Lane Regional Air Protection Agency
Standard Air Contaminant Discharge Permit

Review Report

United States Bakery dba Franz Family Bakeries **Permit No. 208922**
2000 Nugget Way
Springfield, Oregon 97403
Website: https://franzbakery.com

Source Information:

Primary SIC	2051 – Bread and Other Bakery Products, Except Cookies and Crackers
Secondary SIC	--
Primary NAICS	311812 – Commercial Bakeries

Secondary NAICS	--
Source Categories (LRAPA title 37, Table 1)	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)	N
NESHAP (list subparts)	A, CCCCCC, ZZZZ
CAM	N
Regional Haze (RH)	N
Synthetic Minor (SM)	N
SM-80	Y
Title V	N
Part 68 Risk Management	N
ACDP (SIP)	N
Major FHAP Source	N
Federal Major Source	N
NA New Source Review (NSR)	N
Prevention of Significant Deterioration (PSD)	N
Acid Rain	N
Clean Air Mercury Rule (CAMR)	N

TACT	N
>20 Megawatts	N

Permittee Identification

1. United States Bakery doing business as Franz Family Bakeries ("the facility" or "Franz Bakery") owns and operates a commercial bakery at 2000 Nugget Way, Springfield, Oregon.

General Background

2. Franz Bakery is a commercial bakery whose products are bread, rolls, buns and croutons. The facility is located in a small industrial park. Franz Bakery began operation prior to 1978. Previously, the facility operated at 1760 East 13th Avenue, Eugene, Oregon. In February 2005, the facility relocated to 2000 Nugget Way, Springfield, Oregon. As the move was considered to be in the same air basin, LRAPA authorized the facility to retain their netting basis and baseline emissions at the new location as allowed under LRAPA 42-0046(5) and discussed in the review report for the Standard ACDP issued on September 3, 2010.

Reasons for Permit Action and Fee Basis

3. This permit action is for the reclassification of the facility from a major source under a Title V operating permit to a synthetic minor source under a Standard ACDP. To accomplish this, the facility has requested the VOC PSEL be lowered from 137 TPY to 99 TPY. The existing Title V operating permit was issued on April 9, 2019 and is scheduled to expire on April 9, 2024. The facility will be assigned a Standard ACDP because they are electing to maintain their netting basis and they have a PSEL equal to or greater than the SER for VOCs.

Attainment Status

4. The facility is located in an area that has been designated as attainment or unclassified for all criteria pollutants. The facility is inside the Eugene-Springfield UGB as defined in LRAPA 29-0010 which designates the Eugene-Springfield CO and PM_{10} maintenance areas. The facility is also located inside the Eugene-Springfield UGB as described in the current Eugene-Springfield Metropolitan Area General Plan, as amended.

Permitting History

5. LRAPA has reviewed and issued the following permitting actions to this facility:

Date(s) Approved/Valid	Permit Action Type	Description
12/19/1995	Synthetic Minor ACDP	Bakery ovens and material handling
02/14/2000	Synthetic Minor ACDP	2 Boilers, 4 Ovens and Bakery Operations
04/06/2001	Synthetic Minor ACDP	Bakery products and NG combustion
09/03/2010	Standard ACDP	Bun line, bread line, silos and GDF at new location
06/15/2011	Initial Title V Permit	Total facility operation permit
04/17/2018	Addendum #1 – Minor Modification	Add new 7.1 MMBtu/hr Bread Oven, Process Line 3, and RCO EU-6 and six new bulk flour silos EU-1B.
11/16/2018	Approval to Construct NC-208922-A18	Add ingredient dump station controlled by a baghouse.
11/16/2018	Off Permit Change under OAR 340-218-0140	Add ingredient dump station controlled by a baghouse.
04/09/2019	Title V Permit Renewal	Total facility operation permit
08/28/2019	Addendum #1 – Administrative Amendment	Change of responsible official.
07/24/2020	Addendum #2 – Administrative Amendment	Change of responsible official.
Upon Issuance	Standard ACDP	Reclass facility to a Standard ACDP

Compliance History

6. This facility is regularly inspected by LRAPA. The following table indicates the inspection history of this facility:

Agency	Type of Inspection	Date	Results
LRAPA	Full Compliance Evaluation	10/24/2007	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	01/19/2012	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	04/08/2013	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	07/23/2015	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	07/27/2017	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	08/13/2019	No areas of non-compliance discovered
LRAPA	Full Compliance Evaluation	09/01/2021	No areas of non-compliance discovered

7. LRAPA has not issued any violation notices or taken enforcement action against this facility since it began operation at this location in 2005.

Emission Unit Description

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

Emission Unit ID	Description	Pollution Control Device (PCD ID)	Installed / Last Modified
Significant Emission Units			
EU-1A	Seven (7) Bulk Flour Silos	Bin Vent (BVB-1A)	2005
EU-1B	Six (6) Bulk Flour Silos	Bin Vent (BVB-1B)	2018
EU-2	7.5 MMBtu/hr Thermal Oil System	None	2005
EU-3	12 MMBtu/hr Bread Oven, Process Line 1	None	<2005
EU-4	6.1 MMBtu/hr Bun Oven, Process Line 2	None	<2005
EU-6	7.1 MMBtu/hr Bread Oven, Process Line 3	Recuperative Catalytic Oxidizer (RCO-6)	2018
EU-7	Dump Station	Baghouse	2018
Aggregate Insignificant Emissions			
AIE-1	VOC from natural gas combustion	None	Various
AIE-2	VOC from the Gasoline Dispensing Facility (GDF)	Submerged Fill	2008
Categorically Insignificant Activity			
CIA-1	85 kW Natural Gas-Fired Emergency RICE	None	<2006
CIA-2	Crouton Oven	None	<2005

9. The facility has 13 flour storage silos. Six (6) of the storage silos were installed in 2018 as part of the construction of the new baking line and seven (7) of the storage silos were installed in 2005

when the facility was built. The particulate matter emissions from the flour storage silos are controlled by bin vent baghouses with an assumed control efficiency of 0.01 grains per actual cubic foot of air.

10. The facility has an ingredient dump station whose particulate matter emissions are controlled by a baghouse that exhausts the ambient air.

11. The facility has three (3) breadmaking process lines each equipped with a baking oven. The general baking process consists of mixing flour, water, sugar and yeast into a dough, allowing it to rise, followed by forming, baking, cooling and packaging of the product. The use of yeast results in the emission of VOC. The yeast added to the bread dough predominately generates ethanol, a VOC, during the fermentation (rising) stages of breadmaking. This VOC is emitted from the baking ovens. The amount of VOC emitted is directly proportional to the production rate and product mix.

12. The VOC emissions from emission unit EU-6 are controlled by an RCO. An RCO is a recuperative catalytic oxidizer. The catalyst material is either a base metal or a precious metal that gives rise to a chemical reaction with VOCs. This lowers the required reaction temperature. As a result, less heat and therefore less external energy are needed to convert the VOCs to CO_2 and H_2O.

13. Other emission sources at the facility include natural gas combustion in the baking ovens, oil heater and RCO. The RCO has a maximum heat input rating of 6.875 MMBtu/hr.

