



**Lane Regional Air Protection Agency  
Simple Air Contaminant Discharge Permit**

**Review Report**

**Northern Gold Foods (USA), LLC**

29323 Meadowview Road

Junction City, Oregon 97448

Website: <http://www.northerngold.com/>

**Permit No. 205823**

**Source Information:**

Primary SIC	2064 – Candy and other Confectionary Products
Secondary SIC	--
Primary NAICS	311351 – Chocolate and Confectionary Manufacturing from Cacao Beans

Secondary NAICS	--
Source Categories (LRAPA title 37, Table 1)	Part B: 8: Bakeries, commercial over 10 tons of VOC emissions per year
Public Notice Category	III

**Compliance and Emissions Monitoring Requirements:**

Unassigned Emissions	N
Emission Credits	N
Special Conditions	N
Compliance Schedule	N

Source Test [date(s)]	N
COMS	N
CEMS	N
Ambient monitoring	N

**Reporting Requirements**

Annual Report (due date)	February 15
SACC (due date)	N
GHG Report (due date)	N
Quarterly Report (due date)	N

Monthly Report (due dates)	N
Excess Emissions Report	Y
Other Reports (due date)	N

**Air Programs**

NSPS (list subparts)	A, JJJJ
NESHAP (list subparts)	N
Compliance Assurance Monitoring (CAM)	N
Regional Haze (RH)	N
TACT	N
Cleaner Air Oregon (CAO)	N
40 CFR part 68 Risk Management	N
Synthetic Minor (SM)	N

Title V	N
Major FHAP Source	N
Federal Major Source	N
Type A State New Source Review	N
Type B State New Source Review	N
Prevention of Significant Deterioration (PSD)	N
Nonattainment New Source Review (NNSR)	N

**Permittee Identification**

1. Northern Gold Foods (USA) LLC ('the facility' or 'Northern Gold') is a confectionary processing facility on Meadowview Road in Eugene, Oregon.

**General Background**

2. Northern Gold owns and operates a granola processing facility and can make a variety of granola products, such as cereal and bars. The raw ingredients include but are not limited to oats, wheat, rice, corn, oil, molasses, and honey.
3. Northern Gold operates extrusion and granola lines that include mixers, extruder equipment, conveyors, packing machines, and natural gas-fired process heaters, ovens and boilers. There are four (4) dust collectors and two (2) cyclones that control particulate matter emissions discharges to the outside of the building.

**Reasons for Permit Action and Fee Basis**

4. This is a permit renewal of an existing Standard Air Contaminant Discharge Permit (Standard ACDP) issued on February 19, 2019, and expired on February 19, 2024. Because the facility submitted a timely renewal application on August 18, 2023, the current permit will remain in effect until final action has been taken on the renewal application.
5. Northern Gold requested a modification that will be incorporated during the renewal. Northern Gold proposed installing an extrusion line with an oven with four (4) dust collectors and two (2) cyclones to control particulate matter (PM) emissions and a 96-horsepower natural gas-fired emergency generator. The facility also requested a decrease in production throughput to reduce the VOC annual emissions below the 39 tons/year threshold to move from a Standard to a Simple ACDP.

**Attainment Status**

6. Northern Gold is located outside the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated attainment/unclassified for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, CO, ozone (VOC), SO<sub>2</sub>, and Pb. The facility is located within 100 kilometers of two (2) Class I air quality protection area: Three Sister Wilderness and Mount Washington Wilderness.

**Permitting History**

7. LRAPA has reviewed and issued the following permitting actions to this facility since the last permit renewal:

<b>Date(s) Approved/Valid</b>	<b>Permit Action Type</b>	<b>Description</b>
02/19/2019-02/19/2024	Standard ACDP	Initial ACDP
Upon Issuance	Modification	Installation of extrusion line with control devices and one (1) natural gas-fired oven.
Upon Issuance	Simple ACDP	Renewal

**Emission Unit Description**

8. The emission units regulated by this permit include the following:

<b>Emission Unit</b>	<b>Description</b>	<b>Pollution Control Device</b>	<b>Year Installed</b>
GR1	Baking granola product	4 – Dust collectors* 2 – Cyclones*	2019 & 2024
OV1, OV2, OV3 & OV4*	4 – Natural Gas-Fired Ovens	NA	2019 & 2024
BL1 & BL2	2 – Natural Gas-Fired Boilers	NA	2019
AIA	Aggregate Insignificant Activity (AIA): • Mixers	NA	2019
CIA	Categorically Insignificant Activities (CIA): • Natural gas-fired combustion units • Natural gas-fired emergency generator	NA	2019

