



Puget Sound Clean Air Agency

Notice of
Construction No.

12348

Clean Air Agency

HEREBY ISSUES AN ORDER OF APPROVAL
TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 10076
Date

Meat Rendering Operation consisting of a total enclosed building under negative pressure controlled by a 125,000 cfm air scrubber. One Dupps Supercookor Model 260U controlled by One Air-cooled condenser system, One 15,000 cfm scrubber and a final 18 MMbtu/hr Thermal Oxidizer. Raw material receiving pit which is located inside a building that is negative pressure controlled. Finished protein meal storage silo equipped with bin vent filters located outside the building.

OWNER

Darling Ingredients Inc
5601 N. MacArthur Blvd
Irving, TX 75038

INSTALLATION ADDRESS

Darling Ingredients Inc
2041 Marc St
Tacoma, WA 98421

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. The owner and/or operator shall not process more than 500 tons of raw material per day. Monthly records shall be kept on site to verify compliance with this requirement.
4. The Rendering building shall be kept under negative pressure at all times when receiving or storing raw material or in the process of rendering raw material, except during limited periods when the receiving area doors are open to allow for entry/exit of raw materials as needed.
 - a. The owner and/or operator shall take monthly readings with a portable anemometer to verify that the main processing building is under negative pressure during periods of normal plant operation. The anemometer shall be calibrated per the manufacturer's recommendations.
 - i. As an alternative to taking monthly readings with a portable anemometer to verify that the main processing building is under negative pressure, the owner and/or operator may choose to design and operate the ventilation system serving the main processing building such that a minimum of not less than 15 air changes per hour is maintained through the building. To demonstrate compliance with the air changes requirements, the owner or operator shall notify the agency of the intent to meet the alternative standard under this paragraph and shall submit:
 1. Calculations to demonstrate that the ventilation system of the building is designed to meet the alternative ventilation system standard; and
 2. A plan for monitoring appropriate parameters (for example, pressure at the fan inlet, or fan revolutions per minute) to demonstrate that the alternative ventilation system standard is continuously achieved.
 - b. The owner and/or operator shall monthly inspect the integrity of the building and the associated vapor collection ductwork for the rendering process. This includes looking for any corrosion of piping, leaks,

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ducting and openings to the building. Any instances where the integrity is found to be compromised must be repaired as soon as practicable, and within 15 days of discovery. Until the repair is made, the owner and/or operator shall daily inspect for odors migrating beyond the property line to help prevent excess odors from escaping the building until the repair can be made. Daily inspections shall include walking around the facility property and using sight, sound, and smell to detect any potential odor migration. If odor migration is found during daily inspections, the facility shall take immediate corrective action to minimize impacts, which may include ceasing operations. A logbook shall be kept for documentation of all monthly equipment inspections and all daily odor inspections. For each inspection, the logbook shall include the date and time of the inspection, the name of the person conducting the inspection, and a list of all areas of compromised integrity that will require repair. Once the repair is made, the logbook shall also document the time and date of the repair.

5. All material received for the purposes of rendering shall be processed within 24 hours of receipt. Each delivery of material shall be monitored, and records shall be maintained to ensure that processing is performed within this time limit.
6. Raw material delivery trucks shall not be accepted and/or unloaded without first being weighed/scaled. The delivery trucks containing raw materials must be unloaded into the raw material receiving pit of the process building when the 125,000 cfm air room scrubber is operating.
7. Raw material delivery trucks shall be unloaded within 8 hours of being scaled/weighed. If a delivery truck cannot be unloaded within 8 hours of being scaled, the owner and/or operator shall ensure that odors are not released from the trucks by either temporarily enclosing (Such as tarping) them until they can be unloaded or removed from the facility until they are able to unload the material within the 8 hour window.
8. The raw material trucks shall be cleaned prior to exiting the facility to prevent any odor-causing material from being tracked out of the facility.
9. No outdoor storage of raw materials is allowed. Material delivery trucks waiting their turn to unload does not count as outdoor storage of raw materials as long as it remains inside the truck.
10. The owner and/or operator shall wash/clean the raw materials if it is determined that the raw materials would have dirt or soil on them prior to entering the facility to ensure no residual heavy metals or impurities enter the cooking process. A visual inspection for dust and soil is acceptable for this permit condition.
11. All emissions from the Dupps Supercookor 260U (or equivalent), shall be captured and vented to the air-cooled condenser, followed by the 15,000 cfm venturi scrubber and then the 18 MMbtu/hr Thermal Oxidizer. The presence of a compromise in the integrity of cooking equipment, air pollution control equipment, or associated ducting shall constitute a violation of this condition, unless that compromise has been documented as needing repair in the log required under Condition 4.b.
12. All fugitive emissions from the post cooker drains, screens, screw presses, hammermill, protein grinding, crax material storage, centrifuges and discharge conveyors shall be conducted inside the negative pressure building and vented to the 125,000 cfm room air scrubber. The presence of a compromise in the integrity of the building envelope shall constitute a violation of this condition, unless that compromise has been documented as needing repair in the log required under Condition 4.b.
13. The finished protein meal storage silo shall be equipped with bin vent filters to reduce particulate matter and odor emissions during storage. The finished protein meal loading into trucks, supersacks, or containers should be performed in a covered area to minimize material loss.

