

Statement of Basis for United States Bakery, Franz Northern Division - Weller Street Air Operating Permit

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1. Purpose of the Statement of Basis

This Air Operating Permit is a renewal of an existing Air Operating Permit for United States Bakery, Franz Northern Division - Weller Street (formerly known as Gai's Seattle French Baking Company). This statement of basis summarizes the legal and factual bases for the draft permit conditions in United States Bakery, Franz Northern Division - Weller Street air operating permit to be issued under the authority of the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington, Chapter 173-401 of the Washington Administrative Code and Puget Sound Clean Air Agency Regulation I, Article 7. Unlike the permit, this document is not legally enforceable. It includes references to the applicable statutory or regulatory provisions that relate to United States Bakery, Franz Northern Division - Weller Street emissions to the atmosphere. In addition, this statement of basis provides a description of United States Bakery, Franz Northern Division - Weller Street activities and a compliance history.

2. Source Description

United States Bakery, Franz Northern Division - Weller Street (referred to as Franz – Weller Street throughout this document) operates a facility that bakes different types of breads, English muffins, buns, bagels, donuts, muffins, Danish, croissants and other bakery products in Seattle, Washington.

Franz - Weller Street is not subject to any facility-specific emission limits or operating restrictions. The facility can potentially operate 24 hours per day, 365 days per year. Currently, however, the plant is operating 1 to 3 shifts per day, depending on the product, roughly 144 hours per week, 52 weeks per year. The facility Standard Industrial Classification Code is 2051.

The following seven processes (described in detail in Sections 2.1 through 2.7 of this Statement of Basis) are used to manufacture bakery products at Franz - Weller Street:

1. Sponge Dough Process
2. Straight Dough Process
3. Cake Donut Process
4. Raised Donut Process
5. Batter Process
6. Hand Made Process
7. Danish / Croissant Process

Franz - Weller Street is an Air Operating Permit source because of its emission of volatile organic compounds (VOCs). The majority of these VOC emissions come from the emissions of ethanol, which is formed in the dough and vaporizes in the bakery oven. Franz - Weller Street has reported the following emissions of total VOCs and ethanol over the past five years:

**TABLE 1: FRANZ - WELLER STREET REPORTED TOTAL VOC AND ETHANOL EMISSIONS
(TONS PER YEAR)**

Pollutant	1997	1998	1999	2000	2001
Total VOC	103	112	93	100	82
Ethanol	103	112	93	100	82

Tests on bakery ovens show that small amounts of acetate and formate, typically in the low parts per million (ppm) range, are also present in the off-gas. Further, most of the acetate is ethyl acetate, a VOC that contributes to the bakery odor (ethanol does not). By comparison, short-term concentrations during baking of high yeast bread at full operation yielded 1,000 to 4,300 mg/m³ of ethanol and 1 to 5 mg/m³ of the remaining VOC components.

Franz - Weller Street building is heated by natural gas with a few steam heaters using diesel backup. Emissions from natural gas combustion for oven heat are relatively small.

2.1 SPONGE DOUGH PROCESS

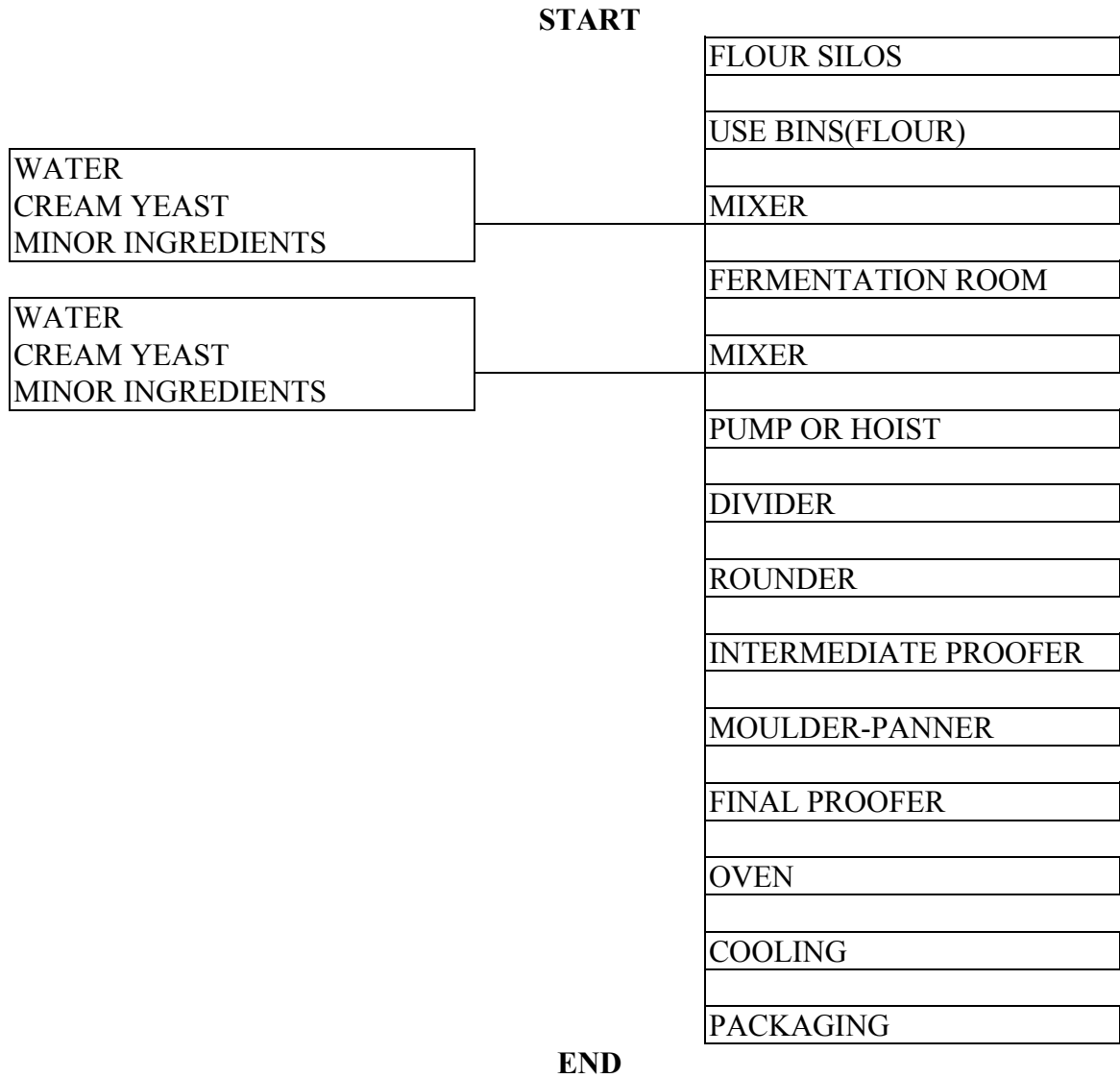
In the first mixing stage generally 60-100% of the total flour, minor ingredients and water are brought together with sufficient mixing to yield a stiff homogeneous mass. Bakers refer to this stage as the sponge. After being subjected to fermentation the sponge is brought back to the mixer where the remaining ingredients are added and the second mixing is applied. At this point, the dough is mixed so as to uniformly disperse the ingredients.

