

Appendix D
Ventura County APCD
Agnew Lease Permit to Operate

APPENDIX F



Ventura County
Air Pollution
Control District

669 County Square Drive
Ventura, California 93003

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Michael Villegas
Air Pollution Control Officer

PERMIT TO OPERATE Number 00004

Valid October 1, 2018 to September 30, 2019

This Permit Has Been Issued To The Following:

Company Name / Address:

Carbon California Operating
Co., LLC
270 Quail Ct., Suite B
Santa Paula, CA 93060

Facility Name / Address:

Carbon California Operating
Company
Ojai Oil Field Leases
Santa Paula, CA 93060

Permission Is Hereby Granted To Operate The Following:

This permit has been issued pursuant to Rule 35, "Elective Emission Limits" and therefore is not subject to Rule 33, "Part 70 Permits". As required by Rule 35.B.1, the permit and permitted emissions include emission units exempt from permit pursuant to Rule 23, "Exemptions From Permit".

The ROC permitted emissions from oil wells are considered to be fugitive emissions and are not subject to the ROC applicability thresholds of Rule 33, "Part 70 Permits".

Ojai Fee Lease (Former VCAPCD Permit No. 0004)

81 - Ojai Fee Lease Oil Wells (Nos. 45, 46, 47, 49, 51 - 59, 61, 62, 63, 64, 68, 69, 70, 71, 77, 78, 79, 80, 81, 82, 84 - 99, 100 - 110, 112 - 128, 130, 133, 205, 206, 207, 501, 502, 504, 505, 507)

Tank Farm No. 1

- 1 - 2400 Barrel Wash Tank (T-3503)
- 1 - 1000 Barrel Produced Water Tank (ID T-3505, AC-410)
- 1 - 1000 Barrel Crude Oil Storage Tank (T-3781)
- 1 - 1000 Barrel Crude Oil Storage Tank (T3782), Standby
- 1 - 1000 Barrel LACT Tank (T-3508), Standby
- 1 - 1000 Barrel LACT Tank (T-3509)
- 1 - 1000 Barrel Wash Tank (T-3504, AC-410)
- 1 - 750 Barrel Wash Tank (T-3353)
- 1 - 250 Barrel Gauge Test Tank (T-3354)
- 1 - 225 Barrel Gauge Test Tank (T-3355)
- 1 - 12.57 Sqft-Surface Sump
- 1 - Oil Loading Facility, emergency use only
- 1 - 165 BHP IR JVG-6 Natural Gas Engine, rich burn, equipped with a NSCR system for NOx control (OOS)
- 1 - 225 BHP IR JVG-8 Natural Gas Engine, rich burn, equipped with a NSCR system for NOx control

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- 1 - 0.08 MMBTU/hr Glycol Reboiler, part of a Dehydrator System rated at 2.4 MMSCFD, electric powered reboiler, with glycol vent piped to the V.R. system at the crude oil storage tanks, utilizing triethylene glycol (TEG). Control system is equipped with a liquid separator.
- 1 - 4.25 MMBTU/hr Rite Model 425-SG Boiler, equipped with Low NOx burners and Flue Gas Recirculation System (OOS)
- 1 - 4.25 MMBTU/hr Ajax Model SGXB 4250-D Boiler, Standby (OOS)
- 1 - Emergency Flare (Ojai Fee Lease), consisting of two flare tips attached to a single gas line, combined capacity estimated at 45 MMBTU/hr, flare tip height: 20 feet

Tank Farm No. 2

- 1 - 500 Barrel Crude Oil Storage Tank (1)
- 2 - 500 Barrel Gauge Test Tanks (2, 3)
- 1 - 200 Barrel Gauge Test Tank
- 1 - 0.13 MMBTU/hr Glycol Reboiler, part of a Dehydrator System rated at 2.4 MMSCFD, with glycol vent piped to the reboiler burner, utilizing triethylene glycol (TEG). The control system is equipped with a liquid separator.

Tank Farm No. 3

- 1 - 500 Barrel Crude Oil Storage Tank (R29358)
- 2 - 250 Barrel Gauge Test Tanks (R29353, R29354)

Silverthread Area (Former VCAPCD Permit No. 0951)

- 24 - Silverthread Lease Oil Wells (Nos. 1, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29)
- 3 - 1000 Barrel LACT Tanks (T-3540, T-3541, T-3539 [Standby])
- 1 - 500 Barrel Produced Water Tank
- 1 - 500 Barrel Produced Water Tank (overflow), rectangular
- 1 - 240 Sqft-Surface Sump (open top sump tank), exempt from all requirements: ROC < 5 mg/l
- 1 - 180 BHP Ajax DPC-180 Natural Gas Engine (Unit 1), operated less than 200 hours per year for VCAPCD Rule 74.9.D.2 compliance (OOS)
- 1 - Oil Loading Facility, emergency use only
- 1 - 0.12 MMBTU/hr Glycol Reboiler, part of a Dehydrator System rated at 1.0 MMSCFD with glycol vent piped to the vapor recovery system, utilizing triethylene glycol (TEG). Control system is equipped with a natural draft condenser and a two phase separator.
- 1 - Emergency Flare (Silverthread), consisting of two flare tips attached to a single gas line, combined capacity estimated at 40 MMBTU/hr, flare tip height: 20'

