



MAR 08 2011

Patrick Fagundes Palm Dairy 22901 Rd 140 Tulare, CA 932741

Notice of Preliminary Decision - Authority to Construct Re:

Project Number: S-1094916

Dear Mr. Fagundes:

Enclosed for your review and comment is the District's analysis of Palm Dairy's application for an Authority to Construct for incorporation of requirements for compliance with District Rule 4570 Confined Animal Facilities into the permits for Palm Dairy, located at 20215 Rd 140, Tulare, CA. Rule 4570 requires existing confined animal facilities to reduce emissions of volatile organic compounds by implementing multiple mitigation measures.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Ramon Norman of Permit Services at (559) 230-5909.

Sincerely,

David Warner

Director of Permit Services

DW:rn

Enclosures

Seved Sadredin Executive Director/Air Pollution Control Officer





MAR 08 2011

Mike Tollstrup, Chief Project Assessment Branch Stationary Source Division California Air Resources Board PO Box 2815 Sacramento, CA 95812-2815

Notice of Preliminary Decision - Authority to Construct

Project Number: S-1094916

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Enclosed for your review and comment is the District's analysis of Palm Dairy's application for an Authority to Construct for incorporation of requirements for compliance with District Rule 4570 Confined Animal Facilities into the permits for Palm Dairy, located at 20215 Rd 140, Tulare, CA. Rule 4570 requires existing confined animal facilities to reduce emissions of volatile organic compounds by implementing multiple mitigation measures.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

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David Warner

Director of Permit Services

DW:rn

Enclosure

Seved Sadredin Executive Director/Air Pollution Control Officer Visalia Times-Delta Visalia Times-Delta

NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED ISSUANCE OF AN AUTHORITY TO CONSTRUCT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Palm Dairy for incorporation of requirements for compliance with District Rule 4570 Confined Animal Facilities into the permits for Palm Dairy, located at 20215 Rd 140, Tulare, CA. Rule 4570 requires existing confined animal facilities to reduce emissions of volatile organic compounds by implementing multiple mitigation measures.

The analysis of the regulatory basis for this proposed action, Project #S-1094916, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.

San Joaquin Valley Air Pollution Control District Authority to Construct Modify Dairy Operation for Rule 4570 Compliance and Correct Current As-Built Capacity

Facility Name: Palm Dairy Date: January 24, 2011

Mailing Address: 22901 Rd 140 Engineer: Ramon Norman

Tulare, CA 93274 Lead Engineer: Martin Keast

Location: 20215 Rd 140

Tulare, CA 93274

Contact Person: Patrick Fagundes

Telephone: (559) 687-9903

Facility ID: S-6732

Project #: S-1094916

Deemed Complete: January 24, 2011

I. Proposal

Palm Dairy has requested Authority to Construct (ATC) permits to modify their dairy operation to comply with the requirements of District Rule 4570 and to correct the number of cows listed on the Permit to Operate for their existing dairy to reflect the actual current as-built capacity.

The dairy was previously known as Lourenco Dairy and is owned Steve Lourenco. The current operator, Patrick Fagundes, is leasing the dairy from the dairy owner. When Steve Lourenco submitted the initial permit application for the dairy, he stated that the maximum as-built capacity for the dairy was 2,400 milk cows, 240 dry cows, 220 large heifers (15-24 months), 0 medium heifers (7-14 months), 0 small heifers (4-6 months), and 0 calves. Steve Lourenco stated that any additional young heifers and calves would be raised offsite. However, District inspections of the dairy and other documents indicate that the number of milk cows historically at the dairy has been much lower than the number supplied by the owner and that hundreds of heifers and calves have been and continue to be kept onsite. Based on the information from District inspections and information supplied by the current dairy operator, the District has determined that the original farm permit application was filled in incorrectly and this ATC project will be used for the purpose of correcting the maximum animal capacity limits that should appear on the Permit to Operate.

The current Permits to Operate (see Appendix A for current permits to operate S-6732-1-0, -2-0, -3-0, & -4-0) indicate that the maximum capacity of the dairy is 2,400 milk cows, 240 dry cows, and 220 large heifers (15-24 months). The maximum capacity numbers will be corrected to 1,600 milk cows, 250 dry cows, 540 large heifers (15-24 months), 480 medium heifers (7-14 months), 200 small heifers (4-6 months), 200 calves, and 30 mature bulls (3,300 total head).

Pursuant to Rule 2201, section 3.24, a New Source Review (NSR) modification is:

- Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions.
- An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- Addition of any new emissions unit which is subject to District permitting requirements.
- A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Since correction of the permitted herd size does not fall into any of the NSR modification categories listed above, it does not constitute an NSR modification. The changes requested to the herd size are intended to correct the information on the Permit to Operate so that it is consistent with the actual operating conditions. Since correction of the permitted herd size does not constitute an NSR modification, it is exempt from Best Available Control Technology (BACT), offsets, and other NSR requirements.

As discussed above, Palm Dairy is also requesting to modify their dairy operation to comply with the requirements of District Rule 4570. The previous operator had requested an ATC permit incorporate the requirements of District Rule 4570 under project S-1083222; however, the dairy was leased to a new operator prior to issuance of the ATC permits. Project the S-1083222 will be canceled and replaced by this project. Incorporation of the requirements of District Rule 4570 is a change to the method of operation of the dairy that is an NSR modification pursuant to District Rule 2201, New and Modified Stationary Source Review Rule. The corrected herd size will be used as the basis for the pre-project NSR calculations for this project.

The dairy currently includes the following permit units: milking parlor; cow housing; liquid manure handling system; and solid manure. In addition, the facility is applying for an ATC for their feed storage and handling to comply with the requirements of Rule 4570. The feed storage and handling for the dairy is not currently permitted and will be permitted under this project. The dairy includes an anaerobic digester that has not operated for a number of years. The current operator has stated that he has no intention of operating the digester; therefore the digester will be designated as dormant.

II. Applicable Rules

Inspections (12/17/92)
Permits Required (12/17/92)
New and Modified Stationary Source Review Rule (12/18/08)
Federally Mandated Operating Permits (6/21/01)
Visible Emissions (2/17/05)
Nuisance (12/17/92)

Rule 4550 Conservation Management Practices (8/19/04)
Rule 4570 Confined Animal Facilities (CAF) (10/21/10)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
California Environmental Quality Act (CEQA)
SB 700 Senate Bill 700

III. Project Location

This facility is located at 20215 Rd 140 in Tulare, CA. There is no increase in emissions including Hazardous Air Pollutants (HAPs) for this project. 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 a dairy is the production of milk, which requires a herd of mature dairy cows that are lactating. In order to produce milk, the cows must be bred and give birth. The gestation period is 9 months, and dairy cows are bred again 4 months after calving. Thus, a mature dairy cow produces a calf every 12 to 14 months. Therefore, a dairy operation may have several types of animal groups present, including calves, heifers, mature cows (lactating and dry cows), and bulls.

A dairy cow generates anywhere from 100 to 200 pounds of manure per day. How the manure is collected, stored and treated depends directly on the manure management techniques of a dairy.

A dairy consists of the following five permit units: 1) Milk Parlor 2) Cow Housing 3) Liquid Manure Handling 4) Solid Manure Handling 5) Feed Storage and Handling.

V. Equipment Listing

Pre-Project Equipment Description:

S-6732-1-0:	HERRINGBONE MILKING PARLOR FOR 2400 MILK COWS
S-6732-2-0:	COW HOUSING - FLUSH DAIRY CONSISTING OF 2400 MILK COWS, 240 DRY COWS AND 220 LARGE HEIFERS (15-24 MONTHS OLD) HOUSED IN OPEN CORRALS WITH SHADE STRUCTURES WITH A FLUSH SYSTEM

S-6732-3-0: LIQUID MANURE HANDLING SYSTEM CONSISTING OF TWO (1100'X90'X10' AND 1100'X825'X11') TREATMENT LAGOONS CONTROLLED BY AN ANAEROBIC DIGESTER SYSTEM VENTED THROUGH A XXX HP IC ENGINE, AND ONE (1) 20'X18'X10' STORAGE POND

S-6732-4-0:

SOLID MANURE HANDLING CONSISTING OF OPEN MANURE STOCK PILES INCLUDING AN OPEN WINDROW COMPOSTING OPERATION

ATC Equipment Description:

S-6732-1-4:

MODIFICATION OF 2,400 COW HERRINGBONE MILKING PARLOR: CORRECT PERMITTED NUMBER OF MILK COWS TO 1,600; ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

S-6732-2-3:

MODIFICATION OF COW HOUSING - 2,400 MILK COWS, 240 DRY COWS AND 220 LARGE HEIFERS (15-24 MONTHS OLD) HOUSED IN OPEN CORRALS WITH A FLUSH SYSTEM AND SHADE STRUCTURES: CORRECT PERMITTED HERD SIZE TO 1,600 MILK COWS, 250 DRY COWS, 540 LARGE HEIFERS (15-24 MONTHS), 480 MEDIUM HEIFERS (7-14 MONTHS), 200 SMALL HEIFERS (4-6 MONTHS), AND 30 BULLS HOUSED IN OPEN CORRALS WITH A FLUSH SYSTEM AND 200 CALVES HOUSED IN CALF HUTCHES; ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

S-6732-3-2:

MODIFICATION OF LIQUID MANURE HANDLING SYSTEM CONSISTING OF ONE MECHANICAL SEPARATOR, ONE SETTLING POND (490'X60'X15'), ONE LAGOON (1,075'X145'X20'), ONE STORAGE POND (1,060'X580'X20'), AND ONE DORMANT COVERED LAGOON DIGESTER: ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

S-6732-4-2:

MODIFICATION OF SOLID MANURE HANDLING CONSISTING OF OPEN MANURE STOCK PILES INCLUDING AN OPEN WINDROW COMPOSTING OPERATION: ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

ADD NEW ATC

S-6732-8-1:

FEED STORAGE AND HANDLING CONSISTING OF

COMMODITY BARNS AND SILAGE PILES

VI. Emission Control Technology Evaluation

Feed Mitigation Measures						
Mitigation Measures Description						
Feed according to National Research Council (NRC) guidelines.	Feeding according to the NRC guidelines is a feed formulation practice used to improve animal health and productivity. This typically limits the overfeeding of certain feed that has the potential of increasing emissions. This mitigation measure requires that the NRC guidelines be strictly followed in formulating diets.					

