibson, P.E.	Received Date	July 28, 2020
Site Name	WA Parish Electric Generating Station		

Project Overview

The applicant has requested a renewal of its NSR permit authorizing coal-fired boiler no. 8 (EPN WAP8) with incorporation by reference of Standard Permit Registration No. 45779 and unregistered permit by rule (PBR) 106.371 which authorizes PM emissions from a cooling tower.

Emission Summary

Air Contaminant	Current and Proposed Allowable Emission Rates (tpy)
PM	652.42
PM ₁₀	649.82
PM _{2.5} *	1.23
VOC	57.74
NO _x	6658.16
CO	4402.05
SO ₂	4081.01
HAPs [†]	50.60
Pb	0.13

* PM_{2.5} is only specifically quantified for miscellaneous site-wide maintenance activities, although it is included and authorized within PM and PM₁₀ limits.

†HAPs include Arsenic, Beryllium, Cadmium, Chromium, hydrogen fluoride, mercury, manganese, nickel, lead, selenium.

Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	September 25, 2020
Site rating & classification:	0.00 / High
Company rating & classification:	0.03 / High
Has the permit changed on the basis of the compliance history or rating?	No
Did the Regional Office have any comments? If so, explain.	No

Public Notice Information

Requirement	Date
Legislator letters mailed	8/4/2020
An amended notice was sent to the applicant prior to publication of the original 1 st notice. The amended 1 st notice was needed to correct the name of the public viewing location from Fort Bend County Health and Human Services Office to Fort Bend County Environmental Health.	
Date Amended 1 st notice published	8/26/2020
Publication Name: Houston Chronicle	

Permit Renewal Source Analysis & Technical Review

Permit No. 7704
Page 2

Regulated Entity No. RN100888312

Requirement	Date
Pollutants: hazardous air pollutants, carbon monoxide, sulfuric acid, hydrogen fluoride, nitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less, lead, and sulfur dioxide.	
Date 1 st notice Alternate Language published	8/23/2020
Publication Name (Alternate Language): Houston Chronicle dba La Voz	
1 st public notice tearsheet(s) received	9/8/2020
1 st public notice affidavit(s) received	9/8/2020
1 st public notice certification of sign posting/application availability received	9/25/2020
SB709 Notification mailed	NA, NAPD/PN2 not required
Date 2 nd notice published	NA, Renewals with no increases, no new contaminants, and a satisfactory compliance history do not require 2nd Public Notice as per 30 TAC 39.419(e)(1).

Public Interest

Public Interest Information	
Number of comments received	0
Number of meeting requests received	1
Number of hearing requests received	2
Date meeting held	Per TCAA 382.056(g) and 30 TAC 55.101(e), TCEQ may not hold a public hearing for a renewal of an air quality permit that would not result in an increase in allowable emissions and would not result in the emission of an air contaminant not previously emitted.
Date response to comments filed with OCC	4/6/2021, and again on 4/8/2021 with revised transmittal memo requesting consideration of Hearing Requests at an open Commission meeting (Agenda)
Date of SOAH hearing	Renewals for an applicant with an acceptable compliance history for projects that do not result in an increase in allowable emissions and do not result in an emission of an air contaminant not previously emitted may not be granted a contested case hearing. This is not part of the ED's decision but will be considered by the Commission at an open meeting.

Renewal Requirements

Requirement	
Date of permit expiration:	January 24, 2021
Date written notice of review was mailed:	January 31, 2020
Was there a condition of air pollution that had to be addressed during this project review?	No

Permit Renewal Source Analysis & Technical Review

Permit No. 7704
Page 3

Regulated Entity No. RN100888312

Requirement
Permit Renewal Fee: \$10,000, Receipt No. M022928

Federal Rules Applicability

Requirement
Subject to NSPS? Yes
Subparts A & Da
Subject to NESHAP? No
Subject to NESHAP (MACT) for source categories? Yes
Subparts A & UUUUU