Hamp Lease (Former VCAPCD Permit No. 00388)

- 22 - Hamp Lease Oil Wells (Nos. 29, 39, 40, 45, 46, 47, 48, 49,

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- 52, 53, 59, 61, 62, 63, 65, 66, 67, 68, 70, 71, 73, 99)
- 1 - 1000 Barrel LACT Tank (Well Site No. 2, Tank No. T-4632)
- 3 - 1000 Barrel LACT Tanks (T-4622, T-4623, and T-4621)
- 1 - 500 Barrel Produced Water Tank (T-4643)
- 1 - 300 Barrel Produced Water Tank (T-4647)
- 1 - 1000 Barrel Produced Water Tank (Storm Water) (T-4645)
- 1 - 300 Barrel Wash Tank, Diameter 9.25', Height 24' (T-4624)
- 1 - 0.7 MMBTU/hr Glycol Reboiler, 5.0 MMSCFD, with glycol vent piped to the suction side of the existing vapor recovery system at the 1,000 bbl LACT (1047), utilizing triethylene glycol (TEG)
- 1 - Gas Membrane Separator, with treated gas to sales pipeline, waste gas to flare or for use as fuel in the engines or heaters
- 1 - 20 MMBTU/hr Sur-Lite, Model SLF 555, Flare, Equipped with electric ignitor, combustion air intake louvers controlled by temperature sensors, and a rectangular stack equipped with three 4-inch sample ports. The flare combusts a low BTU permeate gas from the CO2 membrane unit. (OOS)
- 1 - Oil Loading Facility, emergency use only
- 1 - Emergency Flare (Hamp Lease), capacity estimated at 40 MMBTU/hr, flare tip height: 8'

Ferndale Ranch Lease (Former VCAPCD Permit to Operate No. 0380)

- 11 - Ferndale Ranch Lease Oil Wells (Nos. 1, 3, 4, 107, 110, 211, 214, 215, 712, 716, 717)
- 2 - 64 Sqft-Surface Sumps

Harth Lease (Former PO No. 00381)

- 2 - Oil Wells (Nos. 1 and 2)
- 1 - 1000 Barrel Crude Oil Storage Tank
- 1 - 150 Barrel Wash Tank
- 1 - 120 Barrel Waste Water Tank
- 2 - 64 Sqft-Surface Sumps
- 1 - Oil Loading Facility

Hamp Fee Lease (Former PO No. 00493)

- 16 - Oil Wells (Nos. 30, 34, 36, 37, 38, 41, 43, 44, 50, 51, 55, 57, 58, 64, 69, 73)
- 2 - 250 Barrel Crude Oil Storage Tanks
- 1 - 500 Barrel Crude Oil Storage Tank
- 1 - 160 Barrel Wash Tank
- 1 - 200 Barrel Produced Water Tank
- 1 - 3" Emergency Flare, rating estimated at 11.7 MMBTU/hr, height: 16', equipped with totalizing gas flow meter
- 1 - 2" Flare, Exempt from permit per Rule 23.C.1 (< 1 MMBTU/hr), included in permitted emissions per Rule 35
- 1 - 40 BHP Natural Gas (Field Gas) Engine, operating gas compressor, Exempt from permit per Rule 23.D.6 (< 50 BHP), included in permitted emissions pursuant to Rule 35

Agnew Lease (Former PO No. 00955)

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- 3 - Oil Wells (Agnew Nos. 1, 2, 3)
- 1 - 500 Barrel Crude Oil Storage Tank (W - No. 1)
- 1 - 500 Barrel Wash Tank (E - No. 2)
- 2 - 250 Barrel Produced Water Tanks
- 1 - Oil Loading Facility
- 1 - 0.8 MMBTU/hr Agnew Lease Flare, Exempt from permit per Rule 23.C.1 (< 1 MMBTU/hr), included in permitted emissions pursuant to Rule 35

ADP Federal Lease (Former PO No. 07143)

- 1 - Oil Well (No. 1)
- 1 - 200 Barrel Crude Oil Storage Tank
- 1 - 200 Barrel Wash Tank
- 1 - 160 Barrel Wastewater Tank
- 1 - Oil Loading Facility
- 1 - 0.8 MMBTU/hr Flare, Exempt from permit per Rule 23.C.1 (< 1 MMBTU/hr), included in permitted emissions pursuant to Rule 35

Nesbitt Lease (Former PO No. 07143)

- 3 - Oil Wells (Nos. 1, 2, 4)
- 2 - 250 Barrel Crude Oil Storage Tanks
- 1 - 391 Barrel Wash Tank
- 1 - Oil Loading Facility

MP Lane Federal Lease (Former PO No. 07383)

- 1 - Oil Well (No. 1)
- 1 - 480 Barrel Crude Oil Storage Tank
- 1 - 36 Sqft-Surface Sump
- 1 - Oil Loading Facility

For Use Throughout The Leases

- 13 - 500 Barrel Portable Tanks (closed top)
- 1 - Wipe Cleaning Operation Using Solvent ≤ 25 g/l ROC (Exempt-Rule 23.F.10.b)

Heaters and/or Boilers - Maximum of ten (10) units rated at less than 1 MMBTU/hr (Included in permitted emissions pursuant to Rule 35. No fuel metering required. Permitted emissions based on full-time use.)

