



OCT 17 2016

Ms. Melinda Hicks
Kern Oil & Refining
7724 East Panama Lane
Bakersfield, CA 93307

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-37
Project # S-1161823**

Dear Ms. Hicks:


Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to install two new organic liquid storage tanks.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Tung Le, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Organic Liquid Storage tanks connected to vapor control

Facility Name: Kern Oil & Refining
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Application #(s): S-37-8-34, '-153-0, '-154-0
Project #: S-1161823
Deemed Complete: June 3, 2016

Date: September 7, 2016
Engineer: Dan Klevann
Lead Engineer: Rich Karrs

I. Proposal

Kern Oil & Refining (Kern) has requested an Authority to Construct (ATC) permit for the installation of two fixed roof 16,000 bbl organic liquid storage tanks. The tanks were originally installed at the Sunland refinery between 1978 and 1984. Therefore, these tanks are subject to NSPS Ka. For District purposes these tanks are new tanks and will be connected to an existing vapor control system listed on permit S-37-8. The draft ATCs are included in Appendix A.

Disposition of Outstanding ATCs

PTO S-37-8-31 serves as the base document (Appendix B). ATC S-37-8-32 will be implemented after this ATC.

Kern received their Title V Permit on 1/31/2003. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Kern must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)

Subpart Ka (Amended 12/14/00) - Standards of Performance for Storage Vessels for Petroleum Liquids

Subpart Kb (Amended 4/14/99) - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) - N/A tanks built before 1984.

Subpart OOOO (Adopted 8/16/2012) - Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution. – N/A tanks have less than 6 tons VOC/yr emissions

Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)

Rule 4101 Visible Emissions (2/17/05)

Rule 4102 Nuisance (12/17/92)

Rule 4623 Storage of Organic Liquids (05/19/05)

CH&SC 41700 Health Risk Assessment

CH&SC 42301.6 School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 7724 E Panama Lane in Bakersfield, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Kern Oil & Refining Co operates a petroleum refining operation engaged in the production of gasoline and various petroleum distillates, including diesel fuel. Kern Oil & Refining Co is proposing to install two new 16,000 bbl fixed roof tanks connected to a shared vapor control system as listed on permit S-37-8.

V. Equipment Listing

New Equipment:

S-37-153-0: 16,000 BBL FIXED ROOF ORGANIC LIQUID STORAGE TANK (16005)
SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-37-8

S-37-154-0: 16,000 BBL FIXED ROOF ORGANIC LIQUID STORAGE TANK (16006)
SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-37-8

Existing Equipment:

Pre-Project Equipment Description:

S-37-8-31: ORGANIC LIQUID LOADING AREAS AND REFINERY VAPOR RECOVERY SYSTEM SERVING TANK S-37-150 AND INCLUDING COMPRESSOR(S), LOADING RACKS WITH 10 PRODUCT LINES AND 9 VAPOR RETURN LINES

Proposed Modification:

Add two new organic liquid storage tanks to the facility and connect them to the existing vapor recovery system.

S-37-8-34: MODIFICATION OF ORGANIC LIQUID LOADING AREAS AND REFINERY VAPOR RECOVERY SYSTEM SERVING TANK S-37-150 AND INCLUDING COMPRESSOR(S), LOADING RACKS WITH 10 PRODUCT LINES AND 9 VAPOR RETURN LINES: CONNECT TANKS S-37-153 AND -154 TO VAPOR RECOVERY SYSTEM

Post Project Equipment Description:

S-37-8-34: ORGANIC LIQUID LOADING AREAS AND REFINERY VAPOR RECOVERY SYSTEM SERVING TANK S-37-150, S-37-153, S-37-154 AND INCLUDING COMPRESSOR(S), LOADING RACKS WITH 10 PRODUCT LINES AND 9 VAPOR RETURN LINES

VI. Emission Control Technology Evaluation

The only pollutant of concern from the loading rack and fixed roof tanks are VOC. Kern Oil & Refining Co. proposes to connect the fixed roof tanks to the existing vapor control system listed with the loading rack on permit S-37-8 which has an efficiency of at least 99%. Fugitive emissions are the only source of emissions from the vapor collection system and no modifications are proposed to the current system. Emissions from the vapor collection system will be established by the number and type of fugitive components. The authorized number and type of components listed on permit S-37-8 will not be modified in this project.

VII. General Calculations

The addition of tanks connected to the loading rack listed on permit S-37-8 is not a change in the method of operation; and not an NSR modification of the vapor control system since the emission limits at vapor disposal device do not have to be increased. Therefore, it does not meet the criteria for a Rule 2201 Modification, as defined in Section 3.25, and is not subject to the requirements of Rule 2201. Therefore, formal calculations for Rule 2201 are not necessary for permit S-37-8.

A. Assumptions

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- Only fugitive VOCs emitted from components in gas service are calculated.
- Fugitive emissions from heavy oil liquid service components are negligible.

B. Emission Factors

Fugitive VOC emissions from piping/vapor components of the new tanks are estimated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (1995) EPA Correlations Equations for Refineries and Marketing Terminals.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

For the two 16,000 bbl fixed roof tanks, they are new emissions units therefore, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

Post-project potential to emit for each new fixed roof tank is calculated based on the fugitive component counts (see Appendix F). The following table summarizes the post-project potential to emit for units included in this project.

