

From: [eNotice TCEQ](#)
To: Royce.west@senate.texas.gov; Yvonne.davis@house.texas.gov
Subject: TCEQ Notice - Permit Number O1333
Date: Thursday, July 11, 2024 4:32:31 PM
Attachments: [TCEQ Notice - O1333 36830.pdf](#)

This email is being sent to electronically transmit an official document issued by the Office of Air of the Texas Commission on Environmental Quality.

This email is being sent to you because either (a) you filed a document with the Office of the Chief Clerk that made you part of the official mailing list for the above referenced matter, or (b) notice to you is legally required. As authorized by Texas Water Code 5.128, this electronic transmittal is replacing the previous practice of hard copy distribution. Amendments to Texas Government Code 552.137 prompted a change to the agency's privacy policy regarding confidentiality of certain email addresses. The revised privacy policy can be viewed at http://www.tceq.state.tx.us/help/policies/electronic_info_policy.html.

Questions regarding this email may be submitted either by replying directly to this email or by calling Mr. Jesse Chacon, P.E. with the Air Permits Division at (512) 239-5759.

The attached document is provided in an Adobe Acrobat .pdf format. If you cannot display the attachment, you may need to visit the Adobe web site (<http://get.adobe.com/reader>) to download the free Adobe Acrobat Reader software.

From: [eNotice TCEQ](#)
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Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 11, 2024

THE HONORABLE ROYCE WEST
TEXAS SENATE
PO BOX 12068
AUSTIN TX 78711-2068

Re: Accepted Federal Operating Permit Significant Revision Application
Project Number: 36830
Permit Number: O1333
Solar Turbines Incorporated
Dallas Overhaul Center
Desoto, Dallas County
Regulated Entity Number: RN100219963
Customer Reference Number: CN600127518

Dear Senator West:

This letter notifies you that the Texas Commission on Environmental Quality has received a federal operating permit (FOP) significant revision application for a site located in your district. As part of this permitting process, the applicant is required to publish a formal newspaper public notice. The notice will inform the public of their right to make comments or request a public hearing. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.850277,32.6275&level=13>.

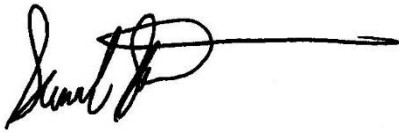
The FOP program regulates both new and existing major sources of emissions. The goal of the program is to improve air quality in Texas through increased compliance by codifying existing applicable regulatory requirements into the FOP. The FOP provides the applicant authorization to operate the equipment at the site. The FOP identifies and codifies air emission requirements (known as applicable requirements) that apply to the emission units at the site. The FOP does not authorize construction of emission units or emissions from those units. The New Source Review (NSR) permit is the mechanism for these authorizations.

The Honorable Royce West
Page 2
July 11, 2024

Re: Accepted Federal Operating Permit Significant Revision Application

This letter is being sent to you for information only and no action is required. If you need further information, please contact me at (512) 239-1250.

Sincerely,

A handwritten signature in black ink, appearing to read 'Samuel Short', followed by a long horizontal line extending to the right.

Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 11, 2024

THE HONORABLE YVONNE DAVIS
TEXAS HOUSE OF REPRESENTATIVES
PO BOX 2910
AUSTIN TX 78768-2910

Re: Accepted Federal Operating Permit Significant Revision Application
Project Number: 36830
Permit Number: O1333
Solar Turbines Incorporated
Dallas Overhaul Center
Desoto, Dallas County
Regulated Entity Number: RN100219963
Customer Reference Number: CN600127518

Dear Representative Davis:

This letter notifies you that the Texas Commission on Environmental Quality has received a federal operating permit (FOP) significant revision application for a site located in your district. As part of this permitting process, the applicant is required to publish a formal newspaper public notice. The notice will inform the public of their right to make comments or request a public hearing. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.850277,32.6275&level=13>.

The FOP program regulates both new and existing major sources of emissions. The goal of the program is to improve air quality in Texas through increased compliance by codifying existing applicable regulatory requirements into the FOP. The FOP provides the applicant authorization to operate the equipment at the site.

This letter is being sent to you for information only and no action is required. If you need further information, please contact me at (512) 239-1250.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel Short", followed by a long horizontal line.

Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality



Search

Sen. Royce West (D)

Last modified on: 01-11-2023 20:53:48

[↩ Back to Texas Senate \(/online/txsenate/\)](/online/txsenate/)

TX Senator (Texas Senate (/online/txsenate/))

Entered Office: 01-1993

Term Ends: 01-2025

District: 23

General Information

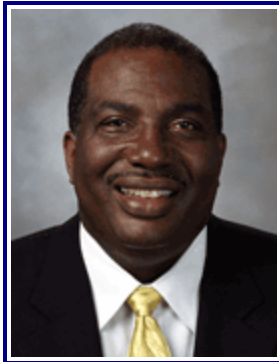
Profession: Attorney

Home Town: Dallas

Birthdate: 09-26-1952

Spouse: Carol

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Personal Information

BA, MA-University of Texas at Arlington; JD-University of Houston

S-1993-present

Office Information

Dist. 23 - Dallas (33%), Tarrant (4%)

Committees

Transportation-VC (/online/sencom/detail.php?id=304); Education (/online/sencom/detail.php?id=300); Finance (/online/sencom/detail.php?id=301); Higher Education (/online/sencom/detail.php?id=418); Local Government (/online/sencom/detail.php?id=305); Redistricting-Special (/online/sencom/detail.php?id=532)

Contact and Phone Numbers

Capitol Office:

1E.5

Capitol Phone: (512) 463-0123

Capitol Fax: (512) 463-0299

✉ royce.west@senate.texas.gov (mailto:royce.west@senate.texas.gov)

📍 District Map (<http://www.fyi.legis.texas.gov/fyiwebdocs/pdf/senate/dist23/m1.pdf>)

Dallas District Office

5787 S. Hampton Road, Suite 385


Dallas, TX 75232

📞 (214) 467-0123


📠 (214) 467-0050

Staff

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STATE SYMBOLS (HTTP://WWW.LEGIS.STATE.TX.US/RESOURCES/STATESYMBOLS.ASPX)	>
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Contact Us

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Austin, Texas 78701
 (512) 473-2447
 [Contact Us \(/contact/\)](/contact/)

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 (<https://www.facebook.com/Texas-State-Directory-142890752404984/>)  (<https://twitter.com/TSDPress>)

From: [Johnny Bowers](#)
To: [Rosa Mora-Nichols](#)
Subject: FW: STEERS Title V Application Submittal (New Application)
Date: Monday, July 8, 2024 7:33:54 AM

Please process. Thanks!

-----Original Message-----

From: steers@tceq.texas.gov <steers@tceq.texas.gov>
Sent: Wednesday, July 3, 2024 9:22 AM
To: RFCAIR4 <RFCAIR4@tceq.texas.gov>; TVAPPS <tvapps@tceq.texas.gov>
Subject: STEERS Title V Application Submittal (New Application)

The TV-E application has been successfully submitted by ADAM NAMMARI. The submittal was received at 07/03/2024 09:22 AM.

The Reference number for this submittal is 663622

The confirmation number for this submittal is 549243.

The Area ID for this submittal is 1333.

The Project ID for this submittal is 36830.

The hash code for this submittal is

D4B6E9C75413317238AE03EB85CF5DFB6D75FA173BDCFF57C618A3DBB258B2A8.

You may access the original application submittal and the notice of final action documents from the COR Viewer which is available at <https://ida.tceq.texas.gov/steersstaff/index.cfm?fuseaction=openadmin.submitlog&newsearch=yes>.

If you have any questions, please contact the STEERS Help Line at 512-239-6925 or by e-mail at steers@tceq.texas.gov.