Feed animals high moisture corn or steam-flaked corn and not feed animals dry rolled corn. Feed or dispose of rations within 48 hours of grinding and mixing rations.	This mitigation measure requires that animals be fed high moisture corn or steam-flaked corn instead of dry rolled corn. This optimizes protein to improve feed efficiency and reduces starch excretions in manure and reduces less volatile fatty acids excreted in the manure. This mitigation measure requires that all rations that have been mixed or ground be fed to the animals or disposed of within 48 hours.
Store grain in a weatherproof storage structure from October through May.	Grain stored in weatherproof structures will stay dry, preventing anaerobic conditions, hence reducing emissions.
Cover the horizontal surface of silage piles, except for the area where feed is being removed from the pile.	Covering silage piles reduces the amount of volatilization that takes place. The type of VOCs in these piles are also soluble in water, by maintaining the cover on these piles, the VOCs will be entrained in these piles.
	Milking Parlor Mitigation Measures
Mitigation Measures	Description
Flush or hose milk parlor immediately prior to, immediately after, or during each milking.	Flushing or hosing milk parlor immediately prior to, immediately after, or during each milking significantly reduces the amount of time manure decomposes in the milk parlor, thereby reducing emissions.
	Corral Mitigation Measures
Mitigation Measures	Description
Clean concreted areas such that the depth of manure does not exceed 12 inches at any point or time, except for incorral mounding.	Cleaning corrals so that the depth of manure is kept below 12 inches keeps the corrals dry, thereby reducing emissions.
Maintain corrals to ensure drainage and prevent water from standing more than 48 hours after a storm.	Excess moisture has the potential of generating emissions, by ensuring proper drainage, emissions are reduced.
Install all shade structures uphill of any slope in the corral.	Shades installed uphill of the corrals allow leachate to drain, rather than collect under the shade creating anaerobic conditions throughout the day. Therefore, emissions are potentially reduced.
Manage corrals such that the manure depth in the corral does not exceed 12 inches at any time or point, except for in-corral mounding.	Managing corrals so that the depth of manure is kept below 12 inches keeps the corrals dry, thereby reducing emissions.
build-up prior to it exceeding a height of 12 inches at any time or point.	Cleaning manure at the fence line so that the depth of manure is kept below 12 inches keeps the corrals dry, thereby reducing emissions.
Scrape or flush feed aprons in corrals at least once every seven (7) days.	Scraping or flushing the feed lanes at least once every seven days has the potential of reducing emissions by reducing the amount of time the manure decomposes in the lanes.

Solid Manure Mitigation Measures					
Mitigation Measures	Description				
Remove separated solids from the facility within 72 hours of separation.	Removing the dry separated solids from the facility prevents these piles from rewetting, thereby reducing emissions.				
Remove manure from the facility within 72 hours of removal from the pens or corrals.	Removing the dry manure from the facility prevents these piles from re-wetting, thereby reducing emissions.				
	Liquid Manure Mitigation Measures				
Mitigation Measures	Description				
Remove solids from the liquid manure system with a solid separator system, prior to the manure entering the lagoon.	Installing a separation system prior to the lagoon reduces the amount of solids that enter the lagoon which reduces the solid loading into the lagoon, which in turn reduces the emissions.				
-	Land Application Mitigation Measures				
Mitigation Measures	Description				
Allow liquid manure to stand in the fields no more than 24 hours after irrigation.	Reducing the amount of time manure water stands in the field has the potential of reducing emissions because less volatilization takes place.				
Land incorporate all solid manure within 72 hours of removal from animal housing.	Based on some testing, incorporating manure into the soil has the potential of reducing emissions, therefore, this practice will reduce emissions.				

VII. General Calculations

A. Assumptions

- Potential to Emit for the entire dairy will be based solely on the maximum design capacity of the number and types of cows at the dairy.
- The emission factors for milk cows are based on an internal document entitled "Breakdown of Dairy VOC Emission Factor into Permit Units". The emission factors for the other cows were developed by taking the ratio of manure generated by the different types of cows to the milk cow and multiplying it by the milk cow emission factor.
- Only emissions from the lagoons, IC engines, gasoline tank, and flare will be used in determining if this facility will be a major source since these emissions are considered to be the only non-fugitive emissions at a dairy.
- Emissions from the gasoline dispensing operation (S-6732-5) are taken from Initial Farm Project S-1055374.
- The potential to emit for NO_X and CO from the dormant digester gas-fired IC engine is based on limits given in District Rule 4702, Table 1, Row 4.a for lean burn engines used in agricultural operations (150 ppmv NO_X @15% O₂ and 2,000 ppmv CO @ 15% O₂). The potential to emit for the remaining affected pollutants from the dormant digester gas-fired IC engine are estimated based on

the emission factors given in project S-1095285 for the digester gas-fired equipment at Hilarides Dairy.

- The potential to emit for from the dormant emergency flare for the digester system are estimated based on the emission factors given in project S-1053738 for the digester gas-fired flare at Hilarides Dairy.
- Feeding animals in accordance with the National Research Council (NRC) guidelines is a feed formulation practice used to improve animal health and productivity. This typically limits the overfeeding of certain feed that have the potential of increasing emissions. This mitigation measure has the potential of reducing a significant amount of emissions, however, since there is not much data available, a conservative control efficiency of 5% will be applied to the overall dairy EF.
- Flushing or hosing milk parlor immediately prior to, immediately after, or during each milking has the potential of reducing a significant amount of emissions since the fresh excreted manure is almost immediately flushed out of the milk barn. However, a conservative control efficiency estimate of 75% will be applied at this time. This control efficiency does not apply to the enteric emissions generated from the cows themselves. Taking that into account, the overall control efficiency for the milk barn is 16.7%.
- All other mitigation measures chosen by the applicant are expected to result in VOC emission reductions, however, lacking emissions reductions data, the emissions reductions will not be quantified in this evaluation.
- The mitigation measures chosen will also have a reduction in ammonia emissions; however, due to limited data, these reductions will not be quantified in this evaluation.
- The dairy includes an anaerobic digester that has not operated for a number of years. The current operator has stated that he has no intention of operating the digester; therefore it will be designated as dormant and no control efficiency will be given for use of the digester.

B. Emission Factors

PM ₁₀ Emission Factors for Cattle at the Dairy						
Type of Cow	Uncontrolled Emission Factor (lb-PM ₁₀ /head-yr)	Source				
Milk Cows, Dry Cows, & Bulls in Freestalls	1.37	Based on a Summer 2003 study by Texas A&M ASAE at a West Texas Dairy				
Milk Cows, Dry Cows, & Bulls in Open Corrals	5.46	Based on a Summer 2003 study by Texas A&M ASAE at a West Texas Dairy				
Heifers in Open Corrals	10.55	Based on a USDA/UC Davis report quantifying dairy and feedlot emissions in Tulare & Kern Counties (April 2001)				
Calves	1.37	SJVAPCD				

VOC and NH₃ Emission Factors for the Dairy

The following tables list the VOC and NH₃ emission factors for the animals at the dairy. These emission factors and the control efficiencies given in the assumptions above will be used to calculate the VOC and NH₃ emissions from the dairy.

