



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAR 05 2013

Mr. Douglas Findley  
Land O' Lakes, Inc  
400 South M Street  
Tulare, CA 93274

**Re: Notice of Preliminary Decision - ATC / Certificate of Conformity  
Facility # S-525  
Project # S-1123828**

Dear Mr. Findley:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Land O' Lakes, Inc 400 South M Street in Tulare, CA. The facility requests to increase the CO emissions limit from 10.3 ppmv @ 19% O<sub>2</sub> to 42 ppmv @ 19% O<sub>2</sub> for two natural gas-fired milk spray dryers.

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

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

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

Enclosures

c: Juscellino Siongco, Permit Services

**Seyed Sadredin**

Executive Director/Air Pollution Control Officer

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585



# San Joaquin Valley

## AIR POLLUTION CONTROL DISTRICT

**MAR 05 2013**

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - ATC / Certificate of Conformity  
Facility # S-525  
Project # S-1123828**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Land O' Lakes, Inc 400 South M Street in Tulare, CA, which has been issued a Title V permit. Land O' Lakes, Inc is requesting that Certificates of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The facility requests to increase the CO emissions limit from 10.3 ppmv @ 19% O<sub>2</sub> to 42 ppmv @ 19% O<sub>2</sub> for two natural gas-fired milk spray dryers.

Enclosed is the engineering evaluation of this application, along with the current Title V permit, and proposed Authorities to Construct # S-525-30-15 and S-525-36-9 with Certificates of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

**Seyed Sadredin**

Executive Director/Air Pollution Control Officer

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Mr. Gerardo C. Rios  
Page 2

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Warner", with a long horizontal flourish extending to the right.

David Warner  
Director of Permit Services

Enclosures

c: Juscélino Siongco, Permit Services



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAR 05 2013

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

Re: **Notice of Preliminary Decision - ATC / Certificate of Conformity**  
**Facility # S-525**  
**Project # S-1123828**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Land O' Lakes, Inc 400 South M Street in Tulare, CA. The facility requests to increase the CO emissions limit from 10.3 ppmv @ 19% O2 to 42 ppmv @ 19% O2 for two natural gas-fired milk spray dryers.

The public notice will be published approximately three days from the date of this letter. Please submit your written comments 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, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

Enclosures

c: Juscélino Siongco, Permit Services

**Seyed Sadredin**

Executive Director/Air Pollution Control Officer

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**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND  
THE PROPOSED MINOR MODIFICATION OF FEDERALLY  
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of Authority To Construct to Land O' Lakes, Inc for its milk processing plant, 400 South M Street in Tulare, California. The facility requests to increase the CO emissions limit from 10.3 ppmv @ 19% O2 to 42 ppmv @ 19% O2 for two natural gas-fired milk spray dryers.

The analysis of the regulatory basis for these proposed actions, Project #S-1123828, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.**

**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct Application Review**  
**Modification of Milk Spray Dryers**

|                   |                                     |                |                   |
|-------------------|-------------------------------------|----------------|-------------------|
| Facility Name:    | Land O' Lakes, Inc                  | Date:          | February 11, 2013 |
| Mailing Address:  | 400 South M St.<br>Tulare, CA 93274 | Engineer:      | Juscelino Siongco |
| Contact Person:   | Douglas Findley                     | Lead Engineer: | Martin Keast      |
| Telephone:        | (559) 687-6653                      |                |                   |
| Application #(s): | S-525-30-15 and S-525-36-9          |                |                   |
| Project #:        | S-1123828                           |                |                   |
| Deemed Complete:  | November 14, 2012                   |                |                   |

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**I. Proposal**

Land O' Lakes (LOL) owns and operates a milk processing plant that produces dairy-based products for consumers, and food manufactures. The facility requests Authority to Construct (ATC) permits for the modification of two dryers to increase CO emissions limit from 10.3 ppmv @ 19%O<sub>2</sub> to 42 ppmv @ 19%O<sub>2</sub>. The facility states that the current low CO burner settings tend to increase burner deterioration and lowers equipment life. There is no proposed increase for the other criteria pollutants, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC.

Current PTO S-525-30-12 and S-525-36-6 are included in Appendix B.

Land O' Lakes received their Title V Permit on January 14, 1999. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. The facility must apply to administratively amend their Title V permit.

**II. Applicable Rules**

|           |  |
|-----------|--|
| Rule 2201 | New and Modified Stationary Source Review Rule (4/21/11) |
| Rule 2410 | Prevention of Significant Deterioration (June 16, 2011)  |
| Rule 2520 | Federally Mandated Operating Permits (6/21/01)           |
| Rule 4101 | Visible Emissions (2/17/05)                              |
| Rule 4102 | Nuisance (12/17/92)                                      |
| Rule 4201 | Particulate Matter Concentration (12/17/92)              |
| Rule 4202 | Particulate Matter - Emission Rate (12/17/92)            |
| Rule 4301 | Fuel Burning Equipment (12/17/92)                        |
| Rule 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  
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)  
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA  
Guidelines

### III. Project Location

The facility is located at 400 South M Street in Tulare, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

### IV. Process Description

Land O' Lakes processes raw milk into various dairy products using various equipment such as boilers, dryers, and silo, etc. The facility operates two spray dryers that reduce the moisture content of milk concentrate to approximately 3.5%. The facility is proposing to increase the dryers CO emissions limits from 10.3 ppmv @ 19% O<sub>2</sub> to 42 ppmv @ 19% O<sub>2</sub>.

### V. Equipment Listing

#### Pre-Project Equipment Description:

- S-525-30-12: 28 MMBTU/HR NATURAL GAS-FIRED NON-FAT MILK PROCESSING LINE
- S-525-36-6: 20 MMBTU/HR NATURAL GAS-FIRED MILK SPRAY PROCESSING LINE SERVED BY TWO NIRO CMC 3150 CYCLONES SERVED BY TWO NIRO SBF-12-500 BAGHOUSES EACH WITH 5,400 SQUARE FEET CLOTH AREA AND 37,820 SCFM BLOWERS

#### Proposed Modification:

Increase the dryers CO emissions limits from 10.3 ppmv @ 19% O<sub>2</sub> to 42 ppmv @ 19% O<sub>2</sub>.

- S-525-30-15: MODIFICATION OF 28 MMBTU/HR NATURAL GAS-FIRED NON-FAT MILK PROCESSING LINE: INCREASE CO EMISSIONS LIMIT TO 42 PPMV @ 19% O<sub>2</sub>
- S-525-36-9: MODIFICATION OF 20 MMBTU/HR NATURAL GAS-FIRED MILK SPRAY PROCESSING LINE SERVED BY TWO NIRO CMC 3150 CYCLONES SERVED BY TWO NIRO SBF-12-500 BAGHOUSES EACH WITH 5,400 SQUARE FEET CLOTH AREA AND 37,820 SCFM BLOWERS: INCREASE CO EMISSIONS LIMIT TO 42 PPMV @ 19% O<sub>2</sub>

#### Post Project Equipment Description:

- S-525-30-15: 28 MMBTU/HR NATURAL GAS-FIRED NON-FAT MILK PROCESSING LINE

S-525-36-9: 20 MMBTU/HR NATURAL GAS-FIRED MILK SPRAY PROCESSING LINE SERVED BY TWO NIRO CMC 3150 CYCLONES SERVED BY TWO NIRO SBF-12-500 BAGHOUSES EACH WITH 5,400 SQUARE FEET CLOTH AREA AND 37,820 SCFM BLOWERS

**VI. Emission Control Technology Evaluation**

Emissions are expected from combustion of natural gas in the dryers. NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC are the products of combustion emitted from the natural gas-fired dryers. These units will be fired on PUC-regulated natural gas. PM<sub>10</sub> emissions are also expected from the baghouses serving the dryers. No changes are proposed to the existing emissions control equipment serving these permit units.

**VII. General Calculations**

**A. Assumptions**

- Only the increase in CO will be evaluated since there is no proposed increase in the other criteria pollutants.
- These units are fired on PUC regulated natural gas.
- The natural gas heating value is 1,000 Btu/dscf (per District Practice).
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B).
- The maximum operating schedule is 24 hours per day, and 8760 hours per year.
- Other assumptions will be stated as each is made.

