

<u>Section I – South Coast AQMD BACT/LAER Determination</u>

Source Type: Major/LAER

Application No.: 437199

Equipment Category: Furnace, Heat Treating

Equipment Subcategory: Aluminum, <970 °F

Date: MM DD, 2020

	Date.		MIMI	D, 2020		
1.	EQUIPMENT INFORM	ATION				
A.	MANUFACTURER: Granco C	Clark	В.	MODEL:	N/A Serial #10238-88	
C.	DESCRIPTION: Aluminum Billet Furnace or Oven, for 7" diameter billets. Natural gas fired with a 25 HP circulation fan and a 7.5 HP combustion air blower.					
D.	FUNCTION: The furnace treats aluminum billets prior to and during extrusion process, where they are fed through dies to form the extruded aluminum channels.					
E.	SIZE/DIMENSIONS/CAPACITY	: 2ft 6in W. x	36ft L. x 3	ft H.		
CO	MBUSTION SOURCES					
F.	MAXIMUM HEAT INPUT: 5.4	7 MMBtu/hr				
G.	BURNER INFORMATION: Lov	v-NOx Burner				
	ТҮРЕ	INDIVID	UAL HEAT	INPUT	NUMBER	
	N/A	5.47 N	MMBtu/hr		1	
H.	PRIMARY FUEL: Natural Gas	I.	OTHER FUI	EL: N/A		
J.	OPERATING SCHEDULE:	Hours 24 HRS//	DAY 71	DAYS/WEI	EK 52 WKS/YR	
K.	EQUIPMENT COST: N/A					
L.	EQUIPMENT INFORMATION Confidence of the Thermocouple is in contact with the from 900 to 970 °F.				<u>=</u>	

A.	COMPANY: Sierra Aluminum Company	B. FAC ID: 54402
C.	ADDRESS: 2345 Fleetwood Drive CITY: Riverside STATE: CA ZIP: 92509	D. NAICS CODE: 33211
E.	CONTACT PERSON: Naro Kuch	F. TITLE: Environmental Manager
G.	PHONE NO.: (951) 781-7800	H. EMAIL: naro.kuch@sierraaluminum.com

A. AGENCY: South Coast AQMD B. APPLICATION TYPE: MODIFICATION

C. SCAQMD ENGINEER: Monica Fernandez-Neild

D. PERMIT INFORMATION: P/C ISSUANCE DATE: 12/31/99

P/O NO.: F74295 P/O ISSUANCE DATE: 3/23/2005

E. START-UP DATE: 2/2/2005

F. OPERATIONAL TIME: 15 years

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

as men		<u> </u>	llissions should include th		* *	
	VOC	NOx	SOX	CO	PM OR PM ₁₀	INORGANIC
BACT Limit		25 PPMV				
Averaging Time		1 Hour				
Correction		3% O ₂				

B. OTHER BACT REQUIREMENTS: N/A

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology

D. EMISSION INFORMATION COMMENTS: This is an older model billet oven. Facility stated that rigorous maintenance is required to keep the unit in compliance for NOx. Fuel nozzles and insulation have to be maintained/replaced periodically.

5. CONTRO	OL TECHNOLOGY					
A. MANUFACTU	JRER: N/A	B. MODE	L: N/A			
C. DESCRIPTION	N: N/A					
D. SIZE/DIMENS	SIONS/CAPACITY: N/A					
E. CONTROL EQ	UIPMENT PERMIT INFORM.	ATION:				
APPLICATION PO NO.: N/A		PC ISSUANCE DATE: N/A PO ISSUANCE DATE: N/A				
F. REQUIRED C	ONTROL EFFICIENCIES: N/A					
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY			
VOC	%	%	%			
NOx	%	%	%			
SOx	%	%	%			
СО	%	%	%			
PM	%	%	%			
PM ₁₀	%	%	%			
INORGANIC	%	%	%			
G. CONTROL TEC	CHNOLOGY COMMENTS Ent	er comments for additional info	rmation regarding Control			
6. DEMONS	STRATION OF COMPL	IANCE				
	E DEMONSTRATED BY: Me					
B. DATE(S) OF S	B. DATE(S) OF SOURCE TEST: 4/10/2013					
C. COLLECTION	EFFICIENCY METHOD: N	/A				
D. COLLECTION	EFFICIENCY PARAMETERS	S: N/A				
E. SOURCE TEST	T/PERFORMANCE DATA: 16	.4 PPMV NOx @3% O2				
F. TEST OPERAT	TING PARAMETERS AND CO	ONDITIONS: Normal				

- H. MONITORING AND TESTING REQUIREMENTS: For RECLAIM Process Units, the NOx concentration limit is tested every 5 years.
- I. DEMONSTRATION OF COMPLIANCE COMMENTS: The unit has shown compliance with the 25 ppm NOx @ 3% O2 through the years.

b

A.	BCAT: 000302	B. CCAT: Click her text.	e to enter	C. APPLICATIO	ON TYPE CODE: 50	
D.	RECLAIM FAC?	E. TITLE V FAC:		F. SOURCE TEST ID(S): R16209		
	YES ⊠ NO □	YES ⊠ NO				
G.	G. SCAQMD SOURCE SPECIFIC RULES: None. Only RECLAIM R2012.					
H.	HEALTH RISK FOR	PERMIT UNIT				
H1.	MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.		CER BURDEN: k here to enter text.	H4. CB DATE: Click here to enter a date.	
H5	: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: text.	Click here to enter	H8. HIC DATE: Click here to enter a date.	