Title V Applicability

Requirement
Title V applicability: The site is a Title V major source and has Permit Nos. 074 and 03611.
Periodic Monitoring (PM) applicability: The site is subject to Title V; therefore, PM is applicable. Periodic monitoring is applicable for some sources not subject to CAM. Stack testing for NH ₃ from EPN WAP8 occurs annually. PM/HCl from EPN WAP8 monitored by stack tests. Monthly visible emissions (VE) observations occur for material handling, stockpile, crusher, silo, MSS fugitive sources.
Compliance Assurance Monitoring (CAM) applicability: The site is subject to Title V; therefore CAM is applicable. CEMS is used for NO _x , CO, SO ₂ , and Hg emissions from the boiler (EPN WAP8), for which data is collected four times per hour and averaged hourly. Continuous fuel flow usage is monitored to calculate VOC and H ₂ SO ₄ emission rates. Fabric filters control PM emissions from WAP8, and COMS is used to continuously (six times per minute, averaging period of six minutes) monitor opacity.

Process Description

This permit authorizes air emissions from an existing pulverized coal-fired boiler (Unit 8) with a heat input of 6700 MMBtu/hr, along with railcar unloading of limestone, conveying systems, stockpiles, baghouses, wet venturi dust collector, truck loading, and maintenance, startup, and shutdown activities. The Unit 8 boiler is a Babcock and Wilcox dry-bottom opposed-fired steam generating unit used for electric generation of up to 660 MW. This permit also shows EPN SCRUB, which is the outlet from the Carbon Capture System authorized under separate NSR Permit No. 98664. The inflow to the Carbon Capture system is a slip stream from the Unit 8 boiler. Other sources authorized by reference within NSR permit 7704 are the cooling tower and economizer ash truck loading.

Project Scope

The applicant is requesting a renewal of the permit without changes to the special conditions or MAERT. Upon review of the draft permit documents, minor corrections were required:

- Include reference to 40 CFR 63, Subpart UUUUU in Special Condition No. 1.
- Include PBR 106.371 in Special Condition No. 31, which authorizes cooling towers without contact with VOCs.
- Special Conditions, Attachment A: Inherently low emitting pollutants associated with planned maintenance activities, authorized in the April 2012 MSS amendment (Project 162564), were subsequently incorrectly identified [Xs moved to wrong columns] in a permitting action issued December 2012 (Project 184569). That is being corrected with the current action.
- Update fugitive emission language to current boilerplate in the MAERT footnote 11.

Permit Renewal

Source Analysis & Technical Review

Permit No. 7704
Page 4

Regulated Entity No. RN100888312

Best Available Control Technology

The Unit 8 boiler is the newest of the four coal-fired boilers at WA Parish, having started operation in 1982. The renewal involves no changes in the method of operation or physical changes, therefore the requirement for BACT is not triggered.

Below is a summary of current controls associated with sources authorized by this permit.