14. The facility has two (2) emission units included under Aggregate Insignificant Emissions as defined under LRAPA title 12. The first emission unit is the VOC emissions resulting from facility-wide natural gas combustion. The second emission unit is the VOC emissions resulting from the gasoline dispensing facility (GDF) consisting of one (1) 10,000 gallon gasoline tank.

15. The facility has two (2) emission units included under Categorically Insignificant Activities. The first emission unit is a natural gas-fired emergency generator rated at 85 kW. This unit was installed prior to 2006. The second emission unit is a dryer for making croutons from bread. This natural gas-fired dryer has a maximum heat input of 0.75 MMBtu/hr.

Nuisance Emission Requirements

16. The permittee must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance under LRAPA 49-010(1). Compliance is demonstrated by maintaining a log of all nuisance complaints and providing notification to LRAPA within five (5) days of the receipt of a nuisance complaint.

17. The permittee must not cause or permit the emission of particulate matter which is larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person under LRAPA 49-010(1). Compliance is demonstrated by maintaining a log of all nuisance complaints and providing notification to LRAPA within five (5) days of the receipt of a nuisance complaint.

18. The permittee must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property; such determination to be made by LRAPA under LRAPA 32-090(1). Compliance is demonstrated by maintaining a log of all nuisance complaints and providing notification to LRAPA within five (5) days of the receipt of a nuisance complaint.

Requirements for Emission Units

19. All emission units are subject to the visible emission limitations under LRAPA 32-010(3). They may not have visible emissions equal to or greater than 20% opacity for a period or periods

aggregating more than three (3) minutes in any one (1) hour. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a month. The permittee is required to take corrective action if any visible emissions are identified or conduct a Modified EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan for all particulate matter emission control devices at the facility, including but not limited to, bin vent filters and the dump station baghouse.

20. Emission units installed, constructed or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are no representative compliance source tests, the particulate matter emission limit is 0.14 grains per dry standard cubic foot under LRAPA 32-015(2)(b). Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a month. The permittee is required to take corrective action if any visible emissions are identified or conduct a Modified EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan for all particulate matter emission control devices at the facility, including but not limited to, bin vent filters and the dump station baghouse.

21. Emission units installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot under LRAPA 32-015(2)(c). Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a month. The permittee is required to take corrective action if any visible emissions are identified or conduct a Modified EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan for all particulate matter emission control devices at the facility, including but not limited to, bin vent filters and the dump station baghouse.

22. Each emission unit at the facility is subject to the process weight rate emission limitations under LRAPA 32-045(1). No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in LRAPA 32-8010, for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials. Compliance is demonstrated through a plant survey of visible emissions using EPA Method 22 to be completed at least once a month. The permittee is required to take corrective action if any visible emissions are identified or conduct a Modified EPA Method 9 test if the visible emissions cannot be eliminated. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan for all particulate matter emission control devices at the facility, including but not limited to, bin vent filters and the dump station baghouse.

23. Emission unit EU-6 exhausts to an RCO to control VOC emissions. The permittee has requested this RCO be required to achieve a minimum destruction efficiency of 95%. The permittee will demonstrate compliance with this requirement by maintaining a 3-hour block average temperature of at least 550 degrees Fahrenheit at the inlet to the catalyst bed when emission unit EU-6 is operating and exhausting to the RCO and perform compliance testing of the RCO at least once every five (5) years to verify the destruction efficiency. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan for the RCO.

Typically Achievable Control Technology (TACT)

24. LRAPA 32-008(1) requires an existing unit a facility to meet TACT if the emission unit meets the following criteria: The emission unit is not already subject to emission standards for the regulated pollutant under LRAPA title 30, title 32, title 33, title 38, title 39 or title 46 at the time TACT is required; the source is required to have a permit; the emission unit has emissions of criteria pollutants equal to or greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant; and LRAPA determines that air pollution control devices and emission

reduction processes in use for the emissions do not represent TACT and that further emission control is necessary to address documented nuisance conditions, address an increase in emissions, ensure that the source is in compliance with other applicable requirements, or to protect public health or welfare or the environment.

25. LRAPA 32-008(2) requires new or modified emission units 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.

26. The individual sources under emission units EU-1A, EU-1B, EU-7, and AIE-2 do not have actual or potential emissions that would exceed any of the thresholds listed in LRAPA 32-008(1) or (2) for any criteria pollutant. TACT is not applicable to these emission units.

27. For the purposes of LRAPA 32-008, emission units EU-3 and EU-4 are considered existing units as they previously existed at the previous location of the facility before 2005. Other than VOCs, these emission units do not exceed the thresholds under LRAPA 32-008(1) and TACT is not applicable to any other criteria pollutants. For VOCs, bakeries typically install oxidizers to remove the VOCs emitted during the baking of bread goods if they are located in an ozone nonattainment area subject to Reasonable Achievable Control Technology (RACT) or the facility is large enough to require New Source Review. As part of the issuance of the Standard ACDP in 2010, LRAPA required Franz to conduct a cost analysis for the installation of a VOC control device. That analysis showed that controls were not cost effective under TACT. Since these emission units have not been modified since that time, TACT for VOC emissions from these emission units is considered to be current operations.

28. Emission units EU-2 and EU-6, including the RCO, are considered new emission units under LRAPA 32-008(2). Emission unit EU-2 is subject to TACT for CO and NO_x. Emission unit EU-6, including the RCO, is subject to TACT for CO, NO_x, and VOCs. The burner on emission unit EU-2, the oven on emission unit EU-6, and the natural gas burner in the RCO combust natural gas and generate CO and NO_x. The burners on these emission units have heat input ratings that are less than 10 MMBtu per hour each. Typically, small combustion units like these would not be equipped with any add-on control technology or low NO_x burners. Although LRAPA has not conducted a formal TACT analysis, TACT for these sources would likely be current operations. The VOC emissions from emission unit EU-6 are controlled by an RCO. While LRAPA has not conducted a formal TACT analysis, the use of an RCO to control VOC emissions would likely represent TACT for this emission unit.

Requirements for Aggregate Insignificant Emission Unit AIE-2

29. The facility has one (1) 10,000 gallon gasoline tank that was installed in 2008. This tank represents one (1) gasoline dispensing facility (GDF) subject to the requirements under LRAPA 44-170 through 44-280. Under this regulation, the GDF is considered a new GDF. The maximum amount of gasoline dispensed at the GDF is approximately 20,400 gallons per year. The GDF is subject to the requirements for an existing GDF whose annual throughput is less than 480,000 gallons in any 12 consecutive months and the monthly throughput is less than 100,000 gallons as calculated on a rolling 30 day basis.