Post Project Potential to Emit (PE2)		
	Daily VOC Emissions (lb/day)	Annual VOC Emissions (lb/year)
S-37-153-0	2.9	1037
S-37-154-0	2.9	1037

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	81	152	47	461	20	20
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	N	Y	N	Y	N	N

As shown above, the facility is an existing PSD major source for at least one pollutant.

6. Baseline Emissions (BE)

The two new tanks do not have baseline emissions therefore BE = 0.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for (VOC), the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	2,074	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

Step 1

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
NO _x *	0	0	No
VOC*	2,074	0	Yes
PM ₁₀	0	30,000	No
PM _{2.5}	0	20,000	No
SO _x	0	80,000	No

*If there is any emission increases in NO_x or VOC, this project is a Federal Major Modification and no further analysis is required.

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below.

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

VOC		Federal Offset Ratio		1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)	
S-37-153	0	1,037	1,037	
S-37-154	0	1,037	1,037	
Net Emission Change (lb/year):			2,074	
Federal Offset Quantity: (NEC * 1.5)			3,111	

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. This project is only increasing VOC emissions. There are no PSD requirements for VOC. Therefore, PSD is not applicable for this project and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix I.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install 2 new organic liquid storage tanks each with a PE greater than 2 lb/day for VOC only. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

There are no existing permits being modified. Therefore BACT is not triggered for modification of emission units.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

BACT Guideline 7.3.2, applies to the fixed roof organic liquid storage tank + or > 5,000 bbl capacity. (See **Appendix C**)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Appendix D**), BACT has been satisfied with the following:

VOC: 99% control (Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program, or equal)

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	N/A	N/A	N/A	N/A	>20,000
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for VOC and the SSPE2 is greater than the offset thresholds. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = HAE

The new tanks are the only units with increases in emissions. Therefore offsets can be determined for each tank as follows:

Offsets Required (lb/year) = $([PE2 - BE] + ICCE) \times DOR$

PE2 (VOC) = 1,037 lb/year
BE (VOC) = 0 lb/year

Offsets Required (lb/year) = $([1,037 - 0] + 0) \times 1.5$
= 1,556 lb VOC/year

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly offsets required (lb/qtr) = $(1,556 \text{ lb VOC/year}) \div (4 \text{ quarters/year})$
= 389 lb/qtr for each tank.

Proposed Rule 2201 (offset) Conditions:

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 389 lb, 2nd quarter - 389 lb, 3rd quarter - 389 lb, and fourth quarter - 389 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16) for the ERCs specified below. [District Rule 2201]
- {GC# 1983} ERC Certificate Number S-3693-1, S-4394-1, S-4649-1, and S-4662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project is an SB 288 or Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
VOC	>20,000	>20,000	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	19,966	0	2,074	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for federal major modification purposes. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT. No change in Rule 2201 conditions are proposed for permit S-37-8.

Proposed Rule 2201 (DEL) Conditions (S-37-153-0, '-154-0:

- VOC fugitive emissions from the components in gas service on this tank and on piping from this tank to the control system listed on Permit to Operate S-37-8 shall not exceed 2.9 lb/day. [District Rule 2201]
- Except as otherwise provided in this permit, the operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

- Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
- Permittee shall maintain with the permit accurate fugitive component counts for components on this tank and on piping from this tank to the vapor control system listed on S-37-8 and resulting emissions calculated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (1995) Protocol Refinery Correlation Equations for Refineries and Marketing Terminals. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. However, there is no standard for VOC. As this project is a VOC only project, an AAQA is not required.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this project does constitute a Title I modification, therefore this requirement is applicable. Kern Oil's compliance certification is included in Appendix F.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to authorize two new tanks. Since the project is at the current facility location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation

and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

The project is Federal Major Modification and therefore is also a Title V Significant Modification. As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Included in **Appendix F** is Kern Oil's Title V Compliance Certification form. Continued compliance with this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates the New Source Performance Standards from 40 CFR Part 60. 40 CFR Part 60, Subparts, K, Ka, Kb, and OOOO and could potentially apply to the storage tanks located at this facility.

40 CFR Part 60, Subpart Ka

40 CFR Part 60, Subpart Ka applies to Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and before July 23, 1984. This subpart applies to the two tanks being installed as they originally were installed at the Sunland refinery between 1978 and 1984.

40 CFR 60.112a

(a)(3) This section requires that the tank be equipped with a closed vent system and control device to collect all VOC vapors and gases discharged from the storage vessel. The control device shall be designed and operated to reduce inlet VOC emissions by 95% or greater. If a flare is used as the control device, it shall meet the specifications described in 60.18 of the CFR.

The following conditions will ensure compliance with section 40 CFR 60.112a:

- The tank shall be connected to a vapor recovery system. Vapor recovery system shall be designed and operated to reduce VOC emissions by 95 percent or greater. Flares used as control devices shall meet specifications described in subpart 60.18. [District Rule 4623, and 40 CFR 60.112a(a)(3)]

40 CFR 60.113a

The owner or operator of each storage vessel as specified in §60.112a(a) shall meet the requirements of paragraph (1), or (2) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112a.

This equipment complies with paragraph (2) of 112a therefore the following is applicable:

(2) The owner or operator of each storage vessel which has a vapor recovery and return or disposal system shall provide the following information to the Administrator on or before the date of construction of the storage vessels.

(i) Emission data, if available, for a similar vapor recovery and return or disposal system used on the same type of storage vessel, which can be used to determine the efficiency of the system. A complete description of the emission measurement method used must be included.