\*New emissions units or control devices

**Emission Limitations**

9. The facility may not exceed a production rate of 38,000 tons of product processed on a 12-month rolling basis.
10. The facility must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel. The facility must maintain a log of each nuisance complaint received by the permittee during the operation of the facility. A plant representative must immediately investigate the condition following the receipt of the nuisance complaint and provide a response to the complainant within 24 hours, if possible. [LRAPA 49-020].
11. The facility must also keep a log of each nuisance complaint received.
12. The facility's emission points from the combustion units, cyclones(s) and dust collectors are not expected to have any visible emissions. The facility is subject to a limit of 20 percent opacity for each source emission point. The facility is subject to the grain loading limitations under LRAPA 32-015(2)(c) and 32-030(2). Visual emission survey (opacity readings) must be performed quarterly and must not exceed an average of 20 percent opacity shall be determined on a six (6) average for a minimum of 30 minutes. A survey log must be kept of all visible emission surveys conducted and any corrective actions taken.
13. For sources installed, constructed, or modified after April 16, 2015, the facility must not cause, suffer, allow, or permit particulate emissions from any equipment in excess of 0.10 grains per dry standard cubic foot under LRAPA32-015(2)(c) and 32-030(2). This limitation applies to EUs: OV1-OV4, BL1 and BL2. Compliance will be demonstrated through visible emission surveys.
14. All plant process equipment and all air contaminant collection and disposal facilities, including any cyclones and dust collectors, must be maintained to ensure overall air quality at the highest possible levels, and to maintain contaminant concentrations, visibility reduction, odors, soiling, and other deleterious factors at the lowest possible levels under LRAPA 32-005(1). Compliance will be demonstrated through maintenance and visible emission surveys.
15. Under LRAPA 32-007, if LRAPA requests the facility to prepare an Operation and Maintenance Plan (O&M Plan) for the particulate matter control devices, the O&M Plan must contain, at minimum the identify the frequency of inspections, the date of inspections, the procedures for documenting each inspection and the actions taken if repairs or maintenance are necessary.

**Typically Achievable Control Technology (TACT)**

16. LRAPA 32-008(2) requires new or modified emission units after 1/1/1994 to meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR or Type A State NSR in LRAPA title 38, and applicable NSPS in LRAPA title 46, or any other standard applicable to only new or modified sources in LRAPA title 32, title 33, or title 39 for the regulated pollutant; the source is required to have a permit; if new, the emission unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emission unit would have an increase in emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; and LRAPA determines that the proposed air pollution control devices and emission reduction processes do not represent TACT.
- 16.a. For most of the granola production (EU: GR1) emission points, the pollutants are exhausted into the building. Only one (1) granola line exhausts directly into the atmosphere and the particulate matter emissions are controlled by four (4) dust collectors and two (2) cyclones. While a formal TACT determination has not been conducted, LRAPA has determined that the use of these particulate matter control devices likely meets the TACT requirements for this facility.
- 16.b. For the natural gas-fired ultra-low NO<sub>x</sub> boilers (EUs: BL1 and BL2) and the natural gas-fired ovens (EUs: OV1 through OV4), CO and NO<sub>x</sub> emissions potentially exceed one (1) ton per year. While a formal TACT analysis has not been conducted, TACT for these emission units would likely be documentation of routine inspection and maintenance of these emission units. Controls are not considered economically feasible for such small boilers.

**New Source Performance Standards (NSPSs)**

17. With the exception as noted in Item 18, there are no emission units at this facility for which NSPS have been promulgated or are applicable.
- 17.a. 40 CFR 60 subpart DD – Standards of Performance for Grain Elevators is not applicable to this facility because the facility does not meet the definition of a “grain terminal elevator” or “grain storage elevator” under 40 CFR 60.301. The definition of a grain terminal elevator does not include cereal manufacturers. The definition of grain storage elevator only applies to wheat flour, corn, rice or soybeans.
18. 40 CFR part 60 subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines is applicable to Northern Gold because the emergency generator engine that Northern Gold owns and operates is a spark ignition internal combustion engine and was manufactured after the 2009 applicability date for SI ICE.

