



**Section II - Other LAER/BACT Determination**

Source Type: **Major/LAER**

Application No.: **1153979**

Equipment Category: **Heater**

Equipment Subcategory: **Other Process**

Date: **February 2, 2024**

**1. EQUIPMENT INFORMATION**

A. MANUFACTURER:		B. MODEL:	
C. DESCRIPTION: 15 MMBtu/hr heater (Heater # 21)			
D. FUNCTION: Standby heater #21 provides process heat for the fractionator in the event that heat from the cogeneration unit is not available. Heater is located at Lube Oil Finishing Plant.			
E. SIZE/DIMENSIONS/CAPACITY: 15 MMBtu/hr			
<b>COMBUSTION SOURCES</b>			
F. MAXIMUM HEAT INPUT:			
G. BURNER INFORMATION			
TYPE	INDIVIDUAL HEAT INPUT		NUMBER
ClearSign Burner	15 MMBtu/hr		1
H. PRIMARY FUEL: PUC natural gas		I. OTHER FUEL: N/A	
J. OPERATING SCHEDULE:	Hours	HRS/DAY	DAYS/WEEK WKS/YR
K. EQUIPMENT COST:			
L. EQUIPMENT INFORMATION COMMENTS:			

**2. COMPANY INFORMATION**

A. COMPANY: Tricor Refining, LLC		B. FAC ID: S-44	
C. ADDRESS: 1134 Manor St CITY: Bakersfield STATE: CA ZIP: 93388		D. NAICS CODE: 2951	
E. CONTACT PERSON: Jeff Beecher		F. TITLE: Environmental Manager	
G. PHONE NO.: (661) 393-7110		H. EMAIL: jeffb@sjr.com	

### 3. PERMIT INFORMATION

A. AGENCY: San Joaquin Valley Air Pollution Control District	B. APPLICATION TYPE: OTHER
C. SCAQMD ENGINEER: -	
D. PERMIT INFORMATION: PC ISSUANCE DATE: 6/1/16 P/O NO.: S-44-4-20 PO ISSUANCE DATE: 9/13/2017	
E. START-UP DATE: 7/10/17	
F. OPERATIONAL TIME: Over 5 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 (%O <sub>2</sub> , %CO <sub>2</sub> , 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 <sub>10</sub>	INORGANIC
BACT Limit		6 PPMV 0.007 LB /MMBTU		50 PPMV 0.037 LB /MMBTU		
Averaging Time		30 min		30 min		
Correction		3% O <sub>2</sub>		3% O <sub>2</sub>		
B. OTHER BACT REQUIREMENTS: N/A						
C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology						
D. EMISSION INFORMATION COMMENTS: Condition 11) Emissions from heater shall not exceed any of the following limits: 0.0055 lb-VOC/MMBtu, 0.0076 lb PM10/MMBtu, or 0.00285 lb-SOx/MMBtu.						

**5. CONTROL TECHNOLOGY**

A. MANUFACTURER: ClearSign		B. MODEL:	
C. DESCRIPTION: Low-NOx Burner			
D. SIZE/DIMENSIONS/CAPACITY: 15 MMBtu/hr			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO.: -                      PC ISSUANCE DATE: - PO NO.: -                                      PO ISSUANCE DATE: -			
F. REQUIRED CONTROL EFFICIENCIES: N/A			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	___%	___%
PM <sub>10</sub>	___%	___%	___%
INORGANIC	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS: N/A			

**6. DEMONSTRATION OF COMPLIANCE**

A. COMPLIANCE DEMONSTRATED BY: Source Test					
B. DATE(S) OF SOURCE TEST: 9/15/2017 and 9/1/2020					
C. COLLECTION EFFICIENCY METHOD: N/A					
D. COLLECTION EFFICIENCY PARAMETERS: N/A					
E. SOURCE TEST/PERFORMANCE DATA:					
<b>Pollutant</b>		<b>9/15/2017 Test Result</b>	<b>9/1/2020 Test Result</b>	<b>Emission Limit</b>	<b>Test Method</b>
NOx	ppmv @ 3% O <sub>2</sub>	5.34	5.61	6	CARB Method 100
CO	ppmv @ 3% O <sub>2</sub>	37.5	39.9	50	CARB Method 100
F. TEST OPERATING PARAMETERS AND CONDITIONS: The unit was tested under normal operation conditions.					
G. TEST METHODS (SPECIFY AGENCY): See table above. EPA Method 7E, 10, and CARB Method 100.					
H. MONITORING AND TESTING REQUIREMENTS: Source Test for NOx and CO once per 12 months or 36 months, depending on performance. The permittee shall monitor and record the Heater #21 stack concentration of NOx, CO, and O <sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications.					
I. DEMONSTRATION OF COMPLIANCE COMMENTS: N/A					

**7. ADDITIONAL SCAQMD REFERENCE DATA**

A. BCAT: N/A	B. CCAT: N/A	C. APPLICATION TYPE CODE: -	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S):	
G. SCAQMD SOURCE SPECIFIC RULES: -			
H. HEALTH RISK FOR PERMIT UNIT			
H1. MICR: -	H2. MICR DATE: -	H3. CANCER BURDEN: -	H4. CB DATE: -
H5. HIA: -	H6. HIA DATE: -	H7. HIC: -	H8. HIC DATE: -