**B. Emission Factors**

Pre-Project:

S-525-30-12:

Dryer

| Pollutant | Pre-Project Emissions Factors (EF1)                             | Source      |
|-----------|---|-------------|
| CO        | 10.3 ppmv @ 19% O <sub>2</sub><br>(equivalent to 0.07 lb/MMBtu) | Current PTO |

S-525-36-6:

| Pollutant | Pre-Project Emissions Factors (EF1)                              | Source      |
|-----------|--|-------------|
| CO        | 10.3 ppmv @ 19% O <sub>2</sub><br>(equivalent to 0.070 lb/MMBtu) | Current PTO |

Post-Project:

For calculation convenience, the post-project CO emissions factor will be converted to an equivalent lb/MMBtu numbers as follow:

$$EF \text{ (lb/MMBtu)} = \left\{ \frac{(\text{ppmv}) \times F\text{-factor (dscf/MMBtu)} \times MW \text{ (lb/lb-mol)} \times [20.95 / (20.95 - O_2\%)]}{[\text{Molar Specific Volume of Gas (dscf/lb-mol)} \times 10^6]} \right\}$$

Where, F-factor is 8,578 (dscf/MMBtu) at 60°F;  
Molar Specific Volume of Gas is 379.5 (dscf/lb-mol) at 60°F;  
Molecular Weight of CO is 28 (lb-CO/lb-mol)

$$EF \text{ CO} = \left\{ \frac{(42 \text{ ppmv}) \times (8,578 \text{ dscf/MMBtu}) \times (28 \text{ lb-CO/lb-mol}) \times [20.95 / (20.95 - 19)]}{[379.5 \text{ dscf/lb-mol} \times 10^6]} \right\}$$

EF CO = 0.286 lb/MMBtu

S-525-30-15:

Dryer

| Pollutant | Post-Project Emissions Factors (EF2)                           | Source   |
|-----------|--|----------|
| CO        | 42 ppmv @ 19% O <sub>2</sub><br>(equivalent to 0.286 lb/MMBtu) | Proposed |

S-525-36-9:

| Pollutant | Post-Project Emissions Factors (EF2)                           | Source   |
|-----------|--|----------|
| CO        | 42 ppmv @ 19% O <sub>2</sub><br>(equivalent to 0.286 lb/MMBtu) | Proposed |

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

The potential to emit for the operation is calculated as follows, and summarized in the table below:

S-525-30-12:

| Pollutant | Potential to Emit (PE1) |                          |          |         |                       |                       |
|-----------|-------------------------|--------------------------|----------|---------|-----------------------|-----------------------|
|           | EF1<br>(lb/MMBtu)       | Heat Input<br>(MMBtu/hr) | (hr/day) | (hr/yr) | Daily PE1<br>(lb/day) | Annual PE1<br>(lb/yr) |
| CO        | 0.070                   | 28                       | 24       | 8760    | 47.0                  | 17,170                |

S-525-36-6:

| Pollutant | Potential to Emit (PE1) |                          |          |         |                       |                       |
|-----------|-------------------------|--------------------------|----------|---------|-----------------------|-----------------------|
|           | EF1<br>(lb/MMBtu)       | Heat Input<br>(MMBtu/hr) | (hr/day) | (hr/yr) | Daily PE1<br>(lb/day) | Annual PE1<br>(lb/yr) |
| CO        | 0.070                   | 20                       | 24       | 8760    | 33.6                  | 12,264                |

**2. Post Project Potential to Emit (PE2)**

S-525-30-15:

| Pollutant | Potential to Emit (PE2) |                          |          |         |                       |                       |
|-----------|-------------------------|--------------------------|----------|---------|-----------------------|-----------------------|
|           | EF2<br>(lb/MMBtu)       | Heat Input<br>(MMBtu/hr) | (hr/day) | (hr/yr) | Daily PE2<br>(lb/day) | Annual PE2<br>(lb/yr) |
| CO        | 0.286                   | 28                       | 24       | 8760    | 192.2                 | 70,150                |

S-525-36-9:

| Pollutant | Potential to Emit (PE2) |                          |          |         |                       |                       |
|-----------|-------------------------|--------------------------|----------|---------|-----------------------|-----------------------|
|           | EF2<br>(lb/MMBtu)       | Heat Input<br>(MMBtu/hr) | (hr/day) | (hr/yr) | Daily PE2<br>(lb/day) | Annual PE2<br>(lb/yr) |
| CO        | 0.286                   | 20                       | 24       | 8760    | 137.3                 | 50,107                |

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

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

SSPE1 will be based on the SSPE2 taken from Project S-1095373 that is based on the modification from Project S-1094099 and the corrected SSPE2 from Projects S-1083802.

In Project S-1083802, the PE2 for CO for permit unit S-525-30 and the PE2 for NO<sub>x</sub> and PM<sub>10</sub> for permit unit S-525-36 are incorrect and are replaced with the correct PE2 from Project S-1080231.

| <b>Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/yr)</b> |                       |                       |                        |                |               |
|--|-----------------------|-----------------------|------------------------|----------------|---------------|
|  | <b>NO<sub>x</sub></b> | <b>SO<sub>x</sub></b> | <b>PM<sub>10</sub></b> | <b>CO</b>      | <b>VOC</b>    |
| <b>S-1083802</b>   | <b>102,797</b>        | <b>19,345</b>         | <b>131,455</b>         | <b>210,449</b> | <b>17,241</b> |
| Incorrect CO for S-525-30  |                       |                       | (32,283)               | (7,358)        |               |
| Corrected CO for S-525-30  |                       |                       | 30,156                 | 17,170         |               |
| Incorrect NO <sub>x</sub> and PM <sub>10</sub> for S-525-36            | (11,388)              |                       | (23,933)               |                |               |
| Corrected NO <sub>x</sub> and PM <sub>10</sub> for S-525-36            | 10,512                |                       | 22,601                 |                |               |
| <b>Corrected SSPE2 for S-1083802</b>                                   | <b>101,921</b>        | <b>19,345</b>         | <b>127,996</b>         | <b>220,261</b> | <b>17,241</b> |
| Modifications from S-1094099   | (6,061)               | (443)                 | (9,853)                | (44,445)       | (855)         |
|  | 0                     | 0                     | 8,287                  | 0              | 0             |
| Modifications from S-1095373   | 0                     | 0                     | 730                    | 0              | 0             |
| <b>SSPE1</b>   | <b>95,860</b>         | <b>18,902</b>         | <b>127,160</b>         | <b>175,816</b> | <b>16,386</b> |

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

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

SSPE2 is calculated from SSPE1 with the PE of permit unit S-525-30-12 and -36-6 subtracted and the post-project PE from this project's S-525-30-15 and -36-9 added.

| <b>Post-Project Stationary Source Potential to Emit [SSPE2] (lb/yr)</b> |                       |                       |                        |                |               |
|---|-----------------------|-----------------------|------------------------|----------------|---------------|
|   | <b>NO<sub>x</sub></b> | <b>SO<sub>x</sub></b> | <b>PM<sub>10</sub></b> | <b>CO</b>      | <b>VOC</b>    |
| <b>SSPE1</b>  | <b>95,860</b>         | <b>18,902</b>         | <b>127,160</b>         | <b>175,816</b> | <b>16,386</b> |
| S-525-30-12   | (13,490)              | (699)                 | (30,156)               | (17,170)       | (1,472)       |
| S-525-36-6  | (10,512)              | (499)                 | (22,594)               | (12,264)       | (491)         |
| S-525-30-15   | 13,490                | 699                   | 30,156                 | 70,150         | 1,472         |
| S-525-36-9  | 10,512                | 499                   | 22,594                 | 50,107         | 491           |
| <b>SSPE2</b>  | <b>95,860</b>         | <b>18,902</b>         | <b>127,160</b>         | <b>266,639</b> | <b>16,386</b> |

## 5. Major Source Determination

### Rule 2201 Major Source Determination:

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

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

| <b>Rule 2201 Major Source Determination (lb/year)</b> |                 |                 |                  |            |        |
|---|-----------------|-----------------|------------------|------------|--------|
|   | NO <sub>x</sub> | SO <sub>x</sub> | PM <sub>10</sub> | CO         | VOC    |
| SSPE1   | 95,860          | 18,902          | 127,160          | 175,816    | 16,386 |
| SSPE2   | 95,860          | 18,902          | 127,160          | 266,639    | 16,386 |
| Major Source Threshold                                | 20,000          | 140,000         | 140,000          | 200,000    | 20,000 |
| Major Source?   | <b>Yes</b>      | No              | No               | <b>Yes</b> | No     |

As seen in the table above, the facility is an existing Major Source for NO<sub>x</sub> and will remain a major source for NO<sub>x</sub>. The facility is also becoming a Major Source for CO as a result of this project.

### Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

| <b>PSD Major Source Determination (tons/year)</b> |                 |     |                 |      |       |                  |                    |
|---|-----------------|-----|-----------------|------|-------|------------------|--------------------|
|   | NO <sub>2</sub> | VOC | SO <sub>2</sub> | CO   | PM    | PM <sub>10</sub> | CO <sub>2</sub> e* |
| Estimated Facility PE before Project Increase     | 47.9            | 8.2 | 9.5             | 87.9 | 127.2 | 63.6             | 181,096            |
| PSD Major Source Thresholds                       | 250             | 250 | 250             | 250  | 250   | 250              | 100,000            |
| PSD Major Source ? (Y/N)                          | N               | N   | N               | N    | N     | N                | Y                  |

\*See appendix E for the Green House Gas Major Source Determination

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

## 6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

Since only an increase in CO emissions are proposed for the permit units in this project, the BE determination is only required for this pollutant, as discussed in the following sections:

### BE CO

As shown in Section VII.C.5 above, the facility is a major source for CO emissions.

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

#### S-525-30-15:

This emissions unit fires on natural gas, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

BE = PE1 = 17,170 lb-CO/year

#### S-525-36-6:

This emissions unit fires on natural gas, which meets the requirements for achieved-in-practice BACT. Therefore, BE=PE1.

BE = PE1 = 12,264 lb-CO/year

## **7. SB 288 Major Modification**

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

As discussed in Section VII.C.5 above, the facility is a Major Source for CO emissions but there is no SB 288 Major Modification Threshold for increases in CO emissions . Therefore, the project does not constitute a SB 288 Major Modification.