Plant Site Emission Limits (PSELs)

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

Pollutant	Baseline Emission Rate (TPY)	Netting Basis		Plant Site Emission Limit (PSEL)		PSEL Increase Over Netting Basis (TPY)	Significant Emission Rate (TPY)
		Previous (TPY)	Proposed (TPY)	Previous PSEL (TPY)	Proposed PSEL (TPY)		
PM	1	1	1	24	7.7	6.7	25
PM_{10}	1	1	1	14	6.1	5.1	15
$PM_{2.5}$	NA	1	1	9	5.4	4.4	10
CO	0	0	0	99	14	14	100
NO_X	0	0	0	39	17	17	40
SO_2	0	NA	NA	NA	NA	NA	40
VOC	98	98	98	137	99	1	40
GHGs (CO_2 eq.)	3,235	3,235	3,235	74,000	20,298	17,063	75,000

30a. The baseline emission rates for all regulated pollutants except $PM_{2.5}$ and GHGs were determined in previous permitting actions and there are no changes. A baseline emission rate is not established for $PM_{2.5}$ in accordance with LRAPA 42-0048(3). The baseline emission rate for greenhouse gases (GHG) is based on the natural gas usage during the consecutive 12-month period of calendar year 2009. Based upon the emission inventory, the facility combusted 553,708 therms of gas during this period resulting in approximately 3,235 tons of GHGs as CO_2 equivalents.

30b. The netting basis is equal to the baseline emission rates for all pollutants except fine particulates ($PM_{2.5}$). Under LRAPA 42-0046(b), a source's initial netting basis for $PM_{2.5}$ is equal to the overall $PM_{2.5}$ fraction of the PM_{10} PSEL in effect on May 1, 2011 multiplied by the PM_{10} netting basis in effect on May 1, 2011. As the PM_{10} resulting from this facility is predominately resulting from combustion sources and bin vent baghouses, LRAPA assumes the $PM_{2.5}$ fraction was greater than 50% of the PM_{10} fraction. Due to rounding, the $PM_{2.5}$ netting basis is established at 1 ton per year. No netting basis is established for SO_2 because no PSELs are required for any regulated pollutant that will be emitted at less than the de minimis emission level listed in LRAPA title 12 from the entire source as listed in LRAPA 42-0020(3)(a).

30c. In accordance with OAR 340-222-0041(3), the PSEL for VOC is set equal to a level requested by the applicant. In accordance with OAR 340-222-0041(3), the PSEL for all other pollutants emitted above the de minimis are set at the PTE for the source. The PSEL for these pollutants were set at the Generic PSELs in previous permits. DEQ has recently removed the ability to set Generic PSELs. In accordance with LRAPA 42-0020(3)(a) no PSEL is set for SO_2 because this pollutant is emitted below the de minimis as defined in LRAPA title 12.

PSEL Monitoring and Recordkeeping

31. VOCs are the primary pollutant emitted from this facility and result from yeast-raised bread. VOC emissions are estimated based on an EPA empirical emission factor equation derived from testing data of commercial bakeries producing yeast-raised bread (US EPA AP-42, Section 9.9.6 and EPA 453/R-92-017, Dec. 1992). The permit requires the permittee to use this method to calculate its VOC emission for the bread-making operations. The calculation is:

$$\text{VOC emission factor (EF)} = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$$

Where:

VOC EF is in pounds VOC per ton of baked bread (lb/ton);
Yi = initial baker's percent of yeast;
ti = total yeast action time in hours;
S = final (spike) baker's percent of yeast; and
ts = spiking time in hours.

The facility must use this equation along with recordkeeping of the amount and type of products baked by each line to determine the VOC emissions from the facility, including the destruction efficiency of the RCO on emission unit EU-6. VOC PSEL compliance will be demonstrated on a consecutive thirteen 4-week period because of how the facility maintains production records. This period is equivalent to the consecutive 12 calendar month emissions required under LRAPA 42-0035(4).

32. For CO and NO_x, the permittee will use emission factors approved by LRAPA and record facility-wide monthly natural gas usage to determine compliance with the PSELs for these pollutants.

33. For PM/PM_{10}/$PM_{2.5}$, the permittee will add the potential annual emissions from the flour silos and the dump station to the consecutive 12 calendar month emissions determined from natural gas usage based on emission factors approved by LRAPA and facility-wide monthly natural gas usage to determine compliance with the PSELs for these pollutants.

Significant Emission Rate

34. The PSEL increase over the netting basis is less than the Significant Emission Rate (SER) as defined in LRAPA title 12 for all pollutants as shown below, except for VOCs. For VOCs, the increase over the netting basis is not due to a modification that results in any increase.

Pollutant	Proposed PSEL (TPY)	PSEL Increase Over Netting Basis (TPY)	PSEL Increase Due to Utilizing Existing Baseline Period Capacity (TPY)	PSEL Increase Due to Modification (TPY)	SER (TPY)
PM	7.7	6.7	0	0	25
PM_{10}	6.1	5.1	0	0	15
$PM_{2.5}$	5.4	4.4	0	0	10
CO	14	14	0	0	100
NO_x	17	17	0	0	40
SO_2	NA	NA	0	0	40
VOC	99	1	0	0	40
GHGs (CO_2 eq.)	20,298	17,063	0	0	75,000

Unassigned Emissions and Emission Reduction Credits

35. The facility has no unassigned emissions as shown in the table below. Unassigned emissions are equal to the netting basis minus the source's current PTE, minus any banked emission reduction credits. The facility has zero (0) tons of emission reduction credits. In accordance with LRAPA 42-0055 the maximum unassigned emissions may not be more than the SER.

Pollutant	Proposed Netting Basis (TPY)	PTE (TPY)	Unassigned Emissions (TPY)	Emission Reduction Credits (TPY)	SER (TPY)
PM	1	7.7	0	0	25
PM_{10}	1	6.1	0	0	15
$PM_{2.5}$	1	5.4	0	0	10

Pollutant	Proposed Netting Basis (TPY)	PTE (TPY)	Unassigned Emissions (TPY)	Emission Reduction Credits (TPY)	SER (TPY)
CO	0	14	0	0	100
NO_x	0	17	0	0	40
SO_2	NA	NA	NA	0	40
VOC	98	99	0	0	40
GHGs (CO_2 eq.)	3,235	20,298	0	0	75,000

Federal Hazardous Air Pollutants/Toxic Air Contaminants

36. The facility is currently considered a minor source of federal HAPs because the emissions of HAPs at capacity are less than 10 tons per year for an individual federal HAP and 25 tons per year for the aggregate of all federal HAPs.

37. 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.

38. Provided below is a summary of the federal HAP and CAO TAC emission estimates at capacity. This summary does not include categorically insignificant activities. These emission estimates assume operation of the facility 8,760 hours per year and do not include any adjustment for the requested limitation on the VOC PSEL of 99 TPY. However, no single organic pollutant can exceed the VOC PSEL of 99 TPY. As such, ethanol emitted from baking operations has been adjusted to 98 TPY (the VOC PSEL minus 1 TPY for aggregate insignificant emissions). At capacity, the aggregate of all federal HAPs is 2.45 TPY. The highest individual federal HAP is acetaldehyde at 2.13 TPY.

