

**DOCKETED**

<b>Docket Number:</b>	05-AFC-02C
<b>Project Title:</b>	The Walnut Creek Energy Park
<b>TN #:</b>	238427
<b>Document Title:</b>	Walnut Creek Energy Park - Title V De Minimis Significant Permit Revision (Facility ID# 146536)
<b>Description:</b>	Facility Air Permit Revision (Section H)
<b>Filer:</b>	George Piantka
<b>Organization:</b>	NRG Energy, Inc
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	6/22/2021 2:47:10 PM
<b>Docketed Date:</b>	6/22/2021



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • www.aqmd.gov

June 21, 2021

Ms. Heather Mostert  
Environmental Specialist  
Walnut Creek Energy, LLC  
911 Bixby Drive  
City of Industry, CA 91745

Subject: Title V De Minimis Significant Permit Revision (Facility ID# 146536)

Dear Ms. Mostert:

Please find enclosed the revised Title V permit for equipment located at 911 Bixby Drive, City of Industry, CA 91745. The enclosed permit incorporates the approval of the de minimis significant permit revision requested in your Application No. 627833 to increase the maximum heat input rating of the five simple cycle gas turbines. The proposed permit revision was submitted to EPA on June 17, 2021 for their expedited review. The EPA has 45 days from receipt of the proposed permit and all necessary supporting documentation to object in writing to its issuance. The EPA has completed its review of the proposed permit revision package on June 18, 2021 and has no comments at this time.

The 60-day period for the public to petition the EPA to object to the permit begins the day after the EPA's 45-day review period. Also note, that if the permit is later found to require corrective steps (including, but not limited to, reopening the permit for cause), the expiration of both EPA's review period and the public petition period without EPA objection does not compromise the Agency's authority to take such measures.

Section H of this revised permit reflects the approval of the following:

Equipment	Application No.	Device ID	Permit Type
Gas Turbines	627824, 627825, 627826, 627827, 627828	D1, D7, D13, D19, D25	Permit to Construct
SCR & Oxidation Catalysts	627829, 627831, 627832, 627835, 627836	C4, C10, C16, C22, C28	Permit to Construct

Please review the attached section carefully. Insert the enclosed section into your RECLAIM/Title V Facility Permit and discard the earlier versions. If you determine there are administrative errors or if you have questions concerning your RECLAIM/Title V permit, please contact Mr. Chris Perri at (909) 396-2696 or cperri@aqmd.gov within 30 days of receipt of your permit.

Sincerely,

Thomas G. Liebel  
Senior Engineering Manager  
Engineering and Permitting

TGL:RC:LC:CP  
Enclosures: Facility Permit  
cc: Laura Yannayon, USPEA Region IX  
South Coast AQMD Compliance





## FACILITY PERMIT TO OPERATE

**WALNUT CREEK ENERGY, LLC  
911 BIXBY DR  
CITY OF INDUSTRY, CA 91745**

### NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Wayne Nastri  
Executive Officer

By Jason Aspell  
Jason Aspell  
Deputy Executive Officer  
Engineering and Permitting



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

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## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
<b>System 1: GAS TURBINES, POWER GENERATION</b>					

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



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<b>Process 1: INTERNAL COMBUSTION</b>					
GAS TURBINE, UNIT NO. 1, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, INTERCOOLED, 951.0 MMBTU/HR AT 30 DEGREES F, WITH WATER INJECTION WITH A/N: 627824 Permit to Construct Issued: 06/21/21	D1	C3	NOX: MAJOR SOURCE**; SOX: PROCESS UNIT**	CO: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 2.3 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; PM10: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 0.1 GRAINS/SCF NATURAL GAS (5B) [RULE 409, 8-7-1981]; PM10: 11 LBS/HR NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72-Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; SOX: 0.67 LBS/MMSCF (1) [RULE 2011, 5-6-2005]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.5, A99.6, A99.7, A195.1, A195.3, A195.5, A195.6, A327.1, B61.1, C1.1, C1.5, D12.1, D29.2, D29.3, D82.1, D82.2, E57.1, E193.1, H23.1, I298.1, I298.7