## **8. Federal Major Modification**

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

As discussed in Section VII.C.5 above, the facility is a Major Source for CO emissions but there is no Federal Major Modification threshold for increases in CO emissions. Therefore, this project does not constitute a Federal Major Modification and no further analysis is required

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>
- Greenhouse gases (GHG): CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is a new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

## I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be an existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

## II. Significance of Project Emission Increase Determination

### a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

| PSD Significant Emission Increase Determination: Potential to Emit (tons/year) |     |     |      |      |      |        |
|--|-----|-----|------|------|------|--------|
|  | NO2 | SO2 | CO   | PM   | PM10 | CO2e   |
| Total PE from New and Modified Units   | 12  | 0.6 | 60.1 | 52.8 | 26.4 | 24,592 |
| PSD Significant Emission Increase Thresholds                                   | 40  | 40  | 100  | 25   | 15   | 75,000 |
| PSD Significant Emission Increase?   | N   | N   | N    | N    | N    | N      |

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

## 10. Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

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

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| <b>Quarterly NEC [QNEC]</b> |              |              |               |
|-----------------------------|--------------|--------------|---------------|
|                             | PE2 (lb/qtr) | PE1 (lb/qtr) | QNEC (lb/qtr) |
| NO <sub>x</sub>             | 3,373        | 3,373        | 0             |
| SO <sub>x</sub>             | 175          | 175          | 0             |
| PM <sub>10</sub>            | 7,539        | 7,539        | 0             |
| CO                          | 17,538       | 4,293        | 13,245        |
| VOC                         | 368          | 368          | 0             |

S-525-36-9:

| <b>Quarterly NEC [QNEC]</b> |              |              |               |
|-----------------------------|--------------|--------------|---------------|
|                             | PE2 (lb/qtr) | PE1 (lb/qtr) | QNEC (lb/qtr) |
| NO <sub>x</sub>             | 2,628        | 2,628        | 0             |
| SO <sub>x</sub>             | 125          | 125          | 0             |
| PM <sub>10</sub>            | 5,650        | 5,650        | 0             |
| CO                          | 12,527       | 3,066        | 9,461         |
| VOC                         | 123          | 123          | 0             |

## 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. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions\*:

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

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

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

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

**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**

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

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)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where,

PE1 = The emissions unit's PE 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

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

S-525-30-15:

There are no changes proposed to emission factors or daily emissions for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC. Therefore AIPE = 0 for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC.

For CO: EF1 = 0.070 lb/MMBtu; EF2 = 0.286 lb/MMBtu

$$\begin{aligned} \text{AIPE} &= 192.2 - [47.0 \times (0.286/0.070)] \\ &= 0.2 \text{ lb/day} \end{aligned}$$

As demonstrated above, the AIPE is not greater than 2.0 lb/day for CO emissions for the dryer. Therefore BACT is not triggered.

S-525-36-9:

There are no changes proposed to emission factors or daily emissions for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC. Therefore AIPE = 0 for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and VOC.

For CO: EF1 = 0.070 lb/MMBtu; EF2 = 0.286 lb/MMBtu

$$\begin{aligned} \text{AIPE} &= 137.3 - [33.6 \times (0.286/0.070)] \\ &= 0.02 \text{ lb/day} \end{aligned}$$

As demonstrated above, the AIPE is not greater than 2.0 lb/day for CO emissions for the dryer. Therefore BACT is not triggered.

**d. SB 288/Federal Major Modification**

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

**B. Offsets**

**1. Offset Applicability**

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

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

| <b>Offset Determination (lb/year)</b> |                 |                 |                  |         |        |
|---------------------------------------|-----------------|-----------------|------------------|---------|--------|
|                                       | NO <sub>x</sub> | SO <sub>x</sub> | PM <sub>10</sub> | CO      | VOC    |
| SSPE2                                 | 95,860          | 18,902          | 127,160          | 266,639 | 16,386 |
| Offset Thresholds                     | 20,000          | 54,750          | 29,200           | 200,000 | 20,000 |
| Offsets triggered?                    | Yes             | No              | No               | Yes     | No     |

**2. Quantity of Offsets Required**

As seen above, the facility is an existing Major Source for NO<sub>x</sub> and CO, and the SSPE2 for NO<sub>x</sub> and CO are greater than the offset thresholds. Since only an increase in CO emissions are proposed for the permit units in this project, the following quantity of offset required will be determined for CO only.

CO

Per Rule 2201, Section 4.6.1, emission offsets shall not be for increases in CO in attainment areas if the applicant demonstrates to the satisfaction of the APCO, that the Ambient Air Quality Standards are not violated in the areas to be affected, and such

emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards.

As discussed in Section VIII.F below, the District's Technical Services Division conducted an Ambient Air Quality Analysis and determined that the increase in CO emissions from this project will not cause or significantly contribute to a violation of the State or National AAQS.

Therefore, offsets will not be required for CO.

## **C. Public Notification**

### **1. Applicability**

Public noticing is required for:

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

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

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

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

#### **b. PE > 100 lb/day**

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

#### **c. Offset Threshold**

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

| Offset Thresholds |                    |                    |                     |                            |
|-------------------|--------------------|--------------------|---------------------|----------------------------|
| Pollutant         | SSPE1<br>(lb/year) | SSPE2<br>(lb/year) | Offset<br>Threshold | Public Notice<br>Required? |
| NO <sub>x</sub>   | 95,860             | 95,860             | 20,000 lb/year      | No                         |
| SO <sub>x</sub>   | 18,902             | 18,902             | 54,750 lb/year      | No                         |
| PM <sub>10</sub>  | 127,160            | 127,160            | 29,200 lb/year      | No                         |
| CO                | 175,816            | 266,639            | 200,000 lb/year     | Yes                        |
| VOC               | 16,386             | 16,386             | 20,000 lb/year      | No                         |

As detailed above, offset thresholds were surpassed for CO with this project; therefore public noticing is required for offset purposes.

**d. SSIPE > 20,000 lb/year**

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

| SSIPE Public Notice Thresholds |                    |                    |                    |                                  |                            |
|--------------------------------|--------------------|--------------------|--------------------|----------------------------------|----------------------------|
| Pollutant                      | SSPE2<br>(lb/year) | SSPE1<br>(lb/year) | SSIPE<br>(lb/year) | SSIPE Public<br>Notice Threshold | Public Notice<br>Required? |
| NO <sub>x</sub>                | 95,860             | 95,860             | 0                  | 20,000 lb/year                   | No                         |
| SO <sub>x</sub>                | 18,902             | 18,902             | 0                  | 20,000 lb/year                   | No                         |
| PM <sub>10</sub>               | 127,160            | 127,160            | 0                  | 20,000 lb/year                   | No                         |
| CO                             | 266,639            | 175,816            | 90,823             | 20,000 lb/year                   | Yes                        |
| VOC                            | 16,386             | 16,386             | 0                  | 20,000 lb/year                   | No                         |

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

**D. Daily Emission Limits (DELs)**

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

For these milk dryers, the DELs are stated in the form of emission factors, daily milk powder throughput, the maximum dryer heat ratings, and the maximum operational time of 24 hours per day.

Proposed Rule 2201 (DEL) Conditions:

S-525-30-15:

- The amount of milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201]
- NOx emissions shall not exceed 4.9 ppmvd @ 19% O2 referenced as NO2. [District Rules 2201]
- SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- CO emissions shall not exceed 42 ppmvd @ 19% O2. [District Rules 2201]
- VOC emissions shall not exceed 0.006 lb/MMBtu. [District Rule 2201]
- PM10 emissions from baghouses serving milk spray dryer shall not exceed 0.440 pounds per ton of dried milk powder produced. [District Rule 2201]
- PM10 emissions from baghouse serving powdered milk bagging system shall not exceed 0.004 pounds per ton of dried milk powder processed. [District Rule 2201]
- PM10 emissions from bin vent filters serving two 300,000 lb storage bins shall not exceed 0.015 pounds per ton of dried milk powder processed. [District Rule 2201]

S-525-36-9:

- The amount of milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201]
- NOx emissions shall not exceed 5.3 ppmvd @ 19% O2 referenced as NO2. [District Rules 2201]
- SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
- CO emissions shall not exceed 42 ppmvd @ 19% O2. [District Rules 2201]
- VOC emissions shall not exceed 0.0028 lb/MMBtu. [District Rule 2201]
- PM10 emissions shall not exceed 0.344 pounds per ton of milk powder produced. [District Rule 2201]

**E. Compliance Assurance**

**1. Source Testing**

Source testing is required to demonstrate compliance with District Rule 2201. In addition, District Rule 4309 requires that each unit subject to the rule shall be initially source tested to determine compliance with the applicable emission limits not later than the applicable full compliance schedule specified in the rule and at least once every 24 months. Source testing for Rule 4309 also satisfies any source testing requirements for Rule 2201. No additional source testing is required.

The following condition in the permit complies with this requirement.

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- Source testing to measure NO<sub>x</sub> and CO emissions from this unit when fired on natural gas shall be conducted annually for each exhaust stack. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [District Rules 4309]

**2. Monitoring**

Monitoring is required to demonstrate compliance with District Rule 2201. In conjunction with District Rule 4309, monitoring requirements for NO<sub>x</sub> and CO are included in the permit as follows:

S-525-30-15 and S-525-36-12

- The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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]

**3. Recordkeeping**

Recordkeeping is required to demonstrate compliance with District Rule 2201. In conjunction with District Rules 1070 and 4309, recordkeeping requirements are included in the permit as follows:

S-525-30-15 and S-525-36-12

- Permittee shall maintain records of dried milk powder produced in ton per day, dried milk powder transported to silos in ton per day, milk powder bagged in ton per day, and operating schedule in number of hours per day, number of days per week, and number of weeks per calendar year. [District Rule 1070]
- The operator shall maintain daily records of the total hours of operation and the type & quantity of fuel used during operations. [District Rule 4309]
- The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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]

#### **4. Reporting**

No reporting is required to demonstrate compliance with Rule 2201.