The second fermentation of the dough is referred to as floor time. After being mixed, the dough is allowed to relax or be mechanically developed before dividing can occur. The Degasser/Developer is used to provide consistent dough density and therefore obtain a consistent scaling weight. Dough division then occurs and a large mass of dough is divided into smaller pieces of predetermined weight. The dough pieces are then rounded into uniform balls and transferred to the Intermediate Proofer.

Intermediate proofing is designed to give the divided and rounded dough pieces time to recover from the punishment or tightening effect of the dividing and rounding. Molding occurs after intermediate proofing. The dough pieces are run through a set of sheeting rollers, shaped to size and deposited on a peel board or into a pan.

Final proofing will then allow the dough piece to leaven to a desired volume. The proofed product is loaded into the oven and baked to a certain desired color by regulating the time and temperature. The baked product is de-panned and is transferred onto a cooling conveyor or cooling rack where it is allowed to cool. The cooled product is sliced and/or bagged and then staged for distribution.

TABLE 2: FLOW DIAGRAM SPONGE DOUGH PROCESS



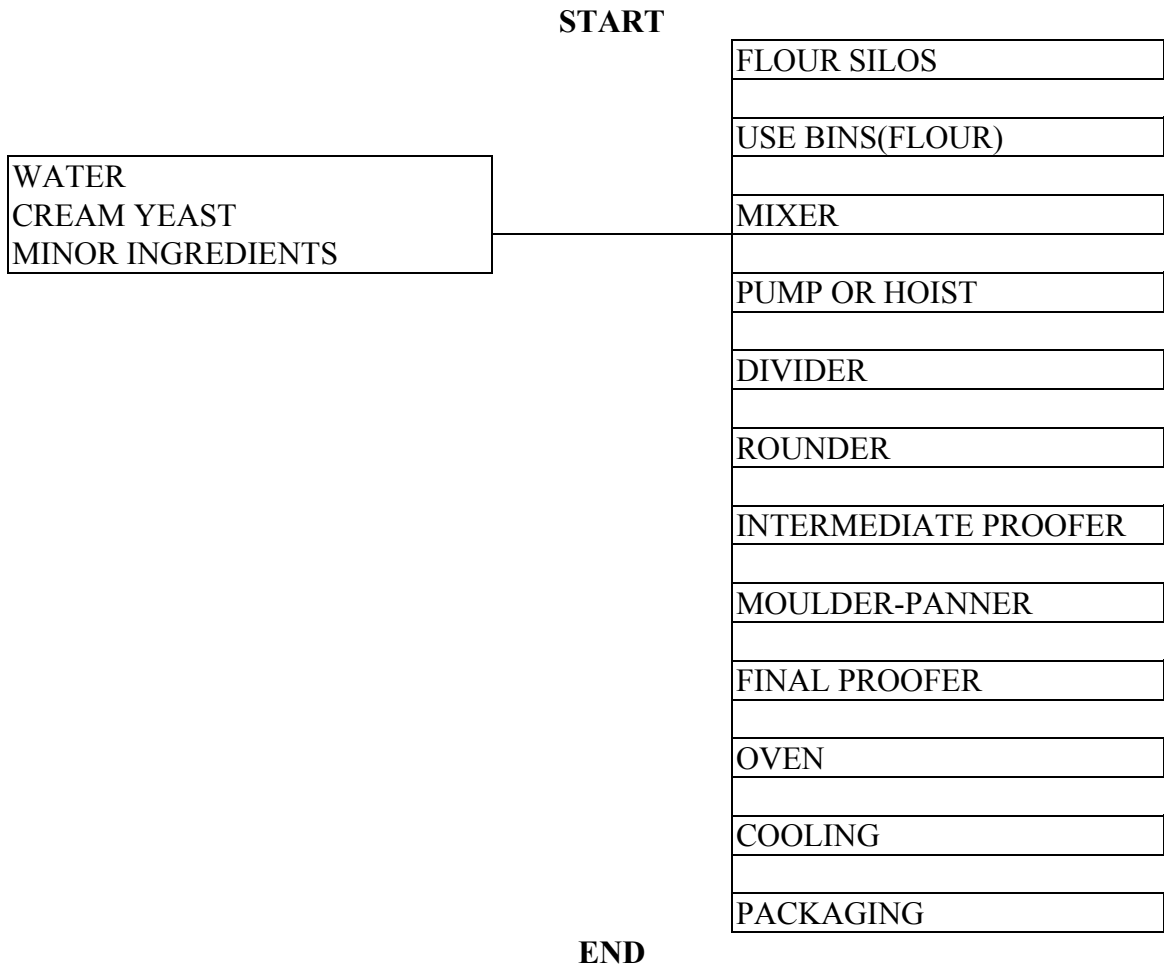
2.2 STRAIGHT DOUGH PROCESS

The straight dough process is a single step mixing process where all the ingredients needed for the dough are placed into a mixer at one time. After mixing, the process is similar to the Sponging Dough Process, except for English muffins and bagels.

For English muffins, the dough piece goes directly to the final proofer after the divider/rounder. The proofed English muffins are loaded into the griddle, cooled, bagged and then staged for distribution.

For bagels, the dough from the divider/former may or may not go through the intermediate proofer.

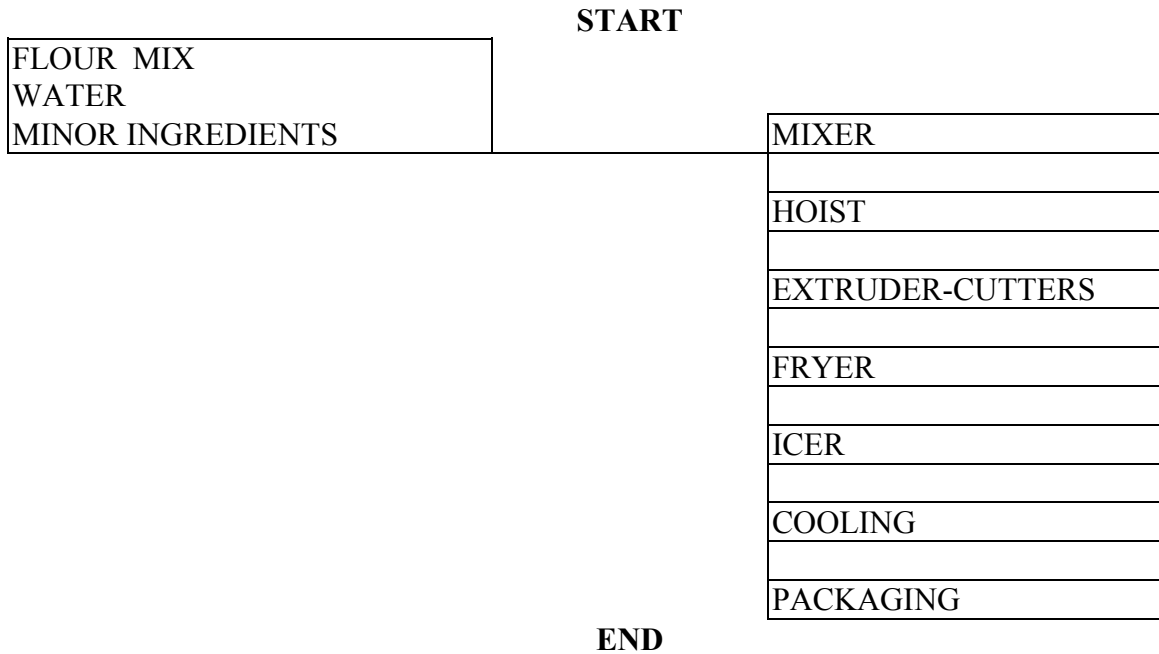
TABLE 3: FLOW DIAGRAM STRAIGHT DOUGH PROCESS



2.3 CAKE DONUT PROCESS

Cake donut ingredients are loaded into the mixer and mixed to a batter consistency. The batter is dropped into an extrusion divider that divides the batter into equally weighted rings directly into the frying fat. The donuts are then conveyed through an icing station, cooling-staging conveyors, packaged, and sent on to distribution.