<b>40 CFR part 60, subpart JJJJ Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
60.4230	Applicability	Yes	None.	NA
60.4231	Emission standards	No	None.	NA
60.4232	Emission standards	No	None.	NA
60.4233	Emission standards	Yes	Applicable to (d).	15
60.4234	Emission standards	Yes	None.	16
60.4235	Fuel requirements	No	None.	NA
60.4236	General requirements	No	None.	NA

<b>40 CFR part 60, subpart JJJJ Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
60.4237	Monitoring requirements	Yes	Applicable to (c).	17
60.4238	Compliance requirements	No	None.	NA
60.4239	Compliance requirements	No	None.	NA
60.4240	Compliance requirements	No	None.	NA
60.4241	Compliance requirements	No	None.	NA
60.4242	Compliance requirements	No	None.	NA
60.4243	Compliance requirements	Yes	Applicable to (a)(1), (a)(2), (b)(1), (d)(1) and (d)(2).	18, 19 & 20
60.4244	Testing requirements	No	None.	NA
60.4245	Notification, reporting, and recordkeeping	Yes	Applicable to (a)(1), (a)(2), (a)(3), and (b).	21, 22 & 23
60.4246	General provisions	No	None.	NA
60.4247	General provisions	No	None.	NA
60.42	Definitions	Yes	None.	NA

**National Emission Standards for Hazardous Air Pollutants (NESHAPs)**

19. There are no emission units at this facility for which NESHAPs have been promulgated or are applicable.

**Plant Site Emission Limits (PSELs)**

20. Provided below is a summary of the baseline emissions rate, netting basis, and PSELs for this facility.

<b>Pollutant</b>	<b>Baseline Emission Rate (TPY)</b>	<b>Netting Basis</b>		<b>Plant Site Emission Limit (PSEL)</b>		<b>PSEL Increase Over Netting Basis (TPY)</b>	<b>Significant Emission Rate (TPY)</b>
		<b>Previous (TPY)</b>	<b>Proposed (TPY)</b>	<b>Previous PSEL (TPY)</b>	<b>Proposed PSEL (TPY)</b>		
PM	NA	0	0	24	4.0	4.0	25
PM <sub>10</sub>	NA	0	0	14	4.0	4.0	15
PM <sub>2.5</sub>	NA	0	0	9	4.0	4.0	10
CO	NA	0	0	99	7.6	7.6	100
NO <sub>x</sub>	NA	0	0	39	9.1	9.1	40
SO <sub>2</sub>	NA	0	0	de minimis	de minimis	de minimis	40
VOC	NA	0	0	39	38	38	40
GHG (CO <sub>2e</sub> )	0	0	0	74,000	10,925	10,925	75,000
Individual HAP	NA	NA	NA	de minimis	de minimis	de minimis	10
Aggregate HAPs	NA	NA	NA	de minimis	de minimis	de minimis	25

- 20.a. The facility does not have a baseline emission rate for pollutants other than PM<sub>2.5</sub> and GHGs because the facility was not in operation during either the 1977 or 1978 baseline year. A baseline emission rate is not established for PM<sub>2.5</sub> in accordance with LRAPA 42-0048(3). The facility has no baseline for GHGs because the facility was not in operation during the 2000-2010 baseline period.
- 20.b. The netting basis for all pollutants is 0 (zero) tons/year in accordance with LRAPA 42-0046.
- 20.c. In accordance with LRAPA 42-0041(2) the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, NO<sub>x</sub>, and VOC PSEs have been set at the source's potential to emit. No PSEL is set for SO<sub>2</sub> in accordance with LRAPA 42-0020(3) because SO<sub>2</sub> is emitted facility-wide below the de minimis level, as defined in LRAPA title 12.
- 20.d. The baseline year, netting basis and SER are not applicable for limiting federal HAPs. As this facility is a minor source of federal HAPs, no PSEs have been established for federal HAPs.

**Federal Hazardous Air Pollutants/Toxic Air Contaminants**

- 21. The facility does not have a potential-to-emit (PTE) for federal HAPs that will exceed the major source thresholds for individual federal HAPs and aggregate federal HAPs of ten (10) TPY and 25 TPY, respectively. Therefore, the facility is considered a minor or area source of federal HAPs.
- 22. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and is, therefore, not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in the rule. All federal HAPs are on the list of approximately 600 toxic air contaminants. After the source is notified by LRAPA, they must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.
- 23. Provided below is a summary of the federal HAP and CAO TAC emission estimates based on the potential emissions as calculated in the emission detail sheets. The highest potential emission for an individual HAP is toluene at 3.33E-03 TPY. The potential emissions in aggregate of all federal HAPs is 1.07E-02 TPY.

