



JUL 1 2 2017

Mr. William McMurtry
Darling Ingredients Inc.
251 O'Conner Ridge Blvd, Ste 300
Irving, TX 75038

Re: Notice of Preliminary Decision – Title V Permit Renewal District Facility # N-2107
Project # N-1160733

Dear Mr. McMurtry:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Darling Ingredients Inc. at 11946 Carpenter Road, Turlock, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the renewed Federally Mandated Operating Permit. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Sincerely.

Arnaud Marjollet

Director of Permit Services

Enclosures

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

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Southern Region

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Proposed Title V Permit Renewal Evaluation Darling Ingredients Inc. N-2107

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TITLE V PERMIT RENEWAL EVALUATION

Animal Rendering Plant N-2107

Engineer: James Harader

Date: June 30, 2017

Facility Number: N-2107

Facility Name: Darling Ingredients Inc.

Mailing Address: PO BOX 1608

Turlock, CA 95381

Contact Name:

Phone:

Responsible Official:

Title:

Project #: N-1160733

Deemed Complete: March 3, 2016

١. PROPOSAL

Darling International Inc. was previously issued a Title V permit. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the most recent Title V renewal.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

11. **FACILITY LOCATION**

Darling International Inc. is located at 11946 Carpenter Road in Crows Landing, CA.

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, <u>Exemptions</u>
 (amended December 20, 2007 ⇒ amended December 18, 2014)
- District Rule 2201, New and Modified Stationary Source Review Rule (amended December 18, 2008 ⇒ amended February 18, 2016)
- 40 CFR 60 Subpart Dc, <u>Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units</u> (amended June 13, 2007 ⇒ amended February 16, 2012)
- 40 CFR Part 82, Subpart B, <u>Servicing of Motor Vehicle Air Conditioners</u> (amended June 18, 2008 ⇒ amended June 25, 2013)
- 40 CFR Part 82, Subpart F, <u>Recycling and Emission Reduction</u> (amended June 18, 2008 ⇒ amended April 10, 2015)
- 40 CFR Part 64, <u>Compliance Assurance Monitoring</u>

B. Rules Removed

There are no applicable rules that were removed since the last Title V renewal.

C. Rules Added

- District Rule 2410, <u>Prevention of Significant Deterioration</u> (Adopted June 16, 2011)
- 40 CFR 63 Subpart DDDDD, <u>National Emission Standards for Hazardous</u>
 <u>Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters</u> (adopted March 11, 2011, amended November 20, 2015)
- 40 CFR 63 Subpart JJJJJJJ, <u>National Emission Standards for Hazardous Air Pollutants Industrial</u>, <u>Commercial</u>, <u>and Institutional Boilers Area Sources</u> (adopted March 21, 2011, amended September 14, 2016)

D. Rules Not Updated

- District Rule 1070, <u>Inspections</u> (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 17, 1992)
- District Rule 1100, Equipment Breakdown (amended December 17,1992)
- District Rule 2010, <u>Permits Required</u> (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, <u>Standards for Granting Applications</u> (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 4101, Visible Emissions (amended February 17, 2005)
- District Rule 4301, <u>Fuel Burning Equipment</u> (December 17, 1992)
- District Rule 4305, Boilers, <u>Steam Generators and Process Heaters Phase 2</u> (Amended October 21, 2003)
- District Rule 4306, <u>Boilers, Steam Generators and Process Heaters</u> -Phase 3 (Amended October 16, 2008)

- District Rule 4320, <u>Advanced Emission Reduction Options for Boilers</u>, <u>Steam Generators</u>, and <u>Process Heaters Greater than 5.0 MMBtu/hr</u> (Adopted October 16, 2008)
- District Rule 4601, Architectural Coatings (amended December 17, 2009)
- District Rule 4801, <u>Sulfur Compounds</u> (adopted December 17, 1992)
- District Rule 8011, <u>Fugitive Dust General Requirements</u> (amended August 19, 2004)
- District Rule 8021, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Construction, Demolition, Excavation, and Extraction Activities</u> (amended August 19, 2004)
- District Rule 8031, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Handling and Storage of Bulk Materials</u> (amended August 19, 2004)
- District Rule 8041, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Carryout and Trackout</u> (amended August 19, 2004)
- District Rule 8051, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Open Area</u> (amended August 19, 2004)
- District Rule 8061, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Paved and Unpaved Roads</u> (amended August 19, 2004)
- District Rule 8071, <u>Fugitive Dust Requirements for Control of Fine Particulate Matter (PM10) from Unpaved Vehicle/Equipment Areas</u> (amended September 16, 2004)
- 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u> (amended July 20, 2004)

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

A. Rules Added/Updated

None

B. Rules Not Updated

District Rule 4102, Nuisance (as amended December 17, 1992)

VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit or most recent renewal of the Title V permit.

A. District Rule 2020 - Exemptions

District Rule 2020 lists equipment which is specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

B. District Rule 2201 - New and Modified Stationary Source Review Rule (NSR)

District Rule 2201 has been amended since this facility's initial Title V permit was issued. However, the requirements of this rule are only triggered at the time the source undergoes a modification. All applicable requirements from any NSR permit actions have already been incorporated into the current Title V permit.

C. District Rule 2410 – Prevention of Significant Deterioration (PSD)

District Rule 2410 has been newly adopted since this Title V permit was last renewed. However the requirements of this rule are only triggered at the time the source undergoes a modification. All applicable requirements from any PSD permit actions have already been incorporated into the current Title V permit.

D. District Rule 2520 - Federally Mandated Operating Permits

No changes to this Rule have occurred since the issuance of the previous TV permit; however, greenhouse gas emissions will be addressed under Rule 2520 during this renewal.

Greenhouse Gas Discussion

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40 CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40 CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

E. 40 CFR 60 Subpart Dc – <u>Standards of Performance for Small industrial</u> Commercial-Institutional Steam Generating Units

The two natural gas-fired boilers, N-2107-1 and '-13 are subject to the requirements of Subpart Dc. In addition to natural gas, the boilers may be fired on liquid fuel (yellow grease) during periods of natural gas curtailment.

Section 60.42c lists standards for sulfur dioxide. The standards listed in this section of the subpart are applicable to units fired on coal, coal refuse, and oil. The boilers at this facility are not fired on these fuels; therefore, this section of Subpart Dc is not applicable.

Section 60.43c lists standards for particulate matter. The standards listed in this section of the subpart are applicable to units fired on coal, wood, and oil. The boilers at this facility are not fired on these fuels; therefore, this section of Subpart Dc is not applicable.

Section 60.44c lists compliance and performance test methods and procedures for sulfur dioxide. However, since the boilers at this facility are not subject to the sulfur dioxide standards of this rule, no standard exists to demonstrate compliance with. Thus, sulfur dioxide testing is not required for the boilers at this facility to demonstrate compliance with this subpart.

Section 60.45c lists compliance and performance test methods and procedures for particulate matter. However, since the boilers at this facility are not subject to the particulate matter standards of this rule, no standard exists to demonstrate compliance with. Thus, particulate matter testing is not required for the boilers at this facility to demonstrate compliance with this subpart.

Section 60.46c lists monitoring requirements for sulfur dioxide. However, since the boilers at this facility are not subject to the sulfur dioxide standards of this rule, no standard exists to demonstrate compliance with. Thus, sulfur dioxide monitoring is not required for the boilers at this facility to demonstrate compliance with this subpart.

Section 60.47c lists monitoring requirements for particulate matter. However, since the boilers at this facility are not subject to the particulate matter standards of this rule, no standard exists to demonstrate compliance with. Thus, particulate matter monitoring is not required for the boilers at this facility to demonstrate compliance with this subpart.

Section 60.48c lists reporting and recordkeeping requirements for boilers subject to the Subpart. Section 60.48c(g)(2) requires the facility to record and maintain records of the amount of each fuel combusted during each calendar month. Section 60.48c(i) requires those records to be kept onsite for at least two years.

Conditions #2, #42, and #43 of the draft renewed TV Permit N-2107-1-17 enforces the requirements of this Subpart.

Conditions #3, #24, and #25 of the draft renewed TV Permit N-2107-13-7 enforces the requirements of this Subpart.

F. 40 CFR 63 Subpart DDDDD – <u>National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters</u>

This subpart is applicable to boilers and process heaters that are located at a Major Source of Hazardous Air Pollutant (HAP) emissions. Pursuant to the calculations in Appendix D of this evaluation, HAP emissions from Darling International are less than the Major HAP source thresholds (10 tons per individual HAP and 25 tons of HAPs combined). Thus, this is not a Major Source of HAPs and Subpart DDDDD is not applicable.

G. 40 CFR 63 Subpart JJJJJ – <u>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional</u> Boilers Area Sources

Pursuant to 40 CFR Part 63 Section 11195(e), gas fired boilers are not subject to the requirements of Subpart JJJJJJ. The boilers at this facility meet the definition of gas-fired boiler from this Subpart. Therefore, the boilers at this facility are not subject to the requirements of Subpart JJJJJJ.

H. 40 CFR Part 82, Subparts B and F, <u>Servicing of Motor Vehicle Air</u> Conditioners and Recycling and emissions Reduction

The requirements from Title VI of the CAA (Stratospheric Ozone) are applicable to all sources. The requirements pertain to air conditioners, chillers and refrigerators located at a Title V source and to disposal of air conditioners or maintenance recharging or disposal of motor vehicle air conditioners (MVAC). These requirements are enforced by conditions #27 and 28 of draft Title V PTO (N-2107-0-4).

I. 40 CFR Part 64 - Compliance Assurance Monitoring(CAM)

40 CFR Part 64 requires Compliance Assurance Monitoring for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

Pollutant	Major Source Threshold (lb/year)
NO _X	20,000
SOx	140,000
PM ₁₀	140,000
CO	200,000
VOC	20,000

a. N-2107-1: 48 MMBtu/hr Natural Gas-fired Boiler with Flue-gas Recirculation and Selective Catalytic Reduction

CAM was evaluated for this unit in the previous Title V Renewal (Project N-1093959) and it was determined that CAM is not applicable. There has been no modifications to the unit since the previous renewal; thus, CAM continues to not apply to this unit.

b. N-2107-5: Raw Material Receiving Operation

CAM was evaluated for this unit in the previous Title V Renewal (Project N-1093959) and it was determined that CAM is not applicable. There has been no modifications to the unit since the previous renewal; thus, CAM continues to not apply to this unit.

c. N-2107-9: Animal Rendering Operation with a Venturi Scrubber and Regenerative Thermal Oxidizer

CAM was evaluated for this unit in the previous Title V Renewal (Project N-1093959) and it was determined that CAM is not applicable. There has been no modifications to the unit since the previous renewal; thus, CAM continues to not apply to this unit.

d. N-2107-12: Meat and Bone Meal Loadout Operation

CAM was evaluated for this unit in the previous Title V Renewal (Project N-1093959) and it was determined that CAM is not applicable. There has been no modifications to the unit since the previous renewal; thus, CAM continues to not apply to this unit.

e. N-2107-13: 76.93 MMBtu/hr Boiler with Flue Gas Recirculation and Selective Catalytic Reduction

It was determined that CAM is triggered for NOx for this unit during the previous Title V Renewal (Project N-1093959). The operator is required to monitor and record the ammonia flow rate at least once during each day. Conditions #15, #16, #17, #18, #19, #21, #22, and #25 on the Draft Renewed Title V Permit will continue to enforce the CAM requirements for this unit.