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes
Form OP-UA15 (Page 3)
Federal Operating Permit Program
Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)
Subchapter B: Vent Gas Control
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
GRPPRE-FLR	R5121-FLARES	NO	NO	REGVAPPL		100-		YES

**Applicable Requirements Summary
Form OP-REQ3 (Page 1)
Federal Operating Permit Program**

Table 1a: Additions

Date: 07/03/2024	Regulated Entity No.: RN100219963	Permit No.: O1333
Company Name: Solar Turbines Incorporated		Area Name: Dallas Overhaul Center

Revision No.	Unit/Group/Process ID No.	Unit/Group/Process Applicable Form	SOP/GOP Index No.	Pollutant	Applicable Regulatory Requirement Name	Applicable Regulatory Requirement Standard(s)
1	GRPPRE-FLR	OP-UA15	R5121-FLARES	VOC	Chapter 115	§115.127(a)(2), §115.127(a)(2)(A), [G]§115.122(a)(4)

**Applicable Requirements Summary
Form OP-REQ3 (Page 2)
Federal Operating Permit Program**

Table 1b: Additions

Date: 07/03/2024	Regulated Entity No.: RN100219963	Permit No.: O1333
Company Name: Solar Turbines Incorporated	Area Name: Dallas Overhaul Center	

Revision No.	Unit/Group/Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
1	GRPPRE-FLR	R5121-FLARES	VOC	[G]§115.125, §115.126(2)	§115.126, §115.126(2), §115.126(4)	None

**Texas Commission on Environmental Quality
Federal Operating Permit Program
Individual Unit Summary for Revisions
Form OP-SUMR**

Table 1

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
A	1	PRE-TC6F	OP-UA15	Pre-Flare TC6F Vent		20041	N196M2, PSDTX1590M1
A	1	PRE-TC7F	OP-UA15	Pre-Flare TC7F Vent		20041	N196M2, PSDTX1590M1
A	1	PRE-HFF1	OP-UA15	Pre-Flare HFF1 Vent		20041	N196M2, PSDTX1590M1

**Texas Commission on Environmental Quality
Federal Operating Permit Program
Individual Unit Summary for Revisions
Form OP-SUMR**

Table 2

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
1	PRE-TC6F	OP-UA15	A	GRPPRE-FLR
1	PRE-TC7F	OP-UA15	A	GRPPRE-FLR
1	PRE-HFF1	OP-UA15	A	GRPPRE-FLR

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 1
Texas Commission on Environmental Quality**

Date: 07/03/2024	
Permit No.: O1333	
Regulated Entity No.: RN100219963	
Company Name: Solar Turbines Incorporated	
For Submissions to EPA	
Has an electronic copy of this application been submitted (or is being submitted) to EPA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
I. Application Type	
Indicate the type of application:	
<input type="checkbox"/> Renewal	
<input type="checkbox"/> Streamlined Revision (Must include provisional terms and conditions as explained in the instructions.)	
<input checked="" type="checkbox"/> Significant Revision	
<input type="checkbox"/> Revision Requesting Prior Approval	
<input type="checkbox"/> Administrative Revision	
<input type="checkbox"/> Response to Reopening	
II. Qualification Statement	
For SOP Revisions Only <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
For GOP Revisions Only <input type="checkbox"/> YES <input type="checkbox"/> NO	

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 1 (continued)
Texas Commission on Environmental Quality**

III. Major Source Pollutants (Complete this section if the permit revision is due to a change at the site or change in regulations.)

Indicate all pollutants for which the site is a major source based on the site's potential to emit:
(Check the appropriate box[es].)

☒ VOC ☒ NO_x ☐ SO₂ ☐ PM₁₀ ☐ CO ☐ Pb ☐ HAP

Other:

IV. Reference Only Requirements (For reference only)

Has the applicant paid emissions fees for the most recent agency fiscal year (September 1 - August 31)? ☒ YES ☐ NO ☐ N/A

V. Delinquent Fees and Penalties

Notice: 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.

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 2
Texas Commission on Environmental Quality**

Date: 07/03/2024
Permit No.: O1333
Regulated Entity No.: RN100219963
Company Name: Solar Turbines Incorporated

Using the table below, provide a description of the revision.

Revision No.	Revision Code	New Unit	Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
			ID No.	Applicable Form		
1	SIG-D	YES	PRE-TC6F, PRE-TC7F, PRE-HFF1/ GRPPRE-FLR	OP-UA15, OP-REQ3, OP-SUMR	20041, N196M2, PSDTX1590M1	Regarding the new hydrogen fuel firing project for Test Cell Nos. 6 and 7 (see NSR Project No. 375826), three new flares will be installed at the site. The appropriate forms are attached. No changes in unique attributes will occur for the test cells, Unit ID Nos. TC6 and TC7. The modification will be authorized under provisions of FCAA, Title 1.
2	SIG-D	YES	TC6, TC7, PRE-TC6F, PRE-TC7F, PRE-HFF1	Major NSR Summary Table	20041, N196M2, PSDTX1590M1	Regarding the new hydrogen fuel firing project for Test Cell Nos. 6 and 7, the currently proposed amendment creates the need to update the Major NSR Summary Table for the Title V permit. A draft copy of the table is attached. Also, the finalized federal nonattainment and PSD permit will need to be attached and the new permit issuance date should be incorporated on the Title V permit's NSR Authorization References Table.
3	SIG-D	YES	NA	OP-REQ1	20041, N196M2, PSDTX1590M1	The new hydrogen fuel firing project will cause the site to become subject to 40 CFR 68, Chemical Accident Prevention Provisions. A page from the Form OP-REQ1 is provided to indicate this rule applicability.

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 3
Texas Commission on Environmental Quality**

Date: 07/03/2024	
Permit No.: O1333	
Regulated Entity No.: RN100219963	
Company Name: Solar Turbines Incorporated	
I. Significant Revision <i>(Complete this section if you are submitting a significant revision application or a renewal application that includes a significant revision.)</i>	
A.	Is the site subject to bilingual requirements pursuant to 30 TAC § 122.322? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B.	Indicate the alternate language(s) in which public notice is required: Spanish
C.	Will, there be a change in air pollutant emissions as a result of the significant revision? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 3
Texas Commission on Environmental Quality**

Using the table below, indicate the air pollutant(s) that will be changing and include a brief description of the change in pollutant emissions for each pollutant:

Pollutant	Description of the Change in Pollutant Emissions
NO _x	Previously authorized emissions of 112.47 tons/yr increase by 24.26 tons/yr to an estimated 136.73 tons/yr due to new hydrogen fuel firing
CO	Previously authorized emissions of 64.08 tons/yr increase by 85.00 tons/yr to an estimated 149.08 tons/yr due to increased testing at low loads
VOC	Previously authorized emissions of 8.82 tons/yr increase by 5.59 tons/yr to an estimated 14.41 tons/yr due to increased testing at low loads
PM/PM ₁₀ /PM _{2.5}	Previously authorized emissions of 12.03 tons/yr do not increase since the use of hydrogen lessens the amount of natural gas fuel firing
SO ₂	Previously authorized emissions of 7.33 tons/yr increase by 0.03 tons/yr to an estimated 7.36 tons/yr due to the small amount of sulfur in the natural gas fired in the new flares

Texas Commission on Environmental Quality

Title V Existing

1333

Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	DALLAS OVERHAUL CENTER
Does the site have a physical address?	Yes
Physical Address	
Number and Street	215 E CENTRE PARK BLVD
City	DESOTO
State	TX
ZIP	75115
County	DALLAS
Latitude (N) (##.#####)	32.6275
Longitude (W) (-###.#####)	96.850277
Primary SIC Code	3511
Secondary SIC Code	
Primary NAICS Code	333611
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100219963
What is the name of the Regulated Entity (RE)?	SOLAR TURBINES DLS OVERHAUL CENTER
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	215 E CENTRE PARK BLVD
City	DESOTO
State	TX
ZIP	75115
County	DALLAS
Latitude (N) (##.#####)	32.6275
Longitude (W) (-###.#####)	-96.850277
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MANUFACTURING PLANT

Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600127518
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Solar Turbines Incorporated
Texas SOS Filing Number	5330206
Federal Tax ID	953621514
State Franchise Tax ID	19536215148

State Sales Tax ID	
Local Tax ID	
DUNS Number	42261099
Number of Employees	101-250
Independently Owned and Operated?	No

Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	SOLAR TURBINES INCORPORATED
Prefix	MR
First	ADAM
Middle	
Last	NAMMARI
Suffix	
Credentials	
Title	PLANT MANAGER
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	215 E CENTRE PARK BLVD
Routing (such as Mail Code, Dept., or Attn:)	
City	DESOTO
State	TX
ZIP	75115
Phone (###-###-####)	9722285535
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	9722286180
E-mail	NAMMARI_ADAM_Z@SOLARTURBINES.COM

Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.	GIL DIEKHOFF(SOLAR TURBINES ...)
Organization Name	SOLAR TURBINES INCORPORATED
Prefix	MR
First	GIL
Middle	
Last	DIEKHOFF
Suffix	
Credentials	
Title	EHS MANAGER
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

215 E CENTRE PARK BLVD

Routing (such as Mail Code, Dept., or Attn:)

City

DESOTO

State

TX

ZIP

75115

Phone (###-###-####)

9722286157

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

9722286180

E-mail

DIEKHOFF_GIL_P@SOLARTURBINES.COM

Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	32 Deg 37 Min 39 Sec
3) Permit Longitude Coordinate:	96 Deg 51 Min 1 Sec
4) Is this submittal a new application or an update to an existing application?	New Application
4.1. What type of permitting action are you applying for?	Significant Revision
4.1.1. Are there any permits that should be voided upon issuance of this permit application through permit conversion?	No
4.1.2. Are there any permits that should be voided upon issuance of this permit application through permit consolidation?	No
5) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