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Organics				
2-Methylnaphthalene	91-57-6	4.05E-06	Yes	Yes
3-Methylcolanthrene	56-49-5	3.04E-07	Yes	Yes
7,12-Dimemethylbenz(a)anthracene	57-97-6	2.70E-06	Yes	Yes
Acenaphthene	83-32-9	3.04E-07	Yes	Yes
Acenaphthylene	203-96-8	3.04E-07	Yes	Yes
Acetaldehyde	75-07-0	2.13	Yes	Yes
Acetone	67-64-1	0.66	No	Yes
Anthracene	120-12-7	4.05E-07	Yes	Yes
Benz(a)anthracene	56-55-3	3.04E-07	Yes	Yes
Benzene	71-43-2	3.55E-04	Yes	Yes
Benzo(a)pyrene	50-32-8	2.03E-07	Yes	Yes
Benzo(b)fluoranthene	205-99-2	3.04E-07	Yes	Yes

Pollutant	CAS Number	Potential Emissions (TPY)	Federal HAP	CAO Air Toxic
Benzo(g,h,i)perylene	191-24-2	2.03E-07	Yes	Yes
Benzo(k)fluoranthene	207-08-9	3.04E-07	Yes	Yes
Chrysene	218-01-9	3.04E-07	Yes	Yes
Dibenzo(a,h)anthracene	53-70-3	2.03E-07	Yes	Yes
Dichlorobenzene	25321-22-6	2.03E-04	No	Yes
Ethanol	64-17-5	98	No	No
Fluoranthene	206-44-0	5.07E-07	Yes	Yes
Fluorene	86-73-7	4.73E-07	Yes	Yes
Formaldehyde	50-00-0	1.27E-02	Yes	Yes
Hexane	110-54-3	3.04E-01	Yes	Yes
Indeno(1,2,3-cd)pyrene	193-39-5	3.04E-07	Yes	Yes
Isobutanol	78-83-1	0.82	No	No
Naphthalene	91-20-3	1.03E-04	Yes	Yes
Phenanthrene	85-01-8	2.87E-06	Yes	Yes
Pyrene	129-00-0	8.45E-07	Yes	Yes
Toluene	108-88-3	5.74E-04	Yes	Yes
Metals				
Arsenic	7440-38-2	3.38E-05	Yes	Yes
Beryllium	7440-41-7	2.03E-06	Yes	Yes
Cadmium	7440-43-9	1.86E-04	Yes	Yes
Chromium	7440-47-3	2.37E-04	Yes	Yes
Cobalt	7440-48-4	1.42E-05	Yes	Yes
Manganese	7439-96-5	6.42E-05	Yes	Yes
Mercury	7439-97-6	4.39E-05	Yes	Yes
Nickel	7440-02-0	3.55E-04	Yes	Yes
Selenium	7782-49-2	4.05E-06	Yes	Yes

Toxics Release Inventory

39. 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. For calendar year 2021, this facility did not report under the TRI program.

New Source Performance Standards (NSPSs)

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

National Emission Standards of Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities – 40 CFR 63 subpart CCCCCC (6C)

41. This facility is an area source of federal HAPs. The facility includes on-site storage tanks (diesel and gasoline). The facility has one (1) 10,000 gallon gasoline tank that represents one (1) gasoline dispensing facility (GDF) subject to the requirements under 40 CFR 63 subpart 6C – National Emission Standards of Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. Under the regulation, the GDF is considered an existing GDF. The maximum amount of gasoline dispensed at the GDF is approximately 1,200 gallons per month.

42. 40 CFR 63 subpart 6C has not been adopted by LRAPA. Under LRAPA 37-066(3)(a), Standard ACDPs exclude federal requirements not adopted by the LRAPA Board of Directors. The 40 CFR 63 subpart 6C requirements that are applicable to the existing GDF at the facility are identified in the following table:

40 CFR 63 subpart 6C Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11110	Purpose	Yes	None	--
63.11111	Applicability	Yes	The facility is a GDF and has a monthly throughput of less 10,000 gallons per month.	--
63.11112	Emission sources covered	Yes	None	--
63.11113	Compliance dates	Yes	The compliance date for an existing source is no later than January 10, 2008.	--
63.11115	General duties	Yes	None	--
63.11116	Requirements: <10,000 gallons per month	Yes	None	--
63.11117	Requirements: ≥ 10,000 gallons per month	No	None	--
63.11118	Requirements: ≥ 100,000 gallons per month	No	None	--
63.11120	Testing and monitoring	No	None	--
63.11124	Notifications	No	None	--
63.11125	Recordkeeping	Yes	Keep records of malfunctions as listed under 40 CFR 63.11125(d)	--
63.11126	Reporting	Yes	Report any malfunctions.	--
63.11130	General provisions	Yes	None	--
63.11131	Implementation and enforcement	Yes	None	--
63.11132	Definitions	Yes	None	--

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines - 40 CFR 63 Subpart ZZZZ (4Z)

43. The facility has one (1) 85 kW natural gas-fired emergency RICE installed before June 12, 2006, which is subject to the requirements under 40 CFR 63 subpart 4Z – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The emergency generator is considered to be an existing emission unit at an area source of federal HAPs.

44. Emergency stationary ICE may be operated for maintenance checks and readiness testing for a maximum of 100 hours per calendar year. The federal requirements also allow an emergency stationary ICE to operate for up to 50 hours per year in non-emergency situations, for which the 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing. However, the description of an emergency generator in the definition of "Categorically Insignificant Activity" LRAPA title 12, does not allow an emergency generator to be used in this manner in the state of Oregon. The portions of the rule that conflict with the definition in LRAPA title 12 have not been included in the draft permit. There is no time limit on the use of emergency stationary ICE in emergency situations.

45. The 40 CFR 63 subpart 4Z requirements that are applicable to the one (1) 85 kW natural gas-fired emergency RICE are identified in the following table:

40 CFR 63 Subpart 4Z Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.6580	Purpose	Yes	None	NA
63.6585	Applicability	Yes	None	NA
63.6590	Applicability	Yes	None	NA
63.6600	Emission limitations	No	None	NA
63.6601	Emission limitations	No	None	NA
63.6602	Emission limitations	No	None	NA
63.6603	Emission limitations	Yes	None	48
63.6604	Fuel requirements	No	None	NA
63.6605	General requirements	Yes	None	49-50
63.6610	Initial compliance	No	None	NA
63.6611	Initial performance test	No	None	NA
63.6612	Initial performance test	No	None	NA
63.6615	Subsequent performance tests	No	None	NA
63.6620	Performance test procedures	No	None	NA
63.6625	Monitoring and maintenance requirements	Yes	None	51-54
63.6630	Initial compliance	No	None	NA
63.6635	Continuous compliance	No	None	NA
63.6640	Continuous compliance	Yes	None	55-56
63.6645	Notifications	No	None	NA
63.6650	Reports	No	None	NA
63.6655	Records	Yes	None	57-60
63.6660	Record retention	Yes	None	61
63.6665	General provisions	Yes	None	NA
63.6670	Implementation and enforcement	Yes	None	NA
63.6675	Definitions	Yes	None	NA

Source Testing

46. The RCO at this facility was source tested on June 18-19, 2019, to determine compliance with the permitted minimum required VOC destruction efficiency of 95%. The average VOC destruction efficiency during the source testing was 96%. In addition, the permittee was required to perform visible emissions testing. The average opacity during the source testing was 0%. The permittee will be required to perform source testing on the RCO for VOC destruction efficiency at least once every five (5) years upon issuance of the Standard ACDP.