Emission Factors for Dairy Cows							
Type of Cow	Open Corra	al Housing	Freestall	Housing			
Type of cow	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)			
Milk Cow	19.3 ¹	74.0	21.0 ²	74.0			
Dry Cow	11.9 45.4		12.9	45.4			
Heifer (15 to 24 months)	8.3	31.8	9.0	31.8			
Heifer (7 to 14 months)	7.2	27.8	7.9	27.8			
Heifer (3 to 6 months)	6.6	25.1	7.1	25.1			
Calf (under 3 months)	6.2 23.6		6.7	23.6			
Mature Bull ³	11.1	42.6	12.1	42.6			

Breakdown of Emissions Factor for Milk Cows in Corrals ²						
Permit Units	VOC Emissions (lb/cow-yr)	NH ₃ Emissions (lb/cow-yr)				
Milking Center	0.9	1.3				
Cow Housing & Feed	12.4	32.3				
Lagoons/Storage Ponds	2.3	15.5				
Land Application	24.9					
Total	19.3	74				

Cow Housing Emission Factors for Dairy Cows⁴							
Type of Cow	Open Corral Housing		Freestall	Housing	Source		
Type of Cow	(lb-VOC/cow-yr)	(lb-NH₃/cow-yr)	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)	Source		
Milk Cow	12.4	32.3	12.4	28.0	SJVAPCD		
Dry Cow	8.2	20.6	8.2	8.2 17.9			
Heifer (15 to 24 months)	5.7	14.4	5.7	12.6	SJVAPCD		
Heifer (7 to 14 months)	5.0	12.6	5.0	11.0	SJVAPCD		
Heifer (3 to 6 months)	4.5	4.5 11.4		9.9	SJVAPCD		
Calf (under 3 months)	4.3 10.7		4.3	9.3	SJVAPCD		
Mature Bull	7.7	19.3	7.7	16.8	SJVAPCD		

¹ This emission factor is from "APCO's Determination of VOC Emission Factors for Dairies" report.

² This emission factor was developed in an internal District document entitled "*Breakdown of Dairy VOC Emission Factor into Permit Units*", however, the basis of the emission factor was taken from the "APCO's Determination of VOC Emission Factors for Dairies" report.

³ The emission factor for mature bulls is assumed to be similar to the feedlot cattle emission factor.

⁴ The emission factor for the milk cow is based on an internal document entitled "*Breakdown of Dairy VOC Emission Factor into Permit Units*". The emission factor for the other cows were developed by taking the ratio of manure generated by the different types of cows to the milk cow and multiplying it by the milk cow VOC emission factor.

The emissions from the lagoon(s)/storage pond(s), IC engine, and gasoline dispensing operation are the only non-fugitive emissions at a dairy; therefore, the following emission factors are needed to determine if the emissions from this facility exceed the VOC major source threshold.

Lagoon/Storage Pond Emission Factors for Dairy Cows ⁴							
Type of Cow	Open Corral Housing		Freestall	Source			
Type of Cow	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)	Oddice		
Milk Cow	2.3	15.5	2.7	15.7	SJVAPCD		
Dry Cow	1.4 9.5		1.7	9.6	SJVAPCD		
Heifer (15 to 24 months)	1.0 6.7		1.2	6.7	SJVAPCD		
Heifer (7 to 14 months)	0.9	5.8	1.0	5.9	SJVAPCD		
Heifer (3 to 6 months)	0.8 5.3		0.9	5.3	SJVAPCD		
Calf (under 3 months)	0.7 4.9		0.9	5.0	SJVAPCD		
Mature Bull	1.3	8.9	1.6	9.0	SJVAPCD		

Liquid Manure Land Application Emission Factors for Dairy Cows ⁴							
Type of Cow	Open Corral Housing		Freestall	Source			
Type of Cow	(lb-VOC/cow-yr)	(lb-NH₃/cow-yr)	(lb-VOC/cow-yr)	(lb-NH ₃ /cow-yr)	Oodroc		
Milk Cow	3.7	24.9	5.0	29.1	SJVAPCD		
Dry Cow	2.3	2.3 15.3		17.9	SJVAPCD		
Heifer (15 to 24 months)	1.6	1.6 10.7		12.5	SJVAPCD		
Heifer (7 to 14 months)	1.4	1.4 9.3		10.9	SJVAPCD		
Heifer (3 to 6 months)	1.3 8.5		1.7	9.9	SJVAPCD		
Calf (under 3 months)	1.2 7.9		1.6	9.3	SJVAPCD		
Mature Bull	2.1	14.3	2.9	16.8	SJVAPCD		

Solid Manure Handling

An emissions factor for solid manure has not yet been fully established. Results of emissions studies by Dr. C.E. Schmidt at a Merced dairy indicate that VOC and NH₃ emissions from solid manure at a dairy are minimal. ⁵ Therefore, although some emissions reductions are expected from the required mitigation measures, they will not be quantified at this time.

Feed Storage and Handling

Although there are potentially significant emissions from the feed handling and storage operation, an emission factor has not been established and will not be calculated in this evaluation. Subsequently, although emissions reductions from the proposed mitigation measures are expected, they will not be quantified at this time.

⁵ "Assessment of Reactive Organic Gases and Amines from a Northern California Dairy Using the USEPA Surface Emission Isolation Flux Chamber", CE Schmidt, Tom Card, EMC, and Patrick Gaffney, CARB (http://www.valleyair.org/Workshops/postings/03-23-05/LivestockSymposiumCES.pdf)

B. Calculations

1. Pre Project Potential to Emit (PE1)

S-6732-1-0 - Milking Parlor

Pre-Project	Pre-Project Potential to Emit (PE1) for the Milking Parlor (Permit S-6732-1-0)							
Type of Cow	# of Cows		EF _{VOC} (lb/cow)	EF _{NH3} (lb/cow)		lb-VOC/yr	lb-NH₃/yr	
Milk Cow	1,600	×	0.9	0.9		1,440		
(Open Corral)				1.3	-		2,080	
PE1 from Milking Parlor				lb/yr		1,440	2,080	
(Permit S-6732-1-0)			= Ib	lb/day /yr+ (365 day/yr)		3.9	5.7	

S-6732-2-0 - Cow Housing Permit

Pre-Project Type of Cow	# of	i to	Emit (P	E1) from EF _{voc}	EF _{NH3}	usin	g Permit (P lb-PM ₁₀ /yr	ermit S-673 lb-VOC/yr	2-2-0) lb-NH ₃ /yr	
Type of cow	Cows		(lb/cow)	(lb/cow)	(lb/cow)		1D-F 141 ₁₀ /y1	ID-VOC/yI	ID-INT3/yI	
Milk Cow			5.46				8,736			
(Open Corral)	1,600	x		12.4		_ =		19,840		
				ı	32.3				51,680	
Dry Cow			5.46				1,365			
(Open Corral)	250	x		8.2		=		2,050		
(Open condi)					20.6				5,150	
Hoifor (15.24 mg.)			10.55				5,697			
Heifer (15-24 mo.) (Open Corral)	540	x		5.7		=		3,078		
(Open Contai)					14.4				7,776	
Hoifor (7.14 mg.)				10.55				5,064		
Heifer (7-14 mo.) (Open Corral)	480	×		5.0		=		2,400		
(Open Contai)					12.6				6,048	
Hoifar (2.6 ma)			10.55				2,110			
Heifer (3-6 mo.) (Open Corral)	200	x		4.5		=		900		
(Open Contai)					11.4				2,280	
Calf			1.37			T	274			
(0-3 months)	200	x		4.3		=		860		
(0-0 months)					10.7				2,140	
Moture Pull			5.46				164			
Mature Bull (Open Corral)	30	x		7.7		=		231		
(Open Contai)	1 Corrary			19.3				579		
PE1 from Cow Housing Permit				lb/yr		23,410	29,359	75,653		
(S-6732-2-0)			= lb/	Ib/day yr+ (365 da	y/yr)	64.1	80.4	207.3		

S-6732-3-0 - Liquid Manure Handling System

VOC from the Liquid Manure Handling System

The liquid manure handling system permit for dairy currently includes an anaerobic digester. However, this digester is not operational; therefore, no control efficiency will be given for the digester when calculating VOC emissions from the lagoons and storages pond.

Lagoons/Storage Ponds

The Potential to Emit (PE) for VOC and NH₃ from the liquid manure handling system is calculated in the tables below.

Potential to Emit (PE) for Lagoons/Storage Ponds:

_	Potential t	o Er	•	•.	Lagoons/\$ 2-3-0)	Stora	ge Ponds	
Type of Cow	# of Cows		EF _V		EF _{NH3} (lb/cow)	,	lb-VOC/yr	lb-NH₃/yr
Milk Cow	1,600	х	2.3	3			3,680	
Open Corral	1,000	^			15.5			24,800
Dry Cow	250	x	1.4	4			350	
Open Corral	250	^			9.5] - [2,375
Heifer (15-24 mo)	540	х	. 1.0)] <u> </u>	540	
Open Corral	540	^			6.7] - [3,618
Heifer (7-14 mo)	480	х	0.9	9		_ =	432	
Open Corral	400	^			5.8] - [2,784
Heifer (3-6 mo)	200		0.8	3			160	
Open Corral	200	X			5.3	7 - [1,060
Calf	200		0.	7			140	
(0-3 months)	200	×			4.9] - [980
Mature Bull	30		1.3	3			39	
Open Corral	30	X			8.9			267
PE for Lagoons/Storage Ponds			ds		lb/yr		5,341	35,884
(S-6732-3-0)			= It	lb/day b/yr+ (365 day	/yr)	14.6	98.3	

Potential to Emit (PE) for Liquid Manure Land Application:

Ро	tential to Er	nit (•	Liquid Manur 6732-3-0)	e Lan	d Application	
Type of Cow	# of Cows		EF _{VO}			lb-VOC/yr	lb-NH₃/yr
Milk Cow	1,600	x	3.7		_ =	5,920	
Open Corral	.,000			24.9			39,840
Dry Cow	250	(2.3			575	
Open Corral	250	×		15.3			3,825
Heifer (15-24 mo)	540	,	1.6			864	
Open Corral	540	×		10.7	-		5,778
Heifer (7-14 mo)	480	,,	1.4			672	
Open Corral	400	X		9.3			4,464
Heifer (3-6 mo)	200	,,	1.3			260	
Open Corral	200	X		8.5	 = 		1,700
Calf	200		1.2			240	
(0-3 months)	200	X		7.9	_		1,580
Bull	30		2.1			63	
Open Corral	30	×		14.3			429
PE for VOC a	PE for VOC and NH ₃ from Land					8,594	57,616
Application (S-6732-3-0)				Ib/day = lb/yr+ (365 da	y/yr)	23.5	157.9

Total Pre-Project Emissions from Liquid Manure Handling (S-6732-3-0):

	Pre-P	roje	ect Potential	to	Emit (PE1) S-6732-	3-0		
	_Lagoon		Land		Total from Liquid Manure Handlir			
Pollutant	Emissions (lb/year)	+	Application (lb/year)	II	Annual Emissions (lb/year)	Daily Emissions (lb/day)		
NO _x	0	+	0	=	0	0.0		
SO _x	0	+	0	=	0	0.0		
PM ₁₀	0	+	0	=	0	0.0		
CO	0	+	0	=	0	0.0		
VOC	5,341	+	8,594	Ш	13,935	38.2		
NH ₃	35,884	+	57,616	=	93,500	256.2		

Solid Manure Handling System (S-6732-4-0)

An emissions factor for solid manure has not yet been fully established. Based on the currently available information, the pre-project emissions from the solid manure are considered negligible and are set to 0.0 lb/day for all affected pollutants.

2. Post Project Potential to Emit (PE2)

As stated earlier, even though ammonia emission reductions are expected, they will not be quantified at this time due to limited data. Since emission reductions are not being quantified for NH_3 , $PE_1 = PE_2$. Some of the mitigation measures may also reduce PM_{10} emissions; however, these reductions will not be quantified in this evaluation. Therefore, $PE_1 = PE_2$ for PM_{10} . Emission reductions for VOC are calculated in the tables below:

S-6732-1-4 – ATC for Milk Parlor

	PE2 for VOC from the Milking Parlor (ATC S-6732-1-4)														
Type of Cow	# of Cows		trolled EF C/hd-yr)	Control(s)						Emissions (lb-VOC/yr)					
				Feeding to NRC guidelines (5%)				Flushing/Spraying down milk parlor after each milking (16.7%)							
Milk Cows	1,600	×	0.9	x (1 -		0.05)	x	(1	-	0.16	5 7)	=	1,140
	PE2 for VOC from the Milking Parlor (ATC S-6732-1-4)										lb/day = lb/yr+ (365 day/yr) 3.1				

S-6732-2-3 – ATC for Cow Housing

PE2 for V	OC from th	ne Cow Housing	Permi	it (Pe	ermit S	S-67	32-2	-3)
Type of Cow	# of Cows	Uncontrolled EF (lb-VOC/hd-yr)	Control(s)					Emissions (lb-VOC/yr)
Milk Cow			Feeding	g to N	RC guide	lines	(5%)	
Open Corral	1,600	12.4	x (1	-	0.05)	=	18,848
Dry Cow			Feeding	g to N	RC guide	lines	(5%)	
Open Corral	250	8.2	x (1	-	0.05)	=	1,948
Heifer (15-24 mo)			Feeding	g to N	RC guide	lines	(5%)	
Open Corral	540	5.7	x (1	-	0.05)	=	2,924
Heifer (7-14 mo)			Feeding	g to N	RC guide	lines	(5%)	
Open Corral	480	5.0	x (1	-	0.05)	=	2,280
Heifer (3-6 mo)			Feeding	g to N	RC guide	lines	(5%)	
Open Corral	200	4.5	x (1	-	0.05)	=	855
Calf			Feeding	g to N	RC guide	lines	·(5%)	
(0-3 months)	200	4.3	x (1	-	0.05)	=	817
Mature Bull			Feeding	g to N	RC guide	lines	(5%)	
Open Corral 30 7.7		x (1	-	0.05)	=	219	
PE2 for VOC fr	om the Cov	v Housing Permit			lb/y	/r		27,891
	PE2 for VOC from the Cow Housing Permit (Permit S-6732-2-3)					ay 5 day	//yr)	76.4

S-6732-3-2 – ATC for Liquid Manure Handling System

VOC from the Liquid Manure Handling System

The liquid manure handling system permit for dairy currently includes an anaerobic digester. However, this digester is not operational; therefore, no control efficiency will be given for the digester when calculating VOC emissions from the lagoons and storages pond.

VOC from Lagoons/Storage Ponds

PE2 fo	r VOC from	Lagoons/Storage	e Pond	s (A1	C S-67	732-	3-2)	
Type of Cow	# of Cows	Uncontrolled EF (lb-VOC/hd-yr)		Co	ntrol(s)			Emissions (lb-VOC/yr)
Milk Cow			Feeding	g to NI	RC guide	elines	(5%)	
Open Corral	1,600	2.3	x (1	-	0.05)	=	3,496
Dry Cow			Feeding	g to NI	RC guide	elines	(5%)	
Open Corral	250	1.4	x (1	-	0.05)	=	333
Heifer (15-24 mo)			Feeding to NRC guidelines (5%)					
Open Corral	540	1.0	x (1	-	0.05)	=	513
Heifer (7-14 mo)			Feeding	g to NI	RC guide	elines	(5%)	
Open Corral	480	0.9	x (1	-	0.05)	=	410
Heifer (3-6 mo)			Feeding	g to NI	RC guide	elines	(5%)	1
Open Corral	200	0.8	x (1	-	0.05)	=	152
Calf			Feeding	g to NI	RC guide	lines	(5%)	
(0-3 months)	200	0.7	x (1	-	0.05)	=	133
Mature Bull			Feeding	g to NI	RC guide	elines	(5%)	
Open Corral	30	1.3	x (1	-	0.05)	=	37
PF2 for VOC fr	PE2 for VOC from Lagoons/Storage Ponds							5,074
1	(ATC S-6732-3-2)					ay 5 day	//yr)	13.9

Liquid Manure Land Application

The pre-project VOC emissions from liquid manure land application are calculated in the table below:

PE2 for V	OC from Liq	uid Manure Land	Applica	ation	(ATC	S-67	732-3	-2)
Type of Cow	# of Cows	Uncontrolled EF (lb-VOC/hd-yr)		Co	ntrol(s)			Emissions (lb-VOC/yr)
Milk Cow			Feeding	to Ni	RC guide	elines	(5%)	
Open Corral	1,600	3.7	x (1	-	0.05)	=	5,624
Dry Cow			Feeding	to Ni	RC guide	elines	(5%)	
Open Corral	250	2.3	x (1	-	0.05) _	=	546
Heifer (15-24 mo)			Feeding	to Ni	RC guide	elines	(5%)	
Open Corral	540	1.6	x (1	-	0.05)	=	821
Heifer (7-14 mo)			Feeding	to NI	RC guide	elines	(5%)	
Open Corral	480	1.4	x (1		0.05)	=	638
Heifer (3-6 mo)			Feeding	to NI	RC guide	elines	(5%)	
Open Corral	200	1.3	x (1	-	0.05)	=	247
Calf			Feeding	to NI	RC guide	elines	(5%)	
(0-3 months)	200	1.2	x (1	-	0.05)	=	228
Mature Bull			Feeding	to NI	RC guide	elines	(5%)	
Open Corral	30	2.1	x (1	-	0.05)	=	60
PF2 for VOC from	Liquid Man	ure I and Annlica	lb/vr				-	8,164
	PE2 for VOC from Liquid Manure Land Application (ATC S-6732-3-2)						//yr)	22.4

Total Post-Project Emissions from Liquid Manure Handling (S-6732-3-2):

	Post-Project Potential to Emit (PE2) S-6732-3-2									
	_Lagoon		Land		Total from Liquid Manure Handlin					
Pollutant	Emissions (lb/year)	+	Application (lb/year)	=	Annual Emissions (lb/year)	Daily Emissions (lb/day)				
NO _x	0	+	0	=	0	0.0				
SO _x	0	+	0	=	0	0.0				
PM ₁₀	0	+	0	=	0	0.0				
CO	0	+	0	=	0	0.0				
VOC	5,074	+	8,164	=	13,238	36.3				
NH ₃	39,362	+	63,224	=	102,586	281.1				

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

The SSPE1 is shown in the table below:

Pre-Project Sta	tionary Sc	ource Pot	ential to E	mit [SSPE	1] (lb/year	.)
	NO _X	SO _X	PM ₁₀	СО	VOC	NH ₃
S-6732-1-0 (Milk Parlor)	0	0	0	0	1,440	2,080
S-6732-2-0 (Cow Housing)	0	0	23,410	0	29,359	75,653
S-6732-3-0 (Liquid Manure Handling)	0	0	0	0	13,935	93,500
S-6732-4-0 (Solid Manure Handling)	0	0	0	0	0	0
S-6732-5-0 (Gasoline Dispensing Operation)	0	0	0	0	20	0
S-6732-6-1 (Dormant 250 hp Digester Gas-Fired IC Engine)	10,815	10,477	362	87,839	2,173	0
S-6732-7-1 (Dormant Digester Gas-Fired Emergency Flare)*	32	112	12	172	3	0
Pre-Project SSPE (SSPE1)	10,847	10,589	23,784	88,011	46,930	171,233

^{*} Estimated from the flare were based on a maximum of 4,100 scf of biogas combusted per hour and operation of the emergency flare a maximum of 200 hrs per year.