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GENERATOR, 100.1 NET MW (104 GROSS MW)					
CO OXIDATION CATALYST, NO.1, BASF CAMEL, WITH 420 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 627831 Permit to Construct Issued: 06/21/21	C3	D1 C4			
SELECTIVE CATALYTIC REDUCTION, NO. 1, HALDOR-TOPSOE DNX-629, 1272 CU.FT.; WIDTH: 19 FT 6 IN; HEIGHT: 33 FT; LENGTH: 2 FT 6 IN WITH A/N: 627831 Permit to Construct Issued: 06/21/21	C4	C3 S6		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.4, D12.2, D12.3, D12.4, E193.1
AMMONIA INJECTION, GRID STACK, NO.1, HEIGHT: 90FT; DIAMETER: 13 FT 6 IN A/N: 627824 Permit to Construct Issued: 06/21/21	S6	C4			

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GAS TURBINE, UNIT NO.2, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, INTERCOOLED, 951.0 MMBTU/HR AT 30 DEGREES F, WITH WATER INJECTION WITH A/N: 627825 Permit to Construct Issued: 06/21/21	D7	C9	NOX: MAJOR SOURCE**; SOX: PROCESS UNIT**	CO: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 2.3 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; PM10: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 0.1 GRAINS/SCF NATURAL GAS (5B) [RULE 409, 8-7-1981]; PM10: 11 LBS/HR NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72-Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; SOX: 0.67 LBS/MMSCF (1) [RULE 2011, 5-6-2005]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.5, A99.6, A99.7, A195.1, A195.3, A195.5, A195.6, A327.1, B61.1, C1.1, C1.5, D12.1, D29.2, D29.3, D82.1, D82.2, E57.1, E193.1, H23.1, I298.2, I298.8

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GENERATOR, 100.1 NET MW (104 GROSS MW)					
CO OXIDATION CATALYST, NO.2, BASF CAMET, WITH 420 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 627835 Permit to Construct Issued: 06/21/21	C9	D7 C10			
SELECTIVE CATALYTIC REDUCTION, NO. 2, HALDOR-TOPSOE DNX-629, 1272 CU.FT.; WIDTH: 19 FT 6 IN; HEIGHT: 33FT; LENGTH: 2FT 6 IN WITH A/N: 627835 Permit to Construct Issued: 06/21/21	C10	C9 S12		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.4, D12.2, D12.3, D12.4, E193.1
AMMONIA INJECTION, GRID STACK, NO.2, HEIGHT: 90FT; DIAMETER: 13 FT 6 IN A/N: 627825 Permit to Construct Issued: 06/21/21	S12	C10			

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GAS TURBINE, UNIT NO.3, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, INTERCOOLED, 951.0 MMBTU/HR AT 30 DEGREES F, WITH WATER INJECTION WITH A/N: 627826 Permit to Construct Issued: 06/21/21	D13	C15	NOX: MAJOR SOURCE**; SOX: PROCESS UNIT**	CO: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 409, 8-7-1981]; NOX: 2.3 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; PM10: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 0.1 GRAINS/SCF NATURAL GAS (5B) [RULE 409, 8-7-1981]; PM10: 11 LBS/HR NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72-Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; SOX: 0.67 LBS/MMSCF (1) [RULE 2011, 5-6-2005]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.5, A99.6, A99.7, A195.1, A195.3, A195.5, A195.6, A327.1, B61.1, C1.1, C1.5, D12.1, D29.2, D29.3, D82.1, D82.2, E57.1, E193.1, H23.1, I298.3, I298.9

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GENERATOR, 100.1 NET MW (104 GROSS MW)					
CO OXIDATION CATALYST, NO.3, BASF CAMEL, WITH 420 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 627829 Permit to Construct Issued: 06/21/21	C15	D13 C16			
SELECTIVE CATALYTIC REDUCTION, NO. 3, HALDOR-TOPSOE DNX-629, 1272 CU.FT.; WIDTH: 19 FT 6 IN; HEIGHT: 33 FT ; LENGTH: 2 FT 6 IN WITH A/N: 627829 Permit to Construct Issued: 06/21/21	C16	C15 S18		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.4, D12.2, D12.3, D12.4, E193.1
AMMONIA INJECTION, GRID STACK, NO.3, HEIGHT: 90 FT; DIAMETER: 13 FT 6 IN A/N: 627826 Permit to Construct Issued: 06/21/21	S18	C16			