Recordkeeping Requirements

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

Activity	Units	Minimum Recording Frequency
PSEL Recordkeeping		
Emission factors for each product type and supporting calculations	NA	Maintain documentation
Production of each product type by line	tons	Each 4-week period
Facility-wide natural gas usage	Therms or MMCF	Monthly
Fugitive emission survey logs	NA	Monthly
Operation and Maintenance Plans	NA	Maintain the current version on-site
40 CFR 63 Subpart 4Z Recordkeeping		
The date and time of operation in hours of CIA-1	Date, Hours of operation	Each occurrence
Reason for operation of CIA-1	NA	Each occurrence
The total hours that CIA-1 operates for emergency reasons in a calendar year	Hours	Monthly
The total hours that CIA-1 operates for non-emergency reasons in a calendar year	Hours	Monthly
Records of actions taken during periods of malfunction to minimize emissions	NA	Each occurrence
Records of inspections and maintenance performed according to the manufacturer's or the permittee's maintenance plan	NA	Each occurrence
LRAPA Title 44 Recordkeeping		
Initial notification	NA	One time
The monthly gasoline throughput of the GDF	1000 Gallons	Monthly
The annual gasoline throughput of the GDF in any 12 consecutive months	1000 Gallons	Monthly
Documentation of the distance the submerged fill pipe extends from the bottom of each storage tank	NA	Maintain documentation
Records of the occurrence and duration of each malfunction of operation	NA	Each occurrence
Records of actions taken during periods of malfunction to minimize emissions	NA	Each occurrence

Reporting Requirements

48. The facility must submit to LRAPA the following reports by no later than the dates indicated in the table below:

Report	Reporting Period	Due Date
Title 44 Report, if monthly gasoline throughput is greater than or equal to 10,000 gallons in a calendar year.	Annual	February 15
The upset log information required by Condition G13, if required by G13.	Annual	February 15
Annual emissions as calculated according to Conditions 7 through 11, including the supporting process parameter and emission factor information.	Annual	February 15
GHG Report, if required by Condition 64.	Annual	March 31

49. The permittee must register and report in compliance with Chapter 340, Division 215 of the Oregon Administrative Rules, if the source's direct greenhouse gas emissions meet or exceed 2,500 metric tons CO_2e during the previous year. Once a source's direct greenhouse gas emissions meet or exceed 2,500 metric tons CO_2e during a year, the permittee must annually register and report in each subsequent year, regardless of the amount of the source's direct GHG emissions in future years, except as provided in OAR 340-215-0032 and OAR 340-215-0034. Air contamination sources required to register and report under OAR 340-215-0030(2) must register and submit annual emissions data reports to LRAPA under OAR 340-215-0044 by the due date for the annual report for non-greenhouse gas emissions specified in Condition 63, or by March 31 of each year, whichever is later. [LRAPA 34-016, OAR 340-215-0030(2) and 340-340-215-0046(1)(a)]

Public Notice

50. Pursuant to LRAPA 37-0066(4)(a)(A), issuance of a new Standard Air Contaminant Discharge Permit for permit actions that do not allow for an increase in emissions requires public notice in accordance with LRAPA 31-0030(3)(b). However, in accordance with LRAPA 31-0030(4), LRAPA is moving the permit action from a Category II to a Category III public notice 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 draft permit was on public notice June 28, 2023 to August 3, 2023. No written comments were submitted during the 35-day comment period.

JJW/cw
08/09/2023

Emission Details

US Bakery dba Franz Family Bakeries
Emission Details
Criteria Pollutant Emissions Summary

Emissions Unit ID	Emissions Unit Name	PM tpy	PM10 tpy	PM2.5 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	GHG tpy
EU-1A	Seven (7) Bulk Flour Silos	4.07	3.21	2.86	--	--	--	--	--
EU-1B	Six (6) Bulk Flour Silos	2.90	2.16	1.86	--	--	--	--	--
EU-2	Thermal Oil System	0.08	0.08	0.08	0.05	3.20	2.69	--	3,847
EU-3	Bread Oven, Process Line 1	0.13	0.13	0.13	0.09	5.12	4.30	98.0	6,155
EU-4	Bun Oven, Process Line 2	0.07	0.07	0.07	0.04	2.60	2.19		3,129
EU-6	Bread Oven, Process Line 3	0.08	0.08	0.08	0.05	3.03	2.55		3,642
EU-6	Recuperative Catalytic Oxidizer	0.07	0.07	0.07	0.05	2.93	2.47	--	3,526
EU-7	Dump Station	0.30	0.30	0.30	--	--	--	--	--
AIE	Aggregate Insignificant Emissions	--	--	--	--	--	--	1	--
	PSEL =	7.7	6.1	5.4	de minimis	17	14	99	20,298

Notes:

AIE is Aggregate Insignificant Emissions consisting of VOCs from natural gas combustion and VOCs from the GDF

US Bakery dba Franz Family Bakeries
Emission Details
HAP/TAC Emissions Summary at Capacity