This Permit Has Been Issued Subject To The Following Conditions:

1. Permitted Emissions	Tons/Year	Pounds/Hour
Reactive Organics	86.16	44.08
Nitrogen Oxides	21.03	14.23
Particulate Matter	1.26	0.98
Sulfur Oxides	1.30	0.61

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Carbon Monoxide 80.34 95.06

2. The following annual limits shall not be exceeded:

FUEL CONSUMPTION LIMITS:

Ojai Fee Lease:
 225 BHP IR JVG-8 Engine 2.0 MMCF/Yr Natural Gas
 Ojai Fee Emergency Flare - Planned Use 33.0 MMCF/Yr Natural Gas
 Total Usage (Planned and Emergency) 99.0 MMCF/Yr Natural Gas

Silverthread Area:
 Silverthread Emergency Flare-Planned Use 28.8 MMCF/Yr Natural Gas
 Total Usage (Planned and Emergency) 86.4 MMCF/Yr Natural Gas

Hamp Lease:
 0.7 MMBTU/hr Glycol Reboiler 5.4 MMCF/Yr Natural Gas
 Hamp Lease Emergency Flare - Planned Use 10.5 MMCF/Yr Natural Gas
 Total Usage (Planned and Emergency) 31.5 MMCF/Yr Natural Gas

Hamp Fee Lease:
 40 BHP Compressor Engine No Limit
 3" Emergency Flare No Limit
 2" Flare (< 1 MMBTU/Hr) No Limit

Agnew Lease:
 0.8 MMBTU/hr Flare No Limit

ADP Federal Lease:
 0.8 MMBTU/hr Flare No Limit

CRUDE OIL THROUGHPUT LIMITS:

Ojai Fee Lease, Tank Farm No. 1:
 Tank Nos. T-3781 and T-3782 (combined) 292,700 BOPY
 Tank No. T-3354 7,300 BOPY
 Tank No. T-3355 7,300 BOPY
 Crude Oil Loading Facility 153,298 BOPY

Ojai Fee Lease, Tank Farm No. 2:
 Tank No. 1 213,000 BOPY
 Tank No. 2 130,200 BOPY
 Tank No. 3 130,200 BOPY
 Test Tank 200 bbl 36,500 BOPY

Ojai Fee Lease, Tank Farm No. 3:
 Tank No. R29358 77,000 BOPY
 Tank No. R29353 5,000 BOPY
 Tank No. R29354 5,000 BOPY

Silverthread Area
 Crude Oil Loading Facility 138,309 BOPY

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Hamp Lease	
Crude Oil Loading Facility	329,100 BOPY
Harth Lease	
1,000 bbl Crude Oil Storage Tank	15,000 BOPY
Crude Oil Loading Facility	15,000 BOPY
Hamp Fee Lease	
Crude Oil Storage Tanks (combined t-put)	18,250 BOPY
Agnew Lease	
Crude Oil Storage Tank	7,300 BOPY
Crude Oil Loading Facility	7,300 BOPY
ADP Federal Lease	
Crude Oil Storage Tank	2,160 BOPY
Crude Oil Loading Facility	2,160 BOPY
Nesbitt Lease	
Crude Oil Storage Tanks (combined t-put)	9,465 BOPY
Crude Oil Loading Facility	9,465 BOPY
MP Lane Federal Lease	
Crude Oil Storage Tank	738 BOPY
Crude Oil Loading Facility	738 BOPY

In order to comply with this condition, the permittee shall maintain monthly records of fuel consumption and crude oil throughputs. The monthly fuel consumption levels and crude oil throughputs shall be summed for the previous 12 months. Fuel consumption and crude oil throughput totals for any of these 12 month periods in excess of the specified limits shall be considered a violation of this condition.

Note that there are planned flaring limits and total flaring limits for each flare. The total flaring limits include emergency use of the flares. The monthly flaring records shall differentiate between emergency usage and planned flaring events. Emergency use is defined as disposal of process gases in the event of unavoidable process upsets. A planned flaring event includes, but is not limited to, routine flaring to comply with Rule 71.1; or flaring due to planned maintenance performed on wells, equipment, or pipelines by the operator or performed by another operator accepting the produced gas. If a process upset (emergency use) cannot be rectified in a reasonable amount of time, the use of the flare may be determined to be a planned flaring event.