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
<b>Organics</b>				
Acetaldehyde	75-07-0	3.91E-04	Yes	Yes
Acrolein	107-02-8	2.46E-04	Yes	Yes
Benzene	71-43-2	7.27E-04	Yes	Yes
Benzo[a]pyrene	50-32-8	1.09E-07	Yes	Yes
Ethyl Benzene	100-41-4	8.64E-04	Yes	Yes
Formaldehyde	50-00-0	1.55E-03	Yes	Yes
Hexane	110-54-3	5.73E-04	Yes	Yes
Naphthalene	91-20-3	2.73E-05	Yes	Yes
POM (including PAHs)	--	9.09E-06	Yes	Yes
Toluene	108-88-3	3.33E-03	Yes	Yes
Xylenes	1330-20-7	2.47E-03	Yes	Yes

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
<b>Inorganic Gases</b>				
Ammonia	7664-41-7	2.91E-01	No	Yes
<b>Metals</b>				
Arsenic	7440-38-2	1.82E-05	Yes	Yes
Barium	7440-39-3	4.00E-04	No	Yes
Beryllium	7440-41-7	1.09E-06	Yes	Yes
Cadmium	7440-43-9	1.00E-04	Yes	Yes
Chromium, Hexavalent	18540-29-9	1.27E-04	Yes	Yes
Cobalt	7440-48-4	7.64E-06	Yes	Yes
Copper	7440-50-8	7.73E-05	No	Yes
Lead	7439-92-1	4.55E-05	Yes	Yes
Manganese	7439-96-5	3.46E-05	Yes	Yes
Mercury	7439-97-6	2.36E-05	Yes	Yes
Molybdenum Trioxide	1313-27-5	1.50E-04	No	Yes
Nickel	7440-02-0	1.91E-04	Yes	Yes
Selenium	7782-49-2	2.18E-06	Yes	Yes
Vanadium	7740-62-2	2.09E-04	No	Yes
Zinc	7440-66-6	2.64E-03	No	Yes
<b>Totals (TPY)</b>			<b>1.07E-02</b>	<b>3.05E-01</b>

**Toxics Release Inventory**

24. The Toxics Release Inventory (TRI) is a federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment, over which LRAPA has no regulatory authority. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) created the TRI program. In general, chemicals covered by the TRI program are those that cause:

- Cancer or other chronic human health effects;
- Significant adverse acute human health effects; or
- Significant adverse environmental effects.

There are currently over 650 chemicals covered by the TRI program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI program is a federal program over which LRAPA has no regulatory authority. LRAPA does not guarantee the accuracy of any information copied from EPA's TRI website.

In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. The facility's NAICS code is 311351 – Chocolate and Confectionary Manufacturing from Cacao Beans which is subject to the TRI program, but the facility falls below the reporting limits and does not have to report to the TRI program.

**Compliance History**

25. The facility has had no documented compliance issues since the issuance of the initial Standard ACDP.

**Source Testing History**

26. The facility is not required to conduct source testing at this time.

**Recordkeeping Requirements**

27. The facility is required to keep and maintain a record of the following information for a period of at least five (5) years from the date of entry of the following information:

Activity	Units	Minimum Recording Frequency
<b>Emission Unit Recordkeeping</b>		
Cereal Production	Tons	Monthly
Total natural gas combusted	MMscf	Monthly
PSEL pollutant emissions as calculated in accordance with permit Conditions 4 and 5, including the supporting process information	Tons	Monthly
Documentation of any maintenance and each inspection of the control devices (cyclones/dust collectors) in accordance with permit Condition 15	NA	As Performed
Emission survey logs	percent	Quarterly
Operation and Maintenance Plan (if required by LRAPA)	NA	Maintain the current version on-site
Documentation of maintenance performed on each engine in accordance with permit Condition 22.b	NA	Each occurrence
Documentation from the manufacturer that each engine is certified to meet the applicable emission standards in accordance with permit Condition 22.c	NA	Maintain documentation
Records of hours spent for emergency operation, including what classified the operation as emergency, and hours spent for non-emergency operation for each engine in accordance with permit Condition 23.	Hours	Monthly
<b>General Recordkeeping</b>		
Log of each nuisance complaint and the resolution	NA	Upon receipt
Upset log of all planned and unplanned excess emissions	See permit Condition G15	Per occurrence

