San Joaquin Valley Air Pollution Control District
Authority to Construct
Application Review

Facility Name:	Big West of California	Date:	SEP 03 2008
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Application #(s):	S-3301-1-4		
Project #:	1062741		
Deemed Complete:	10/10/06		

I. Proposal

Big West of California Refinery (Big West), as operator of the Equilon Bakersfield Terminal (S-3303), submitted an Authority to Construct (ATC) application for modification of the existing sales terminal truck loading operation (S-3303-1). The rack will be expanded with the addition of 17 to 20 bottom-loading gasoline arms, 10 bottom-loading diesel arms and 4 vapor recovery arms. The two bottom-loading arms that were used for fuel cutter oil (FCO) loading will be converted to FCC Slurry Oil (CSO) loading. Two FCO bottom loading arms, four residual gas oil (RGO) bottom loading arms and six existing top-loading arms will be removed. The post-project configuration will be as follows: all loading arms will be bottom loading, there will be 35 to 38 gasoline loading arms, 20 diesel loading arms, 2 CSO loading arms and 16 vapor control arms. As switch-loading is expected, all loading will take place under vapor recovery.

The proposed modification is part of Big West's (S-33) Clean Fuels Project. The Clean Fuels Project is intended to modernize the refinery, improve efficiency and enhance safety, and is not expected to result in an increase of crude throughput at the refinery. Currently, the refinery exports a significant amount of intermediate hydrocarbon product to other refineries in California for final processing. The Clean Fuels Project will allow the conversion of these intermediate hydrocarbon products (which at present are high in sulfur and nitrogen) into products that meet or exceed California's specifications for clean fuels. The majority of the Clean Fuels Project's modifications are being processed in S-33 projects 1061149 and 1062742. Facilities S-33 and S-3303 are part of the same stationary source.

Big West received their Title V Permit on October 31, 2002. This modification can be classified as a Title V significant modification pursuant to Rule 2520, Section 3.29, 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. Big West must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4305 Boilers, Steam Generators and Process Heaters – Phase II (8/21/03)
Rule 4306 Boilers, Steam Generators and Process Heaters – Phase III (3/17/05)
Rule 4455 Components At Petroleum Refineries, Gas Liquids, Processing Facilities, And Chemical Plants (4/20/05)
Rule 4621 Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, And Bulk Plants (6/18/98)
Rule 4624 Organic Liquid Loading (12/17/92)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
California Environmental Quality Act

III. Project Location

The facility is located at 2436 Fruitvale Avenue, Bakersfield. 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

The Sales Terminal (S-3303-1) is a truck loading operation that currently loads gasoline, diesel, and fuel cutter oil (FCO). Vapor recovery arms are connected to the neighboring Bakersfield Refinery's existing vapor recovery system (VRS) listed on S-33-41, which feeds into the refinery fuel gas system.

V. Equipment Listing

Current PTO (see PTO in Appendix B):

S-3301-1-2: TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

Proposed Modification:

ADD 17 TO 20 GASOLINE BOTTOM LOADING ARMS, 10 DIESEL BOTTOM LOADING

ARMS, 2 BOTTOM LOADING CSO ARMS, ADD 4 VAPOR RECOVERY ARMS, REMOVE FOUR FOC BOTTOM LOADING ARMS, FOUR RGO BOTTOM LOADING ARMS AND REMOVE TOP-LOADING ARMS

Post Project Equipment Description:

S-3301-1-4: TRUCK LOADING OPERATION INCLUDING X* BOTTOM LOADING GASOLINE ARMS, 20 BOTTOM LOADING DIESEL ARMS, 2 BOTTOM LOADING CSO ARMS AND 16 VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

*Please note that the total number of bottom loading gasoline arms actually installed will be specified in the PTO.

VI. Emission Control Technology Evaluation

VOC is the only pollutant of concern with organic liquid loading operations. Loading losses occur as organic vapors in emptied cargo tanks are displaced by the liquid being loaded into the tanks. These vapors are a composite of (1) vapors formed in the empty tank by evaporation of residual product from previous loads, (2) vapors transferred to the tank in vapor balance systems as product is being unloaded, and (3) vapors generated in the tank as the new product is being loaded. The collected vapors will continue to be directed to the existing vapor control system listed in permit S-33-41.

VII. General Calculations

A. Assumptions

The designs for the additional bottom loading arms and vapor recovery arms are not completed, and final component counts have yet to be determined. Consequently, component counts from the existing sales terminal were used to estimate the component counts for the proposed additions. The emissions estimates were performed as follows:

- All loading during the baseline period was done using vapor control.
- All post-project loading will be done using vapor control.
- Component counts per arm are estimated based on known component counts and number of existing loading arms at the sales terminal.
    - The total number of existing components in gasoline liquid service are divided by number of existing gasoline loading arms to estimate component counts per gasoline loading arm.
    - The total number of existing components in gas-phase service are divided by number of existing vapor recovery arms to estimate component counts per vapor recovery arm.
    - A 20% contingency factor is applied to these estimates to accommodate the uncertainty of the design/estimate.
- Emissions during loading of gasoline under vapor recovery were assumed to consist of the following:
    - Liquid spillage upon disconnect, calculated based on the following assumptions:

- Rule 4624 limit of 10 ml loss per disconnect;
- Truck capacity 8,800 gallons (8,800-9,000 gallons is typical);
- Four disconnects per truck (~75% of trucks have 4 compartments; ~25% have 2-3 compartments; very few have 5 compartments).

o Fugitive components in liquid and vapor service were calculated as follows:

- Components were assumed to leak at the same rate as historically measured. Leak detection and repair (LDAR) measurements for baseline years 2004 and 2005 were used as the basis for emissions estimate from added arms. VOC emissions from fugitive components were calculated using the Correlation Equation Method as described in the CAPCOA publication California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (February 1999).
- The loading operation is controlled by connection to the vapor recovery system, which feeds into the refinery's fuel gas system; therefore, the only gas-phase emissions are fugitive component leaks pursuant to District Policy SSP 2015, Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCMI Facilities.

- Emissions from loading of diesel, fuel cutter oil (FCO) and FCC Slurry Oil (CSO), fuel oil, vacuum residuim are assumed to consist of the following:
  - 10 ml loss per disconnect and 5% of loss is volatilized. As FCO, CSO and fuel oil vacuum residue are all heaver than diesel fuel, assuming 5% of liquids volatilize is conservative. The applicant could not supply CSO's TVP test results but proposed to perform a CSO TVP test within 180 days of startup to verify that CSO's TVP is not greater than diesel's TVP(diesel's TVP $\approx$ 0.008 psia at 20° C). Page six of the report in Appendix C provides some justification for assuming that only 5% of a diesel, FCO or CSO spill is volatilized.
  - Truck capacity 8,800 gallons (8,800-9,000 gallons is typical);
  - Four disconnects per truck (~75% of trucks have 4 compartments; ~25% have 2-3 compartments; very few have 5 compartments).
  - o Fugitive leaks from components in liquid service were estimated as follows:
    - Heavy liquid (e.g., diesel FCO and CSO) lines are not required to be monitored under the Terminal's LDAR program and District Rule 4624; therefore, counts and emissions from diesel loading arms are not precisely known. It was assumed that each diesel or FCO loading arm has the same number and type of components as a gasoline loading arm. Average marketing terminal emission factors from the CAPCOA document were applied to the assumed component counts for the diesel and FCO loading arms.

All emission calculations are presented in Appendix D.

B. Emission Factors

Fugitive component VOC emission factors are from the CAPCOA publication *California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities* (February 1999). Emission factors from "Table IV-3a: CAPCOA-

Revised 1995 EPA Correlation Equations and Factors for Refineries and Marketing Terminals" were used to calculate emissions from components that are/were monitored under the Terminal's LDAR program (i.e., components in gasoline service). Emission factors from "Table IV-1b: 1995 EPA Protocol Marketing Terminal Average Emission Factors" were used to calculate emissions from components that are not monitored under the Terminal's LDAR program (i.e., diesel and CSO).

C. Calculations

1. Pre-Project Potential to Emit (PE1)

PE1 and PE2 are typically used to determine whether BACT, offsets and public notice are triggered.

As shown in section VIII.A.1.d, below, the Clean Fuels Project is a Major Modification and therefore triggers BACT for all pollutants. Therefore, PE1 calculations are not required to determine if BACT is triggered.

As explained in section VII.C.6, below, the Baseline Emissions are set to zero for this project's offset calculations; therefore, PE1 calculations are not required for offset calculation purposes.

As shown in section VIII.C, below, the Clean Fuels Project requires public notice because it is a Major Modification; therefore, PE1 calculations are not required for public notice purposes.

Therefore, PE1 calculations are not required.

2. Post Project Potential to Emit (PE2)

Sales Terminal Post-Project Potential to Emit (PE2) (see calculations in Appendix D)

Source	VOC lb/yr	VOC lb/day
VR arm fugitive emissions	165.9	0.5
Gasoline loading arm fugitives	3,521.0	9.6
Total		10.1
Diesel loading arm fugitives	2,572.2	7.0
CSO loading arm fugitives	257.2	0.7
Total		7.7
Gasoline spillage losses	4,051.2	12.4
Diesel spillage losses	174.9	0.6
CSO spillage losses	9.5	0.1
Total		13.1
Total PE2	**10,751.9**	**30.9**

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (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 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 Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) 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 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, SSPE2 calculations are not necessary.