Pollutant	CAS #	EU-2 Combustion Emissions (tpy)	EU-3 Combustion Emissions (tpy)	EU-4 Combustion Emissions (tpy)	EU-6 Combustion Emissions (tpy)	RCO Combustion Emissions (tpy)	Baking Speciated VOC Emissions (tpy)	Total Emissions (tpy)	FHAP	TAC
2-Methylnaphthalene	91-57-6	7.68E-07	1.23E-06	6.25E-07	7.27E-07	7.04E-07	--	4.05E-06	Yes	Yes
3-Methylcolanthrene	56-49-5	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
7,12-Dimemethylbenz(a)anthracene	57-97-6	5.12E-07	8.20E-07	4.17E-07	4.85E-07	4.70E-07	--	2.70E-06	Yes	Yes
Acenaphthene	83-32-9	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Acenaphthylene	203-96-8	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Acetaldehyde	75-07-0	--	--	--	--	--	2.13	2.13	Yes	Yes
Acetone	67-64-1	--	--	--	--	--	0.66	0.66	No	Yes
Anthracene	120-12-7	7.68E-08	1.23E-07	6.25E-08	7.27E-08	7.04E-08	--	4.05E-07	Yes	Yes
Benz(a)anthracene	56-55-3	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Benzene	71-43-2	6.72E-05	1.08E-04	5.47E-05	6.37E-05	6.16E-05	--	3.55E-04	Yes	Yes
Benzo(a)pyrene	50-32-8	3.84E-08	6.15E-08	3.12E-08	3.64E-08	3.52E-08	--	2.03E-07	Yes	Yes
Benzo(b)fluoranthene	205-99-2	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Benzo(g,h,i)perylene	191-24-2	3.84E-08	6.15E-08	3.12E-08	3.64E-08	3.52E-08	--	2.03E-07	Yes	Yes
Benzo(k)fluoranthene	207-08-9	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Chrysene	218-01-9	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Dibenzo(a,h)anthracene	53-70-3	3.84E-08	6.15E-08	3.12E-08	3.64E-08	3.52E-08	--	2.03E-07	Yes	Yes
Dichlorobenzene	25321-22-6	3.84E-05	6.15E-05	3.12E-05	3.64E-05	3.52E-05	--	2.03E-04	No	Yes
Ethanol	64-17-5	--	--	--	--	--	98.0	98.0	No	No
Fluoranthene	206-44-0	9.61E-08	1.54E-07	7.81E-08	9.09E-08	8.80E-08	--	5.07E-07	Yes	Yes
Fluorene	86-73-7	8.96E-08	1.43E-07	7.29E-08	8.49E-08	8.22E-08	--	4.73E-07	Yes	Yes
Formaldehyde	50-00-0	2.40E-03	3.84E-03	1.95E-03	2.27E-03	2.20E-03	--	1.27E-02	Yes	Yes
Hexane	110-54-3	5.76E-02	9.22E-02	4.69E-02	5.46E-02	5.28E-02	--	3.04E-01	Yes	Yes
Indeno(1,2,3-cd)pyrene	193-39-5	5.76E-08	9.22E-08	4.69E-08	5.46E-08	5.28E-08	--	3.04E-07	Yes	Yes
Isobutanol	78-83-1	--	--	--	--	--	0.82	0.82	No	No
Naphthalene	91-20-3	1.95E-05	3.12E-05	1.59E-05	1.85E-05	1.79E-05	--	1.03E-04	Yes	Yes
Phenanthrene	85-01-8	5.44E-07	8.71E-07	4.43E-07	5.15E-07	4.99E-07	--	2.87E-06	Yes	Yes
Pyrene	129-00-0	1.60E-07	2.56E-07	1.30E-07	1.52E-07	1.47E-07	--	8.45E-07	Yes	Yes
Toluene	108-88-3	1.09E-04	1.74E-04	8.85E-05	1.03E-04	9.98E-05	--	5.74E-04	Yes	Yes
Arsenic	7440-38-2	6.40E-06	1.02E-05	5.21E-06	6.06E-06	5.87E-06	--	3.38E-05	Yes	Yes
Berylium	7440-41-7	3.84E-07	6.15E-07	3.12E-07	3.64E-07	3.52E-07	--	2.03E-06	Yes	Yes
Cadmium	7440-43-9	3.52E-05	5.64E-05	2.86E-05	3.33E-05	3.23E-05	--	1.86E-04	Yes	Yes
Chromium	7440-47-3	4.48E-05	7.17E-05	3.65E-05	4.24E-05	4.11E-05	--	2.37E-04	Yes	Yes
Cobalt	7440-48-4	2.69E-06	4.30E-06	2.19E-06	2.55E-06	2.47E-06	--	1.42E-05	Yes	Yes
Manganese	7439-96-5	1.22E-05	1.95E-05	9.90E-06	1.15E-05	1.12E-05	--	6.42E-05	Yes	Yes
Mercury	7439-97-6	8.32E-06	1.33E-05	6.77E-06	7.88E-06	7.63E-06	--	4.39E-05	Yes	Yes
Nickel	7440-02-0	6.72E-05	1.08E-04	5.47E-05	6.37E-05	6.16E-05	--	3.55E-04	Yes	Yes
Selenium	7782-49-2	7.68E-07	1.23E-06	6.25E-07	7.27E-07	7.04E-07	--	4.05E-06	Yes	Yes
	Total =	6.04E-02	9.67E-02	4.92E-02	5.72E-02	5.54E-02	1.02E+02	1.02E+02	2.45	3.11
							Max PTE for Individual HAP =		2.13	

Notes:

AIE is Aggregate Insignificant Emissions consisting Crouton Dryer, GDF, and the Dump Station.

Baking - Speciated VOC consists of baking lines 1, 2, and 3 (EU-3, EU-4, and EU-6).

Potential emissions of any single organic pollutant cannot exceed the VOC PSEL.

US Bakery dba Franz Family Bakeries
Emission Details
Natural Gas Combustion

Natural Gas Combustion Emission Factors		
PM	2.5	lb/MMcf
PM10	2.5	lb/MMcf
PM2.5	2.5	lb/MMcf
SO2 (short-term)	2.6	lb/MMcf
SO2 (annual)	1.7	lb/MMcf
NOx	100	lb/MMcf
CO	84	lb/MMcf
VOC	5.5	lb/MMcf

Avg. Natural Gas Heat Value		
	1026	MMBtu/MMcf

Greenhouse Gas Emission Factors		
CO2	53.06	kg CO2/MMBtu
CH4	1.00E-03	kg CH4/MMBtu
N2O	1.00E-04	kg N2O/MMBtu

Global Warming Potentials	
CO2	1
CH4	25
N2O	298

	PM		PM10		PM2.5		SO2		NOx		CO		VOC		GHGs
EU ID	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	tpy
EU-2	1.83E-02	0.08	1.83E-02	0.08	1.83E-02	0.08	1.90E-02	0.05	0.73	3.20	0.61	2.69	4.02E-02	0.18	3,847
EU-3	2.92E-02	0.13	2.92E-02	0.13	2.92E-02	0.13	3.04E-02	0.09	1.17	5.12	0.98	4.30	6.43E-02	0.28	6,155
EU-4	1.49E-02	0.07	1.49E-02	0.07	1.49E-02	0.07	1.55E-02	0.04	0.59	2.60	0.50	2.19	3.27E-02	0.14	3,129
EU-6	1.73E-02	0.08	1.73E-02	0.08	1.73E-02	0.08	1.80E-02	0.05	0.69	3.03	0.58	2.55	3.81E-02	0.17	3,642
EU-6	1.68E-02	0.07	1.68E-02	0.07	1.68E-02	0.07	1.74E-02	0.05	0.67	2.93	0.56	2.47	3.69E-02	0.16	3,526
Total =	9.64E-02	0.42	9.64E-02	0.42	9.64E-02	0.42	1.00E-01	0.29	3.86	16.89	3.24	14.19	2.12E-01	0.93	20,298

Notes:

Natural gas combustion emission factors from ODEQ AQ-EF05 for uncontrolled medium boilers.

Greenhouse gas CO2e calculation methodology from 40 CFR Part 98 Subpart C, Eq C-1.

CO2e = 0.001*Gas Fuel*EF

GHG emission factors from Tables C-1 and C-2. Final GHG emissions are in CO2e.