Title V Attachments Existing

Attach OP-1 (Site Information Summary)

Attach OP-2 (Application for Permit Revision/Renewal)

[File Properties]

File Name

OP_2_op-2 062824.docx

Hash

CE4A971C139573966655D1E13CBA498739E796E213FDAB86850FA93AA1A78350

MIME-Type

application/vnd.openxmlformats-officedocument.wordprocessingml.document

Attach OP-REQ1 (Application Area-Wide Applicability Determinations and General Information)

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

Attach OP-REQ3 (Applicable Requirements Summary)

[File Properties]

File Name

OP_REQ3_op-req3 062924.docx

Hash

055384C89078830DF4B7CBEDD8FF30FA5DA2ABEB2EBA0F39634668125B54C4C3

MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document
Attach OP-PBRSUP (Permits by Rule Supplemental Table)	
Attach OP-SUMR (Individual Unit Summary for Revisions)	
[File Properties]	
File Name	OP_SUMR_op-sumr 062924.docx
Hash	A0B7209463B867C29EC67D1FC2CE0A76D1B04A138A76BEA0E2A617EDA9E3C77F
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document
Attach OP-MON (Monitoring Requirements)	
Attach OP-UA (Unit Attribute) Forms	
[File Properties]	
File Name	op-ua15 062924.docx
Hash	A483479D8A1731C97271A5D30F9A4D61DDD5C3F5A1FD36E4A8D1924326D47C82
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document
If applicable, attach OP-AR1 (Acid Rain Permit Application)	
Attach OP-CRO2 (Change of Responsible Official Information)	
Attach OP-DEL (Delegation of Responsible Official)	
Attach any other necessary information needed to complete the permit.	
[File Properties]	
File Name	Solar Turbines TC-6 and TC-7 significant revision 070324.pdf
Hash	CE2ABD513DB6FE8EDD1F32AF60986BAF04644E79B01EA05B9998A905BB7AEAD3
MIME-Type	application/pdf
An additional space to attach any other necessary information needed to complete the permit.	
[File Properties]	
File Name	Major NSR Summary Table 20041 062424.docx
Hash	35CEB411A7D212EB2BAFD7855C7F51CBA675284D53454003B1DD9D277EC2BCF7
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document

Expedite Title V

1) Per Texas Health and Safety Code, Section 382.05155, does the applicant want to expedite the processing of this application?

No

Certification

I certify that I am the Responsible Official for this application and that, based on information and belief formed after reasonable inquiry, the statements and information on this form are true, accurate, and complete.

- 1. I am Adam Z Nammari, the owner of the STEERS account ER055736.
- 2. I have the authority to sign this data on behalf of the applicant named above.
- 3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Title V Existing 1333.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEC

OWNER OPERATOR Signature: Adam Z Nammari OWNER OPERATOR

Account Number:	ER055736
Signature IP Address:	198.180.154.30
Signature Date:	2024-07-03
Signature Hash:	2FF6706C514A69CD2EC258DC9B0D46729ED1648AF75FBC14F4D8F5C85D4790A3
Form Hash Code at time of Signature:	D4B6E9C75413317238AE03EB85CF5DFB6D75FA173BDCFF57C618A3DBB258B2A8

Submission

Reference Number:	The application reference number is 663622
Submitted by:	The application was submitted by ER055736/Adam Z Nammari
Submitted Timestamp:	The application was submitted on 2024-07-03 at 09:22:04 CDT
Submitted From:	The application was submitted from IP address 198.180.154.30
Confirmation Number:	The confirmation number is 549243
Steers Version:	The STEERS version is 6.78
Permit Number:	The permit number is 1333

Additional Information

Application Creator: This account was created by Stuart L Keil

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
TITLE V PERMIT O1333

SIGNIFICANT REVISION REQUEST

SOLAR TURBINES INCORPORATED
DESOTO, DALLAS COUNTY
ACCOUNT ID NO. DB-1494-I
CUSTOMER NO. 600127518
REGULATED ENTITY NO. 100219963

July 3, 2024

Prepared by:



Stuart L. Keil, P.E.

Stuart L. Keil, P.E.
Keil Environmental, Inc.
413 Honeycomb Ridge
Austin, Texas 78746
TBPELS Registration No. F-4725

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Solar Turbines Incorporated
July 2024

**ATTACHMENT A
EXECUTIVE SUMMARY**

EXECUTIVE SUMMARY

Solar Turbines Incorporated's (Solar's) proposed new project is designed to facilitate the use of hydrogen fuel in Solar's largest gas turbines, a cutting-edge technology that should allow for decarbonization within the energy industry through the reduction of natural gas fuel firing. Europe and other regions are trending towards mandating hydrogen capabilities in gas turbines resulting in Solar's need to develop hydrogen technology to stay competitive in the gas turbine market. Solar plans to utilize this proposed project at the DeSoto facility to develop turbine emission efficiency on hydrogen blends. Therefore, Solar intends to modify Test Cell Nos. 6 and 7 (existing EPNs TC6 and TC7 respectively) by adding facilities that allow for hydrogen fuel testing.

Each test cell will be equipped with an enclosed flare to be used in safely routing the hydrogen from the hydrogen farm to the cells (EPNs TC6F and TC7F, respectively, or Unit ID Nos. PRE-TC6F and PRE-TC7F). The new hydrogen farm will have four storage tanks and its own safety flare (EPN HFF1, or Unit ID No. PRE-HFF1). Also, it should be noted that both cells will be equipped with new blowers to insert cooling air into the exhaust stack for safety purposes.

Hydrogen testing will occur in one test cell at a time and the worst-case hour could include emissions from the test cell, its flare and the hydrogen farm flare. Hours for hydrogen testing will be limited and random.

Testing on hydrogen blends has shown that NO_x levels will increase significantly compared to turbines running on pure natural gas. With hydrogen blends, all other pollutants (CO, VOC, PM, and SO₂) will decrease as hydrogen in the blended fuel increases. Therefore, this project estimates higher NO_x hourly emissions for both cells and higher annual emissions for Test Cell No. 7.

Although hydrogen testing will not increase CO and VOC due to development testing with hydrogen blends, the CO and VOC hourly emissions for Test Cell Nos. 6 and 7 will be increased to allow for more testing at low loads. In addition, improvements are proposed for annual CO and VOC emissions for Test Cell No. 7. Also, slight improvements are proposed for TC6's hourly emissions from liquid fuel firing for CO and VOC emissions.

Lastly, Test Cell No. 6 will undergo a significant rebuild that allows for additional configurations of turbines to be tested in the cell. The size of the turbines to be tested will not change and permitted annual emission limits will not change. As part of this rebuild, the TC6 stack will be moved a couple meters.

The project is subject to federal nonattainment review due to increased NO_x emissions and federal Prevention of Significant Deterioration (PSD) review due to increased NO_x and CO emissions.

Solar Turbines Incorporated
July 2024

ATTACHMENT B
APPLICATION FOR PERMIT REVISION/RENEWAL,
FORM OP-2

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 1
Texas Commission on Environmental Quality**

Date: 07/03/2024	
Permit No.: O1333	
Regulated Entity No.: RN100219963	
Company Name: Solar Turbines Incorporated	
For Submissions to EPA	
Has an electronic copy of this application been submitted (or is being submitted) to EPA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
I. Application Type	
Indicate the type of application:	
<input type="checkbox"/> Renewal	
<input type="checkbox"/> Streamlined Revision (Must include provisional terms and conditions as explained in the instructions.)	
<input checked="" type="checkbox"/> Significant Revision	
<input type="checkbox"/> Revision Requesting Prior Approval	
<input type="checkbox"/> Administrative Revision	
<input type="checkbox"/> Response to Reopening	
II. Qualification Statement	
For SOP Revisions Only <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
For GOP Revisions Only <input type="checkbox"/> YES <input type="checkbox"/> NO	

Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 1 (continued)
Texas Commission on Environmental Quality

III. Major Source Pollutants (Complete this section if the permit revision is due to a change at the site or change in regulations.)

Indicate all pollutants for which the site is a major source based on the site's potential to emit:

(Check the appropriate box[es].)

☒ VOC ☒ NO_x ☐ SO₂ ☐ PM₁₀ ☐ CO ☐ Pb ☐ HAP

Other:

IV. Reference Only Requirements (For reference only)

Has the applicant paid emissions fees for the most recent agency fiscal year (September 1 - August 31)? ☒ YES ☐ NO ☐ N/A

V. Delinquent Fees and Penalties

Notice: 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.