Source Name	EPN	Control Technology Description
Unit 8 Boiler, post controls. Operations begun in 1982.	WAP8	Low NO _x combustion system, over-fired air system, and SCR for NO _x control, baghouse for particulate control, and wet flue gas desulfurization (WFGD) limestone scrubber for SO ₂ control (70% reduction). Baghouse for PM and Pb control. HAPs controlled with SCR, baghouse, WFGD, and best management practices (BMPs). Boiler tune-ups and combustion optimization for CO, VOC, PM, H ₂ SO ₄ , NH ₃ control.
Coal handling fugitives		Enclosure and wet suppression for railcar unloading, 90% reduction in emissions. Telescoping chute for loading active stockpile, 75% reduction. Crusting agent on inactive coal pile. Enclosed conveyors and transfer points for 96% control. Baghouses at crusher building, silos, and storage bin for 99.5% reduction. Fly ash from baghouse mixed with scrubber wastes to form slurry, then trucked to ask disposal site.
Limestone handling fugitives: railcar unloading to track hopper, track hopper feed to conveyor #1	LH1, LH1A	Similar controls to coal handling. Railcar unloading by bottom dump and wet suppression, 90% reduction. Enclosed limestone stockpile with telescoping chute. Enclosed transfer points and conveyors for 90% reduction. Baghouses at crusher and feed silo for 99.5% reduction.
Limestone Stockpile	LH2	Covered stockpile.
Crusher, Limestone Silo	LH5, LH6	Enclosed structure for crushing, monthly visual emission (VE) readings to demonstrate opacity < 15%
Pug Mill Scrubber Stack (Wet Venturi Dust Collector); Fly Ash Feed Tank Baghouse	WH1, WH2	Monthly VE readings
Radial Conveyor / Stack out of Scrubber Sludge / Fly Ash Blend	WH3	Wet product, Monthly VE readings
Stabilized Sludge Storage Pile	WH4	Wet product, Monthly VE readings
Economizer Ash Truck Loading	8EA	Monthly VE readings. Enclosed transfer and return air during loading to suppress dust. EPN is on 7704 MAERT even though authorized by reference, PCP Standard Permit No. 45779.
MSS		Best management practices. WAP8 planned startups and shutdowns limited to 2880 minutes each plus extended startup and shutdown not to exceed 600 hours per year. SCRUB startup shall not exceed 240 minutes. (see SC 24)
Cooling tower	MCT8	PM controlled to Drift < 0.001% with drift eliminators. EPN is on 7704 MAERT even though authorized by reference, PBR 106.371.
Miscellaneous Site-Wide Maintenance Activities	MSSFUG	BMPs and duration of gas venting events will be minimized for control of SO ₂ , NH ₃ , CO, and NO _x . BMPs for PM.

Permit Renewal
Source Analysis & Technical Review

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Regulated Entity No. RN100888312

Permits Incorporation

Permit by Rule (PBR) / Standard Permit / Permit Nos.	Description (include affected EPNs)	Action (Reference / Consolidate / Void)
PCP Standard Permit No. 45779	Hourly NO _x , CO, NH ₃ emissions (low NO _x burners with over-fire ports, SCR) from EPN WAP8, Economizer ash truck loading, EPN 8EA	Reference, see SC 20
PBR 106.371	Cooling Tower, EPN MCT8	Reference
98664, PSDTX1268, N138	Enhanced CO ₂ scrubber, EPN SCRUB	Reference
97958	Coal sorbents applied prior to combustion to reduce NO _x and Hg	Reference
108189	Activated carbon injection system	Reference, see SC 32

Review Summary

No changes were requested to the MAERT nor the Special Conditions. Corrections were required as described above in Project Scope.

Summary of Modeling Results

Modeling was not required because proposed changes do not interfere with previous demonstrations of compliance as required by 30 TAC 116.111, including protection of public health and welfare.

4/15/2021

Project Reviewer
Laura Gibson, P.E.

Date

Team Leader
Lillian Hayes

Date



Compliance History Report

Compliance History Report for CN603207218, RN100888312, Rating Year 2020 which includes Compliance History (CH) components from September 1, 2015, through August 31, 2020.

Customer, Respondent, or Owner/Operator:	CN603207218, NRG Texas Power LLC	Classification:	HIGH	Rating:	0.03
Regulated Entity:	RN100888312, WA PARISH ELECTRIC GENERATING STATION	Classification:	HIGH	Rating:	0.00
Complexity Points:	33	Repeat Violator:	NO		
CH Group:	06 - Electric Power Generation				
Location:	2500 Y U Jones Rd FORT BEND, TX, FORT BEND COUNTY				
TCEQ Region:	REGION 12 - HOUSTON				

ID Number(s):