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GAS TURBINE, UNIT NO.4, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, INTERCOOLED, 951.0 MMBTU/HR AT 30 DEGREES F, WITH WATER INJECTION WITH A/N: 627827 Permit to Construct Issued: 06/21/21	D19	C21	NOX: MAJOR SOURCE**; SOX: PROCESS UNIT**	CO: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 2.3 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; PM10: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 0.1 GRAINS/SCF NATURAL GAS (5B) [RULE 409, 8-7-1981]; PM10: 11 LBS/HR NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72-Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; SOX: 0.67 LBS/MMSCF (1) [RULE 2011, 5-6-2005]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.5, A99.6, A99.7, A195.1, A195.3, A195.5, A195.6, A327.1, B61.1, C1.1, C1.5, D12.1, D29.2, D29.3, D82.1, D82.2, E57.1, E193.1, H23.1, I298.4, I298.10

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<b>Process 1: INTERNAL COMBUSTION</b>					
GENERATOR, 100.1 NET MW (104 GROSS MW)					
CO OXIDATION CATALYST, NO.4, BASF CAMEL, WITH 420 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 627836 Permit to Construct Issued: 06/21/21	C21	D19 C22			
SELECTIVE CATALYTIC REDUCTION, NO. 4, HALDOR-TOPSOE DNX-629, 1272 CU.FT.; WIDTH: 19 FT 6 IN; HEIGHT: 33 FT; LENGTH: 2 FT 6 IN WITH A/N: 627836 Permit to Construct Issued: 06/21/21	C22	C21 S24		NH3: 5 PPMVNATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A195.4, D12.2, D12.3, D12.4, E193.1
AMMONIA INJECTION, GRID STACK, NO.4, HEIGHT: 90 FT; DIAMETER: 13 FT 6 IN A/N: 627827 Permit to Construct Issued: 06/21/21	S24	C22			

- \* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GAS TURBINE, UNIT NO.5, NATURAL GAS, GENERAL ELECTRIC, MODEL LMSI00PA, SIMPLE CYCLE, INTERCOOLED, 951.0 MMBTU/HR AT 30 DEGREES F, WITH WATER INJECTION WITH A/N: 627828 Permit to Construct Issued: 06/21/21	D25	C27	NOX: MAJOR SOURCE**; SOX: PROCESS UNIT**	CO: 4 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 409, 8-7-1981]; NOX: 2.3 PPMV NATURAL GAS (4) [RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; PM10: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM10: 0.1 GRAINS/SCF NATURAL GAS (5B) [RULE 409, 8-7-1981]; PM10: 11 LBS/HR NATURAL GAS (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: (9) [40CFR 72-Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 7-6-2006]; SOX: 0.67 LBS/MMSCF (1) [RULE 2011, 5-6-2005]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	A63.2, A99.5, A99.6, A99.7, A195.1, A195.3, A195.5, A195.6, A327.1, B61.1, C1.1, C1.5, D12.1, D29.2, D29.3, D82.1, D82.2, E57.1, E193.1, H23.1, I298.5, 1298.11

\* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5)(5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

\*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
<b>Process 1: INTERNAL COMBUSTION</b>					
GENERATOR, 100.1 NET MW (104 GROSS MW)					
CO OXIDATION CATALYST, NO.5, BASF CAMET, WITH 420 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 627832 Permit to Construct Issued: 06/21/21	C27	D25 C28			
SELECTIVE CATALYTIC REDUCTION, NO. 5, HALDOR-TOPSOE DNX-629, 1272 CU.FT.; WIDTH: 19FT 6IN; HEIGHT: 33 FT; LENGTH: 2 FT 6IN WITH A/N: 627832 Permit to Construct Issued: 06/21/21	C28	C27 S30		<b>NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1) -BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]</b>	A195.4, D12.2, D12.3, D12.4, E193.1
AMMONIA INJECTION, GRID STACK, NO.5, HEIGHT: 90FT; DIAMETER: 13 FT 6IN A/N: 627828 Permit to Construct Issued: 06/21/21	S30	C28			

- \* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
  - (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
  - (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
  - (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
  - (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements
- \*\* Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.