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

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

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source, provided that if the unit has a Specific Limiting Condition (SLC), all units combined under the SLC have an average combined annual Actual Emissions during the two consecutive years immediately prior to filing of an application for an Authority to Construct equal to or greater than 80% of the units' pre-project SLC limit,
- Any Fully-Offset Emissions Unit, located at a Major Source, provided that if the unit has a SLC, all units under the SLC also qualify as Fully Offset Emissions Units, or
- Any Clean Emissions Unit, located at a Major Source, provided that if the unit has a SLC, all units under the SLC also qualify as Clean Emissions Units.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22

Permit S-3303-1 is in an SLC plan (part of the Area 1 VOC SLC) and facilities S-33 and S-3303 are a Major Source. In order to calculate offsets using PE1 for the BE, for all the units in the SLC plan, all units in the SLC must be Clean, Fully Offset or Highly Utilized, otherwise, HAE need to be used for all units in the SLC to calculate offsets required.

Rather than determine whether all units in the SLC are Clean, Fully Offset or Highly Utilized, or calculating the HAE for all units in the SLC, the applicant has proposed to offset the entire PE2 of ATC S-3303-1-4. Therefore, BE are assumed to be zero for offset and QNEC calculations.

7. Major Modification

As defined in 40 CFR 51.165 (in effect on December 19, 2002), a Major Modification means 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 (NEI) of any pollutant subject to regulation under the Act. For administrativel purposes the "Clean Fuels Project" has been assigned three District project numbers: S1061149, S1062741, and S1062742. All three of these District "projects" are considered one project for Major Modification and Federal Major Modification purposes.

The significance levels for all non-attainment pollutants and their precursors are listed in the table below. Also listed are the net emissions increases for each District project, and the total for the Clean Fuels Project. As shown below, the Clean Fuels Project is a major modification for NOx, SOx, PM10, and VOC.

Major Modification Net Emission Increases (NEI)						
Pollutant	Threshold (lb/year)	S1061149 (lb/year)	S1062741 (lb/year)	S1062742 (lb/year)	Clean Fuels Project (lb/year)	Major Mod ?
NO_X	50,000	125,948	0	1,623	**127,571**	Yes
SO_X	80,000	165,138	0	3	**165,141**	Yes
PM_{10}	30,000	111,398	0	51	**111,449**	Yes
VOC	50,000	158,201	5,812	34,968	**198,981**	Yes

8. Federal Major Modification

As discussed above in VII C. 7., the project is a Major Modification. Major Modifications are also Federal Major Modifications unless they meet the criteria in either 3.17.1, "Less Than Significant Emissions Increase Exclusion" or 3.17.2, "Plant wide Applicability Limit" (PAL).

The Clean Fuels Project does not qualify for the exclusion set forth in 3.17.1 as the emissions increases are significant. There are no emissions decreases from existing equipment and the emissions increases from the new equipment exceed the thresholds in Table 3-1.

The Clean Fuels Project does not qualify for the exclusion set forth in 3,17.2, as the facility is not currently subject to a PAL for any regulated pollutant for the stationary source (Areas 1 and 2 combined). The project, therefore, is a Federal Major Modification.

9. 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 A.

VIII. Compliance

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 for the following*:

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 a Major Modification.

As discussed in Section VII.C.7 above, this project constitutes a Major Modification for all pollutants; therefore BACT is triggered for the loading rack.

2. BACT Guideline

BACT Guideline 7.1.10, applies to the loading rack. [Loading Rack/Switch Loading] (See Appendix E)

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 F), BACT has been satisfied with the following:

the use of bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency ≥ 99%.

Note: Collected vapors from S-3303-1 are sent to the vapor control system listed on S-33-41 which routes the vapors to the refinery's fuel gas system or to a flare. Combustion as fuel in the refinery combustion units is expected to provide at least 99% VOC destruction efficiency. Although the vapor control system on PTO S-33-41-2 actually controls collected vapors at efficiency greater than 99%, the PTO only requires 95% control efficiency. S-33-41 will be revised to increase its vapor control efficiency to 99% in project S1062742.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
Post Project SSPE (SSPE2)	>20,000	>54,750	>29,200	>200,000	>20,000
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	yes	yes	yes	yes	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 offsets will be required for this project.

Per Sections 4.7.1 and 4.7.3, 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) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = zero
ICCE = Increase in Cargo Carrier Emissions, (lb/year) = 0
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

As explained in section VII.C.6, above, BE from this unit are assumed to be zero and there is only one emissions unit associated with this project and there are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

Offsets Required (lb/year) = PE2 x DOR

Assuming a DOR of 1:1, the amount of VOC ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 10,752 x 1 = 10,752 lb-VOC/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2688	2688	2688	2688

The applicant has stated that the facility plans to use ERC certificate S-2452-1 to offset the increases in VOC emissions associated with this project. The above certificate has available quarterly VOC credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-2452-1	59,372	60,236	60,677	60,578

As seen above, the facility has sufficient credits to fully offset the quarterly VOC

emissions increases associated with this project.

C. Public Notification

1. Applicability

Public noticing is required for:
a. Any new Major Source, which is a new facility that is also a Major Source,
b. Major Modifications,
c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
d. Any project which results in the offset thresholds being surpassed, and/or
e. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

Major Modification

As demonstrated in VII.C.7, this project is a Major Modification; therefore, public noticing is required.

2. Public Notice Action

As discussed above this project is a Major Modification; therefore, public noticing is required for this project. 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)

Proposed Rule 2201 (DEL) Conditions:

- Fugitive volatile organic compound (VOC) emissions from vapor return arms and gasoline loading arms (as determined by annual component count, annual LDAR results and District approved emission factors) and from diesel and CSO loading arms (as determined by annual component count and District approved emission factors) shall not exceed 17.8 lb/day. [District Rule 2201] Y

- Loading spillage shall not exceed 13.1 lb/day from this permit unit. Compliance with this limit shall be demonstrated by compliance with throughput limits and the limit on liquid drainage upon disconnect. [District Rule 2201] Y

- Permit holder shall maintain accurate count of vapor return arm components and gasoline loading arm components 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), Correlation' Equations and Factors for Refineries and Marketing Terminals Emission Factors. Permit holder shall update such records when new components are installed. 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]

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

Permit holder shall maintain accurate count of vapor return arm components and gasoline loading arm components 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), Correlation Equations and Factors for Refineries and Marketing Terminals Emission Factors. Permit holder shall update such records when new components are installed. 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]

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) will appear on the permit to operate:

- Permit holder shall maintain accurate count of vapor return arm components and gasoline loading arm components 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), Correlation Equations and Factors for Refineries and Marketing Terminals Emission Factors. Permit holder shall update such records when new components are installed. 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]

- Fugitive volatile organic compound (VOC) emissions from diesel and CSO loading arms shall not exceed 7.5 lb/day as determined by annual component count, and District approved emission factors. [District Rule 2201] N [District Rule] N

- Permittee shall maintain accurate count of diesel and CSO loading arm components and resultant emissions according to EPAs "Protocol for Equipment Leak Emission Estimate," Table IV-1b, Marketing Terminal Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201]

- Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.2 of this Rule 2201 requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an ambient air quality standard. A Risk Management Review (RMR) was performed for the Clean Fuels Project and includes projects S1061149, S1062741 and S1062742. The RMR includes an AAQA which was prepared by the District's Technical Services Division and is attached as Appendix G.

The proposed location for the Clean Fuels Project is in an attainment area for NO_X, CO, and SO_X. As shown below in the AAQA summary table, the proposed equipment will not cause a violation of an air quality standard for NO_X, CO, or SO_X.

The increase in the ambient PM_{10} concentration due to the proposed equipment is shown in the summary table below. As the calculated maximum impact contribution of PM_{10} will not exceed either the annual or 24-hour EPA significance level of 1 $\mu g/m^3$ or 5 $\mu g/m^3$, respectively, this project is not expected to make worse a violation of an air quality standard.

Criteria Pollutant Modeling Results (Values are in $\mu g/m^3$)

Pollutant	Avg Per	Max Imp	Back Conc	Total Conc	CAAQS	NAAQS
NOx	1h	232.21	156.26	388	470	N/A
	Ann	0.56	35.77	36	N/A	100
CO	1h	181.31	3550	3731	23,000	40,000
	8h	43.73	2061.24	2105	10,000	10,000
SOx	1h	122.42	46.76	172	655	N/A
	3h	38.30	23.57	62	N/A	1300
	24h	3.42	7.86	11.3	105	365
	Ann	0.74	2.62	3.4	N/A	80
PM10	24h	2.84[1]	205	207.84	50	150
	Ann	0.43[1]	63	63.43	20	50

[1]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or federal major 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 Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this facility is a federal major modification, therefore this requirement is applicable. Included in Appendix H is Big West's compliance certification.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Significant Modification to the Title V Permit pursuant to Section 3.29 of this rule. 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. Continued compliance with this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60 Subpart XX applies to this facility but the District is not delegated responsibility for enforcing this subpart. No further discussion is required.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). No visible emissions are expected from the loading rack.

