San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

FEB 0 4 2013

George Carroll
California Spray Dry Company
PO Box 5035
Stockton, CA 95205

**Re: Notice of Preliminary Decision - Emission Reduction Credits**
**Project Number: N-1094031**

Dear Mr. Carroll:

Enclosed for your review and comment is the District's analysis of California Spray Dry Company's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a natural gas-fired spray dryer, at 4221 E Mariposa Road in Stockton, CA. The quantity of ERCs proposed for banking is 1,317 lb-NOx/yr, 77 lb-SOx/yr, 2,231 lb-PM10/yr, 3,000 lb-CO/yr, and 197 lb-VOC/yr.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. James Harader of Permit Services at (209) 557-6445.

Sincerely,

David Warner
Director of Permit Services

DW:JH

Enclosures

**Seyed Sadredin**
Executive Director/Air Pollution Control Officer

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

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

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

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

FEB 04 2013

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

**Re: Notice of Preliminary Decision - Emission Reduction Credits**
**Project Number: N-1094031**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of California Spray Dry Company's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a natural gas-fired spray dryer, at 4221 E Mariposa Road in Stockton, CA. The quantity of ERCs proposed for banking is 1,317 lb-NOx/yr, 77 lb-SOx/yr, 2,231 lb-PM10/yr, 3,000 lb-CO/yr, and 197 lb-VOC/yr.

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

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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FEB 04 2013

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Emission Reduction Credits**
**Project Number: N-1094031**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of California Spray Dry Company's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a natural gas-fired spray dryer, at 4221 E Mariposa Road in Stockton, CA. The quantity of ERCs proposed for banking is 1,317 lb-NOx/yr, 77 lb-SOx/yr, 2,231 lb-PM10/yr, 3,000 lb-CO/yr, and 197 lb-VOC/yr.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. James Harader of Permit Services at (209) 557-6445.

Sincerely,

David Warner
Director of Permit Services

DW:JH

Enclosure

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Stockton Record
Stockton Record

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to California Spray Dry Company for the shutdown of a natural gas-fired spray dryer, at 4221 E Mariposa Road in Stockton, CA. The quantity of ERCs proposed for banking is 1,317 lb-NOx/yr, 77 lb-SOx/yr, 2,231 lb-PM10/yr, 3,000 lb-CO/yr, and 197 lb-VOC/yr

The analysis of the regulatory basis for this proposed action, Project #N-1094031, is available for public inspection at http://www.valleyair org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.**

**ERC Application Evaluation**
**Project # N-1094031**
**Application # N-904-1, '-2, '-3, '-4, and '-5**

Engineer: James Harader
Date: January 8, 2013

Company Name: California Spray Dry Company
Mailing Address: PO Box 5035
Stockton, CA 95205

Contact Name: George F. Carroll
Phone: (530) 339-2110

Date Application Received: September 9, 2009
Date Application Deemed Complete: January 1, 2012

## I. Summary:

The applicant is proposing to receive the following quantities of Emission Reduction Credits (ERC's) for reductions in emissions due to the removal of a spray dryer at an animal rendering facility.

| | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Total (annual) |
|---|---|---|---|---|---|
| NOx (lb) | 267 | 353 | 369 | 328 | 1,317 |
| SOx (lb) | 15 | 21 | 22 | 19 | 77 |
| PM10 (lb) | 508 | 686 | 481 | 556 | 2,231 |
| CO (lb) | 609 | 805 | 840 | 746 | 3,000 |
| VOC (lb) | 40 | 53 | 55 | 49 | 197 |

## II. Applicable Rules:

Rule 2301: Emission Reduction Credit Banking (Adopted September 19, 1991) Amended March 11, 1992; Amended December 17, 1992)

## III. Location of Reductions:

The facility is located at 4221 E Mariposa Road in Stockton, CA.

## IV. Method of Generating Reductions:

The facility shut down the following unit on March 15, 2009, followed by a request cancel the Permit to Operate and an application for ERC credits on September 9, 2009.