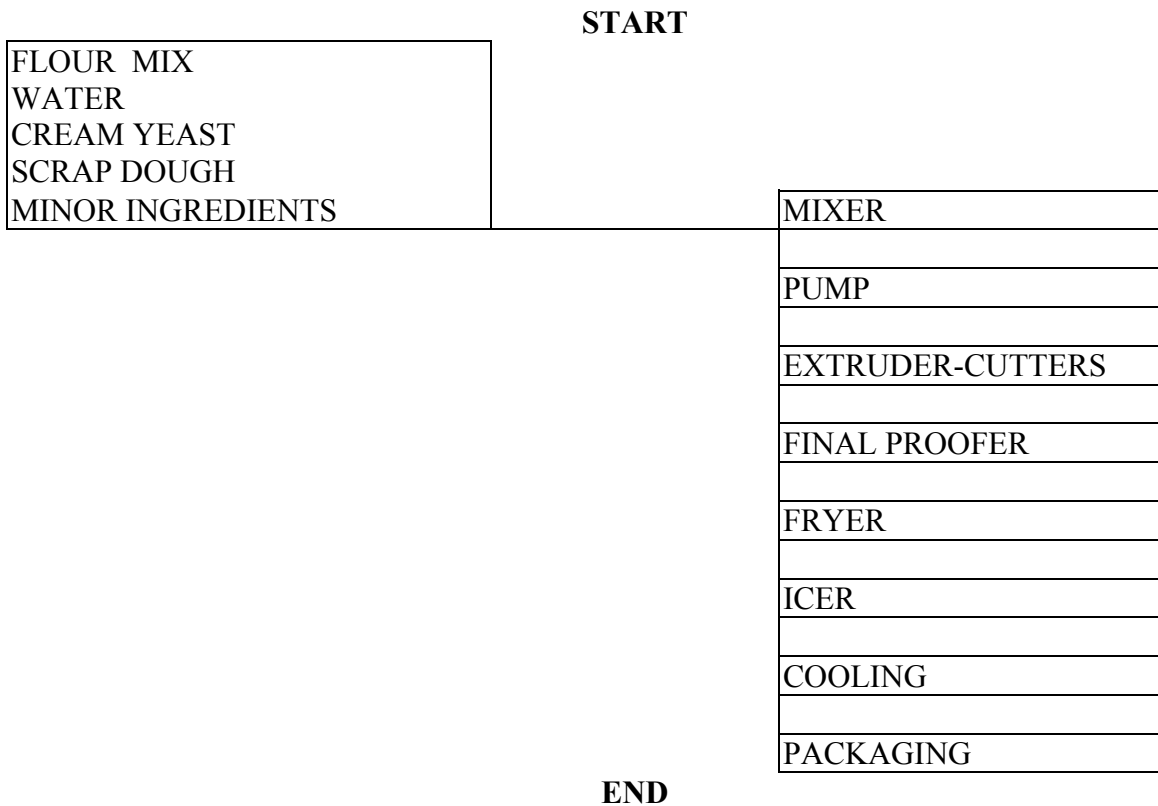
TABLE 4: FLOW DIAGRAM CAKE DONUT PROCESS



2.4 RAISED DONUT PROCESS

Raised donut ingredients are loaded into the mixer and mixed to a dough consistency. The dough is dropped into a dough pump that conveys the dough to an extruder. The dough is then extruded, sheeted, cut to proper shape, and conveyed to the proofer. The proofer allows the product to leaven in a controlled environment until the donuts have reached a desired size. The donuts are then dropped into the fryer. After being fried, the donuts are conveyed through an icing station, cooling-staging conveyors, packaged, and sent to distribution.

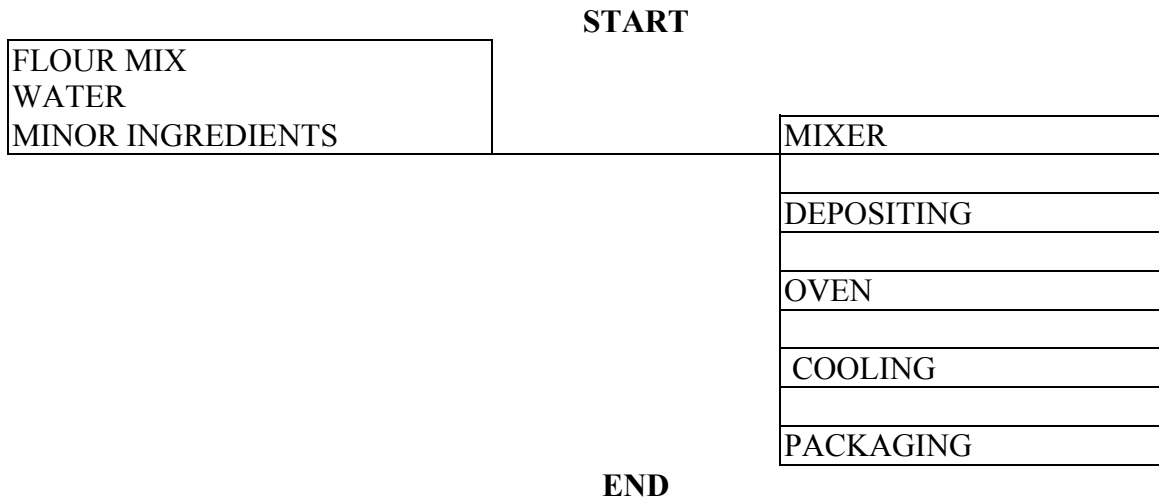
TABLE 5: FLOW DIAGRAM RAISED DONUT PROCESS



2.5 BATTER PROCESS

Ingredients for the batter process are loaded into the mixer and mixed to a batter consistency. The batter is transferred to a depositor that scales the batter into pans. The pans are loaded into the oven and the muffins are baked, cooled, packaged, and sent to distribution.

