

APPENDIX A

HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Dustin Brown/Tung Le, AQE – Permit Services
 From: Ester Davila– Technical Services
 Date: August 27, 2007
 Facility Name: Darling International
 Location: 795 W Belgravia, Fresno
 Application #(s): C-406-6-0
 Project #: C-1073300

A. RMR SUMMARY

RMR Summary			
Categories	Boiler (Unit 6-0)	Project Totals	Facility Totals ²
Prioritization Score	0.0*	0.0*	>1.0
Acute Hazard Index	0.0	0.0	0.13
Chronic Hazard Index	0.0	0.0	0.06
Maximum Individual Cancer Risk (10 ⁻⁶)	0.0	0.0	2.39
T-BACT Required?	No		
Special Permit Conditions?	No		

*The project prioritization score was less than the District's significance level of 0.05, consequently even though the total facility prior score is greater than one no further analysis is required for this project.

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 6-0

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 24, 2007, to perform a Risk Management Review for a proposed installation of a new 25.2 MMBtu/hr natural gas fired boiler.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Emissions were calculated using the Ventura Co emission factors for external combustion of natural gas. The processing engineer provided the usage rates. The prioritization score was less than the District's significance level of one therefore no further analysis was required.

The following parameters were used for the review:

Analysis Parameters Unit 6-0			
Source Type	Point	Type of Receptor	Business
Stack Height (m)	11.3	Closest Receptor (m)	152.4
Stack Diameter. (m)	0.61	NG usage (MMBtu/hr)	0.0252
Stack Exit Velocity (m/s)	4.13	NG usage (MMBtu/yr)	221
Stack Exit Temp. (°K)	477.59		

III. Conclusion

The prioritization score was less than the District's significance level of 0.05 therefore no further analyses was required. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

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

Attachments:

- A. RMR request from the project engineer
- B. Prioritization score
- C. HARP's results

APPENDIX B

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-406-2-5

LEGAL OWNER OR OPERATOR: DARLING INTERNATIONAL INC.
MAILING ADDRESS: PO BOX 11445
FRESNO, CA 93773

LOCATION: 795 W BELGRAVIA
FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

MODIFICATION OF ANIMAL RENDERING OPERATION EQUIPPED WITH AN ATLAS-STORD TST-2264 COOKER, TALLOW WORK TANK, ROTO-SHEAR FAT DRAINER, PRESSES, SCREWS, CENTRIFUGE, AND CONDENSER SERVED BY A 12,000 CFM VENTURI SCRUBBER AND AN 18 MMBTU/HR NATURAL GAS-FIRED THERMAL OXIDIZER WITH AN ASSOCIATED 350 HP HEAT RECOVERY STEAM BOILER: INSTALL ONE ADDITIONAL VAPOR CONDENSOR PRIOR TO THE EXISTING VENTURI SCRUBBER

CONDITIONS

1. Authority to Construct (ATC) C-406-2-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
2. Total facility raw material process rate shall not exceed 1,510,560 pounds per day. [District Rules 2201 and 4102]
3. The plant shall not be operated unless the odor control system is fully operating. All potential points of odor shall be contained and/or treated to prevent escape into the atmosphere. Odorous vapors shall only be vented to the odor control system. [District Rule 4102]
4. Air pollution control equipment shall be maintained in good operating condition and shall be operated in accordance with the manufacturer's instructions when the process equipment is in operation. [District NSR Rule]
5. All air pollution equipment and associated ducting shall be maintained in a leak-free manner to prevent the escape of air contaminants to the outside atmosphere prior to their treatment in the odor control system. [District Rule 4102]
6. 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]
7. The District shall be immediately notified of any breakdown or malfunction as defined in District Rule 1100 that reduces or disrupts the normal processing of odors allowed by this permit. [District Rules 1100 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

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DAVID WARNER, Director of Permit Services
C-406-2-5, Aug 30 2007 8:51AM - LET Joint Inspection NOT Required

