San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JAN 2 8 2010

Jesse Frederick
California Dairies, Inc
2000 N Plaza Drive
Visalia, CA 93291

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1095699

Dear Mr. Frederick:

Enclosed for your review and comment is the District's analysis of California Dairies, Inc's application for an Authority to Construct for the revision of the CO emission factors on two milk spray dryers (units -7 and -12), at 2000 North Plaza Drive, Visalia.

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. Thom Maslowski of Permit Services at (559) 230-5906.

Sincerely,

David Warner
Director of Permit Services

DW:TM

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JAN 28 2010

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

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1095699

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of California Dairies, Inc's application for an Authority to Construct for the revision of the CO emission factors on two milk spray dryers (units -7 and -12), at 2000 North Plaza Drive, Visalia.

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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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 California Dairies, Inc for the revision of the CO emission factors on two milk spary dryers (units -7 and -12), at 2000 North Plaza Drive, Visalia.

The analysis of the regulatory basis for this proposed action, Project #S-1095699, 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
Application Review
Milk Processing Facility

Facility Name:	California Dairies, Inc	Date:	January 8, 2010
Mailing Address:	2000 North Plaza Drive	Engineer:	Thom Maslowski
	Visalia, CA 93291	Lead Engineer:	Joven Refuerzo
Contact Person:	Jesse Frederick		
Telephone:	(661) 326-1112		
Application #(s):	S-7063-7-2 & -12-1		
Project #:	S-1095699		
Deemed Complete:	December 30, 2009		

I. Proposal

California Dairies Inc is applying for Authority to Construct (ATC) permits to install a milk spray dryer (S-7063-12) and to modify their current milk spray dryer (S-7063-7). Currently the facility has an ATC (S-7063-12-0) for the installation of a new milk spray dryer. This spray dryer has been installed but has not been source tested. The facility has proposed to increase the CO emission factor for this unit before the source test is performed. Since this ATC has not been converted to a PTO, the change to the CO emission factor cannot be considered a modification to an existing permit. Therefore, unit -12-1 will be re-evaluated as new permit unit with the revised CO emission factor. The following condition will be placed on ATC S-7063-12-1:

This Authority to Construct (ATC) cancels and replaces ATC S-7063-12-0. [District Rule 2201] N

The facility currently has an ATC (S-7063-7-1) to correct the NOx emission factor. This ATC has not been converted into the facility's permit but shall be done so before implementing ATC S-7063-7-2. The following condition will be placed on ATC S-7063-7-2:

Authority to Construct (ATC) S-7063-7-1 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201] N

To mitigate the CO increase for this project, the applicant proposes to lower the CO emission limit on permit S-7063-7. The proposed values are based on recent source test results shown below and allow for operational flexibility and margin of compliance.

Permit	Current Permit Limit ppmv @ 19% O2	Proposed Permit Limit ppmv @ 19% O2	Source Test Result ppmv @ 19% O2	Source Test Date
S-7063-7	42	32.6	28.5	April 8, 2008

This facility is not a major source for any pollutant.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)
Rule 2520 Federally Mandated Operating Permits (06/21/01)
Rule 4001 New Source Performance Standards (04/14/99)
Rule 4101 Visible Emissions (02/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4202 Particulate Matter Emission Rate (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4309 Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
California Environmental Quality Act (CEQA)

III. Project Location

This facility is located at 2000 N Plaza Dr, Visalia, CA. The facility is not located within 1,000 feet of a K-12 school.

Therefore, the noticing provisions of CH&SC 42301.6 are not applicable to this project.

IV. Process Description

California Dairies Inc. is proposing to expand their existing milk processing facility in Visalia, CA. The expansion will allow the facility to increase production from six million pounds of raw milk per day to twelve million pounds of raw milk per day to produce powdered milk and butter.

Milk Dryer (S-7063-7):

The dryer is a 40 MMBtu/hr CPS natural gas-fired milk spray dryer with a Maxon Low NO_X burner. This unit produces dry powder milk from liquid milk. The exhaust from the unit splits into two exhaust streams. Each exhaust stream is processed by two cyclones (in parallel) and one baghouse. The total number of particulate control devices on the dryer is 4 cyclones and 2 baghouses.

Milk Dryer (S-7063-12)

The new proposed dryer is a 40.0 MMBtu/hr CPS natural gas-fired milk spray dryer with a Maxon ultra low NOx burner. This unit produces dry powdered milk from liquid milk. The exhaust from the unit splits into two exhaust streams. Each exhaust stream is processed by two cyclones (in parallel) and one baghouse. The total number of PM control devices on the dryer is four cyclones and two baghouses.

V. Equipment Listing

Permit	Equipment Listing
ATC S-7063-7-2	MODIFICATION OF 40 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO 46,450 CFM CPS MODEL 262-015 BAGHOUSE DUST COLLECTORS, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER: LOWER CO EMISSION FACTOR FROM 42 PPM @ 19% O2 TO 32.6 PPM @ 19% O2 (EQUIVALENT TO 0.227 LB-CO/MMBTU)
ATC S-7063-12-1	40.0 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO CPS BAGHOUSES, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER

VI. Emission Control Technology Evaluation

Milk Dryers (S-7063-7 and '12)

Low NOx burners reduce NOx formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NOx burners delay the mixing of fuel an air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NOx. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

Flue gas recirculation (FGR) reduced NOx emissions by recirculating a percentage of the exhaust gas back into the windbox. This reduces the oxygen concentration in the air-fuel mixture and regulates the combustion process, lowering the combustion temperature. The lowered availability of oxygen in conjunction with lowered combustion temperature reduces the formation of NOx.

Particulate matter less than 10 microns in aerodynamic (PM10) from the milk dryer will be controlled by a baghouse. The baghouse is expected to have a control efficiency of 99% if properly designed.

Design check calculations:

Air Flow Calculations for the baghouse:

The total cloth area for the baghouse is 12,535 ft^2. This baghouse also utilizes a pulse jet to clean the bags at regular intervals.

Airflow = 46,450 ft^3/min (per Applicant)

Air/Cloth Ratio = Air Flow Rate ÷ Cloth Area
= 46,450 cfm ÷ 12,535 ft^2
= 3.71 ft/min

The pulse jet cleaning mechanism uses a high pressure jet of air to remove the dust from the bags. The dust cake is removed from the bag by a blast of compressed air injected into the top of the bag tube. The air blast causes the bag to flex or expand as the shock wave travels down the bag tube. As the bag tube flexes, the dust cake fractures and deposited particulates are discharged from the bag. Pulse jet baghouses are generally designed with air-to-cloth ratio (filtering velocity) between 5 and 15 ft/min. The calculated air-to-cloth ratio for the proposed pulse jet baghouse is 3.71 ft/min, which is below the typical range. However, the manufacturer guarantees a PM10 control efficiency of 99% for this dust collector.