AIR OPERATING PERMITS ACCOUNT NUMBER FG0020V

AIR OPERATING PERMITS PERMIT 3611

AIR NEW SOURCE PERMITS PERMIT 5530

AIR NEW SOURCE PERMITS PERMIT 7704

AIR NEW SOURCE PERMITS PERMIT 7706A

AIR NEW SOURCE PERMITS PERMIT 45575

AIR NEW SOURCE PERMITS PERMIT 2348A

AIR NEW SOURCE PERMITS PERMIT 5126

AIR NEW SOURCE PERMITS EPA PERMIT N034

AIR NEW SOURCE PERMITS REGISTRATION 72347

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX234

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX901

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX33M1

AIR NEW SOURCE PERMITS REGISTRATION 45779

AIR NEW SOURCE PERMITS REGISTRATION 45326

AIR NEW SOURCE PERMITS REGISTRATION 40542

AIR NEW SOURCE PERMITS REGISTRATION 39571

AIR NEW SOURCE PERMITS REGISTRATION 30529

AIR NEW SOURCE PERMITS REGISTRATION 97958

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX1268

AIR NEW SOURCE PERMITS REGISTRATION 108189

AIR NEW SOURCE PERMITS REGISTRATION 152549

WASTEWATER PERMIT WQ0001038000

WASTEWATER EPA ID TX0006394

WASTEWATER EPA ID TX0135763

TAX RELIEF ID NUMBER 16497

TAX RELIEF ID NUMBER 16490

TAX RELIEF ID NUMBER 17216

TAX RELIEF ID NUMBER 16503

TAX RELIEF ID NUMBER 16502

TAX RELIEF ID NUMBER 17313

TAX RELIEF ID NUMBER 18969

TAX RELIEF ID NUMBER 17192

INDUSTRIAL AND HAZARDOUS WASTE EPA ID

TXD097311849

PUBLIC WATER SYSTEM/SUPPLY REGISTRATION

0790100

AIR OPERATING PERMITS PERMIT 74

POLLUTION PREVENTION PLANNING ID NUMBER

P01274

AIR NEW SOURCE PERMITS PERMIT 5794

AIR NEW SOURCE PERMITS PERMIT 4130A

AIR NEW SOURCE PERMITS PERMIT 18851

AIR NEW SOURCE PERMITS ACCOUNT NUMBER FG0020V

AIR NEW SOURCE PERMITS PERMIT 2349A

AIR NEW SOURCE PERMITS EPA PERMIT N035

AIR NEW SOURCE PERMITS EPA PERMIT N033

AIR NEW SOURCE PERMITS REGISTRATION 74046

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX33

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX902

AIR NEW SOURCE PERMITS EPA PERMIT PSDTX234M1

AIR NEW SOURCE PERMITS REGISTRATION 46599

AIR NEW SOURCE PERMITS REGISTRATION 43191

AIR NEW SOURCE PERMITS REGISTRATION 39729

AIR NEW SOURCE PERMITS REGISTRATION 15527

AIR NEW SOURCE PERMITS EPA PERMIT N138

AIR NEW SOURCE PERMITS PERMIT 98664

AIR NEW SOURCE PERMITS REGISTRATION 97980

AIR NEW SOURCE PERMITS REGISTRATION 104887

AIR NEW SOURCE PERMITS AFS NUM 4815700005

WASTEWATER EPA ID TX0003694

WASTEWATER PERMIT WQ0005142000

TAX RELIEF ID NUMBER 16488

TAX RELIEF ID NUMBER 16494

TAX RELIEF ID NUMBER 17191

TAX RELIEF ID NUMBER 16501

TAX RELIEF ID NUMBER 16491

TAX RELIEF ID NUMBER 16493

TAX RELIEF ID NUMBER 16489

TAX RELIEF ID NUMBER 16496

TAX RELIEF ID NUMBER 19579

INDUSTRIAL AND HAZARDOUS WASTE SOLID WASTE

REGISTRATION # (SWR) 31631

AIR EMISSIONS INVENTORY ACCOUNT NUMBER FG0020V

Compliance History Period: September 01, 2015 to August 31, 2020 **Rating Year:** 2020 **Rating Date:** 09/01/2020

Date Compliance History Report Prepared: September 25, 2020

Agency Decision Requiring Compliance History: Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

Component Period Selected: September 01, 2015 to August 31, 2020

TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.