#### **F. Ambient Air Quality Analysis (AAQA)**

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

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

#### **Rule 2410 Prevention of Significant Deterioration**

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant. The provisions of this rule applies to any source and the owner or operator of any source subject to any requirement under Title 40 Code of Federal Regulations (40 CFR) Part 52.21 as incorporated into this rule.

As discussed in Section VII.C.9 above, the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of this rule.

#### **Rule 2520 Federally Mandated Operating Permits**

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and

- b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

#### **Rule 4001 New Source Performance Standards (NSPS)**

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

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

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

#### **Rule 4101 Visible Emissions**

District Rule 4101, Section 5.0, indicates 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 dark or darker than Ringelmann 1 or equivalent to 20% opacity. The following condition is included in the Facility-Wide requirements permit, S-525-0-3. Prior inspections show that that the facility complied with this requirement. Therefore, continued compliance with this requirement is expected.

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

#### **Rule 4102 Nuisance**

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

## California Health & Safety Code 41700 (Health Risk Assessment)

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

An HRA is not required for a project with a total facility prioritization score of less than or equal to one. According to the Technical Services Memo for this project (Appendix C), 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.

### 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.

#### S-525-30-15

No change to the drying operating procedure and the emission control equipment. The particulate matter emission from the dryer is calculated as follow:

PM<sub>10</sub>-to-PM Ratio: 50% PM<sub>10</sub>/PM (per Project S-1030999)  
Exhaust Flow Rate: 203,696 dscfm (per current permit, 2 x 101,848 dscfm)  
Operating Schedule: 1,440 min/day

$$\begin{aligned} \text{PM Concentration} &= \frac{(\text{PM}_{10} \text{ Emission Rate}) \times (7,000 \text{ gr/lb})}{(\text{Air Flow Rate}) \times (1,440 \text{ min/day}) \times (0.5 \text{ PM}_{10}/\text{PM})} \\ &= \frac{(82.6 \text{ lb-PM}_{10}/\text{day}) \times (7,000 \text{ gr/lb})}{(203,696 \text{ cfm}) \times (1,440 \text{ min/day}) \times (0.5 \text{ PM}_{10}/\text{PM})} \end{aligned}$$

PM Concentration = 0.004 grain/dscf < 0.1 grain/dscf

#### S-525-36-9

No change to the drying operating procedure and the emission control equipment. The particulate matter emission from the dryer is calculated as follow:

PM<sub>10</sub>-to-PM Ratio: 50% PM<sub>10</sub>/PM (per Project S-1030999)  
Exhaust Flow Rate: 37,820 dscfm (per current permit)  
Operating Schedule: 1,440 min/day

$$\text{PM Concentration} = \frac{(\text{PM}_{10} \text{ Emission Rate}) \times (7,000 \text{ gr/lb})}{(\text{Air Flow Rate}) \times (1,440 \text{ min/day}) \times (0.5 \text{ PM}_{10}/\text{PM})}$$

$$= \frac{(61.9 \text{ lb-PM}_{10}/\text{day}) \times (7,000 \text{ gr/lb})}{(37,820 \text{ cfm}) \times (1,440 \text{ min/day}) \times (0.5 \text{ PM}_{10}/\text{PM})}$$

PM Concentration = 0.016 grain/dscf < 0.1 grain/dscf

Therefore, the following condition will be listed on each ATC to ensure compliance as follow:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

### District Rule 4202 Particulate Matter Emissions Rate

Per section 4.1, particulate matter emissions from any source operation shall not exceed the allowable hourly emission rate as calculated using the following applicable formulas:

$$E = 3.59 \times P^{0.62} \text{ if } P \leq 30 \text{ (tons/hr) or } E = 17.31 \times P^{0.16} \text{ if } P > 30 \text{ (tons/hr)}$$

Where, E = emissions in (lb/hr) and P = process weight rate in (tons/hr)

#### S-525-30-15:

##### Dryer:

No change to the daily throughput of 180 ton/day and the operating process are proposed, and the daily operating schedule is 24 hr/day.

$$\begin{aligned} \text{Process Weight Rate (P)} &= (180 \text{ ton/day}) \div (24 \text{ hr/day}) = 7.50 \text{ ton/hr} \\ \text{Emissions Rate (E)} &= 3.59 \times (7.50)^{0.62} = 12.5 \text{ lb/hr} \end{aligned}$$

The emission rate of this dryer is calculated as 6.60 lb PM/hr [(79.2 lb-PM<sub>10</sub>/day ÷ 50% PM<sub>10</sub> of PM) ÷ 24 hr/day].

$$E_{\text{actual}} = 6.60 \text{ lb/hr} < E_{\text{max}} = 12.5 \text{ lb/hr}$$

##### Bagging System:

No change to the daily throughput of 180 ton/day and the operating process are proposed, and the daily operating schedule is 24 hr/day.

$$\begin{aligned} \text{Process Weight Rate (P)} &= (180 \text{ ton/day}) \div (24 \text{ hr/day}) = 7.50 \text{ ton/hr} \\ \text{Emissions Rate (E)} &= 3.59 \times (7.50)^{0.62} = 12.5 \text{ lb/hr} \end{aligned}$$

The emission rate of this dryer is calculated as 0.06 lb PM/hr [(0.72 lb-PM<sub>10</sub>/day ÷ 50% PM<sub>10</sub> of PM) ÷ 24 hr/day].

$$E_{\text{actual}} = 0.06 \text{ lb/hr} < E_{\text{max}} = 12.5 \text{ lb/hr}$$

##### Storage bin vent filters:

No change to the daily throughput of 180 ton/day and the operating process are proposed, and the daily operating schedule is 24 hr/day

$$\begin{aligned} \text{Process Weight Rate (P)} &= (180 \text{ ton/day}) \div (24 \text{ hr/day}) = 7.50 \text{ ton/hr} \\ \text{Emissions Rate (E)} &= 3.59 \times (7.50)^{0.62} = 12.5 \text{ lb/hr} \end{aligned}$$

The emission rate of this dryer is calculated as 0.23 lb PM/hr [(2.7 lb-PM<sub>10</sub>/day ÷ 50% PM<sub>10</sub> of PM) ÷ 24 hr/day].

$$E_{\text{actual}} = 0.23 \text{ lb/hr} < E_{\text{max}} = 12.5 \text{ lb/hr}$$

S-525-36-9:

No change to the daily throughput of 180 ton/day and operating process are proposed, and the daily operating schedule is 24 hr/day

$$\begin{aligned} \text{Process Weight Rate (P)} &= (180 \text{ ton/day}) \div (24 \text{ hr/day}) = 7.50 \text{ ton/hr} \\ \text{Emissions Rate (E)} &= 3.59 \times (7.50)^{0.62} = 12.5 \text{ lb/hr} \end{aligned}$$

The emission rate of this dryer is calculated as 5.16 lb PM/hr [(61.92 lb-PM<sub>10</sub>/day ÷ 50% PM<sub>10</sub> of PM) ÷ 24 hr/day].

$$E_{\text{actual}} = 5.16 \text{ lb/hr} < E_{\text{max}} = 12.5 \text{ lb/hr}$$

Therefore, continued compliance with this rule is expected under regular operating conditions.

**District Rule 4309 Dryers, Dehydrators and Ovens**

This rule applies to any dryer, dehydrator, and oven that the total rated heat input for the unit is rated 5 MMBtu/hr or greater.

Section 5.2 requires that except for dehydrators, NO<sub>x</sub> 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.

| Process Description                              | NO <sub>x</sub> 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 | 3.5                             | 3.5               | 42                 | 42                |
| Milk, Cheese, and Dairy Processing ≥ 20 MMBtu/hr | 5.3                             | 5.3               | 42                 | 42                |

S-525-30-15:

This is milk dryer with a maximum heat input rated greater than 20 MMBtu/hr. For this unit:

- the NO<sub>x</sub> emission factor is 4.9 ppmvd @ 19% O<sub>2</sub> (0.055 lb-NO/MMBtu), and
- the revised CO emission factor is 42 ppmvd @ 19% O<sub>2</sub> (0.286 lb-CO/MMBtu).

S-525-36-9:

This is milk dryers with a maximum heat input rated equal to 20 MMBtu/hr. For this unit:

- the NO<sub>x</sub> emission factor is 5.3 ppmvd @ 19% O<sub>2</sub> (0.061 lb-NO/MMBtu), and
- the revised CO emission factor is 42 ppmvd @ 19% O<sub>2</sub> (0.286 lb-CO/MMBtu).

Therefore, compliance with Section 5.2 of District Rule 4309 is expected. Permit conditions listing the emissions limits will be listed on permits as shown in the DEL section above.

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<sub>x</sub>, and oxygen that meets the following requirements: 1) 40 CFR Part 51, and 2) 40 CFR Parts 60.7 and 60.13 (except subsection h), and 3) 40 CFR Part 60 Appendix B (Performance Specifications), and 4) 40 CFR Part 60 Appendix F (Quality Assurance Procedures), and 5) The applicable provisions of District Rule 1080 (Stack Monitoring). 6) 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 as follow: 1) 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, 2) 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: a) Periodic NO<sub>x</sub> exhaust emission concentrations, b) Periodic exhaust oxygen concentration, c) Flow rate of reducing agent added to exhaust, d) Catalyst inlet and exhaust temperature, e) Catalyst inlet and exhaust oxygen concentration, f) Periodic flue gas recirculation rate, g) Other surrogate operating parameter(s) that demonstrate compliance with the emission limit.