**Reporting Requirements**

28. The facility must submit to LRAPA the following reports by the dates indicated in the table below:

Report	Reporting Period	Due Date
Cereal Production	Annual	February 15
Total natural gas combusted	Annual	February 15



<b>Report</b>	<b>Reporting Period</b>	<b>Due Date</b>
PSEL pollutant emissions as calculated in accordance with permit Conditions 4 and 5, including the supporting process information	Annual	February 15
A summary of nuisance complaints from the public and the resolution in accordance with permit Condition G10, as applicable	Annual	February 15
The upset log information required by permit Condition G16, if required by Condition G14	Annual	February 15
GHG Report, if required by permit Condition 6	Annual	March 31

**Public Notice**

29. Issuance of a renewal Simple Air Contaminant Discharge Permit requires notice in accordance with LRAPA 31-0030(3)(c), which requires LRAPA to provide notice of the proposed permit action and a minimum of 35 days for interested persons to submit written comments.

The proposed permit was on public notice from July 8, 2024 to August 13, 2024. No written comments were submitted during the public comment period. No public hearing was requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals.

BE/aa  
8/15/2024

**LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT**

ACDP	Air Contaminant Discharge Permit	MMBtu	Million British thermal units
AQMA	Air Quality Management Area	MMCF	Million cubic feet
ACS	Applied coating solids	NA	Not applicable
Act	Federal Clean Air Act	NESHAP	National Emission Standards for Hazardous Air Pollutants
ASTM	American Society of Testing and Materials	NO <sub>x</sub>	Nitrogen oxides
BDT	Bone dry ton	NSPS	New Source Performance Standards
Btu	British thermal unit	NSR	New Source Review
CAM	Compliance Assurance Monitoring	O <sub>2</sub>	Oxygen
CAO	Cleaner Air Oregon	OAR	Oregon Administrative Rules
CD ID	Control device identifier	ODEQ	Oregon Department of Environmental Quality
CEMS	Continuous Emissions Monitoring System	ORS	Oregon Revised Statutes
CFR	Code of Federal Regulations	O&M	Operation and maintenance
CI	Compression Ignition	SB	Lead
CMS	Continuous Monitoring System	PCD	Pollution Control Device
CO	Carbon Monoxide	PM	Particulate matter
CO <sub>2</sub>	Carbon dioxide	PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
CO <sub>2e</sub>	Carbon dioxide equivalent	PM <sub>10</sub>	Particulate matter less than 10 microns in size
COMS	Continuous Opacity Monitoring System	ppm	Parts per million
CPDS	Certified Product Data Sheet	PSEL	Plant Site Emission Limit
CPMS	Continuous parameter monitoring system	psia	pounds per square inch, actual
DEQ	Department of Environmental Quality	PTE	Potential to Emit
dscf	Dry standard cubic feet	QIP	Quality Improvement Plan
EF	Emission factor	RICE	Reciprocating Internal Combustion Engine
EPA	US Environmental Protection Agency	SACC	Semi-Annual Compliance Certification
EU	Emissions Unit	SCEMP	Surrogate Compliance Emissions Monitoring Parameter
EU ID	Emission unit identifier	Scf	Standard cubic foot
FCAA	Federal Clean Air Act	SDS	Safety data sheet
ft <sup>2</sup>	Square foot	SER	Significant emission rate
FSA	Fuel sampling and analysis	SERP	Source emissions reduction plan
gal	Gallon	SI	Spark Ignition
GHG	Greenhouse Gas	SIC	Standard Industrial Code
gr/dscf	Grain per dry standard cubic feet (1 pound = 7000 grains)	SIP	State Implementation Plan
HAP	Hazardous Air Pollutants as defined by LRAPA title 12	SO <sub>2</sub>	Sulfur dioxide
HCFC	Halogenated Chlorofluorocarbons	ST	Source test
Hr	Hour	TAC	Toxic air contaminant
ID	Identification number or label	TACT	Typically Achievable Control Technology
I&M	Inspection and maintenance	TBD	To Be Determined
Lb	Pound	TEU	Toxic Emission Unit
LRAPA	Lane Regional Air Protection Agency	TPY	Tons per year
MACT	Maximum Achievable Control Technology	VE	Visible emissions
MBF	Thousand board feet	VMT	Vehicle miles traveled
MERV	Minimum efficiency reporting values	VOC	Volatile organic compounds
MM	Million	Year	A period consisting of any 12-consecutive calendar months

