

Lane Regional Air Protection Agency
Simple Air Contaminant Discharge Permit
(Simple-ACDP)

REVIEW REPORT

Attune Foods, LLC

2545 Prairie Road
Eugene, Oregon 97402
Website: www.attunefoods.com

Permit No. 203141

General Background Information

1. Lane Regional Air Protection Agency (LRAPA) has reviewed the permit renewal application received on November 2, 2015. The contents of the application and subsequent correspondence with the facility were the basis for the calculations contained within this review report.
2. Attune Foods, LLC operates a cereal manufacturing facility in Eugene, Oregon. This stationary source currently operates five (5) separate process lines and one (1) packaging line. These lines can produce multiple products. Cereal is made from raw ingredients including, but not limited to, wheat, rice, corn, oat, oil, molasses, and honey. The facility's equipment includes scalpers, destoners, dryers, sifters, extrusion equipment, puffing equipment, conveyors, packaging machines, cookers, process heaters, intermediate storage equipment, and shipping and receiving facilities. The pollutants of concern are particulate matter (PM), particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), and volatile organic compounds (VOC). The facility uses nine (9) dust collectors and a baghouse to control emissions from the operation. Other emissions are from natural gas-fired dryers and heaters. The combined rating of all burners at the facility is 32.4 MMBtu/hr. The operating schedule for the facility is variable and dependent on orders.

Emissions Unit Descriptions

3. The facility's emission units (EU) are:

Emission Unit ID	Emission Unit Description	Emission Control Device
EL-1	Extrusion Line 1	Baghouse (BH1) and Dust Collectors
EL-2	Extrusion Line 2	Baghouse (BH1) and Dust Collectors
GL-1	Granola Line 1	Dust Collectors
GL-2	Granola Line 2	Dust Collectors
GL-3	Granola Line 3	Dust Collectors
PL	Five (5) Packaging Lines	Dust Collectors

4. During the permit renewal process, the facility submitted a Notice of Intent to Construct on July 13, 2016, to add a third granola production line, emission unit GL-3, increasing material throughput capacity by 21.8 million pounds per year. This project constituted a Type 2 permit change, and was incorporated prior to this permit renewal through the permit modification process. On August 28, 2017, LRAPA received a Notice of Completion for the installation of GL-3.

Reasons for Permit Action

- The facility operates a process listed in LRAPA Title 37 Table 1, Part B: B.17 Cereal Preparations and Associated Grain Elevators and is, therefore, required to obtain a permit. This is an existing facility applying for a renewal permit as a Simple-High ACDP. The facility qualifies for the Simple “High” fee due to actual VOC emissions of over 10 tons/year. The primary reason for this permit action is to renew the expired permit. [LRAPA 37-0064(2)(b)]

Enforcement History

- There have been no enforcement actions against this facility.

Source Testing

- No source testing has been performed at this facility. Material throughput and natural gas usage are used to determine the facility’s compliance with the PSELs.

Emissions

Pollutant	Baseline Emission Rate (BER)	Plant Site Emission Limit (PSEL)			Increase over Baseline	Significant Emission Rate (SER)
	(tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)	(tons/yr)	(tons/yr)
PM	0	24	24	0	24	25
PM ₁₀	0	14	14	0	14	15
PM _{2.5}	N/A	9	9	0	9	10
VOC	0	39	39	0	39	40
NO _x	0	39	39	0	39	40
CO	0	99	99	0	99	100
SO ₂	0	39	de minimis	removed	0	10
GHG	2,217	N/A	74,000	74,000	71,783	75,000

- The BER has been set at zero (0) tons per year for all pollutants, with the exception of PM_{2.5} and GHG as specified in LRAPA 42-0048, since this facility was not in operation during the 1978 baseline year. The baseline for GHG is based upon actual emissions from the 2009 calendar year.
- This permit action will remove the previously assigned PSEL for SO₂ because the facility’s potential to emit for this criteria pollutant is below the de minimis level. The emissions calculation sheet is attached to this review report.
- The facility has the potential to emit over the de minimis levels for PM, PM₁₀, PM_{2.5}, VOC, NO_x, CO, and GHG, so the proposed PSELs are included at the Generic PSEL as defined in LRAPA Title 12. The emissions calculation sheet is attached to this review report.

