777 12TH STREET, 3RD FLOOR SACRAMENTO METROPOLITAN SACRAMENTO, CA 95814-1908

AIR QUALITY
MANAGEMENT DISTRICT

PRELIMINARY AUTHORITY TO CONSTRUCT

A/C NO.: 26114

ISSUED BY: JORGE DEGUZMAN

DATE ISSUED: TBD

DATE EXPIRES: TBD

ISSUED TO: CHEVRON USA INC

LOCATION: 2420 FRONT ST., SACRAMENTO, CA 95818

DESCRIPTION: TEMPORARY PORTABLE COMBUSTOR AND ASSOCIATED EQUIPMENT CONSISTING OF THE FOLLOWING:

A. ENVENT MOBILE EMISSION CONTROL SYSTEMS COMBUSTOR, 20 MMBTU/HR
B. AT LEAST ONE TRAILER-MOUNTED VAPOR BLADDER SYSTEM WITH A MINIMUM CAPACITY OF 3,500 FT3.
C. TWO 1,000-GALLON PROPANE TANKS FOR SUPPLEMENTAL FUEL
D. PROPANE-FIRED VAPORIZER, 0.22 MMBTU/HR

AUTHORITY TO CONSTRUCT CONDITIONS

START-UP REQUIREMENTS

S1. After completing the equipment installation authorized under this Authority to Construct (ATC), the permit holder must contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) to arrange a start-up inspection. SMAQMD may be contacted at (916) 874-4800.
[Basis: SMAQMD Rule 201, Section 405]

S2. This Authority to Construct may serve as a temporary Permit to Operate provided that:
A. The permit holder has notified SMAQMD that the equipment installation is complete and the facility is ready for a start-up inspection,
B. The equipment installed matches the equipment authorized in this Authority to Construct,
C. The equipment is operated in compliance with all conditions in this Authority to Construct, and
D. The equipment and its operation complies with SMAQMD, state and federal laws and regulations.
[Basis: SMAQMD Rule 201, Section 303.1, 405]

S3. The permit holder agrees to indemnify and defend SMAQMD, its officers, agents, and employees if this permit, or the environmental review of the permit under the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA), including any exemption determination, is challenged in state or federal court. This indemnification includes attorney fees awarded against SMAQMD, as well as attorney fees, court costs, legal fees, and other expenses incurred in defending the challenge. The District will provide written notice to the permit holder within 5 days if it receives a petition, complaint or other legal notice by a third party challenging this Authority to Construct (ATC) or the environmental review of the ATC. The permit

holder may, within 10 days of notification, request cancellation of the ATC. If the permit holder requests cancellation, SMAQMD will cancel the permit within 5 days, and will notify the plaintiffs of the cancellation and request dismissal of the litigation.
[Basis: SMAQMD Rule 201, Section 405]

S4. Chevron USA Inc. must submit to the Air Pollution Control Officer a complete Title V permit application for minor Title V permit modification. The application must be submitted before commencing operation associated with the Minor Title V permit modification.
[Basis: SMAQMD Rule 207, Section 301.5]

S5. This temporary portable combustor is only to be used in lieu of the permanent VRU (P/O 20328) when the permanent VRU is non-operational due to maintenance or other required outages. The more restrictive loading rack throughput requirements listed in Condition #14 are applicable during this operation of the temporary portable combustor. The loading rack throughput requirements listed in Condition No. 8 of PO 16163 are applicable when the permanent VRU (PO20328) is operating.

GENERAL

1. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.
[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.1]

2. The Air Pollution Control Officer and/or authorized representatives must be permitted to do all of the following:
   A. Enter the source premises or any location at which any records required by this ATC are kept.
   B. Access and copy any records required by this ATC.
   C. Inspect or review any equipment, operation, or method required under this ATC.
   D. Sample emissions from the source or require samples to be taken.
   [Basis: SMAQMD Rule 201, Section 405]

3. This ATC does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the SMAQMD Rules and Regulations.
[Basis: SMAQMD Rule 201, Sections 303.1, 405]

4. The facility may not discharge air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[Basis: SMAQMD Rule 402, Section 301]

5. A legible copy of this ATC must be maintained on the premises with the equipment.
[Basis: SMAQMD Rule 201, Section 401]