Rule 4102 Nuisance

Section 4.0 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 one.

According to the Technical Services Memo for this project (Appendix G), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-3303-1-4	0.01 per million	No

Rule 4455 Components At Petroleum Refineries, Gas Liquids, Processing Facilities, And Chemical Plants

Condition 45 of the facility-wide permit S-3303-0-1 states that "This source is not a petroleum refinery or a chemical plant, as defined in District Rule 4451, Section 3.0 (Amended December 17, 1992) and District Rule 4452, Section 3.0 (Amended December 17, 1992). Therefore, the requirements of District Rule 4451, Section 5.0 and District Rule 4452, Section 5.0, do not apply to this source."

Rules 4451 and 4452 have been superseded by District Rule 4455, which similarly does not apply to this facility. However, the vapor recovery system is part of the Refinery's S-33 facility, and the inspection schedule, repair requirements, and operating practices to monitor and control fugitives emissions due to leaks from fugitive components given in Section 5 of District Rule 4455 apply to that unit. The Refinery has a leak detection and repair program in place that meets the requirements of Rule 4455; continued compliance with this rule is expected.

Rule 4621 Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels, And Bulk Plants

Section 5 of District Rule 4621 gives requirements for gasoline delivery vessels that are loaded by a truck loading rack. The vessel must be vapor tight and must have the proper State of California decals signifying its vapor integrity; the vapor collection and control system at the rack must be operational during gasoline loading; gasoline vapor must not be purged to atmosphere; the hatch may only be opened for visual inspection at least 3 minutes after loading or unloading has stopped, and may remain open for at most 3 minutes; and the loading facility vapor recovery system must not create a back pressure in excess of the pressure limits of the delivery vessel certification leak test (18 inches water column). Truck gasoline loading at this loading rack is currently subject to the requirements of District Rule 4621; continued compliance is expected.

Rule 4624 Organic Liquid Loading

This rule applies to organic liquid loading facilities, which load 4,000 gallons or more in any one day. This facility is considered a Class 1 Organic Loading Facility as defined in this rule (>20,000 gallons per day throughput). The operation incorporates a vapor collection and control system consistent with the requirements of this rule. Therefore, compliance this rule is expected

California Environmental Quality Act (CEQA)

The District determined that the Kern County (County) is the public agency having principal responsibility for approving the project, therefore establishing the County as the Lead Agency (CEQA Guidelines §15051(b). The County has prepared a re-circulated Draft Environmental Impact Report (DEIR) for the project (SCH 2005121041) which demonstrates that the project would have a cumulatively significant and unavoidable impact on air Quality. The County received public comment on the proposed project and DEIR until August 11, 2008. Please direct all comments concerning the DEIR to Kern County Planning Department, 2700 M Street, Suite 100, Bakersfield, CA 93301-2323.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CEQA Guidelines §15096). If the County approves the project and certifies the EIR, the District will complete its review of the project, and comply with CEQA Guidelines §15096 requirements.

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.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful Public Noticing period, issue Authority to Construct S-3303-1-4 subject to the permit conditions on the attached draft Authority to Construct in Appendix J.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-3303-1-4	3020-01-H	Greater than 1600 hp	$882

Appendixes

A: Quarterly Net Emissions Change
B: Current PTO(s)
C: Diesel Spill Emissions
D: Emission Calculations
E: BACT Guideline 7.1.10
F: BACT Analysis
G: HRA/AAQA Summary

H: Compliance Certification
I: Draft ATC

APPENDIX A
Quarterly Net Emissions Change

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 - BE, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
BE = Baseline Emissions (per Rule 2201) 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 BE can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 10,752 lb/year ÷ 4 qtr/year
= 2688 lb VOC/qtr

$BE_{quarterly}$ = BE_{annual} ÷ 4 quarters/year
= 0 lb/year ÷ 4 qtr/year
= 0 lb VOC/qtr

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	BE (lb/qtr)	NEC (lb/qtr)
VOC	2688	0	2688

Application Emissions

Permit #: S-3303-1-4	**Last Updated**
Facility: BIG WEST OF CA, LLC	08/19/2008 TORID

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	0.0	0.0	0.0	0.0	10752.0
Daily Emis. Limit (lb/Day)	0.0	0.0	0.0	0.0	30.9
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	2688.0
Q2:	0.0	0.0	0.0	0.0	2688.0
Q3:	0.0	0.0	0.0	0.0	2688.0
Q4:	0.0	0.0	0.0	0.0	2688.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					1.0
Quarterly Offset Amounts (lb/Qtr)					
Q1:					2688.0
Q2:					2688.0
Q3:					2688.0
Q4:					2688.0

APPENDIX B
Current PTO

EXPIRATION DATE: 08/31/2007

LEGAL OWNER OR OPERATOR: BIG WEST OF CA, LLC
MAILING ADDRESS: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

LOCATION: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41

CONDITIONS

1. Delivery vessels loaded at this facility shall be vapor tight and shall be so certified by the State Fire Marshall. [District Rule 4621] Federally Enforceable Through Title V Permit
2. Loading arms shall establish a leak (as defined in Rule 4624) free seal with delivery vessels. [District Rule 4624] Federally Enforceable Through Title V Permit
3. Top loading arms shall be used to load fuel oil and residual oil only. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Throughput of fuel oil and vacuum residue from this permit unit this shall not exceed 1,056,000 gallons per day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Vapor return arms shall be connected during diesel loading if TVP exceeds 0.008 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Vapor return arms shall be connected during diesel loading if vessel being loaded previously carried petroleum liquid with TVP greater than 0.008 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Vapor return arms shall be connected during gas oil, fuel oil, heavy fuel oil or vacuum residue loading if vessel being previously loaded carried petroleum liquid with TVP greater than 0.0012 psia at loading conditions. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Hose couplers shall be of dry-break type to prevent liquid spill upon disconnection. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Liquid and vapor hoses, couplers, fittings and piping shall be maintained in a leak (as defined in 4624) free condition. [District Rule 4624] Federally Enforceable Through Title V Permit
11. VOC emission rate, excluding leakage, shall not exceed 2.0 lb/hr from this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Gasoline loading leakage and spillage shall not exceed 4.6 lb/day from this permit unit. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
14. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that TOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [60 CFR 60.502(b), District Rules 2520, 9.3.2 and 4624, 5.1.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit

16. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [40 CFR 60.502(h), District Rule 4624, 5.2 and Kern County Rule 413] Federally Enforceable Through Title V Permit

17. {853} The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more 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 manufacturers specifications. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit

18. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.3] Federally Enforceable Through Title V Permit

19. {856} No gasoline delivery vessel shall be used or operated unless it is vapor tight. 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. [District Rule 4621, 5.2.1 & 5.2.2, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit

20. The test method to determine vapor tightness of delivery vessels owned or operated by this facility shall be EPA Method 27. [District Rule 4621, 6.2.3 and 40 CFR 60.503(c)] Federally Enforceable Through Title V Permit

21. {858} Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.5] Federally Enforceable Through Title V Permit

22. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds 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 mls per average of 3 consecutive disconnects. [District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit

23. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, or smell. [District Rule 2520, 9.3.2, 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

24. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspection of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. Each detected leak shall be repaired within 15 calendar days of detection. [40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

27. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520, 9.4.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit

28. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of ±2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit
29. {869} Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rule 413, District Rules 4621(as amended May 20, 1993), sections 5.1.3 and 5.2, and 4624 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. {872} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40CFR60, Subpart XX. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. Formerly S-33-45-0.

APPENDIX C
Heavy Liquid Disconnect Emissions

EPA
United States
Environmental Protection
Agency

Air and Radiation

EPA420-P-04-013
April 2004
NR-013b

Refueling Emissions for Nonroad Engine Modeling

EPA420-P-04-013
Revised April 2004

Refueling Emissions for Nonroad Engine Modeling

NR-013b

Assessment and Standards Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

Refueling Emissions for Nonroad Engine Modeling

Report No. NR-013b

revised April 2004

Assessment and Standards Division
EPA, Office of Transportation and Air Quality

This technical report describes the methods and assumptions used in the draft NONROAD2004 emissions model to estimate refueling emissions from nonroad equipment. The discussion primarily focuses on refueling emissions for gasoline fueled equipment. Refueling emissions for diesel fueled equipment are discussed briefly at the end of this report.

Background

Refueling emissions can be divided into two components: spillage and vapor displacement. Spillage emissions result when fuel is spilled during the refueling process. Some or all of the spilled fuel will subsequently vaporize, adding hydrocarbon compounds to the atmosphere. Vapor displacement emissions result when new liquid fuel being added to a fuel tank displaces fuel vapors already present in the tank. For example, if one gallon of gasoline is added to a fuel tank already containing some gasoline, one gallon of gasoline vapor will be displaced to the atmosphere by one gallon of liquid fuel.