11. The PSEL increase over the baseline is less than the SER, as defined in LRAPA Title 12 for all criteria pollutants, so no further air quality analysis is required.

Other Emissions Limitations

12. The facility is subject to the visible emissions standards in LRAPA 32-010(3), the non-combustion particulate grain-loading standards in LRAPA 32-015(2)(b)(B) and LRAPA 32-015(2)(c), and the combustion particulate grain-loading standards in LRAPA 32-030(1)(b) and LRAPA 32-030(2). The facility is subject to the highest and best requirement of LRAPA 32-005. Operation of a well-maintained baghouse, dust collectors and process burners should assure compliance with the grain loading and visible emissions limits. The permittee is also required to conduct inspections and maintenance of the equipment to assure compliance with the highest and best requirement.
13. The facility is subject to the PSEL rules in LRAPA 42-0040. To assure compliance with the PSELs, detailed records of cereal production and natural gas usage are required to be maintained which demonstrate that emissions of all pollutants are below the established limits.

Typically Achievable Control Technology (TACT)

14. LRAPA 32-008 requires an existing emission unit at a facility to meet TACT if the emission unit meets the following criteria: the emissions of criteria pollutants are greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant, the emission unit is not subject to the emissions standards under LRAPA Title 30, Title 32, Title 33, Title 38, Title 39, or Title 46 for the pollutants emitted, and the facility is required to have a permit. The emissions units at this facility are subject to the grain loading and visible emissions standards in LRAPA Title 32 and are, therefore, not required to meet TACT for particulate matter. Although some emissions units at the facility do emit more than ten (10) tons per year of VOC, LRAPA has determined that the production throughput limitations detailed in the permit and utilized as an emission reduction process adequately represent TACT.

Hazardous Air Pollutants (HAPs)

15. There are no NESHAP/MACT standards that are applicable to this source at this time. The facility evaluated their HAP emissions in the Cleaner Air Oregon Data Reporting form received by LRAPA on May 31, 2017, and estimated that total HAP emissions for 2016 were 130 pounds, with projected maximum HAP emissions at 143 pounds/year; therefore, HAP emissions at this facility are considered to be negligible.

New Source Review (NSR) and Prevention of Significant Deterioration (PSD)

16. This source is not subject to NSR or PSD for the affected criteria pollutants. Since the proposed PSELs for all regulated pollutants are below the Significant Emission Rates (SERs) established in LRAPA Title 12, the facility is not subject to LRAPA's New Source Review (NSR) requirements for PM₁₀ nor the Prevention of Significant Deterioration (PSD) requirements for SO_x, NO_x, CO, and VOC.

New Source Performance Standards (NSPS)

17. There are no emission units at this facility that are subject to any New Source Performance Standards.

Monitoring, Recordkeeping and Reporting

18. A record of the following data must be maintained for a period of five (5) years at the plant site and must be available for inspection by authorized representatives of LRAPA: [LRAPA 34-016(1)]

Monitoring or Recordkeeping Parameter	Minimum Recording Frequency
Cereal production (tons)	Monthly
Natural gas throughput (MMscf)	Monthly
Emissions calculations as detailed in the permit	Monthly
Baghouse and dust collector(s) pressure readings	Monthly
Baghouse maintenance log	Upon occurrence

19. The facility is required to submit an annual report by **February 15th of each year**. The report will contain the rolling 12-month emission estimations for all pollutants listed in Condition 3 of the permit, as well as, the additional recordkeeping information detailed in Condition 13 of the permit.

Public Notice

20. The draft permit will be on public notice from March 2, 2018 to April 5, 2018. Written comments may be submitted during the 30-day comment period. If requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals, there will be a public hearing following the comment period.

After the comment period and hearing (if requested), LRAPA will respond to comments received and then take final action to issue or deny the permit within 45 days of the close of the public comment or hearing period.