Prior to exceeding these limits, the permittee shall submit an application to modify this condition.

3. All permit conditions, throughput limits, and gas consumption limits on this permit are federally enforceable pursuant to Rule 35, "Elective Emission Limits". This was established pursuant to

Application No. 00004-401. Any subsequent new emissions units, throughput limit increases, or gas consumption limit increases are subject to Rule 26, "New Source Review", and are considered to be federally enforceable as Rule 26 is federally enforceable.

4. This permit has been issued pursuant to Rule 35, "Elective Emission Limits". Some exempt emissions units, pursuant to Rule 23, "Exemptions From Permit", have been included in the permitted emissions pursuant to Rule 35. There is one (1) less than 50 BHP compressor engine utilized at the facility (Hamp Fee Lease); permitted emissions have been included for this engine at full-time use pursuant to Rule 35. No other stationary engines rated less than 50 BHP (well, oil pump, water pump, compressor engines, etc.) shall be operated at this stationary source. Prior to operating any engines rated less than 50 BHP, the permittee shall submit an application to the District to modify the permit. The use of engines complying with the California Portable Equipment Registration Program (PERP) that are used for well drilling and/or repair and maintenance is not prohibited.
5. The following wells shall be free flowing, operated on gas lift, or operated with electric motor driven artificial lift equipment:

Ojai Fee Lease Nos. 77, 103, 104, 117, 122, 124, 126, 127, 128, 130, 133, 206, 207
Silverthread Lease Nos. 15, 23, 25, 26, 28, 29
Hamp Lease Nos. 46, 99
Ferndale Ranch Lease Nos. 712, 716, 717
Hamp Fee Lease Nos. 30, 34, 36, 37, 38, 41, 43, 44, 50, 51, 64, 73
Nesbitt Lease No. 2
Agnew Lease No. 3

This condition is applied as Best Available Control Technology (BACT).

6. Well ARCO No. 2 located on the Silverthread Lease shall be operated only as a water injection well. Prior to operating this well as a crude oil production well, permittee shall first apply for an Authority to Construct. This Authority to Construct will be subject to Rule 26 (New Source Review) and as such may be subject to BACT and offsets.
7. All well drilling activities shall comply with Rule 74.16, "Oilfield Drilling Operations". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 74.16.B.1, all drilling operations shall be powered by grid power unless exempted by Rule 74.16.C.
 - b) Pursuant to Rule 74.16.B.2, if a drilling operation is exempt from Rule 74.16.B.1, NOx emissions from drilling engines, or any exhaust stack of multiple engines permanently manifolded together, shall not exceed 515 ppmvd corrected to 15% oxygen.

This permit does not authorize the operation of any non-vehicular engine of 50 HP, or greater, for well drilling or workover operations. Prior to using such an engine, the engine owner shall obtain a Permit to Operate for the engine.

8. Tanks shall comply with Rule 71.1, "Crude Oil Production and Separation". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 71.1.B.1.a, tanks not listed above as being exempt from vapor recovery shall be equipped with a properly installed, maintained, and operated vapor recovery system. The vapor disposal portion of the vapor recovery system shall consist of a system that directs all vapors to a fuel gas system, a sales gas system, or to a permitted flare or a flare rated at less than 1.00 MMBTU per hour that combusts reactive organic compounds.
 - b) Pursuant to Rule 71.1.D.2, for tanks not listed above as being exempt from vapor recovery, the vapor recovery requirements of Rule 71.1.B.1.a shall not apply during maintenance operation on vapor recovery systems or tank batteries if the District Enforcement Section is notified verbally at least 24 hours prior to the maintenance operation, and if the maintenance operation will take no more than 24 hours to complete.
 - c) A tank's hatches and other inlet and outlet piping connections are components subject to the leak requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities".
9. Any portable tanks used at the facility shall comply with Rule 71.1, "Crude Oil Production and Separation". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 71.1.B.3, portable tanks used to store or hold crude oil shall be equipped with both a closed cover that is impermeable to ROC vapors and a pressure-vacuum valve set by the manufacturer or according to the manufacturer's recommendations. A portable tank shall be defined as a tank that can be moved from one location to another by attachment to a motor vehicle without having to be dismantled.
 - b) Pursuant to Rule 71.1.D.1.c, the vapor recovery requirements of Rule 71.1.B.1 shall not apply to portable tanks if the portable tank: is not used to increase the storage capacity of an existing tank battery, is not located within 150 feet of a tank battery that is required to have vapor recovery, and is being used during maintenance activity at a tank battery or well and has not held or stored crude oil for more than 60 days.
 - c) A portable tank's hatches and other inlet and outlet piping

connections are components subject to the leak requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities".