Although spillage and vapor displacement both occur during a single refueling event, the draft NONROAD2004 model shows them as separate outputs. This is to provide additional flexibility in using NONROAD output for atmospheric modeling. Spillage emissions and vapor displacement emissions will typically have different chemical characteristics. Spillage emissions will be composed of all of the compounds found in gasoline, while vapor displacement emissions will be primarily composed of the lighter compounds that have vaporized in the gas tank (the heavier compounds will remain as liquids in the tank). Separating refueling emissions into the two components in the output allows atmospheric modelers to account for the effects of these differences on atmospheric chemistry.

For both spillage and vapor displacement, the model initially calculates an emission factor in terms of grams of emissions per gallon of fuel consumed. Fuel consumption is then used to calculate total emissions based on the g/gal emissions factors.

Refueling modes - Gasoline Pump vs. Portable Container

Many types of nonroad equipment are commonly refueled from a portable container rather than from a gasoline pump. Refueling nonroad equipment from a portable container results in different emissions for both spillage and vapor displacement compared to refueling from a gasoline pump. These differences are described in detail below. In addition, the use of portable containers also results in extra refueling events. Both spillage and displacement emissions will also occur when the container is filled from a gasoline pump. However, due to lack of data, we have not attempted to quantify this extra set of refueling emissions in the draft NONROAD2004 model. We welcome comments and data submissions that would help us quantify these refueling emissions in future versions of NONROAD.

Because the different refueling modes result in different emissions, we must make assumptions in NONROAD about which equipment will be refueled predominantly using a gasoline pump and which will be refueled predominantly from a portable container. Table 1 shows refueling mode assumptions that have been used in the past compared to the current version of NONROAD. The draft NONROAD2004 model allows the refueling mode to be based on horsepower or tank volume. For some types of gasoline-powered equipment, versions with larger horsepowers are fueled at the pump while versions with smaller horsepowers are fueled with a container. All equipment powered by diesel engines are assumed to be fueled at the pump

Table 1: Alternative Refueling Mode Assumptions.

Source	Portable container	Gasoline pump
NEVES	Lawn and garden (except chippers/stump grinders), recreational, light commercial, all other equipment with tank volumes less than 6 gallons.	Chippers/stump grinders, all other equipment with tank volumes greater than 6 gallons except lawn and garden, recreational, and light commercial equipment.
ARB Small Engine Model	All gasoline 2-stroke engines and all equipment less than 15 hp.	All gasoline 4-stroke engines greater than 15 hp
Draft 2002 NONROAD	- All lawn and garden equipment. - Smaller horsepower gasoline recreational, industrial, commercial, logging, recreational marine, and railway maintenance equipment.	- All gasoline construction equipment. - All gasoline agricultural equipment. - All gasoline aircraft ground support equipment. - Oil Field Equipment. - Larger horsepower gasoline recreational, industrial, commercial, logging, recreational marine, and railway maintenance equipment. - All diesels.

Spillage Emissions

EPA has received no significant new information on spillage emissions since the Nonroad Engine and Vehicle Emission Study (NEVES) was published in 1991. NEVES described two refueling factors; a value of 17 grams of fuel spilled per refueling event for equipment refueled from a portable container, and a value of 3.6 grams of fuel spilled per refueling event for equipment refueled from a gas pump. The first value was derived from an OPEI study and the second value was derived from MOBILE4 estimates for refueling of on-highway vehicles. NEVES gives the following reasons for the difference in these two values: (1) fuel containers are more difficult to use than gas pumps, and (2) fuel containers do not have automatic shutoff capability. Given the lack of new information, we have kept the NEVES values in draft NONROAD2004 using the following equations (all gasoline spilled is assumed to evaporate into the atmosphere):

For refueling from portable containers:

Spillage (g/gal.) = 17.0 ÷ tank volume

For refueling from gasoline pumps:

Spillage (g/gal.) = 3.6 ÷ tank volume

By using tank volumes in these equations, we assume that all refueling events are fill-ups of empty tanks. Given that some portion of refueling events are likely not fill-ups of empty tanks, this assumption will tend to underestimate spillage emissions. If we knew, on average, the percentage of the tank volume that was actually being filled, we could develop a better estimate of spillage emissions. However, we are not aware of any data on which to base an assumption. We welcome comments or data submissions on this issue.

Tank Volumes

Previous versions of the draft NONROAD Model used the method contained in the NEVES report [1]. For more information, please see the previous version of this technical report in the appendix.

For draft NONROAD2002, EPA expanded the regression approach used by NEVES for larger equipment to include all applications, and this has been carried over to draft NONROAD2004. The regression equation calculates proper tank volume for each horsepower bin using the appropriate ratio of tank size to horsepower (in gallons per horsepower) for each application. The resulting tank sizes have been included in the input data of NONROAD. Since actual tank size values are used in draft NONROAD2004 instead of the calculated values that could have resulted in unrealistically large fuel tank sizes in previous versions of the model, the 50 gallon cap on fuel tank size has been removed.

To revise recreational marine fuel tank sizes, EPA used data from an October 1999 database of specifications for new pleasure boats over 25 feet long from Ovation Digital Productions.[1] These data were then analyzed by looking only at the boats with gasoline engines and separating outboards from sterndrive/inboards. Linear regression of these data yielded the following equations.

Sterndrive/Inboard		
0 - 300 hp	y = 0.3335x	r-squared = 0.1996 (forced through 0,0)
over 300 hp	y = 1.5871x - 354.1	r-squared = 0.4206
Outboard		
0 - 100 hp	y = 0.4244x	r-squared = 0.2473 (forced through 0,0)

[1] CD-ROM's containing these data are available on the web at www.boatshow.com. In obtaining these data from Ovation, the US EPA has agreed that the data contained in the database are provided under license by Ovation digital Productions for internal use by the US Environmental Protection Agency, Office of Transportation and Air Quality, and that this EPA office will not resell or redistribute this data, including to other offices of the US government, without the consent of Ovation.

over 100 hp $y = 1.2218x - 74.45$ r-squared = 0.4246

where: y = fuel tank size (gallons)
x = engine horsepower

Vapor Displacement

For the draft NONROAD2002 model, we revised the methodology using the following formula from the Onboard Refueling Vapor Recovery Rule to calculate vapor displacement emissions:

Displacement (g/gal) =
EXP(-1.2798 - 0.0049 × (Td - Ta) + 0.0203 × Td + 0.1315 × RVP)

where Td = dispensed fuel temperature (degrees F)
Ta = ambient temperature (degrees F)
RVP = Reid Vapor Pressure (psi)

This formula relies on user-supplied input for temperature and RVP. The temperature of the equipment tank is assumed to be equal to the ambient temperature supplied by the user. The temperature of the dispensed fuel depends in part on the refueling mode. For equipment refueled by portable container, we assume that the temperature of the dispensed fuel equals the ambient temperature. For equipment refueled from a gasoline pump, NONROAD uses the following equation (derived from the relationship between equipment tank temperature and dispensed fuel temperature in the NEVES report) to calculate the temperature of dispensed fuel based on the ambient temperature:

Dispensed Fuel Temperature (°F) = 62 + 0.6 × (ambient temperature - 62)

EPA also uses this approach in draft NONROAD2004.

Effect of Stage II Vapor Recovery Systems

Many ozone nonattainment areas are subject to Clean Air Act requirements for Stage II vapor recovery systems on gasoline pumps. These systems are designed to capture gasoline vapors displaced during refueling from a gasoline pump, preventing their release into the atmosphere. In general, the overall effectiveness of Stage II systems at controlling refueling emissions depends on a number of factors including the baseline efficiency of the system used, the amount of refueling done at stations exempt from Stage II requirements, and the frequency and stringency of enforcement programs. For nonroad equipment, the effectiveness of Stage II systems will also depend on the refueling mode (refueling from a portable container would not be affected by Stage II controls), the frequency at which nonroad equipment is refueled at exempt stations (some categories of nonroad equipment may be more likely to be refueled at private refueling depots exempt from Stage II requirements), and the efficacy of Stage II systems

when refueling nonroad equipment (fuel tank filler openings on nonroad equipment may not be compatible with Stage II nozzles designed for refueling highway vehicles).

Given these uncertainties, we proposed the following approach to account for Stage II controls in draft NONROAD2002. When the user specifies that Stage II controls are in place, they would also specify the effectiveness of the controls as a percent reduction in refueling emissions. That percent reduction would only be applied to vapor displacement emissions for equipment refueled from a gasoline pump. This approach is continued in draft NONROAD2004.

Diesel Refueling Emissions

The draft 2004 NONROAD model assumes zero refueling emissions for diesel equipment. Because diesel fuel has a higher boiling point than gasoline, refueling emissions from diesel equipment tend to be much less significant than from gasoline equipment. As a result, very little refueling emissions data exist for diesel equipment. The NEVES report used a single emission factor of 0.041 g/gal for vapor displacement from diesel equipment under all conditions. However, this rate was based on a study conducted at fuel tank temperatures of approximately 80° F. The actual rate at other temperatures was not identified. In addition, EPA has received no comments or information that supports the use of the NEVES value or suggests any alternatives.