<u>Section I – South Coast AQMD BACT/LAER Determination</u>



Source Type: Major/LAER

Application No.: 526607

Equipment Category: Burner

Equipment Subcategory: Duct Burner, Natural Gas &

Refinery Gas Fired

Date: MM DD, 2020

	Date:		<u>IVI</u>	M DD, 2020		
1.	EQUIPMENT INFOR	MATION				
A.	MANUFACTURER: COEN			B. MODEL:		
C.	DESCRIPTION: Duct Burne	r				
D.	Turbine (CGT), Heat Recovery Steam Generator (HRSG) and back-pressure Steam Turbine Generator. Low-NOx combustion and steam injection are used in the turbine for NOx control. The HRSG has been designed with duct burner for extra steam generation, Selective Catalytic Reduction (SCR) for control of NOx emissions and oxidation catalyst for control of CO emissions. CGT burns natural gas and the Duct Burner in the HRSG burns natural gas and/or refinery gas.					
E.	SIZE/DIMENSIONS/CAPACIT	ry: 132 MM	Btu/hr			
co	MBUSTION SOURCES					
F.	MAXIMUM HEAT INPUT: 1	32 MMBTU/I	nr			
G.	BURNER INFORMATION: L	ow-NOx Burn	ner			
	ТҮРЕ	INDIV	/IDUAL H	EAT INPUT	NUMBER	
		Rated heat inpu	it of single	burner, in btu/hr	Number of burners	
H.	PRIMARY FUEL: Refinery	Fuel Gas	I. OTHE	R FUEL: Natural (Gas	
J.	OPERATING SCHEDULE:	Hours 24 HR	S//DAY	7 days/week	52 WKS/YR	
K.	EQUIPMENT COST: N/A					
L.	EQUIPMENT INFORMATION	COMMENTS: 1	Enter additi	onal comments regar	rding Equipment Information	

A.	COMPANY: Chevron Products Co	B. FAC ID: 800030
C.	ADDRESS: 324 W El Segundo Blvd. CITY: El Segundo STATE: CA ZIP: 90245	D. NAICS CODE: 2911
E.	CONTACT PERSON: Peter Allen	F. TITLE: Air Permitting Lead
G.	PHONE NO.: (310) 615-4182	H. EMAIL: PAllen@chevron.com

A. AGENCY: South Coast AQMD B. APPLICATION TYPE: NEW CONSTRUCTION

C. SCAQMD ENGINEER: Rafik Beshai

D. PERMIT INFORMATION: PC ISSUANCE DATE: 10/27/10

P/O NO.: PO ISSUANCE DATE: 6/14/2019

- E. START-UP DATE: Select date from pull down. The start-up date is the first date that the equipment operates for any reason. Use the best estimate at the PC stage and actual date at the PO stage.
- F. OPERATIONAL TIME: Enter the approximate amount of time, in days or months that the equipment has been operating. The minimum demonstration time is six months for LAER, and one year for Minor Source BACT

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx	SOX	co	PM OR PM ₁₀	Inorganic
BACT Limit			*			
Averaging Time						
Correction						

- B. OTHER BACT REQUIREMENTS: *Pipeline quality Natural Gas with Sulfur content ≤ 1 grains/100 scf; Refinery Fuel gas with Total Reduced Sulfur ≤ 40 *PPMV*, 1 HR *rolling avg. and* ≤ 30 *PPMV*, 24 HR *rolling avg.*
- C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology
- D. EMISSION INFORMATION COMMENTS: The sulfur limit is to limit the SOx emissions (Rule 2005 SOx BACT).

_	CONTROL	TECHNOL (
D.	CONTROL	TECHNOLO	ДΤΥ

- A. MANUFACTURER: Manufacturer of the equipment B. MODEL: Model name and number
- C. DESCRIPTION: The total reduced sulfur concentration limit must be measured in the refinery fuel gas before blending with natural gas for all but 72 hours per year. The total reduced sulfur concentration of the refinery fuel gas may be measured after blending with natural gas for a maximum of 72 hours per year.
- D. SIZE/DIMENSIONS/CAPACITY:

E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. PO NO.: M57432

PC ISSUANCE DATE: Click here to enter a date.

PO ISSUANCE DATE: Click here to enter a date.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	%	%	%
NOx	%	%	%
SOx	%	%	%
СО	%	%	%
PM	%	%	%
PM ₁₀	%	%	%
INORGANIC	%	%	%

G. CONTROL TECHNOLOGY COMMENTS Enter comments for additional information regarding Control Technology.

6. DEMONSTRATION OF COMPLIANCE

- A. COMPLIANCE DEMONSTRATED BY: Maintaining the CEMS to continuously monitor the total reduced sulfur compounds calculated as H2S concentration in the fuel gases.
- B. DATE(S) OF SOURCE TEST: An appropriate size parameter such as rated product throughput, usable volume, and/or one more characteristic dimensions.
- C. COLLECTION EFFICIENCY METHOD: N/A
- D. COLLECTION EFFICIENCY PARAMETERS: N/A
- E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times
- F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.

G.	TEST METHODS (SPECIFY AGENCY):
H.	MONITORING AND TESTING REQUIREMENTS: Continuous Emissions Monitoring System (conditions # 90.40 and 90.41)
I.	DEMONSTRATION OF COMPLIANCE COMMENTS: Unit has shown compliance from CEMS data.

b

A.	BCAT: Click here to text.	enter B. CCAT: Click her text.			C. APPLICATION TYPE CODE: Click here to enter text.	
D.	RECLAIM FAC?	E. TITLE V FAC:	E. TITLE V FAC:		ST ID(S):	
	YES \boxtimes NO \square	YES 🛛 NO				
G.	SCAQMD SOURCE	SCAQMD SOURCE SPECIFIC RULES: Click here to				
Н.	HEALTH RISK FOR	PERMIT UNIT				
H1.	MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.		CER BURDEN: k here to enter text.	H4. CB DATE: Click here to enter a date.	
H5:	: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: text.		H8. HIC DATE: Click here to enter a date.	

South Coast AQMD

Section I – South Coast AQMD BACT/LAER Determination

Source Type: Major/LAER

Application No.: 601928, 601929 and 601930

Equipment Category: Gas Turbine

Equipment Subcategory: Simple Cycle, Natural Gas

Date: MM DD, 2020

	1.	EOUIPN	MENT	INFOR	MATION
--	----	---------------	-------------	-------	--------

A. MANUFACTURER: General Electric B. MODEL: LM6000 PC SPRINT

- C. DESCRIPTION: Simple Cycle natural gas fired turbine with Intercooler and water injection.
- D. FUNCTION: The City of Riverside Public Utilities Department operates the Riverside Energy Resource Center facility which operates this gas turbine which produces electrical power for the city.