IX. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

A. Requirements Addressed by Model General Permit Templates

The applicant did not submit the model general permit templates.

B. Requirements not Addressed by Model General Permit Templates

No additional permit shields were requested.

C. Obsolete Permit Shields From Existing Permit Requirements

The existing permit shields are not obsolete; therefore, no obsolete permit shields were removed.

X. CALIFORNIA ENVIRONMENTAL QUALITY ACT

The purpose of the Title V permit renewal is to update the permit to ensure that any changes to regulations since the issuance of the initial Title V permit or most recent renewal of the Title V permit are incorporated as permit requirements.

Per the California Environmental Quality Act (CEQA) Statute §21080.24, and CEQA Guidelines §15281, the issuance, modification, amendment, or renewal of any permit by an air pollution control district or air quality management district pursuant to Title V is exempt from CEQA, unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility. There will be no physical or operational change to the source or facility nor will the Title V permit renewal authorize a physical or operational change to the source or facility. Therefore, this project, a Title V permit renewal, is subject to a ministerial action that is exempt from CEQA.

XI. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

ATTACHMENTS

- A. Draft Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Summary List of Facility Permits
- D. Facility HAP Emission Calculations

ATTACHMENT A

Draft Renewed Title V Operating Permit

FACILITY: N-2107-0-4

EXPIRATION

FACILITY-WIDE REQUIREMENTS

- {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA, Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
- {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Remail to Operate amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 99313

- {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9,13,2.1] Federally Enforceable Through Title V Permit
- 19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

FACILITY WIDE REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA95313

- 22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official, [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40] CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
- 30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
- 31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
- 32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
- 33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit

FACILITY WIDE REQUIREMENTS CONTINUE ON NEXT PAGE These terms and cardinous are part of the Facility-wide Permit to Operate.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA95313 N-2107-04 Jul 3 2017 9,3544 - HARADERJ

- 34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
- 35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
- 36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. On November 30, 2004, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin December 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 43. Facility-wide PM10 emissions shall not exceed 29,200 lb/year. Permittee shall maintain annual fuel-use records for all combustion devices and applicable records for other PM10 emitting devices to show compliance with this emissions limit. [District Rule 2201] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC
Location: 11946 CARPENTER RD, CROWS LANDING, C
N-2107-04 Jul 3 2017 9 356AM - I IARADERJ

PERMIT UNIT: N-2107-1-17

EQUIPMENT DESCRIPTION:

48 MMBTU/HR NEBRASKA MODEL NS-C-53 NATURAL GAS, DENATURED YELLOW GREASE, OR GREASE-FIRED BOILER WITH A TODD MODEL V651G LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM (FGR), AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

PERMIT UNIT REQUIREMENTS

- 1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas as the primary fuel and "liquid fuel" as a curtailment fuel. [District Rules 2201 and 4301, 5.2.1, and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
- For the purposes of this permit, "liquid fuel" means either yellow grease or yellow grease blended with no more than 1.0% No. 2 fuel oil, by volume. The sulfur content of No. 2 fuel oil blended with yellow grease shall not exceed 15 ppm. [District Rules 2201 and 4320, 5.4.2] Federally Enforceable Through Title V Permit
- The unit shall be fired on "liquid fuel" only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201 and 4320, 4.2.2] Federally Enforceable Through Title V Permit
- The boiler shall be equipped with a non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The boiler shall be equipped with a non-resettable, totalizing liquid fuel flow meter to measure the amount of "liquid 6. fuel" burned, in gallons, [District Rule 2201] Federally Enforceable Through Title V Permit
- The NOx emissions from this unit shall not exceed 43.5 pounds during any one day. The NOx emissions shall be determined utilizing the following equation: [(cubic feet of natural gas burned during non-start-up and non-shutdown periods) x (7.3E-06) + (cubic feet of natural gas burned during start-up and shutdown periods) x (3.6E-05) + (gallons of "liquid fuel" burned) x (6.79E-03)]. [District Rule 2201] Federally Enforceable Through Title V Permit
- Except during start-up and shutdown, emissions from natural gas combustion shall not exceed any of the following limits: 6 ppmv NOx @ 3% O2 or 0.0073 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.1, 4306, 5.1] and 4320, 5.2] Federally Enforceable Through Title V Permit
- During start-up and shutdown periods, emissions from natural gas combustion shall not exceed any of the following limits: 30 ppmy NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
- 10. When fired on "liquid fuel" during curtailment episodes, emissions from this boiler shall not exceed any of the following limits: 40 ppmv NOx @ 3% O2 or 0.052 lb-NOx/MMBtu, 0.0062 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, 142 ppmy CO @ 3% O2 or 0.1049 lb-CO/MMBtu, or 0.0056 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.1, 4306, 5.1 and 4320, 5.4.2] 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.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 953 N-2107-1-17, Jul 3 2017 9-35AM—HARADERJ

- 11. The total duration of startup and shutdown time shall not exceed any of the following limits: 2.0 hours startup per day, 2.0 hours shutdown per day, or 730 hours total startup and shutdown time per year. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
- 12. The ammonia emission rate shall not exceed 10.0 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 4102]
- 13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801 and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
- 14. Source testing to measure natural gas combustion NOx, CO, and NH3 emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4102, 4305, 6.3.1, 4306, 6.3.1 and 4320, 6.3.1] Federally Enforceable Through Title V Permit
- 15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320, 5.8.2] Federally Enforceable Through Title V Permit
- 16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8.1] Federally Enforceable Through Title V Permit
- 17. 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
- 18. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
- 19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
- 20. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
- 21. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. 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
- 23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1, 5.7.2] Federally Enforceable Through Title V Permit

PERMITUNI REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

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Location: 11946 CARPENTER RD, CROWS LANDING, CA958
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- 24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1] Federally Enforceable Through Title V Permit
- 25. 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 Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1] Federally Enforceable Through Title V Permit
- 26. The permittee shall monitor and record the stack concentration of ammonia (NH3) at least once during each month in which a source test is not performed. NH3 monitoring shall be conducted utilizing "short term" tubes or a District approved equivalent method. 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 one day of restarting the unit unless monitoring has been performed within the last month. [District Rule 4102]
- 27. 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 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320, 5.8.2] Federally Enforceable Through Title V Permit
- 28. The portable analyzer shall be calibrated as recommended by the manufacturer. All instrument calibration data shall be kept on file including the date of calibration. The calibration date shall not exceed 6 months prior to the date the stack concentrations are measured and recorded. [District Rule 4305] Federally Enforceable Through Title V Permit
- 29. Concentration measurements shall not be taken until the sample acquisition probe has been exposed to the stack gas for at least 150% of the response time. Measurements shall be taken in triplicate. [District Rule 4305] Federally Enforceable Through Title V Permit
- 30. If water vapor is not removed prior to measurement, the absolute humidity in the gas stream must be determined so that the gas concentrations may be reported on a dry basis. [District Rule 4305] Federally Enforceable Through Title V Permit
- 31. If water vapor creates an interference with the measurement of any component, then the water vapor must be removed from the gas stream prior to concentration measurements. [District Rule 4305] Federally Enforceable Through Title V Permit
- 32. The NOx emission concentration, expressed in ppmv or lb/MMBtu during periods of natural gas curtailment shall be recorded. [District Rule 4320, 6.1.1] Federally Enforceable Through Title V Permit
- 33. If the unit is fired on "liquid fuel" for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for "liquid fuel" NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on "liquid fuel" solely to perform monitoring. [District Rule 4320, 4.2] Federally Enforceable Through Title V Permit

PERMITUUIT REDUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313

- 34. The "liquid fuel" NOx emission readings shall be taken with the unit operating either at conditions representative of normal operations. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4320, 5.8.4] Federally Enforceable Through Title V Permit
- 35. Daily and annual records of "liquid fuel" consumption consisting of the date, the amount of fuel combusted (in gallons), and the reason of combusting "liquid fuel" shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 36. Records of the daily NOx emissions from this unit shall be kept for any day that the "liquid fuel" is burned. [District Rule 2201] Federally Enforceable Through Title V Permit
- 37. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rule 4320] Federally Enforceable Through Title V Permit
- 38. Copies of all natural gas fuel invoices and test results to determine compliance with the conditions of this permit shall be maintained. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 39. Daily and annual records of start-up and shutdown durations and number of occurrences of each shall be kept. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 6.1.4] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
- 41. The permittee shall monitor and record the cumulative annual hours of operation on "liquid fuel" during periods of natural gas curtailment and equipment testing. [District Rule 4320, 6.1.1] Federally Enforceable Through Title V Permit
- 42. The permittee shall record and maintain records of the amount of each fuel combusted during each calendar month. The record shall be updated on at least a monthly basis. [40 CFR 60.48c(g)(2)] Federally Enforceable Through Title V Permit
- 43. 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, 4305, 6.1, 4306, 6.1 and 4320, 6.1, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC
Location: 11946 CARPENTER RD, CROWS LANDING, C
N-2107-1-17 Jul 3 2017 9354M - HARADERJ

PERMIT UNIT: N-2107-5-8

EQUIPMENT DESCRIPTION:

A RAW MATERIAL RECEIVING OPERATION EQUIPPED WITH OUTDOOR RAW MATERIAL RECEIVING CONCRETE SLABS, GRINDING SYSTEM, AND PRIMARY AND SECONDARY WASTEWATER TREATMENT SYSTEM WITH DAF UNIT AND AN OUTDOOR WASTEWATER LAGOON SYSTEM (PERMIT EXEMPT LOW EMITTING UNIT)

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained and operated according to the specifications and plans contained in the permit 1. application except as otherwise specified herein. [District NSR Rule] Federally Enforceable Through Title V Permit
- The Air Pollution Control District shall be immediately notified of any breakdown or malfunction that reduces or disrupts the normal processing of odors required by this permit. [District Rules 1100 and 4102] Federally Enforceable Through Title V Permit
- The District shall have authority to investigate possible odors alleged to originate from the facility and to make a determination of whether or not a nuisance exists, either in response to a complaint or on its own initiative. [District Rules 1070 and 4102] Federally Enforceable Through Title V Permit
- The APCO or any authorized representative shall have access to inspect any equipment, operation, records, method required in this permit, to sample emissions from the source or require samples to be taken, or perform any other actions to assure compliance with the requirements of this permit and all District rules and regulations, [District Rule 1070] Federally Enforceable Through Title V Permit
- The premises of the plant except for raw material receiving and storage areas and their associated pits and bins shall be kept clean and free from spillage of raw or finished materials, refuse, and standing pools of water which may present a nuisance condition. All raw material spills shall be cleaned up immediately. [District Rule 4102]
- The delivery truck holding time shall not exceed 48 hours and the animal mortality holding time shall not exceed 96 hours from the time the raw materials enter the property. [District Rule 4102]
- No storage of raw materials outside of the pits, bins, or open slab areas is permitted. [District NSR Rule and Rule 4102] Federally Enforceable Through Title V Permit
- 8. Raw material receiving areas (pits/bins and open slabs) not currently holding raw material for processing shall be cleaned daily. [District Rule 4102]
- Trucks waiting their turn to unload within the 48 or 96 hour unload time limitation are not considered storage outside of the pit/slab area. [District Rule 4102]
- 10. All trucks and truck tires delivering raw material shall be washed clean of raw material and raw material residue prior to exiting the facility premises in order to minimize trackout of raw material and raw material residue. [District Rule 41027
- 11. All raw material trucks shall be maintained in condition to prevent leakage of any solid or liquid material. [District Rule 4102]
- 12. The rendering plant shall not be operated unless the odor control system is operating and in full use. [District NSR] Rule] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 953 N-2107 5-8 Jul 3 2017 0 35AM - HARADERJ