(ii) The manufacturer's design specifications and estimated emission reduction capability of the system.

(iii) The operation and maintenance plan for the system.

(iv) Any other information which will be useful to the Administrator in evaluating the effectiveness of the system in reducing VOC emissions.

The following conditions will ensure compliance with 40 CFR 60.113a:

- Permittee shall submit for approval by the Administrator as an attachment to the notification required in 40 CFR 60.7(a)(1). Permittee shall also operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted per 40 CFR 60.113a(a)(2). [40 CFR 60.113a]

40 CFR 60.114a

This section addresses alternative emission limits that are not required on this equipment; therefore this section is not applicable.

40 CFR 60.115a

The facility is exempt from monitoring per §60.115a(d)(2).

40 CFR Part 60, Subpart OOOO

40 CFR Part 60, Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (constructed, reconstructed, or modified after 8/23/11) applies to single storage vessel, located in the oil and natural gas

production segment, natural gas processing segment or natural gas transmission and storage segment. The subject tanks are subject to this subpart. However, Subpart OOOO has no standards for tanks with annual VOC emissions less than 6 tons per year. Therefore, the subject tanks are not an affected facility and subpart OOOO does not apply.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to the new tanks.

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere which is as dark as or darker than 20% opacity for more than 3 minutes in any one hour.

The tanks only have VOC emissions and compliance with the visible emissions limits is expected under normal operating conditions.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project (**Appendix E**), the total facility prioritization score including this project was less than or equal to one. Therefore, no future analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-

BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 20 in a million). As outlined by the HRA Summary in Appendix E of this report, the emissions increases for this project was determined to be less than significant.

Rule 4623 Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Per section 2.0, this rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held or stored.

Section 5.1, Requirements: VOC Control System Requirements

District Rule 4623 Section 5.1 requires that, except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

District Rule 4623 Section 5.1.1 identifies VOC control systems required for organic liquids storage tanks.

Tank Design Capacity (TDC) (gallon)	True Vapor Pressure (TVP) of Organic Liquid		
	0.5 < TVP (psia) < 1.5	1.5 < TVP (psia) < 11	11 < TVP (psia)
1,100 ≤ TDC ≤ 19,800	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
19,800 < TDC ≤ 39,600	Pressure Vacuum Relief Valve, Or Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System

39,600 < TDC	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Internal Floating Roof, Or External Floating Roof, Or Vapor Recovery System	Pressure Vessel, Or Vapor Recovery System
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The applicant is proposing to operate each of these organic liquid storage tanks connected to a vapor recovery system. Therefore, each new tank meets the VOC control system requirements of this section.

Section 5.6, Requirements: Vapor recovery systems

Fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. An APCO-approved vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition.

The VOC control device shall be one of the following:

- A condensation or vapor return system that connects to one of the following: a gas processing plant, a field gas pipeline, a pipeline distributing Public Utility Commission quality gas for sale, an injection well for disposal of vapors as approved by the California Department of Conservation, Division of Oil Gas, and Geothermal Resources, or
- A VOC control device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.6.

Additionally any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.

The following conditions will ensure compliance with this section of the rule:

- A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]
- Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]

Section 5.7, Requirements: Voluntary Tank Preventive Inspection and Maintenance/ Tank Cleaning Program

The facility has requested the new tanks be included in the voluntary tank preventive inspection and maintenance and tank cleaning program. The following conditions will be placed on the permits to ensure compliance with the programs.

Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3]

Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3]

Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3]

Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3]

Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3]

If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3]

Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3]

Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623 or 2080]

This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 4623 or 2080]

During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623 or 2080]

To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623 or 2080]

This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623]

After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623 or 2080]

While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623 or 2080]

Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623 or 2080]

During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623]

Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623]

Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rules 2020 and 4623]

Section 6.3 requires that all records be retained for a period of five years. The following condition will be listed on the permits to ensure compliance:

- Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 1070 and 4623]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

District is a Lead Agency & Facility is Subject to Cap-and-Trade

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying project complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

Industries covered by Cap-and-Trade are identified in the regulation under section 95811, Covered Entities:

1. Group 1: Large industrial facilities

These types of facilities are subject to Cap and Trade, and the specific companies covered are listed at <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>, Section 95811 (a), under the "Publically Available Market Information" section (list maintained by the California Air Resources Board).

2. Group 2: Electricity generation facilities located in California, or electricity importers

These types of facilities are subject to Cap and Trade (section 95811, b).

3. Group 3: Suppliers of Natural Gas, Suppliers of Reformulated Gasoline Blendstock for Oxygenate Blending and Distillate Fuel Oil, Suppliers of Liquefied Petroleum Gas, and Suppliers of Blended Fuels

These entities are subject to Cap and Trade compliance obligations which must cover all fuels (except jet fuels) identified in section 95811 (c) through (f) of the Cap-and-Trade regulation delivered to end users in California, less the fuel delivered to covered entities (group 1 above).