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EMISSION LIMITATIONS

6. The equipment must not discharge into the atmosphere any visible air contaminant other than uncombined water vapor for a period or periods aggregating more than three minutes in any one hour if the discharge is as dark or darker than Ringelmann No. 1 or is equal to or greater than 20% opacity.
[Basis: SMAQMD Rule 401, Section 301]

7. The portable combustor unit must meet the following standards:
[Basis: SMAQMD Rule 202, Section 408.2.a, and Rule 447, Section 301]]

Pollutant	Emission Standard and Work Practice (A)
VOC	0.02 lb/1000 gallons of total liquid loaded through the loading rack.
NOx	0.034 lb/1000 gallons of total liquid loaded through the loading rack
SOx	Use of LPG gas
PM10/PM2.5	0.01 grains/scf

(A) Based on SMAQMD BACT standard (BACT determination 164)

8. The emissions from the portable combustor and associated equipment must not exceed the following:
[Basis: SMAQMD Rules 201, Section 405 and 202, Section 408.2]

Emissions at the combustor from controlling the loading rack

Pollutant	Emission Factor (A) (lb/1000 gallons of total liquid throughput)	Potential to Emit (C)		
		lb/day	lb/qtr	lb/year
VOC	0.02	26.0	494	988
NOx	0.034	44.2	840	1,680
SOx	1.46E-03	1.9	36	72
PM10 (B)	1.58E-03	2.0	39	78
PM2.5 (B)	1.58E-03	2.0	39	78
CO	0.15	195.0	3,705	7,410

(A) Emission factors for SOx, PM10, and PM2.5 are from AP-42, Table 1.5.1 (07/08) and have been adjusted from a liquid basis to an equivalent amount of vapor assuming an uncontrolled emission factor of 8.4 lb of vapor as propane per 1000 gallons loaded, heating values of 24,548 Btu/lb of propane and 91,500 Btu/gallon of liquid propane, and with a propane sulfur specification of 80 ppmw. Emission factors for VOC and NOx are based on BACT emission limits. Emission factor for CO is based on the manufacture's guarantee.
(B) Emission factors are identified here for purposes of calculating potential emissions. Compliance with the emission limits in this table is to be based on these emission factors multiplied by the throughput of total liquid loaded.
(C) Emissions are based on operating at a maximum daily throughput of 1,300,000 gallons/day, 24,700,000 gallons/quarter, and 49,400,000 gallons per year of total liquids loaded. All emission limits are in English units.

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Emissions at the combustor from controlling Tank# 115

Pollutant	Emission Factor (A) (lb/1000 gallons of total liquid throughput)	Potential to Emit (C)		
		lb/day	lb/qtr	lb/year
VOC	0.02	0.2	3	6
NOx	0.034	0.3	5	10
Sox	1.46E-03	0.0	0	0
PM10 (B)	1.58E-03	0.0	0	0
PM2.5 (B)	1.58E-03	0.0	0	0
CO	0.15	1.2	23	46

(A) Emission factors for SOx, PM10, and PM2.5 are from AP-42, Table 1.5.1 (07/08) and have been adjusted from a liquid basis to an equivalent amount of vapor assuming an uncontrolled emission factor of 8.4 lb of vapor as propane per 1000 gallons loaded, heating values of 24,548 Btu/lb of propane and 91,500 Btu/gallon of liquid propane, and with a propane sulfur specification of 80 ppmw. Emission factors for VOC and NOx are based on BACT emission limits. Emission factor for CO is based on the manufacture's guarantee.

(B) Emission factors are identified here for purposes of calculating potential emissions. Compliance with the emission limits in this table is to be based on these emission factors multiplied by the equivalent rack throughputs of total liquid loaded as determined in footnote (C) below.

(C) Emissions are based on converting uncontrolled storage tank emissions into equivalent rack throughputs of 8008 gal/day, 152155 gal/qtr, and 304,309 gal/yr. All emission limits are in English units.

Emissions from the propane vaporizer

Pollutant	Emission Factor (A) (lb/1000 gallons propane combusted in vaporizer)	Potential to Emit (C)		
		lb/day	lb/qtr	lb/year
VOC	0.8	0.0	1	2
NOx	8.5	0.5	9	19
Sox	0.65	0.0	1	1
PM10(B)	0.7	0.0	1	2
PM2.5	0.7	0.0	1	2
CO	7.5	0.4	8	16

(A) Emission factors for VOC, SOx, PM10, PM2.5, and CO are from AP-42, Table 1.5.1 (07/08) with a sulfur specification of 80 ppmw. Emission factor for NOx is based on the manufacture's source test data.