- 13. Total facility raw material process rate shall not exceed 1,650,000 pounds (825 tons) per day or 602,250,000 pounds (301,125 tons) per year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 14. Except during periods of equipment breakdown as determined by the District under Rule 1100, all raw material received shall be processed within 24 hours of entering the receiving pits and in compliance with other conditions in this permit. Raw material shall be monitored to ensure that processing is performed within this time limit using plant processing records. [District Rules 1100 and 4102]
- 15. If raw material cannot be processed within the time constraints of this permit, raw material shall be diverted to other facilities. No further deliveries shall be received until a 48 (or 96) hour turnaround for raw material is achievable. [District Rule 4102]
- 16. The owner and/or operator shall comply with all the provisions of District Rule 4102, Nuisance. [District Rule 4102]
- 17. Permittee shall keep daily and annual records of the amount of raw material received. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, I

N-2107 518 Jul 3 2017 9:35AM -- HARADER

PERMIT UNIT: N-2107-9-16

EXPIRATION DA

EQUIPMENT DESCRIPTION:

ANIMAL RENDERING OPERATION INCLUDING SEVEN DUPPS PRE-HEAT COOKERS, A HANRSLEY 2564 COOKER AND AIR-COOLED CONDENSER SERVED BY A 3.0 MMBTU/HR NATURAL GAS-FIRED GULF COAST ENVIRONMENTAL REGENERATIVE THERMAL OXIDIZER (RTO) WITH A VENTURI SCRUBBER PRIOR TO THE RTO

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally 1. Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rules 2520, 9.3.2, 4801 and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
- Tallow and yellow grease storage tanks shall be kept in good operating condition. These tanks shall not contribute to a nuisance condition. [District Rule 4102]
- The differential pressure gauge reading range for the venturi scrubber prior to the regenerative thermal oxidizer shall 4. be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
- The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- The emissions from the 3.0 MMBtu/hr RTO exhaust shall not exceed any of the following limits: 2.94 lb NOx/hr, 3.36 lb CO/hr, 3.32 lb PM10/hr, 2.66 lb SOx/hr, or 0.053 lb VOC/hr (based on a 30 minute averaging period). [District Rule 2201] Federally Enforceable Through Title V Permit
- The total facility raw material process rate shall not exceed 1,650,000 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- The RTO shall be operated at a temperature of no less than 1400 degrees Fahrenheit and the retention time is to be no less than 1 second. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- The temperature in the RTO shall be monitored and continuously recorded while in operation. The monitoring and recording equipment shall be properly installed, properly maintained and in proper calibration at all times. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 10. The RTO shall be heated to the proper operating temperature prior to any contaminated process air entering the oxidizer. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 11. The RTO shall continue to operate after the shut-down of the rendering processes until all contaminated process air is incinerated. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 12. Facility-wide PM10 emissions shall not exceed 29,200 lbs per year. Operator shall maintain copies of all natural gas fuel invoices, and records of hours of operation of the RTO in order to show compliance with this emissions limit. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 13. The permittee shall keep a record of the daily quantity of the law material processed at this facility, in pounds. [District Rule 2201] Federally Enforceable Through Fille K Remin

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95318

14. All records shall be retained for a minimum of five years, and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-2107-12-3

EXPIRATION DAILE 08/3/1/2016

EQUIPMENT DESCRIPTION:

MEAT AND BONE MEAL LOADOUT OPERATION WITH ONE 104 TON STORAGE/LOADOUT BIN/THIREE 84 TON STORAGE/LOADOUT BINS, ONE 450 TON STORAGE/LOADOUT BIN, CRAX RECEIVING, TWO HAMMERMILLS, TWO SCREENS, AND A LOADOUT BUILDING WITH VERTILOK STORAGE/LOADOUT BIN

PERMIT UNIT REQUIREMENTS

- 1. All loadout material trucks shall be maintained in condition to prevent leakage of solid or liquid material. [District Rule 4102]
- 2. Equipment shall be operated in such a manner as to not constitute a nuisance or annoyance to a considerable number of people. [District Rule 4102]
- 3. The District shall have authority to investigate possible odors alleged to originate from the facility and to make a determination of whether or not a nuisance exists, either in response to a complaint or on its own initiative. [District Rule 4102]
- 4. The District shall have access to the facility at any time to inspect operations, review records or perform other actions to assure compliance. [District Rule 1070] Federally Enforceable Through Title V Permit
- 5. Total meat and bone meal loaded into delivery trucks shall not exceed 1,200 tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. Emissions from the meat and bone meal loadout operation shall not exceed 3.0 lb PM10/day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Records required by this permit shall be maintained and retained for at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 953 N-2107-12-3 Jul 3 2017 9:385M - HARADERJ

PERMIT UNIT: N-2107-13-7

EQUIPMENT DESCRIPTION:

76.93 MMBTU/HR NEBRASKA MODEL NS-E-57 NATURAL GAS-FIRED BOILER EQUIPPED WITH A FLUE GAS RECIRCULATION (FGR) SYSTEM AND AMMONIA SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 & 4320, and 40 CFR 60.48c(d)] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.073 lb-CO/MMBtu, or 0,0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The ammonia emission rate shall not exceed 10 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 4102]
- Source testing to measure NOx, CO, and ammonia (NH3) emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 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
- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 10. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. Source testing for ammonia slip shall be conducted utilizing RAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE are part of the Facility-wide Permit to Operate. These terms and conditional

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- 13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 14. 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
- 15. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications or District-approved monitoring equipment. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. 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 it has been performed within the last month. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 16. The ammonia (NH3) flow rate range shall be established during required source tests. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 17. The permittee shall monitor and record the ammonia (NH3) flow rate at least once during each day. 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. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 18. If the NOx, CO or ammonia (NH3) concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 19. All NOx, CO, O2 and ammonia (NH3) emission readings and ammonia (NH3) flow rate readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 20. 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 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 21. Ammonia (NH3) emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

are part of the Facility-wide Permit to Operate.

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- 22. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements and NH3 flow rate, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 23. The permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit
- 24. Section 60.46c lists monitoring requirements for sulfur dioxide. However, since the boilers at this facility are not subject to the sulfur dioxide standards of this rule, no standard exists to demonstrate compliance with. Thus, sulfur dioxide monitoring is not required for the boilers at this facility to demonstrate compliance with this subpart. [40 CFR 60.48c(g)(2)]
- 25. 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, 4305, 4306, and 4320, 40 CFR Part 64, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

ATTACHMENT B

Previous Title V Operating Permit

EXPIRATION DATE: 08/31/2016 FACILITY: N-2107-0-3

FACILITY-WIDE REQUIREMENTS

- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.13.1] Federally Enforceable Through Title V Permit
- A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or 8, measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement, [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

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- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

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- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.11 Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09), [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8021] Federally Enforceable Through Title V Permit
- 30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8031] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8041] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004), [District Rules 8011 and 8051] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8061] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rules 8011 and 8071] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

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- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. On November 30, 2004, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin December 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 43. Facility-wide PM10 emissions shall not exceed 29,200 lb/year. Permittee shall maintain annual fuel-use records for all combustion devices and applicable records for other PM10 emitting devices to show compliance with this emissions limit. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT: N-2107-1-16

EXPIRATION DATE: 08/31/2016

EQUIPMENT DESCRIPTION:

48 MMBTU/HR NEBRASKA MODEL NS-C-53 NATURAL GAS, DENATURED YELLOW GREASE, OR YELLOW GREASE-FIRED BOILER WITH A TODD MODEL V651G LOW-NOX BURNER, A FLUE GAS RECIRCULATION SYSTEM (FGR), AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas as the primary fuel and "liquid fuel" as a curtailment fuel. [District Rules 2201 and 4301, 5.2.1, and 40 CFR § 60.42c(d)] Federally Enforceable Through Title V Permit
- For the purposes of this permit, "liquid fuel" means either yellow grease or yellow grease blended with no more than 1.0% No. 2 fuel oil, by volume. The sulfur content of No. 2 fuel oil blended with yellow grease shall not exceed 15 ppm. [District Rules 2201 and 4320, 5.4.2] Federally Enforceable Through Title V Permit
- The unit shall be fired on "liquid fuel" only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201 and 4320, 4.2.2] Federally Enforceable Through Title V Permit
- The boiler shall be equipped with a non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit. [District Rule 2201] Federally Enforceable Through Title V Permit
- The boiler shall be equipped with a non-resettable, totalizing liquid fuel flow meter to measure the amount of "liquid fuel" burned, in gallons, [District Rule 2201] Federally Enforceable Through Title V Permit
- The NOx emissions from this unit shall not exceed 43.5 pounds during any one day. The NOx emissions shall be determined utilizing the following equation: [(cubic feet of natural gas burned during non-start-up and non-shutdown periods) x (7.3E-06) + (cubic feet of natural gas burned during start-up and shutdown periods) x (3.6E-05) + (gallons of "liquid fuel" burned) x (6.79E-03)]. [District Rule 2201] Federally Enforceable Through Title V Permit
- Except during start-up and shutdown, emissions from natural gas combustion shall not exceed any of the following limits: 6 ppmy NOx @ 3% O2 or 0.0073 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmy CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.1, 4306, 5.1] and 4320, 5.2] Federally Enforceable Through Title V Permit
- During start-up and shutdown periods, emissions from natural gas combustion shall not exceed any of the following limits: 30 ppmy NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 50 ppmv CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
- 10. When fired on "liquid fuel" during curtailment episodes, emissions from this boiler shall not exceed any of the following limits: 40 ppmv NOx @ 3% O2 or 0.052 lb-NOx/MMBtu, 0.0062 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, 142 ppmy CO @ 3% O2 or 0.1049 lb-CO/MMBtu, or 0.0056 lb-VOC/MMBtu. [District Rules 2201, 4305, 5.1, 4306, 5.1 and 4320, 5.4.2] 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.