References

1. "Nonroad Engine and Vehicle Emission Study", Appendix I, U.S. EPA Office of Air and Radiation, November, 1991.

2. "Offroad Equipment Refueling Emissions", Presentation by California Air Resources staff, Emissions Inventory Workshop, December 16, 1997.

APPENDIX D
Emission Calculation

Estimates of Emissions and Components Per Arm
Based on Emissions and Component Counts at Existing Sales Terminal

Number of existing in-use VR arms	12
Number of existing in-use gasoline arms	18
Contingency factor	120%

Summary of Summit Fugitive Emissions Report, Average of 2002 and 2003

			2002		2003		HAE		PE2 Per Arm	
unit	comp_type	service	tot_count	tot_emsns	tot_count	tot_emsns	tot_count	tot_emsns	tot_count	tot_emsns
ST	FL	G	83	33.20	83	55.79	83.0	44.50	8.3	4.45
ST	FL	L	433	194.25	433	272.10	433.0	233.18	28.9	15.55
ST	OT	G	53	31.42	53	51.79	53.0	41.60	5.3	4.16
ST	OT	L	324	494.53	306	302.75	315.0	398.64	21.0	26.58
ST	PR	G	2	1.09	2	1.45	2.0	1.27	0.2	0.13
ST	PR	L	16	9.88	16	14.53	16.0	12.20	1.1	0.81
ST	PS	L	20	76.13	20	106.90	20.0	91.52	1.3	6.10
ST	TC	G	140	21.45	140	28.47	140.0	24.96	14.0	2.50
ST	TC	L	3949	558.30	3620	830.74	3784.5	694.52	252.3	46.30
ST	VL	G	16	4.11	16	8.27	16.0	6.19	1.6	0.62
ST	VL	L	305	62.08	268	95.82	286.5	78.95	19.1	5.26
Total			5341	1486.44	4957	1768.60	5149.0	1627.52		
Per vapor recovery arm		G	25	7.61	25	12.15	24.5	9.88	29.4	11.85
Per gasoline arm		L	280	77.51	259	90.16	269.7	83.83	323.7	100.60

PE2 Per Arm Calculations:

- All vapor service components assumed to belong to existing in-use VR arms; all liquid service components assumed to belong to existing in-use gasoline arms.
- Vapor recovery arm component count = Total component counts in gas phase service for Sales Terminal (not incl. unloading rack) divided by number of existing vapor recovery arms x contingency factor.
- Vapor recovery arm emissions = Total emissions from components in gas phase service for Sales Terminal (not incl. unloading rack) divided by number of existing vapor recovery arms x contingency factor.
- Gasoline loading arm component count = Total component counts in liquid phase service for Sales Terminal (not incl. unloading rack) divided by number of existing gasoline loading arms x contingency factor.
- Gasoline loading arm emissions = Total emissions from components in liquid phase service for Sales Terminal (not incl. unloading rack) divided by number of existing gasoline loading arms x contingency factor.

Sales Terminal Historic Annual Emissions (HAE) 2002-2003

Note: Loading of all products was conducted with connection to vapor recovery.

Material	2002 Throughput (gal)	2003 Throughput (gal)	Average Throughput (gal)	Vapor Emissions	Liquid Emissions
Gasoline	248,788,588	261,373,657	255,081,123	Gas-phase Fugitives	Fugitives + spillage
Diesel	149,829,548	138,929,908	144,379,728	Gas-phase Fugitives	Fugitives + 5% of spillage
FOC	86,607,050	59,036,638	72,821,844	Gas-phase Fugitives	Fugitives + 5% of spillage

Vapor Recovery Arm Fugitive VOC Emissions

Summit Fugitive VOC Emissions Report for Sales Terminal (Gas-Phase)

Component Type	Service	2002 VOC, lb/yr	2003 VOC, lb/yr	Average VOC, lb/yr
FL	G	33.2	55.8	44.5
OT	G	31.4	51.8	41.6
PR	G	1.1	1.5	1.3
TC	G	21.5	28.5	25.0
VL	G	4.1	8.3	6.2
Total		91.3	145.8	118.5

Spillage Losses

Parameter	Value	Units	Notes
Truck volume	8,800	gal/truck	
Disconnects/truck	4		
Spillage/disconnect	10	mL/disconnect	Rule 4624 limit
Gasoline throughput	255,081,123	gal/yr	2002-2003 average
Gasoline density	5.6	lb/gal	AP-42
Gasoline evaporation factor	100%	-	Assume all evaporates
Total gasoline spillage loss	1,715.3	lb/yr	Actual annual
Diesel throughput	144,379,728	gal/yr	2002-2003 average
Diesel density	7.1	lb/gal	AP-42
Diesel evaporation factor	5%	-	Minimal evaporation
Total diesel spillage loss	61.5	lb/yr	Actual annual
FOC throughput	72,821,844	gal/yr	2002-2003 average
FOC density	8.12	lb/gal	Sample data
FOC evaporation factor	5%	-	Minimal evaporation
Total FOC spillage loss	35.5	lb/yr	Actual annual

Spillage loss (lb/yr) = (Throughput gal/yr) / (Truck Vol gal/truck) x (Disconnects/truck) x (mL/disconnect) x (Density lb/gal) / (3785.4 mL/gal) x (Evaporation Factor)

Sales Terminal Historic Annual Emissions (HAE) 2002-2003

Gasoline Loading Arm Fugitive VOC Emissions

Summit Fugitive VOC Emissions Report for Sales Terminal (Liquid-Phase)

Component Type	Service	2002 VOC, lb/yr	2003 VOC, lb/yr	Average VOC, lb/yr
FL	L	194.3	272.1	233.2
OT	L	494.5	302.7	398.6
PR	L	9.9	14.5	12.2
PS	L	76.1	106.9	91.5
TC	L	558.3	830.7	694.5
VL	L	62.1	95.8	78.9
Total		1,395.2	1,622.8	1,509.0

Diesel and FOC Loading Arm Fugitives

- It is assumed that each diesel or FOC loading arm has the same number of components as a gasoline loading arm.
- Because these components are not monitored as part of an LDAR program, emissions are calculated using emission factors from CAPCOA publication "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" (February 1999), Table IV-1b, "1995 EPA Protocol Marketing Terminal Average Emission Factors."
  - Table IV-1b with average emission factors for Marketing Terminals does not include emission factors for heavy liquids. Therefore, light liquid emission factors are used.
- Number of existing in-use arms:

Diesel	10
FOC	4
Total	14

- VOC/THC assumed to be: 1.0

Component Type	Components Per Arm	Components	THC EF (kg/hr/source)	VOC Emissions (lb/yr)
FL (Flange)	24.1	336.8	8.00E-06	52.0
OT (Other)	17.5	245.0	1.30E-04	615.1
PR (Pressure Release)	0.9	12.4	1.30E-04	31.2
PS (Pump Seal)	1.1	15.6	5.40E-04	162.2
TC (Connector)	210.3	2943.5	8.00E-06	454.8
VL (Valve)	15.9	222.8	4.30E-05	185.0
Total				1,500.4

For the purposes of air toxic emissions calculations, it is assumed that these emissions are divided between diesel and FOC proportional to number of existing in-use loading arms.

Summary of VOC Emissions

Source	lb/yr
VR arm fugitive emissions	118.5
Gasoline loading arm fugitives	1,509.0
Diesel loading arm fugitives	1,071.7
FOC loading arm fugitives	428.7
Gasoline spillage losses	1,715.3
Diesel spillage losses	61.5
FOC spillage losses	35.5
Total	**4,940.3**

Sales Terminal Post-Project Potential to Emit (PE2)

Material	Max Daily Throughput (gal)	Max Annual Throughput (gal)	Vapor Emissions	Liquid Emissions
Gasoline	1,848,000	602,469,000	Gas-phase Fugitives	Fugitives + spillage
Diesel	1,344,000	410,353,440	Gas-phase Fugitives	Fugitives + 5% of spillage
CSO	302,400	19,438,440	Gas-phase Fugitives	Fugitives + 5% of spillage

Vapor Recovery Arm Fugitive VOC Emissions

Parameter	Value	Units	Notes
BE	159.1	lb/yr	See HAE calcs
Number of add'l VR arms	4	arms	
Emissions per VR arm	15.9	lb/yr	See per arm calcs
PE2	222.7	lb/yr	Equation below

$PE2 = BE_{VR} + (Emissions/Arm \times Add'l\ Arms)_{VR}$

Gasoline Loading Arm Fugitive VOC Emissions

Parameter	Value	Units	Notes
BE	1,681.7	lb/yr	See HAE calcs
Number of add'l gasoline arms	20	arms	
Emissions per gasoline arm	109.1	lb/yr	See per arm calcs
PE2	3,862.8	lb/yr	Equation below

$PE2 = BE_{Gasoline\ Loading} + (Emissions/Arm \times Add'l\ Arms)_{Gasoline\ Loading}$

