San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

APR 2 5 2016

Scott Schmidt
Plow & Till DBA Farming D
P O Box 248
Five Points, CA 93624

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: C-5530
Project Number: C-1152496

Dear Mr. Schmidt:

Enclosed for your review and comment is the District's analysis of Plow & Till DBA Farming D's application for an Authority to Construct for the installation of twelve transportable 84 bhp Tier 3 certified diesel-fired IC engines powering booster pumps, at 24941 S Lassen Ave in Five Points.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. John Yoshimura of Permit Services at (559) 230-5887.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:JY

Enclosures

cc: Tung Le, CARB (w/ enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Transportable Diesel-Fired Booster Pump IC Engines

Facility Name:	Plow & Till DBA Farming D	Date:	April 11, 2016
Mailing Address:	PO Box 248 Five Points, CA 93624	Engineer: Lead Engineer:	John Yoshimura Joven Refuerzo
Contact Person:	Scott Schmidt		
Telephone:	(559) 884-2133		
Fax:	(559) 884-2791		
E-Mail:	scott@farmingd.com		
Application #s:	C-5530-23-0, '-24-0, '-25-0, '-26-0, '-27-0, '-28-0, '-29-0, '-30-0, '-31-0, '-32-0, '-33-0, and '-34-0		
Project #:	C-1152496		
Deemed Complete:	October 6, 2015		

I. Proposal

Plow & Till DBA Farming D (Farming D) has requested Authority to Construct (ATC) permits for the installation of twelve transportable 84 bhp Tier 3 certified diesel-fired IC engines powering booster pumps. The facility has indicated these engines will be operated at different well sites at their property (see Appendix A). According to the applicant, these engines were installed in 2011 without permits. Therefore, these engines will be permitted as new engines and will be subject to District Rule 2201 requirements.

II. Applicable Rules

Rule 2010	Permits Required (12/17/92)
Rule 2020	Exemptions (8/18/11)
Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (11/26/12)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4202	Particulate Matter Emission Rate (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4701	Internal Combustion Engines - Phase 1 (8/21/03)
Rule 4702	Internal Combustion Engines (11/14/13)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure

93115 (Stationary Diesel Engines)
California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure 93116 (Portable Diesel Engines)
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 24941 S Lassen Ave, Five Points. The equipment will not be 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 primary function of this facility is agricultural (growing of crops and/or raising of fowl or animals). The proposed transportable IC engines will power agricultural irrigation booster pumps.

V. Equipment Listing

ATC Equipment Descriptions:

C-5530-23-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142139, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#14)

C-5530-24-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142138, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#15)

C-5530-25-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L137071, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#16)

C-5530-26-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142145, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#17)

C-5530-27-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142134, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#18)

C-5530-28-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142135, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#19)

C-5530-29-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142136, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#20)

C-5530-30-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142133, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#21)

C-5530-31-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142137, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#22)

C-5530-32-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142143, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#23)

C-5530-33-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L1142142, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#24)

C-5530-34-0: TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142144, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#25)

VI. Emission Control Technology Evaluation

Internal combustion engines production air contaminants such as sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), particulate matter 10 microns or less in aerodynamic diameter (PM_{10}).

Very low sulfur diesel fuel (0.0015% sulfur by weight maximum) reduces SO_x emissions by over 99% from standard diesel fuel. [1] This fuel is readily available and is considered AIP.

NO_x, VOC, CO, and PM_{10} emissions are minimized with the use of a compression-ignited engine that is EPA certified as specified in 40 CFR Part 89, which identifies Tier 1 thru Tier 3 emission levels, or the Federal Register, Vol. 69, No. 124, June 29, 2004, which identifies Tier 4 emission levels.

VII. General Calculations

A. Assumptions

- Facility utilizes very low sulfur (0.0015% fuel S by weight) diesel fuel and will continue use very low sulfur diesel. Therefore, the PE will be based on the use of very low sulfur diesel.
- Density of diesel fuel: 7.1 lb/gal
- EPA F-factor (adjusted to 60°F): 9,051 dscf/MMBtu
- Diesel fuel heating value: 137,000 Btu/gal
- BHP to Btu/hr conversion: 2,542.5 Btu/hp·hr
- Thermal efficiency of engine: commonly ≈ 35%
- PM_{10} fraction of diesel exhaust: 0.96 (CARB, 1988)

[1] From *Non-catalytic NO_x Control of Stationary Diesel Engines*, by Don Koeberlein, CARB.

- 80% annual load factor – per FYI 275 (Use of Horsepower and Load Factor for IC Engines)
- Annual operation limits: 8,760 hr/year (per applicant)

The engines have certified NO_X + VOC emissions of 3.28 g/bhp-hr. It will be assumed the NOx + VOC emission factor is split 95% NOx and 5% VOC (per the Carl Moyer program).

B. Emission Factors

For the twelve proposed diesel-fired IC engines, the emissions factors for NO_X, CO, VOC, and PM_{10} are provided by the applicant and are guaranteed by the Off-Road Compression Ignition Tier 3 Certification Standards. The SO_X emission factor is calculated using the sulfur content in the diesel fuel (0.0015% sulfur).