## **FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC**

### **SECTION H: DEVICE ID INDEX**

**The following sub-section provides an index  
to the devices that make up the facility  
description sorted by device ID.**



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	Section H Page No.	Process	System
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C16	7	1	1
S18	7	1	1
D19	9	1	1
C21	9	1	1
C22	9	1	1
S24	9	1	1
D25	11	1	1
C27	11	1	1
C28	11	1	1
S30	11	1	1



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

#### FACILITY CONDITIONS

F2.1 The operator shall limit emissions from this facility as follows:

CONTAMINANT	EMISSIONS LIMIT
PM2.5	Less than 60.89 TONS IN ANY ONE YEAR
CO	Less than or equal to 112.96 TONS IN ANY ONE YEAR

The operator shall calculate the monthly emissions for PM2.5 using the equation below and an emission factor of: 7.07 lb/mmcf

Monthly emissions, lb/month = (Q) x (EF); where Q = monthly fuel usage in mmcf/month and EF = emission factor indicated above

Compliance with the CO emission limit shall be verified through valid CEMS data..

The operator shall calculate the emission limits for the purpose of determining compliance with the CO limit in the absence of valid CEMS data by using the above equation. and a factor of 13.76 lbs/mmscf

For the purpose of this condition, the yearly emission limit shall be defined as a period of 12 consecutive months determined on a rolling basis with a new 12 month period beginning on the first day of each calendar month

[40CFR 51 Subpart S, 3-8-2007]



# FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

## SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
  - (a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

### DEVICE CONDITIONS

#### A. Emission Limits

A63.2 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 2,592 LBS IN ANY ONE MONTH
VOC	Less than or equal to 1035 LBS IN ANY ONE MONTH

The operator shall calculate the monthly emissions for PM10 and VOC using the equation below and the following emission factors: VOC: 2.82 lb/mmcf; and PM10: 7.07 lb/mmcf

$$\text{Monthly Emissions, lb/month} = (Q) \times (EF),$$

Where Q = monthly fuel usage, mmscf/month and EF = emission factor indicated above

For the purposes of this condition, the limits shall be based on the emissions from a single turbine.



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19, D25]

- A99.5 The 2.0 PPM VOC emission limit(s) shall not apply during turbine start-up and shutdown periods. Start-up time shall not exceed 35 minutes. Shutdown time shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start-ups per day and 40 start-ups per month. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19, D25]

- A99.6 The 2.3 PPM NOX emission limit(s) shall not apply during turbine start-up, shutdown, and recommissioning. Start-up time shall not exceed 35 minutes. Shutdown time shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start-ups per day, and 40 start ups-per month. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer..



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**The operator shall comply with the terms and conditions set forth below:**

NO<sub>x</sub> emissions for the 60 minutes beginning with a start-up shall not exceed 10.42 lbs, and for the 60 minutes ending with a shutdown shall not exceed 11 lbs.. These limits shall take effect 90 days after the date of the permit to construct.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when both the NO<sub>x</sub> and CO BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 35 minutes.

Recommissioning is a one time event that shall not exceed 13 operating hours per turbine. Once started, the recommissioning shall be completed within 14 consecutive days per turbine, and all turbines shall be recommissioned within 60 days of the date of the permit to construct. The operator shall notify South Coast AQMD prior to the start of the recommissioning operation and at the conclusion of the recommissioning operation.

Operation of the equipment prior to completion of the recommissioning shall be in accordance with Section D of the permit, including limiting the maximum heat input rate for each turbine to 891.7 mmbtu/hr.

The NO<sub>x</sub> emissions during recommissioning shall not exceed 10.2 lbs/hr and 132.6 total lbs as determined through the use of the certified CEMS. The operator shall keep records of the date and time the turbine is operated during recommissioning, the duration of the operation, the fuel use and the NO<sub>x</sub> and CO emissions.

The operator shall keep records of the date, time and duration as well as minute by minute data (NO<sub>x</sub>, CO and O<sub>2</sub> concentration and fuel flow rate at a minimum) of each startup and shutdown, and during the recommissioning operation..

**[RULE 1703(a)(2)- PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]**

[Devices subject to this condition: D1, D7, D13, D19, D25]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

A99.7 The 4.0 PPM CO emission limit(s) shall not apply during turbine start-up, shutdown, and recommissioning. Start-up time shall not exceed 35 minutes. Shutdown time shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start ups per day, and 40 start ups per month. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer..

CO emissions for the 60 minutes beginning with a start-up shall not exceed 18.73 lbs, and for the 60 minutes ending with a shutdown shall not exceed 24.73 lbs. These limits shall take effect 90 days after the permit to construct date.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when both the NO<sub>x</sub> and CO BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 35 minutes.