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14. The owner and/or operator shall ensure any wastewater treatment equipment is located inside the building that is under negative pressure and routed to the air room scrubber. Any outdoor tanks used for wastewater treatment shall be completely closed at all times, except during periods of maintenance, repairs, or other types of malfunctions/issues that would require the source to ensure that the equipment is operating properly.
15. The owner and/or operator shall only use natural gas as supplemental gas in the 18 MMbtu/hr Thermal Oxidizer.
16. In the event that the Thermal Oxidizer malfunctions and cannot process the Rendering operation air emissions, the owner and/or operator shall route the emissions through the air-cooled condenser, followed by the 15,000 cfm venturi scrubber followed by the 125,000 cfm room air scrubber for no more than 7 days or until the TO is back up and running properly.
 - a. Until the TO is operating properly, the owner and/or operator shall daily inspect for odors migrating beyond the property line to help prevent excess odors from escaping the building until the repair can be made. Daily inspections shall include walking around the facility property and using sight, sound, and smell to detect any potential odor migration. If odor migration is found during daily inspections, the facility shall take immediate correction action to minimize impacts, which may include ceasing operations. A logbook shall be kept for documentation of all daily odor inspections. For each inspection, the logbook shall include the date and time of the inspection and the name of the person conducting the inspection. Once the TO is operating properly, the logbook shall also document the time and date of the repair.
 - b. As soon as the owner and/or operator is aware that repairs cannot be made within 7 days, the owner and/or operator shall cease all raw material processing until the TO Is back up and running properly.
17. The 18 MMbtu/hr thermal oxidizer shall be operated with a minimum combustion temperature of no less than 1,400 degrees F and the retention time shall be no less than 1.0 second. The thermal oxidizer temperature shall be continuously monitored and recorded. At a minimum, the operation and maintenance plan for the Thermal Oxidizer shall also include how the temperature measurement device is maintained in good working order.
18. Within 120 days of commencing initial startup of the Dupps Supercookor 260U cooker (or equivalent) and then repeatedly once every 48 to 52 months from the previous test for only VOC, NOx, and PM10, the owner and/or operator shall conduct a performance test to verify compliance with the following emissions standards on the thermal oxidizer:
 - a. 0.0052 lbs of VOC/ton of raw material processed - VOC testing shall be conducted in accordance with EPA Test Method 25 or 25A or an alternative method approved by the Agency. Testing to quantify exempt compounds, such as methane, shall be conducted in accordance with EPA Test Method 18 or an alternative method approved by the Agency.
 - b. 0.0137 lbs of CO/ton of raw material processed- CO testing shall be conducted in accordance with EPA Test Method 10 or an alternative method approved by the Agency.
 - c. 0.0069 lbs of NO_x/ton of raw material processed - NOX testing shall be conducted in accordance with EPA Test Method 7E or an alternative method approved by the Agency.
 - d. 0.0335 lbs of SO_x/ton of raw material processed - SOx testing shall be conducted in accordance with EPA Test Method 6C or an alternative method approved by the Agency.
 - e. 0.0033 lbs of PM10/ton (filterable and condensable) of raw material processed – PM10 Testing shall be conducted in accordance with) shall be conducted using EPA Method 201 and 202, EPA Method 201a and 202 or an alternative method approved by the Agency.

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The owner and/or operator shall conduct testing in accordance with Section 3.07 of Puget Sound Clean Air Agency (PSCAA) Regulation I using the following test Methods:

Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1 or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4.

The owner and/or operator may wait until the unit is needed to commence initial startup. Testing shall be performed while operating at or near maximum capacity of the rendering operation or under at another capacity that is approved by the Agency prior to conducting the performance test. During the performance test, the raw material process rate shall be monitored and recorded in tons per hour.

19. At least once per quarter during operation of the Dupps Supercookor 260U cooker (or equivalent) the owner and/or operator shall conduct visual observations of the Thermal Oxidizer exhaust. If any emissions are visible from the exhaust, the owner and/or operator shall conduct a visible emissions observation by a person certified in accordance with EPA Reference Method 9 (40 CFR 60, Appendix A). Such a test shall consist of a minimum of 30 minutes of opacity observations for the cooker. The owner and/or operator shall ensure 0% opacity from the cooker as measured with the Method 9.
20. Within 120 days of commencing initial startup of the 125,000 cfm air room scrubber and then repeatedly once every 48 to 52 months of the previous test for H2S and VOC, the owner and/or operator shall conduct a performance test to verify compliance with the following emissions standards
 - a. PM10 - 0.001 gr/dscf outlet grain loading standard - PM10 Testing (filterable and condensable) shall be conducted in accordance with) shall be conducted using EPA Method 201 and 202, EPA Method 201a and 202 or an alternative method approved by the Agency.
 - b. VOC – 3.2 ppmv outlet standard measured as Methane - VOC testing shall be conducted in accordance with EPA Test Method 18, 25, 25A or an alternative method approved by the Agency.
 - c. H2S – 0.75 ppmv outlet standard– H2S testing shall be conducted using EPA Test Method 11, ARB Method 15 or 16A or other approved method by the Agency.