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 2
Texas Commission on Environmental Quality**

Date: 07/03/2024
Permit No.: O1333
Regulated Entity No.: RN100219963
Company Name: Solar Turbines Incorporated

Using the table below, provide a description of the revision.

Revision No.	Revision Code	New Unit	Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
			ID No.	Applicable Form		
1	SIG-D	YES	PRE-TC6F, PRE-TC7F, PRE-HFF1/ GRPPRE-FLR	OP-UA15, OP-REQ3, OP-SUMR	20041, N196M2, PSDTX1590M1	Regarding the new hydrogen fuel firing project for Test Cell Nos. 6 and 7 (see NSR Project No. 375826), three new flares will be installed at the site. The appropriate forms are attached. No changes in unique attributes will occur for the test cells, Unit ID Nos. TC6 and TC7. The modification will be authorized under provisions of FCAA, Title 1.
2	SIG-D	YES	TC6, TC7, PRE-TC6F, PRE-TC7F, PRE-HFF1	Major NSR Summary Table	20041, N196M2, PSDTX1590M1	Regarding the new hydrogen fuel firing project for Test Cell Nos. 6 and 7, the currently proposed amendment creates the need to update the Major NSR Summary Table for the Title V permit. A draft copy of the table is attached. Also, the finalized federal nonattainment and PSD permit will need to be attached and the new permit issuance date should be incorporated on the Title V permit's NSR Authorization References Table.
3	SIG-D	YES	NA	OP-REQ1	20041, N196M2, PSDTX1590M1	The new hydrogen fuel firing project will cause the site to become subject to 40 CFR 68, Chemical Accident Prevention Provisions. A page from the Form OP-REQ1 is provided to indicate this rule applicability.

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 3
Texas Commission on Environmental Quality**

Date: 07/03/2024	
Permit No.: O1333	
Regulated Entity No.: RN100219963	
Company Name: Solar Turbines Incorporated	
I. Significant Revision <i>(Complete this section if you are submitting a significant revision application or a renewal application that includes a significant revision.)</i>	
A. Is the site subject to bilingual requirements pursuant to 30 TAC § 122.322?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B. Indicate the alternate language(s) in which public notice is required: Spanish	
C. Will, there be a change in air pollutant emissions as a result of the significant revision?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

**Federal Operating Permit Program
Application for Permit Revision/Renewal
Form OP-2-Table 3
Texas Commission on Environmental Quality**

Using the table below, indicate the air pollutant(s) that will be changing and include a brief description of the change in pollutant emissions for each pollutant:

Pollutant	Description of the Change in Pollutant Emissions
NO _x	Previously authorized emissions of 112.47 tons/yr increase by 24.26 tons/yr to an estimated 136.73 tons/yr due to new hydrogen fuel firing
CO	Previously authorized emissions of 64.08 tons/yr increase by 85.00 tons/yr to an estimated 149.08 tons/yr due to increased testing at low loads
VOC	Previously authorized emissions of 8.82 tons/yr increase by 5.59 tons/yr to an estimated 14.41 tons/yr due to increased testing at low loads
PM/PM ₁₀ /PM _{2.5}	Previously authorized emissions of 12.03 tons/yr do not increase since the use of hydrogen lessens the amount of natural gas fuel firing
SO ₂	Previously authorized emissions of 7.33 tons/yr increase by 0.03 tons/yr to an estimated 7.36 tons/yr due to the small amount of sulfur in the natural gas fired in the new flares

Solar Turbines Incorporated
July 2024

ATTACHMENT C
EMISSION POINT/STATIONARY VENT/DISTILLATION OPERATION
VENT/PROCESS VENT ATTRIBUTES,
FORM OP-UA15, TABLE 2

Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes
Form OP-UA15 (Page 3)
Federal Operating Permit Program
Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)
Subchapter B: Vent Gas Control
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
GRPPRE-FLR	R5121-FLARES	NO	NO	REGVAPPL		100-		YES

Solar Turbines Incorporated
July 2024

**ATTACHMENT D
APPLICABLE REQUIREMENTS SUMMARY,
FORM OP-REQ3**

**Applicable Requirements Summary
Form OP-REQ3 (Page 1)
Federal Operating Permit Program**

Table 1a: Additions

Date: 07/03/2024	Regulated Entity No.: RN100219963	Permit No.: O1333
Company Name: Solar Turbines Incorporated		Area Name: Dallas Overhaul Center

Revision No.	Unit/Group/Process ID No.	Unit/Group/Process Applicable Form	SOP/GOP Index No.	Pollutant	Applicable Regulatory Requirement Name	Applicable Regulatory Requirement Standard(s)
1	GRPPRE-FLR	OP-UA15	R5121-FLARES	VOC	Chapter 115	§115.127(a)(2), §115.127(a)(2)(A), [G]§115.122(a)(4)

**Applicable Requirements Summary
Form OP-REQ3 (Page 2)
Federal Operating Permit Program**

Table 1b: Additions

Date: 07/03/2024	Regulated Entity No.: RN100219963	Permit No.: O1333
Company Name: Solar Turbines Incorporated	Area Name: Dallas Overhaul Center	

Revision No.	Unit/Group/Process ID No.	SOP/GOP Index No.	Pollutant	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
1	GRPPRE-FLR	R5121-FLARES	VOC	[G]§115.125, §115.126(2)	§115.126, §115.126(2), §115.126(4)	None

Solar Turbines Incorporated
July 2024

**ATTACHMENT E
INDIVIDUAL UNIT SUMMARY FOR REVISIONS,
FORM OP-SUMR**

**Texas Commission on Environmental Quality
Federal Operating Permit Program
Individual Unit Summary for Revisions
Form OP-SUMR**

Table 1

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
A	1	PRE-TC6F	OP-UA15	Pre-Flare TC6F Vent		20041	N196M2, PSDTX1590M1
A	1	PRE-TC7F	OP-UA15	Pre-Flare TC7F Vent		20041	N196M2, PSDTX1590M1
A	1	PRE-HFF1	OP-UA15	Pre-Flare HFF1 Vent		20041	N196M2, PSDTX1590M1

**Texas Commission on Environmental Quality
Federal Operating Permit Program
Individual Unit Summary for Revisions
Form OP-SUMR**

Table 2

Date	Permit No.	Regulated Entity No.
07/03/2024	O1333	RN100219963

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
1	PRE-TC6F	OP-UA15	A	GRPPRE-FLR
1	PRE-TC7F	OP-UA15	A	GRPPRE-FLR
1	PRE-HFF1	OP-UA15	A	GRPPRE-FLR