(B) Emission factors are identified here for purposes of calculating potential emissions. Compliance with the emission limits in this table is to be based on these emission factors multiplied by the heat rate of the propane vaporizer and the number of days of operation.

(C) Emissions are based on a heat input rate of 0.22 MMBTU/hr, 91.5 MMBTU/1000 gallons, 24 hours/day, 19 days/quarter, and 38 days/year.

Fugitive emissions from components

Component Type	Service Type	# of Components (B)	Emission factor (A) (kg/hr/source)	Potential to Emit (B)		
				lb/day	lb/qtr	lb/year
Valves	Gas	63	1.30E-05	0.0	1	2
Pump Seals	Gas	0	6.50E-05	0.0	0	0
Others	Gas	4	1.20E-04	0.0	0	1
Fittings	Gas	51	4.20E-05	0.1	2	4
Sub Total				0.2	3	7

(A) Emission factors based on CAPCOA/ARB, "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", February 1999, Table IV-1B. Only components that are not under negative pressure are not counted. Emission factors cannot be measured directly and therefore the factors are not enforceable limits, but instead identified here for purposes of calculating potential emissions. Compliance with the emissions limits in this table is to be based on these emission factors and the number of respective components.

(B) Component counts based on information provided by Envent for the combustor and two vapor bladder tanks.

Total project emissions from the combustor and all associated equipment

Pollutant	Potential to Emit		
	lb/day	lb/qtr	lb/year
VOC	26.4	501	1,003
NOx	45.0	854	1,709
SOx	2.0	37	74
PM10	2.1	40	80
PM2.5	2.1	40	80
CO	196.6	3,736	7,472

EQUIPMENT OPERATION

9. The portable combustor and associated equipment must not operate more than the following:
[Basis: SMAQMD Rules 201, Section 405 and 202, Section 408.2]

Days per quarter	Days per calendar year
19	38

10. The permit holder must, at all times, operate and maintain the equipment, including the associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
[Basis: 40 CFR 63 Subpart BBBBBB §63.11085(a)]

11. Organic vapors from the loading rack (PO 16163) and Tank #115 (PO 5118) must be vented to and controlled by the portable combustor unit.
[Basis: SMAQMD Rule 447, Section 303]

12. The vapor collection system and vapor control unit must be certified by the California Air Resources Board in accordance with CP-203: Certification Procedure for Vapor Recovery Systems of Terminals.
[Basis: SMAQMD Rule 447, Section 303]

13. The volume of total liquids loaded through the loading racks must not exceed the following:
[Basis: SMAQMD Rule 201, Section 405]

Fuel Type	Maximum Allowable Fuel Loading (A)		
	gallons/day	gallons/quarter	gallons/year
Total (all products)	1,300,000	24,700,000	49,400,000

14. The vapor bladder tank must be maintained such that the VOC concentration in the airspace above the bladder does not exceed 3,000 parts per million, expressed as methane.
[Basis: SMAQMD Rule 447, Section 305]

15. The minimum temperature of the combustion stack must be 1,400 degrees Fahrenheit. If a source test demonstrates that the emission limits listed in Condition No. 7 can be met at a lower temperature, the applicant may lower the set point temperature with prior written approval from the Air Pollution Control Officer.
[Basis: SMAQMD Rule 201, Section 405]

MONITORING REQUIREMENTS

16. The permit holder must install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous parameter monitoring system (CPMS) while gasoline vapors are displaced to the vapor processor systems.
[Basis: 40 CFR 63 Subpart BBBBBB §63.11092(b)]

17. The CPMS used to monitor the operation of the system must be:
    A. Capable of continuously measuring temperature;
    B. Installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.
[Basis: 40 CFR 63 Subpart BBBBBB §63.11092(b)(iii)(A)]