N-164-1-10: 24 MMBTU/HR SPRAY DRYER SERVED BY AN ODOR SCRUBBER WITH A DIFFUSION HOOD ON THE END OF THE EXHAUST STACK AFTER THE SCRUBBER AND A BAGGING OPERATION SERVED BY THE SPRAY DRYER

## V. ERC Calculations:

### A. Assumptions and Emission Factors:

#### Assumptions:

- The results of all Historical Actual Emission (HAE) and Actual Emission Reduction (AER) calculations are rounded to the nearest whole number.

#### Emission Factors:

Combustion Emissions:

Actual source testing data is not available for this unit. The following table lists the permitted emission factors for the spray dryer and the applicable Rule 4309 emission limits. The lowest emission factor, designated in bold font, will be used in determining the quantity of historical actual emissions.

| Pollutant | Permitted Emission Factor (lb/MMBtu) | District Rule 4309 Emission Limits (lb/MMBtu) | SCAQMD Rule 1147 Emission Limits (lb/MMBtu) |
|---|---|---|---|
| NOx | 0.098 | 0 048 (Equivalent to 4.3 ppmvd @ 19% O2) | **0.036** |
| SOx | **0.0021** | N/A | N/A |
| PM10 | **0.0075** | N/A | N/A |
| CO | **0.082** | 0.286 lb/MMBtu (Equivalent to 42 ppmvd @ 19% O2) | N/A |
| VOC | **0.0054** | N/A | N/A |

Process Emissions from Drying and Bagging:

In addition to combustion emissions from natural gas, the drying and bagging operation emits particulates from the handling of the dried material The unit was primarily used for the drying of blood plasmas from beef and pork. The permit does not include an emission limit for process emissions. Furthermore, the unit has never been source tested. California Spray Dry operates a similar unit, N-164-19. That unit was source tested in March 2009. The average result of the three testing runs was 0.9644 lb-PM10/ton, and 1.1769 lb-PM/ton. This data will be used to determine the historical actual emissions.

**B. Baseline Period Determination and Data:**

**Baseline Period Determination:**

Per section 3 8 of District Rule 2201, the Baseline Period for calculating AER's should be the two year period immediately preceding the ERC application unless another period is deemed more representative of normal source operation. District policy APR-1810 was consulted for further guidance regarding proper Baseline Period selection. To determine whether an alternative Baseline Period is appropriate it is District practice to average five years (20 calendar quarters) of production data and compare that average to the average production rate during the two consecutive years (8 complete calendar quarters) immediately preceding the application for the ATC's authorizing the reductions. If those averages are not equal, then the District may concur that the two years immediately preceding the ATC application date is not representative of normal source operation.

If an alternative Baseline Period is deemed appropriate, the District will examine every 8 consecutive calendar quarter period within the five year period described above and will define the Baseline Period as the 8 consecutive calendar quarters whose production rate was closest to the five year average production rate.

This process essentially defines normal source operation as the average production rate during that five-year period and defines the baseline period as the two consecutive years, within that period, whose average production rate is closest to the five year average production rate. For this operation, the quantity of material dried is the product considered when determining the baseline period.

The table below includes three columns The first column identifies the calendar quarter, the second column shows the quantity of material dried during that quarter, and the third column shows the difference between the production rate during the previous 8 calendar quarters and the average 5-year production rate. Positive values indicate that the 8-calendar quarter average was higher than the 5-year average and negative values indicate the 8-calendar quarter average was less than the 5-year average.

For example, the total quantity of material dried for the 8 calendar quarters ending with the fourth calendar quarter of 2006 (Quarter 1 of 2005 through Quarter four of 2006) is 13,063,556 lb, making the average emissions for that period 1,632,945 pounds per quarter. The difference between the average quarterly emissions for that period and the 5-year average of 1,115,351 lb/quarter is 517,594 lb/quarter.