Solar Turbines Incorporated
July 2024

ATTACHMENT F
MAJOR NSR SUMMARY TABLE

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC1	Test Cell 1 Gas fuel firing	NO _x	106.9	---	2, 3, 9	9, 10	
		CO	84.8	---			
		VOC	46.6	---			
		PM	5.3	---			
		PM ₁₀	5.3	---			
		PM _{2.5}	5.3	---			
		SO ₂	2.0	---			
TC1	Test Cell 1 Liquid fuel firing	NO _x	181.5	---	2, 3, 9	9, 10	
		CO	88.8	---			
		VOC	20.4	---			
		PM	15.7	---			
		PM ₁₀	15.7	---			
		PM _{2.5}	15.7	---			
		SO ₂	7.5	---			
TC1	Test Cell 1 - Annual Emission Rate Gas and Liquid Fuel Firing	NO _x	---	100.2	2, 3, 9	9, 10	14
		CO	---	27.7			
		VOC	---	9.4			
		PM	---	10.7			
		PM ₁₀	---	10.7			
		PM _{2.5}	---	10.7			
		SO ₂	---	2.9			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC2	Test Cell 2 Gas Fuel Firing	NO _x	8.7	---	2, 3, 9	9, 10	
		CO	18.4	---			
		VOC	4.7	---			
		PM	0.7	---			
		PM ₁₀	0.7	---			
		PM _{2.5}	0.7	---			
		SO ₂	0.4	---			
TC2	Test Cell 2 Liquid Fuel Firing	NO _x	13.0	---	2, 3, 9	9, 10	
		CO	37.0	---			
		VOC	4.7	---			
		PM	3.5	---			
		PM ₁₀	3.5	---			
		PM _{2.5}	3.5	---			
		SO ₂	1.5	---			
TC2	Test Cell 2 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	8.7	2, 3, 9	9, 10	14
		CO	---	9.2			
		VOC	---	0.9			
		PM	---	1.9			
		PM ₁₀	---	1.9			
		PM _{2.5}	---	1.9			
		SO ₂	---	0.8			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC3	Test Cell 3 Gas Fuel Firing	NO _x	80.0	---	2, 3, 9	9, 10	
		CO	84.8	---			
		VOC	13.5	---			
		PM	2.5	---			
		PM ₁₀	2.5	---			
		PM _{2.5}	2.5	---			
		SO ₂	1.1	---			
TC3	Test Cell 3 Liquid Fuel Firing	NO _x	120.0	---	2, 3, 9	9, 10	
		CO	45.6	---			
		VOC	7.2	---			
		PM	15.7	---			
		PM ₁₀	15.7	---			
		PM _{2.5}	15.7	---			
		SO ₂	4.8	---			
TC3	Test Cell 3 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	35.9	2, 3, 9	9, 10	14
		CO	---	19.4			
		VOC	---	1.8			
		PM	---	10.7			
		PM ₁₀	---	10.7			
		PM _{2.5}	---	10.7			
		SO ₂	---	2.7			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC4	Test Cell 4 Gas Fuel Firing	NO _x	106.9	---	2, 3, 9	9, 10	
		CO	84.8	---			
		VOC	46.6	---			
		PM	5.3	---			
		PM ₁₀	5.3	---			
		PM _{2.5}	5.3	---			
		SO ₂	2.0	---			
TC4	Test Cell 4 Liquid Fuel Firing	NO _x	181.5	---	2, 3, 9	9, 10	
		CO	41.3	---			
		VOC	14.3	---			
		PM	15.7	---			
		PM ₁₀	15.7	---			
		PM _{2.5}	15.7	---			
		SO ₂	7.5	---			
TC4	Test Cell 4 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	100.2	2, 3, 9	9, 10	14
		CO	---	27.7			
		VOC	---	9.4			
		PM	---	10.7			
		PM ₁₀	---	10.7			
		PM _{2.5}	---	10.7			
		SO ₂	---	2.9			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC5	Test Cell 5 Gas Fuel Firing	NO _x	192.8	---	2, 3, 9	9, 10	
		CO	30.0	---			
		VOC	8.8	---			
		PM	8.5	---			
		PM ₁₀	8.5	---			
		PM _{2.5}	8.5	---			
		SO ₂	3.8	---			
TC5	Test Cell 5 Liquid Fuel Firing	NO _x	338.8	---	2, 3, 9	9, 10	
		CO	30.0	---			
		VOC	8.8	---			
		PM	12.1	---			
		PM ₁₀	12.1	---			
		PM _{2.5}	12.1	---			
		SO ₂	14.1	---			
TC5	Test Cell 5 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	74.53	2, 3, 9	9, 10	14
		CO	---	25.48			
		VOC	---	5.81			
		PM	---	7.49			
		PM ₁₀	---	7.49			
		PM _{2.5}	---	7.49			
		SO ₂	---	4.15			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC6	Test Cell 6 Gas Fuel Firing	NO _x	949.83	---	2, 3, 9	9, 10	
		CO	1,415.08	---			
		VOC	16.17	---			
		PM	4.21	---			
		PM ₁₀	4.21	---			
		PM _{2.5}	4.21	---			
		SO ₂	3.04	---			
TC6	Test Cell 6 Liquid Fuel Firing	NO _x	409.53	---	2, 3, 9	9, 10	
		CO	417.12	---			
		VOC	31.78	---			
		PM	13.60	---			
		PM ₁₀	13.60	---			
		PM _{2.5}	13.60	---			
		SO ₂	0.35	---			
TC6	Test Cell 6 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	39.78	2, 3, 9	9, 10	14
		CO	---	49.46			
		VOC	---	4.03			
		PM	---	9.88			
		PM ₁₀	---	9.88			
		PM _{2.5}	---	9.88			
		SO ₂	---	5.24			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC7	Test Cell 7 Gas Fuel Firing	NO _x	1,978.02	---	2, 3, 9	9, 10	
		CO	1,410.31	---			
		VOC	107.07	---			
		PM	3.66	---			
		PM ₁₀	3.66	---			
		PM _{2.5}	3.66	---			
		SO ₂	4.92	---			
TC7	Test Cell 7 Liquid Fuel Firing	NO _x	989.01	---	2, 3, 9	9, 10	
		CO	1,645.36	---			
		VOC	535.35	---			
		PM	8.22	---			
		PM ₁₀	8.22	---			
		PM _{2.5}	8.22	---			
		SO ₂	0.60	---			
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	---	48.31	2, 3, 9	9, 10	14
		CO	---	99.19			
		VOC	---	10.37			
		PM	---	2.15			
		PM ₁₀	---	2.15			
		PM _{2.5}	---	2.15			
		SO ₂	---	2.09			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing – 2027 (5)	NO _x	---	73.46	2, 3, 9	9, 10	14
		CO	---	99.19			
		VOC	---	10.37			
		PM	---	2.15			
		PM ₁₀	---	2.15			
		PM _{2.5}	---	2.15			
		SO ₂	---	2.09			
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing – 2028 (6)	NO _x	---	82.15	2, 3, 9	9, 10	14
		CO	---	99.19			
		VOC	---	10.37			
		PM	---	2.15			
		PM ₁₀	---	2.15			
		PM _{2.5}	---	2.15			
		SO ₂	---	2.09			
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing – 2029 and thereafter (7)	NO _x	---	96.69	2, 3, 9	9, 10	14
		CO	---	99.19			
		VOC	---	10.37			
		PM	---	2.15			
		PM ₁₀	---	2.15			
		PM _{2.5}	---	2.15			
		SO ₂	---	2.09			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
TC6F	Test Cell No. 6 Flare	NO _x	2.38	0.03			14
		CO	3.97	0.05			
		VOC	0.12	0.001			
		SO ₂	0.19	0.002			
TC7F	Test Cell No. 7 Flare	NO _x	2.38	0.03			14
		CO	3.97	0.05			
		VOC	0.12	0.001			
		SO ₂	0.19	0.002			
HFF1	Hydrogen Farm Flare	NO _x	16.27	0.20			14
		CO	27.12	0.33			
		VOC	0.80	0.01			
		SO ₂	1.30	0.02			
F1	TC1, TC3-5 Process Fugitives (8)	VOC	0.6	0.3			
F2	TC2 Process Fugitives (8)	VOC	0.3	0.1			
F3	TC6 Process Fugitives (8)	VOC	0.01	0.01			
S1	Oil/Water Separator	VOC	0.1	0.3			
S2	TC6 Oil/Water Separator	VOC	0.01	0.05			
S3	TC7 Oil/Water Separator	VOC	0.01	0.05			

Major NSR Summary Table

Permit Numbers: 20041 and N196M1 and PSDTX1590					Issuance Date:		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Special Conditions/ Application Information	Special Conditions/ Application Information	Special Conditions/ Application Information
CT1	Cooling Tower	VOC	0.08	0.37			
		PM	0.60	2.63			
		PM ₁₀	0.15	0.66			
		PM _{2.5}	0.01	0.03			
		Cl ₂	<0.01	<0.01			
CT3	Cooling Tower	VOC	0.1	0.4			
		PM	0.60	2.63			
		PM ₁₀	0.15	0.66			
		PM _{2.5}	0.01	0.03			
		Cl ₂	<0.01	<0.01			
CT4	TC6 Cooling Tower	VOC	0.08	0.37			
		PM	0.06	0.26			
		PM ₁₀	0.02	0.09			
		PM _{2.5}	<0.01	<0.01			
		Cl ₂	<0.01	<0.01			
CT5	TC7 Cooling Tower No. 5	VOC	0.08	0.37			
		PM	0.06	0.26			
		PM ₁₀	0.02	0.07			
		PM _{2.5}	<0.01	<0.01			
		Cl ₂	<0.01	<0.01			

Major NSR Summary Table

- (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)

NO _x	-	total oxides of nitrogen
CO	-	carbon monoxide
VOC	-	volatile organic compounds as defined in Title 30 Texas Administrative Code §101.1
PM	-	total particulate matter, suspended in the atmosphere, including PM ₁₀ and PM _{2.5}
PM ₁₀	-	total particulate matter equal to or less than 10 microns in diameter, including PM _{2.5}
PM _{2.5}	-	particulate matter equal to or less than 2.5 microns in diameter
SO ₂	-	sulfur dioxide
Cl ₂	-	chlorine
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rates for EPN TC7 are effective for calendar year 2027, and/or for the subsequent calendar year following approval from TCEQ EBT for the NO_x emission credits.
- (6) Emission rates for EPN TC7 are effective for calendar year 2028, and/or for the subsequent calendar year following approval from TCEQ EBT for the NO_x emission credits.
- (7) Emission rates for EPN TC7 are effective for calendar year 2029, and thereafter, following approval from TCEQ EBT for the NO_x emission credits.
- (8) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Solar Turbines Incorporated
July 2024

**ATTACHMENT G
APPLICATION AREA-WIDE APPLICABILITY DETERMINATIONS
AND GENERAL INFORMATION,
FORM OP-REQ1, PAGE 76**

Texas Commission on Environmental Quality
Application Area-Wide Applicability Determinations and General Information
Form OP-REQ1
Federal Operating Permit Program

Date:	07/03/2024
Permit No.:	O1333
RN No.:	RN100219963

For SOP applications, answer ALL questions unless otherwise directed.