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SOURCE TESTING REQUIREMENTS

18. Within 7 days of startup and within 7 days of startup of each subsequent 12-month period the unit is brought back to the facility, the permit holder must conduct a source test on the vapor combustion unit in accordance with the methods specified in 40 CFR 60 Subpart XX §60.503 or equivalent methods. Certification testing conducted by the California Air Resources Board (CARB) staff in accordance with the requirements of 17CCR 94013 and associated CARB test methods can be conducted in lieu of the procedures in Condition Nos. 20-23 as long as CARB tests for O2, NOx and CO as well as VOC. In situations where the vapor combustion unit needs to be deployed quickly to address an unforeseeable problem with the VRU, testing will be required within 10 days of startup.
[Basis: SMAQMD Rule 201, Section 303.2, Rule 447, Sections 303 and 501, 40 CFR 60 Subpart XX §60.503, and 40 CFR 63 Subpart BBBBBB §63.11092(a)]

19. An initial notification must be submitted to the SMAQMD 30 days prior to the source test. In situations where the vapor combustion unit needs to be deployed quickly to address an unforeseeable problem with the VRU, initial notification will be required 10 days prior to the source test.
    A. A source test plan must be submitted to SMAQMD 45 days prior to source test. In situations where the vapor combustion unit needs to be deployed quickly to address an unforeseeable problem with the VRU, the District will accept any previously approved test plan for this unit (as long as the most recent versions of any published test methods are used).
    B. All items needed for the source test must be provided by the applicant
        1) Sampling ports.
        2) Construction of the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.
        3) Provide a stack or duct free of cyclonic flow during performance tests as demonstrated by applicable test methods and procedures.
        4) Safe sampling platforms.
        5) Safe access to sampling platforms(s).
        6) Utilities for sampling and testing equipment.

    [Basis: SMAQMD Rule 201, Section 303.2 and 40 CFR 63 Subpart BBBBBB §63.11093(c)]

20. Immediately before the performance test, the permit holder must use EPA Method 21 to monitor for leakage of vapor from all potential sources in the terminals vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator must repair all leaks with readings of 500 ppm (as methane) or greater before conducting the performance test.
[Basis: 40 CFR 60 Subpart XX §60.503(b) and 40 CFR 63 Subpart BBBBBB §63.11092(a)(1)(i)]

21. The vapor combustion unit must be tested using the following methods:
    A. Sampling port locations – EPA Method 1 or 1A
    B. Volume of air-vapor mixture – EPA Method 2B
    C. O2 – Method 3, 3A, or 3B
    D. NOx – EPA Method 7E, or CARB 100
    E. CO – EPA Method 10 or CARB 100
    F. VOC - EPA Methods 18, 25, 25A, 25B, or California Air Resources Board Test Procedure TP-203.1.

[Basis: SMAQMD Rule 201, Section 303.2 and Rule 447, Section 501, Rule 419, Section 301, and 40 CFR 60 Subpart XX §60.503(c)(6)]

22. The performance test must be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.
[Basis: 40 CFR 60 Subpart XX §60.503(c)(1)]

23. If the vapor control unit is intermittent in operation, the performance test must begin at a reference vapor holder level and must end at the same reference point. The test must include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system must be manually controlled.
[Basis: 40 CFR 60 Subpart XX §60.503(c)(2)]

24. Vapor Bladder (Diaphragm) Airspace – Concentrations in the airspace above the vapor diaphragm must be determined by EPA Test Method 18 or California Air Resources Board Test Method 150, 1-100, or Test Procedure TP-204.3. Per TP-204.3 Section 7.1, (EPA Test Method 21 is allowed as an alternative to TP-204.3).
[Basis: SMAQMD Rule 447, Section 501]

25. A final source test report must be submitted to the District within 60 days of test completion.
[Basis: SMAQMD Rule 201, Section 303.2]

RECORDKEEPING

26. The following records must be continuously maintained onsite for the most recent five year period and must be made available to the Air Pollution Control Officer upon request.
[Basis: SMAQMD Rule 201, Section 405, and Rule 447, Section 502]

Frequency	Information to be Recorded
At All Times	A. Data recorded by the CPMS, which includes: i. Combustion temperature of the vapor combustion unit; ii. Time intervals during which loadings of gasoline cargo tanks have occurred, or alternatively, the operating parameter data only during such loadings, and iii. Date and time of the recorded measurement. **[Basis: 40 CFR 63 Subpart BBBBBB §63.11094(f)(1)]**
Daily	B. Volume of gasoline, transmix, ethanol, and diesel loaded through the loading racks that was vented to this control device (gallons/day).