Recommissioning is a one time event that shall not exceed 13 operating hours per turbine. Once started, the recommissioning shall be completed within 14 consecutive days per turbine, and all turbines shall be recommissioned within 60 days of the date of the permit to construct. The operator shall notify South Coast AQMD prior to the start of the recommissioning operation and at the conclusion of the recommissioning operation.

Operation of the equipment prior to completion of the recommissioning, shall be in accordance with Section D of the permit including limiting the maximum heat input rate for each turbine to 891.7 mmbtu/hr.

The CO emissions during recommissioning shall not exceed 8.0 lbs/hr and 104 total lbs as determined through the use of the certified CEMS. The operator shall keep records of the date and time the turbine is operated during recommissioning, the duration of the operation, the fuel use and the NO<sub>x</sub> and CO emissions.

The operator shall keep records of the date, time and duration as well as minute by minute data (NO<sub>x</sub>, CO and O<sub>2</sub> concentration and fuel flow rate at a minimum) of each startup and shutdown, and during the recommissioning operation.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**The operator shall comply with the terms and conditions set forth below:**

[Devices subject to this condition: D1, D7, D13, D19, D25]

A195.1 The 4.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15% O<sub>2</sub>, dry.

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]**

[Devices subject to this condition : D1, D7, D13, D19, D25]

A195.3 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15% O<sub>2</sub>, dry.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition: D1, D7, D13, D19, D25]

A195.4 The 5.0 PPMV NH<sub>3</sub> emission limit(s) is averaged over 60 minutes at 15% O<sub>2</sub>, dry basis. The operator shall calculate and continuously record the NH<sub>3</sub> slip concentration using the following:



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

$NH_3$  (ppmv) =  $[a-b*c/1EE+06]*1EE+06/b$ ; where

a =  $NH_3$  injection rate (lb/hr)/17 lb-lb-mol

b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol

c = change in measured  $NO_x$  across the SCR (ppmvd at 15%  $O_2$ )

The operator maintain a  $NO_x$  analyzer to measure the SCR inlet  $NO_x$  ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The operator shall use the above described method or other alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

The SCAQMD may require the installation of a CEMS designed to monitor ammonia concentration if the SCAQMD determines that a commercially available CEMS has been proven to be accurate and reliable and that an adequate Quality Assurance/Quality Control (QA/QC) protocol has been established. The SCAQMD or other agency must establish an SCAQMD approved QA/QC protocol prior to the ammonia CEMS becoming a requirement..

In the event that an ammonia CEMS is installed, the ammonia slip calculation and annual ammonia slip testing requirement shall no longer be required..

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2012, 5-6-2005]**

[Devices subject to this condition : C4, C10, C16, C22, C28]

A195.5 The 2.3 PPMV  $NO_x$  emission limit(s) is averaged over 60 minutes at 15 percent  $O_2$ , dry.

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]**



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition: D1, D7, D13, D19, D25]

A195.6 The 15 PPMV NOX emission limit(s) is averaged over over 4 hours rolling at 15 percent O2, dry..

[40CFR 63 Subpart KKKK, 4-20-2006]

[Devices subject to this condition: D1, D7, D13, D19, D25]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[RULE 475, 10-8-1976; RULE 475, 8-7-1978]

[Devices subject to this condition: D1, D7, D13, D19, D25]

#### B. Material/Fuel Type Limits

B61.1 The operator shall only use natural gas containing the following specified compounds:

Compound		grain per 100 scf
total sulfur compounds calculated as H2S	less than or equal to	0.25

This concentration limit is an annual average based on a monthly sample of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using District Method 307-91 for total sulfur calculated as H2S.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19, D25]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

#### C. Throughput or Operating Parameter Limits

- C1.1 The operator shall limit the fuel usage to no more than 367 MM cubic feet in any one calendar month.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19, D25]

- C1.5 The operator shall limit the fuel usage to no more than 20.7 MM cubic feet per day.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine. Alternatively, the operator shall limit the heat input to each turbine to 21,735 mmbtu per day calculated by using the fuel use data multiplied by a fuel heat content of 1050 btu/cf.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)- PSD-BACT, 10-7-1988]

[Devices subject to this condition: D1, D7, D13, D19, D25]

#### D. Monitoring/Testing Requirements

- D12.1 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2012, 5-6-2005; 40CFR Part 75-Acid Rain CEM, 1-18-2012]**

[Devices subject to this condition: D1, D7, D13, D19, D25]

- D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The operator shall continuously monitor the ammonia flow rate. The operator shall also install and maintain a device to continuously record the ammonia flow rate. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the 60 minute rolling average of the continuous monitoring for that hour. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The ammonia injection rate shall not exceed 215 lb/hr. During and after recommissioning the ammonia injection rate shall not exceed 265 lbs/hr

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)- PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]**

[Devices subject to this condition : C4, C10, C16, C22, C28]

- D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the exhaust at the inlet to the SCR reactor.