This facility is subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-37-8-34, S-37-153-0, an S-37-154-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-37-8-34	3020-01-F	415 hp	\$637.00
S-37-153-0	3020-05-F	672,000 Gallons	\$316.00
S-37-154-0	3020-05-F	672,000 Gallons	\$316.00

Appendixes

- A: Draft ATC
- B: Current PTO(s)
- C: BACT Guideline
- D: BACT Analysis
- E: HRA Summary
- F: Compliance Certification
- G: Quarterly Net Emissions Change
- H: Fugitive Emissions Component Counts

APPENDIX A
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-37-8-34

LEGAL OWNER OR OPERATOR: KERN OIL & REFINING CO.
MAILING ADDRESS: 7724 E PANAMA LANE
BAKERSFIELD, CA 93307-9210

LOCATION: PANAMA LN & WEEDPATCH HWY
BAKERSFIELD, CA 93307-9210

SECTION: 25 TOWNSHIP: 30S RANGE: 28E

EQUIPMENT DESCRIPTION:

MODIFICATION OF ORGANIC LIQUID LOADING AREAS AND REFINERY VAPOR RECOVERY SYSTEM SERVING TANK S-37-150 AND INCLUDING COMPRESSOR(S), LOADING RACKS WITH 10 PRODUCT LINES AND 9 VAPOR RETURN LINES: CONNECT TANKS S-37-153 AND -154 TO VAPOR RECOVERY SYSTEM

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Transfer Racks N and F may be used for loading and unloading. Transfer Racks A, K, and L shall be used only for loading. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All liquids and gases from the transfer operation shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rules 4623 and 4624] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

S-37-8-34 Sep 7 2016 9:42AM - KLEVANNID : Joint Inspection NOT Required

5. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit
6. For the transfer of gasoline only, transfer to any stationary storage container with 250 gallon capacity or more, that is not subject to Rule 4623, shall not be allowed unless the container is equipped with a permanent submerged fill pipe and an ARB certified Phase I vapor recovery system, which is maintained and operated according to the manufacturer's specifications, or a vapor recovery system with 95% control approved by the District. [District Rule 4621] Federally Enforceable Through Title V Permit
7. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP 1.5 psia or greater at the storage container's maximum organic liquid storage temperature shall be filled only at Class 1 or Class 2 loading facilities that meet the vapor collection and control requirements of District Rule 4624 or listed herein. [District Rule 4624] Federally Enforceable Through Title V Permit
8. Construction, reconstruction (as defined in District Rule 4001) or expansion of any top loading facility shall not be allowed. [District Rule 4624] Federally Enforceable Through Title V Permit
9. The organic liquid and gasoline loading operation shall be equipped with bottom loading equipment with a vapor collection and control system meeting the requirements listed in this permit. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
10. Transfer rack and vapor collection and control equipment shall be designed, installed, maintained in accordance with the manufacturers specifications, and operated such that there are no leaks or excess organic liquid drainage at disconnections as defined herein. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
11. During unloading of gasoline, a leak shall be defined as the dripping of VOC-containing liquid at a rate of more than three drops per minute or a reading greater than 100 percent of the Lower Explosive Limit (21,000 ppmv as propane) in accordance with EPA Method 21. [District Rule 4621] Federally Enforceable Through Title V Permit
12. For components used in the gasoline loading operation, a leak shall be defined as the dripping of VOC-containing liquid at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 milliliters per average of 3 consecutive disconnects. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
13. For delivery vessels and components used in the organic liquid transfer operation, a leak shall be defined as the detection of organic compounds, in excess of 1,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
14. Equipment under vapor control shall not vent to atmosphere. [District Rules 4621 and 4624.] Federally Enforceable Through Title V Permit
15. The vapor collection and control system shall operate such that VOC emissions do not exceed 0.08 lb/1000 gallons of organic liquid loaded; maintains at least 95% capture and control efficiency of VOC and which operates so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
16. No gasoline delivery vessel shall be used or operated unless it is leak-free. No gasoline delivery vessel shall be operated or loaded unless valid State of California decals are displayed on the cargo tank, attesting to the vapor integrity of the tank as verified by annual performance of CARB required Certification and Test Procedures for Vapor Recovery Systems for Cargo Tanks (Executive Order G-70-10-A) or EPA Method 27 for testing delivery vessels owned or operated by this facility. [District Rule 4621, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit
17. Measurements of leak concentrations for organic liquid delivery vessels, including gasoline, shall be conducted according to the ARB Test Procedure for Determination of Leaks, TP-204.3, or EPA Method 21. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
18. VOC emission rate from diesel loading rack shall not exceed any of the following: Fugitive emissions: 0.12 lb/hr and vapor recovery system: 0.09 lb/hr. [District Rule 4621] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. VOC emission rate from fugitive components associated with the refinery vapor control system shall not exceed 6.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
20. During loading of a delivery vessel, the truck-mounted vapor return line shall be connected to the vapor recovery system listed on this permit. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit
21. A delivery vessel loading gasoline shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rules 2520 and 4621] Federally Enforceable Through Title V Permit
22. Switch loading shall not be conducted unless such transfer is made using an ARB certified vapor recovery system. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit
23. Operators shall conduct all performance tests required by the facility installation and operations manual as per the frequency outlined therein or as designated by the APCO. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
24. The operator shall perform and record the results of monthly leak and drainage inspections of the loading and vapor collection equipment at each loading arm. During the loading of gasoline or organic liquids, leak detection shall be conducted using EPA Method 21 measuring at a distance of one centimeter from the potential source. When not in current operation, excess drainage inspections shall be conducted before 10:00 am at the disconnect of each loading arm by collecting all drainage at disconnect in a container and determining the volume within one (1) minute of collection. [District Rules 2520, 40 CFR 60.502(j) and 4624] Federally Enforceable Through Title V Permit
25. The leak detection instrument shall be calibrated each day of its use, prior to use, by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rules 2520, 9.3.2 and 4624] Federally Enforceable Through Title V Permit
26. Corrective steps shall be taken at any time the operator observes a leak or excess drainage at disconnect. All equipment found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
27. All inspections shall be documented within the inspection log. Inspection records shall include, at a minimum, 1) date of inspection, 2) location and description of any missing, loose, leaking, or damaged equipment and any malfunction requiring repair, 3) corrective steps taken to repair or replace the equipment, 4) test method and results for leak and drainage inspections, 5) location and description of any of equipment which shall be inspected upon commencing operation after repair or replacement and 6) inspector name and signature. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
28. Records of daily throughput of each loading rack shall be maintained and made available to the APCO, ARB, or EPA during normal business hours. [District Rules 2201, 4621, and 4624] Federally Enforceable Through Title V Permit
29. The permittee shall maintain accurate records of exempt and non-exempt components and their associated function in the Operator Management Plan (OMP) as required in section 6.1 of Rule 4455. Permit holder shall update the Operator Management Plan when new components are installed. By January 30 of each year, an annual report indicating any changes to an existing Operator Management Plan shall be submitted to the APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
30. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), CAPCOA-Revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals. Components shall be screened and leak rate shall be measured at least once each quarter. If compliance with the daily emission limit is shown during each of five (5) consecutive quarterly inspections, the inspection frequency may be changed from quarterly to annual. If any annual inspection shows non-compliance with the daily emission limit, then quarterly inspections shall be resumed. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

31. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rules 1070, 4621, 4624, and 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-37-153-0

LEGAL OWNER OR OPERATOR: KERN OIL & REFINING CO.
MAILING ADDRESS: 7724 E PANAMA LANE
BAKERSFIELD, CA 93307-9210

LOCATION: PANAMA LN & WEEDPATCH HWY
BAKERSFIELD, CA 93307-9210

EQUIPMENT DESCRIPTION:
16,000 BBL FIXED ROOF ORGANIC LIQUID STORAGE TANK (16005) SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-37-8

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 389 lb/qr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 2/18/16). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-3693-1, S-4394-1, S-4649-1, and S-4662-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services

S-37-153-0 Sep 7 2016 8:42AM - KLEVANNND - Joint Inspection NOT Required

6. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit
11. VOC fugitive emissions from the components affixed to the tank and on piping from tank to vapor control system trunk line shall not exceed 2.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

18. The permittee shall maintain accurate records of exempt and non-exempt components and their associated function in the Operator Management Plan (OMP) as required in section 6.1 of Rule 4455. Permit holder shall update the Operator Management Plan when new components are installed. By January 30 of each year, an annual report indicating any changes to an existing Operator Management Plan shall be submitted to the APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
19. The tank shall be connected to a vapor recovery system. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Tank shall vent to system designed and operated to reduce inlet VOC emissions by 99 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. [Rules 2201, 4623 and 40 CFR 60.112a(a)(3)] Federally Enforceable Through Title V Permit
21. All records required by this permit shall be retained for a minimum period of 5 years and shall be made available to the APCO, ARB and US EPA upon request. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-37-154-0

LEGAL OWNER OR OPERATOR: KERN OIL & REFINING CO.
MAILING ADDRESS: 7724 E PANAMA LANE
BAKERSFIELD, CA 93307-9210

LOCATION: PANAMA LN & WEEDPATCH HWY
BAKERSFIELD, CA 93307-9210

EQUIPMENT DESCRIPTION:
16,000 BBL FIXED ROOF ORGANIC LIQUID STORAGE TANK (16006) SERVED BY VAPOR RECOVERY SYSTEM
LISTED ON PERMIT S-37-8

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender emission reduction credits for the following quantities of emissions: VOC: 389 lb/qr. Offsets include the applicable offset ratio specified in Section 4.8 of Rule 2201 (as amended 2/18/16). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-3693-1, S-4394-1, S-4649-1, and S-4662-1 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, valves, and fittings shall be constructed and maintained in a leak free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

Arnaud Marjolle, Director of Permit Services

S-37-154-0 Sep 7 2016 9:42AM - KLEVANNND Joint Inspection NOT Required

6. A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. If a component type for a given tank is found to leak above the 10,000 ppmv during an annual inspection, then quarterly inspections of that component type on the tank or system shall be conducted for four consecutive quarters. After four successful quarterly inspections in which the component type is found to leak less than 10,000 ppmv, inspections interval may revert to annual. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Operator shall maintain records demonstrating compliance with fugitive VOC emissions limit of this permit within 60 days after the completion of the initial inspection of components and annually, thereafter. Compliance shall be demonstrated by calculation, using an accurate component count and the correlation equations, zero default and 10,000 ppmv pegged factors set forth in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-3a, February 1999, and the average emission concentrations of total organic compounds measured for each component during all inspections conducted during the prior 365 day period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. All piping, fittings, and valves directly affixed to the tank or associated with the tank vapor control system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 4623] Federally Enforceable Through Title V Permit
11. VOC fugitive emissions from the components affixed to the tank and on piping from tank to vapor control system trunk line shall not exceed 2.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take on of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

18. The permittee shall maintain accurate records of exempt and non-exempt components and their associated function in the Operator Management Plan (OMP) as required in section 6.1 of Rule 4455. Permit holder shall update the Operator Management Plan when new components are installed. By January 30 of each year, an annual report indicating any changes to an existing Operator Management Plan shall be submitted to the APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
19. The tank shall be connected to a vapor recovery system. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Tank shall vent to system designed and operated to reduce inlet VOC emissions by 99 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. [Rules 2201, 4623 and 40 CFR 60.112a(a)(3)] Federally Enforceable Through Title V Permit
21. All records required by this permit shall be retained for a minimum period of 5 years and shall be made available to the APCO, ARB and US EPA upon request. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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APPENDIX B
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-37-8-31