Diesel-fired IC Engine Emission Factors		
	g/hp·hr	Source
NO_X	3.12	Off-Road Compression Ignition Tier 3 Certification Standards
*SO_X	0.0051	Mass Balance Equation Below
PM_{10}	0.25	Off-Road Compression Ignition Tier 3 Certification Standards
CO	0.89	Off-Road Compression Ignition Tier 3 Certification Standards
VOC	0.16	Off-Road Compression Ignition Tier 3 Certification Standards

$$\frac{0.000015\ lb \cdot S}{lb \cdot fuel} \times \frac{7.1\ lb \cdot fuel}{gallon} \times \frac{2\ lb \cdot SO_2}{1\ lb \cdot S} \times \frac{1\ gal}{137{,}000\ Btu} \times \frac{1\ hp\ input}{0.35\ hp\ out} \times \frac{2{,}542.5\ Btu}{hp \cdot hr} \times \frac{453.6\ g}{lb} = 0.0051 \frac{g \cdot SO_x}{hp \cdot hr}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

The new engines' PE2 are based on the following equations:

$PE2_{daily}$ = EF2 (g/bhp-hr) × Continuous Rating (bhp) × 24 hr/day × lb/453.6 g

$PE2_{annual}$ = EF2 (g/bhp-hr) × Continuous Rating (bhp) × 0.8 load × Max. Operation (hr/year) × lb/453.6 g

The PE2 are summarized in the following tables:

Daily PE2 for Units '-23-0 through '-34-0									
Pollutant	(g/bhp·hr)		bhp		hr/day		g/lb		lb/day
NO_x	3.12	×	84	×	24	÷	453.6	=	13.9
SO_x	0.0051	×		×		÷		=	0.0
PM_{10}	0.25	×		×		÷		=	1.1
CO	0.89	×		×		÷		=	4.0
VOC	0.16	×		×		÷		=	0.7

Annual PE2 for Units '-23-0 through '-34-0											
Pollutant	(g/bhp·hr)		bhp		load factor		hr/yr		g/lb		lb/yr
NO_x	3.12	×	84	×	0.8	×	8,760	÷	453.6	=	4,049
SO_x	0.0051	×		×		×		÷		=	7
PM_{10}	0.25	×		×		×		÷		=	324
CO	0.89	×		×		×		÷		=	1,155
VOC	0.16	×		×		×		÷		=	208

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

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

SSPE1 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
C-5530-16-0	0	0	0	0	399
Totals	**0**	**0**	**0**	**0**	**399**

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

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

SSPE2 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
C-5530-16-0	0	0	0	0	399
C-5530-23-0	4,049	7	324	1,155	208
C-5530-24-0	4,049	7	324	1,155	208
C-5530-25-0	4,049	7	324	1,155	208
C-5530-26-0	4,049	7	324	1,155	208
C-5530-27-0	4,049	7	324	1,155	208
C-5530-28-0	4,049	7	324	1,155	208
C-5530-29-0	4,049	7	324	1,155	208
C-5530-30-0	4,049	7	324	1,155	208
C-5530-31-0	4,049	7	324	1,155	208
C-5530-32-0	4,049	7	324	1,155	208
C-5530-33-0	4,049	7	324	1,155	208
C-5530-34-0	4,049	7	324	1,155	208
Totals	**48,588**	**84**	**3,888**	**13,860**	**2,895**

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO	VOC
SSPE1 (less non-road engines)*	0	0	0	0	0	399
SSPE2 (less non-road engines)*	0	0	0	0	0	399
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	No	No	No	No	No	No

*Emissions from non-road (transportable) units do not contribute to the Major Source determination.
Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 Major Source Determination:
The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	0	0.2	0	0	0	0
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing PSD major source for any pollutant.

6. Baseline Emissions (BE)

The BE calculation (in lb/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.

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

As shown in Section VII.C.5 above, the facility is not a Major Source for any pollutant.

Therefore BE=PE1.

Since these twelve engines are new emissions units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

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

Since this facility is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

Therefore this project is not an SB 288 Major Modification.

8. Federal Major Modification

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

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

Non-road engines shall not be considered in determining whether a project is a Federal Major Modification. The Federal CAA reserves the regulation of non-road engines to Title II (National Emission Standards) of the CAA.

Since this facility is not a Major Source for any pollutants, this project does not constitute a Federal Major Modification. Additionally, since the facility is not a major source for PM_{10} (140,000 lb/year), it is not a major source for PM2.5 (200,000 lb/year).

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

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Total PE from New and Modified Units	24.3	1.4	0.0	6.9	1.9	1.9
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

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

VIII. Compliance

Rule 2010 Permits Required

This rule requires any person building, altering, or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants, to first obtain authorization from the District in the form of an ATC. By the submission of the above-described ATC application, the applicant is complying with the requirements of this Rule.

Rule 2020 Exemptions

Per Section 6.20, agricultural sources at a stationary source that, in aggregate, produce actual emissions less than one-half of the major source thresholds, are exempt from District permit requirements. However this facility does not qualify for permit exemption since the NOx emissions are greater than 10,000 lb/year (equivalent to ½ the Major Source Threshold).

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

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

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

As seen in Section VII.C.2 above, the applicant is proposing to install twelve new diesel-fired IC engines with a PE greater than 2 lb/day for NO_X and CO. BACT is

triggered for NO_X only since the PE is greater than 2 lb/day. However BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lb/year, as demonstrated in Section VII.C.5 above.

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

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

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

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for NO_X emissions. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

BACT Guideline 3.3.17, applies to Agricultural Transportable Compression-Ignited IC Engines. [Ag Transportable Compression-Ignited IC Engine] (See Appendix C)

3. Top-Down BACT Analysis

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

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

NO_X: The proposed engine shall meet the latest available CARB certification standard for the particular horsepower range

B. Offsets

Per Section 4.6.9 of Rule 2201, offsets are not required for agricultural operations that are not Major Sources. As indicated in Section VII.5 of this application review, this agricultural operation is not a Major Source; therefore, offsets will not be required.