| Calendar Quarter | Quantity of Material Dried (lb) | 8 Quarter Difference from 5 Year Average (lb) |
|---|---|---|
| Q4 2004 | 1,387,313 | --- |
| Q1 2005 | 1,738,910 | --- |
| Q2 2005 | 1,645,047 | --- |
| Q3 2005 | 1,584,413 | --- |
| Q4 2005 | 1,981,453 | --- |
| Q1 2006 | 1,924,620 | --- |
| Q2 2006 | **1,935,994** | --- |
| Q3 2006 | **893,706** | 521,081 |
| Q4 2006 | **1,359,419** | 517,594 |
| Q1 2007 | **962,227** | 420,509 |
| Q2 2007 | **885,317** | 325,543 |
| Q3 2007 | **968,843** | 248,596 |
| Q4 2007 | **887,346** | 111,833 |
| Q1 2008 | **1,120,120** | **11,271** |
| Q2 2008 | 1,035,835 | -101,249 |
| Q3 2008 | 913,050 | -98,831 |
| Q4 2008 | 802,740 | -168,416 |
| Q1 2009 | 155,203 | -269,294 |
| Q2 2009 | 125,464 | -364,276 |
| Q3 2009 | 0 | -485,381 |
| **5 –Year Average** | **1,115,351 lb/qtr** | --- |

As can be seen, the 8 consecutive calendar quarter period whose production rate is closest to the five year average production rate is Quarter 1 of 2008 back to, and including, Quarter 2 of 2006 (designated in bold font). Therefore, the Baseline Period will therefore be Quarter 2 of 2006 through Quarter 1 of 2008.

**Baseline Period Data:**

**Fuel Usage:**

| Material | Year | Usage (MMBtu) | | | |
|---|---|---|---|---|---|
| | | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
| Natural Gas | 2006 | --- | 9,753 | 10,301 | 10,952 |
| | 2007 | 11,541 | 12,062 | 12,461 | 9,265 |
| | 2008 | 4,980 | --- | --- | --- |
| | **Avg** | **8,261** | **10,908** | **11,381** | **10,109** |

**Quantity of Material Dried:**

| Material | Year | Quantity (pounds) | | | |
|---|---|---|---|---|---|
| | | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
| Beef/Pork Plasma | 2006 | --- | 1,935,994 | 893,706 | 1,359,419 |
| | 2007 | 962,227 | 885,317 | 968,843 | 887,346 |
| | 2008 | 1,120,120 | --- | --- | --- |
| | **Avg** | **1,041,174** | **1,410,656** | **931,275** | **1,123,383** |

**C. Historical Actual Emissions:**

**From Combustion**

| Pollutant & Emission Factor | Usage & HAE | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|---|---|
| **NOx** (0.036 lb/MMBtu) | Usage (MMBtu) | 8,261 | 10,908 | 11,381 | 10,109 |
| | **HAE (lb)** | **297** | **392** | **410** | **364** |
| **SOx** (0.0021 lb/MMBtu) | Usage (MMBtu) | 8,261 | 10,908 | 11,381 | 10,109 |
| | **HAE (lb)** | **17** | **23** | **24** | **21** |
| **PM10** (0.0075 lb/MMBtu) | Usage (MMBtu) | 8,261 | 10,908 | 11,381 | 10,109 |
| | **HAE (lb)** | **62** | **82** | **85** | **76** |
| **CO** (0 082 lb/MMBtu) | Usage (MMBtu) | 8,261 | 10,908 | 11,381 | 10,109 |
| | **HAE (lb)** | **677** | **894** | **933** | **829** |
| **VOC** (0.0054 lb/MMBtu) | Usage (MMBtu) | 8,261 | 10,908 | 11,381 | 10,109 |
| | **HAE (lb)** | **45** | **59** | **61** | **55** |

**From Blood Drying and Bagging**

| Pollutant & Emission Factor | Quantity & HAE | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|---|---|
| PM10 | Quantity (lb) | 1,041,174 | 1,410,656 | 931,275 | 1,123,383 |
| 0 9644 lb/ton | **HAE*** | **502** | **680** | **449** | **542** |

*HAE = Quantity (lb) x 1 ton/2000 lb x PM10 Emission Factor (lb/ton)