Since the operation of these 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 monitoring NO<sub>x</sub>, CO, and O<sub>2</sub> exhaust concentrations at least once per month using a portable analyzer (or at least once per week if an in-stack analyzer is used) in which a source test is not performed. Therefore, the following condition will be listed on each permit to ensure compliance:

- The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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<sub>x</sub> or CO concentrations corrected to 19% O<sub>2</sub>, as measured by the portable analyzer (or in-stack 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 (or in-stack 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]

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.

S-525-30-15 and S-525-36-9:

These units have been source tested within last two years in the facility, and the current NO<sub>x</sub> and CO emissions are compliance with the requirement of this rule. Therefore, continuous compliance with this section is expected.

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. And 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. Therefore, the following condition will be listed on each permit to ensure compliance:

- 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 5.5.5 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-consecutive-minute period. Therefore, the following condition will be listed on each permit to ensure compliance:

- 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 6.1.2 states that operators using an alternate emissions monitoring system shall maintain the following records on a periodic basis: 1) Total hours of operation, 2) Type and quantity of fuel used during operations, 3) Measurement for each surrogate parameter, 4) Range of allowed values for each surrogate parameter, and 5) The period for recordkeeping shall be specified in the PTO conditions. Therefore, the following condition will be listed on each permit to ensure compliance:

- The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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 6.1.6 states the records and manufacturer's specifications required by this section shall meet all of the following requirements: 1) The records shall be maintained for five calendar years, 2) The records shall be made available on-site during normal business hours, and 3) The records shall be submitted to the APCO upon request. Therefore, the following condition will be listed on each permit to ensure compliance:

- 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, 2201 and 4309]

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.

|   |  |                                       |
|---|--|---------------------------------------|
| Fuel hhv shall be certified by third party fuel supplier or determined by the following method: |  |                                       |
| Fuel Gaseous  | ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 |                                       |
| Pollutant   | Units  | Test Method Required                  |
| NO <sub>x</sub>   | ppmv   | EPA Method 7E or ARB Method 100       |
| CO  | ppmv   | EPA Method 10 or ARB Method 100       |
| Stack Gas O <sub>2</sub>  | %  | EPA Method 3 or 3A, or ARB Method 100 |
| Stack Gas Velocities  | ft/min   | EPA Method 2                          |
| Stack Gas Moisture Content  | %  | EPA Method 4                          |

Therefore, the following condition will be listed on each permit to ensure compliance:

- NO<sub>x</sub> 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<sub>2</sub>) 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.

S-525-30-15 and S-525-36-9:

These units have been source tested and demonstrated compliance with the requirement of this rule. Therefore, initial source test will not be required. The current permit requires the unit be tested annually and once every 36-month if compliance is shown for two consecutive annual tests. Rule 4309 requires the unit be tested once every 24-month. Therefore, the source test requirement on the current permit and Rule 4309 will be combined and listed on the permit as follow:

- Source testing to measure NO<sub>x</sub> and CO emissions from this unit when fired on natural gas shall be conducted annually. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [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). Therefore, the following condition will be listed on each permit to ensure compliance:

- 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 6.3.7 states that all test results for NO<sub>x</sub> and CO shall be reported in ppmv, corrected to dry stack conditions and adjusted using the oxygen correction factor. Therefore, the following condition will be listed on each permit to ensure compliance:

- All test results for NO<sub>x</sub> and CO shall be reported in ppmv @ 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), corrected to dry stack conditions. [District Rule 4309]

### District 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<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

These permit units are fired on PUC-regulated natural gas, by using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:  $n$  = moles of SO<sub>2</sub>  
T (Standard Temperature) = 60°F = 520°R  
P (Standard Pressure) = 14.7 psi  
R (Universal Gas Constant) =  $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

The sulfur compound emissions are calculated as follow:

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{°R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

### California Health & Safety Code 42301.6 (School Notice)

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

## **California Environmental Quality Act (CEQA)**

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

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District has determined that potential emission increases would have a less than significant health impact on sensitive receptors.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

## **Greenhouse Gas (GHG) Significance Determination**

The District's engineering evaluation (this document) demonstrates that there is no proposed increase in natural gas usage and therefore, the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

## **IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-525-30-15 and S-525-36-9 subject to the permit conditions on the attached draft ATC in Appendix A.

## X. Billing Information

| <b>Annual Permit Fees</b> |                     |                        |                   |
|---------------------------|---------------------|------------------------|-------------------|
| <b>Permit Number</b>      | <b>Fee Schedule</b> | <b>Fee Description</b> | <b>Annual Fee</b> |
| S-525-30-15               | 3020-02-H           | 28 MMBtu/hr            | \$1,030           |
| S-525-36-9                | 3020-02-H           | 20 MMBtu/hr            | \$1,030           |

## Appendixes

- A: Draft ATCs
- B: Current PTOs
- C: HRA Summary/AAQA
- D: Compliance Certification
- E: Green House Gas Major Source Determination

**APPENDIX A**  
**Draft ATCs**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** S-525-30-15

**LEGAL OWNER OR OPERATOR:** LAND O' LAKES, INC.  
**MAILING ADDRESS:** 400 SOUTH M STREET  
TULARE, CA 93274

**LOCATION:** 400 SOUTH "M" ST  
TULARE, CA 93274

**SECTION:** 11 **TOWNSHIP:** 20S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 28 MMBTU/HR NATURAL GAS-FIRED NON-FAT MILK PROCESSING LINE: INCREASE CO EMISSIONS LIMIT TO 42 PPMV @ 19% O<sub>2</sub>

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Line shall be equipped with one "Niro" tall form 28 MMBtu/hr. spray dryer including "Maxon" Cross Fire PUC quality natural gas fired burner with non-resettable totalizing fuel flowmeter, and two "Niro" baghouses, each with 7,276 sq. ft. cloth area and maximum of 101,848 total scfm air flow. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Line shall include two 300,000 lb storage bins each shall be served by "Nucon" bin vent filters, each with 71.5 sq. ft. area 16oz. glazed polyester felt bags, and maximum 535 scfm. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Line shall include one bagging system and shall be served by one "Flex Kleen" Baghouse (shared with S-525-37), Model WSTC121, 1282 sq. ft. cloth area, 12000 scfm. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

**DAVID WARNER**, Director of Permit Services

S-525-30-15 : Jan 2 2013 9:02AM -- SIONGCOJ : Joint Inspection NOT Required

6. The amount of milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall comply with District Rule 4202, section 4.0 (12/17/92). [District Rule 4202] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. The owner/operator shall check for visible emissions on a daily basis. If any particulate matter emissions are visible, the baghouse shall be inspected for any tears, abrasions, or holes in the fabric. Any defective or damaged material shall be repaired or replaced. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 4201, 4202, and 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
10. Visible emissions shall be less than 5% opacity for bagging system or storage silos during operation. [District Rule 2201] Federally Enforceable Through Title V Permit
11. This dryer shall be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
12. NOx emissions shall not exceed 4.9 ppmvd @ 19% O2 referenced as NO2. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
13. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. CO emissions shall not exceed 42 ppmvd @ 19% O2. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
15. VOC emissions shall not exceed 0.006 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM10 emissions from baghouses serving milk spray dryer shall not exceed 0.440 pounds per ton of dried milk powder produced. [District Rule 2201] Federally Enforceable Through Title V Permit
17. PM10 emissions from baghouse serving powdered milk bagging system shall not exceed 0.004 pounds per ton of dried milk powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
18. PM10 emissions from bin vent filters serving two 300,000 lb storage bins shall not exceed 0.015 pounds per ton of dried milk powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Material removed from the dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse, and for each type of bag, shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
23. 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] Federally Enforceable Through Title V Permit
24. Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted annually for each exhaust stack. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit

25. Source testing to measure PM10 emissions from the baghouse serving the spray dryer shall be conducted annually. If compliance is shown for two consecutive annual tests, then testing may be performed once every 36 months. If compliance is not shown, annual testing shall resume. [District Rule 1080] Federally Enforceable Through Title V Permit
26. For NOx and CO 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] Federally Enforceable Through Title V Permit
27. For PM10 emissions source testing, three one-consecutive-hour 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 1080] Federally Enforceable Through Title V Permit
28. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
29. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
30. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
31. Stack gas velocities shall be determined using EPA Method 2. [District Rule 4309] Federally Enforceable Through Title V Permit
32. Stack gas moisture content shall be determined using EPA Method 4 [District Rule 4309] Federally Enforceable Through Title V Permit
33. Source testing to measure PM10 emissions from the baghouse serving the spray dryer shall be conducted using EPA Methods 201A and 202. Alternatively, the results of a total particulate matter test using CARB Method 5 may be used to demonstrate compliance with the PM10 emission limit provided the results include both the filterable (front half) and condensable (black half) particulates, and that all particulate matter is assumed to be PM10. [District Rule 1080] Federally Enforceable Through Title V Permit
34. 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] Federally Enforceable Through Title V Permit
35. 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] Federally Enforceable Through Title V Permit
36. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
37. The owner/operator shall visually inspect the burner on a weekly basis to assure proper operation. [District Rule 2201] Federally Enforceable Through Title V Permit
38. Baghouses shall be inspected at least quarterly when the unit is not in operation for tears, scuffs, abrasions or holes which might interfere with the PM collection efficiency and shall be replaced as needed. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
39. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