VII. General Calculations

A. Assumptions

Milk Dryers (S-7063-7 and '12)

- Operating schedule 24 hr/day, 8,760 hr/year
- Natural gas EPA F-factor = 8,578 dscf/MMBtu
- Natural Gas heating value = 1,000 Btu/scf

B. Emission Factors

Milk Dryer (S-7063-7-2)

Pre-project

Dryer Emission Factors		Source
NO_x	3.5 ppmv @ 19% O2 or 0.040 lb/MMBtu	Applicant Proposal
SO_x	0.00285 lb/MMBtu	District Policy APR 1720
PM_{10}	0.17 lb/ton	Applicant Proposal
CO	42 ppmv @ 19% O2 or 0.29 lb/MMBtu	Applicant Proposal
VOC	0.0055 lb/MMBtu	AP-42 Table 1.4-2 (7/98)

Post-project

Dryer Emission Factors		Source
NO_x	3.5 ppmv @ 19% O2 or 0.040 lb/MMBtu	Applicant Proposal
SO_x	0.00285 lb/MMBtu	District Policy APR 1720
PM_{10}	0.17 lb/ton	Applicant Proposal
CO	32.6 ppmv @ 19% O2 or 0.227 lb/MMBtu	Applicant Proposal
VOC	0.0055 lb/MMBtu	AP-42 Table 1.4-2 (7/98)

The PM10 emission factor includes combustion of natural gas and the handling of the dried milk.

In addition to the milk dryer, PM_{10} emissions are also expected from transfer hopper used to collect the dried milk before it is moved to the storage silos. Since the transfer hopper is served by a bin vent filter and is handling the same material as the storage silos, the emission factor for the transfer hopper served by a bin vent filter will be the same as the emission factor for one of the storage silos.

Transfer Hopper Emission Factor		
	lb-PM_{10}/hr	Source
PM_{10}	0.059	Manufacturer Guarantee

Milk Dryer (S-7063-12-1)

Pre Project

Since this is a new emissions unit there are no pre project emission factors.

Post Project

Dryer Emission Factors		Source
NO_x	3.5 ppmv @ 19% O2 or 0.040 lb/MMBtu	Applicant Proposal
SO_x	0.00285 lb/MMBtu	District Policy APR 1720
PM_{10}	0.17 lb/ton	Applicant Proposal
CO	32.6 ppmv @ 19% O2 or 0.227 lb/MMBtu	Applicant Proposal
VOC	0.0055 lb/MMBtu	AP-42 Table 1.4-2 (7/98)

See Attachment A for source test results of the dryer burner emissions for the exact same dryer (permit S-7063-7) tested on April 8, 2008.

The PM10 emission factor includes combustion of natural gas and the handling of the dried milk.

In addition to the milk dryer, PM_{10} emissions are also expected from transfer hopper used to collect the dried milk before it is moved to the storage silos. Since the transfer hopper is served by a bin vent filter and is handling the same material as the storage silos, the emission factor for the transfer hopper served by a bin vent filter will be the same as the emission factor for one of the storage silos.

Transfer Hopper Emission Factor		
	lb-PM_{10}/hr	Source
PM_{10}	0.059	Manufacturer Guarantee

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Milk Dryer (S-7063-7-2)

Daily Pre Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Daily Operating Hours (hr/day)	PE2 Total (lb/day)
NO_X	0.040	40	24	38.4
SO_X	0.00285	40	24	2.7
PM_{10}				44.8
CO	0.29	40	24	278.4
VOC	0.0055	40	24	5.3

Annual Pre Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Annual Operating Hours (hr/year)	PE2 Total (lb/year)
NO_X	0.040	40	8,760	14,016
SO_X	0.00285	40	8,760	999
PM_{10}				16,347
CO	0.29	40	8,760	101,616
VOC	0.0055	40	8,760	1,927

Milk Dryer (S-7063-12-1)

Since this is a new emissions unit PE1=0.

2. Post Project Potential to Emit (PE2)

Milk Dryer (S-7063-7-2)

NO_X, SO_X, CO, and VOC Emissions:

Daily PE = (Emission Factor) x (Burner Rating) x (Daily Operating Hours)
Annual PE = (Emission Factor) x (Burner Rating) x (Annual Operating Hours)

PM_{10} Emissions:

The PM_{10} emissions for this unit will be calculated by multiplying the sum of the emission factors for the dryer and the transfer hopper with the daily and annual throughput limits.

Daily PM_{10} = (Dryer PM_{10}) + (Transfer Hopper PM_{10})
= (0.17 lb/ton) x (255.2 ton/day) + (0.059 lb/hr) x (24 hr/day)
= 44.8 lb/day

Annual PM10 = 44.8 lb/day x 365 days/yr
= 16,347 lb/year

Daily PE = (Emission Factor) x (Daily Throughput)
Annual PE = (Emission Factor) x (Annual throughput)

Daily Post Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Daily Operating Hours (hr/day)	PE2 Total (lb/day)
NO_X	0.040	40	24	38.4
SO_X	0.00285	40	24	2.7
PM_{10}				44.8
CO	0.227	40	24	218
VOC	0.0055	40	24	5.3

Annual Post Project Emissions				
Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Annual Operating Hours (hr/year)	PE2 Total (lb/year)
NO_X	0.040	40	8,760	14,016
SO_X	0.00285	40	8,760	999
PM_{10}				16,347
CO	0.227	40	8,760	79,541
VOC	0.0055	40	8,760	1,927

* Annual throughput = daily throughput x 365 days/year.

Milk Dryer (S-7063-12-1)

NO_X, SO_X, CO, and VOC Emissions:

Daily PE = (Emission Factor) x (Burner Rating) x (Daily Operating Hours)
Annual PE = (Emission Factor) x (Burner Rating) x (Annual Operating Hours)

PM_{10} Emissions:

The PM_{10} emissions for this unit will be calculated by multiplying the sum of the emission factors for the dryer and the transfer hopper with the daily and annual throughput limits.

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= 44.8 lb/day

Annual PM10 = 44.8 lb/day x 365 days/yr
= 16,347 lb/year

Daily PE = (Emission Factor) x (Daily Throughput)
Annual PE = (Emission Factor) x (Annual throughput)

Daily Post Project Emissions

Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Daily Operating Hours (hr/day)	PE2 Total (lb/day)
NO_X	0.040	40	24	38.4
SO_X	0.00285	40	24	2.7
PM_{10}				44.8
CO	0.227	40	24	218
VOC	0.0055	40	24	5.3

Annual Post Project Emissions

Pollutant	Emissions Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	Annual Operating Hours (hr/year)	PE2 Total (lb/year)
NO_X	0.040	40	8,760	14,016
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PM_{10}				16,347
CO	0.227	40	8,760	79,541
VOC	0.0055	40	8,760	1,927

* Annual throughput = daily throughput x 365 days/year.

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.