Spillage Losses

Parameter	Value	Units	Notes
Truck volume	8,800	gal/truck	
Disconnects/truck	4		
Spillage/disconnect	10	mL/disconnect	Rule 4624 limit
Gasoline density	5.6	lb/gal	AP-42
Gasoline evaporation factor	100%	-	Assume all evaporates
Total gasoline spillage loss	4,051.2	lb/yr	Max annual
Max daily gasoline spillage loss	12.4	lb/day	Max daily
Diesel density	7.1	lb/gal	AP-42
Diesel evaporation factor	5%	-	Minimal evaporation
Total Diesel spillage loss	174.9	lb/yr	Max annual
Max daily diesel spillage loss	0.6	lb/day	Max daily
CSO density	8.12	lb/gal	AP-42
CSO evaporation factor	5%	-	Minimal evaporation
Total CSO spillage loss	9.5	lb/yr	Max annual
Max daily CSO spillage loss	0.1	lb/day	Max daily

Spillage loss (lb/yr) = (Throughput gal/yr) / (Truck Vol gal/truck) x (Disconnects/truck) x (mL/disconnect) x (Density lb/gal) / (3785.4 mL/gal) x (Evaporation factor)

Spillage loss (lb/day) = (Throughput gal/day) / (Truck Vol gal/truck) x (Disconnects/truck) x (mL/disconnect) x (Density lb/gal) / (3785.4 mL/gal) x (Evaporation factor)

Sales Terminal Post-Project Potential to Emit (PE2)

Diesel and CSO Loading Arm Fugitives

- It is assumed that each diesel loading arm has the same number of components as a gasoline loading arm.
- Because these components are not monitored as part of an LDAR program, emissions are calculated using emission factors from CAPCOA publication "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" (February 1999), Table IV-1b, "1995 EPA Protocol Marketing Terminal Average Emission Factors."
  - Table IV-1b with average emission factors for Marketing Terminals does not include emission factors for heavy liquids. Therefore, light liquid emission factors are used.
- Post-project # of diesel loading arms: 20
- Post-project # of CSO loading arms: 2
  - Note: CSO (FCC Slurry Oil) is a very similar material to FOC (Fuel Oil Cutter). CSO will be loaded through two of the loading arms previously used for FOC.
- VOC/THC assumed to be: 1.0

Component Type	Components Per Arm	Components	THC EF (kg/hr/source)	VOC Emissions (lb/yr)
FL (Flange)	28.9	635.1	8.00E-06	98.12
OT (Other)	20.4	448.8	1.30E-04	1126.77
PR (Pressure Release)	1.1	23.5	1.30E-04	58.92
PS (Pump Seal)	1.3	29.3	5.40E-04	305.91
TC (Connector)	241.3	5309.3	8.00E-06	820.29
VL (Valve)	17.9	393.1	4.30E-05	326.42
PE2				2,736.42

For the purposes of air toxic emissions calculations, it is assumed that these emissions are divided between diesel and CSO proportional to number of post-project loading arms.

Summary of VOC Emissions

Source	VOC lb/yr	VOC lb/day
VR arm fugitive emissions	222.7	0.6
Gasoline loading arm fugitives	3,862.8	10.6
Diesel loading arm fugitives	2,487.7	6.8
CSO loading arm fugitives	248.8	0.7
Gasoline spillage losses	4,051.2	12.4
Diesel spillage losses	174.9	0.6
CSO spillage losses	9.5	0.1
Total PE2	**11,057.5**	**31.8**

Appendix E
BACT Guideline 7.1.10

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.1.10*

Last Update: 2/23/2005

Loading Rack/Switch Loading

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	natural gas fired pilot and air assist		
NOx	natural gas or LPG fired pilot and air assist		
PM10	air assisted flare with smokeless combustion		
SOx	natural gas fired flare		
VOC	bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency => 99%		

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 s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is requried 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 - Permit Specific BACT Determinations on Next Page(s)**

Appendix F
BACT Analysis

BACT Analysis for VOC Emissions:

Step 1 - Identify All Possible VOC control Technologies

bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency => 99% - Achieved in Practice

Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency => 99% - Achieved in Practice

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options in the list from Step 3 in the order of their ranking to determine the cost effective option with the lowest emissions.

The only control technology alternative in the ranking list from Step 3 has been proposed. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

Step 5 - Select BACT

BACT for VOC emissions is bottom loading with dry break couplers and vapor collection vented to a thermal incinerator or flare with destruction efficiency => 99%

Appendix G
RMR/AAQA

San Joaquin Valley Air Pollution Control District
Risk Management Review

To: L. Scandura, R. Karrs, D. Torri, AQE – Permit Services

From: Joe Aguayo, AQS – Technical Services

Date: August 8, 2008

Facility Name: Big West of California, LLC

Location: Bakersfield

Project #:	S-1061149	S-1062742	S-1062741
Application #(s):	S-33-407-0	S-33-13-18	S-3303-1-4
	S-33-408-0	S-33-67-4	
	S-33-409-0	S-33-419-0	
	S-33-410-0	S-33-420-0	
	S-33-411-0	S-33-423-0	
	S-33-413-0	S-33-424-0	
	S-33-415-0	S-33-425-0	
	S-33-416-0	S-33-426-0	

A. RMR SUMMARY

Cumulative risks for the Clean Fuels Project (CFP) were reported for the PMI at which Maximum Individual Cancer Risk was calculated for a residential receptor (Receptor 4176). Risks for individual units are reported for the PMI at which each Hazard Index and Cancer Risk was highest. Receptor numbers are given in parentheses.

CFP Cumulative RMR Summary (Rec. 4176)[1]	
Categories	**Facility Totals**
Prioritization Score	>1
Acute Hazard Index	7.89×10^{-2}
Chronic Hazard Index	1.11×10^{-2}
Maximum Individual Cancer Risk (10^{-6})	3.42

[1]Includes only the risk estimated for new and previously permitted units at facility S-33.

RMR Summary Mild Hydrocracker	
Categories	**Unit 13-18**
Acute Hazard Index	7.41×10^{-4} (4140)
Chronic Hazard Index	5.05×10^{-4} (4176)
Maximum Individual Cancer Risk (10^{-6})	0.09 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Tank 30M02	
Categories	**Unit 67-4**
Acute Hazard Index	1.24×10^{-5} (4144)
Chronic Hazard Index	2.07×10^{-5} (4144)
Maximum Individual Cancer Risk (10^{-6})	0.01 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Hydrogen Plant (HGU2)	
Categories	**Unit 407-0**
Acute Hazard Index	1.49×10^{-3} (4144)
Chronic Hazard Index	1.05×10^{-3} (4144)
Maximum Individual Cancer Risk (10^{-6})	0.44 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Vacuum Gas Oil Hydro-De-Sulfurization Unit (VGO-HDS)	
Categories	**Unit 408-0**
Acute Hazard Index	6.60×10^{-2} (4144)
Chronic Hazard Index	6.34×10^{-3} (4140 and 4176)
Maximum Individual Cancer Risk (10^{-6})	0.09 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Sour Water Ammonia to Ammonium Thiosulfate Unit (SWAATS)	
Categories	**Unit 409-0**
Acute Hazard Index	3.40×10^{-3} (4144)
Chronic Hazard Index	7.50×10^{-4} (4144)
Maximum Individual Cancer Risk (10^{-6})	0.13 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Fluid Catalytic Cracking Unit (FCCU)	
Categories	**Unit 410-0**
Acute Hazard Index	3.09×10^{-3} (4144)
Chronic Hazard Index	9.98×10^{-4} (4144)
Maximum Individual Cancer Risk (10^{-6})	0.21 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for LPG Merox Treating Unit	
Categories	**Unit 411-0**
Acute Hazard Index	8.94×10^{-4} (4140)
Chronic Hazard Index	8.16×10^{-4} (4176)
Maximum Individual Cancer Risk (10^{-6})	0.24 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Ground Flare	
Categories	**Unit 413-0**
Acute Hazard Index	1.92e-2 (4144)
Chronic Hazard Index	3.33e-4 (4140 and 4176)
Maximum Individual Cancer Risk (10^{-6})	0.26 (4140)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for General Cooling Tower	
Categories	**Unit 415-0**
Acute Hazard Index	7.77×10^{-5} (4176)
Chronic Hazard Index	4.90×10^{-5} (4176)
Maximum Individual Cancer Risk (10^{-6})	0.10 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Alkylation Unit Cooling Tower	
Categories	**Unit 416-0**
Acute Hazard Index	5.35×10^{-5} (4144)
Chronic Hazard Index	8.17×10^{-5} (4176)
Maximum Individual Cancer Risk (10^{-6})	0.17 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Emergency Diesel IC Engines	
Categories	**Units 419-0, 420-0 and 429-0**
Acute Hazard Index	0.0
Chronic Hazard Index	3.36×10^{-4} (4144)
Maximum Individual Cancer Risk (10^{-6})	0.70 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for 80K bbl Gasoline Tank	
Categories	**Unit 423-0**
Acute Hazard Index	$4.49x10^{-5}$ (4144)
Chronic Hazard Index	$5.57x10^{-5}$ (4144)
Maximum Individual Cancer Risk (10^{-6})	0.06 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary Process Water Tank	
Categories	**Unit 424-0**
Acute Hazard Index	$9.88e^{-5}$ (4176)
Chronic Hazard Index	$3.36e^{-5}$ (4176)
Maximum Individual Cancer Risk (10^{-6})	0.03 (4176)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Tank 20M01	
Categories	**Unit 425-0**
Acute Hazard Index	$8.40x10^{-6}$ (4144)
Chronic Hazard Index	$1.51x10^{-5}$ (4144)
Maximum Individual Cancer Risk (10^{-6})	0.01 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Tank 20M02	
Categories	**Unit 426-0**
Acute Hazard Index	$9.80x10^{-6}$ (4144)
Chronic Hazard Index	$1.57x10^{-5}$ (4144)
Maximum Individual Cancer Risk (10^{-6})	0.01 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