The equipment is at a "Peaker" plant to support California Independent System Operator (CAISO) during periods of high electricity demand.

E. SIZE/DIMENSIONS/CAPACITY: Net Power Output 49.8 MW

COMBUSTION SOURCES

- F. MAXIMUM HEAT INPUT: 490 MMBTU/hr
- G. BURNER INFORMATION:

TYPE	INDIVIDUAL HEAT INPUT	NUMBER
N/A	Rated heat input of single burner, in btu/hr	Number of burners

H. PRIMARY FUEL: Natural Gas I. OTHER FUEL: Supplementary or standby fuels

J. OPERATING SCHEDULE: Hours 24 HRS//DAY 7 DAYS/WEEK 52 WKS/YR

K. EQUIPMENT COST: N/A

L. EQUIPMENT INFORMATION COMMENTS: Gas turbine is equipped with SCR and Oxidation catalyst.

A.	COMPANY: City of Riverside Public Util	B. FAC ID: 139796	
C.	ADDRESS: 5901 Payton Avenue		D. NAICS CODE: 221112
	CITY: Riverside STATE: CA ZIP:	92504	
E.	CONTACT PERSON: Charles Casey	F. TITLE: Utility Generation Manager	
G.	PHONE NO.: 951-710-5010 H. EMAIL		L: ccasey@riversideca.gov

A. AGENCY: South Coast AQMD B. APPLICATION TYPE: NEW CONSTRUCTION

C. SCAQMD ENGINEER: Vicky Lee

D. PERMIT INFORMATION: PC ISSUANCE DATE: 2/20/09

P/O NO.: G57637 PO ISSUANCE DATE: 6/13/2019

E. START-UP DATE: 6/14/2013

F. OPERATIONAL TIME: 6+ years (original P/O issued on 6/14/13, G25360, A/N: 481647)

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx	SOX	co	PM or PM ₁₀	INORGANIC
BACT Limit	2 PPMV	2.3 PPMV		4 PPMV		5 PPMV NH ₃
Averaging Time	1 HOUR	1 HOUR		1 HOUR		1 HOUR
Correction	15 % O ₂	15 % O ₂		15 % O ₂		15 % O ₂

- B. OTHER BACT REQUIREMENTS: The NOx and CO emission limit shall not apply during turbine commissioning, start-up, shutdown, and equipment tuning.
- C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology
- D. EMISSION INFORMATION COMMENTS:

5. CONTROL TECHNOLOGY

- A. MANUFACTURER: SCR Cormetech, CO OxyCat B. MODEL: SCR No. 3, CO OxyCat Canmet
- C. DESCRIPTION: Ammonia Injection Grid with aqueous ammonia 19% stored in a 12,000 gallon tank
- D. SIZE/DIMENSIONS/CAPACITY: SCR 1024 cu ft: Width 8'- 11.6", Height 6' 5", Length 3' 2". CO Oxycat 90 cu ft: Width 2'- 0", Height 2' 4", Depth 0' 3"
- E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. 481651 PC ISSUANCE DATE: 6/19/09 PO NO.: G25363 PO ISSUANCE DATE: 6/26/2013

F. REQUIRED CONTROL EFFICIENCIES: .

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY	
VOC	%	%	%	
NOx	%	%	%	
SOx	%	%	%	
СО	%	%	%	
PM	%	%	%	
PM_{10}	%	%	%	
INORGANIC	%	%	%	

G. CONTROL TECHNOLOGY COMMENTS Enter comments for additional information regarding Control Technology.

6. DEMONSTRATION OF COMPLIANCE

- A. COMPLIANCE DEMONSTRATED BY: CEMS data for a period of one year (2019) and SOURCE TEST results
- B. DATE(S) OF SOURCE: Please refer to Section E
- C. COLLECTION EFFICIENCY METHOD: N/A
- D. COLLECTION EFFICIENCY PARAMETERS: N/A

E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

RATA Test Date	Unit 3	RATA Test Date	Unit 4
4/15/20	NOx = 1.83 ppm $CO = 3.58 ppm$	4/16/20	NOx = 2.13 ppm $CO = 2.71 ppm$
9/10/19	NOx = 2.14 ppm $CO = 2.97 ppm$	10/3/19	NOx = 2.23 ppm $CO = 2.28 ppm$
8/14/18	NOx = 2.01 ppm $CO = 2.98 ppm$	2/2/18	NOx = 2.26 ppm $CO = 2.95 ppm$

F. TEST OPERATING PARAMETERS AND CONDITIONS: F	'ull load.
--	------------

- G. TEST METHODS (SPECIFY AGENCY): Method 100.1 for NOx and CO.
- H. MONITORING AND TESTING REQUIREMENTS: Continuous Emissions Monitoring System and Compliance test every three years.
- I. DEMONSTRATION OF COMPLIANCE COMMENTS: Unit has shown compliance from source test and CEMS data.

A.	BCAT: 013008		B. CCAT: 81		C. APPLICATIO	ON TYPE CODE: 20
D.	RECLAIM FAC?		E. TITLE V FAC:		F. SOURCE TES	ST ID(S):
	YES ⊠ NO □		YES ⊠ NO			
G.	SCAQMD SOURCE	SPEC	TIFIC RULES: Rule 20	012		
Н.	HEALTH RISK FOR	R PERM	MIT UNIT			
H1.	MICR: Click here to enter text.		MICR DATE: Click here to enter a date.		CER BURDEN: k here to enter text.	H4. CB DATE: Click here to enter a date.
Н5	: HIA: Click here to enter text.		HIA DATE: Click here to enter a date.	H7. HIC: text.	Click here to enter	H8. HIC DATE: Click here to enter a date.