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or

d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.
e. Any project which results in a Title V significant permit modification

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

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

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

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

c. Offset Threshold

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

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	0	48,588	20,000 lb/year	Yes
SO_X	0	84	54,750 lb/year	No
PM_{10}	0	3,888	29,200 lb/year	No
CO	0	13,860	200,000 lb/year	No
VOC	399	2,895	20,000 lb/year	No

As detailed above, the NOx Offset Threshold was surpassed with this project; therefore public noticing is required for offset purposes.

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_x	48,588	0	48,588	20,000 lb/year	Yes
SO_x	84	0	84	20,000 lb/year	No
PM_{10}	3,888	0	3,888	20,000 lb/year	No
CO	13,860	0	13,860	20,000 lb/year	No
VOC	2,895	399	2,496	20,000 lb/year	No

As demonstrated above, the SSIPEs for NO_X and CO were greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Title V Significant Permit Modification

Since this facility does not have a Title V operating permit, this change is not a Title V significant Modification, and therefore public noticing is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for NO_X emissions in excess of 100 lb/day and 20,000 lb/year. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

For these IC engines, the DELs are stated in the form of emission factors (g/hp-hr), the maximum engine horsepower rating, and the maximum operational time of 24 hours per day.

Proposed Rule 2201 (DEL) Conditions:

- {4832} Emissions from this unit shall not exceed any of the following limits: 3.12 g-NO_x/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201 and 4702, and 17 CCR 93115]
- {4833} PM_{10} emissions shall not exceed 0.25 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
- This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201. However, monitoring is required per Rule 4702, Internal Combustion Engines. Refer to the 4702 discussion below.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201, where applicable. The following conditions will appear on the permits:

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix E of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for the state's PM_{10} as well as federal and state $PM_{2.5}$ thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM_{10} and $PM_{2.5}$.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

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.

The requirements of 40 CFR Part 60, Subpart IIII (*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*) covers stationary engines at agricultural and non-agricultural facilities.

The District has not been delegated the authority to implement this NSPS regulation for non-Major Sources; therefore, no requirements shall be included on the permits.

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

The requirements of 40 CFR Part 63, Subpart ZZZZ (*National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*) covers stationary engines at agricultural and non-agricultural facilities.

The District has not been delegated the authority to implement NESHAP regulations for Area Source requirements for non-Major Sources; therefore, no requirements shall be included on the permits.

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. Therefore, the following condition will be included on the ATCs to ensure compliance:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, the following condition will be included on the ATCs to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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 E), the total facility prioritization score including this project was greater than one. Therefore, an HRA 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
C-5530-23-0 through '-34-0	0.546 per million	No

Discussion of T-BACT

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

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

- {4833} PM_{10} emissions shall not exceed 0.25 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93115]
- This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

$$0.25 \quad \frac{g}{hp \cdot hr} \times \frac{1 hp \cdot hr}{2{,}542.5\,Btu} \times \frac{10^6\,Btu}{9{,}051\,dscf} \times \frac{0.35\,Btu_{out}}{1\,Btu_{in}} \times \frac{15.43\,grain}{g} = \quad 0.059 \quad \frac{grain}{dscf}$$

Since 0.093 grain/dscf is less than 0.1 grain/dscf, the following condition will be placed on the ATCs to ensure compliance:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4102]

Rule 4202 Particulate Matter - Emission Rate

This rule establishes PM emission limits as a function of process weight rate in tons/hr. Gas and liquid fuels are excluded from the definition of process weight. Therefore, Rule 4202 does not apply to the IC engines.

Rule 4301 Fuel Burning Equipment

Pursuant to section 2.0, the provisions of this rule apply to any piece of fuel burning equipment. Section 3.1 defines fuel burning equipment as "any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer".

IC engines produce power mechanically, not by indirect heat transfer. Therefore, the IC engines do not meet the definition of fuel burning equipment. Therefore, Rule 4301 does not apply.

Rule 4701 Internal Combustion Engines - Phase 1

The provisions of this rule do not apply to engines in agricultural operations in the growing of crops or raising of fowl or animals. Therefore, the following condition will be included on the permits:

- This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]

Rule 4702 Stationary Internal Combustion Engines

Purpose (Section 1.0):
The purpose of this rule is to limit the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC), and sulfur oxides (SOx) from internal combustion engines.

Applicability (Section 2.0):
This rule applies to any internal combustion engine with a rated brake horsepower 25 and greater.

Requirements (Section 5.0):
Section 5.2.4 requires an operator to replace, repower, or control an existing Tier 1 or Tier 2 certified diesel IC engine to comply with the applicable emission standards by the compliance

dates as specified in Table 4:

Table 4		
Engine Type	**Emission Limit/ Standard**	**Compliance Date**
2. Certified Compression-Ignited Engine		
a. EPA Certified Tier 1 or Tier 2 Engine	EPA Tier 4	1/1/2015 or 12 years after installation date, but not later than 6/1/18
b. EPA Certified Tier 3 or Tier 4 Engine	Meet Certified Compression-Ignited Engine Standard in effect at time of installation	At time of installation

The proposed engines were the latest available tier for the particular horsepower range (based on installation in 2011); and therefore met the requirements of Table 4, Row 2a above. The engines are in compliance with the emission requirements of the rule for the duration of their useful lives.

Monitoring (Section 5.9):
Section 5.9.1 requires that the owner of an AO compression-ignited engine comply with the requirements specified in Sections 5.9.2 through 5.9.5.