RMR Summary for Sales Terminal Loading Rack	
Categories	**Unit S-3303-1-4**
Acute Hazard Index	$5.91x10^{-5}$ (4144)
Chronic Hazard Index	$5.49x10^{-5}$ (4144)
Maximum Individual Cancer Risk (10^{-6})	0.05 (4144)
T-BACT Required?	No
Special Permit Conditions?	No

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

All Units

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request in April 2006, to perform an Ambient Air Quality Analysis and a Risk Management Review for a proposed installation of: a 24,000 BPSD Vacuum Gas Oil Hydro-De-Sulfurization Unit, a 25,000 BPSD Fluid Catalytic Cracking Unit, a Sour Water Stripper, an 11,000 BPSD LPG Merox Treating Unit, a 11,000 BPSD Alkylation Unit a 28 MMSCFD Hydrogen Unit, a ATS unit to handle ammonia and sulfur removal, a low pressure Alky Unit Flare and a high pressure Ground Flare, a cooling tower for the alkylation unit, a cooling tower for the remaining cooling water needs, three (3) diesel fire pumps, and five (5) Storage Tanks. Included in this Risk Management Review are modifications to the following existing units: A Mild Hydrocracker, a Truck Loading Operation, and a Sales Terminal Loading Rack at S-3303. The RMR was completed in July 2006.

In December of 2006, Technical Services received revised Health Risk and Ambient Air Quality analyses from the Ashworth Leininger Group for the above project. This memorandum is a review of the risks estimated for those revised analyses. Changes to the project include the removal of the following emission sources: a low pressure Alkyl Unit Flare, a Steam Boiler, and 1 Diesel Fire Pump. The locations of the following units were also changed: The ATS unit, the General Cooling Tower, the HF Alkyl Cooling Tower, and the remaining 3 Diesel Fire Pumps.

In August 2008, the RMR was revised to include the results of modeling using AERMOD.

II. Analysis

Technical Services did not perform a prioritization using the District's HEARTs database. Since the previous total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated by Ashworth Leininger Group (see attachment) were input into the HARP model. In addition to the new and modified units in the Clean Fuels Project, all previously permitted and constructed new and modified units (since 1996) were modeled to determine cumulative impacts. The HARP dispersion module was used, with the attached source parameters and meteorological data for 2000 from Bakersfield to determine the maximum dispersion factors at the nearest residential, business and other sensitive receptors. These dispersion factors were input to the HARP risk module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

Technical Services also performed an Ambient Air Quality Analysis (AAQA) for the following criteria pollutants: CO, NOx, SOx and PM_{10}. The emission rates used for criteria pollutant modeling are shown below:

Emissions Rates

		NOx g/s	SOx g/s	CO g/s	PM10g/s
VGOHTR		0.1438	0.0333	0.2189	0.0441
VGOFRHTR		0.1071	0.0248	0.1630	0.0329
H2REFORM		0.4904	0.4545	0.5971	0.6018
FCC UR EG		1.0604	1.4765	1.9046	1.1647
		2.1208	3.6913	16.1407	1.1647
MHC14H12		0.3748	0.0638	1.4904	0.0845
HFREBOIL		0.1645	0.1525	0.2003	0.2018
SWAATS		0.0000	0.2322	4.3994	0.0000
COOLT1		0.0000	0.0000	0.0000	0.0303
COOLT2		0.0000	0.0000	0.0000	0.0303
GNDFLARE	1hr	3.2444	12.5887	17.6532	N/A
	3hr	3.2444	4.1977	N/A	N/A
	8hr	2.4397	1.5755	13.2748	N/A
	24hr	0.8304	0.5266	N/A	0.3175
	Ann	0.0279	0.0057	N/A	0.0107
FIREPUMP	1hr	1.9425	0.0022	1.1375	N/A
	3hr	0.6475	0.0007	N/A	N/A
	8hr	0.2428	0.0003	0.1422	N/A
	24hr	0.0809	0.0001	N/A	0.0027
	Ann	0.0222	0.00002	N/A	0.0007
EMRFLARE		15.88	-	86.39	-

Results of the AAQA are as follows:

Criteria Pollutant Modeling Results*

Values are in $\mu g/m^3$

Pollutant	Avg Per	Max Imp.	Back Conc.	Total Conc.	CAAQS	NAAQS	Significance Impact Level
NOx	1h	195.42	138.95	334.37	470	N/A	-
	Ann	0.96	33.80	34.76	N/A	100	-
CO	1h	122.19	3,772.8	3894.99	23,000	40,000	-
	8h	32.90	2,515.4	2548.30	10,000	10,000	-
SOx	1h	86.11	78.44	164.55	655	N/A	-
	3h	86.11	39.22	125.33	N/A	1300	-
	24h	1.86	13.07	14.93	105	365	-
	Ann	0.42	5.23	5.65	N/A	80	-
PM10	24h	1.18[1]	Non attainment	1.18	-	-	5
	Ann	0.44[1]	Non attainment	0.44	-	-	1

[1]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The acute and chronic indices are below 1.0, the cancer risk for the Clean Fuels Project is less than 1.0 in a million, and the cumulative cancer risk is less than 10 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.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

Based on the changes in the August 2008 analyses, overall risk for this project went down with respect to risk estimated using the April 2006 analyses and December 2006.

Emissions Rates

		NOx g/s	SOx g/s	CO g/s	PM10g/s
VGOHTR		0.1438	0.0333	0.2189	0.0441
VGOFRHTR		0.1071	0.0248	0.1630	0.0329
H2REFORM		0.4904	0.4545	0.5971	0.6018
FCC UR EG		1.0604	1.4765	1.9046	1.1647
		2.1208	3.6913	16.1407	1.1647
MHC14H12		0.3748	0.0638	1.4904	0.0845
HFREBOIL		0.1645	0.1525	0.2003	0.2018
SWAATS		0.0000	0.2322	4.3994	0.0000
COOLT1		0.0000	0.0000	0.0000	0.0303
COOLT2		0.0000	0.0000	0.0000	0.0303
GNDFLARE	1hr	3.2444	12.5887	17.6532	N/A
	3hr	3.2444	4.1977	N/A	N/A
	8hr	2.4397	1.5755	13.2748	N/A
	24hr	0.8304	0.5266	N/A	0.3175
	Ann	0.0279	0.0057	N/A	0.0107
FIREPUMP	1hr	1.9425	0.0022	1.1375	N/A
	3hr	0.6475	0.0007	N/A	N/A
	8hr	0.2428	0.0003	0.1422	N/A
	24hr	0.0809	0.0001	N/A	0.0027
	Ann	0.0222	0.00002	N/A	0.0007
EMRFLARE		15.88	-	86.39	-

Results of the AAQA are as follows:

Criteria Pollutant Modeling Results*

Values are in $\mu g/m^3$

Pollutant	Avg Per	Max Imp.	Back Conc.	Total Conc.	CAAQS	NAAQS	Significance Impact Level
NOx	1h	195.42	138.95	334.37	470	N/A	-
	Ann	0.96	33.80	34.76	N/A	100	-
CO	1h	122.19	3,772.8	3894.99	23,000	40,000	-
	8h	32.90	2,515.4	2548.30	10,000	10,000	-
SOx	1h	86.11	78.44	164.55	655	N/A	-
	3h	86.11	39.22	125.33	N/A	1300	-
	24h	1.86	13.07	14.93	105	365	-
	Ann	0.42	5.23	5.65	N/A	80	-
PM10	24h	1.18[1]	Non attainment	1.18	-	-	5
	Ann	0.44[1]	Non attainment	0.44	-	-	1

[1]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

IV. Conclusion

The acute and chronic indices are below 1.0, the cancer risk for the Clean Fuels Project is less than 1.0 in a million, and the cumulative cancer risk is less than 10 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.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

Based on the changes in the August 2008 analyses, overall risk for this project went down with respect to risk estimated using the April 2006 analyses and December 2006.