8. Permittee shall maintain an updated odor control plan detailing all methods of nuisance odor control as it applies to the facility. The odor control plan shall be made available to all employees and shall be used as a training aid for new employees. The odor control plan shall be made available for District inspection upon request. [District Rule 4102]
9. 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]
10. All noncondensable odors from the condenser and odors from the cooker shall be vented to the afterburner. [District Rule 4102]
11. Permittee shall inspect the air/fuel mixing cone in the thermal oxidizer at least once quarterly to ensure that the integrity of the cone is not compromised, and to ensure that the thermal oxidizer is operating at optimum. Records of quarterly inspection shall be maintained. [District Rule 4102]
12. The afterburner shall be operated whenever the cooker is processing material. During periods of afterburner breakdown as determined by the District under Rule 1100, all noncondensable odors from the condenser and odors from the cooker shall be vented to the 75,000 cfm scrubber listed under permit C-406-1. [District Rules 1100 and 4102]
13. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
14. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
15. The odor concentrations, in odor units per cubic foot (OU/CF), shall not exceed the following levels at each exhaust point: a) 75,000-cfm scrubber - 35 OU/CF, b) 100,000-cfm scrubber - 35 OU/CF, and c) afterburner - 25 OU/CF. [District Rule 4102]
16. Natural gas consumption shall not exceed 2,470,000 cubic feet per week. [District NSR Rule]
17. Emissions from the thermal oxidizer shall not exceed 0.04 lb-PM10/hr, 0.01 lb-SO2/hr, 2.52 lb-NO2/hr, 0.05 lb-HC/hr, nor 0.63 lb-CO/hr. [District NSR Rule]
18. Thermocouple at rear of oxidizer shall provide accurate temperature readings of the flue gas. An audible alarm shall be installed to alert plant personnel to low temperature readings. [District NSR Rule]
19. All non-condensibles and vapors shall be incinerated in the thermal oxidizer at a minimum temperature of 1200 F and a minimum retention time of 0.5 seconds. Temperature shall be monitored by a continuously recording temperature device. [District Rule 4102]
20. Permittee shall maintain record of weekly fuel consumption. Records shall be retained for at least five years and shall be made readily available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: C-406-6-0

LEGAL OWNER OR OPERATOR: DARLING INTERNATIONAL INC.

MAILING ADDRESS: PO BOX 11445
FRESNO, CA 93773

LOCATION: 795 W BELGRAVIA
FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

25.2 MMBTU/HR CLEAVER BROOKS NATURAL GAS-FIRED BOILER WITH AN AMERICAN COMBUSTION TECHNOLOGY MODEL ACT AABI03G06-SLE ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM

CONDITIONS

1. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 911 lb, 2nd quarter - 911 lb, 3rd quarter - 911 lb, and fourth quarter - 911 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 9/21/06). [District Rule 2201]
2. ERC Certificate Numbers N-650-2, C-762-2, and S-2385-2 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements for New Source Review purposes, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
3. {1407} 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]
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. {2964} The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

C-406-6-0 : Aug 30 2007 8:45AM -- LET : Joint Inspection NOT Required

8. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 9 ppmvd NO_x @ 3% O₂ or 0.011 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, 100 ppmvd CO @ 3% O₂ or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
9. {2972} 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 and 4306]
10. {3467} Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306]
11. {3466} Source testing to measure NO_x and CO 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, 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 4305 and 4306]
12. {2976} The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
13. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
14. {2977} NO_x 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 and 4306]
15. {2978} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
16. {2979} Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
17. {2980} 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 and 4306]
18. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. {2983} 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, and 4306]
20. {2935} The permittee shall monitor and record the stack concentration of NO_x, 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 and 4306]
21. {2936} If either the NO_x 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 and 4306]

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CONDITIONS CONTINUE ON NEXT PAGE

22. {2937} 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 and 4306]
23. {2938} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x 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 and 4306]

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APPENDIX C

Emissions Profile

Permit #: C 406 -2 -5
 Issued: / /
 Implemented: / /
 Facility: DARLING INTERNATIONAL INC.

Last Updated:
 08/29/07 LET

Equipment Yes
 Prebaselined: No

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	18870	75	300	4717	374
Daily Emis. Limit (lb/Day):	60.5	0.2	1.0	15.1	1.2
Quarterly Net Emissions Change (lb/Qtr)	0	0	0	0	0
1:	0	0	0	0	0
2:	0	0	0	0	0
3:	0	0	0	0	0
4:	0	0	0	0	0
Check if offsets are triggered but exemption applies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offset Ratio:					
Quarterly Offset Amounts (lb/Qtr)					
1:					
2:					
3:					
4:					
SLC ID (PTE):					
SLC ID (DEL):					

Facility SLC

Exit

Permit #: C 406 -6 -0 Issued: / /
 Implemented: / /
 Facility: DARLING INTERNATIONAL INC.

Last Updated
 08/29/07 LET

Equipment Prebaselined: Yes
 No

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	2428	629	1678	16336	1214
Daily Emis. Limit (lb/Day):	6.7	1.7	4.6	44.8	3.3
Quarterly Net Emissions Change (lb/Qtr)					
1:	607	157	420	4084	304
2:	607	157	420	4084	304
3:	607	157	420	4084	304
4:	607	157	420	4084	304
Check if offsets are triggered but exemption applies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offset Ratio:	1.50				
Quarterly Offset Amounts (lb/Qtr)					
1:	607				
2:	607				
3:	607				
4:	607				
SLC ID (PTE):					
SLC ID (DEL):					

Facility SLC

Exit