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Frequency	Information to be Recorded
Quarterly	C. Volume of gasoline, transmix, ethanol, and diesel loaded through the loading racks that was vented to this control device (gallons/quarter).
Annually	D. Volume of gasoline, transmix, ethanol, and diesel loaded through the loading racks that was vented to this control device (gallons/year).
For each source test	E. A record of the source test performed pursuant to Condition Nos 18-25. F. A record of each performance test leak inspection required by Condition No. 20 must be kept on file at the bulk terminal. Inspection record must include, at a minimum, the following information: i. Date of inspection. ii. Findings (may indicate no leaks discovered or nature, location, and severity of each leak). iii. Leak determination method. iv. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 days). v. Inspector name and signature. vi. For each leak that is detected, the following specified information must be recorded: (a) The equipment type and identification number. (b) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell). (c) The date the leak was detected and the date of each attempt to repair the leak. (d) Repair methods applied in each attempt to repair the leak. (e) Repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak. (f) The expected date of successful repair of the leak if the leak is not repaired within 15 days. (g) The date of successful repair of the leak. **[Basis: SMAQMD Rule 201, Section 405 and 40 CFR Part 60 Subpart BBBBBB §63.11094(e)]**

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EMISSION OFFSETS

27. Prior to commencing operation, Chevron USA Inc. must provide sufficient emission reduction credits to the Air Pollution Control Officer to fully offset the following amount of emissions:
[Basis: SMAQMD Rule 201, Section 303.1]

VOC Emissions to be Offset (A) Pounds/Quarter			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
501	501	501	501

(A) Emission offset ratios required by Rule 202, Section 303 have not been applied to the VOC emissions. Though emissions are depicted in every quarter, pursuant to Condition No. 9, operation of this portable combustor will be restricted to no more than 19 days per quarter and 38 days per year.

28. The following emission reduction credits (ERCs) must be surrendered by Chevron USA Inc to offset the amounts specified in Condition No. 27 prior to commencing operation.
[Basis: SMAQMD Rule 202, Sections 408 and Section 409, and Rule 205, Section 316]

Emission Reduction Credits	Pollutant	Emission Offsets Provided (lb/quarter)			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC certificate 19-01231 (A)	VOC		601.2	601.2	

(A) Emission reduction credit certificate 19-01231 in the amount of 700.0 lb/qtr for both Quarters 2 and 3 was recently purchased by Chevron for emission reductions that originated from a shut-down of a paint spray booth and a 0.4 MMBTU/hr paint spray booth heater at 5800 Alder Ave. Sacramento. Since the location of the reductions were within 15 miles of the Chevron facility an offset ratio of 1.2 to 1.0 has been applied. Since the value of the ERC's in the certificate is greater than the offset requirement, the certificate will need to be split.

29. The permit holder must, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxic "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.).
[Basis: SMAQMD Rule 201, Section 303.1]

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Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following list identifies the rules that most commonly apply to the operation of your equipment. Other rules may also be applicable.

SMAQMD RULE NO.	RULE TITLE
201	GENERAL PERMIT REQUIREMENTS (8-24-06)
202	NEW SOURCE REVIEW (8-23-12)
214	FEDERAL NEW SOURCE REVIEW (8-23-12)
401	RINGELMANN CHART (4-19-83)
402	NUISANCE (8-3-77)
406	SPECIFIC CONTAMINANTS (12-6-78)
420	SULFUR CONTENT OF FUELS (8-13-81)
447	ORGANIC LIQUID LOADING (4-2-98)
FEDERAL	REGULATION TITLE
40 CFR 60 SUBPART XX	STANDARDS OF PERFORMANCE FOR BULK GASOLINE TERMINALS
40 CFR 63 SUBPART BBBBBB	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORY: GASOLINE BULK TERMINALS, BULK PLANTS, AND PIPELINE FACILITIES

The conditions on this Authority to Construct reflect some, but not all, of the requirements of these rules. Because other rule requirements may apply to the operation, the permit holder should be familiar with all of the rules and related requirements. In addition, because future changes in prohibitory rules may establish more stringent requirements that may supersede the conditions listed here, the permit holder should monitor proposed rules and rule adoption actions at SMAQMD.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.