**Emission Detail Sheets**

PLANT SITE EMISSION LIMITS										
Emission Units	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NO <sub>x</sub>	SO <sub>2</sub>	VOC	Single HAP *	Aggregate HAP *	GHG
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy
Cereal Production (GR1) <sup>(1)</sup>	3.80	3.80	3.80	0.00	0.00	0.00	37.92	0.00	0.00	0.00
Ovens (OV1, OV2, OV3, & OV4)	0.23	0.23	0.23	7.64	9.09	0.24	0.50	0.0033	0.01	10,925
Aggregate Insignificant Activities (AIA) <sup>(2)</sup>										
Mixers	0.67	0.15	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Categorically Insignificant Activities (CIA)										
Natural gas-fired combustion units	0.01	0.01	0.01	0.26	0.31	0.01	0.02	0.00	0.00	374
Emergency Generator	0.00	0.00	0.00	0.02	0.13	0.00	0.01	0.00	0.00	19
<b>Potential to Emit (PTE)</b>	<b>4.03</b>	<b>4.03</b>	<b>4.03</b>	<b>7.64</b>	<b>9.09</b>	<b>0.24</b>	<b>38.42</b>	<b>0.00</b>	<b>0.01</b>	<b>10,925</b>
<b>PSELS <sup>(3)</sup></b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>7.6</b>	<b>9.1</b>	<b>0.2</b>	<b>38</b>	<b>0.00</b>	<b>0.01</b>	<b>10,925</b>

(1) Confectionary production emissions are based on a throughput of total production of 38,000 tons per year.

(2) Aggregate Insignificant Emissions = the annual actual emissions of any regulated air pollutant from one or more designated activities at a source that are less than or equal to the lowest applicable level specified in this section (1 ton for criteria pollutants). The total emissions from each designated activity and the aggregate emissions from all designated activities must be less than or equal to the lowest applicable level (1 ton for criteria pollutants)

(3) The PSELS are set equal to the source's potential to emit in accordance with LRAPA 42-0041(2)

(3) PSELS were rounded to the 0.5. If the PSEL was below 0.5, it was rounded down and if above the PSEL was rounded up.

Baseline and Netting Calculations									
Pollutant	Baseline <sup>(1)</sup>	Netting Basis <sup>(2)</sup>		Plant Site Emission Limit (PSEL)		PSEL Increase	PTE Emissions	Increase over Netting Basis	SER
		Previous	Proposed	Previous PSEL	Proposed PSEL <sup>(3)</sup>				
	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy	tpy
PM	NA	0.0	0.0	24	4.0	-20	4.03	4.03	25
PM <sub>10</sub>	NA	0.0	0.0	14	4.0	-10	4.03	4.03	15
PM <sub>2.5</sub>	NA	0.0	0.0	9.0	4.0	-5.0	4.03	4.03	10
CO	NA	0.0	0.0	99	7.6	-91	7.64	7.64	99
NO <sub>x</sub>	NA	0.0	0.0	39	9.1	-30	9.09	9.09	39
SO <sub>2</sub>	NA	0.0	0.0	de minimis	de minimis	de minimis	de minimis	de minimis	39
VOC	NA	0.0	0.0	39	38	-0.6	38.42	38.4	39
GHG <sup>(3)</sup>	0.0	0.0	0.0	74,000	10,925	-63,075	10,925	10,925	75,000

(1) Baseline emission rates (BERs) have been set at zero (0) for all criteria pollutants because the facility was not in operation during the 1978 baseline

(1) BER for PM<sub>2.5</sub> was not established in accordance with LRAPA 42-0048(3).

(1) BER for GHG was not established because the facility did not start operation until after 2010. This is in accordance with LRAPA 42-0048(b).

(2) The Netting Basis was not established because netting was not triggered in accordance to LRAPA 42-0046.

(2) For all criteria pollutants the netting is zero because the facility was constructed after the 1978 baseline year.