US Bakery dba Franz Family Bakeries
Emission Details
Natural Gas Combustion, HAP

			EU-2		EU-3		EU-4		EU-6 Oven		EU-6 RCO			
Pollutant	CAS #	Emission Factor (lb/MMscf)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)	Total Emissions (lb/hr)	Total Emissions (tpy)
2-Methylnaphthalene	91-57-6	2.40E-05	1.75E-07	7.68E-07	2.81E-07	1.23E-06	1.43E-07	6.25E-07	1.66E-07	7.27E-07	1.61E-07	7.04E-07	9.26E-07	4.05E-06
3-Methylcolanthrene	56-49-5	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
7,12-Dimemethylbenz(a)anthracer	57-97-6	1.60E-05	1.17E-07	5.12E-07	1.87E-07	8.20E-07	9.51E-08	4.17E-07	1.11E-07	4.85E-07	1.07E-07	4.70E-07	6.17E-07	2.70E-06
Acenaphthene	83-32-9	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Acenaphthylene	203-96-8	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Anthracene	120-12-7	2.40E-06	1.75E-08	7.68E-08	2.81E-08	1.23E-07	1.43E-08	6.25E-08	1.66E-08	7.27E-08	1.61E-08	7.04E-08	9.26E-08	4.05E-07
Benz(a)anthracene	56-55-3	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Benzene	71-43-2	2.10E-03	1.54E-05	6.72E-05	2.46E-05	1.08E-04	1.25E-05	5.47E-05	1.45E-05	6.37E-05	1.41E-05	6.16E-05	8.10E-05	3.55E-04
Benzo(a)pyrene)	50-32-8	1.20E-06	8.77E-09	3.84E-08	1.40E-08	6.15E-08	7.13E-09	3.12E-08	8.30E-09	3.64E-08	8.04E-09	3.52E-08	4.63E-08	2.03E-07
Benzo(b)fluoranthene	205-99-2	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Benzo(g,h,i)perylene	191-24-2	1.20E-06	8.77E-09	3.84E-08	1.40E-08	6.15E-08	7.13E-09	3.12E-08	8.30E-09	3.64E-08	8.04E-09	3.52E-08	4.63E-08	2.03E-07
Benzo(k)fluoranthene	207-08-9	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Chrysene	218-01-9	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Dibenzo(a,h)anthracene	53-70-3	1.20E-06	8.77E-09	3.84E-08	1.40E-08	6.15E-08	7.13E-09	3.12E-08	8.30E-09	3.64E-08	8.04E-09	3.52E-08	4.63E-08	2.03E-07
Dichlorobenzene	25321-22-6	1.20E-03	8.77E-06	3.84E-05	1.40E-05	6.15E-05	7.13E-06	3.12E-05	8.30E-06	3.64E-05	8.04E-06	3.52E-05	4.63E-05	2.03E-04
Fluoranthene	206-44-0	3.00E-06	2.19E-08	9.61E-08	3.51E-08	1.54E-07	1.78E-08	7.81E-08	2.08E-08	9.09E-08	2.01E-08	8.80E-08	1.16E-07	5.07E-07
Fluorene	86-73-7	2.80E-06	2.05E-08	8.96E-08	3.27E-08	1.43E-07	1.66E-08	7.29E-08	1.94E-08	8.49E-08	1.88E-08	8.22E-08	1.08E-07	4.73E-07
Formaldehyde	50-00-0	7.50E-02	5.48E-04	2.40E-03	8.77E-04	3.84E-03	4.46E-04	1.95E-03	5.19E-04	2.27E-03	5.03E-04	2.20E-03	2.89E-03	1.27E-02
Hexane	110-54-3	1.80E+00	1.32E-02	5.76E-02	2.11E-02	9.22E-02	1.07E-02	4.69E-02	1.25E-02	5.46E-02	1.21E-02	5.28E-02	6.94E-02	3.04E-01
Indeno(1,2,3-cd)pyrene	193-39-5	1.80E-06	1.32E-08	5.76E-08	2.11E-08	9.22E-08	1.07E-08	4.69E-08	1.25E-08	5.46E-08	1.21E-08	5.28E-08	6.94E-08	3.04E-07
Naphthalene	91-20-3	6.10E-04	4.46E-06	1.95E-05	7.13E-06	3.12E-05	3.63E-06	1.59E-05	4.22E-06	1.85E-05	4.09E-06	1.79E-05	2.35E-05	1.03E-04
Phenanthrene	85-01-8	1.70E-05	1.24E-07	5.44E-07	1.99E-07	8.71E-07	1.01E-07	4.43E-07	1.18E-07	5.15E-07	1.14E-07	4.99E-07	6.56E-07	2.87E-06
Pyrene	129-00-0	5.00E-06	3.65E-08	1.60E-07	5.85E-08	2.56E-07	2.97E-08	1.30E-07	3.46E-08	1.52E-07	3.35E-08	1.47E-07	1.93E-07	8.45E-07
Toluene	108-88-3	3.40E-03	2.49E-05	1.09E-04	3.98E-05	1.74E-04	2.02E-05	8.85E-05	2.35E-05	1.03E-04	2.28E-05	9.98E-05	1.31E-04	5.74E-04
Arsenic	7440-38-2	2.00E-04	1.46E-06	6.40E-06	2.34E-06	1.02E-05	1.19E-06	5.21E-06	1.38E-06	6.06E-06	1.34E-06	5.87E-06	7.71E-06	3.38E-05
Berrylium	7440-41-7	1.20E-05	8.77E-08	3.84E-07	1.40E-07	6.15E-07	7.13E-08	3.12E-07	8.30E-08	3.64E-07	8.04E-08	3.52E-07	4.63E-07	2.03E-06
Cadmium	7440-43-9	1.10E-03	8.04E-06	3.52E-05	1.29E-05	5.64E-05	6.54E-06	2.86E-05	7.61E-06	3.33E-05	7.37E-06	3.23E-05	4.24E-05	1.86E-04
Chromium	7440-47-3	1.40E-03	1.02E-05	4.48E-05	1.64E-05	7.17E-05	8.32E-06	3.65E-05	9.69E-06	4.24E-05	9.38E-06	4.11E-05	5.40E-05	2.37E-04
Cobalt	7440-48-4	8.40E-05	6.14E-07	2.69E-06	9.82E-07	4.30E-06	4.99E-07	2.19E-06	5.81E-07	2.55E-06	5.63E-07	2.47E-06	3.24E-06	1.42E-05
Manganese	7439-96-5	3.80E-04	2.78E-06	1.22E-05	4.44E-06	1.95E-05	2.26E-06	9.90E-06	2.63E-06	1.15E-05	2.55E-06	1.12E-05	1.47E-05	6.42E-05
Mercury	7439-97-6	2.60E-04	1.90E-06	8.32E-06	3.04E-06	1.33E-05	1.55E-06	6.77E-06	1.80E-06	7.88E-06	1.74E-06	7.63E-06	1.00E-05	4.39E-05
Nickel	7440-02-0	2.10E-03	1.54E-05	6.72E-05	2.46E-05	1.08E-04	1.25E-05	5.47E-05	1.45E-05	6.37E-05	1.41E-05	6.16E-05	8.10E-05	3.55E-04
Selenium	7782-49-2	2.40E-05	1.75E-07	7.68E-07	2.81E-07	1.23E-06	1.43E-07	6.25E-07	1.66E-07	7.27E-07	1.61E-07	7.04E-07	9.26E-07	4.05E-06
Total HAP			1.38E-02	6.04E-02	2.21E-02	9.67E-02	1.12E-02	4.92E-02	1.31E-02	5.72E-02	1.27E-02	5.54E-02	7.28E-02	3.19E-01

Notes:

HAP emission factors from AP-42 Tables 1.4-3 and 1.4-4.