TABLE 6: FLOW DIAGRAM BATTER PROCESS



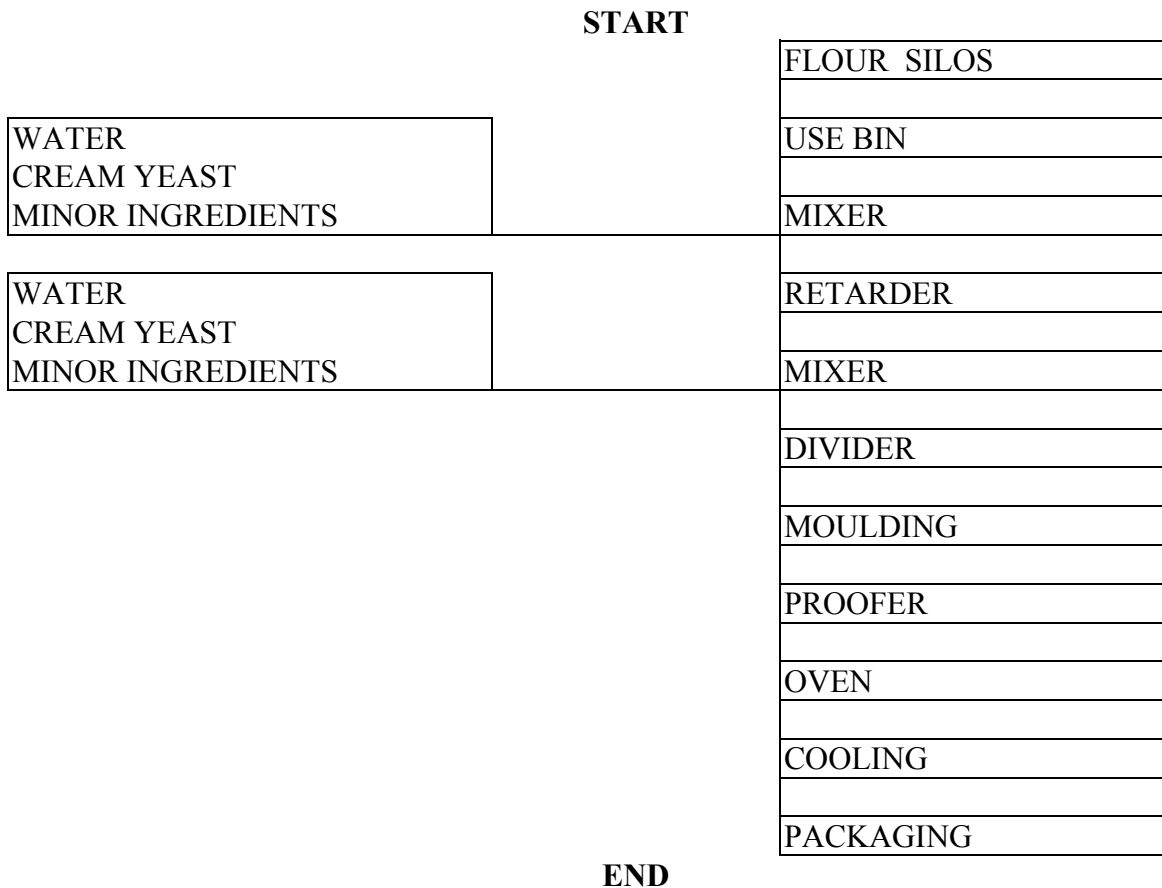
2.6 HAND MADE PROCESS

Sixty to one hundred percent of the total flour, all of the yeast, liquid ingredients, and malt are mixed together and set in dough containers to ferment overnight in a refrigerated box. This is the first stage of the hand made process.

During the second mixing the remaining ingredients are added and the dough is again allowed to ferment overnight.

After fermentation, the dough is pulled from the retarder and allowed to come to room temperature. The dough is divided and formed into each of the different products. The formed dough is placed on peel boards and/or screens and is allowed to leaven. The leavened dough is then baked in the oven at a desired bake time and temperature. After baking, the loaves are removed from the oven, cooled, packaged, and sent to distribution.

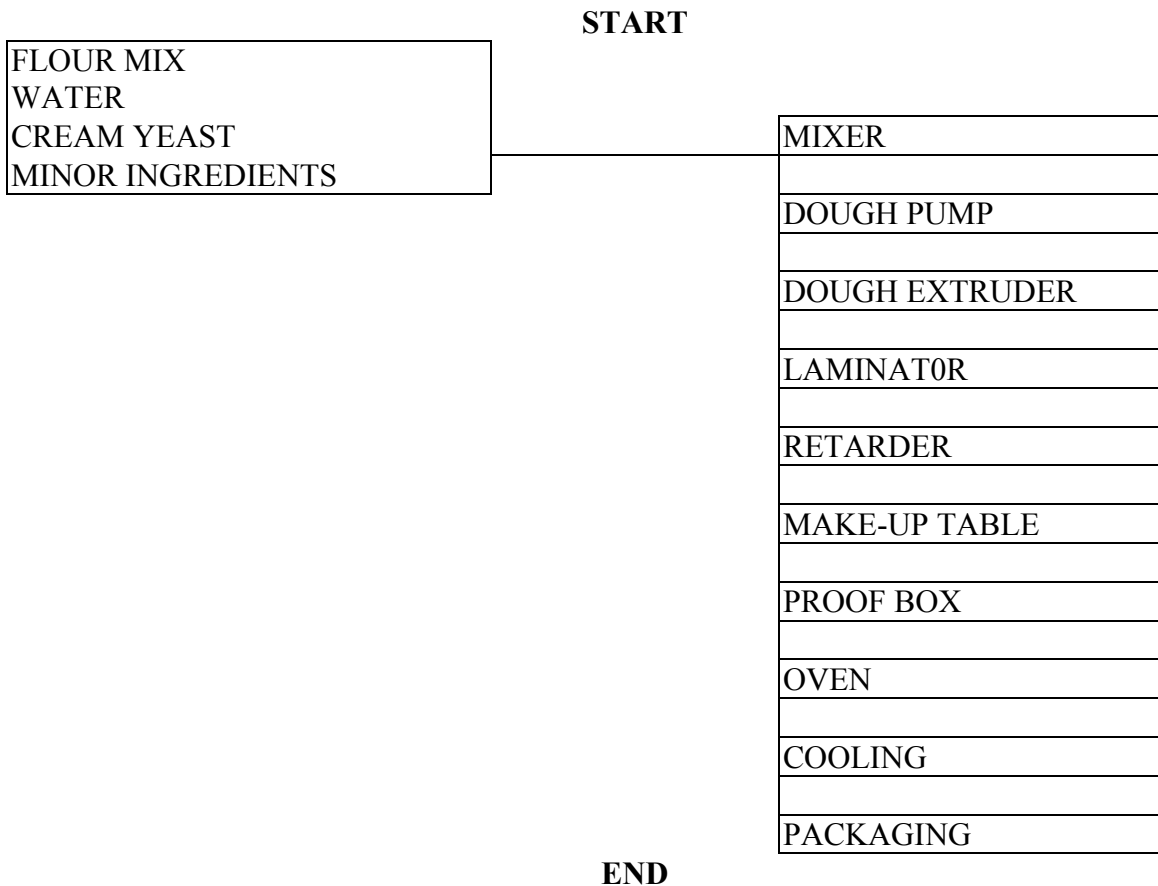
TABLE 7: FLOW DIAGRAM HAND MADE PROCESS



2.7 DANISH/CROISSANT PROCESS

Ingredients are loaded into the mixer and mixed to a dough consistency. The dough is then loaded into the dough pump and pumped through the extruder. The dough is topped with margarine or butter, and another layer of dough is extruded onto the margarine/ butter. The layered dough is folded in the laminator line by a series of belts and moving conveyors. The folded dough is then slabbed onto sheet pans and racked. The panned dough pieces are retarded overnight and allowed to leaven slightly. After retarding overnight, the slabs of dough are pulled from the retarder and placed on a sheeting conveyor that presses the dough to a desired thickness. The sheeted dough pieces are cut and panned according to specifications. The panned dough is then placed in a proof-box to allow the dough to leaven to a desired height for baking. After leavening, the dough is baked, cooled, topped, packaged, and sent on to distribution.