Emission Calculations

Cereal Production Process			
Pollutant	Emission Factor ¹ (lbs/ton)	2017 Production Emissions (tons/yr)	Production Limit Emissions (tons/yr)
PM	0.2	2.8	3.9
PM ₁₀	0.2	2.8	3.9
PM _{2.5}	0.2	2.8	3.9
VOC	2.00	27.7	38.6

Production Basis		
Current Production (2017)	27,747	tons/yr
Production Limit	38,700	tons/yr

¹NOTE: Emissions factors for particulate matter (PM/PM₁₀/PM_{2.5}) were estimated using the dust collectors rated control efficiency of 99.99%. VOC emission factors for cereal production were obtained from the EMEP/EEA air pollutant emission inventory guidebook - 2009 Chapter 2.D.2 Food and drink Page 16 Table 3-18 Cakes, Biscuits and Breakfast Cereals (NMVOC EF: 1 kg/Mg = 2 lb/ton).

Natural Gas Combustion				
Pollutant	Emission Factor ² (lbs/MMscf)	PTE (tons/yr)	Projected Max Emissions (tons/yr)	2017 Production Emissions (tons/yr)
PM	7.6	1.1	0.18	0.18
PM ₁₀	7.6	1.1	0.18	0.18
PM _{2.5}	7.6	1.1	0.18	0.18
NO _x	100	13.9	2.4	2.4
CO	84	11.7	2.0	2.0
VOC	5.5	0.8	0.13	0.13
SO ₂	0.6	0.08	0.01	0.01

Natural Gas Usage³				
Max MMBtu Output (PTE)	32.4	MMBtu/hr	278.5	MMscf/yr
Projected Max Usage	48,717	MMBtu/yr	47.8	MMscf/yr
Current usage (2017)	49,425	MMBtu/yr	48.5	MMscf/yr

²NOTE: Natural gas combustion emission factors obtained from AP-42 Table 1.4-1 for NO_x and CO emissions, assuming a small uncontrolled boiler, and AP-42 Table 1.4-2 for PM, PM₁₀, PM_{2.5}, VOC and SO₂.

³NOTE: Maximum MMBtu Output calculated through the aggregation of the burner ratings of all fuel-burning devices. Projected maximum usage of natural gas obtained from the Cleaner Air Oregon Data reporting form submitted to LRAPA by the facility on May 31, 2017. Current usage obtained from the 2017 Annual Report received by LRAPA on February 12, 2018. All natural gas usage values converted to MMscf/yr assuming a natural gas higher heating value of 1020 Btu/scf.

Greenhouse Gas Emissions

Baseline Year – 2009	
Fuel type	Usage ¹
Natural gas (MMscf)	36.9
Emissions (metric tons/year)	
Anthropogenic combustion emissions (mtCO _{2e})	2,011
Biogenic combustion emissions (mtCO _{2e})	0
Total combustion emissions (mtCO _{2e})	2,011
Conversion to short tons	
Emissions (tons/year)	
Anthropogenic combustion emissions	2,217
Biogenic combustion emissions	0
Total combustion emissions	2,217

Current Usage – 2017	
Fuel type	Usage
Natural gas (MMscf)	50.759
Emissions (metric tons/year)	
Anthropogenic combustion emissions (mtCO _{2e})	2,766
Biogenic combustion emissions (mtCO _{2e})	0
Total combustion emissions (mtCO _{2e})	2,766
Conversion to short tons	
Emissions (tons/year)	
Anthropogenic combustion emissions	3,049
Biogenic combustion emissions	0
Total combustion emissions ²	3,049

¹NOTE: Natural gas throughput value obtained from the new facility Simple ACDP application received by LRAPA on September 14, 2009.

²NOTE: Although direct usage from the three previous years and the baseline fall below the GHG de minimis threshold, per OAR 340-215-0030(8)(c), the facility became applicable to the greenhouse gas reporting requirements of OAR 340-215-0030(2) because the annual direct emissions reported in the 2017 Annual Report exceeded 2,756 tons (2,500 metric tons) of carbon dioxide equivalent of greenhouse gases.