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- 11. The total duration of startup and shutdown time shall not exceed any of the following limits: 2.0 hours startup per day, 2.0 hours shutdown per day, or 730 hours total startup and shutdown time per year. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 5.6] Federally Enforceable Through Title V Permit
- 12. The ammonia emission rate shall not exceed 10.0 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 4102]
- 13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rule 4801 and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
- 14. Source testing to measure natural gas combustion NOx, CO, and NH3 emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4102, 4305, 6.3.1, 4306, 6.3.1 and 4320, 6.3.1] Federally Enforceable Through Title V Permit
- 15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320, 5.8.2] Federally Enforceable Through Title V Permit
- 16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5, 4306, 5.5 and 4320, 5.8.1] Federally Enforceable Through Title V Permit
- 17. 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
- 18. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. | District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2 | Federally Enforceable Through Title V Permit
- 19. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
- 20. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320, 6.2] Federally Enforceable Through Title V Permit
- 21. Source testing for ammonia slip shall be conducted utilizing BAAQMD method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. 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
- 23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1, 5.7.2] Federally Enforceable Through Title V Permit

- 24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1] Federally Enforceable Through Title V Permit
- 25. 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 Rules 4305, 5.4, 4306, 5.4 and 4320, 5.7.1] Federally Enforceable Through Title V Permit
- 26. The permittee shall monitor and record the stack concentration of ammonia (NH3) at least once during each month in which a source test is not performed. NH3 monitoring shall be conducted utilizing "short term" tubes or a District approved equivalent method. 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 one day of restarting the unit unless monitoring has been performed within the last month. [District Rule 4102]
- 27. 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 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320, 5.8.2] Federally Enforceable Through Title V Permit
- 28. The portable analyzer shall be calibrated as recommended by the manufacturer. All instrument calibration data shall be kept on file including the date of calibration. The calibration date shall not exceed 6 months prior to the date the stack concentrations are measured and recorded. [District Rule 4305] Federally Enforceable Through Title V Permit
- 29. Concentration measurements shall not be taken until the sample acquisition probe has been exposed to the stack gas for at least 150% of the response time. Measurements shall be taken in triplicate. [District Rule 4305] Federally Enforceable Through Title V Permit
- 30. If water vapor is not removed prior to measurement, the absolute humidity in the gas stream must be determined so that the gas concentrations may be reported on a dry basis. [District Rule 4305] Federally Enforceable Through Title V Permit
- 31. If water vapor creates an interference with the measurement of any component, then the water vapor must be removed from the gas stream prior to concentration measurements. [District Rule 4305] Federally Enforceable Through Title V Permit
- 32. The NOx emission concentration, expressed in ppmv or lb/MMBtu during periods of natural gas curtailment shall be recorded. [District Rule 4320, 6.1.1] Federally Enforceable Through Title V Permit
- 33. If the unit is fired on "liquid fuel" for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for "liquid fuel" NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on "liquid fuel" solely to perform monitoring. [District Rule 4320, 4.2] Federally Enforceable Through Title V Permit

- 34. The "liquid fuel" NOx emission readings shall be taken with the unit operating either at conditions representative of normal operations. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4320, 5.8.4] Federally Enforceable Through Title V Permit
- 35. Daily and annual records of "liquid fuel" consumption consisting of the date, the amount of fuel combusted (in gallons), and the reason of combusting "liquid fuel" shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 36. Records of the daily NOx emissions from this unit shall be kept for any day that the "liquid fuel" is burned. [District Rule 2201] Federally Enforceable Through Title V Permit
- 37. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rule 4320] Federally Enforceable Through Title V Permit
- 38. Copies of all natural gas fuel invoices and test results to determine compliance with the conditions of this permit shall be maintained. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 39. Daily and annual records of start-up and shutdown durations and number of occurrences of each shall be kept. [District Rules 2201, 4305, 5.5.6, 4306, 5.3 and 4320, 6.1.4] Federally Enforceable Through Title V Permit
- 40. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
- 41. The permittee shall monitor and record the cumulative annual hours of operation on "liquid fuel" during periods of natural gas curtailment and equipment testing. [District Rule 4320, 6.1.1] Federally Enforceable Through Title V Permit
- 42. 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, 4305, 6.1, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313

PERMIT UNIT: N-2107-5-7

EXPIRATION DATE: 08/31/2016

EQUIPMENT DESCRIPTION:

A RAW MATERIAL RECEIVING OPERATION EQUIPPED WITH OUTDOOR RAW MATERIAL RECEIVING CONCRETE SLABS, GRINDING SYSTEM, AND PRIMARY AND SECONDARY WASTEWATER TREATMENT SYSTEM WITH DAF UNIT AND AN OUTDOOR WASTEWATER LAGOON SYSTEM (PERMIT EXEMPT LOW EMITTING UNIT)

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District NSR Rule] Federally Enforceable Through Title V Permit
- The Air Pollution Control District shall be immediately notified of any breakdown or malfunction that reduces or 2. disrupts the normal processing of odors required by this permit. [District Rules 1100 and 4102] Federally Enforceable Through Title V Permit
- The District shall have authority to investigate possible odors alleged to originate from the facility and to make a determination of whether or not a nuisance exists, either in response to a complaint or on its own initiative. [District Rules 1070 and 4102] Federally Enforceable Through Title V Permit
- The APCO or any authorized representative shall have access to inspect any equipment, operation, records, method required in this permit, to sample emissions from the source or require samples to be taken, or perform any other actions to assure compliance with the requirements of this permit and all District rules and regulations. [District Rule 1070] Federally Enforceable Through Title V Permit
- The premises of the plant except for raw material receiving and storage areas and their associated pits and bins shall be 5. kept clean and free from spillage of raw or finished materials, refuse, and standing pools of water which may present a nuisance condition. All raw material spills shall be cleaned up immediately. [District Rule 4102]
- The delivery truck holding time shall not exceed 48 hours and the animal mortality holding time shall not exceed 96 hours from the time the raw materials enter the property. [District Rule 4102]
- No storage of raw materials outside of the pits, bins, or open slab areas is permitted. [District NSR Rule and Rule 41021 Federally Enforceable Through Title V Permit
- Raw material receiving areas (pits/bins and open slabs) not currently holding raw material for processing shall be 8. cleaned daily. [District Rule 4102]
- Trucks waiting their turn to unload within the 48 or 96 hour unload time limitation are not considered storage outside of the pit/slab area. [District Rule 4102]
- 10. All trucks and truck tires delivering raw material shall be washed clean of raw material and raw material residue prior to exiting the facility premises in order to minimize trackout of raw material and raw material residue. [District Rule 41021
- 11. All raw material trucks shall be maintained in condition to prevent leakage of any solid or liquid material. [District Rule 41021
- 12. The rendering plant shall not be operated unless the odor control system is operating and in full use. [District NSR Rule] 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.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313 N-2107-5-7; Jul 3 2017 8:334M — HARADERJ

- 13. Total facility raw material process rate shall not exceed 1,650,000 pounds (825 tons) per day or 602,250,000 pounds (301,125 tons) per year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
- 14. Except during periods of equipment breakdown as determined by the District under Rule 1100, all raw material received shall be processed within 24 hours of entering the receiving pits and in compliance with other conditions in this permit. Raw material shall be monitored to ensure that processing is performed within this time limit using plant processing records. [District Rules 1100 and 4102]
- 15. If raw material cannot be processed within the time constraints of this permit, raw material shall be diverted to other facilities. No further deliveries shall be received until a 48 (or 96) hour turnaround for raw material is achievable. [District Rule 4102]
- 16. The owner and/or operator shall comply with all the provisions of District Rule 4102, Nuisance. [District Rule 4102]
- 17. Permittee shall keep daily and annual records of the amount of raw material received. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

N-2107-5-7 Jul 3 2017 9:33AM - HARADERJ

PERMIT UNIT: N-2107-9-14

EXPIRATION DATE: 08/31/2016

EQUIPMENT DESCRIPTION:

ANIMAL RENDERING OPERATION INCLUDING SEVEN DUPPS PRE-HEAT COOKERS, A HAARSLEV 2564 COOKER AND AIR-COOLED CONDENSER SERVED BY A 3.0 MMBTU/HR NATURAL GAS-FIRED GULF COAST ENVIRONMENTAL REGENERATIVE THERMAL OXIDIZER (RTO) WITH A VENTURI SCRUBBER PRIOR TO THE RTO

PERMIT UNIT REQUIREMENTS

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [District Rules 2520, 9.3.2, 4801 and Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
- Tallow and yellow grease storage tanks shall be kept in good operating condition. These tanks shall not contribute to a nuisance condition, [District Rule 4102]
- The differential pressure gauge reading range for the venturi scrubber prior to the regenerative thermal oxidizer shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
- The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- The emissions from the 3.0 MMBtu/hr RTO exhaust shall not exceed any of the following limits: 2.94 lb NOx/hr, 3.36 lb CO/hr, 3.32 lb PM10/hr, 2.66 lb SOx/hr, or 0.053 lb VOC/hr (based on a 30 minute averaging period). [District Rule 2201] Federally Enforceable Through Title V Permit
- The total facility raw material process rate shall not exceed 1,650,000 pounds per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- The RTO shall be operated at a temperature of no less than 1400 degrees Fahrenheit and the retention time is to be no less than 1 second, [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- The temperature in the RTO shall be monitored and continuously recorded while in operation. The monitoring and recording equipment shall be properly installed, properly maintained and in proper calibration at all times. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 10. The RTO shall be heated to the proper operating temperature prior to any contaminated process air entering the oxidizer. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 11. The RTO shall continue to operate after the shut-down of the rendering processes until all contaminated process air is incinerated. [District Rules 2201 and 4104] Federally Enforceable Through Title V Permit
- 12. Facility-wide PM10 emissions shall not exceed 29,200 lbs per year. Operator shall maintain copies of all natural gas fuel invoices, and records of hours of operation of the RTO in order to show compliance with this emissions limit. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 13. The permittee shall keep a record of the daily quantity of the raw material processed at this facility, in pounds. [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.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313 N-2107-9-14 Jul 3 2017 9:33AM - HARADERJ

14. All records shall be retained for a minimum of five years, and shall be made readily available for District inspection upon request. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-2107-12-2

EXPIRATION DATE: 08/31/2016

EQUIPMENT DESCRIPTION:

MEAT AND BONE MEAL LOADOUT OPERATION WITH ONE 104 TON STORAGE/LOADOUT BIN, THREE 84 TON STORAGE/LOADOUT BINS, ONE 450 TON STORAGE/LOADOUT BIN, CRAX RECEIVING, TWO HAMMERMILLS, TWO SCREENS, AND A LOADOUT BUILDING WITH VERTILOK STORAGE/LOADOUT BIN

PERMIT UNIT REQUIREMENTS

- All loadout material trucks shall be maintained in condition to prevent leakage of solid or liquid material. [District 1. Rule 4102]
- Equipment shall be operated in such a manner as to not constitute a nuisance or annoyance to a considerable number of people. [District Rule 4102]
- The District shall have authority to investigate possible odors alleged to originate from the facility and to make a determination of whether or not a nuisance exists, either in response to a complaint or on its own initiative. [District Rule 41021
- The District shall have access to the facility at any time to inspect operations, review records or perform other actions to assure compliance. [District Rule 1070] Federally Enforceable Through Title V Permit
- Total meat and bone meal loaded into delivery trucks shall not exceed 1,200 tons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emissions from the meat and bone meal loadout operation shall not exceed 3.0 lb PM10/day. [District Rule 2201] 6. Federally Enforceable Through Title V Permit
- Records required by this permit shall be maintained and retained for at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313 N-2107-122 Jul 3 2017 8:30AM - HARADERJ

PERMIT UNIT: N-2107-13-6

EXPIRATION DATE: 08/31/2016

EQUIPMENT DESCRIPTION:

76.93 MMBTU/HR NEBRASKA MODEL NS-E-57 NATURAL GAS-FIRED BOILER EQUIPPED WITH A FLUE GAS RECIRCULATION (FGR) SYSTEM AND AMMONIA SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

PERMIT UNIT REQUIREMENTS

- All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 & 4320] Federally Enforceable Through Title V Permit
- Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.073 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The ammonia emission rate shall not exceed 10 ppmvd @ 3% O2 over a 15 minute averaging period. [District Rule 41021
- Source testing to measure NOx, CO, and ammonia (NH3) emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests when unit is fired on natural gas, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4102, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 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
- NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 10. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [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.