Pre Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-7063-3-0	0	0	517	0	0
S-7063-4-0	0	0	517	0	0
S-7063-5-0	0	0	517	0	0
S-7063-6-0	0	0	517	0	0
S-7063-7-1	14,016	999	16,347	101,616	1,927
S-7063-8-0	5,519	1,573	4,194	20,420	3,035
S-7063-9-0	5,519	1,573	4,194	20,420	3,035
S-7063-10-0	0	0	2,268	0	0
S-7063-13-0	0	0	512	0	0
S-7063-14-0	0	0	512	0	0
S-7063-15-0	0	0	512	0	0
S-7063-16-0	0	0	512	0	0
Pre Project SSPE (SSPE1)	**25,054**	**4,145**	**31,119**	**142,456**	**7,997**

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

Pursuant to District Rule 2201 Section 4.10, the post project Stationary Source Potential to Emit (SSPE2) is the sum of the Potential to Emit of the post-project Authority to Construct for new or modified units, provided that the ATC will include new conditions canceling the existing ATC or PTO for those units, otherwise the ATC or PTO with the highest potential emissions is used plus all existing units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) with the highest potential emissions at the Stationary Source, added to the quantity of emission reduction credits (ERC's) that 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 Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
S-7063-3-0	0	0	517	0	0
S-7063-4-0	0	0	517	0	0
S-7063-5-0	0	0	517	0	0
S-7063-6-0	0	0	517	0	0
S-7063-7-2	14,016	999	16,347	79,541	1,927
S-7063-8-0	5,519	1,573	4,194	20,420	3,035
S-7063-9-0	5,519	1,573	4,194	20,420	3,035
S-7063-10-0	0	0	2,268	0	0
S-7063-12-1	14,016	999	16,347	79,541	1,927
S-7063-13-0	0	0	512	0	0
S-7063-14-0	0	0	512	0	0
S-7063-15-0	0	0	512	0	0
S-7063-16-0	0	0	512	0	0
Post Project SSPE (SSPE2)	**39,070**	**5,144**	**47,466**	**199,922**	**9,924**

5. Major Source Determination

The following table shows the major source thresholds needed in order to determine if the facility is already an existing major source or if the facility is becoming a new major source as the result of this project.

Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold	Existing Major Source	New Major Source
NO_x	25,054	39,070	50,000 lb/year	No	No
SO_x	4,145	5,144	140,000 lb/year	No	No
PM_{10}	31,119	47,466	140,000 lb/year	No	No
CO	142,456	199,922	200,000 lb/year	No	No
VOC	7,997	9,924	50,000 lb/year	No	No

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

6. Baseline Emissions (BE)

The baseline emission (BE) calculations are performed pollutant by pollutant to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold.

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,

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

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.23.

Milk Dryer (S-7063-7-2)

Unit Located at a Non-Major Source

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

Therefore Baseline Emissions (BE) are equal to the Pre-project Potential to Emit (PE1).

Milk Dryer (S-7063-12-1)

Since this is a new emissions unit Baseline Emissions (BE) are equal to zero.

7. Major Modification

A Major Modification occurs if the Post-Project Stationary Source Potential to Emit (SSPE2) exceeds the Major Source Thresholds (as defined in Rule 2201) and the Contemporaneous Increase in Permitted Emissions (CIPE), is equal to or greater than one or more of the following threshold values:

Major Modification Thresholds (Non-Major Source)	
Pollutant	Threshold (lb/year)
NO_X	50,000
SO_X	140,000
PM_{10}	140,000
CO	200,000
VOC	50,000

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

8. Federal Major Modification

As shown above, this project does not constitute a Major Modification. Therefore, in accordance with District Rule 2201, Section 3.17, this project does not constitute a Federal Major Modification and no further discussion is required.

9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated for each pollutant, for each unit, as the difference between the post-project quarterly potential to emit (PE2) and the quarterly baseline emissions (BE).

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

QNEC = PE2 - BE, where:

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

Milk Dryer (S-7063-7-2)

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	BE (lb/qtr)	NEC (lb/qtr)
NO_X	3,504	3,504	0
SO_X	250	250	0
PM_{10}	4,087	4,087	0
CO	19,885	25,404	-5,519
VOC	482	482	0

Milk Dryer (S-7063-12-1)

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	BE (lb/qtr)	NEC (lb/qtr)
NO_X	3,504	0	3,504
SO_X	250	0	250
PM_{10}	4,087	0	4,087
CO	19,885	0	19,885
VOC	482	0	482

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:
a. Any new emissions unit with a potential to emit exceeding two pounds per day,

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

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

a. New emissions units – PE > 2.0 lb/day

As seen in Section VII.C.2 of this evaluation, the applicant is proposing to install a new natural gas-fired milk spray dryer with a PE greater than 2 lb/day for NOx, SOx, PM10, CO, and VOC. BACT is not triggered for CO since the SSPE2 for CO is not greater than 200,000 lbs/year, as demonstrated in Section VII.C.5 of this document.

Dryer PE		
Pollutant	PE (lb/day)	BACT Triggered? (i.e. > 2 lb/day)
NO_x	38.4	Yes
SO_x	2.7	Yes
PM_{10}	44.8	Yes
CO	218.0	No*
VOC	5.3	Yes

* BACT is not required for CO from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

Transfer Hopper PE		
Pollutant	PE (lb/day)	BACT Triggered? (i.e. > 2 lb/day)
PM_{10}	1.4	No

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

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

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

AIPE = PE2 – HAPE

Where,
AIPE = Adjusted Increase in Permitted Emissions, (lb/day)
PE2 = Post-Project Potential to Emit, (lb/day)
HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,

PE1 = The emissions unit's Potential to Emit prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 – (PE1 * (EF2 / EF1))

Dryer (S-7063-7)

AIPE					
Pollutant	PE2 (lb/day	PE1 (lb/day	EF2/EF1	AIPE (lb/day)	BACT Triggered? (i.e. > 2 lb/day)
NO_x	38.4	38.4	1	0	No
SO_x	2.7	2.7	1	0	No
PM_{10}	44.8	44.8	1	0	No
CO	218.0	278.4	0.78	0.85	No
VOC	5.3	5.3	1	0	No

As demonstrated above, the AIPE is not greater than 2.0 lb/day for any pollutant; therefore BACT is not triggered.

d. Major Modification

As discussed in Section VII.C.7 above, this project does not constitute a Major Modification; therefore BACT is not triggered.

2. BACT Guideline

BACT Guideline 1.6.11, applies to the milk spray dryers with heat inputs greater than or equal to 20 MMBtu/hr. [Dryer – Milk Spray, ≥ 20 MMBtu/hr] (See Attachment B)

3. Top-Down BACT Analysis

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

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

NO_X: Low NOx burner fired on natural gas with LPG as backup fuel

SO_X: Natural gas with LPG as backup fuel
PM_{10}: Baghouse and natural gas with LPG as backup fuel
VOC: Natural gas with LPG as backup fuel

B. Offsets

1. Offset Applicability

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

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

Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Offset Thresholds (lb/yr)	Offsets Triggered?
NOx	25,054	39,070	20,000	Yes
SOx	4,145	5,144	54,750	No
PM10	31,119	47,466	29,200	Yes
CO	142,456	199,922	200,000	No
VOC	7,997	9,924	20,000	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NOx and PM10; therefore offset calculations will be required for this project.

NOx

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for NOx is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

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

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE)

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR

Milk Dryer (S-7063-12-1)

PE2 (NOx) = 14,016 lb/year
BE (NOx) = 0 lb/year
ICCE = 0 lb/year

Milk Dryer (S-7063-7-2)

PE2 (NOx) = 14,016 lb/year
BE (NOx) = 14,016 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = Σ[PE2 – BE] (lb/year)
= ([14,016 – 14,016] + [14,016 – 0) x DOR
= 14,016 lb-NOx/year x DOR
= 14,016 lb-NOx/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
3,504	3,504	3,504	3,504

Assuming an offset ratio of 1.5:1, the amount of NO_X ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 14,016 x 1.5
= 21,024 lb NO_X/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
5,256	5,256	5,256	5,256

These offsets have been previously withdrawn with project S-1080272 with the use of ERC certificates N-681-2, N-705-2, N-707-2, C-677-2, S-2729-2, S-2731-2, C-658-2, S-2293-2, and C-635-2. Therefore no additional NOx offsets will be required for this project.