**Total HAE:**

Total HAE is equal to the sum of the combustion and process emissions. The following table shows this sum.

| Pollutant | Quarter 1 (lb) | Quarter 2 (lb) | Quarter 3 (lb) | Quarter 4 (lb) |
|---|---|---|---|---|
| NOx | 297 | 392 | 410 | 364 |
| SOx | 17 | 23 | 24 | 21 |
| PM10 | 564 | 762 | 534 | 618 |
| CO | 677 | 894 | 933 | 829 |
| VOC | 45 | 59 | 61 | 55 |

**D. Actual Emission Reductions:**

Per section 4.12 of Rule 2201:

AER = HAE – PE2

Since PE2 is equal to zero, AER is equal to HAE for this project.

**E. Air Quality Improvement Deduction:**

Per District rule 2201, section 4 12 1, a 10% air quality improvement deduction must be applied to the AER's prior to banking. The air quality improvement deductions are as follows:

| | Quarter 1 [lb] | Quarter 2 [lb] | Quarter 3 [lb] | Quarter 4 [lb] |
|---|---|---|---|---|
| NOx | 30 | 39 | 41 | 36 |
| SOx | 2 | 2 | 2 | 2 |
| PM10 | 56 | 76 | 53 | 62 |
| CO | 68 | 89 | 93 | 83 |
| VOC | 5 | 6 | 6 | 6 |

**F. Bankable Emissions Reductions:**

The bankable reductions are the difference between the AER's and the Air Quality Improvement Deduction. The table below shows the bankable emission reductions after performing this calculation.

| | Quarter 1 [lb] | Quarter 2 [lb] | Quarter 3 [lb] | Quarter 4 [lb] |
|---|---|---|---|---|
| NOx | 267 | 353 | 369 | 328 |
| SOx | 15 | 21 | 22 | 19 |
| PM10 | 508 | 686 | 481 | 556 |
| CO | 609 | 805 | 840 | 746 |
| VOC | 40 | 53 | 55 | 49 |

## VI. Compliance:

**A. Real Reductions:**

The reductions were generated due to a shutdown of blood dryer #1. While the facility still retains a permit to operate for a second blood dryer (blood dryer #2), the facility modified the permit to operate in 2008 (prior to shutting down blood dryer #1) to limit the throughput to 12,738 tons/year (equivalent to 25,476,000 lb/year). The actual 2008 processing rate for blood dryer #2 was 23,349,520 lb, or nearly 92% of the emission limit accepted by the facility Therfore, there was little room for blood dryer #2 to absorb product throughput after the shutdown of #1. Furthermore, the processing rate for blood dryer #2 has dropped significantly since then, processing only 2,346,809 lb of material in 2011. The facility does not operate any other equipment for processing this type of material, nor does it operate any other facilities that process animal matter Therefore, the production rate was not absorbed by the remaining blood dryer and the reductions are real

**B. Enforceable Reductions:**

The reductions for which ERC's are proposed were generated by shutting down equipment and surrendering the Permit to Operate. Operation of the spray dryer would result in enforcement action being taken. Therefore, the reductions are enforceable.

**C. Quantifiable Reductions:**

The baseline period emissions were calculated utilizing District approved emission factors and actual baseline period data. Therefore, the reductions are quantifiable.

**D. Permanent Reductions:**

As stated in the discussion titled "Real Reductions", shown earlier, the only other unit that processes blood plasma is blood dryer #2 (N-164-19-5). Prior to shutting down blood dryer #1, a condition was added to permit to operate for blood dryer #2 that limited the throughput of the unit within less than 10% of the units historical throughput. The proposed bankable reductions are much greater than the difference between the throughput limit for blood dryer #2 and the historical actual throughput. Therefore, the reductions from the shutdown of blood dryer #1 are permanent.