TABLE 8: FLOW DIAGRAM DANISH/CROISSANT



3. Review of Permit Application

An air operating permit application was received by Puget Sound Clean Air Agency from Franz - Weller Street on April 17, 1995 pursuant to WAC 173-401-500(3). The application was acknowledged to be complete in a letter from Puget Sound Clean Air Agency to Franz - Weller Street dated September 22, 1995.

The Puget Sound Clean Air Agency issued Air Operating Permit No. 10873 to Franz - Weller Street on November 10, 1997. Franz - Weller Street has conducted baking operations under this air operating permit for the past 5 years and has been cooperative and worked with the agency to correct any deficiencies found during inspections.

Air Operating Permit No. 10873 issued to Franz - Weller Street on November 10, 1997 was issued for a five-year period, expiring on November 10, 2002. Prior to the conclusion of the five-year period, Franz - Weller Street was required to submit an air operating permit renewal application. The Air Operating Permit renewal application was received by the Puget Sound Clean Air Agency on November 9, 2001. The Puget Sound Clean Air Agency reviewed the application and acknowledged it to be complete in a December 12, 2001 letter to Franz - Weller Street.

4. Compliance History for January 1997 through October 2002

The compliance history for Franz - Weller Street from January 1997 through October 2002 is summarized below. Notice of Violations (NOV's), Written Warnings (WW's) and Compliance Status Reports (CSR's) issued are listed in chronological order.

A review of the Puget Sound Clean Air Agency database found that no complaints have been received about Franz - Weller Street from January 1997 through October 2002. The Puget Sound Clean Air Agency has no open or outstanding Assurances of Discontinuance (AODs) for this source.

4.1 Chronological Compliance History

As of October 31, 2002, the Puget Sound Clean Air Agency considers all matters listed below to be closed and has no open or unresolved enforcement actions with Franz - Weller Street.

Notice of Violation (NOV) No. 37491 was issued January 26, 1999, for failing to submit a complete annual compliance certification as required per Air Operating Permit Section V.M. Franz - Weller Street responded to this NOV with a letter on February 9 1999, and provided additional information. No further enforcement action was taken and the Agency considers this matter closed.

5. Emission Inventory

See Attachment A.

6. Explanation of Applicable Requirements

Applicable requirements are listed in several sections of this operating permit as outlined below. The permit lists only the requirements that Puget Sound Clean Air Agency has determined to be within the scope of the definition of "applicable requirements" under the operating permit program. Franz - Weller Street is legally responsible for complying with all applicable requirements of the operating permit and other requirements that do not fit the definition of "applicable requirements" found in Chapter 173-401 Washington Administrative Code (WAC).

Franz - Weller Street is subject to all the requirements listed in all the tables contained in Section I of the permit. The tables in Section I of the permit list emission limitations, performance standards, and work practice standards that require routine monitoring by Franz - Weller Street to assure compliance. The tables in Section I.A. include facility wide emission limits. The tables in Section I.B. include emission unit specific requirements. To simplify the permit, Puget Sound Clean Air Agency did not repeat the facility wide emission limits for each emission unit unless the monitoring method was more specific to the listed emission unit.

Some of the applicable requirements in the permit did not have specific monitoring requirements associated with them. For such requirements, the Puget Sound Clean Air Agency developed monitoring requirements. (This is sometimes called gap filling.) Section V.N, Data Recovery, addresses the amounts of data recovery required for these monitoring requirements that were developed specifically for the permit. The section also addresses procedures to follow if the monitoring system fails or data is lost. The requirements of the section only apply as noted in Section II of the permit and under no circumstances does this section apply if a specific underlying applicable requirement is more stringent.

In developing the data recovery requirements, the Agency considered similar data recovery requirements such as Regulation I, Section 12.03, the frequency of the monitoring, and the nature of the information required to monitor. For monitoring that the permit requires on a quarterly or less frequent basis, the data recovery requirements are 100%.

7. Applicable Requirements

Franz - Weller Street is subject to all the requirements listed in all the tables contained in Section I of the permit. This 2002 permit renewal contains many of the same requirements as the 1997 permit. However, the Puget Sound Clean Air Agency has developed a new template for the permit, and this new template has been used. In addition, Franz - Weller Street also made a few changes in equipment, and the permit has been updated as requested in Franz - Weller Street permit renewal application. Changes, such as a modification of the donut fryer monitoring requirements, have also been made as a result of information gained through Puget Sound Clean Air Agency's inspections of the Franz - Weller Street facility.

Section I.A contains the requirements that are applicable facility-wide and Section I.B contains requirements applicable only to the specific emission units. Puget Sound Clean Air Agency did not repeat the facility-wide requirements listed in Section I.A and Section I.B unless the monitoring method was specific to the listed emission unit.

The first column is used as an identifier for the requirement, and the fourth "Requirement Paraphrase" column paraphrases the requirement. The first and fourth columns are for information only and are not enforceable conditions of this permit. The actual enforceable requirement is embodied in the requirement cited in the second and third columns.

The fifth column, "Monitoring, Maintenance & Recordkeeping Method," identifies the methods described in Section II of the permit. Following these methods is an enforceable requirement of this permit. The sixth column, "Emission Standard Period," identifies the averaging time for the emission standard and/or the minimum length of one reference method run. Section V.N.1 of the permit identifies the number of separate runs for determining compliance using the reference method. The last column, "Reference Test Method," identifies the reference method associated with an applicable emission limit that is to be used if and when a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added. This is called "gapfilling" and is authorized under WAC 173-401-615.

In case of conflict or omission between the information contained in the fourth column and the actual statute or regulation cited in the second column, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second and third columns, refer to the actual requirements cited.

Recently amended Puget Sound Clean Air Agency Regulations. The Puget Sound Clean Air Agency Board of Directors has recently amended several sections of its regulations. These amended sections are listed as "State Only" in the permit. That means they are not federally enforceable. They are enforceable only by the Puget Sound Clean Air Agency and the Washington State Department of Ecology. However, these requirements will become federally enforceable if they are adopted in the SIP¹.

7.1 Applicable Requirements Listed in Section I.A (Facility-wide)

In developing the permit, Puget Sound Clean Air Agency grouped similar applicable requirements together in the tables if the same monitoring and test methods were required. The basis for each grouping and a discussion of the appropriateness of the monitoring method for assuring compliance with the requirements are provided below.