PM10

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for PM10 is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

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

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE)

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR

Milk Dryer (S-7063-12-1)

PE2 (PM10) = 16,347 lb/year
BE (PM10) = 0 lb/year
ICCE = 0 lb/year

Milk Dryer (S-7063-7-2)

PE2 (PM10) = 16,347 lb/year
BE (PM10) = 16,347 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = Σ[PE2 – BE] (lb/year)

= ([16,347 – 16,347] + [16,347 – 0) x
DOR
= 16,347 lb-PM10/year x DOR
= 16,347 lb-PM10/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
4,086	4,087	4,087	4,087

Assuming an offset ratio of 1.5:1, the amount of PM10 ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 16,347 x 1.5
= 24521 lb PM10/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
6,130	6,130	6,131	6,131

Per Rule 2201 Section 4.13.3.2, interpollutant offsets between PM10 and PM10 precursors (i.e. SOx) may be allowed. The applicant is proposing to use interpollutant offsets SOx for PM10 at an interpollutant ratio of 1.0:1 (see Attachment C). Per Rule 2201 Section 4.13.7, Actual Emission Reductions (i.e. ERCs) that occurred from October through March (i.e. 1st and 4th Quarter), inclusive, may be used to offset increases in PM during any period of the year. Since the SOx ERCs are being used to offset PM10 emissions, the above applies to the SOx ERCs.

These offsets have been previously withdrawn with project S-1080272 with the use of ERC certificates S-2727-5, N-496-4, S-2152-4, and S-2204-4. Therefore, no additional PM10 offsets will be required with this project.

C. Public Notification

1. Applicability

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

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

d. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	25,054	39,070	20,000 lb/year	No
SO_X	4,145	5,144	54,750 lb/year	No
PM_{10}	31,119	47,466	29,200 lb/year	No
CO	142,456	199,922	200,000 lb/year	No
VOC	7,997	9,924	20,000 lb/year	No

As detailed above, offset thresholds were not surpassed for with this project; therefore public noticing is not required for offset 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. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_x	39,070	25,054	14,016	20,000 lb/year	No
SO_x	5,144	4,145	999	20,000 lb/year	No
PM_{10}	47,466	31,119	16,347	20,000 lb/year	No
CO	199,922	142,456	57,466	20,000 lb/year	Yes
VOC	9,924	7,997	1,927	20,000 lb/year	No

As demonstrated above, the SSIPE for CO surpassed 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

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

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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.

Proposed Rule 2201 (DEL) Conditions:

Unit S-7063-7-2 (Milk Dryer):

- Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 0.040 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.227 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201 and 4309]
- The combined combustion and material processing PM_{10} emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
- PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.059 lb/hr. [District Rule 2201]
- The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]

In addition the following permit conditions will appear on the permit:

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]

Unit S-7063-12-1 (Milk Dryer):

- Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 0.040 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.227 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201 and 4309]
- The combined combustion and material processing PM_{10} emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
- PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.059 lb/hr. [District Rule 2201]
- The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]

In addition the following permit conditions will appear on the permit:

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4309]

E. Compliance Assurance

1. Source Testing

Milk Dryers (S-7063-7-2 and '12-1)

This units are subject to District Rule 4309, *Dryer, Dehydrators, and Ovens.* Source testing requirements, in accordance with District Rule 4309, will be discussed in Section VIII, *District Rule 4309*, of this evaluation.

In addition, District Policy 1705 states that non-combustion equipment served by a baghouse with expected PM10 emissions of 30 pounds per day or greater must be tested upon initial start-up. Since the potential PM_{10} emissions from the milk drying operation are greater than 30 lb/day, initial source testing will be required. The following conditions will be placed on the permit to assure compliance with the units PM_{10} emission factor.

- Source testing to measure PM_{10} emissions from the milk dryer shall be conducted within 60 days of initial start-up. [District Rules 2201]
- PM10 emissions for source test purposes shall be determined using EPA Method 201 and EPA Method 202, or EPA Method 201a and EPA Method 202 or CARB Method 501 in combination with CARB Method 5. [District Rule 1081]

2. Monitoring

Milk Dryers (S-7063-7-2 and '12-1)

This unit is subject to District Rule 4309, *Dryer, Dehydrators, and Ovens*. Monitoring requirements, in accordance with District Rule 4309, will be discussed in Section VIII, *District Rule 4309*, of this evaluation.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201.

Milk Dryers (S-7063-7-2 and '12-1)

- Permittee shall maintain records, which demonstrates the dryer is fired exclusively on PUC quality natural gas. [District Rule 4309]
- Permittee shall maintain daily records of the amount of material processed. [District Rule 1070]
- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

Therefore, continued compliance with the requirements of this rule is expected.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis. Refer to Appendix X of this document for the AAQA summary sheet.

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

The proposed location is in a non-attainment area for PM_{10}. The increase in the ambient PM_{10} concentration due to the proposed equipment is shown on the table titled Calculated Contribution. The levels of significance, from 40 CFR Part 51.165 (b)(2), are shown on the table titled Significance Levels.

Significance Levels					
Pollutant	Significance Levels ($\mu g/m^3$) - 40 CFR Part 51.165 (b)(2)				
	Annual Avg.	24 hr Avg.	8 hr Avg.	3 hr Avg.	1 hr Avg.
PM_{10}	1.0	5	N/A	N/A	N/A

As shown in Attachment D, the calculated contribution of PM_{10} will not exceed the EPA significance level. This project is not expected to cause or make worse a violation of an air quality standard. The AAQA from project S-1080272 is still valid since there is not a net change of PM10 emissions from the cancelling of ATC S-7063-12-0 and the issuance of ATC S-7063-12-1.

Rule 2520 Federally Mandated Operating Permits

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

Rule 4001 New Source Performance Standarads

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to milk spray dryers.

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.

Milk Dryers (S-7063-12-1 & -7-2)

Since the milk dryer is controlled by a baghouse, the visible emissions from the baghouse will be limited to 5% opacity. The following condition will be added to the permit to assure compliance with this visible emission limit.

- Visible emissions from the baghouses serving the milk dryer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]

Therefore, continued compliance with the requirements of this rule is expected.

Rule 4102 Nuisance

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

Air contaminants released into the atmosphere, which cause a public nuisance, are not expected.

Therefore, continued compliance with the requirements of this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

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

The Health Risk Assessment from project S-1080272 is still valid since there is not a net change of emissions from the cancelling of ATC S-7063-12-0 and the issuance of ATC S-7063-12-1.

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

Discussion of T-BACT

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

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Attachment D of this report, the emissions increases for this project was determined to be less than significant.