40. If either the NO<sub>x</sub> or CO concentrations corrected to 19% O<sub>2</sub>, as measured by the portable analyzer (or in-stack 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 (or in-stack 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] Federally Enforceable Through Title V Permit
41. 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] Federally Enforceable Through Title V Permit
42. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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] Federally Enforceable Through Title V Permit
43. Actual fuel usage and production data shall be recorded during the source test periods. [District Rule 1081] Federally Enforceable Through Title V Permit
44. Records of baghouse maintenance, inspections, repair, and burner flame inspections shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
48. Permittee shall maintain records of dried milk powder produced in ton per day, dried milk powder transported to silos in ton per day, milk powder bagged in ton per day, and operating schedule in number of hours per day, number of days per week, and number of weeks per calendar year. [District Rule 1070] Federally Enforceable Through Title V Permit
49. The operator shall maintain daily records of the total hours of operation and the type & quantity of fuel used during operations. [District Rule 4309] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

**PERMIT NO:** S-525-36-9

**LEGAL OWNER OR OPERATOR:** LAND O' LAKES, INC.  
**MAILING ADDRESS:** 400 SOUTH M STREET  
TULARE, CA 93274

**LOCATION:** 400 SOUTH "M" ST  
TULARE, CA 93274

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 20 MMBTU/HR NATURAL GAS-FIRED MILK SPRAY PROCESSING LINE SERVED BY TWO NIRO CMC 3150 CYCLONES SERVED BY TWO NIRO SBF-12-500 BAGHOUSES EACH WITH 5,400 SQUARE FEET CLOTH AREA AND 37,820 SCFM BLOWERS: INCREASE CO EMISSIONS LIMIT TO 42 PPMV @ 19% O2

**CONDITIONS**

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Line shall include Niro F-160 rotary atomizer with high pressure type NVR/F nozzle atomization unit and Niro-Soavi high pressure pump. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Line shall include air supply fan, dry cell/high efficiency air filter, Maxon LN 20 MM Btu/hr low NOx direct gas fired heater, type DAR air dispenser, cooling air fan, conveying air fan, on/off damper, steam-heated air heater and air filter. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Line shall include Niro CDC1000-R/N drying chamber assembly, integrated fluid bed and rotary valve. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Line shall be equipped with vibrofluidizer assembly including dry cell high efficiency pre-filter, two air conveying fans, six pneumatically controlled regulating dampers, two cartridge type air filters, two air conditioning units. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

**DAVID WARNER**, Director of Permit Services

S-525-36-9: Jan 2 2013 9:02AM - SIONGCOJ : Joint Inspection NOT Required

7. Line shall be equipped with vibrofluidizer assembly including one VF-F 16m2 vibrofluidizer, Niro CHE 2250 cyclone, blow-through valve and two powder sieves. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Line shall be equipped with fines transport system including rotary air conveying blower, cartridge type air filter, four blow through valves and two-way diverter valve. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Line shall be equipped with pneumatic powder conveying system including rotary air conveying blower, air conditioning unit, cartridge type air filter, blow-through valve, powder conveying duct and two way diverter valve. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Material removed from the dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse, and for each type of bag, shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The owner/operator shall check for visible emissions on a daily basis. If any particulate matter emissions are visible, the baghouse shall be inspected for any tears, abrasions, or holes in the fabric. Any defective or damaged material shall be repaired or replaced. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 4201, 4202, and 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
16. Visible emissions from the exhaust of the emissions control equipments shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
17. This dryer shall be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
18. NO<sub>x</sub> emissions shall not exceed 5.3 ppmvd @ 19% O<sub>2</sub> referenced as NO<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
19. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. CO emissions shall not exceed 42 ppmvd @ 19% O<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
21. VOC emissions shall not exceed 0.0028 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. PM<sub>10</sub> emissions shall not exceed 0.344 pounds per ton of milk powder produced. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The amount of dried milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
24. 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] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

25. If equipment is operating at a level not representative of design capacity during initial source testing, the District may require subsequent testing at higher rates of production. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Source testing to measure NO<sub>x</sub> and CO emissions from this unit when fired on natural gas shall be conducted annually for each exhaust stack. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
27. Source testing to measure PM<sub>10</sub> emissions from the baghouse serving the spray dryer shall be conducted annually. If compliance is shown for two consecutive annual tests, then testing may be performed once every 36 months. If compliance is not shown, annual testing shall resume. [District Rule 1080] Federally Enforceable Through Title V Permit
28. For NO<sub>x</sub> and CO 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] Federally Enforceable Through Title V Permit
29. For PM<sub>10</sub> emissions source testing, three one-consecutive-hour 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 1080] Federally Enforceable Through Title V Permit
30. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
31. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
32. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
33. Stack gas velocities shall be determined using EPA Method 2. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
34. Stack gas moisture content shall be determined using EPA Method 4. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
35. Source testing to measure PM<sub>10</sub> emissions from the baghouse serving the spray dryer shall be conducted using EPA Methods 201A and 202. Alternatively, the results of a total particulate matter test using CARB Method 5 may be used to demonstrate compliance with the PM<sub>10</sub> emission limit provided the results include both the filterable (front half) and condensable (black half) particulates, and that all particulate matter is assumed to be PM<sub>10</sub>. [District Rule 1080] Federally Enforceable Through Title V Permit
36. 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] Federally Enforceable Through Title V Permit
37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
38. All test results for NO<sub>x</sub> and CO shall be reported in ppmv @ 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
39. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

40. If either the NO<sub>x</sub> or CO concentrations corrected to 19% O<sub>2</sub>, as measured by the portable analyzer (or in-stack 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 (or in-stack 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] Federally Enforceable Through Title V Permit
41. 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] Federally Enforceable Through Title V Permit
42. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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] Federally Enforceable Through Title V Permit
43. Baghouses shall be inspected at least quarterly when the unit is not in operation for tears, scuffs, abrasions or holes which might interfere with the PM collection efficiency and shall be repaired as needed. [District Rule 2520, 9.4.2, 40 CFR 64] Federally Enforceable Through Title V Permit
44. The permittee shall visually inspect the burner on a weekly basis to assure proper operation. [District Rule 2201] Federally Enforceable Through Title V Permit
45. Actual fuel usage and production data shall be recorded during the source test periods. [District Rule 1081] Federally Enforceable Through Title V Permit
46. The operator shall maintain daily records of the total hours of operation and the type & quantity of fuel used during operations. [District Rule 4309] Federally Enforceable Through Title V Permit
47. Records of baghouse maintenance, inspections, repair, and burner flame inspections shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
48. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
49. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
50. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
51. Permittee shall maintain records of dried milk powder produced in ton per day, and operating schedule in number of hours per day, number of days per week, and number of weeks per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit

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**APPENDIX B**  
**Current PTOs**

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-525-30-12

**EXPIRATION DATE:** 10/31/2015

**SECTION:** 11 **TOWNSHIP:** 20S **RANGE:** 24E

**EQUIPMENT DESCRIPTION:**

28 MMBTU/HR NATURAL GAS-FIRED NON-FAT MILK PROCESSING LINE

## PERMIT UNIT REQUIREMENTS

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1. Line shall be equipped with one "Niro" tall form 28 MMBtu/hr. spray dryer including "Maxon" Cross Fire PUC quality natural gas fired burner with non-resettable totalizing fuel flowmeter, and two "Niro" baghouses, each with 7,276 sq. ft. cloth area and maximum of 101,848 total scfm air flow. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Line shall include two 300,000 lb storage bins each shall be served by "Nucon" bin vent filters, each with 71.5 sq. ft. area 16oz. glazed polyester felt bags, and maximum 535 scfm. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Line shall include one bagging system and shall be served by one "Flex Kleen" Baghouse (shared with S-525-37), Model WSTC121, 1282 sq. ft. cloth area, 12000 scfm. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The amount of milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall comply with District Rule 4202, section 4.0 (12/17/92). [District Rule 4202] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The owner/operator shall check for visible emissions on a daily basis. If any particulate matter emissions are visible, the baghouse shall be inspected for any tears, abrasions, or holes in the fabric. Any defective or damaged material shall be repaired or replaced. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 4201, 4202, and 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
8. Visible emissions shall be less than 5% opacity for bagging system or storage silos during operation. [District NSR Rule] Federally Enforceable Through Title V Permit
9. This dryer shall be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. NO<sub>x</sub> emissions shall not exceed 4.9 ppmvd @ 19% O<sub>2</sub> referenced as NO<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
11. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. CO emissions shall not exceed 10.3 ppmvd @ 19% O<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. VOC emissions shall not exceed 0.006 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PM10 emissions from baghouses serving milk spray dryer shall not exceed 0.440 pounds per ton of dried milk powder produced. [District Rule 2201] Federally Enforceable Through Title V Permit
15. PM10 emissions from baghouse serving powdered milk bagging system shall not exceed 0.004 pounds per ton of dried milk powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
16. PM10 emissions from bin vent filters serving two 300,000 lb storage bins shall not exceed 0.015 pounds per ton of dried milk powder processed. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Material removed from the dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse, and for each type of bag, shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
22. Source testing to measure NOx and CO emissions from this unit when fired on natural gas shall be conducted annually for each exhaust stack. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
23. Source testing to measure PM10 emissions from the baghouse serving the spray dryer shall be conducted annually. If compliance is shown for two consecutive annual tests, then testing may be performed once every 36 months. If compliance is not shown, annual testing shall resume. [District Rule 1080] Federally Enforceable Through Title V Permit
24. For NOx and CO 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] Federally Enforceable Through Title V Permit
25. For PM10 emissions source testing, three one-consecutive-hour 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 1080] Federally Enforceable Through Title V Permit
26. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
28. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
29. Stack gas velocities shall be determined using EPA Method 2. [District Rule 4309] Federally Enforceable Through Title V Permit
30. Stack gas moisture content shall be determined using EPA Method 4 [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. Source testing to measure PM<sub>10</sub> emissions from the baghouse serving the spray dryer shall be conducted using EPA Methods 201A and 202. Alternatively, the results of a total particulate matter test using CARB Method 5 may be used to demonstrate compliance with the PM<sub>10</sub> emission limit provided the results include both the filterable (front half) and condensable (black half) particulates, and that all particulate matter is assumed to be PM<sub>10</sub>. [District Rule 1080] Federally Enforceable Through Title V Permit
32. All test results for NO<sub>x</sub> and CO shall be reported in ppmv @ 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
33. 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] Federally Enforceable Through Title V Permit
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The owner/operator shall visually inspect the burner on a weekly basis to assure proper operation. [District NSR Rule] Federally Enforceable Through Title V Permit
36. Baghouses shall be inspected at least quarterly when the unit is not in operation for tears, scuffs, abrasions or holes which might interfere with the PM collection efficiency and shall be replaced as needed. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
37. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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] Federally Enforceable Through Title V Permit
38. If either the NO<sub>x</sub> or CO concentrations corrected to 19% O<sub>2</sub>, as measured by the portable analyzer (or in-stack 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 (or in-stack 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] Federally Enforceable Through Title V Permit
39. 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] Federally Enforceable Through Title V Permit
40. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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] Federally Enforceable Through Title V Permit
41. Actual fuel usage and production data shall be recorded during the source test periods. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