(3) PSEL

<b>CEREAL PRODUCTION EMISSIONS CALCULATIONS</b>		
Pollutants	Emission Factor (lbs/ton)	tons/year
PM <sup>(1)</sup>	0.2	3.8
PM <sub>10</sub>	0.2	3.8
PM <sub>2.5</sub>	0.2	3.8
VOC <sup>(2)</sup>	2.00	37.9

**Notes:**

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 either by exhausting into the building or by dust collectors with cyclones. Similar processes do not suggest there are expected emissions above this level.

2. 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)

<b>Combustion Unit Calculations</b>				
Pollutant	NG Emission Factor (lb/MMCF) <sup>(1)</sup>	NG Emission Factor Units	Potential Hourly Emissions (lbs/hr)	Potential Annual Emissions (TPY)
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	2.5	lbs/MMCF	0.05	0.23
Carbon Monoxide	84	lbs/MMCF	1.74	7.64
Nitrogen Oxides	100	lbs/MMCF	2.08	9.09
Sulfur Dioxide	2.6	lbs/MMCF	0.05	0.24
VOC	5.5	lbs/MMCF	0.11	0.50
GHGs (CO <sub>2</sub> equiv.)	117	lbs/MMBtu	2,494	10,925

**Notes:**

1. Emission Factors are based on DEQ Emission Factors Gas Fired Boilers (AQ-EF05), Revised 08/01/11

2. GHG emissions are based on 40 CFR 98, Tables C-1 and C-2

<b>GHG-Related Emission Factors</b>		
Pollutant	Natural Gas (kg/MMBtu)	GWP
Carbon Dioxide (CO <sub>2</sub> )	53.06	1
Methane (CH <sub>4</sub> )	1.0E-03	25
Nitrous Oxide (N <sub>2</sub> O)	1.0E-04	298

FHAP and CAO Emissions					
Pollutant	NG Emission Factor (lb/MMCF)	Potential Hourly Emissions (lbs/hr)	Potential Annual Emissions (TPY)	Federal HAP	CAO Air Toxic
<b>Organics <sup>(1)</sup></b>					
Acetaldehyde	4.30E-03	8.9E-05	3.91E-04	Yes	Yes
Acrolein	2.70E-03	5.6E-05	2.46E-04	Yes	Yes
Benzene	8.00E-03	1.7E-04	7.27E-04	Yes	Yes
Benzo[a]pyrene	1.20E-06	2.5E-08	1.09E-07	Yes	Yes
Ethyl Benzene	9.50E-03	2.0E-04	8.64E-04	Yes	Yes
Formaldehyde	1.70E-02	3.5E-04	1.55E-03	Yes	Yes
Hexane	6.30E-03	1.3E-04	5.73E-04	Yes	Yes
Naphthalene	3.00E-04	6.2E-06	2.73E-05	Yes	Yes
Total PAHs (exc. Nap.)	1.00E-04	2.1E-06	9.09E-06	Yes	Yes
Toluene	3.66E-02	7.6E-04	3.33E-03	Yes	Yes
Xylenes	2.72E-02	5.6E-04	2.47E-03	Yes	Yes
<b>Inorganic Gases</b>					
Ammonia	3.2	6.6E-02	2.91E-01	No	Yes
<b>Metals <sup>(2)</sup></b>					
Arsenic	2.0E-04	4.2E-06	1.82E-05	Yes	Yes
Barium	4.4E-03	9.1E-05	4.00E-04	No	Yes
Beryllium	1.2E-05	2.5E-07	1.09E-06	Yes	Yes
Cadmium	1.1E-03	2.3E-05	1.00E-04	Yes	Yes
Chromium, Hexavalent <sup>(3)</sup>	1.4E-03	2.9E-05	1.27E-04	Yes	Yes
Cobalt	8.4E-05	1.7E-06	7.64E-06	Yes	Yes
Copper	8.5E-04	1.8E-05	7.73E-05	No	Yes
Lead <sup>(4)</sup>	5.0E-04	1.0E-05	4.55E-05	Yes	Yes
Manganese	3.8E-04	7.9E-06	3.46E-05	Yes	Yes
Mercury	2.6E-04	5.4E-06	2.36E-05	Yes	Yes
Molybdenum Trioxide <sup>(5)</sup>	1.7E-03	3.4E-05	1.50E-04	No	Yes
Nickel	2.1E-03	4.4E-05	1.91E-04	Yes	Yes
Selenium	2.4E-05	5.0E-07	2.18E-06	Yes	Yes
Vanadium	2.3E-03	4.8E-05	2.09E-04	No	Yes
Zinc	2.9E-02	6.0E-04	2.64E-03	No	Yes
<b>Total (TPY) =</b>				<b>1.07E-02</b>	<b>3.05E-01</b>
<b>Max Single FHAP</b>				<b>3.33E-03</b>	