10. Permittee shall comply with all provisions of Rule 74.10, "Components at Crude Oil Production and Natural Gas Production and Processing Facilities". Permittee shall submit an Operator Management Plan to the District Compliance Division for approval and shall submit revisions to the plan as necessary. Permittee shall continue to implement the leak inspection and repair requirements of the Operator Management Plan.
11. The permittee shall comply with all applicable requirements of 40 CFR, Part 60, Subpart OOOO, "Standards of Performance (NSPS) for Crude Oil and Natural Gas Production, Transmission, and Distribution."
12. No produced fluids or ROC containing material, except those that might normally be present in storm water runoff shall be stored in the 1,000 bbl storm water tank (T-4645) at the Hamp Lease. The tank shall be emptied within a week of the end of a storm. Any request to the use the tank for purposes other than storm water storage shall be subject to District Rule 26, "New Source Review". This condition is applied as BACT.
13. The oil loading facilities at the Ojai Fee Lease, Silverthread Area, and Hamp Lease are for emergency purposes only and shall only be used at times that an oil pipeline is not available for use. The Hamp Lease emergency loading rack may be used for facility maintenance as noted below. These emergency loading racks are required to comply with the notification and vapor recovery requirements stated below. This condition is applied as BACT.

At least twenty-four (24) hours prior to commencing use of either of the crude oil loading facilities, the permittee shall notify the APCD Compliance Division in writing of such fact. The written notice shall include the reason requiring the use of the loading facility and the expected duration of the facility's use. Upon terminating use of the crude oil loading facility, permittee shall notify the APCD Compliance Division of such fact and the quantity of crude oil shipped by truck during the emergency period.

Vapor recovery shall be used at all times that the crude oil loading facility is in use. Loading of transport trucks shall be accomplished by bottom fill and all dome hatches on the transport truck being loaded shall be kept closed at all times during crude oil loading.

The permittee is authorized to transfer 20,000 bbl of oil per year through the Hamp Lease emergency loading rack for use within the lease for well and facility maintenance, provided that such use does not result in an increase in tank throughputs. The permittee shall keep records of the dates, the amount of oil transferred

through the loading rack for the purpose of well and facility maintenance, and a description of the maintenance activity.

Oil loading racks at following leases are not limited to the emergency use only requirements: Harth, Hamp Fee, Agnew, ADP Federal, Nesbitt, and MP Lane Federal. All oil shall leave any lease by pipeline if the lease does not have a permitted loading rack.

14. The crude oil loading facilities shall comply with Rule 71.3, "Transfer of Reactive Organic Compound Liquids". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 71.3.B.2.a, no person shall transfer ROC liquids into any ROC delivery vessel without utilizing a bottom-loaded vapor recovery system that prevents the displaced vapors during loading from being released into the atmosphere. The vapor recovery system shall be capable of collecting all ROC vapors, and shall have a vapor return or condensation system that connects to a gas pipeline recovery and distribution system or to a vapor disposal system with a control efficiency of at least 90 percent by weight.
 - b) Pursuant to Rule 71.3.B.2.b.2, no person shall transfer ROC liquids into any ROC delivery vessel without utilizing a combination of overfill devices and/or procedures, submitted in writing to the APCD, that is at least as effective in preventing overfill spillage as the system in Rule 71.3.B.2.b.1. The permittee has submitted an alternative primary and secondary overfill protection system and shall comply with Rule 71.3.B.2.b.2 as discussed below.
 - c) Pursuant to Rule 71.3.B.2.c, no person shall transfer ROC liquids into any ROC liquid delivery vessel without utilizing either a block and bleed valve system or other connectors with equivalent spill prevention characteristics.
 - d) Pursuant to Rule 71.3.D.1, permittee shall annually monitor one complete loading operation for leaks and for proper operation of the loading equipment and delivery vessel vapor recovery and overfill protection systems. Permittee shall maintain records of the loading inspection as required by Rule 71.3.F.1. These records shall be maintained at the facility for the previous two years and made available to APCD personnel upon request.
15. The crude oil loading facilities shall comply with Rule 71.3, "Transfer of Reactive Organic Compound Liquids". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 71.3.B.1, no person shall transfer crude oil into any crude oil delivery vessel without either using a submerged fill pipe or bottom loading.