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

The operator shall continuously monitor the temperature. The operator shall also install and maintain a device to continuously record the exhaust temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the 60 minute rolling average of the continuous monitoring for that hour. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months

The catalyst temperature range shall remain between 715 degrees F and 840 degrees F, except during start-up and shutdown periods defined under Condition A99.6

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition: C4, C10, C16, C22, C28]

D12.4 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall continuously monitor the differential pressure. The operator shall also install and maintain a device to continuously record the differential pressure. Continuous recording shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The pressure drop across the catalyst shall not exceed 12 inches of water column.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition: C4, C10, C16, C22, C28]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
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## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**The operator shall comply with the terms and conditions set forth below:**

NH3 emissions | District method 207.1 | 1 hour | Outlet of the SCR serving this equipment

The test shall be conducted and the results submitted to the District within 45 days after the test date. The South Coast AQMD shall be notified of the date and time of the test at least 7 days prior to the test

The test shall be conducted quarterly after the recommissioning performed in 2021 with the first test conducted within 120 days of the permit to construct date. . If at least 4 consecutive quarterly tests show compliance then the testing may be performed annually. If the results of any annual test show noncompliance then quarterly tests shall be conducted until at least 4 consecutive quarterly tests show compliance, at which time annual tests may be resumed.

The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period

The test shall be conducted when this equipment is operating at 100 percent load.

The test shall be conducted to determine compliance with the Rule 1303 BACT concentration limit.

Source test results shall be submitted to the District no later than 60 days after the source test was conducted. Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute. All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition: D1, D7, D13, D19, D25]

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	AQMD Laboratory Method 307-91	Not Applicable	Fuel sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	District Method 5	4 hours	Outlet of the SCR serving this equipment
PM2.5	EPA Method 201A and 202	4 hours	Outlet of the SCR serving this equipment



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### **The operator shall comply with the terms and conditions set forth below:**

The test(s) shall be conducted at least once every three years. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

Notwithstanding the above, a test shall be conducted within 120 days of the permit to construct issued in 2021.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the test shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with SCAQMD approved test protocol. The protocol shall be submitted to the SCAQMD engineer no later than 45 days before the proposed test date and shall be approved by the SCAQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent, with the exception of PM10 and PM2.5 testing. For PM10 and PM2.5, the test shall be conducted when this equipment is operating at a load of 100 percent.

For natural gas fired turbines only, for the purpose of demonstrating compliance with VOC BACT limits as determined by SCAQMD, the operator shall use Method 25.3 modified as follows:

- a) Triplicate stack gas samples extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mmHg absolute,
- b) Pressurization of the Summa canisters with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbons as carbon, and
- c) Analysis of Summa canisters per the canister analysis portion of SCAQMD Method 25.3 with a minimum detection limit of 0.3 ppmv or less and reported to two significant figures. The temperature of the Summa canisters when extracting



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

samples for analysis shall not be below 70 degrees Fahrenheit.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than unmodified SCAQMD method 25.3, nor does it mean that it may be used in lieu of SCAQMD Method 25.3 without prior approval, except for the determination of compliance with the BACT level of 2.0 ppmv VOC calculated as carbon for natural gas fired turbines.

The test results shall be reported with two significant digits

For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of SCAQMD, EPA, and CARB.

Source test results shall be submitted to the District no later than 60 days after the source test was conducted. Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lb/MMCF. All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute. All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1703(a)(2)- PSD-BACT, 10-7-1988]**

[Devices subject to this condition : D1, D7, D13, D19, D25]

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**The operator shall comply with the terms and conditions set forth below:**

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be operated in accordance with an approved AQMD Rule 218 CEMS plan application.