Name: TCEQ Staff Member

Phone: (512) 239-1000

Site and Owner/Operator History:

- | | |
|--|-----|
| 1) Has the site been in existence and/or operation for the full five year compliance period? | YES |
| 2) Has there been a (known) change in ownership/operator of the site during the compliance period? | NO |

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

N/A

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

Item 1	September 17, 2015	(1266277)
Item 2	October 21, 2015	(1296477)
Item 3	November 19, 2015	(1301930)
Item 4	December 17, 2015	(1308858)
Item 5	January 20, 2016	(1315642)
Item 6	February 19, 2016	(1325034)
Item 7	February 24, 2016	(1313492)
Item 8	March 15, 2016	(1331763)
Item 9	April 19, 2016	(1338926)
Item 10	May 18, 2016	(1345726)
Item 11	May 31, 2016	(1315352)
Item 12	June 01, 2016	(1330947)
Item 13	June 03, 2016	(1315073)
Item 14	June 15, 2016	(1352168)
Item 15	July 20, 2016	(1359142)
Item 16	August 18, 2016	(1365566)
Item 17	September 15, 2016	(1350170)
Item 18	September 20, 2016	(1372267)
Item 19	October 20, 2016	(1378444)
Item 20	November 17, 2016	(1384403)
Item 21	December 15, 2016	(1375799)
Item 22	December 20, 2016	(1392903)
Item 23	January 19, 2017	(1399505)
Item 24	January 20, 2017	(1371352)
Item 25	January 23, 2017	(1397157)
Item 26	February 21, 2017	(1404041)
Item 27	March 01, 2017	(1417644)
Item 28	March 14, 2017	(1362544)
Item 29	March 17, 2017	(1411141)
Item 30	March 29, 2017	(1157356)
Item 31	April 20, 2017	(1419987)
Item 32	May 17, 2017	(1425233)
Item 33	June 08, 2017	(1403536)
Item 34	June 20, 2017	(1431236)
Item 35	July 10, 2017	(1416838)
Item 36	July 20, 2017	(1381836)

Item 38	August 23, 2017	(1443534)
Item 39	September 19, 2017	(1450160)
Item 40	September 22, 2017	(1428566)
Item 41	October 19, 2017	(1455980)
Item 42	November 13, 2017	(1416711)
Item 43	November 16, 2017	(1461460)
Item 44	December 18, 2017	(1467840)
Item 45	January 18, 2018	(1474545)
Item 46	February 20, 2018	(1486771)
Item 47	March 19, 2018	(1490448)
Item 48	April 13, 2018	(1493685)
Item 49	April 17, 2018	(1496029)
Item 50	May 11, 2018	(1500603)
Item 51	May 15, 2018	(1503009)
Item 52	May 23, 2018	(1473856)
Item 53	May 29, 2018	(1482505)
Item 54	June 18, 2018	(1510090)
Item 55	June 20, 2018	(1507720)
Item 56	July 18, 2018	(1514038)
Item 57	July 19, 2018	(1516418)
Item 58	July 25, 2018	(1504373)
Item 59	August 07, 2018	(1499678)
Item 60	August 17, 2018	(1520099)
Item 61	September 17, 2018	(1527264)
Item 62	October 16, 2018	(1517134)
Item 63	October 18, 2018	(1533622)
Item 64	November 05, 2018	(1517750)
Item 65	November 15, 2018	(1541457)
Item 66	December 10, 2018	(1523623)
Item 67	December 11, 2018	(1545241)
Item 68	January 17, 2019	(1566819)
Item 69	February 01, 2019	(1499657)
Item 70	February 19, 2019	(1566817)
Item 71	March 19, 2019	(1559697)
Item 72	April 15, 2019	(1571838)
Item 73	May 14, 2019	(1556313)
Item 74	June 19, 2019	(1583287)
Item 75	June 26, 2019	(1556297)
Item 76	July 18, 2019	(1593151)
Item 77	August 13, 2019	(1580796)
Item 78	August 14, 2019	(1599497)
Item 79	August 21, 2019	(1575299)
Item 80	September 17, 2019	(1606402)
Item 81	October 09, 2019	(1591726)
Item 83	November 21, 2019	(1619062)
Item 84	December 19, 2019	(1626414)
Item 85	January 21, 2020	(1634055)
Item 86	February 20, 2020	(1640674)
Item 87	February 27, 2020	(1597718)
Item 88	March 16, 2020	(1647194)
Item 89	April 20, 2020	(1597674)
Item 90	April 21, 2020	(1653530)
Item 91	May 21, 2020	(1660117)
Item 92	June 19, 2020	(1666621)
Item 93	July 09, 2020	(1673578)
Item 94	July 15, 2020	(1675897)
Item 95	August 21, 2020	(1592284)