16. In order to comply with the primary and secondary overflow protection system requirements of Rule 71.3, "Transfer of Reactive Organic Compound Liquids", permittee has submitted an alternative system and shall comply with Rule 71.3.B.2.b.2 by utilizing only delivery vessels equipped with a resettable turbine meter and the following procedure:
 - a) Determine the gravity of the oil.
 - b) Calculate the weight of the oil per barrel (use API Table 8).
 - c) Calculate the maximum net weight of the cargo, in barrels, that can legally be transported. This weight shall not exceed the capacity or weight limitation of any liquid delivery vessel.
 - d) Continuously observe the turbine meter in order to cease transfer at the calculated number of barrels.
 - e) Time each loading operation to determine an average time to fill a delivery vessel to legal weight. Utilize this time limit in conjunction with the turbine meter to prevent overflow.
17. Any sump or pit not listed above as exempt from a cover shall comply with Rule 71.4, "Petroleum Sumps, Pits, Ponds, and Well Cellars". This includes, but is not limited to, the following requirements:
 - a) Pursuant to Rule 71.4.B.2, no person shall use a second or third stage sump, pit, or pond unless it is equipped with a properly installed and maintained cover which does not leak, which is impermeable to ROC vapors, and which covers at least 90 percent of the liquid surface area of the sump, pit, or pond. All covers shall be closed at all times except during sampling or attended maintenance operations.
 - b) Pursuant to Rule 71.4.C.2, the cover requirements of Rule 71.4.B.2 shall not apply during maintenance operation on sumps or pits if the Air Pollution Control District is notified verbally at least 24 hours prior to the maintenance operation, and if the maintenance operation will take no more than 24 hours to complete.
 - c) The cover's sealing mechanism and other inlet and outlet piping connections are components subject to the leak requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities".
18. The 240 sqft-surface area sump located at the Silverthread Area is exempt from Rule 71.4 based on the ROC content of the liquid entering the sump to be less than 5 milligrams per liter. Pursuant to Rule 71.4.C.1.c, the ROC content of the liquid entering the sump shall not exceed 5 ml/l. The District may require an ROC content analysis of the liquid entering the sump pursuant to Rule 71.4.F.

19. The combustion units on permit shall be fired on gaseous fuel only.
20. Permittee shall comply with all provisions of Rule 71.5, "Glycol Dehydrators". This includes, but is not limited to, the following requirements:
 - a) The gas dehydration system's regenerator vents shall be controlled to reduce the emissions of ROC (Reactive Organic Compounds). Permittee has chosen to direct all glycol vent emissions into the gas gathering systems as required by Rule 74.5.B.1.a.1 for the Ojai Fee Tank Farm No. 1, Silverthread Area, and Hamp Lease glycol dehydrators. Upon entry into the tank vapor recovery system, the glycol vent emissions are subject to Rule 71.1, "Crude Oil Production and Separation".
 - b) The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation ROC into the atmosphere as required by Rule 71.5.B.2.
 - c) The glycol unit's emission control system shall be maintained in a leak-free condition as required by Rule 71.5.B.3.
 - d) Maintain a current file of glycol dehydrator information as required by Rule 71.5.D.1.
21. Permittee shall comply with all provisions of Rule 71.5, "Glycol Dehydrators". This includes, but is not limited to, the following requirements:
 - a) The gas dehydration system's regenerator vents shall be controlled to reduce the emissions of ROC (Reactive Organic Compounds). Pursuant to Rule 71.5.B.1.a.2, permittee has chosen to direct all glycol vent emissions into the reboiler burner of the Ojai Fee Tank Farm No. 2 glycol dehydrator which meets the requirements of Rule 71.5.B.1.b.
 - b) The condensed hydrocarbon liquid stream from the glycol dehydration vent shall be stored and handled in a manner that will not cause or allow evaporation ROC into the atmosphere as required by Rule 71.5.B.2.
 - c) The glycol unit's emission control system shall be maintained in a leak-free condition as required by Rule 71.5.B.3.
 - d) Maintain a current file of glycol dehydrator information as required by Rule 71.5.D.1.
22. Pursuant to Rule 71.5.B.1.b, the glycol reboiler that controls the ROC emissions from the glycol dehydrator shall have all of the following features, as a minimum:

- a) Operate continually in a smokeless mode.
 - b) Electronic controlled ignition system with a malfunction alarm system if the pilot flame fails.
 - c) Liquid knock out system to condense any condensable vapors.
 - d) Sight glass ports, if the flame is not visible.
23. Permittee shall maintain the following information for the glycol dehydrator: facility name, APCD Permit to Operate number, location, size of glycol dehydrator reboiler (MMBTU/Hr), amount of gas dehydrated (MMSCFD) and type of glycol used, description of ROC control system, flow diagram of dehydrator and ROC control system, and maintenance records of the ROC control system. These records shall be maintained at the facility for the previous two years and made available to APCD personnel upon request.
24. The Glycol Dehydrator(s) at this facility is exempt from the federal NESHAP requirements of 40 CFR Part 63, Subpart HH, "National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities". This NESHAP exempts a facility that exclusively processes, stores, or transfers "black oil" which is defined as hydrocarbon (petroleum) liquid with an initial producing gas-to-oil ratio (GOR) less than 0.31 cubic meters per liter and an API gravity of less than 40 degrees. This GOR is approximately equal to 1740 standard cubic feet per barrel.
25. The 225 BHP Ingersoll Rand JVG-8 Rich Burn Engine Emission Limitations:
- a) Oxides of nitrogen (NOx expressed as NO2) emissions shall not exceed 25 ppmvd referenced at 15% oxygen on a dry basis. Alternatively, a minimum NOx reduction of 96% by weight shall be maintained, as measured concurrently across an emission control device. This limitation is applied for Rule 74.9.B.1 and Rule 74.9.B.2 compliance.
 - b) Reactive organic compound (ROC) emissions shall not exceed 250 ppmvd referenced at 15% oxygen on a dry basis, expressed as methane. This limitation is applied for Rule 74.9.B.1 compliance.
 - c) Carbon monoxide (CO) emissions shall not exceed 4,500 ppmvd referenced at 15% oxygen on a dry basis. This limitation is applied for Rule 74.9.B.1 compliance.