Rule 4201 Particulate Matter Concentration

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

Milk Dryers (S-7063-7-2 and '12-1)

Drying Operation:

F-Factor for NG:	8,578 dscf/MMBtu at 60 °F
PM10 Emission Factor:	0.0076 lb-PM10/MMBtu
Percentage of PM as PM10 in Exhaust:	100%
Exhaust Oxygen (O_2) Concentration:	3%

Excess Air Correction to F Factor = $\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left(\frac{0.0076\ lb - PM}{MMBtu} \times \frac{7{,}000\ grain}{lb - PM} \right) / \left(\frac{8{,}578\ ft^3}{MMBtu} \times 1.17 \right)$$

$$GL = 0.0053\ grain/dscf < 0.1\ grain/dscf$$

Collection Operation (Baghouses):

PM Conc. (gr/scf) = $\frac{\text{(PM emission rate) x (7,000 gr/lb)}}{\text{(Air flow rate) x (60 min/hr) x (24 hr/day)}}$

PM_{10} emission rate = 44.8 lb/day. Assurning 100% of PM is PM_{10}
Exhaust Gas Flow = 10,000 scfm

PM Conc. (gr/scf) = [(44.8 lb/day) * (7,000 gr/lb)] ÷ [(10,000 ft^3/min) * (60 min/hr) * (24 hr/day)]
PM Conc. = 0.002 gr/scf

Therefore, continued compliance with the requirements of this rule is expected.

Rule 4202 Particulate Matter Emission Rate

Rule 4202 establishes PM emission limits as a function of process weight rate in tons/hr. Gas and liquid fuels are excluded from the definition of process weight.

The proposed dryers run on natural gas.

Therefore, the requirements of this rule do not apply to these units.

Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO_2, NO_2, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

District Rule 4301 Limits			
Pollutant	NO_2	Total PM	SO_2
ATC #S-7063-7-2 and 12-1 (lb/hr)	1.84	0.30	0.11
Rule Limit (lb/hr)	140	10	200

The above table indicates compliance with the maximum lb/hr emissions in this rule; therefore, continued compliance is expected.

Rule 4309 Dryers, Dehydrators, and Ovens

Milk Dryers (S-7063-7-2 and '12-1)

The purpose of this rule is to limit emissions of oxides of nitrogen (NOx) and carbon monoxide (CO) from dryers, dehydrators, and ovens. This rule applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater. Since the dryer being modified in this project has a heat input rating greater than 5.0 MMBtu, this dryer is subject to the requirements of this rule.

Section 5.0, Requirements

Section 5.0 states that all ppmv limits specified in this section are referenced at dry stack gas conditions and adjusted using an oxygen correction factor of 19% by volume.

Section 5.2 requires that except for dehydrators, NO_X and CO emissions shall not exceed the limits specified in the table below on and after the full compliance schedules specified in Sections 7.1 and 7.3, as appropriate. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 19 percent by volume stack gas oxygen. Emission concentrations shall be corrected to 19 percent oxygen in accordance with Section 5.0.

NO_X and CO Limits				
Process Description	NO_X Limit (in ppmv)		CO Limit (in ppmv)	
	Gaseous Fuel Fired	Liquid Fuel Fired	Gaseous Fuel Fired	Liquid Fuel Fired
Milk, Cheese, and Dairy Processing > 20 MMBtu/hr	5.3	5.3	42	42

The units being installed in this project are milk dryers with a maximum heat input greater than 20 MMBtu/hr; therefore it is subject to the requirements of the Milk, Cheese, and Dairy Processing > 20 MMBtu/hr category listed in the table above.

For the units:

- the proposed NO_x emission factor is 3.5 ppmvd @ 19% O_2 (0.040 lb/MMBtu), and the proposed CO emission factor is 32.6 ppmvd @ 19% O2 (0.227 lb/MMBtu).

Therefore, compliance with this section is expected.

A permit condition listing the emissions limits will be listed on permit as shown in the DEL section above.

Section 5.3 states that the applicable ernission limits in Section 5.2 shall not apply during start-up or shutdown provided an operator complies with the requirements specified below.

The facility has not requested relaxed emission limit requirements for their unit during startup or shutdown, therefore this section does not apply to the unit in this project.

Section 5.4, Monitoring Requirements

Section 5.4.1 states that except for dehydrators, the operator of any unit subject to the applicable emission limits in Sections 4.3.2, or 5.2 shall monitor emissions using one of the techniques specified in Sections 5.4.1.1 or 5.4.1.2.

Section 5.4.1.1 states the first technique as the installation and maintenance of an APCO approved CEMS for NO_X, and oxygen that meets the following requirements.

- 40 CFR Part 51, and
- 40 CFR Parts 60.7 and 60.13 (except subsection h), and
- 40 CFR Part 60 Appendix B (Performance Specifications), and
- 40 CFR Part 60 Appendix F (Quality Assurance Procedures), and
- The applicable provisions of District Rule 1080 (Stack Monitoring).
- The APCO shall only approve CEMS that meets the requirements of Sections 5.4.1.1.1 through 5.4.1.1.5 of this rule.

Section 5.4.1.2 states the second technique as the installation and maintenance of an alternate emissions monitoring method that meets the requirements of Sections 5.4.1.2.1 through 5.4.1.2.3 of this rule.

Section 5.4.1.2.1 states that the APCO shall not approve an alternative monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits.

Section 5.4.1.2.2 states that the approved alternate emission monitoring system shall monitor operational characteristics necessary to assure compliance with the emission limit. Operational characteristics shall be one or more of the following:

- Periodic NOx exhaust emission concentrations,
- Periodic exhaust oxygen concentration,
- Flow rate of reducing agent added to exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Periodic flue gas recirculation rate,
- Other surrogate operating parameter(s) that demonstrate compliance with the emission limit.

Since the operation of the units subject to this rule are very similar to the operation of the units subject to the requirements of District Rule 4306, *Boilers, Steam Generators, and Process Heaters – Phase 3,* the pre-approved alternate monitoring plans in District Policy SSP-1105 will be considered approved alternate monitoring plans for District Rule 4309 compliance.

In order to satisfy the requirements of District Rule 4309, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- The permittee shall monitor and record the stack concentration of NO_X, CO, and O_2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
- If either the NO_X or CO concentrations corrected to 19% O_2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4309]
- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken

shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

- The permittee shall maintain records of: (1) the date and time of NO_X, CO, and O_2 measurements, (2) the O_2 concentration in percent and the measured NO_X and CO concentrations corrected to 19% O_2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]

Section 5.4.1.2.3 states that the operator shall source test over the proposed range of surrogate operating parameter(s) to demonstrate compliance with the applicable emission limits. The unit will be source tested upon initial operation as is required by Section 6.3.2 of this Rule; therefore compliance with this section is assured.

Section 5.5, Compliance Determination

Section 5.5.1 states that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the PTO.

Section 5.5.2 states that except for as provided in Section 5.5.3, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0.

The following condition will be added to the permit to assure compliance with Sections 5.5.1 and 5.5.2.

- All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]

Section 5.5.3 states that notwithstanding the requirements of Section 5.5.2, the APCO, ARB, and US EPA may approve a longer or shorter period before compliance determination, if an operator submits an application for a PTO condition which provides a justification for the requested duration.

Section 5.5.4 states that all CEMS emissions measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits of this rule. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule.

The facility has not proposed to utilize a CEMS; therefore the requirements of this section are not applicable to the dryer in this project.

Section 5.5.5 states that for emissions monitoring pursuant to Section 5.4.1.2.2.1, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15-consecutiveminute period.

The following condition will be added to the permit to assure compliance with this section.

- All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

Section 5.5.6 states that for emissions source testing performed pursuant to Section 6.3.1 to determine compliance with an applicable emission limit of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two of the three runs individually demonstrate emissions above the applicable limit, the test cannot be used to demonstrate compliance for the unit, even if the averaged emissions of all three test runs is less than the applicable limit. The following condition will be added to the permit to assure compliance with this section.