Notes:

1. Non-metal toxic emission factors based on SCAQMD AB 2588 - Default Emission Factors for Fuel Combustion, Table B-1
2. Metal toxic emission factors are based on US EPA WebFIRE/AP-42 Section 1.4
3. Chromium assumed to be hexavalent form
4. Lead is lead compounds other than elemental lead
5. Molybdenum assumed to be present as a trioxide compound

**Aggregate Insignificant Activities**

Mixers					
		Emission Factor (lbs/ton) <sup>(1)</sup>	Annual Production tons/yr <sup>(2)</sup>	Maximum Annual Production tons/yr	Maximum Annual Emission tons/yr
Enclosed Mixers (Insignificant Activity)	PM - Mixers <sup>(1)</sup>	0.035	38,000	38,000	<b>0.67</b>
	PM <sub>10</sub> - Mixers <sup>(1)</sup>	0.0078	38,000	38,000	<b>0.15</b>
	PM <sub>2.5</sub> - Mixers <sup>(1)</sup>	0.0013	38,000	38,000	<b>0.02</b>

1. The emission factor for PM/PM10/PM2.5 are based on EPA AP-42 Table 9.9.1-1 Grain Receiving: Hopper Truck with no controls, but according to the permittee the mixers are enclosed and will not emit to the outside.

2. Annual production is based on total production from baking operations

**Categorical Insignificant Activities**

OLYMPIAN NATURAL GAS EMERGENCY GENERATOR INFORMATION:		
Generator Rating	96	hp-hr
Hp to MMBtu conversion	0.03347	
Natural Gas Consumption	923	scf/hr
Maximum annual hours for testing/maintenance	100	hrs/year
scf to MMscf Conversion	1,000,000	MMCF/hr
lbs to tons conversion	2,000	lbs/ton

Emergency Generator					
Pollutant	Max Hourly Fuel Capacity (scf/hr)	Emission Factors		Hourly Emission Rate (lbs/hr)	Annual Emissions (tpy) <sup>(2)</sup>
		Factors <sup>(1)</sup>	Units		
PM	923	10	lbs/MMCF	0.01	<b>0.00</b>
PM <sub>10</sub>	923	10	lbs/MMCF	0.01	<b>0.00</b>
PM <sub>2.5</sub>	923	10	lbs/MMCF	0.01	<b>0.00</b>
CO	923	399	lbs/MMCF	0.37	<b>0.02</b>
NO <sub>x</sub>	923	2840	lbs/MMCF	2.62	<b>0.13</b>
SO <sub>2</sub>	923	0.6	lbs/MMCF	0.00	<b>0.00</b>
VOC	923	116	lbs/MMCF	0.11	<b>0.01</b>
GHG	3.21	117	lb/MMBtu	376.25	<b>18.81</b>

1. Emission Factors are based on DEQ Emission Factors Power (Electric) Generators (AQ-EF07), Revised 08/01/11

2. GHG emissions are based on 40 CFR 98, Tables C-1 and C-2.

Categorical Insignificant Activities - Combustion Units				
Pollutant	NG Emission Factor (lb/MMCF) <sup>(1)</sup>	NG Emission Factor Units	Potential Hourly Emissions (lbs/hr)	Potential Annual Emissions (TPY)
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	2.5	lbs/MMCF	0.00	0.01
Carbon Monoxide	84	lbs/MMCF	0.06	0.26
Nitrogen Oxides	100	lbs/MMCF	0.07	0.31
Sulfur Dioxide	2.6	lbs/MMCF	0.00	0.01
VOC	5.5	lbs/MMCF	0.00	0.02
GHGs (CO <sub>2</sub> equiv.)	117	lbs/MMBtu	85	374

Notes:

1. Emission Factors are based on DEQ Emission Factors Gas Fired Boilers (AQ-EF05), Revised 08/01/11

2. GHG emissions are based on 40 CFR 98, Tables C-1 and C-2.