South Coast AQMD

Section I – South Coast AQMD BACT/LAER Determination

Source Type: Major/LAER

Application No.: 3585124

Equipment Category: Thermal Fluid Heater

Equipment Subcategory: Natural Gas

Date: MM DD, 2020

1.	EOUIPM	MENT IN	FORMA	TION

A.	MANUFACTURER:	Sigma Thermal	B.	MODEL: HC2-6.0-H-SF

- C. DESCRIPTION: Hot oil heater
- D. FUNCTION: Owens Corning Roofing and Asphalt is a manufacturer asphalt roofing shingles and operates a thermal fluid heater circulating hot oil through hollow agitators in a closed mixing vessel to heat limestone filler which is blended with asphalt prior to application on shingles.
- E. SIZE/DIMENSIONS/CAPACITY: #'- #" W x #'- #" L x #'- #" H, Heat Exchanger

COMBUSTION SOURCES

- F. MAXIMUM HEAT INPUT: 4.5 MM Btu/hr
- G. BURNER INFORMATION: MAXON M-PAKT, MODEL: MPBD4RSFNNNA

ТҮРЕ	INDIVIDUAL HEAT INPUT	NUMBER
LOW NOX	4.5 MM Btu/hr	one
Enter additional burner types, as needed, add extra rows		

- H. PRIMARY FUEL: Natural Gas I. OTHER FUEL: N/A
- J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52
- K. EQUIPMENT COST: N/A
- L. EQUIPMENT INFORMATION COMMENTS: Exhaust system consisting of one 200 HP exhaust fan.

A.	COMPANY: Owens Corning Roofing and Asphalt	B. FAC ID: 35302	
C.	ADDRESS: 1501 N. Tamarind Ave. CITY: Compton STATE: CA ZIP: 90222		D. NAICS CODE: 324121
E.	CONTACT PERSON: Tim Hellem		F. TITLE: EH&S Leader
G.	PHONE NO.: (424) 296-6039 H. EMA	AIL: tir	m.hellem@owenscorning.com

A. AGENCY: South Coast AQMD B. APPLICATION TYPE: NEW CONSTRUCTION

C. SCAQMD ENGINEER: Gregory Jacobson

D. PERMIT INFORMATION: PC ISSUANCE DATE: 12/20/16

P/O NO.: G48769 PO ISSUANCE DATE: 10/17/2017

E. START-UP DATE: 10/17/2017

F. OPERATIONAL TIME: 2+ years

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOX	SOX	СО	PM OR PM ₁₀	Inorganic
BACT Limit		9 ppm		100		
Averaging Time		60 min		60 min		
Correction		3% O ₂ on a dry basis		3% O ₂ on a dry basis		

B. OTHER BACT REQUIREMENTS: Burner emissions only.

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology

D. EMISSION INFORMATION COMMENTS:

OL TECHNOLOGY						
1	ipment B. MODE	L: Model name and number				
C. DESCRIPTION:						
D. SIZE/DIMENSIONS/CAPACITY:						
SIONS/CAPACITY:						
		ere to enter a date.				
ONTROL EFFICIENCIES: .						
OVERALL CONTROL	CONTROL DEVICE					
CONTAMINANT EFFICIENCY EFFICIENCY COLLECTION EFFICIENCY						
%	%	%				
%	%	%				
%	%	%				
%	%	%				
%	%	%				
%	%	%				
%	%	%				
CHNOLOGY COMMENTS						
STRATION OF COMPLI	ANCE					
E DEMONSTRATED BY: Sou	irce Test (R18252)					
OURCE TEST: 12/13/17 &	12/15/17					
CEERCHENCY METHOD N/A						
EFFICIENCY METHOD: N/A	Y					
EFFICIENCY PARAMETERS	: N/A					
Γ/PERFORMANCE DATA·N/A						
E. SOURCE TEST/PERFORMANCE DATA:N/A						
F. TEST OPERATING PARAMETERS AND CONDITIONS:.						
G. TEST METHODS (SPECIFY AGENCY): N/A						
H MONITORING AND TESTING REQUIREMENTS:						
	1,12,1					
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for						
	JRER: Manufacturer of the equivalent process	JRER: Manufacturer of the equipment N: SIONS/CAPACITY: JUIPMENT PERMIT INFORMATION: NO. Click here to enter text. PC ISSUANCE DATE: POR ISSUANCE DATE: Click here to enter text. PO ISSUANCE DATE: PO ISSUANCE DATE: Click here to enter text. PO ISSUANCE DATE: PO ISSUANCE DATE: Click here to enter text. PO ISSUANCE DEFICIENCY				

A.	BCAT: 000340	B. CCAT: Click here text.	c to enter C. APPLICATIO	N TYPE CODE: 60	
D.	RECLAIM FAC?	E. TITLE V FAC:	F. SOURCE TES	T ID(S): R18252	
	YES ⊠ NO □	YES ⊠ NO			
G.	G. SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.				
H.	HEALTH RISK FOR	PERMIT UNIT			
H1	MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.	
Н5	: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.	