¹ "SIP" is an abbreviation for "state implementation plan" which is a plan for improving or maintaining air quality and complying with the Federal Clean Air Act. The Federal Clean Air Act requires states to submit these plans to the US EPA for its review and approval. This plan must contain the rules and regulations of the state agency or local air authority necessary to implement the programs mandated by Federal law. Once the EPA adopts the plan or elements of it, the plan and its requirements become "federally enforceable" by EPA. New or modified state or local rules are not federally enforceable until they are "adopted into the SIP" by the EPA.

7.1.1 Requirement I.A.1

Both WAC 173-400-040(1) and Puget Sound Clean Air Agency Regulation I, Section 9.03 standards are 20% opacity and apply to all stationary sources. Although the permit lists all these requirements together, Franz - Weller Street must comply with each.

The monitoring method is based on visible emission inspections of the facility at least monthly. Inspections are to be performed while the facility is in operation during daylight hours. If visible emissions other than uncombined water are observed from a single unit or activity, Franz - Weller Street shall, as soon as possible but within 24 hours of the initial observation, take corrective action until there are no visible emissions or, alternatively, record the opacity using the reference test method WDOE Method 9A, or shut down the unit or activity until it can be repaired. If Franz - Weller Street corrects the visible emissions within 24 hours of initial observation or shuts down the unit or activity within 24 hours until it is repaired or corrected, Franz - Weller Street does not need to report the deviation under Section V.K. (Compliance Certifications) or Section V.O. (Reporting). However, if Franz - Weller Street does not take appropriate action within 24 hours, Franz - Weller Street must report the deviation. The Puget Sound Clean Air Agency has determined that the monitoring should be monthly for the reasons listed below.

- 1) Compliance. With the exception of the donut fryer, none of the emission units at Franz - Weller Street normally have visible emissions. The emission units other than the donut fryer are also unlikely to generate visible emissions except under the most unusual circumstances. Franz - Weller Street has been monitoring emissions from the donut fryer using Ecology Method 9 as required by its Air Operating Permit, and a review of the records sent by Franz - Weller Street does not indicate that opacity from the donut fryer frequently exceeds 20%. Therefore, we conclude that it is generally in compliance with the opacity requirement and the margin of compliance is large. In addition, the monitoring method is designed so that Franz - Weller Street will take corrective action before a violation occurs, further enhancing the compliance margin.
- 2) Variability of process and emissions. None of the processes at Franz - Weller Street facility normally emit visible emissions, except as noted above. While many of the processes are variable or batch operations, the most likely cause of visible emissions would be a significant change in the process, one that would require approval from the Puget Sound Clean Air Agency, or major equipment failure. The specific emission units that are most likely to fail and have significant visible emissions, such as the baghouses, are addressed elsewhere in the permit.
- 3) Environmental impacts of problems. Observed opacity is generally related to emissions of particulate matter or finely divided liquid droplets. The manufacturing activities at Franz - Weller Street typically do not generate significant quantities of particulate matter. Hence, the environmental impacts of the emissions are small. A maintenance problem is unlikely to result in emissions that would have a significant environmental impact.
- 4) Technical considerations. The emission units that are likely to generate visible emissions are addressed elsewhere in the permit.

7.1.2 Requirement I.A.2

Puget Sound Clean Air Agency Regulation I, Section 9.09 limits particulate emissions to 0.05 gr/dscf from equipment used in a manufacturing process. WAC 173-400-060 limits particulate emissions to 0.1 gr/dscf from general process units (i.e., units using a procedure or a combination of procedures for the purpose of causing a change in material by either chemical or physical means, excluding combustion).

The monitoring method is based on monthly visual inspections of the facility for visible emissions, opacity monitoring as a surrogate to performing a Method 5 test with Franz - Weller Street taking corrective action if any visible emissions are noted. As with Requirement I.A.1, the Puget Sound Clean Air Agency has determined through its inspections and permitting that it is unlikely that Franz - Weller Street will exceed the particulate limit. Recording of visible emissions is not necessarily a deviation of the particulate concentration standard because the threshold for observing visible emissions occurs at a particulate concentration of less than 0.05 gr/dscf. However, failure to take timely corrective action, as defined in the permit, is a deviation from the specific permit requirement and must be reported to the Puget Sound Clean Air Agency. Taking corrective action does not relieve Franz - Weller Street from the obligation to comply with the particulate concentration standard itself. The Puget Sound Clean Air Agency has determined that the monitoring should be monthly for the reasons listed above in Section 7.1.1 of this Statement of Basis.

7.1.3 Requirement I.A.3

Puget Sound Clean Air Agency Regulation I, Section 9.09 also limits particulate emissions to 0.05 gr/dscf corrected to 7% oxygen from fuel burning equipment (i.e., equipment that produces hot air, hot water, steam, or other heated fluids by external combustion of fuel) combusting natural gas. WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O₂ from all combustion units (i.e., units using combustion for steam production or other process requirements, excluding open burning). Franz - Weller Street burns only pipeline grade natural gas and backup fuels that are certified to comply with the fuel oil standards of Regulation I, Section 9.08. It can be shown, as in Section 7.1.4 below for SO₂, that if fuels are properly burned, Franz - Weller Street is incapable of violating this standard while complying with the other requirements. Improper fuel burning that would result in high particulate emissions would also cause opacity problems and would be detected by the opacity monitoring requirement.

The State Implementation Plan (SIP) identifies the effective date of WAC 173-400-050 and WAC 173-400-060 as August 20, 1993; however, the versions that were in effect on August 20, 1993 became effective on March 22, 1991.

7.1.4 Requirement I.A.4

Both Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040(6) are equivalent requirements (SO₂ emissions not to exceed 1000 ppmv), except for the second paragraph of the WAC, which is not in the Puget Sound Clean Air Agency regulation. The second paragraph of WAC 173-400-040(6), which is not federally enforceable, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO₂ concentrations to 1000 ppm. Since the Puget Sound Clean Air Agency's

rules are more stringent, this exception is not available to Franz - Weller Street and the second paragraph does not apply to Franz - Weller Street.

Franz - Weller Street burns only pipeline grade natural gas in all combustion emission units, with low sulfur diesel as a back-up.

All the natural gas burned at Franz - Weller Street must be pipeline quality, the content of which is regulated by the Washington Utilities and Transportation Commission to contain less than 2000 grains of sulfur per million cubic feet. 2000 grains of sulfur per million cubic feet is equivalent to approximately 3.4 parts of sulfur per million cubic feet of natural gas, as shown in the following calculation:

$$\frac{2,000 \text{ gr S}}{1,000,000 \text{ ft}^3 \text{ nat. gas}} \times \frac{1 \text{ lb}}{7000 \text{ gr}} \times \frac{385 \frac{\text{ft}^3}{\text{mole S}}}{32 \frac{\text{lb}}{\text{mole S}}} = 3.44 \times 10^{-6} \frac{\text{ft}^3 \text{ S}}{\text{ft}^3 \text{ nat. gas}} \cong 3.44 \text{ ppmdv S}$$

According to *Perry's Chemical Engineer's Handbook*, each cubic foot of natural gas requires approximately 10 cubic feet of air for combustion, yielding approximately 11 cubic feet of combustion exhaust gases, consisting mostly of nitrogen, water vapor, and carbon dioxide. The sulfur in the natural gas will almost all be converted to sulfur dioxide, with each cubic foot of sulfur producing the same volume of sulfur dioxide. Since each cubic foot of natural gas contains 3.44×10^{-6} cubic foot of sulfur, each cubic foot of stack exhaust will contain approximately:

$$3.44 \times 10^{-6} \frac{\text{ft}^3 \text{ S}}{\text{ft}^3 \text{ nat. gas}} \times \frac{1 \text{ ft}^3 \text{ SO}_2}{1 \text{ ft}^3 \text{ S}} \times \frac{1 \text{ ft}^3 \text{ nat. gas}}{11 \text{ ft}^3 \text{ stack exhaust}} = 3.13 \times 10^{-7} \frac{\text{ft}^3 \text{ SO}_2}{\text{ft}^3 \text{ stack exhaust}}$$

This is equivalent to 0.31 ppmdv SO₂. Note that this estimated value is less than one-tenth of one percent of the 1,000 ppm SO₂ standard. Therefore, it is reasonable to assume that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO₂ limits in Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040(6). The other emission units are not capable of generating SO₂ emissions in excess of the standard as permitted. Therefore, the permit does not contain additional monitoring requirements for the natural gas usage.