Section 5.9.2 requires the owner to properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

Section 5.9.3 requires the owner to monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

Section 5.9.4 requires each engine to install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Section 5.9.5 is applicable to engines retrofitted with a NOx exhaust control. The engines in this project do not have add-on NOx controls. Therefore, the requirements of Section 5.9.5 are not applicable.

The following conditions will be placed on the permits to ensure compliance with this section of the rule:

- This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
- During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables an connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as

recommended by the manufacturer or supplier). [District Rule 4702]

Emission Control Plan (Section 6.1):
Section 6.1 requires that the owner of an engine subject to the requirements of Section 5.1 or Section 8.0, except for an engine specified in Section 6.1.1, shall submit to the APCO an emission control plan (ECP) of all actions to be taken to satisfy the emission requirements of Section 5.1 and the compliance schedules of Section 7.0.

Section 6.1.1 states Sections 6.1.2 through Section 6.1.3 shall not apply to an engine specified below:

6.1.1.1 A certified compression-ignited engine that has not been retrofitted with an exhaust control and is not subject to the requirements of Section 8.0.

The engines in this project are certified compression-ignited engines not retrofitted with exhaust control and are not subject to Section 8.0. Therefore, an ECP is not required.

Recordkeeping (Section 6.2):
Section 6.2 requires that except for engines subject to Section 4.0, the owner of an engine subject to the requirements of Section 5.1 shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine-operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.

Section 6.2.2 requires that the data collected pursuant to the requirements of Section 5.7 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request.

The following conditions will be placed on the permits to ensure compliance with this section of the rule:

- The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
- This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

Compliance Testing (Section 6.3):
Section 6.3 requires that the owner of an engine subject to the requirements of Section 5.1 or the requirements of Section 8.0, shall comply with the requirements of Section 6.3, except for an engine specified in Section 6.3.1.

Section 6.3.1 states Sections 6.3.2 through Section 6.3.4 shall not apply to an engine specified below:

6.3.1.1 A certified compression-ignited engine that has not been retrofitted with an exhaust control and is not subject to the requirements of Section 8.0.

The engines in this project are certified compression-ignited engines not retrofitted with exhaust control and are not subject to Section 8.0. Therefore, source testing is not applicable.

Inspection and Monitoring (I&M) Plan (Section 6.5):
Section 6.5 requires that the owner of an engine subject to the requirements of Section 5.1 or the requirements of Section 8.0, except for an engine specified in Section 6.5.1, to submit to the APCO for approval an I&M plan that specified all actions to be taken to satisfy the requirements of Section 6.5 and 5.7.

Section 6.5.1 states Sections 6.5.2 through Section 6.5.9 shall not apply to an engine specified below:

6.5.1.1 A certified compression-ignited engine that has not been retrofitted with an exhaust control and is not subject to the requirements of Section 8.0.

The engines in this project are certified compression-ignited engines not retrofitted with exhaust control and are not subject to Section 8.0. Therefore, an I&M Plan is not applicable.

Rule 4801 Sulfur Compounds

This rule contains a limit on sulfur compounds. The limit at the point of discharge is 0.2 percent by volume, 2000 ppmv, calculated as sulfur dioxide (SO_2), on a dry basis averaged over 15 consecutive minutes.

The maximum sulfur content of the diesel combusted shall not exceed 0.0015% by weight. Therefore, the sulfur concentration is:

S Conc. = 0.0015% S × 7.1 lb/gal × 64 lb-SO_2/32 lb-S × MMBtu/9,051 scf × gal-fuel/0.137 MMBtu × lb-mol/64 lb-SO_2 × 10.73 psi-ft^3/lb-mol-°R × 520 °R/14.7 psi = 1 ppmv

Since 1 ppmv is ≤ 2000 ppmv, this project is expected to comply with Rule 4801. Therefore, the following condition will be listed on the permits to ensure compliance:

- Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115]

California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure 93116 (Portable Diesel Engines)

In a January 25, 2008 memorandum to ARB's Stationary Source Division Chief, ARB legal counsel set out the following opinion:

> *In light of specific statutory language codified as a result of the enactment of Senate Bill 700, it is clear that the Legislature intended to consider portable internal combustion engines operating at agricultural sources of air pollution to be a part of the agricultural stationary source. Accordingly, for portable engines owned by the agricultural source owner, the applicable airborne toxic control measure is the Stationary Engine ATCM. For portable engines not owned by the owner of the agricultural source, such as rental portable engines, the Portable Engine ATCM continues to apply."*

In the present project, the portable agricultural diesel engines are owned by the agricultural source; therefore, the Stationary Diesel ATCM does apply.

California Code of Regulations (CCR), Title 17 (Public Health), Division 3 (Air Resources), Chapter 1 (Air Resources Board), Subchapter 7.5 (Air Toxic Control Measures), Measure 93115 (Stationary Diesel Engines)

§ 93115.1 Purpose

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.

§ 93115.2 Applicability

This regulation is applicable to stationary and transportable farm-owned agricultural irrigation pump engines.

(a) Except as provided in section 93115.3, this ATCM applies to any person who either sells a stationary CI engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in California, unless such engine is:

(1) a portable CI engine,
(2) a CI engine used to provide motive power,
(3) an auxiliary CI engine used on a marine vessel, or
(4) an agricultural wind machine as defined in section 93115.4.

(b) Except as provided in sections 93115.3 and 93115.9, this ATCM applies to any person who owns or operates a stationary CI engine in California with a rated brake horsepower greater than 50 (>50 bhp).