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Post-Project St	ationary S	ource Po	tential to E	mit [SSPI	E2] (lb/yea	r)
	NO _X	SO _X	PM ₁₀	CO	VOC	NH ₃
ATC S-6732-1-4 (Milk Parlor)	0	0	0	0	1,140	2,080
ATC S-6732-2-3 (Cow Housing)	0	0	23,410	0	27,891	75,653
ATC S-6732-3-2 (Liquid Manure Handling)	0	0	0	0	13,238	93,500
ATC S-6732-4-2 (Solid Manure Handling)	0	0	0	0	0	0
S-6732-5-0 (Gasoline Dispensing Operation)	0	0	0	0	20	0
S-6732-6-1 (Dormant 250 hp Digester Gas-Fired IC Engine)	10,815	10,477	362	87,839	2,173	0

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Post-Project S	Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)									
S-6732-7-1 (Dormant Digester Gas-Fired Emergency Flare)	32	112	12	172	3	0				
ATC S-6732-8-1 (Feed Handling & Storage)	0	0	0	0	0	0				
Post-Project SSPE (SSPE2)	10,847	10,589	23,784	88,011	44,465	171,233				

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a major source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the threshold values.

As stated in the assumptions, only emissions non-fugitive emissions from the lagoons, IC Engine, Gasoline Dispensing Operation, and flare will be used in determining if this agricultural facility is a major source.

Non-Fugitive Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
	NO _X	SO _X	PM ₁₀	CO	VOC
ATC S-6732-1-4 (Milk Parlor)	0	0	0	0	0
ATC S-6732-2-3 (Cow Housing)	0	. 0	0	0	0
ATC S-6732-3-2 (Liquid Manure Handling)	0	0	0	0	5,074
ATC S-6732-4-2 (Solid Manure Handling)	0	0	0	0	0
S-6732-5-0 (Gasoline Dispensing Operation)	0	0	0	0	20
S-6732-6-1 (Dormant 250 hp Digester Gas-Fired IC Engine)	10,815	10,477	362	87,839	2,173
S-6732-7-1 (Dormant Digester Gas-Fired Emergency Flare)	32	112	12	172	3
ATC S-6732-8-1 (Feed Handling & Storage)	0	0	0	0	0
Non Fugitive SSPE2	10,847	10,589	374	88,011	7,270

Major Source Determination (lb/year)					
	NO _X	SO _X	PM ₁₀	CO	VOC
Post Project SSPE (SSPE2)	10,847	10,589	374	88,011	7,270
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As seen in the tables above, the facility is **not** a Major Source.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed on a pollutant-by-pollutant basis to determine the amount of offsets required, where necessary. However, agricultural operations are exempt from offsets pursuant to Section 4.6.9 of District Rule 2201. Therefore, BE calculations are not required for the dairy permits.

7. SB 288 Major Modification

An SB 288 Major Modification is modification as defined in 40 CFR Part 51.165, as in effect on December 19, 2002. 40 CFR Part 51.165 defines a major modification "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."

As discussed in Section VII.C.5 above, the facility is not a Major Source for any pollutant; therefore, the project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

A Federal Major Modification is a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the Clean Air Act. 40 CFR Part 51.165 defines a major modification "any physical change in or change in the method of operation of a major stationary source that would result in: "(1) A significant emissions increase of a regulated NSR pollutant; and (2) A significant net emissions increase of that pollutant from the major stationary source."

As discussed in Section VII.C.5 above, the facility is not a Major Source for any pollutant; therefore, the project does not constitute a Federal Major Modification and no further discussion is required.

9. Quarterly Net Emissions Change (QNEC)

The QNEC will be calculated for VOC, for each unit, as the difference between the quarterly PE2 and the quarterly PE1. The QNEC for each pollutant is shown in the table(s) below:

QNEC - VOC			
Permit Unit	PE ₂ (lb/yr)	PE₁ (lb/yr)	QNEC (lb/qtr)
ATC S-6732-1-4 (Milk Parlor)	1,140	1,440	-75.0
ATC S-6732-2-3 (Cow Housing)	27,891	29,359	-367.0
ATC S-6732-3-2 (Liquid Manure Handling)	13,238	13,935	-174.3

QNEC - VOC				
Permit Unit	PE ₂ (lb/yr)	PE ₁ (lb/yr)	QNEC (lb/qtr)	
ATC S-6732-4-2 (Solid Manure Handling)	0	0	0.0	
ATC S-6732-8-1 (Feed Handling & Storage)	0	0	0.0	
Stationary Source Potential to Emit	44,465	46,930	-616.3	

VIII. Compliance

District Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

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

However, pursuant to District Rule 2201, 4.2.3, BACT shall not be required for the following:

- 4.2.3 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from Best Available Control Technology for all air pollutants, provided all of the following conditions are met:
 - 4.2.3.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;
 - 4.2.3.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;
 - 4.2.3.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National

^{*}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.

Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas: and

4.2.3.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO_x, or 25 tons per year of VOC, or 15 tons per year of SO_x, or 15 tons per year of PM10, or 50 tons per year of CO.

Since each of the above-listed criteria are met, BACT is not triggered for any pollutant.

2. BACT Guideline

Since BACT is not triggered, the proposed operation is not subject to any BACT guideline. No further discussion is required.

3. Top-Down BACT Analysis

Since BACT is not triggered, the proposed operation is not subject to a top-down BACT analysis. No further discussion is required.

B. Offsets

Pursuant to Section 4.6.9 of District Rule 2201, agricultural sources, to the extent provided by California Health and Safety Code, section 42301.18(c) are exempt from offsets as long as nothing in this Health and Safety Code section circumvents the requirements of section 42301.16(a). Therefore, offsets are not required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

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

a. New Major Source

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.

b. Major Modification

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

c. 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. There are no new emissions units with emissions that exceed 100 lbs/day; therefore, public noticing is not required for this project for Potential to Emit exceeding the 100 lb/day limit.

d. Offset Threshold

Public notification is required if the Pre-Project Stationary Source Potential to Emit (SSPE1) is increased from a level below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant.

There is no increase in permitted emissions as a result of this project. Therefore, the SSPE is not increasing with this project and an offset threshold cannot be surpassed as a result of this project. A public notice will not be required for offset threshold purposes.

e. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively.

There is no increase in permitted emissions as a result of this project. As a result, the SSPE will not increase. Therefore, the SSIPE will be zero and public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.17 to restrict a unit's maximum daily emissions, to a level at or below the

emissions associated with the maximum design capacity. Per Sections 3.17.1 and 3.17.2, 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 dairies, the DEL is satisfied based on the herd composition and the mitigation measures utilized on the dairy. The number and types of cows are listed in the permit equipment description for the Cow Housing (S-6732-2). Additionally, the proposed mitigation measures will be included on the permits as enforceable conditions.

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201. In addition, these units are subject to District Rule 4570, *Confined Animal Facilities*. If any testing requirements are required by District Rule 4570, they will be discussed under the *Rule 4570 Confined Animal Facility* section below.

2. Monitoring

These units are subject to District Rule 4570, Confined Animal Facilities monitoring requirements, in accordance with Section 7.2 of District Rule 4570. Monitoring requirements, if any, will be discussed under the Rule 4570 Confined Animal Facility section below.

3. Recordkeeping

These units are subject to District Rule 4570, Confined Animal Facilities recordkeeping requirements, in accordance with Section 7.2 of District Rule 4570. Recordkeeping requirements will be discussed under the Rule 4570 Confined Animal Facility section below.

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

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.

Pursuant to Section 4.12, emissions subject to or specifically exempt from Regulation VIII (Fugitive PM10 Prohibitions) are considered to be exempt.

Pursuant to District Rule Section 4.1, on-field agricultural sources are exempt from the requirements of Regulation VIII.

An on-field agricultural source is defined in Rule 8011, Section 3.35 as the following:

 Activities conducted solely for the purpose of preparing land for the growing of crops or the raising of fowl or animals, such as brush or timber clearing, grubbing, scraping, ground excavation, land leveling, grading, turning under stalks, disking, or tilling;

Therefore, activities conducted solely for the purpose of raising fowl or animals are exempt from the requirements of Regulation VIII and Rule 4101.

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance.

This project involves proposed mitigation measures that are expected to reduce overall emissions at the dairy. Therefore, this dairy is expected to comply with this rule.

California Health & Safety Code 41700 (Health Risk Analysis)

Pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, 3/2/01), for any sources with increases in toxic air emissions, the health risks resulting from such projects must be evaluated. This application is to comply with Rule 4570 with no increase in toxic air emissions; therefore, a health risk analysis is not required.