The CEMS shall be operated to measure CO concentrations over a 15 minute averaging time period.

The CEMS will convert the actual CO concentrations to mass emission rates (lb/hr) using the equation below and record the hourly emission rates on a continuous basis

CO Emission Rate, lb/hr =  $K C_{eo} F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g * HHV) / 106]$ ,  
where

$K = 7.267 \times 10^{-8}$  (lb/scf)/ppm

$C_{eo}$  = Average of four consecutive 15 min ave CO concentration, ppm

$F_d$  = 8710 dscf/MMBTU natural gas

$\%O_2 d$  = Hourly ave % by volume O<sub>2</sub>, dry corresponding to  $C_{eo}$

$Q_g$  = Fuel gas usage during the hour, scf/hr

HHV = Gross high heating value of fuel gas, BTU/scf

**[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 218, 5-14-1999; RULE 218.1, 5-14-1999; RULE 218.1, 5-4-2012]**

[Devices subject to this condition: D1, D7, D13, D19, D25]

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

NO<sub>x</sub> concentration in ppm and O<sub>2</sub> in percent

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall comply with the requirements of Rule 2012 and 40 CFR Part 75. The CEMS shall convert the actual NO<sub>x</sub> concentrations to mass emission rates in accordance with the provisions of Rule 2012 and 40 CFR Part 75.

**[RULE 1135, 7-19-1991; RULE 1135, 11-2-2018; RULE 1703(a)(2)- PSD-BACT, 10-7-1988; RULE 2005, 6-3-2011; RULE 2005, 12-4-2015; RULE 2012, 5-6-2005; 40CFR 60 Subpart KKKK, 3-20-2009; 40CFR 72- Acid Rain Provisions, 11-24-1997]**

[Devices subject to this condition: D1, D7, D13, D19, D25]

#### E. Equipment Operation/Construction Requirements

E57.1 The operator shall vent this equipment to the SCR and the oxidation catalysts whenever the turbine is in operation..

Ammonia injection shall commence once the exhaust temperature into the SCR catalyst has reached 715 degrees F.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition: D1, D7, D13, D19, D25]

E193.1 The operator shall operate and maintain this equipment according to the following specifications:

In accordance with all mitigation measures stipulated in the final California Energy Commission decision for the 05-AFC-02 project.

**[CA PRC CEQA, 11-23-1970]**

[Devices subject to this condition: D1, C4, D7, C10, D13, C16, D19, C22, D25, C28]



# FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

## SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

### H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
NOX	40CFR60, SUBPART	KKKK
SOX	40CFR60, SUBPART	KKKK

[40CFR 60 Subpart KKKK, 7-6-2006]

[Devices subject to this condition : D1, D7, D13, D19, D25]

### I. Administrative

I298.1 This equipment shall not be operated unless the facility holds 43682 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 35240 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition: D1]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

I298.2 This equipment shall not be operated unless the facility holds 43682 pounds of NO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 35240 pounds of NO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition : D7]

I298.3 This equipment shall not be operated unless the facility holds 43682 pounds of NO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 35240 pounds of NO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition: D13]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

I298.4 This equipment shall not be operated unless the facility holds 43682 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 35240 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition: D19]

I298.5 This equipment shall not be operated unless the facility holds 43682 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 35240 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition : D25]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

I298.7 This equipment shall not be operated unless the facility holds 2280 pounds of SO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 2280 pounds of SO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition : D1]

I298.8 This equipment shall not be operated unless the facility holds 2280 pounds of SO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 2280 pounds of SO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition : D7]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

#### The operator shall comply with the terms and conditions set forth below:

I298.9 This equipment shall not be operated unless the facility holds 2280 pounds of SO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 2280 pounds of SO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition: D13]

I298.10 This equipment shall not be operated unless the facility holds 2280 pounds of SO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 2280 pounds of SO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 6-3-2011; RULE 2005, 12-4-2015]

[Devices subject to this condition : D19]



## FACILITY PERMIT TO OPERATE WALNUT CREEK ENERGY, LLC

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

**The operator shall comply with the terms and conditions set forth below:**

I298.11 This equipment shall not be operated unless the facility holds 2280 pounds of SO<sub>x</sub> RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 2280 pounds of SO<sub>x</sub> RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005, 6-3-2011; RULE 2005, 12-4-2015**]

[Devices subject to this condition : D25]