§ 93115.3 Exemptions

(b) The requirements specified in sections 93115.6 (emergency engines), 93115.7 (prime engines), and 93115.10(a) (reporting) do not apply to stationary diesel-fueled CI engines used in agricultural operations.

§ 93115.5 Fuel and Fuel Additive Requirements for New and In-Use Engines

This regulation stipulates that diesel-fueled portable engines shall use one of the following fuels:

- CARB Diesel Fuel; or
- Alternative diesel fuel that has been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines; or
- CARB diesel fuel utilizing fuel additives that have been verified through the Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

CARB Diesel fuel will be utilized in the engines; therefore, this section is satisfied.

§ 93115.8 Emission Standards Agricultural Operations

Emission Standards for New Stationary Diesel-Fueled CI Engines (>50 bhp) Used in Agricultural Operations:

PM Standards

As of January 1, 2005, no person shall operate any new stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, unless the engine meets the applicable PM requirement for the particular power rating and engine acquisition date or application submittal date (summarized in the table below):

Emission Standards for New Ag Engines (ATCM Section 93115.8, Table 6)	
Horsepower Range (bhp)	Diesel PM Standards (g-PM/bhp-hr)
Greater than 50 but less than 100	0.3 or Off-Road CI Certification Standard, whichever is more stringent
Greater than or equal to 100 but less than 175	0.22 or Off-Road CI Certification Standard, whichever is more stringent
Greater than or equal to 175	0.15 or Off-Road CI Certification Standard, whichever is more stringent

The proposed PM EF for the engines are rated at 84 bhp and 0.25 g-PM10/bhp-hr; the proposed engines meet the PM_{10} standards in this section.

NMHC, NOx, and CO Standards:

Off-Road CI Engine Certification Standard for an off-road engine of the model year and maximum rated power of the engine installed. The proposed engines were installed in 2011 are Tier 3 certified; therefore, meets the standards for NMHC, NOx, and CO.

§ 93115.10 Recordkeeping, Reporting, and Monitoring Requirements

(a) Reporting - agricultural engines are exempt from 93115.10(a).

(d) Monitoring Equipment

(1) A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed upon engine installation, or by no later than January 1, 2005, on all engines subject to all or part of the requirements of sections 93115.6, 93115.7, or 93115.8(a) unless the District determines on a case-by-case basis that a non-

resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.

The following condition will be included on the ATC(s):

- {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

<u>District is a Lead Agency & GHG emissions increases are from the combustion of fossil fuel other than jet fuels</u>

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

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

an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

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

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

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

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

To ensure that issuance of this permit does not conflict with any conditions imposed by any local agency permit process, the following permit condition will be listed on each permit as follows:

- This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local,

state, or federal agency. [District Rules 2070 and 2080, and Public Resources Code 21000-21177: California Environmental Quality Act].

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs C-5530-23-0, '-24-0, '-25-0, '-26-0, '-27-0, '-28-0, '-29-0, '-30-0, '-31-0, '-32-0, '-33-0, and '-34-0 subject to the permit conditions on the attached draft ATC in Appendix C.

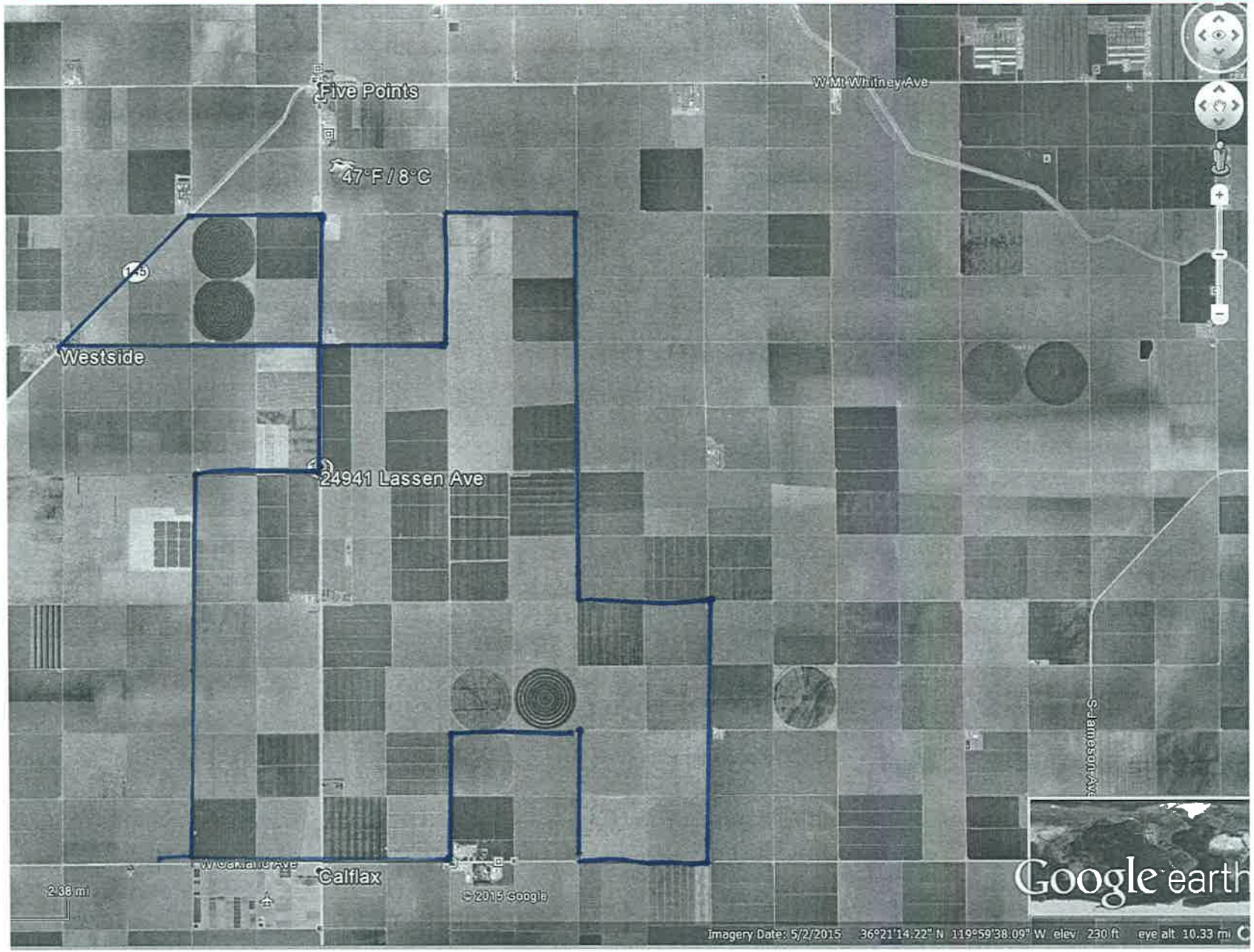
X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-5530-23-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-24-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-25-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-26-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-27-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-28-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-29-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-30-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-31-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-32-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-33-0	3020-10-A	84 bhp transportable IC engine	$84.00
C-5530-34-0	3020-10-A	84 bhp transportable IC engine	$84.00