42. Records of baghouse maintenance, inspections, repair, and burner flame inspections shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
43. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
44. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
45. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
46. Permittee shall maintain records of dried milk powder produced in ton per day, dried milk powder transported to silos in ton per day, milk powder bagged in ton per day, and operating schedule in number of hours per day, number of days per week, and number of weeks per calendar year. [District Rule 1070] Federally Enforceable Through Title V Permit
47. The operator shall maintain daily records of the total hours of operation and the type & quantity of fuel used during operations. [District Rule 4309] Federally Enforceable Through Title V Permit
48. 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] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-525-36-6

**EXPIRATION DATE:** 10/31/2015

**EQUIPMENT DESCRIPTION:**

20 MMBTU/HR NATURAL GAS-FIRED MILK SPRAY PROCESSING LINE SERVED BY TWO NIRO CMC 3150 CYCLONES SERVED BY TWO NIRO SBF-12-500 BAGHOUSES EACH WITH 5,400 SQUARE FEET CLOTH AREA AND 37,820 SCFM BLOWERS

## PERMIT UNIT REQUIREMENTS

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1. Line shall include Niro F-160 rotary atomizer with high pressure type NVR/F nozzle atomization unit and Niro-Soavi high pressure pump. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Line shall include air supply fan, dry cell/high efficiency air filter, Maxon LN 20 MM Btu/hr low NOx direct gas fired heater, type DAR air dispenser, cooling air fan, conveying air fan, on/off damper, steam-heated air heater and air filter. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Line shall include Niro CDC1000-R/N drying chamber assembly, integrated fluid bed and rotary valve. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Line shall be equipped with vibrofluidizer assembly including dry cell high efficiency pre-filter, two air conveying fans, six pneumatically controlled regulating dampers, two cartridge type air filters, two air conditioning units. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Line shall be equipped with vibrofluidizer assembly including one VF-F 16m2 vibrofluidizer, Niro CHE 2250 cyclone, blow-through valve and two powder sieves. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Line shall be equipped with fines transport system including rotary air conveying blower, cartridge type air filter, four blow through valves and two-way diverter valve. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Line shall be equipped with pneumatic powder conveying system including rotary air conveying blower, air conditioning unit, cartridge type air filter, blow-through valve, powder conveying duct and two way diverter valve. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Material removed from the dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse, and for each type of bag, shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. The owner/operator shall check for visible emissions on a daily basis. If any particulate matter emissions are visible, the baghouse shall be inspected for any tears, abrasions, or holes in the fabric. Any defective or damaged material shall be repaired or replaced. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rules 4201, 4202, and 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
14. Visible emissions from the exhaust of the emissions control equipments shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. This dryer shall be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
16. NO<sub>x</sub> emissions shall not exceed 5.3 ppmvd @ 19% O<sub>2</sub> referenced as NO<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
17. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. CO emissions shall not exceed 10.3 ppmvd @ 19% O<sub>2</sub>. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
19. VOC emissions shall not exceed 0.0028 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. PM<sub>10</sub> emissions shall not exceed 0.344 pounds per ton of milk powder produced. [District Rule 2201] Federally Enforceable Through Title V Permit
21. The amount of dried milk powder produced shall not exceed 180 tons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. If equipment is operating at a level not representative of design capacity during initial source testing, the District may require subsequent testing at higher rates of production. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Source testing to measure NO<sub>x</sub> and CO emissions from this unit when fired on natural gas shall be conducted annually for each exhaust stack. If compliance is shown for two consecutive annual tests, then testing may be performed once every 24 months. If compliance is not shown, annual testing shall resume. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
25. Source testing to measure PM<sub>10</sub> emissions from the baghouse serving the spray dryer shall be conducted annually. If compliance is shown for two consecutive annual tests, then testing may be performed once every 36 months. If compliance is not shown, annual testing shall resume. [District Rule 1080] Federally Enforceable Through Title V Permit
26. For NO<sub>x</sub> and CO 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] Federally Enforceable Through Title V Permit
27. For PM<sub>10</sub> emissions source testing, three one-consecutive-hour 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 1080] Federally Enforceable Through Title V Permit
28. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

29. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
30. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
31. Stack gas velocities shall be determined using EPA Method 2. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
32. Stack gas moisture content shall be determined using EPA Method 4. [District Rules 1080 and 4309] Federally Enforceable Through Title V Permit
33. Source testing to measure PM<sub>10</sub> emissions from the baghouse serving the spray dryer shall be conducted using EPA Methods 201A and 202. Alternatively, the results of a total particulate matter test using CARB Method 5 may be used to demonstrate compliance with the PM<sub>10</sub> emission limit provided the results include both the filterable (front half) and condensable (black half) particulates, and that all particulate matter is assumed to be PM<sub>10</sub>. [District Rule 1080] Federally Enforceable Through Title V Permit
34. 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] Federally Enforceable Through Title V Permit
35. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
36. All test results for NO<sub>x</sub> and CO shall be reported in ppmv @ 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
37. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month using a portable emission monitor (or at least once per week if an in-stack analyzer is used) that meets District specifications (in which a source test is not performed). 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] Federally Enforceable Through Title V Permit
38. If either the NO<sub>x</sub> or CO concentrations corrected to 19% O<sub>2</sub>, as measured by the portable analyzer (or in-stack 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 (or in-stack 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] Federally Enforceable Through Title V Permit
39. 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] Federally Enforceable Through Title V Permit
40. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 19% O<sub>2</sub> (or no correction if measured above 19% O<sub>2</sub>), (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] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

41. Baghouses shall be inspected at least quarterly when the unit is not in operation for tears, scuffs, abrasions or holes which might interfere with the PM collection efficiency and shall be repaired as needed. [District Rule 2520, 9.4.2, 40 CFR 64] Federally Enforceable Through Title V Permit
42. The permittee shall visually inspect the burner on a weekly basis to assure proper operation. [District Rule 2201] Federally Enforceable Through Title V Permit
43. Actual fuel usage and production data shall be recorded during the source test periods. [District Rule 1081] Federally Enforceable Through Title V Permit
44. The operator shall maintain daily records of the total hours of operation and the type & quantity of fuel used during operations. [District Rule 4309] Federally Enforceable Through Title V Permit
45. Records of baghouse maintenance, inspections, repair, and burner flame inspections shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR 64] Federally Enforceable Through Title V Permit
48. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
49. Permittee shall maintain records of dried milk powder produced in ton per day, and operating schedule in number of hours per day, number of days per week, and number of weeks per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
50. 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] Federally Enforceable Through Title V Permit

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

**APPENDIX C**  
**HRA Summary/AAQA**

# San Joaquin Valley Air Pollution Control District Risk Management Review

To: J. Siongco – Permit Services  
From: Kyle Melching – Technical Services  
Date: December 17, 2012  
Facility Name: Land O' Lakes, Inc.  
Location: 400 South M St., Tulare  
Application #(s): S-525-30-15 & 36-9  
Project #: S-1123828

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## A. RMR REPORT

### I. Project Description

Technical Services received a request on December 13, 2012, to perform an Ambient Air Quality Analysis (AAQA) for two natural gas-fired dryer units. The AAQA will only look at the CO portion of the analysis.

### II. Analysis

For the AAQA, AERMOD was used with point source parameters outlined below and concatenated 4-year meteorological data from Visalia to determine maximum dispersion factors at the nearest residential and business receptors. The AAQA database was used to determine the Criteria Pollutant Modeling Results for this project.