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

Notice of Intent Date: 04/25/2017 (1410226)

Disclosure Date: 10/23/2017

Viol. Classification: Minor

Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)

30 TAC Chapter 122, SubChapter B 122.143(4)

Rqmt Prov: PERMIT SC 14E

OP ST&C 7

Description: A number of open-ended lines were not equipped with an appropriately sized cap, blind flange, plug, or a second valve to properly seal each line. Since the Installation of these additional components was not identified during the initial 2016 piping system evaluation, ongoing quarterly monitoring of such components has also not been completed.

Viol. Classification: Minor

Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)

30 TAC Chapter 122, SubChapter B 122.143(4)

30 TAC Chapter 122, SubChapter B 122.145(2)(A)

30 TAC Chapter 122, SubChapter B 122.146(5)(C)

Rqmt Prov: OP ST&C 10

Description: Failure to report deviations associated with Disclosure of Violation (DOV) Item No. 1 In prior Title V compliance certifications.

Disclosure Date: 12/21/2017

Viol. Classification: Moderate

Citation: 30 TAC Chapter 116, SubChapter B 116.115(b)(2)(F)

30 TAC Chapter 116, SubChapter B 116.115(c)

30 TAC Chapter 122, SubChapter B 122.143(4)

Rqmt Prov: PERMIT SC 1

OP ST&C 7

Description: Although the Carbon Capture Plant does not yet have twelve full months of commercial operation, current emissions projections indicate that the facility MEAFUG emissions will be 0.085 tpy, which will exceed the currently permitted 0.08 tpy threshold, by the end of December 2017.

Notice of Intent Date: 02/22/2018 (1473616)

Disclosure Date: 08/22/2018

Viol. Classification: Moderate

Citation: 30 TAC Chapter 290, SubChapter D 290.46(f)(3)(A)(iv)

30 TAC Chapter 290, SubChapter D 290.46(l)

Description: No records could be located for flushing of the dead end potable water mains regarding TX0790100 and TX0790140.

Viol. Classification: Minor

Citation: 30 TAC Chapter 290, SubChapter F 290.110(c)(4)(A)

30 TAC Chapter 290, SubChapter D 290.46(f)(3)(B)(iii)

Description: Records indicate that the testing frequency exceeded seven days. Dates tested were 04/17/2018 and 04/25/2018, and 05/16/2018 and 05/24/2018. Specifically, this concerns the disinfectant residual at representative locations within the distribution system.

Viol. Classification: Minor

Citation: 30 TAC Chapter 335, SubChapter S 335.565

Description: The 2017 Annual Groundwater Monitoring Report for Cell 2 was submitted late on 4/5/18. It should have been submitted by March 15th.

Viol. Classification: Minor

Citation: 30 TAC Chapter 101, SubChapter A 101.10(c)

30 TAC Chapter 122, SubChapter B 122.143(4)

Rqmt Prov: OP STC 2(E)

Description: On 4/25/18 deficiencies were noted in the cogen initial compliance test report submitted in 2/17. Upon further review, it was determined that calculation updates were necessary, which impacted reported VOC, NH3, and PM test results. A revised cogen initial compliance test report was submitted on 7/11/18. In addition, updates to the 2016 and 2017 EIs and 2016 TRI for the site will be necessary. These emission summaries are shown in Row 7 of the chart for the DOV dated 8/22/18.

Viol. Classification: Minor

Citation: 30 TAC Chapter 122, SubChapter B 122.143(4)

30 TAC Chapter 122, SubChapter B 122.145(2)(A)

30 TAC Chapter 122, SubChapter B 122.146(5)(C)

Description: Failed to report deviations associated with Disclosure of Violation (DOV) item No. 7 in prior Title V compliance certifications.

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A