EXPIRATION DATE: 08/31/2016

SECTION: 25 TOWNSHIP: 30S RANGE: 28E

EQUIPMENT DESCRIPTION:

ORGANIC LIQUID LOADING AREAS AND REFINERY VAPOR RECOVERY SYSTEM SERVING TANK S-37-150 AND INCLUDING COMPRESSOR(S), LOADING RACKS WITH 10 PRODUCT LINES AND 9 VAPOR RETURN LINES

PERMIT UNIT REQUIREMENTS

1. Transfer Racks N and F may be used for loading and unloading. Transfer Racks A, K, and L shall be used only for loading. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All liquids and gases from the transfer operation shall be routed to one of the following systems: a vapor collection and control system; a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); a floating roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids); or a closed VOC emission control system. [District Rules 4623 and 4624] Federally Enforceable Through Title V Permit
3. A floating roof container that meets the applicable control requirements of Section 5.0 of Rule 4623 (Storage of Organic Liquids) shall be considered not leaking when receiving unloaded liquids for compliance with Rule 4624. [District Rule 4624] Federally Enforceable Through Title V Permit
4. For the transfer of gasoline only, transfer to any stationary storage container with 250 gallon capacity or more, that is not subject to Rule 4623, shall not be allowed unless the container is equipped with a permanent submerged fill pipe and an ARB certified Phase I vapor recovery system, which is maintained and operated according to the manufacturer's specifications, or a vapor recovery system with 95% control approved by the District. [District Rule 4621] Federally Enforceable Through Title V Permit
5. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP 1.5 psia or greater at the storage container's maximum organic liquid storage temperature shall be filled only at Class 1 or Class 2 loading facilities that meet the vapor collection and control requirements of District Rule 4624 or listed herein. [District Rule 4624] Federally Enforceable Through Title V Permit
6. Construction, reconstruction (as defined in District Rule 4001) or expansion of any top loading facility shall not be allowed. [District Rule 4624] Federally Enforceable Through Title V Permit
7. The organic liquid and gasoline loading operation shall be equipped with bottom loading equipment with a vapor collection and control system meeting the requirements listed in this permit. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
8. Transfer rack and vapor collection and control equipment shall be designed, installed, maintained in accordance with the manufacturers specifications, and operated such that there are no leaks or excess organic liquid drainage at disconnections as defined herein. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
9. During unloading of gasoline, a leak shall be defined as the dripping of VOC-containing liquid at a rate of more than three drops per minute or a reading greater than 100 percent of the Lower Explosive Limit (21,000 ppmv as propane) in accordance with EPA Method 21. [District Rule 4621] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

10. For components used in the gasoline loading operation, a leak shall be defined as the dripping of VOC-containing liquid at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. Excess liquid drainage shall be defined as exceeding 10 milliliters per average of 3 consecutive disconnects. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
11. For delivery vessels and components used in the organic liquid transfer operation, a leak shall be defined as the detection of organic compounds, in excess of 1,000 ppm as methane measured at a distance of one centimeter from the potential source in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
12. Equipment under vapor control shall not vent to atmosphere. [District Rules 4621 and 4624.] Federally Enforceable Through Title V Permit
13. The vapor collection and control system shall operate such that VOC emissions do not exceed 0.08 lb/1000 gallons of organic liquid loaded; maintains at least 95% capture and control efficiency of VOC and which operates so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
14. No gasoline delivery vessel shall be used or operated unless it is leak-free. No gasoline delivery vessel shall be operated or loaded unless valid State of California decals are displayed on the cargo tank, attesting to the vapor integrity of the tank as verified by annual performance of CARB required Certification and Test Procedures for Vapor Recovery Systems for Cargo Tanks (Executive Order G-70-10-A) or EPA Method 27 for testing delivery vessels owned or operated by this facility. [District Rule 4621, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit
15. Measurements of leak concentrations for organic liquid delivery vessels, including gasoline, shall be conducted according to the ARB Test Procedure for Determination of Leaks, TP-204.3, or EPA Method 21. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
16. VOC emission rate from diesel loading rack shall not exceed any of the following: Fugitive emissions: 0.12 lb/hr and vapor recovery system: 0.09 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emission rate from fugitive components associated with the refinery vapor control system shall not exceed 6.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During loading of a delivery vessel, the truck-mounted vapor return line shall be connected to the vapor recovery system listed on this permit. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit
19. A delivery vessel loading gasoline shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rules 2520 and 4621] Federally Enforceable Through Title V Permit
20. Switch loading shall not be conducted unless such transfer is made using an ARB certified vapor recovery system. [District Rules 2201 and 4621] Federally Enforceable Through Title V Permit
21. Operators shall conduct all performance tests required by the facility installation and operations manual as per the frequency outlined therein or as designated by the APCO. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
22. The operator shall perform and record the results of monthly leak and drainage inspections of the loading and vapor collection equipment at each loading arm. During the loading of gasoline or organic liquids, leak detection shall be conducted using EPA Method 21 measuring at a distance of one centimeter from the potential source. When not in current operation, excess drainage inspections shall be conducted before 10:00 am at the disconnect of each loading arm by collecting all drainage at disconnect in a container and determining the volume within one (1) minute of collection [District Rules 2520, 40 CFR 60.502(j) and 4624] Federally Enforceable Through Title V Permit
23. The leak detection instrument shall be calibrated each day of its use, prior to use, by the procedures specified in Method 21 using the following calibration gases: A) Zero air (less than 10 ppm of hydrocarbon in air); and B) Mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rules 2520, 9.3.2 and 4624] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