Rule 4550 Conservation Management Practices (CMP)

This rule applies to agricultural operation sites located within the San Joaquin Valley Air Basin. The purpose of this rule is to limit fugitive dust emissions from agricultural operation sites.

Pursuant to Section 5.1, effective on and after July 1, 2004, an owner/operator shall implement the applicable CMPs selected pursuant to Section 6.2 for each agricultural operation site.

Pursuant to Section 5.2, an owner/operator shall prepare and submit a CMP application for each agricultural operation site to the APCO for approval.

The facility received District approval for its CMP plan on December 11, 2009. Continued compliance with the requirements of District Rule 4550 is expected.

Rule 4570 Confined Animal Facilities (CAF)

This rule applies to Confined Animal Facilities (CAF) located within the San Joaquin Valley Air Basin. The purpose of this rule is to limit emissions of Volatile Organic Compounds (VOC) from Confined Animal Facilities (CAF).

Section 5.0 Requirements

Pursuant to Section 5.1.1, owners/operators of a CAF shall obtain a Permit-to-Operate for the facility.

Pursuant to Section 5.1.2, a thirty-day (30) public noticing and commenting period shall be required for all large CAFs receiving their initial Permit-to-Operate or Authority-to-Construct.

Since this is the project is for issuance of the initial ATCs to incorporate the requirements of District Rule 4570, public noticing is required for this project. A public notice will be published in a local newspaper of general circulation prior to the issuance of these ATCs.

Pursuant to Section 5.1.3, owners/operators of any CAF shall submit a facility emission mitigation plan as part of the Permit-to-Operate application or Authority-to-Construct application. The mitigation plan shall contain the following information:

- 5.1.3.1 The name, business address, and phone number of the owners/operators responsible for the preparation and the implementation of the mitigation measures listed in the mitigation plan.
- 5.1.3.2 The signature of the owners/operators attesting to the accuracy of the information provided and adherence to implementing the activities specified in the mitigation plan at all times and the date that the application was signed.
- 5.1.3.3 A list of all mitigation measures chosen to comply with Rule 4570 requirements.

The applicant has submitted an application containing all the information required above.

Pursuant to Section 5.1.4, the Permit-to-Operate application or Authority-to-Construct application shall include the following information in addition to the facility emission mitigation plan:

- 5.1.4.1 The maximum number of animals at the facility in each production stage (facility capacity).
- 5.1.4.2 Any other information necessary for the District to prepare an emission inventory of all regulated air pollutants emitted from the facility, as determined by the APCO.

The applicant has submitted an application containing all the information required above.

Pursuant to Section 5.1.5, the approved mitigation measures from the facility's mitigation plan will be listed on the Permit-to-Operate or Authority-to-Construct as permit conditions.

Pursuant to Section 5.1.6, the District shall act upon the Authority to Construct application or Permit-to-Operate application within six (6) months of receiving a complete application.

Pursuant to Section 5.2, the District shall review each plan/permit at least once every three (3) years to reflect changes in the operation and feasibility of mitigation measures.

The basis of this requirement comes from Senate Bill 700, which requires the District to review permits and update them to reflect changes in the operation, or to include or remove mitigation measures based on changes in the feasibility of such measures. No update from the applicant is required.

Pursuant to Section 5.3, owners/operators of any CAF shall implement all VOC emission mitigation measures, as contained in the permit application, on and after 365 days from the date of issuance of either the Authority-to-Construct or the Permit-to-Operate, whichever is sooner.

Pursuant to Section 5.4, notwithstanding Section 5.3, an owner/operator may temporarily suspend use of mitigation measure(s) provided all of the following requirements are met:

- 5.4.1 It is determined by a licensed veterinarian, certified nutritionist, CDFA, or USDA that any mitigation measure being suspended is detrimental to animal health or necessary for the animal to molt, and a signed written copy of this determination shall be retained on-site and made available for inspection upon request,
- 5.4.2 The owner/operator notifies the District, within forty-eight (48) hours of the determination that the mitigation measure is being temporarily suspended; the specific health condition requiring the mitigation measure to be suspended; and the duration that the measure must be suspended for animal health reasons.
- 5.4.3 The emission mitigation measure is not suspended for longer than recommended by the licensed veterinarian or certified nutritionist for animal health reasons,
- 5.4.4 If such a situation exists, or is expected to exist for longer than thirty (30) days, the owners/operators shall, within that thirty (30) day period, submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the mitigation measure that was suspended, and
- 5.4.5 The APCO, ARB, and EPA approve the temporary suspension of the mitigation measure for the time period requested by the owner/operator and a signed written copy of this determination shall be retained on-site.

The following condition will be placed on each permit.

{3508} If a licensed veterinarian or a certified nutritionist determines that any VOC mitigation measure will be required to be suspended as a detriment to animal health, the owners/operators must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the

mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]

Section 7.0 Requirements

Pursuant to 7.2, Owners/operators subject to the requirements of Section 5.0 shall maintain:

- Copies of all of the facility's permits
- Records of the number of animals of each species and production group at the facility on a quarterly basis. Examples of records that may be used include, but are not limited to, Dairy Herd Improvement Association records and animal inventories done for financial purposes.
- Records sufficient to demonstrate compliance with all applicable mitigation measures.

The following condition will be placed on the cow housing permit:

{3656} Owners/Operators shall maintain a record of the number of animals of each species and production group at the facility and shall maintain quarterly records of any changes to this information. [District Rule 4570]

Specific recordkeeping and monitoring conditions are shown below under the appropriate mitigation measures.

Sections 7.3 through 7.8 require specific record keeping conditions for each mitigation measure. These conditions are shown below with each mitigation measure.

Pursuant to Section 7.9, all records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. Therefore, the following condition will be placed on the permit:

Owners/Operators shall keep and maintain all records for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]

Sections 7.10 and 7.11 require specific monitoring or source testing conditions for each mitigation measure. These conditions are shown below with each mitigation measure.

The Dairy has chosen the following Mitigation Measures. All conditions required for compliance with Rule 4570 for the mitigation measures selected by the applicant are shown below. These conditions will be placed on the appropriate permits.

General Conditions

{3508} If a licensed veterinarian or a certified nutritionist determines that any VOC mitigation measure will be required to be suspended as a detriment to

animal health, the owners/operators must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]

{3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]

Feed Mitigation Measures

Feed according to National Research Council (NRC) guidelines.

{3511} Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570]

{3512} Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]

Feed animals high moisture corn or steam-flaked corn and not feed animals dry rolled corn.

{3513} Permittee shall feed high moisture corn or steam-flaked corn to animals and shall not feed any dry rolled corn to animals. [District Rule 4570]

{3514} Permittee shall maintain records to demonstrate animals are fed high moisture corn or stream-flaked corn and no dry rolled corn. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]

Feed or dispose of rations within 48 hours of grinding and mixing rations.

{3521} Permittee shall feed or dispose of rations within forty-eight (48) hours of grinding and mixing rations. [District Rule 4570]

{3522} Permittee shall maintain records of when feed was either fed to animals or disposed of within forty-eight (48) hours of grinding and mixing rations.

Store grain in a weatherproof storage structure from October through May.

{3523} Permittee shall store grain in a weatherproof storage structure from October through May. [District Rule 4570]

{3524} Permittee shall maintain records when grain is stored in a weatherproof storage structure from October through May. [District Rule 4570]

Cover the horizontal surface of silage piles, except for the area where feed is being removed from the pile.

{3525} Permittee shall cover all silage piles, except for the area where feed is being removed from the pile. [District Rule 4570]

Milk Parlor Mitigation Measures

Flush or hose milk parlor immediately prior to, immediately after, or during each milking.

{3537} Permittee shall flush or hose milk parlor immediately prior to, immediately after, or during each milking. [District Rule 4570]

{3538} Permittee shall provide verification that milk parlors are flushed or hosed prior to, immediately after, or during each milking. [District Rule 4570]

Freestall Barn Mitigation Measures

Not applicable

Corral Mitigation Measures

Clean concreted areas such that the depth of manure does not exceed 12 inches at any point or time, except for in-corral mounding.

{3563} Permittee shall clean concreted areas such that the depth of animal waste does not exceed twelve (12) inches at any point or time, except for in-corral mounding. [District Rule 4570]

{3564} Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570]

Maintain corrals to ensure drainage and prevent water from standing more than 48 hours after a storm.

{3565} Permittee shall maintain corrals to ensure drainage and prevent water from standing more than forty-eight (48) hours after a storm. [District Rule 4570]

{3566} Permittee shall maintain sufficient records to demonstrate that corrals are maintained to ensure drainage and prevent water from standing for more than forty-eight (48) hours after a storm. [District Rule 4570]

Install all shade structures uphill of any slope in the corral.

{3572} Permittee shall install all shade structures uphill of any slope in the corral. [District Rule 4570]

Manage corrals such that the manure depth in the corral does not exceed 12 inches at any time or point, except for in-corral mounding.

{3573} Permittee shall manage corrals such that the animal waste depth in the corral does not exceed twelve (12) inches at any time or point, except for incorral mounding. [District Rule 4570]

{3574} Permittee shall measure and document the depth of manure in the corrals at least once every ninety (90) days. [District Rule 4570]

Knockdown fence line manure build-up prior to it exceeding a height of 12 inches at any time or point.