Section I - South Coast AQMD BACT/LAER Determination



Source Type: Major/LAER

Application No.: 571478

I.C. Engine **Equipment Category:**

Equipment Subcategory: Stationary, Non-Emergency,

Electrical Generator

1. EQUIPMENT INFORMATION A. MANUFACTURER: Generac B. MODEL: 6.8GNGD-100 C. DESCRIPTION: I.C. Engine, Stationary, Non-Emergency, Rich-Burn D. FUNCTION: SoCalGas' Aliso Canyon Storage Facility is an underground natural gas storage site. This is one of four prime engines generating electrical power to remote sites where various equipment is located, such as pumps and/or compressors and/or controls. E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera Retrofit Emissions Kit.		Date:	MM DD, 2020				
C. DESCRIPTION: I.C. Engine, Stationary, Non-Emergency, Rich-Burn D. FUNCTION: SoCalGas' Aliso Canyon Storage Facility is an underground natural gas storage site. This is one of four prime engines generating electrical power to remote sites where various equipment is located, such as pumps and/or compressors and/or controls. E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	1.	EQUIPMENT INFORMATIO	N				
D. FUNCTION: SoCalGas' Aliso Canyon Storage Facility is an underground natural gas storage site. This is one of four prime engines generating electrical power to remote sites where various equipment is located, such as pumps and/or compressors and/or controls. E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	A.			6.8GNGD-100			
storage site. This is one of four prime engines generating electrical power to remote sites where various equipment is located, such as pumps and/or compressors and/or controls. E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	C.	DESCRIPTION: I.C. Engine, Station	nary, Non-Emergency, Rich-	Burn			
where various equipment is located, such as pumps and/or compressors and/or controls. E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	D.	FUNCTION: SoCalGas' Aliso Cany	on Storage Facility is an uno	derground natural gas			
E. SIZE/DIMENSIONS/CAPACITY: 147 BHP, naturally aspirated, 10 cylinders driving a 100 kW generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera							
generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator. COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera							
COMBUSTION SOURCES F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	E.						
F. MAXIMUM HEAT INPUT: N/A G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera		generator and 385 BHP, naturally aspirated, 6 cylinders driving a 250 kW generator.					
G. BURNER INFORMATION: N/A TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	СО	COMBUSTION SOURCES					
TYPE INDIVIDUAL HEAT INPUT NUMBER N/A N/A N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	F.	MAXIMUM HEAT INPUT: N/A					
N/A Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	G.	BURNER INFORMATION: N/A					
Enter additional burner types, as needed, add extra rows H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera		TYPE	INDIVIDUAL HEAT INPUT	NUMBER			
H. PRIMARY FUEL: NATURAL GAS I. OTHER FUEL: N/A J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera		N/A	N/A	N/A			
J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52 K. EQUIPMENT COST: N/A L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	F						
K. EQUIPMENT COST: N/AL. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	H.	PRIMARY FUEL: NATURAL GAS	I. OTHER FUEL: N/A				
L. EQUIPMENT INFORMATION COMMENTS: This engine was retrofitted with the Tecogen Ultera	J.	OPERATING SCHEDULE: Hours 2	4 Days 7 Weeks 52				
	K.	EQUIPMENT COST: N/A					
	L.		NTS: This engine was retrofit	tted with the Tecogen Ultera			

A.	COMPANY: Southern California Gas Comp	B. FAC ID: 800128	
C.	ADDRESS: 12801 Tampa Ave. CITY: Northridge STATE: CA ZIP: 91	D. NAICS CODE: 486210	
E.	CONTACT PERSON: John Clarke		F. TITLE: Principal Air Quality Specialist
G.	PHONE NO.: (818) 700-3812	Н.	EMAIL: JCLARKE1@SEMPRAUTILITIES.COM

A. AGENCY: South Coast AQMD

B. APPLICATION TYPE: MODIFICATION

C. SCAQMD ENGINEER: Roy Olivares

D. PERMIT INFORMATION: PC ISSUANCE DATE: 9/9/16

P/O NO.: G52129 PO ISSUANCE DATE: 8/13/2019

E. START-UP DATE: 6/19/2017

F. OPERATIONAL TIME: 2+ years

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOX	SOX	СО	PM OR PM ₁₀	Inorganic
BACT Limit	0.1 lbs/MW-hr	0.07 lbs/MW-hr		0.2 lbs/MW-hr		
Averaging Time	15 min	15 min		15 min		
Correction	15% O ₂	15% O ₂		15% O ₂		

- B. OTHER BACT REQUIREMENTS: Concise description of the BACT requirements for each regulated contaminant from the equipment, other than the requirements list in Section 4(A).
- C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology
- D. EMISSION INFORMATION COMMENTS:

		_				
	OL TECHNOLOGY TECHNOLOGY	- In 16000	- 000150/0 DO40 00			
A. MANUFACTU			L: SSC150/2-DC49 CC			
	N: Tecogen Ultera Emissic st (DCL) with Air/Fuel Rat					
	Iodel EGO2) and Oxidation	•				
	SIONS/CAPACITY: N/A	a camanger (1000gen propri				
E. CONTROL EQ	UIPMENT PERMIT INFORMA	ATION:				
APPLICATION	N NO. same PC ISSUANCE D	ATE: same				
PO NO.:same	PO ISSUANCE D	ATE: same				
F. REQUIRED CO	ONTROL EFFICIENCIES: .					
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY			
VOC	%	%	%			
NOx	%	%	%			
SOx	%	%	%			
СО	%	%	%			
PM	%	%	%			
PM ₁₀	%	%	%			
INORGANIC	%	%	%			
	CHNOLOGY COMMENTS: Th					
	e operated in order to contin	_				
	hort due to system back pr	essure, condensation, and	high exhaust			
temperatures.						
6. DEMONS	STRATION OF COMPL	IANCE				
A. COMPLIANCE	E DEMONSTRATED BY: So	urce Test				
B. DATE(S) OF S	OURCE TEST: 10/22-26/19)				
C. COLLECTION	C. COLLECTION EFFICIENCY METHOD: N/A					
D. COLLECTION	D. COLLECTION EFFICIENCY PARAMETERS: N/A					
E. SOURCE TEST/PERFORMANCE DATA:N/A						
F. TEST OPERAT	TING PARAMETERS AND CO	NDITIONS.				
TEST OF ENVI	CITHUMALLENGTHOD CO	1,21101101				
G. TEST METHO	DS (SPECIFY AGENCY): Sou	th Coast AQMD				

H. MONITORING AND TESTING REQUIREMENTS:

I. DEMONSTRATION OF COMPLIANCE COMMENTS: This test includes results for five engines at So Cal Gas' Aliso Canyon storage facility.

Α	a. BCAT: 040001	В. ССАТ: 00	C. APPLICATIO	ON TYPE CODE: 60	
D	RECLAIM FAC?	E. TITLE V FAC:	F. SOURCE TES	ST ID(S): 18316	
	YES ⊠ NO □	YES ⊠ NO			
C	G. SCAQMD SOURCE SPECIFIC RULES: Rule 1110.2				
F	I. HEALTH RISK FOR	PERMIT UNIT			
I	II. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.	
ŀ	H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.	