The following parameters were used for the review:

| <b>Analysis Parameters</b><br>(Units 30-15 & 36-9) |            |                                   |           |
|--|------------|-----------------------------------|-----------|
| <b>Source Type</b>                                 | Point      | <b>Nearest Receptor (m)</b>       | 184, 164  |
| <b>Stack Height (m)</b>                            | 19.7, 32   | <b>Closest Receptor Type</b>      | Residence |
| <b>Stack Diameter (m)</b>                          | 2.0, 1.6   | <b>Project Location</b>           | Urban     |
| <b>Stack Exit Velocity (m/s)</b>                   | 20.7, 21.5 | <b>Stack Exit Temperature (K)</b> | 346, 352  |

Technical Services performed modeling for the criteria pollutant CO. The emission rate used for criteria pollutant modeling was 10.4 lb/hr CO.

The results from the Criteria Pollutant Modeling are as follows:

**Criteria Pollutant Modeling Results\***  
Values are in  $\mu\text{g}/\text{m}^3$

| NG-Fired Generator | 1 Hour | 3 Hours | 8 Hours | 24 Hours | Annual |
|--------------------|--------|---------|---------|----------|--------|
| CO                 | Pass   | X       | Pass    | X        | X      |
| NO <sub>x</sub>    | X      | X       | X       | X        | X      |
| SO <sub>x</sub>    | X      | X       | X       | X        | X      |
| PM <sub>10</sub>   | X      | X       | X       | X        | X      |
| PM <sub>2.5</sub>  | X      | X       | X       | X        | X      |

\*Results were taken from the attached PSD spreadsheet.

### III. Conclusion

The criteria modeling runs indicate the emissions from the proposed equipment will not cause or significantly contribute to a violation of a State or 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.

### IV. Attachments

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

**Revised**  
**San Joaquin Valley Air Pollution Control District**  
**Risk Management Review**

To: J. Siongco – Permit Services  
 From: Kyle Melching – Technical Services  
 Date: December 17, 2012  
 Facility Name: Land O’ Lakes, Inc.  
 Location: 400 South M St., Tulare  
 Application #(s): S-525-30-15 & 36-9  
 Project #: S-1123828

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**A. RMR REPORT**

| <b>RMR Summary</b>                    |   |                           |                        |
|---------------------------------------|---|---------------------------|------------------------|
| <b>Categories</b>                     | <b>NG-Fired Dryers<br/>(Units 30-12 &amp; 36-6)</b> | <b>Project<br/>Totals</b> | <b>Facility Totals</b> |
| <b>Prioritization Score</b>           | 0.46*   | 0.46                      | <1                     |
| <b>Acute Hazard Index</b>             | N/A   | N/A                       | N/A                    |
| <b>Chronic Hazard Index</b>           | N/A   | N/A                       | N/A                    |
| <b>Maximum Individual Cancer Risk</b> | N/A   | N/A                       | N/A                    |
| <b>T-BACT Required?</b>               | <b>No</b>   |                           |                        |
| <b>Special Permit Conditions?</b>     | <b>No</b>   |                           |                        |

\*The project passed on prioritization with a score less than 1; therefore, no further analysis was required.

**I. Project Description**

Technical Services received a request on December 13, 2012, to perform a Risk Management Review and an Ambient Air Quality Analysis (AAQA) for two natural gas-fired dryer units. The AAQA will only look at the CO portion of the analysis.

**II. Analysis**

Toxic emissions were calculated for dryers using Ventura County Emission factors for natural gas external combustion. In accordance with the District’s *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District’s HEART’s database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); therefore, no further evaluation is required.

The following parameters were used for the review:

| Analysis Parameters<br>(Units 30-15 & 36-9) |            |                            |           |
|---|------------|----------------------------|-----------|
| Source Type                                 | Point      | Nearest Receptor (m)       | 184, 164  |
| Stack Height (m)                            | 19.7, 32   | Closest Receptor Type      | Residence |
| Stack Diameter (m)                          | 2.0, 1.6   | Project Location           | Urban     |
| Stack Exit Velocity (m/s)                   | 20.7, 21.5 | Stack Exit Temperature (K) | 346, 352  |

For the AAQA, AERMOD was used with point source parameters outlined above and concatenated 4-year meteorological data from Visalia to determine maximum dispersion factors at the nearest residential and business receptors. The AAQA database was used to determine the Criteria Pollutant Modeling Results for this project.

Technical Services performed modeling for the criteria pollutant CO. The emission rate used for criteria pollutant modeling was 10.4 lb/hr CO.

The results from the Criteria Pollutant Modeling are as follows:

**Criteria Pollutant Modeling Results\***  
Values are in  $\mu\text{g}/\text{m}^3$

| NG-Fired Generator | 1 Hour | 3 Hours | 8 Hours | 24 Hours | Annual |
|--------------------|--------|---------|---------|----------|--------|
| CO                 | Pass   | X       | Pass    | X        | X      |
| NO <sub>x</sub>    | X      | X       | X       | X        | X      |
| SO <sub>x</sub>    | X      | X       | X       | X        | X      |
| PM <sub>10</sub>   | X      | X       | X       | X        | X      |
| PM <sub>2.5</sub>  | X      | X       | X       | X        | X      |

\*Results were taken from the attached PSD spreadsheet.

### III. Conclusion

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

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

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

### IV. Attachments

- A. AAQA request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score
- D. Facility Summary
- E. AAQA Summary

**APPENDIX D**  
**Compliance Certification**



**APPENDIX E**  
**Green House Gas Major Source Determination**

Green House Gas Major Source Determination:

Determining the bhp-hr/yr for diesel-fired units:

| <b>Diesel-Fired Units</b> | <b>bhp</b> | <b>x</b> | <b>hr/yr</b> | <b>=</b> | <b>bhp-hr/yr</b> |
|---------------------------|------------|----------|--------------|----------|------------------|
| S-525-31-4                | 750        | x        | 20           | =        | 15,000           |
| S-525-32-4                | 435        | x        | 20           | =        | 8,700            |
| S-525-33-4                | 900        | x        | 20           | =        | 18,000           |
| <b>Total</b>              |            |          |              | <b>=</b> | <b>41,700</b>    |

Determining the MMBtu/yr for natural gas-fired units:

| <b>Natural Gas-Fired Units</b> | <b>MMBtu/hr</b>              | <b>x</b> | <b>hr/yr</b> | <b>=</b> | <b>MMBtu/yr</b>  |
|--------------------------------|------------------------------|----------|--------------|----------|------------------|
| S-525-2-8                      | Limited to 30 billion Btu/yr |          |              | =        | 30,000           |
| S-525-30-15                    | 28                           | x        | 8760         | =        | 245,280          |
| S-525-35-9                     | 122                          | x        | 8760         | =        | 1,068,720        |
| S-525-36-9                     | 20                           | x        | 8760         | =        | 175,200          |
| S-525-42-4                     | 180                          | x        | 8760         | =        | 1,576,800        |
| <b>Total</b>                   |                              |          |              | <b>=</b> | <b>3,096,000</b> |

Using the above totals for the combustion sources, the following page shows the facility's Total CO<sub>2</sub>e (ton/yr).

San Joaquin Valley  
Air Pollution Control District

# Green House Gas

## Major Source Determination

[Reset Form](#)

This automated form calculates the CO<sub>2</sub>e emissions from general combustion sources to determine Major Source status.

If you would like help in determining if your facility is subject to Title V, what you can do to avoid Title V, or guidance through the application process if you must obtain a Title V permit, please call one of our Small Business Assistance staff at one of the numbers listed below.

Modesto: (209) 557-6446  
Fresno: (559) 230-5888  
Bakersfield: (661) 392-5665

**Internal Combustion Engines:**

If stationary spark-ignited (gasoline, LPG, or natural gas) or compression-ignited (diesel) engines are used in your operation, please enter the total horsepower multiplied by the total permitted hours of use per year.

Example: Engine #1: 250 bhp x 8760 hr/yr = 2,190,000 bhp-hr/yr  
Engine #2: 300 bhp x 5000 hr/yr = 1,500,000 bhp-hr/yr  
Total = 3,590,000 bhp-hr/yr

|              | Horsepower x Permitted Annual Hours (bhp-hr/yr) | CO2e (ton/yr) |
|--------------|---|---------------|
| Diesel:      | 41,700  | 24.56         |
| Natural Gas: |   | 0.00          |
| LPG:         |   | 0.00          |
| Gasoline:    |   | 0.00          |

**Other Combustion Equipment:**

For all other combustion equipment (boilers, dryers, gas turbines, flares, etc.) used in your operation, please enter the permitted total annual fuel usage for each fuel type.

|                      | Permitted Annual Fuel Use (MMBtu/yr) | CO2e (ton/yr) |
|----------------------|--------------------------------------|---------------|
| Natural Gas          | 3,096,000                            | 181,071.11    |
| LPG:                 |                                      | 0.00          |
| Sub-Bituminous Coal: |                                      | 0.00          |
| Bituminous Coal:     |                                      | 0.00          |
| Petroleum Coke:      |                                      | 0.00          |
| #2 Fuel Oil:         |                                      | 0.00          |
| Biomass:             |                                      | 0.00          |
| Digester Gas:        |                                      | 0.00          |
| Landfill Gas:        |                                      | 0.00          |

**Results**

Total CO2e (ton/yr): 181,095.67

Total CO2e emissions are greater than 100,000 tons/yr, and the total mass GHG emissions is greater than 100 tons/yr. Therefore, this facility is a Major Source for Greenhouse Gases and is subject to Title V permitting.