Facility Name: DARLING INGREDIENTS INC

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313 N-2107-13-8 Jul 3 2017 9:33AM - HARADERJ

- 13. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 14. 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
- 15. The permittee shall monitor and record the stack concentration of NOx, CO, NH3 and O2 at least once during each month in which source testing is not performed. NOx, CO and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications or District-approved monitoring equipment. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. 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 it has been performed within the last month. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 16. The ammonia (NH3) flow rate range shall be established during required source tests. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 17. The permittee shall monitor and record the ammonia (NH3) flow rate at least once during each day. 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. [40 CFR Part 64] Federally Enforceable Through Title V Permit
- 18. If the NOx, CO or ammonia (NH3) concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continues to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 19. All NOx, CO, O2 and ammonia (NH3) emission readings and ammonia (NH3) flow rate readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 20. 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 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 21. Ammonia (NH3) emission readings shall be conducted at the time the NOx, CO and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

Location: 11946 CARPENTER RD, CROWS LANDING, CA 95313 N-2107-13-6 Jul 3 2017 9 334M - HARADERJ

- 22. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3 and O2 measurements and NH3 flow rate, (2) the O2 concentration in percent by volume and the measured NOx, CO and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
- 23. The permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit
- 24. 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, 4305, 4306, and 4320 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

ATTACHMENT C

Detailed Summary List of Facility Permits

SJVUAPCD NORTHERN

Detailed Facility Report For Facility=2107 Sorted by Facility Name and Permit Number

DARLING INGREDIENTS INC	IENTS INC		FAC#	acility Na	N 2107		
CROWS LANDING, CA 95313	, CA 95313		TELEPHO)NE:	9722814409		
PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	YTØ	FEE	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-2107-1-16	48 MMBtu/hr	3020-02 H		1,128.00	1,128.00	K	48 MMBTU/HR NEBRASKA MODEL NS-C-53 NATURAL GAS, DENATURED YELLOW GREASE. OR YELLOW GREASE-FIRED BOILER WITH A TODD MODEL V651G LOW-NOX BURNER. A FLUE GAS RECIRCULATION SYSTEM (FGR), AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM
N-2107-2-0	50 MM BTU/HR	3020-02 H	(46)	1,128.00	1,128.00	Ω	BOILER, KEYSTONE, 50 MMBTU/HR **DELETED PER FACILITY REQUEST - EQUIPMENT NO LONGER IN SERVICE, SN 3/31/98**
N-2107-3-3	69 electric hp	3020-01 C		217.00	217.00	۵	HATCHERY WASTE PROCESSING PLANT SERVED BY ONE (1) 5 X 12 COOKER AND VENTURI SCRUBBER WITH CONDENSER TOWER AND PACKED TOWER
N-2107-4-0	481 HP	3020-01 F	e.	90.999	666.00	Q	COOKER, DUPPS 900
N-2107-5-7	125 HP	3020-01 D	and the same of th	345.00	345.00	∢	A RAW MATERIAL RECEIVING OPERATION EQUIPPED WITH OUTDOOR RAW MATERIAL RECEIVING CONCRETE SLABS, GRINDING SYSTEM, AND PRIMARY AND SECONDARY WASTEWATER TREATMENT SYSTEM WITH DAF UNIT AND AN OUTDOOR WASTEWATER LAGOON SYSTEM (PERMIT EXEMPT LOW EMITTING UNIT)
N-2107-6-3	11,700 kBtu/hr	3020-02 G	4	893.00	893.00	٥	BLOOD PROCESSING PLANT SERVED BY A DUPPS RING DRYER WITH AN 11.7 MMBTU/HR NATURAL GAS-FIRED BURNER AND VENTURI SCRUBBER WITH A CONDENSER TOWER AND A PACKED TOWER
N-2107 <i>-7-2</i>	20,000 KBTU/HR BURNER	3020-02 H	- que	1,128.00	1,128.00	۵	FEATHER PROCESSING PLANT SERVED BY FOUR(4) DUPPS COOKERS, ONE(1) HEIL DRYER WITH A 20 MMBTU/HR NATURAL GAS-FIRED BURNER AND A VENTURI SCRUBBER WITH A CONDENSER TOWER AND A PACKED TOWER
N-2107-8-1	86,168 GALLONS	3020-05 D	s=	203.00	203.00	۵	FEATHER AND BLOOD MEAL LOADOUT BUILDING CONSISTING OF ONE(1) 140 TON VERTILOK STORAGELOADOUT BIN SERVED BY A P&F BIN VENT BAGHOUSE, ONE(1) 30 TON STORAGE/LOADOUT BIN, AND ONE(1) 45 TON STORAGE BIN (TANK L) SERVED BY A BIN VENT SOCK FILTER
N-2107-9-14	3.0 MMBtu/hr	3020-02 F	E .	666.00	00.999	4	ANIMAL RENDERING OPERATION INCLUDING SEVEN DUPPS PREHEAT COOKERS, A HAARSLEV 2564 COOKER AND AIR-COOLED CONDENSER SERVED BY A 3.0 MMBTU/HR NATURAL GAS-FIRED GULF COAST ENVIRONMENTAL REGENERATIVE THERMAL OXIDIZER (RTO) WITH A VENTURI SCRUBBER PRIOR TO THE RTO
N-2107-11-1	57,700 kBtu/hr	3020-02 H	-	1,128.00	1,128.00	O	TEMPORARY REPLACEMENT EMISSION UNIT: 57.7 MMBTU/HR NEBRASKA BOILER EQUIPPED WITH NEBRASKA MARK-1 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION SYSTEM

7/3/17 9:35 am	
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SJVUAPCD NORTHERN

Detailed Facility Report For Facility=2107 Sorted by Facility Name and Permit Number

FEE FERMIT QTY AMOUNT TOTAL STATUS EQUIPMENT DESCRIPTION	270.00 A MEAT AND BONE MEAL LOADOUT OPERATION WITH ONE 104 TON STORAGE/LOADOUT BIN, THREE 84 TON STORAGE/LOADOUT BINS, ONE 450 TON STORAGE/LOADOUT BIN, CRAX RECEIVING, TWO HAMMERMILLS, TWO SCREENS, AND A LOADOUT BUILDING WITH VERTILOK STORAGE/LOADOUT BIN	1.128.00 1.128.00 A 76.93 MMBTU/HR NEBRASKA MODEL NS-E-57 NATURAL GAS-FIRED BOILER EQUIPPED WITH A FLUE GAS RECIRCULATION (FGR) SYSTEM AND AMMONIA SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM
TION FEE RULE	3020-051	з Воіler 3020-02 I
PERMIT NUMBER FEE DESCRIPTION	12-2 259,948 gallons	13-6 76.93 MMBtu/hr Boiler
PERMIT	N-2107-12-2	N-2107-13-6

Number of Facilities Reported: 1

ATTACHMENT D

Facility HAP Emission Calculations

Hazardous Air Pollutant	N-2107-1-16 (NG)	N-2107-1-16 (YG)	N-2107-5-7 and '-12-2	N-2107-9-14	N-2107-13-6	Total (lb/year)	Total (tons/year)
1,3 Butadiene	0	0.729	0	0	0	0.729	0.000365
Acetaldehyde	1.27	0.321	0	0	2.09	3.681	0.001841
Acrolein	1.11	0.321	0	0	1.82	3.251	0.001626
Benzene	2.38	1.78	0	0	3.91	8.07	0.004035
Biphenyl	0	0	0	1460	0	1460	0.73
Cadmium	0	0	0.00375	0	0	0.00375	1.88E-06
Chloroform	0	0.315	0	0	0	0.315	0.000158
Chromium	0	0.21	0.0353	0	0	0.2453	0.000123
Cobalt	0	0.00816	0	0	0	0.00816	4.08E-06
Ethyl Benzene	2.83	0.132	0	0	4.65	7.612	0.003806
Formaldehyde	5.04	26.5	0	0	8.29	39.83	0.019915
Hexane	1.89	0	0	0	3.1	4.99	0.002495
Lead	0	0.0699	0.0238	0	0	0.0937	4.69E-05
Manganese	0	0	1.28	0	0	1.28	0.00064
Napthalene	0.123	3.15	0	13900	0.202	13903.48	6.951738
Nickel	0	0.117	0.187	0	0	0.304	0.000152
PAH's	0.041	0	0	0	0.0674	0.1084	5.42E-05
Propylene	217	1.39	0	0	357	575.39	0.287695
Toluene	10.9	0.76	0		17.9	29.56	0.01478
Xylenes	8.08	0.705	0	0	13.3	22.085	0.011043
Zinc	0	1.4	1.39	0	0	2.79	0.001395
				1	otal	16063.82	8.031911