In order to comply with this condition, the permittee shall have each engine's emissions tested no less than once every 24 months. Testing shall be performed by an independent testing contractor at the engine's expected maximum operating load in accordance with Rule 74.9.G, which includes California ARB Method 100 for oxides of nitrogen, carbon monoxide, and stack gas oxygen and EPA Method 18

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or 25 for reactive organic compounds.

26. Pursuant to Rule 74.9.C, the permittee shall maintain a District approved Engine Operator Inspection Plan. The plan shall include a specific emission inspection procedure to assure that an engine is operated in continual compliance with the provisions of Rule 74.9. At a minimum, inspections shall be conducted quarterly unless the engine operated less than 32 hours in each of the three months of the applicable quarter, as measured by a non-resettable elapsed operating hour meter.

Pursuant to Rule 74.9.B.5, a screening analysis of NOx and CO emissions shall be performed quarterly unless the biennial source test specified in Subsection B.4 is required, or the engine operated less than 32 hours in each of the three months of the applicable quarter, as measured by a non-resettable elapsed operating hour meter. The screening analyses shall be performed using a portable analyzer either verified by the Environmental Protection Agency or approved in writing by the APCO. The portable analyzer shall be calibrated, maintained and operated in accordance with the recommendations of the manufacturer.

27. Pursuant to Rule 74.9.E, Recordkeeping Requirements, the permittee shall maintain an inspection log for each engine containing, at a minimum, the following data:
- a) Identification and location of each engine subject to Rule 74.9.
 - b) Date and results of each screening analysis and inspection and a summary of any emissions corrective maintenance action taken.
 - c) Any additional information required by the Engine Operator Inspection Plan.
 - d) For each engine exempt from quarterly screening analysis pursuant to Subsection B.5.b of Rule 74.9 and inspection pursuant to subsection C.4, total hours of operation shall be recorded monthly. Records shall be maintained for a period of 2 years after the date of each entry.

The permittee shall maintain the inspection log for a period of 2 years after the date of each entry. The log shall be made available for inspection by the District upon request.

28. Pursuant to Rule 74.9.F, Reporting Requirements, within 45 days of the end date of each permit renewal period, the operator of a permitted engine subject to the provisions of the rule shall provide the District with the following information:
- a) Engine manufacturer, model number, operator identification number and location of each engine.

- b) A summary of maintenance reports during the renewal period, including quarterly screening data if applicable.

For each engine exempt pursuant to Subsection D.2, total annual operating hours shall be reported annually. For each engine exempt pursuant to subsection D.3, total annual hours of maintenance operation shall be reported annually. Reports shall be provided to the District after every calendar year by February 15.

- 29. On and after October 19, 2013, the 225 BHP IR JVG-8 Rich Burn Engine shall comply with 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHP). This includes, but is not limited to, the following requirements for non-emergency 4 stroke rich burn spark ignited engines rated at less than or equal to 500 BHP that commenced construction before June 12, 2006:

Pursuant to 40 CFR Part 63.6603, Table 2d, the permittee shall meet the following requirements:

- a) Change oil and filter every 1,440 hours of operation, or annually, whichever comes first. Permittee shall have the option to utilize an oil analysis program as described in 40 CFR Part 63.6625(i) in order to extend the specified oil change requirement; and
- b) Inspect spark plugs every 1,440 hours of operation, or annually, whichever comes first, and replace as necessary; and
- c) Inspect all hoses and belts every 1,440 hours of operation, or annually, whichever comes first, and replace as necessary.

During periods of startup, the permittee shall minimize the RICE time spent at idle and minimize the RICE startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. The permittee shall operate and maintain the RICE and after-treatment control device (if any) according to the manufacturer's emission related instructions, or the permittee's own operation and maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

The permittee shall keep the records of RICE maintenance (oil, spark plugs, hoses and belts) required by the RICE operation and maintenance plan. The hours of operation records and maintenance records shall be maintained for 5 years following the date of each occurrence and shall be made available to the APCD upon request.