Avg. Natural Gas Heat Value = 1026 MMBtu/MMcf

US Bakery dba Franz Family Bakeries
Emission Details
Baking, VOC

VOC Emission Factor for Bread Making - EPA AP-42 Section 9.9.6

VOC EF = 0.95Yi + 0.195ti - 0.51S - 0.86ts + 1.90

Yi = initial baker's percent of yeast
ti = total yeast action time in hours
S = final (spike) baker's percent of yeast
ts = spiking time in hours

Maximum Design Capacity

						Uncontrolled		Controlled	
EU ID	Yi	ti	S	ts	VOC EF (lb/ton)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	VOC Emissions (lb/hr)	VOC Emissions (tpy)
EU-3	3.75	5.25	0	0	6.49	27.26	119.39	27.26	119.39
EU-4	3.75	5.29	3.38	1.23	3.72	6.62	29.00	6.62	29.00
EU-6	5	4.79	3	1.21	5.02	18.58	81.39	0.93	4.07
					Total =	52.46	229.78	34.81	152.46

Potential to Emit

	Uncontrolled			Controlled	
EU ID	VOC EF (lb/ton)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	VOC Emissions (lb/hr)	VOC Emissions (tpy)
EU-3	6.49	27.26	119.39	27.26	98.0
EU-4	3.72	6.62	29.00	6.62	
EU-6	5.02	18.58	81.39	0.93	

Notes:

Assume all three oven lines are producing bread/buns with largest VOC emission factor for maximum VOC estimate.

VOC emissions from EU-6 are controlled by an RCO assuming a = 95% control efficiency

The facility has requested a VOC PSEL of 99 TPY, which limits VOC emissions from these emission units to 98 TPY due to AIE.

US Bakery dba Franz Family Bakeries

Emission Details

Baking, Speciated VOC

		Total Uncontrolled		Total Controlled	
Pollutant	% by wt of VOC Emissions	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)
Ethanol	97.63%	51.22	224.34	33.98	98.0
Acetaldehyde	1.40%	0.73	3.22	0.49	2.13
Acetone	0.43%	0.23	0.99	0.15	0.66
Isobutyl Alcohol	0.54%	0.28	1.24	0.19	0.82
	Total HAP =	0.73	3.22	0.49	2.13

Notes:

Speciated VOC percentages from San Diego Air Pollution Control District, Baking Operations - March 12, 1998.

Potential emissions of any single organic pollutant cannot exceed the VOC PSEL.

US Bakery dba Franz Family Bakeries

Emission Details

Flour Silos & Grain Handling

Grain Receiving (Straight Truck), Particulate Emissions

		EU-1A: 7 Bulk Flour Silos		EU-1B: 6 Bulk Flour Silos		Total	
Pollutant	Emission Factor (lb/ton grain handled)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)	Emissions (lb/hr)	Emissions (tpy)
PM	0.18	0.293	1.285	0.252	1.102	0.545	2.387
PM10	0.059	0.096	0.421	0.082	0.361	0.179	0.782
PM2.5	0.01	0.016	0.071	0.014	0.061	0.030	0.133

Flour Silo, Particulate Emissions

				PM/PM10/PM2.5	
EU ID	Max Exhaust (acfm)	# Exhaust Points	Emission Factor (gr/acf)	Emissions (lb/hr)	Emissions (tpy)
EU-1A	1060	7	0.01	0.636	2.786
EU-1B	800	6	0.01	0.411	1.802
EU-7	800	1	0.01	0.069	0.300

Notes:

Emission factors for flour silos are based on the bin vent manufacturer's data.

7000 gr/lb

US Bakery dba Franz Family Bakeries			
Emission Details			
Gasoline Dispensing			
South Coast AQMD Guidelines for Liquid Storage Tanks			
Working losses, Lw	9.5	lb/1000 gal	
Standing Losses, Ls	1	lb/1000 gal	
Refueling Losses, Lrf	10	lb/1000 gal	
Spillage Losses, Lspill	0.7	lb/1000 gal	
Total =	21.2	lb/1000 gal	

Pollutant	Emissions (lb/hr)	Emissions (tpy)
VOC	0.049	0.216

Notes:			
Maximum tank throughput is =		20,400	gal/yr

US Bakery dba Franz Family Bakeries
Emission Details
Emergency Generator

Maximum Capacity:	85	kW =	0.290	MMBtu/hr

Engine capacity converted from hp to MMBtu/hr using AP-42 Appendix A conversion factor 1 kW (Int.) = 3,413 Btu/hr

Heat Content of Natural Gas:	1026	Btu/scf
Fuel Capacity:	2.83E-04	MMscf/hr
Hours of Operation:	100	hours/year

Pollutant	Emission Factor (lbs/MMBtu)	Emissions (lbs/hr)	Emissions (tons/yr)
Particulate Matter	9.50E-03	2.76E-03	1.38E-04
Particulate Matter ≤ 10 µm	1.94E-02	5.63E-03	2.82E-04
Particulate Matter ≤ 2.5 µm	1.94E-02	5.63E-03	2.82E-04
Sulfur Dioxides	5.88E-04	1.71E-04	8.53E-06
Nitrogen Oxides	2.21	6.41E-01	3.21E-02
Carbon Monoxide	3.72	1.08E+00	5.40E-02
Volatile Organic Compounds	2.96E-02	8.59E-03	4.29E-04
Hazardous Air Pollutants (HAPs)			
1,1,2,2-Tetrachloroethane	2.53E-05	7.34E-06	3.67E-07
1,1,2-Trichloroethane	1.53E-05	4.44E-06	2.22E-07
1,3-Butadiene	6.63E-04	1.92E-04	9.62E-06
1,3-Dichloropropene	1.27E-05	3.68E-06	1.84E-07
Acetaldehyde	2.79E-03	8.09E-04	4.05E-05
Acrolein	2.63E-03	7.63E-04	3.81E-05
Benzene	1.58E-03	4.58E-04	2.29E-05
Carbon Tetrachloride	1.77E-05	5.13E-06	2.57E-07
Chlorobenzene	1.29E-05	3.74E-06	1.87E-07
Chloroform	1.37E-05	3.97E-06	1.99E-07
Ethylbenzene	2.48E-05	7.19E-06	3.60E-07
Ethylene Dibromide	2.13E-05	6.18E-06	3.09E-07
Formaldehyde	2.05E-02	5.95E-03	2.97E-04
Methanol	3.06E-03	8.88E-04	4.44E-05
Methylene Chloride	4.12E-05	1.20E-05	5.98E-07
Naphthalene	9.71E-05	2.82E-05	1.41E-06
PAH	1.41E-04	4.09E-05	2.05E-06
Styrene	1.19E-05	3.45E-06	1.73E-07
Toluene	5.58E-04	1.62E-04	8.09E-06
Vinyl Chloride	7.18E-06	2.08E-06	1.04E-07
Xylene	1.95E-04	5.66E-05	2.83E-06
Total HAPs		9.40E-03	4.70E-04
Carbon Dioxide	110	3.19E+01	1.60E+00
Methane	0.23	6.67E-02	3.34E-03

Notes:
All emission factors from AP-42 Table 3.2-3.