Applicability Use this spraadsheef for Natural Case—Fired External Combustion (Boilers, Burded) Figure 1.02 (Burled) Page 1.02 (Burled)<	Name	Z	Natural Gas-Fi		xternal C	red External Combustion	ū							
Parting	Applicability	Use this s heaters	spreadsheet f		Fired Externation yellow areas,	al Combustion output in grey	(Boilers, areas.							
N-2107-1	Author or updater	Matthew	Cegielski	-	March 1	0,2015								
Miscript	Facility: D#: Project #:	Darling N-2107-1												
1,00E+00 100	nputs	Rate MMscf /hr	Rate MMscf /yr		Forn	nula								
MMBTUNT 100E+00 410.112 Incressesty rate. Emissions are calculated by the marginal and supply	<10 MMBTU/hr	1.00E+00	100	ō										
MMBTUNK 1.00E+00 100	10-100 MMBTU/hr	1.00E+00	410.112	Choose on	e of the MMBi	tu ratings and	supply the							
1,00E+00 100	> 100 MMBTU/hr	1.00E+00	100	multiplication	iale. Emissio. A of Eucl Date	ns are Calcula or and Emissiv	ted by trie							
Flare Emission Factor Ibs/ MMscf 4.30E-02 1.00E-02 1.59E-01 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 1.00E-02 2.90E-02 2.90E-02 2.44E+00 5.80E-02 2.44E+00 5.80E-02 2.90E-02 2.44E+00 5.80E-02 2.90E-02 2.90E-02	Flare	1.00E+00	100	muniphicano	וו סו רחבו המונ	aliu Ciilissi	oil i actoria.							
4.30E-02 4.30E-02 1.00E-02 1.00E-02 1.59E-01 1.59E-01 1.44E+00 1.44E+00 1.17E+00 1.17E+00 2.90E-02 2.90E-02 1.10E-02 1.00E-02 3.00E-03 3.00E-03 5.80E-02 2.44E+00 5.80E-02 2.90E-02 2.90E-02 2.90E-02	Substances	CAS#	<10 MMBTU/hr Emission Factor Ibs/ MMscf	LB/HR	LBYR	MMBTU/hr Emission Factor Ibs/ MMscf	LB/HR	LB/YR	>100 MMBTU/hr Emission Factor Ibs/ MMscf	LB/HR	LB/YR	Flare Emission Factor Ibs/ MMscf	LB/HR	LBMR
1.00E-02 1.00E-02 1.59E-01 1.59E-01 1.59E-01 1.44E+00 1.44E+00 1.17E+00 2.90E-02 1.10E-02 1.10E-02 3.00E-03 3.00E-03 3.00E-03 5.80E-02 2.90E-02 2.90E-02 2.90E-02	Acetaldehyde	75070	4.30E-03	4.30E-03	4.30E-01	3.10E-03	3.10E-03	1.27E+00	9.00E-04	9.00E-04	9.00E-02	4.30E-02	4.30E-02	4.30E+00
1.59E-01 1.59E-01 1.44E+00 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 1.00E-02 1.00E-03 3.00E-03 3.00E-03 5.80E-02 5.80E-02 2.90E-02 2.90E-02	Acrolein	107028	2.70E-03	2,70E-03	2.70E-01	2.70E-03	2.70E-03	1.11E+00	8.00E-04	8.00E-04	8.00E-02	1.00E-02	1.00E-02	1.00E+00
1.44E+00 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 1.10E-02 1.10E-02 1.00E-03 1.00E-03 1.00E-02 1.0	Benzene	71432	8.00E-03	8.00E-03	8.00E-01	5.80E-03	5.80E-03	2.38E+00	1.70E-03	1.70E-03	1.70E-01	1.59E-01	1.59E-01	1.59E+01
1.17E+00 1.17E+00 2.90E-02 2.90E-02 1.10E-02 1.10E-02 3.00E-03 3.00E-03 5.80E-02 5.80E-02 2.90E-02 2.90E-02	Ethyl Benzene	100414	9.50E-03	9.50E-03	9.50E-01	6.90E-03	6.90E-03	2.83E+00	2.00E-03	2.00E-03	2.00E-01	1.44E+00	1.44E+00	1.44E+02
2.90E-02 2.90E-02 1.10E-02 1.10E-02 3.00E-03 3.00E-03 2.44E+00 2.44E+00 5.80E-02 5.80E-02 2.90E-02 2.90E-02	Formaldehyde	20000	1.70E-02	1.70E-02	1.70E+00	1,23E-02	1.23E-02	5.04E+00	3.60E-03	3.60E-03	3.60E-01	1.17E+00	1.17E+00	1.17E+02
1.10E-02 1.10E-02 3.00E-03 3.00E-03 2.44E+00 2.44E+00 5.80E-02 5.80E-02 2.90E-02 2.90E-02	Нехапе	110543	6.30E-03	6.30E-03	6.30E-01	4.60E-03	4.60E-03	1.89E+00	1.30E-03	1.30E-03	1.30E-01	2.90E-02	2.90E-02	2.90E+00
3.00E-03 3.00E-03 2.44E+00 2.44E+00 5.80E-02 5.80E-02 2.90E-02 2.90E-02	Naphthalene	91203	3.00E-04	3.00E-04	3.00E-02	3.00E-04	3.00E-04	1.23E-01	3.00E-04	3.00E-04	3.00E-02	1.10E-02	1.10E-02	1.10E+00
2.44E+00 2.44E+00 5.80E-02 5.80E-02 2.90E-02 2.90E-02	PAH's	1151	1.00E-04	1.00E-04	1.00E-02	1.00E-04	1.00E-04	4.10E-02	1.00E-04	1.00E-04	1.00E-02	3.00E-03	3.00E-03	3.00E-01
5.80E-02 5.80E-02 2.90E-02	Propylene	115071	7.31E-01	7.31E-01	7.31E+01	5.30E-01	5.30E-01	2.17E+02	1.55E-02	1.55E-02	1.55E+00	2.44E+00	2.44E+00	2.44E+02
2.90E-02 2.90E-02	Toluene	108883	3.66E-02	3.66E-02	3.66E+00	2.65E-02	2.65E-02	1.09E+01	7.80E-03	7.80E-03	7.80E-01	5.80E-02	5.80E-02	5.80E+00
References: The emission factors are from the table, "Natural Gas Fired External Combustion Equipment" in the May 2001 update of VCAPCD AB 2588 Combustion Emission Factors. PAHs emission factor adjusted from table values to subtract Naphthalene portion.	Xylenes	1330207	2.72E-02	2.72E-02	2.72E+00	1.97E-02	1.97E-02	8.08E+00	5.80E-03	5.80E-03	5.80E-01	2.90E-02	2.90E-02	2.90E+00
The emission factors are from the table, "Natural Gas Fired External Combustion Equipment" in the May 2001 update of VCAPCD AB 2588 Combustion Emission Factor adjusted from table values to subtract Naphthalene portion.	Reference:													
Factors. PAHs emission factor adjusted from table values to subtract Naphthalene portion.	The emission factors are	from the table, "I	Natural Gas F	ired External C	Combustion E	quipment" in the	he May 2001	update of VC	APCD AB 256	18 Combustion	1 Emission			
	Factors. PAHs emission i	factor adjusted fro	im table value	s to subtract N	aphthalene pa	ortion.								

N-2107-1 Yellan Grease

Name		allow/Yell	Tallow/Yellow Grease Combustion	Combusti	ou
Applicability	Use this sprea	idsheet for Rer idizers. Entries	Use this spreadsheet for Rendering plants that burn Tallow/Yellow Grease in Boilers or Oxidizers. Entries required in yellow areas, output in grey areas.	t burn Tallow/Y v areas, outpul	ellow Grease in in grey areas.
Author or updater	Matthew	Matthew Cegielski	Last Update	April	April 11, 2016
Facility:	Darling				
ID#:	N-2107-1 Yello	Yellow Grease			
Project #:	N/A				
Inputs	1,000 Gallons/hr	1,000 Gallons/yr		Formula	
allow/Yellow Grease rate	2.86E-01	61.8	Emissions are	issions are calculated by the multiplicated the Tallow/Vellow Greace Rates and	Emissions are calculated by the multiplication of the Tallou/Vellou Greace Rates and
				Emission Factors	S S
Substance	CAS#	lbs/1,000 Gallons	LB/HR	LB/YR	
1,3-Butadiene	106990	1.18E-02	3.37E-03	7.29E-01	
2-Methylnaphthalene	91576	7.99E-05	2.29E-05	4.94E-03	- haton Happingt
Acenaphthene	83329	8.51E-05	2.43E-05	5.26E-03	The section of the Ten
Acenaphthylene	208968	1.83E-04	5.23E-05	1.13E-02	TOTAL HROLLIN
Acetaldehyde	75070	5.20E-03	1.49E-03	3.21E-01	
Acrolein	107028	5.20E-03	1.49E-03	3.21E-01	
Anthracene	120127	8.51E-05	2.43E-05	5.26E-03	- Noton HAPLE-
Barium	7440393	1.51E-03	4.31E-04	9.32E-02	- noton HAPAC+
Benz(a)anthracene	56553	8.51E-05	2.43E-05	5.26E-03	- not en HAPLS -
Benzene	71432	2.88E-02	8.24E-03	1.78E+00	
Benzo(a)pyrene	50328	8.51E-05	2.43E-05	5.26E-03	F
Benzo(b)fluoranthene	205992	8.51E-05	2.43E-05	5.26E-03	
Benzo(e)pyrene	192972	2.66E-06	7.61E-07	1.64E-04	I not on MAP LST
Benzo(g,h,l)perylene	191242	8.51E-05	2.43E-05	5.26E-03	
Benzo(k)fluoranthene	207089	8.51E-05	2.43E-05	5.26E-03	
Chloroform	67663	5.10E-03	1.46E-03	3.15E-01	
Chrome	7440473	3.39E-03	9.70E-04	2.10E-01	
Chrysene	218019	8.51E-05	2.43E-05	5.26E-03	- May 30 HAPLY
Cobalt	7440484	1.32E-04	3.77E-05	8.16E-03	+ no+on HAPIUH
Copper	7440508	6.79E-03	1.94E-03	4.19E-01	