- For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]

Section 6.1, Recordkeeping

Section 6.1.1 states the recordkeeping requirements of a unit that uses CEMS to monitor emissions. Since the applicant has not proposed a CEMS to monitor emissions, the requirements of this section do not apply to the unit in this project.

Section 6.1.2 states that operators using an alternate emissions monitoring system shall maintain the following records on a periodic basis:

- Total hours of operation.
- Type and quantity of fuel used during operations.
- Measurement for each surrogate parameter.
- Range of allowed values for each surrogate parameter.
- The period for recordkeeping shall be specified in the PTO conditions.

Section 6.1.3 only applies to dehydrators; therefore this section is not applicable to the unit in this project.

Section 6.1.4 states that the operator of a unit subject to Section 5.2 and performing start-up or shutdown of that unit shall keep records of the duration of each start-up and each shutdown. The facility has not proposed startup or shutdown emissions for the dryer in this operation; therefore the requirements of this section do not apply to the dryer in this project.

Section 6.1.5 states the recordkeeping requirements of an operator of any unit operated under the exemption of Section 4.3.

Since the applicant has not applied for the exemption in Section 4.3, the requirements in this section do not apply to the dryer in this project.

Section 6.1.6 states the records and manufacturer's specifications required by Sections 6.1.1 through 6.1.5 shall meet all of the following requirements.

- The records shall be maintained for five (5) calendar years,
- The records shall be made available on-site during normal business hours, and
- The records shall be submitted to the APCO upon request.

The following condition will be added to the permit to assure compliance with this section.

- All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

Section 6.2, Test Methods

Section 6.2 lists the test methods required by the rule. In lieu of the test methods listed below the facility can utilize alternative APCO and US EPA approved test methods.

Pollutant	Units	Test Method Required
Fuel hhv	Fuel hhv shall be certified by third party fuel supplier or:	
	Liquid fuels	ASTM D 240-87 or D 2382-88
	Gaseous fuels	ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89
NO_X	ppmv	EPA Method 7E or ARB Method 100
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

The following permit conditions will be listed on the permit as follows:

- NO_X emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
- Stack gas oxygen (O_2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]

Section 6.3.2 states that each unit subject to the requirements in Sections 4.3, or 5.2 shall be initially source tested to determine compliance with the applicable emission limits not later than the applicable full compliance schedule specified in Section 7.0. Thereafter, each unit subject to Section 5.2 emission limits shall be source tested at least once every 24 months. Units subject to Section 5.2 and operating less than 50 days per calendar year shall follow the source test frequency prescribed in Section 6.3.3. The following condition will be added to the permit to assure compliance with this section.

- Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]

Section 6.3.5 states that the APCO shall be notified according to the provisions of Rule 1081 (Source Sampling). The following conditions will be added to the permit to assure compliance with this section.

- {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Section 6.3.6 states that emissions source testing shall be conducted with the unit operating either at conditions representative of normal operations or conditions specified in the PTO. The requirements of this section will be satisfied by the condition listed in Sections 5.5.1 and 5.5.2 of this rule evaluation.

Section 6.3.7 states that all test results for NOx and CO shall be reported in ppmv, corrected to dry stack conditions and adjusted using the oxygen correction factor. The following condition will be added to the permit to assure compliance with this section.

- All test results for NOx and CO shall be reported in ppmv @ 19% O_2, corrected to dry stack conditions. [District Rule 4309]

Section 6.3.8 states that for the purpose of determining compliance with an applicable emission limit, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply.

Section 6.3.9 states that if two of the three runs specified by Section 6.3.8 individually demonstrate emissions above the applicable limit, the test cannot be used to demonstrate compliance for the unit, even if the averaged emissions of all three runs is less than the applicable limit.

The requirements of Sections 6.3.8 and 6.3.9 will be satisfied by the condition listed in Section 5.5.6 of this rule evaluation.

Section 6.4 lists the source testing requirements for asphalt/concrete plants. Since this facility is not an asphalt or concrete plant, the requirements of this section do not apply to the dryer in this project.

Therefore, compliance with the requirements of this rule is expected.

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, on a dry basis averaged over 15 consecutive minutes.

$\mathbf{SO_X}$ = (0.00285 lb-SOx/MMBtu) x (1 mol SOx/64 lb SOx) x (379.3 dscf SOx/1 mol SOx) x ($1x10^6$ Btu/8710 dscf SOx) x ($1x10^6$/MM)
= **1.9 ppmv << 2000 ppmv**

Since 1.9 ppmv is ≤ 2,000 ppmv, continued compliance with the requirements of this rule is expected.

California Environmental Quality Act (CEQA)

The District determined that the City of Visalia (City) is the public agency having principal responsibility for approving the project, therefore establishing the County as the Lead Agency (CEQA Guidelines §15051(b). The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). Consistent with CEQA Guidelines §15081, a Negative Declaration was prepared and certified by the City. The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's significance thresholds for criteria pollutants. The District has determined that no additional findings are required (CEQA Guidelines §15096(h)).

California Health & Safety Code 42301.6 (School Notice)

This site is not located within 1,000 feet of a K-12 school.

Therefore, pursuant to California Health & Safety Code 42301.6, a school notice is not required.

IX. Recommendation

Compliance with all applicable rules and regulations is expected, issue Authorities to Construct (ATC) S-7063-7-2 & -12-1 subject to the permit conditions listed on the attached draft Authorities to Construct in Attachment E.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-7063-7-2	3020-02-H	40 MMBtu/hr dryer	$1,030.00
S-7063-12-1	3020-02-H	40 MMBtu/hr dryer	$1,030.00

Attachments

A Dryer Burner S-7063-7 Source Test Results
B BACT Guideline 1.6.11 and Top Down BACT Analysis
C Previous Permits
D Health Risk Assessment and AAQA
E Draft Authorities to Construct

ATTACHMENT A

Dryer Burner S-7063-7 Source Test Results

AEROS ENVIRONMENTAL, INC.

Summary Of Results

California Dairies, inc.
Visalia Facility
CPS Milk Dryer

Project 020-5618
April 8, 2008
ATC No. S-7063-7-0

Pollutant	ppm	ppm @ 19% O_2	Permit Limits
NOx	1.38	1.38	
	1.43	1.43	
	1.60	1.60	Rule 4309
Mean	**1.47**	**1.47**	**5.3 ppm @ 19% O_2**
CO	29.0	29.0	
	29.0	29.0	
	27.4	27.4	Rule 4309
Mean	**28.5**	**28.5**	**42 ppm @ 19% O_2**

Comments:

** District Rule 4309: If observed $\%O_2$ > than 19%, then ppm @ 19 $\%O_2$ = measured ppm*

ATTACHMENT B

BACT Guideline 1.6.11 and Top Down BACT Analysis

Best Available Control Technology (BACT) Guideline 1.6.11
Last Update: 7/27/1995

Dryer - Milk Spray, > or = 20 MMBtu/hr

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Natural gas with LPG as backup fuel		
NOx	Low NOx burner fired on natural gas with LPG as backup fuel		
PM10	Baghouse and natural gas with LPG as backup fuel		
SOx	Natural gas with LPG as backup fuel		
VOC	Natural gas with LPG as backup fuel		

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

This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Details Page.