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

Form OP-REQ1: Page 76	
IX. Title 40 Code of Federal Regulations Part 68 (40 CFR Part 68) - Chemical Accident Prevention Provisions	
A. Applicability	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. The application area contains processes subject to 40 CFR Part 68, Chemical Accident Prevention Provisions, and specified in 40 CFR § 68.10.</div> <div style="width: 15%; text-align: right;"> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO </div> </div>
X. Title 40 Code of Federal Regulations Part 82 (40 CFR Part 82) - Protection of Stratospheric Ozone	
A. Subpart A - Production and Consumption Controls	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. The application area is located at a site that produces, transforms, destroys, imports, or exports a controlled substance or product.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>
B. Subpart B - Servicing of Motor Vehicle Air Conditioners	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. Servicing, maintenance, and/or repair of fleet vehicle air conditioning systems using ozone-depleting refrigerants is conducted in the application area.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO </div> </div>
C. Subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. The application area sells or distributes one or more nonessential products (which release a Class I or Class II substance) that are subject to 40 CFR Part 82, Subpart C.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>
D. Subpart D - Federal Procurement	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. The application area is owned/operated by a department, agency, or instrumentality of the United States.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>
E. Subpart E - The Labeling of Products Using Ozone Depleting Substances	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">1. The application area includes containers in which a Class I or Class II substance is stored or transported prior to the sale of the Class I or Class II substance to the ultimate consumer.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">2. The application area is a manufacturer, importer, wholesaler, distributor, or retailer of products containing a Class I or Class II substance.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;">3. The application area is a manufacturer, importer, wholesaler, distributor, or retailer of products manufactured with a process that uses a Class I or Class II substance.</div> <div style="width: 15%; text-align: right;"> <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A </div> </div>

Solar Turbines Incorporated
July 2024

ATTACHMENT H
COPY OF THE CURRENT NSR PERMIT
NOS. 20041, N196M1 AND PSDTX1590
(to be amended)

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 23, 2024

MR ADAM Z NAMMARI
GENERAL MANAGER
SOLAR TURBINES INCORPORATED
215 E CENTRE PARK BLVD
DESOTO TX 75115-2481

Re: Permit Alteration
Permit Number: 20041
Expiration Date: December 23, 2025
Solar Turbines Incorporated
Solar Turbines Dallas Overhaul Center
Desoto, Dallas County
Regulated Entity Number: RN100219963
Customer Reference Number: CN600127518
Associated Permit Numbers: N196M1 and PSDTX1590

Dear Mr. Nammari:

SOLAR TURBINES INCORPORATED has requested alteration of the conditions and Maximum Allowable Emission Rates Table (MAERT) of the above-referenced permit.

In accordance with Title 30 Texas Administrative Code §116.116(c), Permit Number 20041 is altered. Enclosed are the new general conditions, altered special conditions, and altered MAERT. Please attach these to your permit.

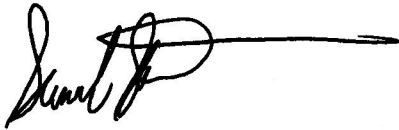
All preconstruction authorizations (including authorization for emissions of greenhouse gases, if applicable) should be obtained prior to start of construction.

If you need further information or have any questions, please contact Ms. Oreoluwa Adetutu at (512) 239-1251 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Mr. Adam Z Nammari
Page 2
February 23, 2024

Re: Permit Number: 20041

Sincerely,

A handwritten signature in black ink, appearing to read 'Samuel Short', followed by a long horizontal line extending to the right.

Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

Enclosure

cc: Air Section Manager, Region 4 - Dallas/Fort Worth
Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection
Agency, Region 6, Dallas

Project Number: 366375



Texas Commission on Environmental Quality Air Quality Permit

A Permit Is Hereby Issued To
Solar Turbines Incorporated
Authorizing the Construction and Operation of
Solar Turbines Dallas Overhaul Center
Located at Desoto, Dallas County, Texas
Latitude 32.6275 Longitude -96.850277

Permits: 20041, N196M1 and PSDTX1590

Revision Date: February 23, 2024

Expiration Date: December 23, 2025



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	lb/day = pound per day
CFR = Code of Federal Regulations	lb/hr = pound per hour
CN = customer ID number	lb/MMBtu = pound per million British thermal units
CNG = compressed natural gas	LDAR = Leak Detection and Repair (Requirements)
CO = carbon monoxide	LNG = liquefied natural gas
COMS = continuous opacity monitoring system	LPG = liquefied petroleum gas
CPMS = continuous parametric monitoring system	LT/D = long ton per day
DFW = Dallas/ Fort Worth (Metroplex)	m = meter
DE = destruction efficiency	m ³ = cubic meter
DRE = destruction and removal efficiency	m/sec = meters per second
dscf = dry standard cubic foot or feet	MACT = maximum achievable control technology
dscfm = dry standard cubic foot or feet per minute	MAERT = Maximum Allowable Emission Rate Table
ED = (TCEQ) Executive Director	MERA = Modeling and Effects Review Applicability
EF = emissions factor	mg = milligram
EFR = external floating roof tank	mg/g = milligram per gram
EGU = electric generating unit	mL = milliliter
EI = Emissions Inventory	MMBtu = million British thermal units
ELP = El Paso	MMBtu/hr = million British thermal units per hour
EPA = (United States) Environmental Protection Agency	MSDS = material safety data sheet
EPN = emission point number	MSS = maintenance, startup, and shutdown
ESL = effects screening level	MW = megawatt
ESP = electrostatic precipitator	NAAQS = National Ambient Air Quality Standards
FCAA = Federal Clean Air Act	NESHAP = National Emission Standards for Hazardous Air Pollutants
FCCU = fluid catalytic cracking unit	NGL = natural gas liquids
FID = flame ionization detector	NNSR = nonattainment new source review
FIN = facility identification number	NO _x = total oxides of nitrogen
ft = foot or feet	NSPS = New Source Performance Standards
ft/sec = foot or feet per second	
g = gram	
gal/wk = gallon per week	
gal/yr = gallon per year	
GLC = ground level concentration	

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
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

Special Conditions

Permit Number 20041, N196M1, and PSDTX1590

Emission Standards

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates (MAERT)," and those sources are limited to the emission limits and other conditions specified in that attached table. Compliance with the annual emission limits shall be based on a rolling 12-month year rather than the calendar year.

If any condition or limitation of this permit or of any Texas Commission on Environmental Quality (TCEQ) regulation is more stringent than another, then the more stringent condition or limitation shall govern and be the standard by which compliance will be demonstrated.

Opacity / Visible Emissions

2. Opacity of emissions from Emission Point Nos. (EPNs): TC2 and TC3 must not exceed 20 percent; EPNs: TC1, TC4, TC6 and TC7 must not exceed 15 percent and EPN: TC5 must not exceed 10 percent averaged over a six-minute period except for those periods described in Title 30 Texas Administrative Code § 111.111(a)(1)(E). Opacity shall be determined by using the U.S. Environmental Protection Agency Method 9. **(08/21)**
3. A visual check of the test cell exhaust shall be made on each turbine immediately after startup, while idling, and at each test load. If excess visible emissions are expected to be present for more than the six minutes allowed in 30 TAC § 111.111(a)(1)(E) for the initial start-up, or if excess visible emissions occur while idling or after a test load change, the unit under test shall be shut down as soon as practicable and not restarted until the cause of the excess emissions has been corrected. **(08/21)**

Fuel Limitations

4. Fuel fired in the turbines under testing is limited to one of the following:
 - A. Pipeline-quality, sweet natural gas containing no more than 5.0 grains total sulfur per 100 dry standard cubic feet.
 - B. Distillate fuel oil containing no more than 0.05 weight percent total sulfur for EPNs: TC1 through TC5. **(12/14)**
 - C. Distillate fuel oil for EPNs: TC6 and TC7 is limited to a sulfur content of 15 parts per million, wet. **(08/21)**
 - D. Distillate fuel oil firing is limited as follows: **(08/21)**
 - (1) Distillate fuel oil shall not be fired in EPNs TC1 through TC5 for more than a total of 16 hours per 24-hour period;
 - (2) No more than two test cells among EPNs TC1 through TC5 shall fire distillate fuel oil concurrently;
 - (3) Distillate fuel firing in EPN TC7 shall not occur when distillate fuel is also fired in more than two other cells among EPNs TC1 through TC6.

