Section I – South Coast AQMD BACT/LAER Determination

Source Type: **Major/LAER**

Application No.: **526607**

Equipment Category: **Burner**

Equipment Subcategory: **Duct Burner, Natural Gas & Refinery Gas Fired**

Date: **February 5, 2021**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: COEN	B. MODEL:
C. DESCRIPTION: Duct Burner	
D. FUNCTION: This duct burner is part of the Cogen Train D. The cogen includes a combustion Gas 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/CAPACITY: 132 MMBtu/hr	
COMBUSTION SOURCES	
F. MAXIMUM HEAT INPUT: 132 MMBTU/hr	
G. BURNER INFORMATION: Low-NOx Burner	

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

H. PRIMARY FUEL: Refinery Fuel Gas	I. OTHER FUEL: Natural Gas
J. OPERATING SCHEDULE: Hours 24 HRS//DAY 7 DAYS/WEEK 52 WKS/YR	
K. EQUIPMENT COST: N/A	
L. EQUIPMENT INFORMATION COMMENTS: Enter additional comments regarding Equipment Information	

2. COMPANY 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

3. PERMIT INFORMATION

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 ($\%O_2$, $\%CO_2$, 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 $\leq 40\ PPMV, 1-HR\ rolling\ avg.\ and\ \leq 30\ PPMV, 24-HR\ rolling\ avg.$

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).

5. CONTROL TECHNOLOGY

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. PC ISSUANCE DATE: Click here to enter a date.
PO NO.: M57432 PO ISSUANCE DATE: Click here to enter a date.

CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
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 CPMS to continuously monitor the total reduced sulfur compounds calculated as H_2S 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 Parametric Monitoring System (conditions # 90.40 and 90.41)
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Unit has shown compliance from CPMS data.

b

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: Click here to enter text.
D. RECLAIM FAC? YES ☒ NO ☐	E. TITLE V FAC: YES ☒ NO ☐	F. SOURCE TEST ID(S):
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.
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.