Additionally, the 1000 ppm SO₂ standard is equivalent to burning oil which has a 2 percent sulfur content (by weight). This is the basis for the fuel oil standard in Puget Sound Clean Air Agency's Regulation I Section 9.08.

Discussion with Franz - Weller Street indicates that the facility has been purchasing fuel oil with a sulfur content of 0.05%. This means that the emissions are 1/40th of the limit. Franz - Weller Street is not required to continue to purchase this very low sulfur fuel oil. However, Franz - Weller Street is required to purchase fuel oil with a maximum sulfur content of 2%.

7.1.5 Requirement I.A.5

Puget Sound Clean Air Agency Regulation I, Section 9.11 and WAC 173-400-040(5) are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. Although the permit lists all these requirements together, Franz - Weller Street must comply with each. The monitoring method for all is based on responding to complaints and general inspections of the facility to identify any emissions that are likely to

be injurious to human health, plant or animal life, or property, or that unreasonably interfere with enjoyment of life and property. For the following reasons, the Puget Sound Clean Air Agency has determined that the as-needed complaint response and monthly facility-wide inspections required in Section II.A.1(b) and II.A.1(c) of the permit are sufficient to monitor for changes that would cause a fugitive emission or unexpected buildup of dust on the roadways and plant grounds.

- 1) Initial compliance. The Puget Sound Clean Air Agency has not received any complaints concerning Franz - Weller Street facility regarding fugitive dust or odor emissions over the past five years. Therefore, we conclude that Franz - Weller Street is generally in compliance with the nuisance requirements.
- 2) Margin of compliance. The Agency has not observed nuisance problems, and the current operations are unlikely to cause nuisance problems. Therefore, the Puget Sound Clean Air Agency has determined that the margin of compliance is sufficient to only require monthly inspections and response to complaints as necessary. The emission of fugitive dust or odor is unlikely to generate off-site fallout or complaints except under the most unusual circumstances.
- 3) Variability of process and emissions. Franz - Weller Street does not have emission units that are likely to generate emissions that would cause a nuisance. In addition, Franz - Weller Street is unlikely to install such emission units during the life of the permit.
- 4) Environmental impacts of problems. Nuisance emissions can cause personal discomfort; however, by their nature do not result in exceedances of federal emissions or ambient standards. By responding quickly to complaints and identifying problems before they cause complaints, the environmental impact of nuisances should be small.
- 5) Technical considerations. Catastrophic failure of a baghouse attached to a flour silo is the only likely cause of a nuisance causing a deviation at Franz - Weller Street. The baghouses at Franz - Weller Street are equipped with high efficiency filters, are enclosed inside buildings or sheds, and are monitored at least monthly by Franz - Weller Street. Therefore, the chance of generating emissions that may cause a nuisance is minimized. The permit requires Franz - Weller Street to both look for possible nuisances on a regular basis and handle upset emissions of nuisance causing particulate or odor bearing contaminants more frequently on an as-needed basis. This minimizes the probability of causing an emission that could be injurious to health, plant or animal life, or property; or that unreasonably interferes with the enjoyment of life and property. The monitoring method is designed so that Franz - Weller Street will take corrective action before a violation occurs. In addition, in the past five years the Puget Sound Clean Air Agency has not noted nor received complaints about Franz - Weller Street causing emissions that are likely to be injurious to health, plant or animal life, or property or that unreasonably interfere with enjoyment of life and property. Therefore, the Puget Sound Clean Air Agency has determined that monthly monitoring is adequate. Receiving complaints does not necessarily mean Franz - Weller Street is in violation of this requirement, but Franz - Weller Street has a responsibility to investigate complaints and take corrective action if necessary. Failure to take timely corrective action, as defined by the monitoring method,

is a deviation of the specific permit term. Taking corrective action does not relieve Franz - Weller Street from the obligation to comply with the nuisance requirement itself.

7.1.6 Requirement I.A.6-I.A.8

The fugitive dust requirements are in I.A.6 through I.A.8 and addressed in Regulation I, Section 9.15 and WAC 173-400-040(3). The Puget Sound Clean Air Agency Board of Directors made significant revisions to Regulation I, Section 9.15 on March 11, 1999. The amended version will be forwarded to EPA as a SIP amendment. Upon approval of the SIP changes, the revised version of Regulation I, Section 9.15 will be federally enforceable, and the old version will no longer apply. The revised rule requires the use of reasonable precautions for fugitive dust. We have included both versions of Section 9.15 because they are significantly different. The Monitoring, Maintenance, and Recordkeeping Methods are the same as those listed in I.A.6 through I.A.8.

The SIP version of Puget Sound Clean Air Agency Regulation I, Section 9.15 requires best available control technology (BACT) for all fugitive dust, limits vehicle dust track-out, and limits fugitive dust from manufacturing and control equipment. The current version of Section 9.15 and WAC 173-400-040(3) requires reasonable precautions to minimize or prevent fugitive emissions. The Puget Sound Clean Air Agency's current rule also describes specific examples of reasonable precautions. There is no difference between the current and SIP versions of WAC 173-400-040(3).

All the fugitive emission regulations have common monitoring methods of responding to complaints and looking for fugitive emissions. The Puget Sound Clean Air Agency has determined that monitoring should be semiannual fugitive dust and track-out inspections, monthly facility-wide inspections, and as needed complaint response for the reasons listed below.

- 1) Initial compliance. The Puget Sound Clean Air Agency has not observed fugitive emissions during any inspection in the past five years, nor has Franz - Weller Street reported such emissions; therefore, we conclude that it is generally in compliance with this requirement.
- 2) Margin of compliance. For known sources of potential fugitive dust, the buildings at Franz - Weller Street are enclosed and all of the roadways and parking lots are paved. All the significant air pollution generating equipment has air pollution control devices and is inspected by Franz - Weller Street periodically and maintained on a regular basis. Hence, the margin of compliance is considered large enough to warrant quarterly and as needed inspections.
- 3) Variability of process and emissions. While many of the processes are variable or batch operations, few if any are likely to cause fugitive emissions. The most likely cause of fugitive emissions would be a significant change in the process, one that would require approval from the Puget Sound Clean Air Agency, or major equipment failure.
- 4) Environmental impacts of problems. Because Franz - Weller Street employs BACT for fugitive dust control, the likelihood of fugitive dust is very low. Any fugitive dust emissions are likely to be small and without significant environmental impact.