**E. Surplus Reductions:**

The applicant is proposing ERC's for a blood drying operation that utilized a spray dryer. To determine whether or not reductions are surplus, the District must examine its current and proposed rules as well as requirements projected to apply to operations for which ERC's are proposed. The District also considers other District's rules during a surplus emission analysis. After examining all current, pending and projected regulations, the District will discount the emission factors to the level of the most stringent rule. And finally, discounting for any baseline period emission limit violations will also be performed. During this analysis, rules from the following agencies will be considered:

United States Environmental Protection Agency (USEPA)
California Air Resources Board (CARB)
San Joaquin Valley Air Pollution Control District (SJVAPCD)
South Coast Air Quality Management District (SCAQMD)
Bay Area Air Quality Management District (BAAQMD)
Sacramento Metropolitan Air Quality Management District (SMAQMD)

Below are the rules that will be considered:

| Agency | Oven Rules | Reduction of Animal Matter Rules |
|---|---|---|
| USEPA | No Applicable Rules | No Applicable Rules |
| CARB | No Applicable Rules | No Applicable Rules |
| SJVAPCD | 4309 | 4104 |
| SCAQMD | 1147 | 472 |
| BAAQMD | No Applicable Rules | Regulation 12, Rule 2 |
| SMAQMD | No Applicable Rules | 410 |

Additionally, SJVAPCD Rules 4201, 4202, and 4801 will be considered.

**Oven Rules:**

**SJVAPCD Rule 4309 (Polyester Resin Operations, 8/18/2011):**

This rule limits emissions from natural gas-fired ovens to 4.3 ppmvd NOx @ 3% O2 (equivalent to 0.048 lb/MMBtu) and 42 ppmvd CO @ 3% O2 (equivalent to 0 285 lb/MMBtu). Historical Actual Emissions were calculated based on emission factors of 0.036 lb-NOx/MMBtu and 0.082 lb-CO/MMBtu, which are lower than the Rule 4309 limits. Thus, the proposed bankable emission reductions are surplus of District Rule 4309 requirements.

**SCAQMD Rule 1147 (NOx Reductions from Miscellaneous Sources, 12/5/2008)**

This rule limits NOx emissions to 0.036 lb/MMBtu for ovens that operate at less than 800 degrees Fahrenheit. The historical actual emissions were calculated based on an emission factor of 0.036 lb-NOx/MMBtu; therefore, the proposed bankable emission reductions are surplus of SCAQMD Rule 1147 requirements.

**Reduction of Animal Matter Rules:**

**SJVAPCD Rule 1104 (Reduction of Animal Matter, 12/17/1992)**
**SCAQMD Rule 472 (Reduction of Animal Matter, 5/7/1976)**
**BAAQMD Regulation 12, Rule 2 (Rendering Plants, N/A)**
**SMAQMD Rule 410 (Reduction of Animal Matter, 8/3/1977)**

The rules listed above have identical requirements for the reduction of animal matter The rules each require equipment that reduces animal matter to be vented to a thermal oxidizer with a chamber temperature of at least 1200 degrees Fahrenheit and at least 0.3 seconds retention time, or the use of pollution control equipment that provides an equivalent level of pollution control. The spray dryer was served by a packed bed odor scrubber that was determined to provide an equivalent level of control as a thermal oxidizer with the above-listed parameters Therefore, the proposed bankable emission reduction credits are surplus of the above-listed rules.

**Other Rules:**

**SJVAPCD Rule 4201**

Section 3.0 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.

Pursuant to the operator, the maximum quantity of material processed is 10 tons per hour and the flow rate at the outlet of the spray dryer is 76,800 cfm @ 200 degrees Fahrenheit. To get a conservative estimate of PM concentration, the gas exit temperature for the scrubber is assumed to be 60 °F.

Gas Flow Rate (Dryer Outlet) = 76,800 cfm @ 200 °F

Gas Flow Rate (Scrubber outlet) = 76,800 × [(460+60) °R ÷ (460+200) °R] = 60,509 cfm

PM Concentration = (10 tons/hr x 1.17 lb-PM/ton × 7,000 grains/lb
− (60,509 cfm × 60 min/hr)

PM = 0.02 grains/scf

PM emissions do not exceed 0.1 grains/dscf. Therefore, the proposed bankable emission reduction credits are surplus of District Rule 4201.