<u>Section I – South Coast AQMD BACT/LAER Determination</u>



Source Type: Major/LAER

Application No.: A/N 582931 P/O G49447

Equipment Category: Thermal Oxidizer

Equipment Subcategory: Flare - Liquid Transfer and

Handling Marine Loading

Date: MM DD, 2020

Date.		MINI DD, 2020				
1. EQUIPMENT INFOR	MATION					
A. MANUFACTURER:		B. MODEL:				
AEREON		CEB 800	-CA			
C. DESCRIPTION:						
Marine Vapor Control Syster	n – two thermal o	oxidizers				
D. FUNCTION:						
Controlling vapors from mar	Controlling vapors from marine vessel loading					
E. SIZE/DIMENSIONS/CAPACITE bbl/hr loading rate						
COMBUSTION SOURCES						
F. MAXIMUM HEAT INPUT: E	Each thermal oxid	lizer is 39 mmbtu/hr				
G. BURNER INFORMATION						
TYPE	INDIVIDI	UAL HEAT INPUT	NUMBER			
Ultra low emissions	39,000	,000 btu/hr	1			
H. PRIMARY FUEL: petroleum	liquid vapors I.	OTHER FUEL: natural	gas supplemental			
J. OPERATING SCHEDULE:	24 HRS/DAY 7	7 DAYS/WEEK 52	WKS/YR			
(Maximum but actually only operated during marine vessel loading)						
K. EQUIPMENT COST: Enter sum of all Cost Factors in Table 6 of SCAQMD BACT Guidelines						
L. EQUIPMENT INFORMATION	COMMENTS:					

A.	COMPANY: Tesoro Logistics Long Beach Terminal	B. FAC ID: 172878
C.	ADDRESS: 820 Carrack Ave CITY: Long Beach STATE: CA ZIP: 90813	D. NAICS CODE: 424710
E.	CONTACT PERSON: Donna DiRocco	F. TITLE: Sr. Env. Advisor
G.	PHONE NO.: (562) 499-2202 H. EMAIL: 0	lonna.m.dirocco@andeavor.com

A. AGENCY: South Coast A.Q.M.D B. APPLIC

B. APPLICATION TYPE: MODIFICATION

C. SCAQMD ENGINEER: Linda Dejbakhsh

D. PERMIT INFORMATION: PC ISSUANCE DATE: 11/28/17

P/O NO.: G49447 (This was issued as P/C-P/O) PO ISSUANCE DATE: 11/28/2017

E. START-UP DATE: 8/7/2018

F. OPERATIONAL TIME: less than 2000 hours since August 2018 (per email from DiRocco 6/14/19)

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOX	SOX	CO	PM or PM ₁₀	INORGANIC
BACT Limit		0.036 lb/MMBtu (30 ppm)		0.01 lb/MMBtu (10 ppm)		
Averaging Time		15 min		15 min		
Correction		3% O ₂ on a dry basis		3% O ₂ on a dry basis		

- B. OTHER BACT REQUIREMENTS: Concise description of the BACT requirements for each regulated contaminant from the equipment, other than the requirements list in Section 4(A).
- C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology
- D. EMISSION INFORMATION COMMENTS: AEREON guaranteed and confirmed with source test

5. CONTROL TECHNOLOGY

- A. MANUFACTURER: AEREON B. MODEL: CEB 800-CA
- C. DESCRIPTION: Equipment controls VOCs displaced from marine vessel loading of petroleum liquids (such as gasoline, diesel, or crude). The thermal oxidizers can operate in parallel or individually
- D. SIZE/DIMENSIONS/CAPACITY: Each thermal oxidizer is rated at 39 mmbtu/hr and 3500 bbl/hr load rate
- E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. 582931 PC ISSUANCE DATE: 11/28/17 PO NO.: G49447 PO ISSUANCE DATE: 11/28/2017

F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	95_%	%	%
NOx	%	%	%
SOx	%	%	%
СО	%	%	%
PM	%	%	%
PM ₁₀	%	%	%
INORGANIC	%	%	%

G. CONTROL TECHNOLOGY COMMENTS: Whenever the thermal oxidizer (flare) is in operation, a temperature not less than 1,400 degrees Fahrenheit (on a 15 minute average) shall be maintained in the combustion chamber when the equipment it serves is in operation (marine vessel loading only), except for periods of startup and shutdown.

6. DEMONSTRATION OF COMPLIANCE

- A. COMPLIANCE DEMONSTRATED BY: Source test conducted April 2019 by Almega
- B. DATE(S) OF SOURCE TEST: April 9, 2019
- C. COLLECTION EFFICIENCY METHOD: SCAQMD 25.3 and 25.1
- D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.
- E. SOURCE TEST/PERFORMANCE DATA: NOx < 0.012 lb/mmbtu (< 9.61 ppm@3%O2), NOx < 0.013 lb/mmbtu (9.83 ppm@3%O2), CO < 0.0074 lb/mmbtu (9.61 ppm@3%O2), CO < 0.0054 lb/mmbtu (6.95 ppm@3%O2)

F. TEST OPERATING PARAMETERS AND CONDITIONS: NOx and CO conducted during first 50% of liquid cargo loaded. TNMNEO and toxics conducted during last 50% of cargo loaded. Load condition of ThOx's were 13.3 MMBtu/hr and 12.8 MMBtu/hr of capacity. Vessel was loading Arab LT Crude Oil. Previous load was high sulfur fuel oil
 G. TEST METHODS (SPECIFY AGENCY): SCAQMD Method 100.1, 25.3, 25.1, EPA TO-15
 H. MONITORING AND TESTING REQUIREMENTS: NOx, CO, and VOC tested every 5 years
 I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

A.	BCAT: Click here to text.	B. CCAT: 05	;	C. APPLICATION here to enter	ON TYPE CODE: Click text.
D.	RECLAIM FAC?	E. TITLE V F.	AC:	F. SOURCE TES	ST ID(S): P18289
	YES □ NO ⊠	YES ⊠	NO □		
G.	SCAQMD SOURCE	SPECIFIC RULES: R	1118.1, R1142	,	
Н.	HEALTH RISK FOR	PERMIT UNIT			
H1.	MICR: Click here to enter text.	H2. MICR DATE: Cli		NCER BURDEN: k here to enter text.	H4. CB DATE: Click here to enter a date.
H5:	HIA: Click here to enter text.	H6. HIA DATE: Click to enter a date.	k here H7. HIC text	: Click here to enter	H8. HIC DATE: Click here to enter a date.