- 30. There are four emergency flares on permit (45 MMBTU/hr at Ojai Fee, 40 MMBTU/hr at Silverthread, 40 MMBTU/hr at Hamp, and 11.7 MMBTU/hr at Hamp Fee). These four emergency flares shall be operated in compliance with the following conditions:

- a) Each emergency flare shall be equipped with a totalizing fuel meter. The meter shall be accurate to plus or minus five (5) percent as certified by the manufacturer in writing.
 - b) Each emergency flare shall be equipped with a continuous pilot or a functional, operating pilotless electronic ignition system when operating as a portion of the vapor recovery system or when controlling produced gas as required by Rule 71.1.
 - c) The permittee shall test each emergency flare's ignition system monthly and shall maintain a monthly record of the flare's ignition system tests and maintenance activities, including the tests date and the operator's initials.
 - d) The sulfur content of the gas entering each emergency flare shall not exceed 20 ppmvd, calculated as hydrogen sulfide (H₂S) at standard conditions. Any flare gas H₂S pre-treatment system shall be operated whenever the flare is operated as necessary to comply with the 20 ppmvd limit. This condition is applied pursuant to Rule 54.
 - e) Annual testing for sulfur compounds in the flare gas shall be conducted using H₂S detector tubes, SCAQMD Method 307-91, or EPA Method 16, as applicable. This condition is applied pursuant to Rule 54.
 - f) The permittee shall maintain monthly and rolling twelve month records of the volume (MMCF or MCF) of gas combusted in the Ojai Fee, Silverthread, and Hamp Lease emergency flares. Monthly and twelve month rolling records shall be maintained for total flare usage and for planned flaring events (non-emergency use). Emergency use and planned flaring are defined above. The permittee shall maintain records which differentiate between emergency usage and planned flaring events. These records shall be maintained at the facility for the previous two years and be made available to APCD personnel upon request.
31. Any combustion unit designated as "Out of Service" (OOS) is shut down, shall not be operated, and shall not be connected to a fuel source. Any tank designated as "Out of Service" (OOS) is shut down, shall not be operated, and shall not contain any liquids. Demonstrations of specific rule compliance are not required for OOS emissions units.

At the request of the permittee, the annual fuel limit for the "Out of Service" combustion units has been reduced to zero (0.0) cubic feet of natural gas. Permit conditions for the "Out of Service" emissions units have been removed from the permit. Prior to Operating these emissions units the permittee shall submit an application to modify the permit and provide emission offsets, as necessary.

32. All oil well casings, produced gas, and vapor recovery gas from the

Hamp Lease shall be compressed using gas compressors powered by grid electricity purchased from the local utility. Internal combustion engines, including both engines under 50 BHP and greater than or equal to 50 BHP, shall not be used to power gas compressors at the Hamp Lease. This condition has been applied pursuant to Application No. 0004-311 and Rule 26.4, "New Source Review - Emission Banking" to enforce Emission Reduction Credit Certificate No. 1218.

33. Southern California Edison received Emission Reduction Credit Certificate No. 1094 for the conversion of I.C. engines to electric motors on the following wells:

Ojai Fee Nos. 45, 46, 47, 51, 52, 54, 57, 58, 62, 70, 71, 78, 79, 81, 82, 83, 84, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 98, 100, 101, 105, 106, 107, 109, 114, 116, 118, 120, 123, and 125

These wells shall be free flowing, on gas lift, or equipped with electric motor powered artificial lift equipment. This condition is applied pursuant to Application No. 00004-141.

34. Pursuant to Rule 74.6.B.1, wipe cleaning shall be performed using solvent that contains 25 grams per liter or less ROC as applied.
35. Permittee shall maintain records of monthly oil throughput at the crude oil storage tank(s). These records shall be maintained at the facility for the previous two years and made available to APCD personnel upon request.
36. Permittee shall maintain records of monthly oil throughput at the crude oil loading facility(s). These records shall be maintained at the facility for the previous two years and made available to APCD personnel upon request.
37. Permittee shall comply with all applicable requirements of the California ARB "Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities" (CARB Oil and Gas Regulation).

The vapor recovery and produced gas requirements of Rule 71.1 are more stringent than this CARB Oil and Gas Regulation and remain in effect. Many components, including components found on tanks, separators, wells, and pressure vessels that are subject to the leak detection and repair requirements of Rule 74.10 are exempt from the leak detection and repair requirements of this CARB Oil and Gas Regulation.

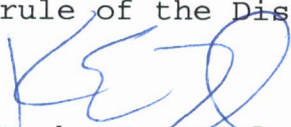
Pursuant to Section 95674(b)(2) of the CARB Oil and Gas Regulation, permittee shall register the subject equipment at each facility with CARB as specified in Appendix A Table A6. Updates to the facility registration must be filed with CARB no later than January 1 of the calendar year after the year in which any information required by the CARB Oil and Gas Regulation has changed.

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Within 30 days after receipt of this permit, the permittee may petition the Hearing Board to review any new or modified condition (Rule 22).

This permit, or a copy, shall be posted reasonably close to the subject equipment and shall be accessible to inspection personnel (Rule 19). This permit is not transferable from one location to another unless the equipment is specifically listed as being portable (Rule 20).

This Permit to Operate shall not be construed to allow any emission unit to operate in violation of any state or federal emission standard or any rule of the District.


Kerby E. Zozula, Manager
Engineering Division

For:
Michael Villegas
Air Pollution Control Officer