24. Corrective steps shall be taken at any time the operator observes a leak or excess drainage at disconnect. All equipment found leaking shall be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
25. All inspections shall be documented within the inspection log. Inspection records shall include, at a minimum, 1) date of inspection, 2) location and description of any missing, loose, leaking, or damaged equipment and any malfunction requiring repair, 3) corrective steps taken to repair or replace the equipment, 4) test method and results for leak and drainage inspections, 5) location and description of any of equipment which shall be inspected upon commencing operation after repair or replacement and 6) inspector name and signature. [District Rules 4621 and 4624] Federally Enforceable Through Title V Permit
26. Records of daily throughput of each loading rack shall be maintained and made available to the APCO, ARB, or EPA during normal business hours. [District Rules 2201, 4621, and 4624] Federally Enforceable Through Title V Permit
27. The permittee shall maintain accurate records of exempt and non-exempt components and their associated function in the Operator Management Plan (OMP) as required in section 6.1 of Rule 4455. Permit holder shall update the Operator Management Plan when new components are installed. By January 30 of each year, an annual report indicating any changes to an existing Operator Management Plan shall be submitted to the APCO. [District Rule 4455] Federally Enforceable Through Title V Permit
28. Permit holder shall maintain accurate component count and resultant emissions according to CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-3a (Feb 1999), CAPCOA-Revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals. Components shall be screened and leak rate shall be measured at least once each quarter. If compliance with the daily emission limit is shown during each of five (5) consecutive quarterly inspections, the inspection frequency may be changed from quarterly to annual. If any annual inspection shows non-compliance with the daily emission limit, then quarterly inspections shall be resumed. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Copies of all records shall be retained for a minimum of five (5) years after the date of an entry. Such records shall be made available to the APCO, ARB, or US EPA upon request. [District Rules 1070, 4621, 4624, and 4455, 6.2.2, 6.2.3 & 6.2.4] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

APPENDIX C
Best Available Control Guideline (BACT)

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.2*

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Fixed Roof Organic
Liquid Storage or Processing Tank, = or > 5,000 bbl Tank capacity ****

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	50% control, (Waste gas incinerated at scrubbed steam generator, heater treater or incinerator or compressed and injected in injection wells and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); or equal).	
SOx		95% control (Vapor collection system and either a) sulfur removal by scrubber with inspection and maintenance program or b) vapors no greater than 0.2 gr S/100 dscf; transfer of non-condensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available), or equal)	
VOC	99% Control (Waste gas incinerated in steam generator, heater treater or other fired equipment and inspection and maintenance program, or equal)	99% control (Transfer of noncondensable vapors to gas pipeline; reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption; or equal).	

** Converted from Determinations 7.1.4 and 7.1.12 (10/01/02).

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX D
BACT Analysis

Top Down BACT Analysis

VOC emissions may occur when organic fluids enter the organic liquid storage tanks.

Step 1 - Identify All Possible Control Technologies

BACT Guideline 7.3.2 lists the controls that are considered potentially applicable to fixed-roof organic liquid storage or processing tank =or> 5,000 bbl tank capacity. The VOC control measures are summarized below.

Technologically feasible:

99% control (Transfer of noncondensable vapors to gas pipeline or reinjection to formation (if appropriate wells are available); thermal or catalytic oxidizer; carbon adsorption.)

Achieved in Practice:

99% control (Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program.

Step 2 - Eliminate Technologically Infeasible Options

Both of the above identified control options are technologically feasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Both are 99% control so equally effective.

1. 99% control (Transfer of uncondensed vapors to gas pipeline or reinjection to formation (if appropriate wells are available))
2. Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program at 99% control, or

Step 4 - Cost Effectiveness Analysis

The applicant is proposing the most effective control technology – 99% control (collection and control system with collected gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program. Therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

99% control Waste gas incinerated in steam generator, heater treater, or other fired equipment and inspection and maintenance program at

APPENDIX E
HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Dan Klevann – Permit Services
 From: Marissa Williams – Technical Services
 Date: July 12, 2016
 Facility Name: Kern Oil & Refining Company
 Location: 7724 E. Panama Lane, Bakersfield, CA
 Application #(s): S-37-8-34, 153-0, 154-0
 Project #: S-1161823

A. RMR SUMMARY

RMR Summary				
Categories	Storage Tank (Unit 153-0)	Storage Tank (Unit 154-0)	Project Totals	Facility Totals
Prioritization Score	0.081	0.081	0.16	>1.0
Acute Hazard Index	0.065	0.065	0.13	0.90
Chronic Hazard Index	0.00	0.00	0.00	0.10
Maximum Individual Cancer Risk	2.30E-08	2.30E-08	4.60E-08	1.42E-05
T-BACT Required?	No	No		
Special Permit Requirements?	No	No		

B. RMR REPORT

I. Project Description

Technical Services received a request on June 30, 2016 to perform an Ambient Air Quality Analysis (AAQA) and a Risk Management Review (RMR) for the proposed installation of two new fixed roof liquid storage tanks (Unit 153-0 and Unit 154-0) connected to an existing vapor recovery system (Unit 8-34).

