

**LANE REGIONAL AIR PROTECTION AGENCY  
SIMPLE AIR CONTAMINANT DISCHARGE PERMIT**

**REVIEW REPORT**

Hearthside Food Solutions  
2545 Prairie Road  
Eugene, Oregon 97402

**REASONS FOR PERMIT ACTION**

1. 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. The proposed permit is a new permit for an existing source.

**GENERAL BACKGROUND INFORMATION**

2. Hearthside Food Solutions operates a breakfast cereal manufacturing facility in Eugene, Oregon. The stationary source currently consists of 4 separate process lines and a 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 stationary source consists of scalpers, destoners, dryers, sifters, extrusion equipment, puffing equipment, conveyors, packaging machines, various 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 (PM<sub>10</sub>), and Volatile Organic Compounds (VOC). The facility uses eight (8) filters and a baghouse to control emissions from the operation. Other emissions are from various natural gas-fired dryers and heaters. The combined rating of all burners at the facility is 29.1 MMBtu/hr. The operating schedule for the facility is variable dependent on orders.

**EMISSIONS UNIT IDENTIFICATION**

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

Extrusion Line 1 (EL-1)  
Extrusion Line 2 (EL-2)  
Granola Line 1 (GL-1)  
Granola Line 2 (GL-2)  
Five (5) Packaging Lines (PL)

**PERMIT, COMPLIANCE AND ENFORCEMENT HISTORY**

4. There have been no enforcement actions against the facility.
5. There is no record of any performance testing completed at the facility.

**FACILITY EMISSIONS**

**Plant Site Emission Limits (PSELs)**

6. The PSELs are set in accordance with Section 42-0040 and 42-0041. The facility has the capacity less than the Significant Emission Rate for all pollutants and, hence, the PSELs for those pollutants are set at the Generic PSEL level. The facility is required to perform monthly recordkeeping and PSEL calculations to determine compliance with the PM, PM<sub>10</sub>, and VOC PSELs. The facility is required to record fuel combusted in the process heaters and report information about PSELs and fuel combustion in an annual report. Because emissions associated with the maximum design rate for the burners is well below the Generic PSEL level, the facility is only required to track and report fuel combustion – PSEL calculations for the boilers is not necessary.

**Annual PSEL**  
(tons)

Source	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Totals	24	14	9	39	39	99	39

7. The attachment to this Review Report contains the calculations and further explanation of the emissions estimates.

**Baseline Emission Rates (BERs) and Significant Emission Rate (SER) Comparison**

8. The BER has been set at zero (0) tons per year for all pollutants since this source was not in operation during the 1978 baseline year.:

Pollutant	Baseline Emissions (tons/yr)	Proposed PSEL (tons/yr)	Increase from Baseline (tons/yr)	SER (tons/yr)
PM	0	24	24	25
PM <sub>10</sub>	0	14	14	15
PM <sub>2.5</sub>	0	9	9	10
CO	0	99	99	100
NO <sub>x</sub>	0	39	39	40
VOC	0	39	39	40
SO <sub>2</sub>	0	39	39	40

### **Other Emission Limitations**

9. The permit includes general visible emissions limitations for the facility. The permit also includes general mass emission limitations for the facility.
10. The permit includes a limit on the amount of cereal produced to stay under the VOC Significant Emission Rate (SER).

### **Hazardous Air Pollutants (HAPs)**

11. The projected HAP emissions from the facility are expected to be minimal.

## **EMISSION LIMITATIONS AND STANDARDS**

### **Typically Achievable Control Technology (TACT)**

12. LRAPA Title 32-008 requires an existing emission unit at a facility to meet TACT if the emissions unit has emissions of criteria pollutants greater than ten (10) tons per year of any gaseous pollutant or five (5) tons per year of particulate, the emissions unit is not subject to the emissions standards under LRAPA Title 32, Title 33, Title 39, or Title 46 for the pollutants emitted, and the facility is required to have a permit. Because of the fugitive nature of the VOC emissions, no control technologies are required to meet TACT requirements.

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

13. Because the proposed PSEs for all regulated pollutants are below the Significant Emission Rates (SERs) in LRAPA Title 38, the facility is not subject to LRAPA's New Source Review (NSR) requirements for PM<sub>10</sub> nor the Prevention of Significant Deterioration (PSD) requirements for SO<sub>x</sub>, NO<sub>x</sub>, CO, and VOC.

### **New Source Performance Standards (NSPS)**

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

### **Continuous Compliance**

15. A record of the following data is required to be maintained for a period of two (2) years at the plant site and to be available for inspection by authorized representatives of LRAPA: [LRAPA 35-0160]

Monitoring or Recordkeeping Parameter	Minimum Recording Frequency
Monthly throughput for each emission unit listed in Condition 2.	Monthly
Emissions calculations as specified in Condition 12.	Monthly
Monitor pressure readings of each filter and baghouse and record in a log.	Monthly
Record in a log maintenance of baghouse.	Upon occurrence
Burner fuel throughput	Annually

### Reporting

16. An annual summary to document compliance with the Plant Site Emission Limits is required to be submitted. The summary will contain the PM/PM<sub>10</sub> and VOC emission data as required per permit Condition 4 and the recordkeeping information in Condition 11.
  - a. The annual summary is due thirty (30) days after the end of each calendar year. [LRAPA 35-0160]
  - b. The facility is required to notify LRAPA immediately if the PSEL monitoring calculations show that an exceedance has occurred.
  - c. The annual summary will also report any information as required per General Condition G15.

### Public Notice

17. The draft permit was on public notice from March 8, 2011 to April 12, 2011. No written comments were submitted during the 35-day comment period.

MTL/cmw  
02/25/11

<b>Hearthside Food Solutions Emissions Calculations</b>				
<b>CEREAL PRODUCTION</b>				
	Emission Factor (lbs/ton)	2009	Limit	
PM <sup>(1)</sup>	0.2	1.8	3.9	
PM <sub>10</sub>	0.2	1.8	3.9	
PM <sub>2.5</sub>	0.2	1.8	3.9	
VOC <sup>(2)</sup>	2	17.5	38.7	
Calculations based on:				
Current Production	17500 tons/yr		Filter efficiency	99.99
Production Limit	38700 tons/yr			
<p>(1) No specific emissions factors for particulate matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) are available for this process. A conservative factor was used to ensure the facility does not exceed the significant emission rate for these pollutants. The factor is considered conservative because most emission points are controlled by fabric filters rated at 99.99% efficiency and emission factors for similar processes do not suggest there are expected emissions at this level. VOC will trigger additional permitting requirements before particulate matter.</p> <p>(2) EMEP/EEA air pollutant emission inventory guidebook — 2009 Chapter 2.D.2 Food and drink Page 16 Table 3-18 (ranged from 0.2 to 20 lbs/ton)</p>				
<b>NATURAL GAS COMBUSTION</b>				
	Emission Factor (lbs/MMscf)	2009	2019	PTE
PM	7.6	0.1	0.4	1.0
PM <sub>10</sub>				
PM <sub>2.5</sub>	1.9	0.0	0.1	0.2
NO <sub>x</sub>	100	1.9	4.7	13.0
CO	84	1.6	3.9	10.9
VOC	5.5	0.1	0.3	0.7
SO <sub>2</sub>	0.6	0.0	0.0	0.1
Calculations based on:				
Burner Rating (PTE)	29.1 MMBtu/hr		260.0 MMscf/yr	
Current usage (2009)	384008 Therms		38.4 MMscf/yr	
Projected Usage (2019)	931089 Therms		93.1 MMscf/yr	