Appendixes

A: Facility Site Map
B: Draft ATCs
C: BACT Guideline
D: BACT Analysis
E: HRA/AAQA Summary
F: Quarterly Net Emissions Change
G: ARB Executive Orders
H: SSPE Calculations
I: Emission Profiles

APPENDIX A
Facility Site Map


Five Points
47°F / 8°C
W Mt Whitney Ave
145
Westside
24941 Lassen Ave
S Jameson Ave
W Oakland Ave
Calflax
2.38 mi
©2015 Google
Google earth
Imagery Date: 5/2/2015 36°21'14.22" N 119°59'38.09" W elev 230 ft eye alt 10.33 mi

APPENDIX B
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-23-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142139, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#14)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

DRAFT

Arnaud Marjollet, Director of Permit Services
C-5530-23-0 Mar 29 2016 3:57PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-24-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142138, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#15)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-24-0 Mar 29 2016 3:57PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-25-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L137071, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#16)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-25-0 Mar 29 2016 3:57PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-26-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142145, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#17)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-26-0 Mar 29 2016 3:58PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-27-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142134, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#18)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-27-0 Mar 29 2016 3:58PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-28-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142135, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#19)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

DRAFT

Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-29-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142136, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#20)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

DRAFT

Arnaud Marjollet, Director of Permit Services

C-5530-29-0 Mar 29 2016 3:58PM – YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-30-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142133, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#21)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
C-5530-30-0 Mar 29 2016 3:58PM – YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-31-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142137, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#22)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services
C-5530-31-0 Mar 29 2016 3:58PM -- YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-32-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142143, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#23)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-32-0 : Mar 29 2016 3:58PM -- YOSHIMUJ : Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]

10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]

11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]

13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]

14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]

15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]

16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-33-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L1142142, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#24)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

C-5530-33-0 Mar 29 2016 3:56PM – YOSHIMUJ Joint Inspection NOT Required

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-5530-34-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PLOW & TILL DBA FARMING D
MAILING ADDRESS: PO BOX 248
FIVE POINTS, CA 93624

LOCATION: 24941 S LASSEN AVE
FIVE POINTS, CA 93624

EQUIPMENT DESCRIPTION:
TRANSPORTABLE 84 BHP JOHN DEERE MODEL 4045TF280, SN PE4045L142144, TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AGRICULTURAL IRRIGATION BOOSTER PUMP (#25)

CONDITIONS

1. {3215} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 1070]
2. {3216} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 1070]
3. {3658} This permit does not authorize the violation of any conditions established for this facility in the Conditional Use Permit (CUP), Special Use Permit (SUP), Site Approval, Site Plan Review (SPR), or other approval documents issued by a local, state, or federal agency. [Public Resources Code 21000-21177: California Environmental Quality Act]
4. This engine shall not operate within 500 m of any receptor. [District Rules 2201 and 4102]
5. {4002} This IC engine shall only be used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. [District Rules 4701 and 4702, and 17 CCR 93115]
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

8. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. {4749} This engine shall be equipped with a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District determines that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history. [District Rule 4702 and 17 CCR 93115]
10. {4258} Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115]
11. Emissions from this unit shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.16 g-VOC/bhp-hr, or 0.89 g-CO/bhp-hr. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
12. Emissions from this IC engine shall not exceed 0.25 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201, 4102 and 4702, and 17 CCR 93115]
13. {4261} This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702]
14. {4037} During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
15. {4050} The owner/operator shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type of fuel used, maintenance or modifications performed, monitoring data, and any other information necessary to demonstrate compliance. [District Rule 4702]
16. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2201 and 4702]

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APPENDIX C
BACT Guideline

Best Available Control Technology (BACT) Guideline 3.3.17
Last Update: 6/1/2006

Ag Transportable Compression-Ignited IC Engine

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	The proposed engine shall meet the latest available CARB certification standard for the particular horsepower range. (Example: a 200 bhp engine proposed in 2007 shall emit =< 0.149 g-PM10/bhp-hr if triggers BACT for PM10)		LPG/Propane Fired Engine to meet 4702 (either lean, or rich w/3-way catalyst)
NOX	The proposed engine shall meet the latest available CARB certification standard for the particular horsepower range. (Example: a 200 bhp engine proposed in 2007 shall emit =< 0.149 g-PM10/bhp-hr if triggers BACT for PM10)		LPG/Propane Fired Engine to meet 4702 (either lean, or rich w/3-way catalyst)

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 required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on Details Page.