South Coast AQMD

Section 1 - South Coast AQMD BACT/LAER Determination

Source Type: Major/LAER

Application No.: 563766

Equipment Category: Thermal Oxidizer

Equipment Subcategory: Recuperative

Date: MM DD, 2020

1	EOIIDA	DIEODNEA	PTANT
1.	KOUIPN	INFORMAT	HUN

A. MANUFACTURER: Catalytic Products
International

B. MODEL: Quadrant SRS-12,000

- C. DESCRIPTION: The Recuperative Thermal Oxidizer is a control equipment unit controlling VOC emissions from coating and curing system. It contains one Shell-and-Tube heat exchanger and employs a single MAXON Kinedizer LE Low NOx Burner firing natural gas with a maximum rated heat capacity of 9.8 MMBtu/hr. The unit operates at a minimum combustion chamber temperature of 1,400 degree Fahrenheit.
- D. FUNCTION: 3M Industrial Adhesive and Tape Company a manufacturer of specialty tapes and fabrics used in various industries. 3M operates a recuperative thermal oxidizer and two tower coaters (coating stations and ovens) used to cure impregnated fabrics. The emissions measurement was conducted at the exhaust from a total enclosure.
- E. SIZE/DIMENSIONS/CAPACITY: 47'-8" W x 18'-6" D x 40'-0" H

COMBUSTION SOURCES

- F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel
- G. BURNER INFORMATION: Low-NOx

ТҮРЕ	INDIVIDUAL HEAT INPUT	NUMBER
Maxon, Kinedizer LE 6 inch	9.8 MM Btu/hr	one

H. PRIMARY FUEL: Natural gas I. OTHER FUEL: N/A

J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52

K. EQUIPMENT COST: N/A

L. EQUIPMENT INFORMATION COMMENTS: Exhaust system consisting of one 75 hp blower venting the coating and curing lines operations within a total enclosure.

A.	COMPANY: 3M Company	B. FAC ID: 35188	
C.	ADDRESS: 1601 S. Shamrock Ave. CITY: Monrovia STATE: CA ZIP: 92	D. NAICS CODE: 2295	
E.	CONTACT PERSON: Jen Cowman Moore	F. TITLE: Senior Environmental Engineer	
G.	. PHONE NO.: (651) 737 - 3596 H. EMAIL: JC		CMOORE@MMM.COM

A. AGENCY: South Coast AQMD

B. APPLICATION TYPE: NEW CONSTRUCTION

C. SCAQMD ENGINEER: Rene Loof

D. PERMIT INFORMATION: PC ISSUANCE DATE: 6/25/14

P/O NO.: G42337 PO ISSUANCE DATE: 8/17/2016

E. START-UP DATE: Select date from pull down. The start-up date is the first date that the equipment operates for any reason. Use the best estimate at the PC stage and actual date at the PO stage.

F. OPERATIONAL TIME: 3+ year

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx	SOX	СО	PM OR PM ₁₀	Inorganic
BACT Limit		30 PPM		250 PPM		
Averaging Time		*				
Correction		3% O ₂ on a dry basis		3% O ₂ on a dry basis		

B. OTHER BACT REQUIREMENTS: Fresh air only.

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology

D. EMISSION INFORMATION COMMENTS: * Compliance with Rule 1147 averaging time.

5. CONTROL TECHNOLOGY

- A. MANUFACTURER: Catalytic Products International B. MODEL: Quadrant SRS-12,000
- C. DESCRIPTION: Recuperative Thermal Oxidizer controlling VOC emissions contains one Shell-and-Tube heat exchanger and employs a single MAXON Kinedizer LE Low NOx Burner firing natural gas.
- D. SIZE/DIMENSIONS/CAPACITY: : 47'-8" W x 18'-6" D x 40'-0" H
- E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. same PC ISSUANCE DATE: same PO NO.: same PO ISSUANCE DATE: same

F. REQUIRED CONTROL EFFICIENCIES: .

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	95%		%
NOx	%	%	%
SOx	%	%	%
СО	%	9/0	
PM	%		%
PM_{10}	%		%
INORGANIC	<u>%</u>		

G. CONTROL TECHNOLOGY COMMENTS: The combustion chamber temperature shall be maintained at a minimum of 1,400 degree Fahrenheit whenever the equipment it serves is in operation. The equipment shall be maintained and operated at a minimum destruction efficiency of 95% and an overall VOC control efficiency (collection and destruction) of 95% when the basic equipment it serves is in operation.

6. DEMONSTRATION OF COMPLIANCE

- A. COMPLIANCE DEMONSTRATED BY: Source Test PR14344
- B. DATE(S) OF SOURCE TEST: 7/22/2015
- C. COLLECTION EFFICIENCY METHOD: N/A
- D. COLLECTION EFFICIENCY PARAMETERS: N/A
- E. SOURCE TEST/PERFORMANCE DATA:

NOx: 24.3 PPMVD @ 3% O₂ CO: 39.1 PPMVD @ 3% O₂

Inlet VOC (TGNMNEO) as methane: 9,521 PPMV Exhaust VOC (TGNMNEO) as methane: 1.4 PPMV VOC Destruction Removal Efficiency (DRE): 99.98%

F. TEST OPERATING PARAMETERS AND CONDITIONS:

VOC DRE test results are based on the average of three 60-minute sample runs.

G. TEST METHODS (SPECIFY AGENCY):

NOx, CO, O2, and CO2 using South Coast AQMD Method 100.1

VOC: South Coast AQMD Method 25.1 (Inlet) and Method 25.3 (Exhaust)

H. MONITORING AND TESTING REQUIREMENTS:

I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

A.	BCAT: Click here to enter text. B. CCAT: 5			C. APPLICATION TYPE CODE: 60	
D.	RECLAIM FAC?	E. TITLE V FAC:		F. SOURCE TES	ST ID(S): P14344
	YES □ NO ⊠	YES ⊠ NO			
G.	SCAQMD SOURCE	CAQMD SOURCE SPECIFIC RULES: Click here to enter to		ext.	
Н.	HEALTH RISK FOR	PERMIT UNIT			
Н1.	MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.		CER BURDEN: k here to enter text.	H4. CB DATE: Click here to enter a date.
Н5	: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: text.		H8. HIC DATE: Click here to enter a date.