Ethylbenzene 100414 2.14E-03 6.12E-04 1.32E-01	Dibenz(a,h)anthracene	53703	8.51E-05	2.43E-05	5.26E-03	+ has LAP LOST	
ranthene 86737 8.59E-05 2.76E-05 5.96E-03 rene 86737 8.59E-05 2.46E-05 5.31E-03 caldehyde 50000 4.29E-01 1.23E-01 2.65E+01 cchrome** 18540299 1.70E-04 4.85E-05 1.05E-02 no(1,2,3-cd)pyrene 193395 8.51E-05 2.43E-05 5.26E-03 7439921 1.13E-03 3.23E-04 5.99E-02 caldenum 1313275 3.77E-04 1.08E-04 2.33E-02 caldenum 1313275 3.77E-04 1.08E-04 2.33E-02 caldenum 1313275 3.77E-04 1.08E-04 2.33E-02 caldenum 1313275 3.77E-04 1.08E-04 1.17E-01 caldenum 1313275 3.77E-04 1.08E-04 1.17E-01 caldene 198550 2.68E-06 7.66E-07 1.66E-04 caldene 150000 8.51E-05 3.45E-04 1.05E-07 1.66E-04 caldene 150000 8.51E-05 2.43E-05 5.26E-03 1.330207 1.14E-02 3.25E-03 7.05E-01 7.40666 2.26E-02 6.47E-03 1.40E+00 7.40E+00 7.40666 2.26E-02 6.47E-03 1.40E+00 7.40E+00 7.40666 7.26E-02 6.47E-03 1.40E+00 7.40E+00 7.40666 7.26E-02 6.47E-03 1.40E+00 7.40E+00 7.40666 7.26E-02 6.47E-03 1.40E+00 7.40E+00	Ethylbenzene	100414	2.14E-03	6.12E-04	1.32E-01		
rene 86737 8.59E-05 2.46E-05 5.31E-03 caldehyde 50000 4.29E-01 1.23E-01 2.65E+01 chrome** 18540299 1.70E-04 4.85E-05 1.05E-02 no(1,2,3-cd)pyrene 193395 8.51E-05 2.43E-05 5.26E-03 7439921 1.13E-03 3.23E-04 6.99E-02 or 144020 1.38E-03 1.29E-04 1.08E-04 2.33E-02 or 144020 1.88E-03 1.46E-04 2.33E-02 or 146E-02 1.46E-04 1.08E-04 1.17E-01 1.88E-03 1.29E-04 1.17E-01 1.88E-03 1.29E-04 1.17E-01 1.15E-01 1.8550 2.68E-06 7.66E-07 1.66E-04 1.09E-04 1.09E-04 1.17E-01 1.09E-04 1.09E-04 1.09E-04 1.09E-04 1.09E-04 1.09E-05 1.46E-04 1.09E-04 1.09E-04 1.09E-04 1.09E-04 1.09E-04 1.09E-03 1.29E-03 1.29E-01 1.09E-03 1.20E-03 1.	Fluoranthene	206440	9.64E-05	2.76E-05	5.96E-03	The Tark of the Tark	
chrome** 50000 4.29E-01 1.23E-01 2.65E+01 chrome** 18540299 1.70E-04 4.85E-05 1.05E-02 no(1,2,3-cd)pyrene 193395 8.51E-05 2.43E-05 5.26E-03 bdenum 7439921 1.13E-03 3.23E-04 6.99E-02 bdenum 1313275 3.77E-04 1.08E-04 6.99E-02 ell 7440020 1.88E-03 1.08E-04 2.33E-02 ell 7440020 1.88E-03 5.39E-04 1.17E-01 lene 35018 3.46E-04 9.90E-05 2.14E-02 ylene 15071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ne 1330207 1.14E-02 3.26E-03 7.65E-01 ren 1330207 1.14E-02 3.26E-03 7.65E-01 ren 1330207 1.14E-02 3.26E-03 7.60E-01 rentission factors are derived from CARB CATEF and 2001 South Coast AQMD emissi 6.47E-03 1.40E+00	Fluorene	86737	8.59E-05	2.46E-05	5.31E-03	- New Harplut	
chrome** 18540299 1.70E-04 4.85E-05 1.05E-02 no(1,2,3-cd)pyrene 193395 8.51E-05 2.43E-05 5.26E-03 bdenum 7439921 1.13E-03 3.23E-04 6.99E-02 bdenum 1313275 3.77E-04 1.08E-04 2.33E-02 ithalene 91203 5.09E-02 1.46E-02 3.15E+00 el 7440020 1.88E-03 6.39E-04 1.17E-01 lene 198550 2.68E-06 7.66E-07 1.66E-04 lane 15071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ne 1330207 1.14E-02 3.26E-03 7.65E-01 rene 1330207 1.14E-02 3.26E-03 7.05E-01 reneces: emission factors are derived from CARB CATEF and 2001 South Coast AQMD emissi tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.	Formaldehyde	20000	4.29E-01	1.23E-01	2.65E+01		
no(1,2,3-cd)pyrene 193395 8.51E-05 2.43E-05 5.26E-03 bdenum 7439921 1.13E-03 3.23E-04 6.99E-02 bdenum 1313275 3.77E-04 1.08E-04 2.33E-02 ithalene 91203 5.09E-02 1.46E-02 3.15E+00 el 7440020 1.88E-03 5.39E-04 1.17E-01 lene 198550 2.68E-06 7.66E-07 1.66E-04 viene 15074 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ne 1330207 1.14E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.52E-03 7.60E-01 rences: 744066 2.26E-02 6.47E-03 1.40E+00 semission factors are derived from CARB CATEF and 2001 South Coast AQMD emissi tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. sof Chromium considered Hexavalent Chromium (District Policy)	Hexachrome**	18540299	1.70E-04	4.85E-05	11.5	Car listed As Chilosina Had	
bdenum 7439921 1.13E-03 3.23E-04 6.99E-02 bdenum 1313275 3.77E-04 1.08E-04 2.33E-02 ithalene 91203 5.09E-02 1.46E-02 3.15E+00 el 7440020 1.88E-03 5.39E-04 1.17E-01 lene 19850 2.68E-06 7.66E-07 1.66E-04 ianthrene 85018 3.46E-04 9.90E-05 2.14E-02 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 1330207 1.14E-02 3.26E-03 7.05E-01 rences: 744066 2.26E-02 6.47E-03 1.40E+00 tentession factors are derived from CARB CATEF and 2001 South Coast AQMD emission tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. s of Chromium considered Hexavalent Chromium Obistrict Policy	Indeno(1,2,3-cd)pyrene	193395	8.51E-05	2.43E-05	,	Anthro EIN List	
bdenum 1313275 3.77E-04 1.08E-04 2.33E-02 ithalene 91203 5.09E-02 1.46E-02 3.15E+00 el 7440020 1.88E-03 5.39E-04 1.17E-01 lene 198550 2.68E-06 7.66E-07 1.66E-04 ranthrene 85018 3.46E-04 9.90E-05 2.14E-02 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 1330207 1.14E-02 3.52E-03 7.65E-01 rences: 7440666 2.26E-02 6.47E-03 1.40E+00 emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. s of Chromium considered Hexavalent Chromium (District Policy)	Lead	7439921	1.13E-03	3.23E-04		00000	
tithalene 91203 5.09E-02 1.46E-02 3.15E+00 el 7440020 1.88E-03 5.39E-04 1.17E-01 lene 198550 2.68E-06 7.66E-07 1.66E-04 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ylene 129000 8.51E-05 2.43E-05 5.26E-03 ene 129000 8.51E-05 2.43E-05 5.26E-03 ne 1330207 1.14E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.26E-03 7.05E-01 rene 1330207 1.14E-02 3.26E-03 7.05E-01 rences: 7440666 2.26E-02 6.47E-03 1.40E+00 tentession factors are derived from CARB CATEF and 2001 South Coast AQMD emission tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.	Molybdenum		3.77E-04	1.08E-04	2.33E-02	- hoton HAPLIF	
el 7440020 1.88E-03 5.39E-04 1.17E-01 lene 198550 2.68E-06 7.66E-07 1.66E-04 lanthrene 85018 3.46E-04 9.90E-05 2.14E-02 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 10883 1.23E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.26E-03 7.05E-01 rences: 7440666 2.26E-02 6.47E-03 1.40E+00 rentees: 1.40E+00 1.40E+00 1.40E+00 Conclusion factors are derived from CARB CATEF and 2001 South Coast AQMD emission tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.	Naphthalene	91203	5.09E-02	1.46E-02	3.15E+00		
lene 198550 2.68E-06 7.66E-07 1.66E-04 ranthrene 85018 3.46E-04 9.90E-05 2.14E-02 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 108883 1.23E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.56E-03 7.05E-01 rences: 7440666 2.26E-02 6.47E-03 1.40E+00 rences: 1.40E+00 1.40E+00 1.40E+00	Nickel	7440020	1.88E-03	5.39E-04	1.17E-01		
anthrene 85018 3.46E-04 9.90E-05 2.14E-02 ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 108883 1.23E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.26E-03 7.05E-01 744066 2.26E-02 6.47E-03 1.40E+00 rences: 1.40E+00 1.40E+00 rences: 1.40E+00 1.40E+00	Perylene	198550	2.68E-06	7.66E-07	1.66E-04	からなしてのよっと	
ylene 115071 2.25E-02 6.44E-03 1.39E+00 ne 129000 8.51E-05 2.43E-05 5.26E-03 -6.47E-03 7.05E-01 ne 1330207 1.14E-02 3.26E-03 7.05E-01 rences: 7440666 2.26E-02 6.47E-03 1.40E+00 emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. cof Chromium considered Hexavalent Chromium (District Policy)	Phenanthrene	85018	3.46E-04	9.90E-05	2.14E-02	- har on LAPUT	
ne 129000 8.51E-05 2.43E-05 5.26E-03 ene 10883 1.23E-02 3.52E-03 7.60E-01 ne 1330207 1.14E-02 3.26E-03 7.05E-01 744066 2.26E-02 6.47E-03 1.40E+00 rences: emission factors are derived from CARB CATEF and 2001 South Coast AQMD emissis tants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. s of Chromium considered Hexavalent Chromium (District Policy)	Propylene	115071	2.25E-02	6.44E-03	1.39E+00		
Toluene 108883 1.23E-02 3.52E-03 7.60E-01 Xylene 1330207 1.14E-02 3.26E-03 7.05E-01 Zinc 740666 2.26E-02 6.47E-03 1.40E+00 References:	Pyrene	129000	8.51E-05	2.43E-05	5.26E-03	-noton Hapust	
Xylene 1330207 1.14E-02 3.26E-03 7.05E-01 Zinc 744066 2.26E-02 6.47E-03 1.40E+00 References: * The emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission factors Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. **5% of Chromium considered Hexavalent Chromium (District Policy)	Toluene	108883	1.23E-02	3.52E-03	7.60E-01		
Zinc 7440666 2.26E-02 6.47E-03 1.40E+00 References: *The emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission factors Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. **5% of Chromium considered Haxavalent Chromium (District Policy) 	Xylene	1330207	1.14E-02	3.26E-03	7.05E-01		
References: * The emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission factors Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. **5% of Chromium considered Hexavalent Chromium (District Policy)	Zinc	7440666	2.26E-02	6.47E-03	1.40E+00		
* The emission factors are derived from CARB CATEF and 2001 South Coast AQMD emission factors Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. **5% of Chromium considered Hexavalent Chromium (District Policy)	References:						
Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date. **5% of Chromium considered Hexavalent Chromium (District Policy)	* The emission factors are	derived from CAR	B CATEF and 20	01 South Coast	AQMD emissi	on factors	
**5% of Chromium considered Hexavalent Chromium (District Policy)	Pollutants required for toxic	: reporting: TACs v	wo Risk Factor.	Current as of up	odate date.		
	**5% of Chromium conside	ered Hexavalent C	hromium (District	Policy)			

51-1-15-5-612-N

Name)	שמוסווס	ns from Operations generating Dust from a	from a Feed	
Annlicability			anufacture	Manufacturer - Receiving		
Appropries and the second seco	Use this spants of source, rec	oreadsheet for Pa eiving operation (articulate Matter (PM) emi e.g. Poultry or Dairy feed output in grey areas.	Use this spreadsheet for Particulate Matter (PM) emissions from a Feed manufacturer source, receiving operation (e.g. Poultry or Dairy feed). Entries required in yellow areas, output in grey areas.	Feed manufacturer red in yellow areas,	
Author or updater	Matthew	Matthew Cegielski	Last Update	March 11, 2016		
Facility:	Darling					
ID#:	N-2107-5-7 and 12-2	d 12-2				
Project #:						
Inputs	ton/hr	ton/yr		Formula		
Dust PM Emissions rate		14.6	Emission an	Emission are calculated by the multiplication of the Dust	olication of the Dust	
		Ib/ ton of PM		I ares and chinssion i	ictors.	
Substance	CAS#	Dust*	LB/HR	LB/YR		
Cadmium	7440439	2.57E-04	0.00E+00	3.75E-03		
Chromium	7440473	2.42E-03	0.00E+00	3.53E-02		
Copper	7440508	2.59E-02	0.00E+00	3.78E-01		
Hexavalent Chromium**	18540299	1.21E-04	0.00E+00	1.77E-03		
Lead	7439921	1.63E-03	0.00E+00	2.38E-02		
Manganese	7439965	8.79E-02	0.00E+00	1.28E+00		
Nickel	7440020	1.28E-02	0.00E+00	1.87E-01		
Zinc	7440666	9.55E-02	0.00E+00	1.39E+00		
References:						
* Emission factors are from a 1990 ARB approved California Grain & Feed Association pooled source tests	a 1990 ARB ap	proved California	Grain & Feed	Association pooled source	ce tests.	
*Feed values are an average of the Dairy and	e of the Dairy a		s ** 5% of Chro	nium is considered Hexa	Poultry results ** 5% of Chromium is considered Hexavalent Chromium according to District policy	to District policy
Pollutants required for toxic reporting: TACs w/o Risk Factor.	reporting: TAC	s w/o Risk Factor		Current as of update date.		
and brokens						
but not detected						
Arsenic						
Beryllium						
Mercury						
Selenium						