The owner and/or operator shall conduct testing in accordance with Section 3.07 of Puget Sound Clean Air Agency (PSCAA) Regulation I using the following test Methods:

Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1 or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4.

The owner and/or operator may wait until the unit is needed to commence initial startup. Testing shall be performed while operating at or near maximum capacity of the rendering operation or under at another capacity that is approved by the Agency prior to conducting the performance test.

21. A testing notification must be submitted to the Agency in accordance with Section 3.07 of Regulation I, 21 days before any compliance test required by this Order of Approval is conducted. The facility must submit a test plan with the notification that includes all process equipment operating data that will be collected during the test as well as the methods that will be used to collect the data. The test plan shall also include an explanation on the proposed testing capacity if the maximum plant operating capacity is not planned on being used during the test.
22. The results of each source test shall be submitted to the Agency within 60 days after completion of the

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source tests.

23. The owner or operator shall develop and maintain an Operation and Maintenance (O&M) plan for the air-cooled condenser, the 15,000 cfm venturi scrubber, the 125,000 cfm air room scrubber, and the 18 MMBtu/hr Thermal Oxidizer. The O&M plan shall be developed and implemented per Agency's Regulation I. Additionally, the owner or operator shall establish a complaint response program as part of the O&M Plan. The program shall include a complaint phone line, criteria, and methods for establishing whether Darling Ingredients is the source of emissions related to the complaint, and a format for communicating results of investigation and advising complainants of Darling Ingredients' corrective actions.

- The owner or operator shall record and investigate complaints received regarding air quality as soon as possible, but no later than one working day after receipt.
- The owner or operator shall correct any problems identified by these complaint investigations within 24 hours of identification or cease operation of the equipment until the problem is resolved;
- Records of all complaints received regarding air quality issues shall include information regarding date and time of complaint(if known); name and address of complainant (if known); nature of the complaint(if known); investigation efforts completed and basis for conclusion reached; and date, time, and nature of any corrective action taken.

24. Odor Compliance

- If the Control Officer or authorized representative of the Agency communicates to the owner or operator that they have detected an odor at level 2 or greater as defined in Agency's Regulation I, Section 9.11(b), beyond the property line that the Agency has documented to be attributable to or partially attributable to emissions from rendering facility, the owner and/or operator must follow the odor response plan developed under part b. of this condition.
- The owner and/or operator shall develop an odor response plan and odor complaint log when complying with part a. of this condition, with the following elements.
- Initiate an investigation as soon as possible, but no later than 12 hours after receipt of notice from the Control Officer or authorized representative of the Agency.
 - Take corrective action to eliminate odors beyond the property line as soon as possible, but within 24 hours after receipt of the complaint from the Control Officer or authorized representative of the Agency.
 - Develop a report for every odor complaint and investigation. The odor complaint and investigation report must include the following:
 - The date and time of when the complaint was received.
 - The date and time of when the investigation was initiated.
 - Location of communicated odor and area investigated (including information provided by the Control Officer and any other areas the investigation identifies).
 - Weather conditions during the complaint.
 - Description of complaint and investigation and if an odor was detected.
 - Actions taken in response to the complaint.
 - The date and time odors are no longer detected beyond the property line.

25. All records required by this Order of Approval must be maintained onsite and available for inspection by agency personnel for at least two years from the date of generation.

26. The following records shall be kept onsite and up-to-date, and be made readily available to Agency personnel upon request at all times:

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- a. Compliance test reports.
- b. Any certified opacity readings that were required to be conducted with an EPA Method 9.
- c. Amount of raw materials processed per month.
- d. A copy of the odor complaint log and odor response plan.
- e. A written log showing corrective actions taken to maintain compliance with this Order of Approval. Each log entry must include date, time and description of any and all corrective action taken.
- f. A written log showing any instances when the Thermal Oxidizer malfunctioned and raw material gases from the cooker were routed to the 125,000 cfm air room scrubber as a backup.
- g. The Operation and Maintenance (O&M) plan
- h. Records of anemometer measurements and calibrations shall be kept, maintained, and made readily available for District inspection upon request, unless the alternative ventilation system standard is utilized. If the alternative ventilation system standard is utilized, records of the calculations demonstrating that the ventilation system of the building is designed to meet the alternative ventilation system standard.
- i. Records of Natural Gas combusted in the thermal oxidizer per month.

27. The Agency shall be notified, in writing, within 30 days of the end of the month in which an exceedance of any emissions limitation and standard identified in these permit conditions is discovered.

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.

Ralph Munoz
Reviewing Engineer

John Dawson
Engineering Manager