Appendix H
Compliance Certification

BIG WEST OF CALIFORNIA, LLC
A FLYING J Company
6451 Rosedale Highway • Bakersfield, CA 93308 • Phone 661.326.4200 • www.flyingj.com

September 7, 2006

Mr. Tom Goff
San Joaquin Valley Air Pollution Control District
Southern Region
2700 "M" Street, Suite 275
Bakersfield, CA 93301-2370

Re: Big West of California, LLC – Clean Fuels Project – Compliance Certification

Dear Mr. Goff:

In response to the District's request, I am providing this certification of compliance, as required by District Rule 2201, Section 4.15.2, to allow the District to determine that the permit applications associated the Big West of California, LLC Clean Fuels Project are complete. On behalf of Big West of California, LLC, I hereby certify, under penalty of perjury, the following:

- I am authorized to make this certification on behalf of Big West of California, LLC.
- This certification is made pursuant to District Rule 2201, Section 4.15.2.
- To the best of my knowledge, at 12:01 am on September 7, 2006 all major stationary sources owned or operated by Big West of California, LLC in the State of California were either in compliance or on a schedule of compliance with all applicable state and federal air quality emission limitations or standards.

Each of the statements made in this letter is made in good faith. Accordingly, it is Big West of California LLC's understanding in submitting this certification that the District shall take no action against Big West of California LLC or any of its employees based on any statement made in this certification.

Signed: _____
Name: Gene Cotten, Refinery Manager
Dated: 9/7/06
Time: 5:00 AM/PM

Thank you very much for your continued assistance in Big West of California's Clean Fuels Project. Please call Mr. Bill Chadick (661.326.4412) should you have any additional questions on this matter.

Very truly yours,

Gene Cotten
Vice President Refining
Refinery Manager
Big West of California, LLC

cc: Mr. Bill Chadick

Appendix I
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-3303-1-4 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: BIG WEST OF CA, LLC
MAILING ADDRESS: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

LOCATION: 2436 FRUITVALE AVENUE
BAKERSFIELD, CA 93308

SECTION: 27 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
MODIFICATION OF TRUCK LOADING OPERATION INCLUDING 36 BOTTOM LOADING ARMS, 6 TOP LOADING ARMS AND VAPOR RECOVERY ARMS SERVED BY VAPOR RECOVERY SYSTEM LISTED ON PERMIT S-33-41: ADD 17 TO 20 GASOLINE BOTTOM LOADING ARMS, 10 DIESEL BOTTOM LOADING ARMS, 2 BOTTOM LOADING CSO ARMS, ADD 4 VAPOR RECOVERY ARMS, REMOVE FOUR FOC BOTTOM LOADING ARMS, FOUR RGO BOTTOM LOADING ARMS AND REMOVE TOP-LOADING ARMS

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 NSR Rule] 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. Delivery vessels loaded at this facility shall be vapor tight and shall be so certified by the State Fire Marshall. [District Rule 4621] Federally Enforceable Through Title V Permit
4. Loading arms shall establish a leak (as defined in Rule 4624) free seal with delivery vessels. [District Rule 4624] Federally Enforceable Through Title V Permit
5. Throughput of gasoline from this permit unit shall not exceed 1,848,000 gallons per day or 602,469,000 gal/year. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Throughput of diesel fuel from this permit unit shall not exceed 1,344,000 gallons per day or 410,353,440 gal/year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 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

DAVID WARNER, Director of Permit Services
S-3303-1-4 : Aug 28 2008 1:42PM – TORID : Joint Inspection NOT Required

7. Throughput of FCC slurry oil (CSO) from this permit unit this shall not exceed 302,400 gallons per day or 19,438,440 gal/year. [District Rule] Federally Enforceable Through Title V Permit
8. CSO's true vapor pressure (TVP) shall not exceed 0.008 psia at 20 degrees C. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall conduct true vapor pressure (TVP) testing of the CSO within 180 days of start-up. [District Rule 2201] Federally Enforceable Through Title V Permit
10. CSO TVP shall be determined by measuring the Reid vapor Pressure (RVP) using ASTM D 323-94 and converting to TVP at 20 degrees C. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Vapor return arms shall be connected during all loading. [60 CFR 60.502(a), District Rule 2201] Federally Enforceable Through Title V Permit
12. Hose couplers shall be of dry-break type to prevent liquid spill upon disconnection. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Liquid and vapor hoses, couplers, fittings and piping shall be maintained in a leak (as defined in 4624) free condition. [District Rule 4624] Federally Enforceable Through Title V Permit
14. Fugitive volatile organic compound (VOC) emissions from vapor return arms and gasoline loading arms (as determined by annual component count, annual LDAR results and District approved emission factors) and from diesel and CSO loading arms (as determined by annual component count and District approved emission factors) shall not exceed 17.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permit holder shall maintain accurate count of vapor return arm components and gasoline loading arm components 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), Correlation Equations and Factors for Refineries and Marketing Terminals Emission Factors. Permit holder shall update such records when new components are installed. Components shall be screened and leak rate shall be measured at least once each quarter. If compliance with the daily emission limit is shown based on the average of the prior 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
16. Permittee shall maintain accurate count of diesel and CSO loading arm components and resultant emissions according to EPAs "Protocol for Equipment Leak Emission Estimate," Table IV-1b, Marketing Terminal Average Emission Factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Loading spillage shall not exceed 13.1 lb/day from this permit unit. Compliance with this limit shall be demonstrated by compliance with throughput limits and the limit on liquid drainage upon disconnect. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
19. Operator shall maintain all records of required monitoring data and support information for inspection for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
20. The loading rack shall be equipped with bottom loading and a vapor collection and control system such that TOC emissions do not exceed 0.08 pounds per 1000 gallons of organic liquid with greatest vapor pressure loaded. [60 CFR 60.502(b), District Rules 2520, 9.3.2 and 4624, 5.1.1 and Kern County Rule 413] Federally Enforceable Through Title V Permit
21. Vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [40 CFR 60.502(h), District Rule 4624, 5.2 and Kern County Rule 413] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

22. {853} The transfer of gasoline from any delivery vessel to any stationary storage container with 250 gallon capacity or more 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 manufacturers specifications. [District Rule 4621, 5.1.1] Federally Enforceable Through Title V Permit

23. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 lb/1000 gallons loaded. [District Rules 4624, 5.3] Federally Enforceable Through Title V Permit

24. {856} No gasoline delivery vessel shall be used or operated unless it is vapor tight. 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. [District Rule 4621, 5.2.1 & 5.2.2, Health & Safety Code, section 41962, and CCR, Title 17 section 94004] Federally Enforceable Through Title V Permit

25. The test method to determine vapor tightness of delivery vessels owned or operated by this facility shall be EPA Method 27. [District Rule 4621, 6.2.3 and 40 CFR 60.503(c)] Federally Enforceable Through Title V Permit

26. {858} Construction, reconstruction (as defined in District Rule 4001, amended January 19, 1995), or expansion of any top loading facility shall not be allowed. [District Rule 4624, 5.5] Federally Enforceable Through Title V Permit

27. Loading and vapor collection and control equipment shall be designed, installed, maintained and operated such that there are no leaks or excess organic liquid drainage at disconnections. A leak shall be defined as the dripping of organic compounds 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 mls per average of 3 consecutive disconnects. [District Rule 4624, 5.4; and Kern County Rule 413] Federally Enforceable Through Title V Permit

28. During the loading of organic liquids, the operator shall perform and record the results of monthly leak inspections of the loading and vapor collection equipment at each loading arm. Leak inspections shall be conducted using sight, sound, or smell. [District Rule 2520, 9.3.2, 40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

29. Corrective steps shall be taken at any time the operator observes excess drainage at disconnect. In addition, the operator shall perform and record the results of drainage inspections at disconnect conducted on a quarter of the loading arms every calendar quarter. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall change to quarterly for all loading arms. If no excess drainage is found after four consecutive quarterly inspections of all loading arms, the inspection frequency shall return to inspections of a quarter of the loading arms every calendar quarter. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one (1) minute of collection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Each detected leak shall be repaired within 15 calendar days of detection. [40 CFR 60.502(j)] Federally Enforceable Through Title V Permit

32. The permittee shall maintain an inspection log containing at least the following: A) dates of leak and drainage inspections, B) leak determination method, C) findings, D) corrective action (date each leak or excess drainage condition repaired, reasons for any leak repair interval in excess of 15 days), and E) inspector name and signature. [District Rule 2520, 9.4.3 and 40 CFR 60.505(c)] Federally Enforceable Through Title V Permit

33. The loading rack's vapor collection and control system (VCCS) shall be tested annually to demonstrate that the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm (20 inch) water gauge pressure with a precision of ±2.5 mm (0.1 inch) water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. Every loading position must be tested at least once during the annual performance test. [District Rule 2520, 9.3.2 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. {869} Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520, 9.1] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rule 413, District Rules 4621(as amended June 18, 1998), sections 5.1.3 and 5.2, and 4624 (as amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. {872} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of 40CFR60, Subpart XX. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. Permittee shall identify the number of gasoline loading arms added and provide such information to the District in writing prior to installation. [District Rule 1070]

38. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 2688 lb, 2nd quarter - 2688 lb, 3rd quarter - 2688 lb, and fourth quarter - 2688 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]

39. ERC Certificate Number 2452-1 (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]

40. Formerly S-33-45-0.

41. ATC S-33-41-4 shall be implemented prior to or concurrently with this ATC. [District Rule 2201]