Conveyorized Charbroiler - Hamburger & Steak Name: Use this spreadsheet to calculate emissions generated from hamburger and steak cooked on conveyorized charbroilers. Entries required in yellow areas, Applicability: output in grey areas. February 25, 2016 Matthew Cegielski Last Update: Author or updater: Facility: Darling ID#: N-2107-9 Project #: Capacity Capacity Ton/hr Ton /yr Formula Inputs: Process Rate 1.00 301,125.00 Emissions are calculated by the multiplication of Process Rates and Emission Factors Emission **Factor** Lb/Ton LB/HR LB/YR **Substances** CAS# 5.60E-04 5.60E-04 1.69E+02 Acenaphthene 83329 MATAKAP Acenaphthylene 208968 9.78E-03 9.78E-03 2.95E+03 1.82E-03 1.82E-03 5.48E+02 -Anthracene 120127 not a HAP Benz[a]Anthracene 56553 4.40E-04 4.40E-04 1.32E+02 Benzo[a]Pyrene 3.40E-04 3.40E-04 1.02E+02 50328 3.20E-04 3.20E-04 9.64E+01 Benzo[g,h,i,]Perylene 191242 Biphenyl 4.86E-03 4.86E-03 1.46E+03 92524 Fluoranthene 1.76E-03 5.30E+02 206440 1.76E-03 Fluorene 86737 2.18E-03 2.18E-03 6.56E+02 Indeno[1,2,3-c,d]Pyrene 2.00E-04 2.00E-04 6.02E+01 193395 Naphthalene 91203 4.60E-02 4.60E-02 1.39E+04 Phenanthrene 9.76E-03 9.76E-03 2.94E+03 85018 Pyrene 2.30E-03 6.93E+02 129000 2.30E-03 Total PAH 1150 7.24E-04 2.18E+02 7.24E-04

References:

Emission factors are derived from District adjustments of Charbroiler emission factors in EPA's 2002 NEI database (Appendix C1).

Hamburger is used as a surrogate for steak

Pollutants required for toxic reporting: TACs w/o Risk Factor. Current as of update date.

closest to Primal Pendering

Applicability Use this spreadsheef for Natural Case Fined Expansion Combustron (Boilers.) Fine Project #*. Applicability Natifiable Cegistist Last Lipidate Marked for Natural Case and Cardound in gray access. Applicability														
National Capitals Last Update March 10, 2015 Marc	Applicability	Use this s heafers	spreadsheet fo , flares). Entrie	r Natural Gas	Fired Extemi	al Combustion output in grey	(Boilers, areas.							
N-2107-13 Rate Ra	Author or updater	Matthew			March 1	0, 2015								
N.2107-13 Rate Rate Rate Formula F	Facility:	Darling												
Marked from the table Rate Rate Rate Formula	±.	N-2107-13												
Marked hr Marked hr Marked hr Marked hr Marked hr 100E+00 100	Project #:													
1.00E+00 100	Inputs	Rate MMscf /hr	Rate MMscf /vr		Form	nula								
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MMBTU/hr 100E+00 100 multiplication of Fuel Rates and Emission Factors 1.00E+00 100 multiplication of Fuel Rates and Emission Factor Facto	10-100 MMBTU/hr	1.00E+00	673.9	Choose on	e or me MMB	tu ratings and	supply the							
1,00E+00 100 100E+00 100 10-1	> 100 MMBTU/hr	1 00E+00	100	multiplication	rate, Entitission	ris are Calcula se and Emissiv	ted by the							
Flare Emission Factor Ibs/ MMscf 158-01 1.59E-01 1.59E-01 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 2.30E-02 2.30E-02 3.00E-03 3.00E-03 3.00E-03 1.2.90E-02 2.30E-02 2.30E-02 2.30E-02 2.30E-03 2.44E+00 2.44E+00 2.44E+00 2.29E-02 2.30E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 2.30E-03 2.30E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03	Flare	1.00E+00	100	munphrano	ווו חו בחפו עמו	S allu cilissi	ur racions.							
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Entersion Factor LB/HR LB/MMsef LB/HR LB/HMSef LB/HR LB/HR LB/HR LB/HR LB/HR LB/HR LB/HR LB/HR LB/HB/L LB/HB			MMBIU/hr			MMBTUhr			MMBIU/hr			Flare		
Ibs./ MMScf LB/HR 1.00E-02 4.30E-02 4.30E-02 1.00E-02 1.00E-02 1.159E-01 1.46E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 2.30E-03 3.00E-03 3.00E-03 3.00E-03 3.00E-03 2.44E+00 2.44E+00 2.44E+00 2.44E+00 2.30E-02 1.2.90E-02 2.90E-02 2.90E-			Emission			Emission			Emission			Emission		
4.30E-02 4.30E-02 1.00E-02 1.00E-02 1.00E-02 1.00E-02 1.46E-00 1.44E+00 1.17E+00 1.17E+00 1.10E-02 1.10E-02 1.00E-03 3.00E-03 3.00E-03 3.00E-03 1.00E-02 1.24E+00 2.44E+00 2.4	Substances	CAS#	lbs/ MMscf	LB/HR	LBYR	fbs/ MMscf	LB/HR	LB/YR	lbs/ MMscf	LB/HR	LB/YR	Ibs/ MMscf	LB/HR	LB/YR
1.00E-02 1.00E-02 1.00E-02 1.159E-01 1.59E-01 1.59E-01 1.44E+00 1.44E+00 1.17E+00 1.17E+00 1.00E-02 1.00E-02 1.00E-03 3.00E-03 3.00E-03 3.00E-03 1.00E-02 1.580E-02 1.580E-02 1.580E-02 1.580E-02 1.590E-02 1.	Acetaldehyde	75070	4.30E-03	4.30E-03	4.30E-01	3.10E-03	3.10E-03	2.09E+00	9.00E-04	9.00E-04	9.00E-02	4.30E-02	4.30E-02	4.30E+00
1.59E-01 1.59E-01 1.44E+00 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.00E-02 3.00E-03 3.00E-03 3.00E-03 1.0E-02 5.80E-02 1.2.90E-02 2.90E-02 1.2.90E-02 1.2.90E-03 1.2.90E-02 1.2.90E-02 1.2.90E-02 1.2.90E-02 1.2.90E-02 1.2.90E-03 1.2.90E-0	Acrolein	107028	2.70E-03	2.70E-03	2.70E-01	2.70E-03	2.70E-03	1.82E+00	8.00E-04	8.00E-04	8.00E-02	1.00E-02	1.00E-02	1.00E+00
1 1.44E+00 1.44E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.17E+00 1.10E-02 1.10E-02 3.00E-03 3.00E-03 0 2.44E+00 2.44E+00 2.44E+00 2.46E+00 2.46E+00 2.90E-02 1.2.90E-02 2.90E-02 2.90E-	Benzene	71432	8.00E-03	8.00E-03	8.00E-01	5.80E-03	5.80E-03	3.91E+00	1.70E-03	1.70E-03	1.70E-01	1.59E-01	1.59E-01	1.59E+01
1.17E+00 1.17E+00 1.29E-02 2.90E-02 2.10E-02 1.10E-02 1.10E-02 2.300E-03 3.00E-03 0.244E+00 2.44E+00 2.49E-02 1.290E-02 2.90E-02	Ethyl Benzene	100414	9.50E-03	9.50E-03	9.50E-01	6.90E-03	6.90E-03	4.65E+00	2.00E-03	2.00E-03	2.00E-01	1.44E+00	1,44E+00	1.44E+02
2 2.90E-02 2.90E-02 1.10E-02 1.10E-02 3.00E-03 3.00E-03 0 2.44E+00 2.44E+00 1.5.80E-02 5.80E-02 1.90E-02 1.90E-	Formaldehyde	20000	1.70E-02	1.70E-02	1.70E+00	1.23E-02	1.23E-02	8.29E+00	3.60E-03	3.60E-03	3.60E-01	1.17E+00	1.17E+00	1.17E+02
2 1.10E-02 1.10E-02 2 3.00E-03 3.00E-03 0 2.44E+00 2.44E+00 1 5.80E-02 5.80E-02 1 2.90E-02 2.90E-02	Hexane	110543	6.30E-03	6.30E-03	6.30E-01	4.60E-03	4.60E-03	3.10E+00	1.30E-03	1.30E-03	1.30E-01	2.90E-02	2.90E-02	2.90E+00
2 3.00E-03 3.00E-03 0 2.44E+00 2.44E+00 1 5.80E-02 5.80E-02 1 2.90E-02 2.90E-02	Naphthalene	91203	3.00E-04	3.00E-04	3.00E-02	3.00E-04	3.00E-04	2.02E-01	3.00E-04	3.00E-04	3.00E-02	1.10E-02	1.10E-02	1.10E+00
0 2.44E+00 2.44E+00 1 5.80E-02 5.80E-02 1 2.90E-02 2.90E-02	PAH's	1151	1.00E-04	1.00E-04	1.00E-02	1.00E-04	1.00E-04	6.74E-02	1.00E-04	1.00E-04	1.00E-02	3.00E-03	3.00E-03	3.00E-01
1 5.80E-02 5.80E-02 1 2.90E-02 2.90E-02	Propylene	115071	7.31E-01	7.31E-01	7.31E+01	5.30E-01	5.30E-01	3.57E+02	1.55E-02	1.55E-02	1.55E+00	2.44E+00	2.44E+00	2.44E+02
2.90E-02 2.90E-02	Toluene	108883	3.66E-02	3.66E-02	3.66E+00	2.65E-02	2.65E-02	1.79E+01	7.80E-03	7.80E-03	7.80E-01	5.80E-02	5.80E-02	5.80E+00
References: * The emission factors are from the table, "Natural Gas Fired External Combustion Equipment" in the May 2001 update of VCAPCD AB 2588 Combustion Emission Factors. PAHs emission factor adjusted from table values to subtract Nanhthalene portion.	Xylenes	1330207	2.72E-02	2.72E-02	2.72E+00	1.97E-02	1.97E-02	1.33E+01	5.80E-03	5.80E-03	5.80E-01	2.90E-02	2 90E-02	2.90E+00
References: * The emission factors are from the table, "Natural Gas Fired External Combustion Equipment" in the May 2001 update of VCAPCD AB 2588 Combustion Emission Factors and Instituted from table values to subtract Nanhthalene portion.														
* The emission factors are from the table, "Natural Gas Fired External Combustion Equipment" in the May 2001 update of VCAPCD AB 2588 Combustion Emission Factors adjusted from table values to subtract Nanhthalene portion.	References:													
Factors. PAHs emission factor adjusted from table values to subtract. Naohthalene portion.	* The emission factors are	from the table, "I	Natural Gas Fil	red External (Combustion E	quipment" in t	he May 2001	update of VC	APCD AB 25.	88 Combustio	n Emission			
	Factors. PAHs emission fa	actor adjusted fro	m table values	to subtract N	laphthalene pr	ortion.								