Operational Limitations

5. All parking lots and plant roads shall be paved and regularly cleaned to achieve maximum control of dust emissions.
6. Contaminated lubricating oil drained from the turbines shall be washed down the waste oil handling system as soon as practicable.
7. All lubricating oil and fuel oil spills shall be cleaned up immediately or washed into the waste oil handling system as soon as practicable.
8. Waste lubricating oil shall be stored in closed containers until shipped off-site by an authorized waste disposal service.

Continuous Demonstration of Compliance

9. To demonstrate compliance with Special Condition No. 1, actual emissions of nitrogen oxides, carbon monoxide, volatile organic compounds, and particulate matter from each test cell will be calculated according to the following formula: **(08/10)**

Emissions = Nominal or Engine-Specific Emission Factor x Actual Fuel Usage during the Test

- A. Emissions must be in pounds per hour (lb/hr);
- B. The emission factor must be in pounds of pollutant per pound of fuel (lb of emissions/lb of fuel) or pounds of emissions per million British thermal units (lb of emissions/MMBtu), must be pollutant specific, considering the fuel type and emission controls, and be the nominal emission factors used to develop guaranteed emission levels provided to customers or engine-specific emission factors. These factors are to be derived from the manufacturer's emission test database or from an emissions model if the turbines have not been tested before, and these factors may be corrected for ambient conditions at the test cell; and **(08/21)**
- C. The actual fuel usage during the test will be expressed in pounds or MMBtu per hour (lb/hr or MMBtu/hr), as applicable, depending on the units used in Special Condition 9.B, above.

Actual emissions of sulfur dioxide (SO₂) will be calculated by assuming that the fuel has the maximum sulfur content allowed under Special Condition No. 4 and that 100 percent of the sulfur in the fuel is converted to SO₂. The permit holder may base these calculations either on full load fuel consumption for the duration of the test or on the actual fuel consumption during each test.

Recordkeeping Requirements

10. In addition to the recordkeeping requirements specified in General Condition No. 7, the following records shall be maintained at the plant site on a five-year rolling retention basis and be made available at the request of personnel of the TCEQ or any air pollution control agency with jurisdiction. **(08/21)**
 - A. The following data shall be recorded for each turbine test: model of turbine tested, the type of fuel fired, the duration of the test, and whether water injection was used.

- B. The data required in Special Condition No. 9.A shall be recorded daily, and a summary shall be produced monthly that represents emissions from each test cell in lb/hr on a daily basis and tons emitted for the previous 12-month period. The data shall be reduced using the calculation methods specified in Special Condition No. 9.
- C. The daily, monthly, and annual records required in Special Condition No. 10.A and 10.B shall be kept in a central location with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions.
- D. To demonstrate compliance with Special Condition No. 4, the permit holder must keep records of fuel analyses, as obtained from the supplier on an annual basis for natural gas and on a shipment basis for liquid fuel, or must maintain a contract with the fuel supplier that guarantees compliance. **(06/02)**
- E. The holder of this permit shall document the check for visible emissions in order to show compliance with Special Condition No. 3. **(01/07)**
- F. Records of annual emissions from Test Cell 7 (EPN TC7) shall be maintained which demonstrate compliance with the annualized MAERT and Nonattainment New Source Review (NNSR) - Emission Reductions limitations in this permit. These records of emissions shall be calculated utilizing the methodology found in Special Condition No. 9. **(08/21)**
- G. The holder of this permit shall document hazardous air pollutant emissions resulting from the operation of all sources at the site to demonstrate compliance with Special Condition No. 17. **(09/04)**

Nonattainment New Source Review (NNSR) - Emission Reductions

- 11. This Nonattainment New Source Review (NNSR) permit is issued/approved based on the requirement that the permit holder offset the project emission increase for facilities authorized by this permit prior to the commencement of operation, through participation in the TCEQ Emission Banking and Trading (EBT) Program in accordance with the rules in 30 TAC Chapter 101, Subchapter H. **(08/21)**
- 12. This NNSR permit is issued/approved based on the use of 47.8 tpy of NO_x emission credits from TCEQ Emission Reduction Credit Certificate (ERCC) No. 2803. This ERCC provides offsets at the ratio of 1.2 to 1 for 39.8 tpy of NO_x from EPN: TC6. The NO_x emission rate is for calculation purposes only and is not an enforceable allowable emission rate. **(02/15)**
- 13. This NNSR permit is issued/approved based on the future requirement to obtain and provide 87.3 tpy of NO_x emission reduction credits, as specified in Special Condition No. 14, to offset the 72.69 tpy emission increase for EPN: TC7 authorized by this permit at a ratio of 1.2 to 1. The permit holder shall use the total number of tons of NO_x credits each year as outlined in the table below to offset the NO_x project emission increase for the facility, as follows: **(02/24)**

Calendar Year or Later	Emissions Increase tpy	Credits to be Provided tpy
2023	9.89	11.9
2024	10.78	13.0
2025	11.67	14.0

Calendar Year or Later	Emissions Increase tpy	Credits to be Provided tpy
2026	24.31	29.2
2027	49.46	59.4
2028	58.15	69.8
2029 and thereafter	72.69	87.3

- A. The permit holder shall use 14.0 tpy of NO_x ERCs from TCEQ credit certificate numbers 4013, 4014, 4015, 4016, 4017, and 4018 to offset NO_x project increase for the facility authorized by this permit at a ratio of 1.2 to 1.0 for calendar years 2023, 2024, and 2025.
 - B. The permit holder was approved to use 26.3 tpy of NO_x ERCs from TCEQ credit certificate numbers 4112, 4113, and 4114 to offset the NO_x project increase for the facility authorized by this permit at a ratio of 1.2 to 1.0. A total of 15.2 tpy will satisfy the NO_x project emission increase for the facility through calendar year 2026. The additional 11.1 tpy will be applied towards the Credits to be Provided value for calendar year 2027.
14. The permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number. The following options are available: **(08/21)**
- A. Obtain and use NO_x Emission Reduction Credits (ERCs). A completed ERC use application shall be submitted to the TCEQ EBT Program at least 90 days before the year of operation of the facilities covered by this permit. The permit holder shall obtain approval from the TCEQ EBT Program for the credits being used and then submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify approved credits by TCEQ credit certificate number.
 - B. Obtain and use NO_x Discrete Emission Reduction Credits (DERCs) for each year of authorized operation. The permit holder shall submit a completed DERC intent to use application form by August 1st prior to the continuing of operations each year, and the intent to use must be reviewed and approved by the TCEQ EBT Program for compliance with 30 Texas Administrative Code §101.376(f). Additionally, the permit holder shall submit a permit alteration or amendment request to the TCEQ Air Permits Division (and copy the TCEQ Regional Office) to identify the DERCs by TCEQ DERC certificate number to cover, at a minimum, one year of operation of the permitted facilities.
 - (1) In accordance with 30 Texas Administrative Code §101.372(i) in areas having an ozone season of less than 12 months (as defined in 40 Code of Federal Regulations Part 58, Appendix D), NO_x discrete emission credits generated outside the ozone season may not be used during the ozone season.
 - C. A combination of ERCs and DERCs can be used provided that the total credits satisfy the amounts specified in Special Condition No. 13 and that the appropriate EBT Program usage applications and the appropriate Air Permits Division alteration or amendment applications are submitted. **(08/21)**

Additional Permit Requirements

15. A copy of this permit shall be kept at the plant site and made available at the request of personnel from the TCEQ or the local air pollution control agency with appropriate jurisdiction.
16. The holder of this permit shall physically identify and mark in a conspicuous location all equipment that has the potential of emitting air contaminants as follows:
 - A. The facility identification numbers as submitted to the Emissions Inventory Section of the TCEQ.
 - B. The EPNs as listed on the maximum allowable emission rates table.
17. The holder of this permit shall operate the facilities at this site such that for hazardous air pollutants (HAPs), which have been listed pursuant to § 112(b) of the Federal Clean Air Act:
 - A. Emissions of any single HAP shall not exceed 10 tons per year (tpy).
 - B. Emissions of all HAPs combined shall not exceed 25 tpy. **(09/04)**

Referenced Authorizations

18. The following sources and/or activities are authorized under a Permit by Rule (PBR) by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106). These lists are not intended to be all inclusive and can be altered without modifications to this permit. **(08/21)**