<u>Section I – South Coast AQMD BACT/LAER Determination</u>

Source Type: Major/LAER

Application No.: 602295

Equipment Category: Thermal Oxidizer

Equipment Subcategory: Regenerative

	Date:		MM DD, 2020			
1.	EQUIPMENT INFORM	ATION				
A.	MANUFACTURER: TANN		B. MODEL:	TR3092		
C.	DESCRIPTION: Regenerative	e Thermal Oxi	dizer (RTO) controlli	ng VOC emissions.		
D.	D. FUNCTION: Steelscape is a supplier of metallic-coated and pre-painted steel, servicing the construction industry. Steelscape conducts metal coil coatings operations at the facility. Steelscape owns and operates an RTO. The prime and finish coating heads are housed in separate rooms that were prepared as PTE's and vented indirectly to the RTO.					
E.						
co	MBUSTION SOURCES					
F.	MAXIMUM HEAT INPUT: 9.8	MM Btu/hr st	art-up natural gas inj	ection system		
G.	BURNER INFORMATION: LC	W-NO _X				
	ТҮРЕ	INDIVID	OUAL HEAT INPUT	NUMBER		
N	MAXON, KINEDIZER LE	9.8 N	/IM Btu/hr	one		
F	Enter additional burner types, as needed, add extra rows					
H.	PRIMARY FUEL: NATURAL	L GAS I.	OTHER FUEL: N/A			
J.	OPERATING SCHEDULE:	Hours 24 Days	7 Weeks 52			
K.	EQUIPMENT COST: N/A					
L.	EQUIPMENT INFORMATION C blower.	OMMENTS: Ex	khaust system consist	ing of one 400 hp exhaust		

A.	COMPANY: Steelscape Inc.		B. FAC ID: 126498
C.	ADDRESS: 11200 Arrow Hwy CITY: Rancho Cucamonga STATE: CA	ZIP: 91730	D. NAICS CODE: 3479
E.	CONTACT PERSON: Frank Ramos		F. TITLE: EHS Coordinator
G.	PHONE NO.: (909) 484-4653	H. EMAIL: F	rancisco.Ramos@steelscape.com

A. AGENCY: South Coast AQMD B. APPLICATION TYPE: NEW CONSTRUCTION

C. SCAQMD ENGINEER: **Hemang Desai**

D. PERMIT INFORMATION: PC ISSUANCE DATE: 10/30/18

P/O NO.: Click here to enter text PO ISSUANCE DATE: 2/27/2020

E. START-UP DATE: Select date from pull down. The start-up date is the first date that the equipment operates for any reason. Use the best estimate at the PC stage and actual date at the PO stage.

F. OPERATIONAL TIME: 6+ months

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O₂, %CO₂, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOX	SOX	CO	PM or PM ₁₀	INORGANIC
BACT Limit		30 ppm		100 ppm		
Averaging Time		*				
Correction		3% O ₂ on a dry basis		3% O ₂ on a dry basis		

B. OTHER BACT REQUIREMENTS: Burner emissions only.

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology

D. EMISSION INFORMATION COMMENTS: * Compliance with Facility Permit - Section E averaging time.

_	~ ~		~ ~
_		TECHNOL	
	CONIRCH.	IRCHNOI	1 H - Y

- A. MANUFACTURER: TANN B. MODEL: TR3092
- C. DESCRIPTION: Regenerative Thermal Oxidizer venting prime and finish coaters.
- D. SIZE/DIMENSIONS/CAPACITY: 42' W x 23'-6" L, Dual Ceramic Heat Exchanger Media and 25 HP combustion air blower.
- E. CONTROL EQUIPMENT PERMIT INFORMATION:

APPLICATION NO. same PC ISSUANCE DATE: same PO NO.: same PO ISSUANCE DATE: same

F. REQUIRED CONTROL EFFICIENCIES: .

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY		
VOC	95%	%	%		
NOx	%	%	%		
SOx	%	%	%		
СО	%	%	%		
PM	%	%	%		
PM_{10}	%	%	%		
INORGANIC	%	%	%		

G. CONTROL TECHNOLOGY COMMENTS: The combustion chamber temperature shall be maintained at a minimum of 1,500 degrees Fahrenheit whenever the equipment it serves is in operation. The operator shall maintain this equipment to achieve a minimum destruction efficiency of 95 percent and a minimum overall control efficiency of 95 percent for VOC during the normal operation of the equipment it vents.

6. DEMONSTRATION OF COMPLIANCE

- A. COMPLIANCE DEMONSTRATED BY: Source Test
- B. DATE(S) OF SOURCE TEST: 3/26/2019
- C. COLLECTION EFFICIENCY METHOD: N/A
- D. COLLECTION EFFICIENCY PARAMETERS: N/A
- E. SOURCE TEST/PERFORMANCE DATA:

CO concentration at startup: 83 ppm @ 3% O2 NOx concentration at startup: 23.4 ppm @ 3% O2

- F. TEST OPERATING PARAMETERS AND CONDITIONS: N/A
- G. TEST METHODS (SPECIFY AGENCY):

South Coast AQMD Method 100.1 for NOx and CO.

South Coast AOMD Method 25.1/25.3 for VOC destruction efficiency.

- H. MONITORING AND TESTING REQUIREMENTS:
- I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

A.	BCAT: Click here to enter text.		B. CCAT: 12		C. APPLICATION TYPE CODE: 60		
D.	RECLAIM FAC?		E. TITLE V FAC:		F. SOURCE TEST ID(S): PR18364		
	YES ⊠ NO □		YES ⊠ NO □				
G.	SCAQMD SOURCE SPECIFIC RULES: Click here to enter text.						
Н.	HEALTH RISK FOR PERMIT UNIT						
H1.	MICR: Click here to enter text.	here H2. MICR DATE: Click here to enter a date.		H3. CANCER BURDEN: Click here to enter text.		H4.	CB DATE: Click here to enter a date.
Н5	: HIA: Click here to enter text.		HIA DATE: Click here to enter a date.	H7. HIC	C: Click here to enter t.	Н8.	HIC DATE: Click here to enter a date.