



## Section I – South Coast AQMD BACT/LAER Determination

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: **February 5, 2021**

### 1. EQUIPMENT INFORMATION

A. MANUFACTURER: AEREON	B. MODEL: CEB 800-CA	
C. DESCRIPTION: Marine Vapor Control System – two thermal oxidizers		
D. FUNCTION: Controlling vapors from marine vessel loading		
E. SIZE/DIMENSIONS/CAPACITY: Each thermal oxidizer is 39 mmbtu/hr and handles 3500 bbl/hr loading rate		
<b>COMBUSTION SOURCES</b>		
F. MAXIMUM HEAT INPUT: Each thermal oxidizer is 39 mmbtu/hr		
G. BURNER INFORMATION		
TYPE	INDIVIDUAL 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 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:		

### 2. COMPANY INFORMATION

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: donna.m.dirocco@andeavor.com

### 3. PERMIT INFORMATION

A. AGENCY: South Coast A.Q.M.D	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 (%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		0.036 lb/MMBtu (30 ppm)		0.01 lb/MMBtu (10 ppm)		
Averaging Time		15 min		15 min		
Correction		3% O <sub>2</sub> on a dry basis		3% O <sub>2</sub> 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	___%	___%	___%
NO <sub>x</sub>	___%	___%	___%
SO <sub>x</sub>	___%	___%	___%
CO	___%	___%	___%
PM	___%	___%	___%
PM <sub>10</sub>	___%	___%	___%
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. VOC emissions are limited to 2 lbs/1000 bbls liquid loaded or 95% VOC reduction by weight from uncontrolled emissions.			

**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: NO <sub>x</sub> <0.012 lb/mmbtu (<9.61 ppm@3%O <sub>2</sub> ), NO <sub>x</sub> <0.013 lb/mmbtu (9.83 ppm@3%O <sub>2</sub> ), CO < 0.0074 lb/mmbtu (9.61 ppm@3%O <sub>2</sub> ), CO <0.0054 lb/mmbtu (6.95 ppm@3%O <sub>2</sub> )

F. TEST OPERATING PARAMETERS AND CONDITIONS: NO <sub>x</sub> and CO conducted during first 50% of liquid cargo loaded. TNMNEO and toxics conducted during last 50% of cargo loaded. Load condition of ThO <sub>x</sub> '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: NO <sub>x</sub> , CO, and VOC tested every 5 years
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

## 7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: Click here to enter text.	B. CCAT: 05	C. APPLICATION TYPE CODE: Click here to enter text.	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): P18289	
G. SCAQMD SOURCE SPECIFIC RULES: R1118.1, R1142			
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.