II. Analysis

Toxic emissions from Oilfield Fugitives were calculated using emission factors derived from 1991 source tests of central valley sites along with VOC emission rates supplied by the processing engineer. Emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for the facility is greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment

was required. The AERMOD model was used with the parameters outlined below and meteorological data for 2007-2011 from Arvin to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters (Unit 153-0 & 154-0, each)			
Source Type	Circle Area	Receptor Distance (m)	470
Release Height (m)	7.32	Receptor Type	Residence
Circle Radius (m)	8.75	Project Location	Rural
VOC Emissions (lb/hr)	2.85	VOC Emissions (lb/yr)	1037.0

An AAQA was requested by the processing engineer; however, AAQA's only look at criteria pollutants NO_x, SO_x, CO, and PM. This project results in an increase in VOCs. Currently there are no AAQA standards for VOCs; therefore, an AAQA is not required.

III. Conclusions

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary

APPENDIX F
Compliance Certification



Kern Oil & Refining Co.

7724 E. PANAMA LANE
BAKERSFIELD, CALIFORNIA 93307-9210
(661) 845-0761 FAX (661) 845-0330

RECEIVED
MAY - 2 2016
SJVAPCD
Southern Region

April 20, 2016

Mr. Leonard Scandura
Permit Services Manager
San Joaquin Valley Unified
Air Pollution Control District
34946 Flyover Ct.
Bakersfield, CA 93308

**Subject: Federal Major Modification Statewide Compliance Certification
S-37 ATC Application – Two Additional 16,000-Barrel Tanks**

Dear Mr. Scandura:

I hereby certify that all major Stationary Sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California, which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards.

Bruce W. Cogswell
Senior Vice President/Chief Operating Officer

MAY - 2 2016

SJVAPCD
Southern Region

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: KERN OIL & REFINING CO.	FACILITY ID: S- 37
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name:	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:

Bruce W. Cogswell
Signature of Responsible Official

4/21/16
Date

Bruce W. Cogswell

Name of Responsible Official (please print)

Senior VP/Chief Operating Officer

Title of Responsible Official (please print)

APPENDIX G
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$$\begin{aligned}
 PE2_{quarterly} &= PE2_{annual} \div 4 \text{ quarters/year} \\
 &= 1,037 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 259 \text{ lb PM}_{10}/\text{qtr}
 \end{aligned}$$

$$\begin{aligned}
 PE1_{quarterly} &= PE1_{annual} \div 4 \text{ quarters/year} \\
 &= 0 \text{ lb PM}_{10}/\text{qtr}
 \end{aligned}$$

Quarterly NEC S-37-153-0 [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	0	0
SO _x	0	0	0
PM ₁₀	259	0	259
CO	0	0	0
VOC	0	0	0

Quarterly NEC S-37-154-0 [QNEC]			
Pollutant	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	0	0
SO _x	0	0	0
PM ₁₀	259	0	259
CO	0	0	0
VOC	0	0	0

APPENDIX H
Fugitive Component Counts

Kern Oil & Refining
Project S-1161823, Permit Unit S-37-8, '-
153, '-154

Fugitive Emissions Using Correlation Equation Emission Factors

California Implementation Guidelines for Estimating Mass Emissions
of Fugitive Hydrocarbon Leaks at Petroleum Facilities
Table IV-3a: CAPCOA -Revised 1995 EPA Protocol Refinery Correlation Equations for Refineries and Marketing Terminals
Fields shaded yellow are application specific values.

Equipment Type	Service	Component Count	% Default Zeros	% Pegged (>10,000)	% in Correlation Range	Correlation Screening Value (ppm)	Default Zero Emissions (lb/day)	Pegged Emissions (lb/day)	Correlation Emissions (lb/day)	VOC emissions (lb/day)
Valves	All	48	50.0%	0.7%	49.3%	400	0.010	1.138	0.250	1.40
Pump Seals	All	0	50.0%	1.0%	49.0%	1,000	0.000	0.000	0.000	0.00
Others	All	38	50.0%	0.0%	50.0%	200	0.004	0.000	0.262	0.27
Connectors	All	72	50.0%	0.5%	49.5%	400	0.014	0.571	0.237	0.82
Flanges	All	96	50.0%	0.5%	49.5%	400	0.001	2.413	0.783	3.20
Open-ended lines	All	0	50.0%	50.0%	0.0%	1,000	0.000	0.000	0.000	0.00

Total VOC Emissions (lb/day) = **5.7**
Total VOC Emissions (lb/yr) = **2,074**

Factors Used in Calculations - For Reference					
Equipment Type	Service	Default Zero Factor (kg/hr)	Pegged Factor (kg/hr)	Correlation Equation (kg/hr)	
Valves	All	7.800E-06	6.400E-02	2.27E-06(SV) ^{0.747}	
Pump Seals	All	1.900E-05	8.900E-02	5.07E-05(SV) ^{0.622}	
Others	All	4.000E-06	8.200E-02	8.69E-06(SV) ^{0.642}	
Connectors	All	7.500E-06	3.000E-02	1.53E-06(SV) ^{0.736}	
Flanges	All	3.100E-07	9.500E-02	4.53E-06(SV) ^{0.706}	
Open-ended lines	All	2.000E-06	3.300E-02	1.90E-06(SV) ^{0.724}	