Authorization	Source or Activity
PBR 106.472	Diesel Fuel Tank No. 2 (EPN: DFT2)

Date: February 23, 2024

Emission Sources - Maximum Allowable Emission Rates

Permit Number 20041, N196M1, and PSDTX1590

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	
			lb/hour	TPY (4)
TC1	Test Cell 1 Gas fuel firing	NO _x	106.9	-
		CO	84.8	-
		VOC	46.6	-
		PM	5.3	-
		PM ₁₀	5.3	-
		PM _{2.5}	5.3	-
		SO ₂	2.0	-
TC1	Test Cell 1 Liquid fuel firing	NO _x	181.5	-
		CO	88.8	-
		VOC	20.4	-
		PM	15.7	-
		PM ₁₀	15.7	-
		PM _{2.5}	15.7	-
		SO ₂	7.5	-
TC1	Test Cell 1 - Annual Emission Rate Gas and Liquid Fuel Firing	NO _x	-	100.2
		CO	-	27.7
		VOC	-	9.4
		PM	-	10.7
		PM ₁₀	-	10.7
		PM _{2.5}	-	10.7
		SO ₂	-	2.9

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC2	Test Cell 2 Gas Fuel Firing	NO _x	8.7	-
		CO	18.4	-
		VOC	4.7	-
		PM	0.7	-
		PM ₁₀	0.7	-
		PM _{2.5}	0.7	-
		SO ₂	0.4	-
TC2	Test Cell 2 Liquid Fuel Firing	NO _x	13.0	-
		CO	37.0	-
		VOC	4.7	-
		PM	3.5	-
		PM ₁₀	3.5	-
		PM _{2.5}	3.5	-
		SO ₂	1.5	-
TC2	Test Cell 2 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	-	8.7
		CO	-	9.2
		VOC	-	0.9
		PM	-	1.9
		PM ₁₀	-	1.9
		PM _{2.5}	-	1.9
		SO ₂	-	0.8

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC3	Test Cell 3 Gas Fuel Firing	NO _x	80.0	-
		CO	84.8	-
		VOC	13.5	-
		PM	2.5	-
		PM ₁₀	2.5	-
		PM _{2.5}	2.5	-
		SO ₂	1.1	-
TC3	Test Cell 3 Liquid Fuel Firing	NO _x	120.0	-
		CO	45.6	-
		VOC	7.2	-
		PM	15.7	-
		PM ₁₀	15.7	-
		PM _{2.5}	15.7	-
		SO ₂	4.8	-
TC3	Test Cell 3 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	-	35.9
		CO	-	19.4
		VOC	-	1.8
		PM	-	10.7
		PM ₁₀	-	10.7
		PM _{2.5}	-	10.7
		SO ₂	-	2.7

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC4	Test Cell 4 Gas Fuel Firing	NO _x	106.9	-
		CO	84.8	-
		VOC	46.6	-
		PM	5.3	-
		PM ₁₀	5.3	-
		PM _{2.5}	5.3	-
		SO ₂	2.0	-
TC4	Test Cell 4 Liquid Fuel Firing	NO _x	181.5	-
		CO	41.3	-
		VOC	14.3	-
		PM	15.7	-
		PM ₁₀	15.7	-
		PM _{2.5}	15.7	-
		SO ₂	7.5	-
TC4	Test Cell 4 Gas and Liquid Fuel Firing	NO _x	-	100.2
		CO	-	27.7
		VOC	-	9.4
		PM	-	10.7
		PM ₁₀	-	10.7
		PM _{2.5}	-	10.7
		SO ₂	-	2.9

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC5	Test Cell 5 Gas Fuel Firing	NO _x	192.8	-
		CO	30.0	-
		VOC	8.8	-
		PM	8.5	-
		PM ₁₀	8.5	-
		PM _{2.5}	8.5	-
		SO ₂	3.8	-
TC5	Test Cell 5 Liquid Fuel Firing	NO _x	338.8	-
		CO	30.0	-
		VOC	8.8	-
		PM	12.1	-
		PM ₁₀	12.1	-
		PM _{2.5}	12.1	-
		SO ₂	14.1	-
TC5	Test Cell 5 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	-	74.53
		CO	-	25.48
		VOC	-	5.81
		PM	-	7.49
		PM ₁₀	-	7.49
		PM _{2.5}	-	7.49
		SO ₂	-	4.15

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC6	Test Cell 6 Gas Fuel Firing	NO _x	298.43	-
		CO	26.00	-
		VOC	1.49	-
		PM	4.21	-
		PM ₁₀	4.21	-
		PM _{2.5}	4.21	-
		SO ₂	3.04	-
TC6	Test Cell 6 Liquid Fuel Firing	NO _x	409.53	-
		CO	26.29	-
		VOC	7.50	-
		PM	13.60	-
		PM ₁₀	13.60	-
		PM _{2.5}	13.60	-
		SO ₂	0.35	-
TC6	Test Cell 6 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	-	39.78
		CO	-	49.46
		VOC	-	4.03
		PM	-	9.88
		PM ₁₀	-	9.88
		PM _{2.5}	-	9.88
		SO ₂	-	5.24

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC7	Test Cell 7 Gas Fuel Firing	NO _x	659.34	-
		CO	469.11	-
		VOC	10.69	-
		PM	3.66	-
		PM ₁₀	3.66	-
		PM _{2.5}	3.66	-
		SO ₂	4.92	-
TC7	Test Cell 7 Liquid Fuel Firing	NO _x	989.01	-
		CO	470.11	-
		VOC	10.72	-
		PM	8.22	-
		PM ₁₀	8.22	-
		PM _{2.5}	8.22	-
		SO ₂	0.60	-
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing	NO _x	-	24.31
		CO	-	6.04
		VOC	-	0.46
		PM	-	1.53
		PM ₁₀	-	1.53
		PM _{2.5}	-	1.53
		SO ₂	-	1.88

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing – 2027 (5)	NO _x	-	49.46
		CO	-	5.84
		VOC	-	0.46
		PM	-	1.72
		PM ₁₀	-	1.72
		PM _{2.5}	-	1.72
		SO ₂	-	1.71
TC7	Test Cell 7 – Annual Emission Rates Gas and Liquid Fuel Firing – 2028 (6)	NO _x	-	58.15
		CO	-	5.74
		VOC	-	0.47
		PM	-	1.72
		PM ₁₀	-	1.72
		PM _{2.5}	-	1.72
		SO ₂	-	1.67
TC7	Test Cell 7 – Annual Emission Rates (7) Gas and Liquid Fuel Firing – 2029 and thereafter	NO _x	-	72.69
		CO	-	7.17
		VOC	-	0.59
		PM	-	2.15
		PM ₁₀	-	2.15
		PM _{2.5}	-	2.15
		SO ₂	-	2.09

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
F1	TC1, TC3-5 Process Fugitives (8)	VOC	0.6	0.3
F2	TC2 Process Fugitives (8)	VOC	0.3	0.1
F3	TC6 Process Fugitives (8)	VOC	0.01	0.01
S1	Oil/Water Separator	VOC	0.1	0.3
S2	TC6 Oil/Water Separator	VOC	0.01	0.05
S3	TC7 Oil/Water Separator	VOC	0.01	0.05
CT1	Cooling Tower	VOC	0.08	0.37
		PM	0.60	2.63
		PM ₁₀	0.15	0.66
		PM _{2.5}	0.01	0.03
		Cl ₂	<0.01	<0.01
CT3	Cooling Tower	VOC	0.1	0.4
		PM	0.60	2.63
		PM ₁₀	0.15	0.66
		PM _{2.5}	0.01	0.03
		Cl ₂	<0.01	<0.01
CT4	TC6 Cooling Tower	VOC	0.08	0.37
		PM	0.06	0.26
		PM ₁₀	0.02	0.09
		PM _{2.5}	<0.01	<0.01
		Cl ₂	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
CT5	TC7 Cooling Tower No. 5	VOC	0.08	0.37
		PM	0.06	0.26
		PM ₁₀	0.02	0.07
		PM _{2.5}	<0.01	<0.01
		Cl ₂	<0.01	<0.01

- (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) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
SO₂ - sulfur dioxide
Cl₂ - chlorine
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rates for EPN: TC7 are effective for calendar year 2027, and/or for the subsequent calendar year following approval from TCEQ EBT for the NO_x emission credits
(6) Emission rates for EPN: TC7 are effective for calendar year 2028, and/or for the subsequent calendar year following approval from TCEQ EBT for the NO_x emission credits
(7) Emission rates for EPN: TC7 are effective for calendar year 2029 and thereafter, following approval from TCEQ EBT for the NO_x emission credits.
(8) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: February 23, 2024