**SJVAPCD Rule 4202**

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 (lb/hr) = 3.59 $P^{0.62}$ for process rates < 30 tons/hr
E (lb/hr) = 17.31 $P^{0.16}$ for process rates > 30 tons/hr

Where P = process weight in tons/hr

For this process, P is equal to 10 tons/hr. Thus,

E = 3.59* $(10)^{0.62}$ = 14.97 lb/hr

The actual PM emission rate was 11.7 lb-PM/hr (10 tons/hr x 1.17 lb-PM/ton). Therefore, the proposed emission reduction credits are surplus of District Rule 4202.

**SJVAPCD Rule 4801**

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

Compliance with this requirement was previously demonstrated in District Project N-1020126 for this unit. Therefore, the proposed bankable emission reduction credits are surplus of District Rule 4801 requirements

**F. Timeliness:**

The application for the emission reduction credits was received within 180 days of shutdown of the unit. Therefore, the application was timely.

## VII. Recommendation:

Issue an Emission Reduction Credit Certificate to California Spray Dry in the following amounts:

| | Quarter 1 [lb] | Quarter 2 [lb] | Quarter 3 [lb] | Quarter 4 [lb] |
|---|---|---|---|---|
| NOx | 267 | 353 | 369 | 328 |
| SOx | 15 | 21 | 22 | 19 |
| PM10 | 508 | 686 | 481 | 556 |
| CO | 609 | 805 | 840 | 746 |
| VOC | 40 | 53 | 55 | 49 |

## VIII. Appendices

Appendix A: Permit to Operate N-164-1-10
Appendix B: Draft Emission Reduction Credit Certificate

# Appendix A
# Permit to Operate N-164-1-10

INSPECTION

**EXPIRATION DATE:** 08/31/2012

**LEGAL OWNER OR OPERATOR:** CALIFORNIA SPRAY DRY CO
**MAILING ADDRESS:** P O BOX 5035
STOCKTON, CA 95215

WORKSHEET

**LOCATION:** 4221 E MARIPOSA RD
STOCKTON, CA 95215

**INSPECT PROGRAM PARTICIPANT:** NO

**EQUIPMENT DESCRIPTION:**
24 MMBTU/HR SPRAY DRYER SERVED BY AN ODOR SCRUBBER WITH A DIFFUSION HOOD ON THE END OF THE EXHAUST STACK AFTER THE SCRUBBER AND A BAGGING OPERATION SERVED BY THE SPRAY DRYER

# CONDITIONS

1. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
2. The temperature of the gas stream entering the scrubber shall not exceed 115 øF. [District Rule 2201]
3. A continuous temperature monitoring and recording device shall be installed and maintained. Temperature readings shall be continuously recorded while the scrubber is in operation. [District Rule 2201]
4. The pressure drop in the gas stream flowing through the scrubber (from inlet to outlet) shall be continuously monitored and recorded in inches of water column. The pressure drop shall not exceed 6 5" W C. [District Rule 2201]
5. The pH of the scrubbing liquor utilizing caustic ingredients shall be maintained between 9.0 and 10.2. [District Rule 2201]
6. The pH of the scrubbing liquor utilizing peracetic acid shall be less than 7.0. [District Rule 2201]
7. A continuous pH monitoring and recording device shall be installed and maintained The pH readings shall be continuously recorded while the scrubber is in operation. [District Rule 2201]
8. When using a liquor solution of peracetic acid in the scrubber, the concentration of peracetic acid shall be measured using an oxidation-reduction potential monitoring and recording system. The reading shall be in millivolts and shall not be less than 350 millivolts. The concentration of peracetic acid may be revised by the District in order to optimize the control efficiency. [District Rule 2201]
9. The gas flow rate into the scrubber shall not exceed 78,000 acfm. The flow rate may be changed as necessary by the District to optimize the control efficiency based on the source test results. [District Rule 2201]
10. The recirculation flow rate of the liquor shall be no less than 300 gallons per minute Continuous monitoring and recording equipment shall be used to monitor the liquor flow rate to the scrubber. The liquor recirculation flow rate shall be continuously recorded while the scrubber is in operation. [District Rule 2201]
11. Fresh make-up water shall be added to the scrubber liquor sump of the scrubber at a minimum rate to be determined during source testing The fresh make-up water shall be added to the sump at a location to ensure maximum scrubber efficiency. The liquor sump level shall be maintained at the level recommended by the scrubber manufacturer. [District Rule 2201]
12. When using chlorine gas injection into the contaminated air stream, the injection rate shall be optimized to provide the maximum odor control. [District Rule 2201]
13. This spray dryer shall only be fired on natural gas. [District Rule 2201]
14. NOx emissions shall not exceed 0 098 lb/MMBtu from the combustion of natural gas [District Rule 2201]
15. CO emissions shall not exceed 0.082 lb/MMBtu from the combustion of natural gas. [District Rule 2201]
16. VOC emissions shall not exceed 0.0054 lb/MMBtu from the combustion of natural gas. [District Rule 2201]
17. PM10 emissions shall not exceed 0.0075 lb/MMBtu from the combustion of natural gas. [District Rule 2201]
18. SOx emissions shall not exceed 0.0021 lb/MMBtu from the combustion of natural gas. [District Rule 2201]