TOP DOWN BACT ANALYSIS

I. BACT Analysis for S-7063-12-1:

BACT is required for NOx, SO_X, PM10, and VOC.

a. Step 1 - Identify All Possible Control Technologies

BACT guideline 1.6.11 identifies the following control technologies:

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
NOx	Low NOx burner fired on natural gas with LPG as backup fuel		
SOx	Natural gas with LPG as backup fuel		
PM10	Baghouse and natural gas with LPG as backup fuel		
CO	Natural gas with LPG as backup fuel		
VOC	Natural gas with LPG as backup fuel		

b. Step 2 - Eliminate Technologically Infeasible Options

There are no technologically infeasible options.

c. Step 3 - Rank Remaining Control Technologies by Control Effectiveness

There are no remaining control technologies for NOx, SO_X, PM10, or VOC.

d. Step 4 - Cost Effectiveness Analysis

The applicant is proposing the most effective control technology applicable for NOx, SO_X, PM10, and VOC; therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

NOx: Low NO_X burner fired on natural gas with LPG as backup fuel is selected as BACT.

SO_X: Natural gas with LPG as backup fuel

PM10: Baghouse and natural gas with LPG as backup fuel is selected as BACT.

VOC: Natural gas with LPG as backup fuel is selected as BACT.

The proposed dryer is fired on natural gas with no proposed backup fuel and is served by four cyclones and two baghouses. Therefore, BACT is satisfied for all criteria air contaminants.

ATTACHMENT C

Previous Permits

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7063-7-1 **ISSUANCE DATE:** 09/17/2008

LEGAL OWNER OR OPERATOR: CALIFORNIA DAIRIES, INC
MAILING ADDRESS: 2000 NORTH PLAZA DRIVE
VISALIA, CA 93291

LOCATION: 2000 NORTH PLAZA DRIVE
VISALIA, CA

EQUIPMENT DESCRIPTION:
MODIFICATION OF 40 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO 46,450 CFM CPS MODEL 262-015 BAGHOUSE DUST COLLECTORS, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER: LOWER NOX EMISSION LIMIT FROM 0.046 LB/MMBTU TO 0.040 LB/MMBTU

CONDITIONS

1. Authority to Construct (ATC) S-7063-7-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A spare set of bags shall be maintained on the premises at all times. [District NSR Rule]
5. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule]
6. The baghouse shall be equipped with an operational pressure differential gauge, mounted in an accessible location, which indicates the pressure drop across the bags. [District NSR Rule]
7. Visible emissions from the baghouse serving the milk dryer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
8. The baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201]
9. The unit shall only be fired on PUC quality natural gas. [District Rules 2201 and 4309]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-7063-7-1 : Sep 17 2008 11:27AM -- TOMS : Joint Inspection NOT Required

10. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
11. The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]
12. Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 3.5 ppmvd NOx @ 19% O2 (equivalent to 0.040 lb-NOx/MMBtu), 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 42 ppmvd CO @ 19% O2 (equivalent to 0.29 lb-CO/MMBtu), or 0.0055 lb-VOC/MMBtu. If measured O2 concentration is greater than 19%, the corrected NOx or CO concentration is equal to the measured NOx or CO concentration. [District Rules 2201 and 4309]
13. The combined combustion and material processing PM10 emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
14. PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.0055 lb/ton. [District Rule 2201]
15. Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted at least once every 24 months. [District Rules 2201 and 4309]
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
17. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]
19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]
20. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
22. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
23. PM10 emissions for source test purposes shall be determined using EPA Method 201 and EPA Method 202, or EPA Method 201a and EPA Method 202 or CARB Method 501 in combination with CARB Method 5. [District Rule 2201]
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

CONDITIONS CONTINUE ON NEXT PAGE

26. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4309]

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

28. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309]

29. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

30. Permittee shall maintain records which demonstrate the unit is fired exclusively on PUC quality natural gas. [District Rule 4309]

31. Permittee shall maintain daily records of the amount of material processed. [District Rule 1070]

32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7063-12-0 **ISSUANCE DATE:** 09/17/2008

LEGAL OWNER OR OPERATOR: CALIFORNIA DAIRIES, INC
MAILING ADDRESS: 2000 NORTH PLAZA DRIVE
VISALIA, CA 93291

LOCATION: 2000 NORTH PLAZA DRIVE
VISALIA, CA

EQUIPMENT DESCRIPTION:
40.0 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO CPS BAGHOUSES, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER

CONDITIONS

1. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 2,905 lb, 2nd quarter - 2,905 lb, 3rd quarter - 2,905 lb, and fourth quarter - 2,905 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 4,566 lb, 2nd quarter - 4,566 lb, 3rd quarter - 4,567 lb, and fourth quarter - 4,567 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). SOx ERCs may be used to offset PM10 increases at an interpollutant ratio of 1.0 lb-SOx : 1.0 lb-PM10. [District Rule 2201]
3. ERC Certificate Numbers N-681-2, N-705-2, N-707-2, C-677-2, S-2729-2, S-2731-2, C-658-2, S-2293-2, C-635-2, S-2727-5, N-498-4, S-2152-4, S-2204-4 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 326-6900 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-7063-12-0 Sep 17 2008 11:24AM – TOMS : Joint Inspection Required with TOMS

6. A spare set of bags shall be maintained on the premises at all times. [District NSR Rule]
7. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule]
8. The baghouse shall be equipped with an operational pressure differential gauge, mounted in an accessible location, which indicates the pressure drop across the bags. [District NSR Rule]
9. Visible emissions from the baghouse serving the milk dryer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
10. The baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201]
11. The unit shall only be fired on PUC quality natural gas. [District Rules 2201 and 4309]
12. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
13. The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]
14. Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 3.5 ppmvd NOx @ 19% O2 (equivalent to 0.040 lb-NOx/MMBtu), 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 9 ppmvd CO @ 19% O2 (equivalent to 0.16 lb-CO/MMBtu), or 0.0055 lb-VOC/MMBtu. If measured O2 concentration is greater than 19%, the corrected NOx or CO concentration is equal to the measured NOx or CO concentration. [District Rules 2201 and 4309]
15. The combined combustion and material processing PM10 emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
16. PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.059 lb/hr. [District Rule 2201]
17. Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]
18. Source testing to measure PM10 emissions from the milk dryer shall be conducted within 60 days of initial start-up. [District Rule 2201]
19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
20. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]
23. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
24. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
25. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
26. PM10 emissions for source test purposes shall be determined using EPA Method 201 and EPA Method 202, or EPA Method 201a and EPA Method 202 or CARB Method 501 in combination with CARB Method 5. [District Rule 2201]
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

29. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4309]

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309]

32. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

33. Permittee shall maintain records which demonstrate the unit is fired exclusively on PUC quality natural gas. [District Rule 4309]

34. Permittee shall maintain daily records of the amount of material processed. [District Rule 1070]

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

ATTACHMENT D

Health Risk Assessment and AAQA

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Stanley Tom – Permit Services
From:	Leland Villalvazo – Technical Services
Date:	March 1, 2008
Facility Name:	California Dairy Inc
Location:	200 North Plaza Drive
Application #(s):	S-7063 -8-1, 9-1, and 12-0,
Project #:	S-1080272

A. RMR SUMMARY

RMR Summary				
Categories	**Type of Unit (Unit 8,9,12)**		**Project Totals**	**Facility Totals**
Prioritization Score	0.1		0.1	0.1
Acute Hazard Index	---		---	---
Chronic Hazard Index	---		---	---
Maximum Individual Cancer Risk (10^{-6})	---		---	---
T-BACT Required?	No			
Special Permit Conditions?	No			

B. RMR REPORT

Technical Services received a request on February 14, 2008, to perform a Risk Management Review for a proposed modification of two 63 MMBTU/Hr and one new 40 MMBTU/Hr boiler.