{3575} Permittee shall knockdown fence line animal waste build-up prior to it exceeding a height of twelve (12) inches at any time or point. [District Rule 4570]

{3576} Permittee shall measure and document the depth of manure at the fence line at least once every ninety (90) days. [District Rule 4570]

Scrape or flush feed aprons in corrals at least once every seven (7) days.

{3577} Permittee shall scrape or flush feed aprons in corrals at least once every seven (7) days. [District Rule 4570]

{3578} Permittee shall record the date that feed aprons in corrals are scraped or flushed. [District Rule 4570]

Solid Manure Mitigation Measures

Remove separated solids from the facility within 72 hours of separation.

{3594} Permittee shall remove separated solids from the dairy within seventy-two (72) hours of drying the separated solids. [District Rule 4570]

{3595} Permittee shall keep records of dates when separated solids are dried and removed from the dairy. [District Rule 4570]

Remove manure from the facility within 72 hours of removal from the pens or corrals.

{3603} Permittee shall remove animal waste from the facility within seventy-two (72) hours of removal from the pens or corrals. [District Rule 4570]

{3604} Permittee shall keep records of dates when animal waste is removed from the pens/corrals and the dairy. Manure hauling invoices may be used to meet this requirement. [District Rule 4570]

Liquid Manure Mitigation Measures

Remove solids from the liquid manure system with a solid separator system, prior to the manure entering the lagoon.

{3624} Permittee shall remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon. [District Rule 4570]

Land Application Mitigation Measures

Allow liquid manure to stand in the fields no more than 24 hours after irrigation.

{3643} Permittee shall not allow liquid animal waste to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]

{3644} Permittee shall maintain records to demonstrate liquid animal waste will does not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]

Land incorporate all solid manure within 72 hours of removal from animal housing.

{3652} Permittee shall land incorporate all solid animal waste within seventy-two (72) hours of removal from animal housing. [District Rule 4570]

{3653} Permittee shall maintain records to demonstrate that all solid animal waste has been incorporated within seventy-two (72) hours of removal from animal housing. [District Rule 4570]

In order to show compliance with this rule, the facility must select at least 19 mitigation measures *unless* "not applicable" was selected for any of the mitigation categories.

Category	Requirement	# of Measures Selected
Feed	5	5
Milk Parlor	1	1
Freestall Barn	2	0
Corral	6	6
Solid Manure	2	2
Liquid Manure	1	1
Land Application	2	2
Total Measures	19	17

The applicant has checked not applicable for the freestalls. Since this facility does not have freestalls, no mitigation measures need to be selected under the freestalls category and therefore fewer than 19 mitigation measures are needed for compliance with this Rule. The facility has selected all the other required mitigation measures in each other category.

Therefore this facility is in compliance with this Rule.

Section 8.0 Compliance Schedule

Pursuant to Section 8.1, owners/operators of facilities subject to the Regulatory Threshold requirements of this rule under Table 2 shall submit a complete Permit-to-Operate or Authority-to-Construct application for the Phase II requirements in Section 5.6 by April 21, 2011 that complies with all applicable provisions of this rule.

The owners/operator of this dairy is expected to submit the required application by the compliance date in the rule.

California Health & Safety Code 42301.6 (School Notice)

California Health & Safety Code 42301.6 requires that the District prepare a school notice prior to approving an application for a permit to construct or modify a source that

emits toxic air emissions which is located within 1,000 feet from the outer boundary of a K-12 school site. There is no increase in emissions of any hazardous air pollutants as a result of this project. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (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 San Joaquin Valley Unified Air Pollution Control District (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.
- 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

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

There will be no increase in herd size or in the amount of manure handled at the dairy; therefore, the project will not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant 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 § 15031 (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)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected.

Issue Authority to Construct S-6732-1-4, -2-3, -3-2, -4-2, & -8-1 subject to the permit conditions listed on the attached draft ATCs.

X. Billing Information

Annual Permit Fees				
Permit Number	Fee Schedule	Fee Description	Annual Fee	
S-6732-1-4	3020-06	Milking Center - Miscellaneous	\$105.00	
S-6732-2-3	3020-06	Cow Housing - Miscellaneous	\$105.00	
S-6732-3-2	3020-06	Liquid Manure Management - Miscellaneous	\$105.00	
S-6732-4-2	3020-06	Solid Manure Management - Miscellaneous	\$105.00	
S-6732-8-1	3020-06	Feeding Storage and Handling - Miscellaneous	\$105.00	

Attachments:

A: Current Permits to Operate

B: Draft Authorities to Construct

Appendix A Current PTOs

PERMIT UNIT: S-6732-1-0 **EXPIRATION DATE: 12/31/2012**

EQUIPMENT DESCRIPTION:

HERRINGBONE MILKING PARLOR FOR 2400 MILK COWS

PERMIT UNIT REQUIREMENTS

- 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]
- 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]
- The owner or operator of this dairy shall submit an Authority to Construct (ATC) application necessary to comply with District Rule 4570 by December 15, 2006. [District Rule 4570]
- This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]

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

Facility Name: PALM DAIRY

Location: 20215 ROAD 140, TULARE, CA 93274 S-6732-1-0: Jan 12 2011 4:59PM - NORMANR

PERMIT UNIT: S-6732-2-0

EXPIRATION DATE: 12/31/2012

EQUIPMENT DESCRIPTION:

COW HOUSING - FLUSH DAIRY CONSISTING OF 2400 MILK COWS, 240 DRY COWS AND 220 LARGE HEIFERS (15-24 MONTHS OLD) HOUSED IN OPEN CORRALS WITH SHADE STRUCTURES WITH A FLUSH SYSTEM

PERMIT UNIT REQUIREMENTS

- 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]
- 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]
- The owner or operator of this dairy shall submit an Authority to Construct (ATC) application necessary to comply with District Rule 4570 by December 15, 2006. [District Rule 4570]
- This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]

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

Facility Name: PALM DAIRY

Location: 20215 ROAD 140, TULARE, CA 93274 S-6732-2-0: Jan 12 2011 4:59PM - NORMANR

PERMIT UNIT: S-6732-3-0

EXPIRATION DATE: 12/31/2012

EQUIPMENT DESCRIPTION:

LIQUID MANURE HANDLING SYSTEM CONSISTING OF TWO (1100'X90'X10' AND 1100'X825'X11') TREATMENT LAGOONS CONTROLLED BY AN ANAEROBIC DIGESTER SYSTEM VENTED THROUGH A XXX HP IC ENGINE, AND ONE (1) 20'X18'X10' STORAGE POND

PERMIT UNIT REQUIREMENTS

- 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]
- 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 10701
- The owner or operator of this dairy shall submit an Authority to Construct (ATC) application necessary to comply with District Rule 4570 by December 15, 2006. [District Rule 4570]
- This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]

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

Facility Name: PALM DAIRY

Location: 20215 ROAD 140, TULARE, CA 93274 S-6732-3-0: Jan 12 2011 4:59PM - NORMANR

PERMIT UNIT: S-6732-4-0

EXPIRATION DATE: 12/31/2012

EQUIPMENT DESCRIPTION:

SOLID MANURE HANDLING CONSISTING OF OPEN MANURE STOCK PILES INCLUDING AN OPEN WINDROW COMPOSTING OPERATION

PERMIT UNIT REQUIREMENTS

- 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]
- 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]
- The owner or operator of this dairy shall submit an Authority to Construct (ATC) application necessary to comply with District Rule 4570 by December 15, 2006. [District Rule 4570]
- This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]

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

Facility Name: PALM DAIRY

Location: 20215 ROAD 140, TULARE, CA 93274 8-6732-4-0: Jan 12 2011 4:59PM - NORMANR

Palm Dairy S-6732, 1094916

Appendix B Draft ATCs

AUTHORITY TO CONSTRUCT

ISSU

PERMIT NO: S-6732-1-4

LEGAL OWNER OR OPERATOR: PALM DAIRY

MAILING ADDRESS:

20215 RD 140 TULARE, CA 93274

LOCATION:

20215 ROAD 140 TULARE, CA 93274

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2,400 COW HERRINGBONE MILKING PARLOR: CORRECT PERMITTED NUMBER OF MILK COWS TO 1,600; ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

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. {3508} If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
- 4. {3537} Permittee shall flush or hose milk parlor immediately prior to, immediately after, or during each milking. [District Rule 4570]
- 5. {3538} Permittee shall provide verification that milk parlors are flushed or hosed prior to, immediately after, or during each milking. [District Rule 4570]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Dinectory APCO

DAVID WARNER, Director of Permit Services

- 6. {3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]
- 7. {3658} This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]
- 8. Permittee shall submit a complete Authority-to-Construct application by April 21, 2011 to comply with all applicable Phase II requirements of District Rule 4570, Section 5.6. [District Rule 4570]



AUTHORITY TO CONSTRUCT

ISSU/

PERMIT NO: S-6732-2-3

LEGAL OWNER OR OPERATOR: PALM DAIRY
MAILING ADDRESS: PALM DAIRY
20215 RD 140

TULARE, CA 93274

LOCATION:

20215 ROAD 140 TULARE, CA 93274

EQUIPMENT DESCRIPTION:

MODIFICATION OF COW HOUSING - 2,400 MILK COWS, 240 DRY COWS AND 220 LARGE HEIFERS (15-24 MONTHS OLD) HOUSED IN OPEN CORRALS WITH A FLUSH SYSTEM AND SHADE STRUCTURES: CORRECT PERMITTED HERD SIZE TO 1,600 MILK COWS, 250 DRY COWS, 540 LARGE HEIFERS (15-24 MONTHS), 480 MEDIUM HEIFERS (7-14 MONTHS), 200 SMALL HEIFERS (4-6 MONTHS), AND 30 BULLS HOUSED IN OPEN CORRALS WITH A FLUSH SYSTEM AND 200 CALVES HOUSED IN CALF HUTCHES; ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

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. {3508} If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Dinectory APCO

DAVID WARNER, Director of Permit Services

- 4. {3563} Permittee shall clean concreted areas such that the depth of animal waste does not exceed twelve (12) inches at any point or time, except for in-corral mounding. [District Rule 4570]
- 5. {3564} Permittee shall measure and document the depth of manure on the concrete lanes at least once every ninety (90) days. [District Rule 4570]
- 6. {3565} Permittee shall maintain corrals/pens to ensure drainage and prevent water from standing more than forty-eight (48) hours after a storm. [District Rule 4570]
- 7. {3566} Permittee shall maintain sufficient records to demonstrate that corrals/pens are maintained to ensure drainage and prevent water from standing for more than forty-eight (48) hours after a storm. [District Rule 4570]
- 8. {3572} Permittee shall install all shade structures uphill of any slope in the corral. [District Rule 4570]
- 9. {3573} Permittee shall manage corrals such that the animal waste depth in the corral does not exceed twelve (12) inches at any time or point, except for in-corral mounding. [District Rule 4570]
- 10. {3574} Permittee shall measure and document the depth of manure in the corrals/pens at least once every ninety (90) days. [District Rule 4570]
- 11. {3575} Permittee shall knockdown fence line animal waste build-up prior to it exceeding a height of twelve (12) inches at any time or point. [District Rule 4570]
- 12. {3576} Permittee shall measure and document the depth of manure at the fence line at least once every ninety (90) days. [District Rule 4570]
- 13. {3577} Permittee shall scrape or flush feed aprons in corrals at least once every seven (7) days. [District Rule 4570]
- 14. {3578} Permittee shall record the date that feed aprons in corrals are scraped or flushed. [District Rule 4570]
- 15. {3656} Permittee shall maintain a record of the number of animals of each production group at the Facility and shall maintain quarterly records of any changes to this information. Such records may include DHIA monthly records, milk production invoices, ration sheets or periodic inventory records. [District Rule 4570]
- 16. {3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]
- 17. {3658} This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]
- 18. Permittee shall submit a complete Authority-to-Construct application by April 21, 2011 to comply with all applicable Phase II requirements of District Rule 4570, Section 5.6. [District Rule 4570]



AUTHORITY TO CONSTRUCT

ISSU/

PERMIT NO: S-6732-3-2

LEGAL OWNER OR OPERATOR: PALM DAIRY **MAILING ADDRESS:** 20215 RD 140

TULARE, CA 93274

LOCATION: 20215 ROAD 140

TULARE, CA 93274

EQUIPMENT DESCRIPTION:

MODIFICATION OF LIQUID MANURE HANDLING SYSTEM CONSISTING OF ONE MECHANICAL SEPARATOR, ONE SETTLING POND (490'X60'X15'), ONE LAGOON (1,075'X145'X20'), ONE STORAGE POND (1,060'X580'X20'), AND ONE DORMANT COVERED LAGOON DIGESTER: ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

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. {3508} If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
- 4. {3643} Permittee shall not allow liquid animal waste to stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Diffectory APCO

DAVID WARNER, Director of Permit Services

- 5. {3644} Permittee shall maintain records to demonstrate liquid animal waste does not stand in the fields for more than twenty-four (24) hours after irrigation. [District Rule 4570]
- 6. {3624} Permittee shall remove solids from the waste system with a solid separator system, prior to the waste entering the lagoon. [District Rule 4570]
- 7. {3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]
- 8. {3658} This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]
- 9. Permittee shall submit a complete Authority-to-Construct application by April 21, 2011 to comply with all applicable Phase II requirements of District Rule 4570, Section 5.6. [District Rule 4570]



AUTHORITY TO CONSTRUCT

ISSUA

PERMIT NO: S-6732-4-2

LEGAL OWNER OR OPERATOR: PALM DAIRY
MAILING ADDRESS: 20215 RD 140

TULARE, CA 93274

LOCATION:

20215 ROAD 140 TULARE, CA 93274

EQUIPMENT DESCRIPTION:

MODIFICATION OF SOLID MANURE HANDLING CONSISTING OF OPEN MANURE STOCK PILES INCLUDING AN OPEN WINDROW COMPOSTING OPERATION: ADD MITIGATION MEASURES TO COMPLY WITH RULE 4570

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. {3508} If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
- 4. {3652} Permittee shall land incorporate all solid animal waste within seventy-two (72) hours of removal from animal housing. [District Rule 4570]
- 5. {3653} Permittee shall maintain records that show that all solid animal waste has been incorporated within seventy-two (72) hours of removal from animal housing. [District Rule 4570]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Directory APCO

DAVID WARNER, Director of Permit Services

- 6. {3594} Permittee shall remove separated solids from the dairy within seventy-two (72) hours of drying the separated solids. [District Rule 4570]
- 7. {3595} Permittee shall keep records of dates when separated solids are dried and removed from the dairy. [District Rule 4570]
- 8. {3603} Permittee shall remove animal waste from the facility within seventy-two (72) hours of removal from the pens or corrals. [District Rule 4570]
- 9. {3604} Permittee shall keep records of dates when animal waste is removed from the pens/corrals and the dairy. Manure hauling invoices may be used to meet this requirement. [District Rule 4570]
- 10. {3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]
- 11. {3658} This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]
- 12. Permittee shall submit a complete Authority-to-Construct application by April 21, 2011 to comply with all applicable Phase II requirements of District Rule 4570, Section 5.6. [District Rule 4570]



AUTHORITY TO CONSTRUCT

PERMIT NO: S-6732-8-1

LEGAL OWNER OR OPERATOR: PALM DAIRY
MAILING ADDRESS: 20215 RD 140

TULARE, CA 93274

LOCATION:

20215 ROAD 140 TULARE, CA 93274

EQUIPMENT DESCRIPTION:

FEED STORAGE AND HANDLING CONSISTING OF COMMODITY BARNS AND SILAGE PILES

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. {3508} If a licensed veterinarian, a certified nutritionist, the California Department of Food and Agriculture (CDFA), or the United States Department of Agriculture (USDA) determines that any VOC mitigation measure (with a Rule 4570 reference) is detrimental to animal health and needs to be suspended, the Permittee must notify the District in writing within forty-eight (48) hours of the determination including the duration and the specific health condition requiring the mitigation measure to be suspended. If the situation is expected to exist longer than a thirty-day (30) period, the owner/operator shall submit a new emission mitigation plan designating a mitigation measure to be implemented in lieu of the suspended mitigation measure. [District Rule 4570]
- 4. {3511} Permittee shall feed all animals according to National Research Council (NRC) guidelines. [District Rule 4570]

CONDITIONS CONTINUE ON NEXT PAGE

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Seved Sadredin, Executive Diffectory APCO

DAVID WARNER, Director of Permit Services

- 5. {3512} Permittee shall maintain records of feed content, formulation, and quantity of feed additive utilized, to demonstrate compliance with National Research Council (NRC) guidelines. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
- 6. {3513} Permittee shall feed high moisture corn or steam-flaked corn to animals and shall not feed any dry rolled corn to animals. [District Rule 4570]
- 7. {3514} Permittee shall maintain records to demonstrate animals are fed high moisture corn or steam-flaked corn and no dry rolled corn. Records such as feed company guaranteed analyses (feed tags), ration sheets, or feed purchase records may be used to meet this requirement. [District Rule 4570]
- 8. {3521} Permittee shall feed or dispose of rations within forty-eight (48) hours of grinding and mixing rations. [District Rule 4570]
- 9. {3522} Permittee shall maintain records of when feed was either fed to animals or disposed of within forty-eight (48) hours of grinding and mixing rations. [District Rule 4570]
- 10. {3523} Permittee shall store grain in a weatherproof storage structure from October through May. [District Rule 4570]
- 11. {3524} Permittee shall maintain records when grain is stored in a weatherproof storage structure from October through May. [District Rule 4570]
- 12. {3525} Permittee shall cover all silage piles, except for the area where feed is being removed from the pile. [District Rule 4570]
- 13. {3657} All records shall be kept and maintained for a minimum of five (5) years and shall be made available to the APCO, ARB and EPA upon request. [District Rule 4570]
- 14. {3658} This permit does not authorize the violation of any conditions established for this facility (e.g. maximum number of animals or animal units, construction requirements, etc.) 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]
- 15. Permittee shall submit a complete Authority-to-Construct application by April 21, 2011 to comply with all applicable Phase II requirements of District Rule 4570, Section 5.6. [District Rule 4570]