19 {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

INSPECTION WORKSHEET

# Appendix B
# Draft Emission Reduction Credit Certificate

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

# Emission Reduction Credit Certificate
# N-904-1

ISSUED TO: CALIFORNIA SPRAY DRY CO

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 4221 E MARIPOSA RD
STOCKTON, CA 95215

## For VOC Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|
| 40 lbs | 53 lbs | 55 lbs | 49 lbs |

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

Shutdown of blood spray dryer, N-164-1

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

Jan 31 2013 1 8PM - TARADERJ

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

# Emission Reduction Credit Certificate
# N-904-2

**ISSUED TO:** CALIFORNIA SPRAY DRY CO

**ISSUED DATE:** <DRAFT>

**LOCATION OF REDUCTION:** 4221 E MARIPOSA RD
STOCKTON, CA 95215

## For NOx Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|
| 267 lbs | 353 lbs | 369 lbs | 328 lbs |

[ ] Conditions Attached

**Method Of Reduction**

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

Shutdown of blood spray dryer, N-164-1

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

Jan 31 2013 1:16PM – HARADERJ

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

# Emission Reduction Credit Certificate
# N-904-3

**ISSUED TO:** CALIFORNIA SPRAY DRY CO

**ISSUED DATE:** <DRAFT>

**LOCATION OF REDUCTION:** 4221 E MARIPOSA RD
STOCKTON, CA 95215

## For CO Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|
| 609 lbs | 805 lbs | 840 lbs | 746 lbs |

[ ] Conditions Attached

**Method Of Reduction**

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

Shutdown of blood spray dryer, N-164-1

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

Jan 31 2013 1 8P11 HARADERJ

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

# Emission Reduction Credit Certificate
# N-904-4

**ISSUED TO:** CALIFORNIA SPRAY DRY CO

**ISSUED DATE:** <DRAFT>

**LOCATION OF REDUCTION:** 4221 E MARIPOSA RD
STOCKTON, CA 95215

## For PM10 Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|
| 508 lbs | 686 lbs | 481 lbs | 556 lbs |

[ ] Conditions Attached

**Method Of Reduction**

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

**Shutdown of blood spray dryer, N-164-1**

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

Jan 31 2013 1:18PM – HARADERJ

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

# Emission Reduction Credit Certificate
# N-904-5

**ISSUED TO:** CALIFORNIA SPRAY DRY CO

**ISSUED DATE:** <DRAFT>

**LOCATION OF REDUCTION:** 4221 E MARIPOSA RD
STOCKTON, CA 95215

## For SOx Reduction In The Amount Of:

| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 |
|---|---|---|---|
| 15 lbs | 21 lbs | 22 lbs | 19 lbs |

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

Shutdown of blood spray dryer, N-164-1

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

Jan 31 2013 1:15PM - HARADERJ