APPENDIX D
BACT Analysis

Top Down BACT Analysis for the Ag Transportable Compression-Ignited IC Engines

BACT Guideline 3.3.17 (6/2/2006) applies to agricultural transportable compression-ignited IC engines. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT Analysis for NO_X and VOC Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 3.3.17 identifies the following options:

- *Latest EPA Tier Certification level for applicable horsepower range (AIP)*
- *LPG/Propane Fired Engine (ABE)*

The proposed engines are rated at 84 hp and were installed in 2011. Therefore, the applicable control technology option is EPA Tier 3 certification.

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is not technologically infeasible.

c. Step 3 - Rank remaining options by control effectiveness

Control Technology	Rank	Emission Factors (g/bhp-hr)	Technology Classification for BACT
LPG/Propane Engine + 3-way catalyst	1	NO_x: 1.25 (Rule 4702) VOC: 1.25 (Rule 4702)	ABE
Latest Tier Certification Levels	2	NO_x + VOC: 3.5	AIP

d. Step 4 - Cost Effectiveness Analysis

Cost Effectiveness Analysis: LPG/Propane Engine

As discussed in Section I, the engines were installed in 2011 without ATCs. The engines were installed with BACT (Tier Certification) at the time of installation. Pursuant to FYI 98, for equipment that was installed with BACT (i.e., BACT at the time of installation), the current BACT analysis is limited to the types of controls that can be applied to the SPECIFIC equipment that was already installed.

Since LPG/propane engine is not a type of control that can be applied to the engines that have already been installed, it cannot be required at this time. A cost effectiveness analysis for this option is therefore not necessary.

Cost Effectiveness Analysis: Latest Available Certified Compression-Ignited Engine

Per District BACT Policy, a cost effectiveness analysis is not required for AIP controls since the control must be implemented.

e. Step 5 - Select BACT

The remaining control not eliminated in Step 4 (latest available certification) is considered AIP BACT for this class and category of source. The applicant has proposed the latest tier certification; therefore, BACT is satisfied.

APPENDIX E
HRA/AAQA Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	John Yoshimura – Permit Services
From:	Tadeh Issakhanian – Technical Services
Date:	February 22, 2016
Facility Name:	Plow & Till DBA Farming D
Location:	24941 S. Lassen Ave.
Application #(s):	C-5530-23-0 through '-34-0
Project #:	C-1152496

A. RMR SUMMARY

RMR Summary			
Categories	**Transportable DICE (Unit 23-0 – 34-0) (Each)**	**Project Totals**	**Facility Totals**
Prioritization Score	N/A[1]	N/A[1]	N/A[1]
Acute Hazard Index	0.00	0.00	0.00
Chronic Hazard Index	6.14E-04	7.37E-03	9.71E-03
Maximum Individual Cancer Risk	5.46E-07	6.55E-06	1.19E-05
T-BACT Required?	**No**		
Special Permit Requirements?	**Yes**		

[1]Prioritization for this unit was not conducted since it has been determined that all diesel-fired IC engines will result in a prioritization score greater than 1.0.

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 23-0 – 34-0

1. The PM10 emissions rate shall not exceed 0.25 g/bhp-hr based on US EPA certification using ISO 8178 test procedure.
2. Engines may not operate within 500m of any receptor.

B. RMR REPORT

I. Project Description

Technical Services received a request on January 14, 2016, to perform a Risk Management Review and an Ambient Air Quality Analysis for Authority to Construct (ATC) permits for the installation of twelve transportable 84 bhp Tier 3 diesel-fired IC engines powering booster pumps. The facility has indicated these engines will be operated at different well sites at their property. According to applicant these engines were installed in 2011 without permits. Therefore, these engines will be permitted as new engines and will be subject to District Rule 2201 requirements.

II. Analysis

For the diesel engine, Technical Services used diesel exhaust emissions calculated using the District Diesel Exhaust Risk Screening Spreadsheet. Prioritization for this unit was not conducted since it has been determined that all diesel-fired IC engines will result in a prioritization score greater than 1.0. Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2011-2013 from Lemoore to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

Analysis Parameters Unit 23-0 – 34-0			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	2.7	**Closest Receptor (m)**	500
Stack Diameter. (m)	0.1	**Type of Receptor**	Residential
Stack Exit Velocity (m/s)	34	**Max Hours per Year**	8760
Stack Exit Temp. (°K)	785		

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x, and PM10 with the emission rates below:

Unit #	NO_x (Lbs.)		SO_x (Lbs.)		CO (Lbs.)		PM_{10} (Lbs.)	
	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.
23-34	0.46	4049	0.00	7	0.13	1155	0.04	324

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO_x	Pass[1]	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass[2]	Pass[2]
$PM_{2.5}$	X	X	X	Pass[2]	Pass[2]

*Results were taken from the attached PSD spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures The Ozone Limiting Method (OLM) or Plume Volume Molar Ratio Method (PVMRM) was used in accordance with the District's *Assessment of Non-Regulatory Options in AERMOD – Specifically OLM and PVMRM*. A completed AERMOD Non-Regulatory Option checklist is attached.
[2]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 and the cancer risk associated with the project is greater than 1.0 in a million, but less than 20 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