II. Analysis

Toxic emissions for this proposed unit were calculated using Ventura County's emission factors for external combustion sources. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905, March 2, 2001), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEARTs database. The prioritization score for this proposed unit was less than 1.0 (see RMR Summary Table). Therefore, no further analysis was necessary.

The following parameters were used for the review:

Analysis Parameters Units 8-1, 9-1, 12-0			
Throughput (MMBTU/Hr)	63/ 40	**Max Hours per Year**	8760
Closest Receptor (m)	182.88		

Technical Services performed modeling for criteria pollutants CO, NOx, SOx and PM_{10}; as well as a RMR. The emission rates used for criteria pollutant modeling were provided by the processing engineer.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO_x	Pass	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass	Pass

*Results were taken from the attached PSD spreadsheet.
[1]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The prioritization score is less than 1.0. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

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

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

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

Attachments:

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Toxic emissions summary
D. Prioritization score

ATTACHMENT E

Draft Authorities to Construct

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7063-7-2

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CALIFORNIA DAIRIES, INC
MAILING ADDRESS: 2000 NORTH PLAZA DRIVE
VISALIA, CA 93291

LOCATION: 2000 NORTH PLAZA DRIVE
VISALIA, CA

EQUIPMENT DESCRIPTION:
MODIFICATION OF 40 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO 46,450 CFM CPS MODEL 262-015 BAGHOUSE DUST COLLECTORS, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER: LOWER CO EMISSION FACTOR FROM 42 PPM @ 19% O2 TO 32.6 PPM @ 19% O2 (EQUIVALENT TO 0.227 LB-CO/MMBTU)

CONDITIONS

1. Authority to Construct (ATC) S-7063-7-1 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. {72} A spare set of bags shall be maintained on the premises at all times. [District NSR Rule]
5. {120} The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule]
6. {329} The baghouse shall be equipped with an operational pressure differential gauge, mounted in an accessible location, which indicates the pressure drop across the bags. [District NSR Rule]
7. Visible emissions from the baghouse serving the milk dryer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
8. The baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-7063-7-2 : Jan 25 2010 8:25AM – MASLOWST : Joint Inspection NOT Required

9. {3725} The unit shall only be fired on PUC quality natural gas. [District Rules 2201 and 4309]
10. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
11. The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]
12. Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 5.3 ppmvd NOx @ 19% O2 (equivalent to 0.061 lb-NOx/MMBtu), 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 32.6 ppmvd CO @ 19% O2 (equivalent to 0.227 lb-CO/MMBtu), or 0.0055 lb-VOC/MMBtu. If measured O2 concentration is greater than 19%, the corrected NOx or CO concentration is equal to the measured NOx or CO concentration. [District Rules 2201 and 4309]
13. The combined combustion and material processing PM10 emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
14. PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.0055 lb/ton. [District Rule 2201]
15. Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted at least once every 24 months thereafter. [District Rules 2201 and 4309]
16. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
17. {3722} All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
18. {3713} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]
19. {3715} For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]
20. {3718} NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
21. {3719} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
22. {3720} Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
24. {3741} The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

CONDITIONS CONTINUE ON NEXT PAGE

25. {3742} If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]

26. {3743} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

27. {3744} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]

28. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

29. {3760} Permittee shall maintain records which demonstrate the unit is fired exclusively on PUC quality natural gas. [District Rule 4309]

30. Permittee shall maintain daily records of the amount of material processed. [District Rule 1070]

31. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7063-12-1

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CALIFORNIA DAIRIES, INC
MAILING ADDRESS: 2000 NORTH PLAZA DRIVE
VISALIA, CA 93291

LOCATION: 2000 NORTH PLAZA DRIVE
VISALIA, CA

EQUIPMENT DESCRIPTION:
40.0 MMBTU/HR CPS NATURAL GAS-FIRED MILK SPRAY DRYER WITH A MAXON CROSSFIRE MODEL 7BIXFLDR ULTRA LOW NOX BURNER SERVED BY FOUR CYCLONES AND TWO CPS BAGHOUSES, SHAKING FLUID BED AND SURGE HOPPER SERVED BY THE CPS BAGHOUSES, AND ONE TRANSFER HOPPER SERVED BY A BIN VENT FILTER

CONDITIONS

1. This Authority to Construct (ATC) cancels and replaces ATC S-7063-12-0. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. {72} A spare set of bags shall be maintained on the premises at all times. [District NSR Rule]
5. {120} The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule]
6. {329} The baghouse shall be equipped with an operational pressure differential gauge, mounted in an accessible location, which indicates the pressure drop across the bags. [District NSR Rule]
7. Visible emissions from the baghouse serving the milk dryer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]
8. The baghouse shall operate at all times with a minimum differential pressure of 2 inches water column and a maximum differential pressure of 10 inches water column. [District Rule 2201]
9. {3725} The unit shall only be fired on PUC quality natural gas. [District Rules 2201 and 4309]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

10. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201]
11. The maximum amount of material processed shall not exceed 255.2 tons of finished product in any one day. [District Rule 2201]
12. Combustion emissions from the natural gas-fired unit shall not exceed any of the following limits: 3.5 ppmvd NOx @ 19% O2 (equivalent to 0.040 lb-NOx/MMBtu), 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 32.6 ppmvd CO @ 19% O2 (equivalent to 0.227 lb-CO/MMBtu), or 0.0055 lb-VOC/MMBtu. If measured O2 concentration is greater than 19%, the corrected NOx or CO concentration is equal to the measured NOx or CO concentration. [District Rules 2201 and 4309]
13. The combined combustion and material processing PM10 emission factor from the milk drying operation shall not exceed 0.17 lb/ton finished product. [District Rule 2201]
14. PM10 emissions from the bin vent filter serving the transfer hopper shall not exceed 0.059 lb/hr. [District Rule 2201]
15. {3714} Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]
16. Source testing to measure PM10 emissions from the milk dryer shall be conducted within 60 days of initial start-up. [District Rule 2201]
17. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
18. {3722} All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
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20. {3715} For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]
21. {3718} NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
22. {3719} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
23. {3720} Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
24. PM10 emissions for source test purposes shall be determined using EPA Method 201 and EPA Method 202, or EPA Method 201a and EPA Method 202 or CARB Method 501 in combination with CARB Method 5. [District Rule 2201]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
26. {3741} The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

CONDITIONS CONTINUE ON NEXT PAGE

27. {3742} If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]

28. {3743} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]

29. {3744} The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]

30. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201]

31. {3760} Permittee shall maintain records which demonstrate the unit is fired exclusively on PUC quality natural gas. [District Rule 4309]

32. Permittee shall maintain daily records of the amount of material processed. [District Rule 1070]

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]