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.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Facility Summary
D. AAQA Summary

APPENDIX F
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

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

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 324 lb/year ÷ 4 qtr/year
= 81.0 lb PM_{10}/qtr

$PE1_{quarterly}$ = $PE1_{annual}$ ÷ 4 quarters/year
= 0 lb/year ÷ 4 qtr/year
= 0 lb PM_{10}/qtr

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	1,012.25	0	1,012.25
SO_X	1.75	0	1.75
PM_{10}	81.0	0	81.0
CO	288.75	0	288.75
VOC	52.0	0	52.0

APPENDIX G
ARB Executive Orders

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF TRANSPORTATION AND AIR QUALITY
WASHINGTON, DC 20460

CERTIFICATE OF CONFORMITY
2010 MODEL YEAR

Manufacturer:	**JOHN DEERE POWER SYSTEMS**
Engine Family:	**AJDXL04.5112**
Certificate Number:	**JDX-NRCI-10-17.1**
Intended Service Class:	**NR (56-75)**
Fuel Type:	**DIESEL**
FELs: g/kW-hr	NMHC +NOx: **NA** NOx: **NA** PM: **.34**
Effective Date:	**12/16/2009**
Date Issued:	**12/16/2009**

Karl J. Simon, Director
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60 and Part 89, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following stationary and nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and 89, and produced in the stated model year.

This certificate of conformity covers only those new stationary and nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and 89 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60 and 89.

This certificate of conformity is conditional upon compliance of said manufacturer with the averaging, banking and trading provisions of 40 CFR Part 89, Subpart C. Failure to comply with these provisions may render this certificate void ab initio.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 89.129-96 and 89.506-96 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to a revocation or suspension of this certificate for reasons specified in 40 CFR Part 89. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 89.

This certificate does not cover stationary and nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

3

California Environmental Protection Agency AIR RESOURCES BOARD	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0385 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	AJDXL04.5112	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Mechanical Direct Injection, Turbocharger	Loaders, Tractor, Pump, Compressor, Generator Set, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		FEL	–	–	–	–	0.34	–	–	–
		CERT	–	–	4.4	1.2	0.33	11	2	24

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 23rd day of December 2009.

M. Tweeten FOR AGM

Annette Hebert, Chief
Mobile Source Operations Division

3

Date: 12/08/2009

Attachment 1 of 1

Engine Model Summary Form

EO#: U-R_004_0385

Manufacturer: John Deere Power Systems
Engine category: Nonroad CI
EPA Engine Family: AJDXL04.5112
Mfr Family Name: 350TAB
Process Code: New Submission

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
4045TF280F	4045T	87.17@2400	70.40@2400	38.03@2400	236.73@1700	79.8@1700	30.47@1700	EM DFI TC
4045TF280A	4045T	84.49@2400	65.70@2400	35.54@2400	222.72@1700	71.7@1700	27.41@1700	EM DFI TC
4045TF280B	4045T	80.47@2400	63.70@2400	34.37@2400	210.18@1700	70.2@1700	26.83@1700	EM DFI TC
4045TF280C	4045T	75.10@2400	60.50@2400	32.65@2400	203.54@1700	67.2@1700	25.69@1700	EM DFI TC
4045TF280D	4045T	84.49@1800	79.90@1800	32.35@1800	N/A	N/A	N/A	EM DFI TC
4045TF280E	4045T	75.10@1800	72.10@1800	29.19@1800				EM DFI TC

APPENDIX H
SSPE Calculations

Assumptions

- This permit unit may operate 24 hours per day, 365 days per year.
- VOC is the only pollutant emitted from this operation.

Emission Factor (EF)

These emission factors were obtained from Appendix A - Emission Factors For Gasoline Stations published by CAPCOA Air Toxic "Hot Spots" Program in the Gasoline Service Station Industrywide Risk Assessment Guidelines dated December 1997.

0.42	lb/1,000 gal	Tank filling loss (95%)
2.1	lb/1,000 gal	Breathing loss
8.4	lb/1,000 gal	Vehicle fueling loss
0.61	lb/1,000 gal	Spillage
11.5	lb/1,000 gal	Total VOC losses

Potential to Emit (PE)

Daily Potential to Emit (PE)						
VOC	11.5	(lb/1000 gal) x	2,889	(gal/day) =	33.2	(lb/day)
Annual Actual Emissions (AE)						
VOC	11.5	(lb/1000 gal) x	34,668	(gal/year) =	399	(lb/year)

APPENDIX I
Emission Profiles

Application Emissions

Permit #: C-5530-23-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-24-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-25-0	**Last Updated**
Facility: PLOW & TILL DBA FARMING D	03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-26-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	1.0	81.0	289.0	52.0
Q3:	1012.0	1.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-27-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-28-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-29-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	288.0	52.0
Q3:	1012.0	2.0	81.0	288.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-30-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-31-0	**Last Updated**
Facility: PLOW & TILL DBA FARMING D	03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-32-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-33-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
Q2:	1012.0	2.0	81.0	289.0	52.0
Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: C-5530-34-0 **Last Updated**
Facility: PLOW & TILL DBA FARMING D 03/03/2016 YOSHIMUJ

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	4049.0	7.0	324.0	1155.0	208.0
Daily Emis. Limit (lb/Day)	13.9	0.0	1.1	4.0	0.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1012.0	1.0	81.0	288.0	52.0
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Q3:	1012.0	2.0	81.0	289.0	52.0
Q4:	1013.0	2.0	81.0	289.0	52.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					