- 5) Technical considerations. The most likely causes of fugitive emissions at Franz - Weller Street would be failure of existing control equipment or vehicle track-out during construction. Equipment failure is likely to be identified by some other inspection or complaints. Track-out is minimized because the roadways and parking lots are paved and maintained.

7.1.7 Requirement I.A.9

Puget Sound Clean Air Agency Regulation I, Section 9.20 requires Franz - Weller Street to maintain equipment in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under Puget Sound Clean Air Agency Regulation I, Article 6. Section 9.20(b) applies to equipment not subject to Section 9.20(a). Section II, Monitoring, Maintenance and Recordkeeping Procedures, of the permit identifies the minimum monitoring criteria for maintaining equipment in good working order. The section identifies both facility-wide criteria and specific criteria for the emission units and activities. In addition, the facility-wide inspections provide monitoring of the general effectiveness of Franz - Weller Street Operation and Maintenance Plan. The Puget Sound Clean Air Agency chose to list all of Section II as the monitoring method because many parts of Section II apply to several emission units and activities. Where there are specific monitoring requirements for specific emission units, the Puget Sound Clean Air Agency has listed them in Section II.A.2. The Puget Sound Clean Air Agency has determined that following the requirements of Section II of the permit provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, the Puget Sound Clean Air Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

7.1.8 Requirement I.A.10

In accordance with Puget Sound Clean Air Agency Regulation I, Section 7.09(b), Franz - Weller Street is required to develop and implement an Operation and Maintenance Plan (O&M Plan) to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II, and III. The requirement specifies that the plan shall reflect good industrial practice, but does not define how to determine good industrial practice. To clarify the requirement, the Puget Sound Clean Air Agency adds that, in most instances, following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. This language is consistent with a Washington Department of Ecology requirement in WAC 173-400-101(4). The Puget Sound Clean Air Agency also added language establishing criteria for determining if good industrial practice is being used. These include monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The Puget Sound Clean Air Agency added this wording in response to Washington State court decision, Longview Fiber Co. v. DOE, 89 Win. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct.

Puget Sound Clean Air Agency Regulation I, Section 7.09(b) also requires Franz - Weller Street to promptly correct any defective equipment. However, the underlying requirement in most instances does not define "promptly"; hence for significant emission units and applicable requirements that Franz - Weller Street has a reasonable possibility of violating or

that a violation would cause an air quality problem, the Puget Sound Clean Air Agency added clarification that "promptly" usually means within 24 hours. For many insignificant emission units and equipment not listed in the permit, "promptly" cannot be defined because the emission sources and suitable pollution control techniques vary widely, depending on the contaminant sources and the pollution control technology employed. However, the permit identifies a means by which to identify if Franz - Weller Street is following good industrial practice.

As described in Section V.O, Franz - Weller Street must report to the Puget Sound Clean Air Agency any instances where it failed to promptly repair any defective equipment, both equipment that received approval from the Agency and that which did not. In addition, Franz - Weller Street has the right to claim certain problems were a result of an emergency (Section V.P) or unavoidable (Section V.Q).

Following these requirements demonstrates that Franz - Weller Street has properly implemented the O&M Plan, but it does not prohibit the Puget Sound Clean Air Agency or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation. However, not following its own O&M Plan is an indication that Franz - Weller Street was not using good industrial practice.

7.1.9 Requirement I.A.11

WAC 173-400-040(4) addresses odors. The monitoring method is based on responding to complaints and general inspections of the facility to identify emissions of odor-bearing contaminants. Receiving complaints does not necessarily mean Franz - Weller Street is in violation of this requirement, since the regulation does not prohibit the emission of odors, but prohibits the emissions of odors if reasonable control measures are not employed. Complaints will trigger action by Franz - Weller Street to investigate and prevent a violation. The Puget Sound Clean Air Agency has not received odor complaints concerning Franz - Weller Street since 1995. The Puget Sound Clean Air Agency has determined that responding to complaints within three working days is appropriate.

7.1.10 Requirement I.A.12

WAC 173-400-040(2) prohibits the emission of particulate matter from the facility to be deposited beyond the property line in sufficient quantity as to unreasonably interfere with the use and enjoyment of the property upon which the material is deposited. The monitoring method is based on responding to complaints and general inspections of the facility to identify any particulate emissions or deposition of particulate that may unreasonably interfere with the use and enjoyment of property. Receiving complaints does not necessarily mean Franz - Weller Street is in violation of this requirement, but triggers action by the source to prevent a violation.

7.1.11 Requirement I.A.13

Puget Sound Clean Air Agency Regulation I, Section 9.10 specifies that HCl emissions shall not exceed 100 ppm (dry) corrected to 7% O₂ for combustion sources. Since Franz - Weller Street burns only pipeline grade natural gas low sulfur distillate fuel oil, and the other processes do not use chlorine in a form likely to emit HCl, Franz - Weller Street is incapable of violating this standard while complying with the other requirements in the permit. Therefore, the permit does not contain additional monitoring requirements.

7.1.12 Requirement I.A.14

RCW 70.94.040 is similar to Puget Sound Clean Air Agency Regulation I, Section 9.11 and is listed separately here because it is not a federally enforceable requirement.

7.2 Applicable Requirements Listed in Section I.B (Emission Unit Specific)

7.2.1 EU-1 Direct Fired Baking Process

This emission unit includes direct fired baking ovens and griddles used in the baking process. The units listed below use natural gas as their only fuel.

For purposes of defining an "emission unit" in this permit, each unit listed below is considered a separate emission unit.

- 1) Natural Gas Fired Baker Perkins Tunnel Oven (Heat Input Rating = 5,037,000 Btu/Hour),
- 2) Natural Gas Fired Baker Perkins 18 Tray Oven (Heat Input Rating = 2,280,000 Btu/Hour),
- 3) Natural Gas Fired Baker Perkins 38 Tray Oven (Heat Input Rating = 4,740,000 Btu/Hour),
- 4) Natural Gas Fired Clock Griddle (Heat input Rating = 1,575,000 Btu/Hour)

The emission units discussed in EU-1 are not considered to be "fuel burning equipment" per the Puget Sound Clean Air Agency Regulation I definition of fuel burning equipment, because they do not produce hot air, hot water, steam, or other heated fluids by external combustion of fuel.

7.2.2 EU-2 Steam Generating Process and Indirectly Fired Ovens

This emission unit includes indirect fired baking ovens used in the baking process, a boiler used for steam production, and space heaters below 10 MMBtu/hr. With the exception of the boilers, the units listed below use natural gas as their only fuel. The boiler uses natural gas as a primary fuel and low sulfur distillate oil as a backup fuel.

For purposes of defining an "emission unit" in this permit, each unit listed below is considered a separate emission unit.

- 1) Natural Gas Fired 200 Horsepower Kewanee Boiler (Heat Input Rating = 8,000,000 Btu/Hour),
- 2) Natural Gas and Diesel Fuel Fired 400 Horsepower Cleaver Brooks Boiler (Heat Input Rating = 16,000,000 Btu/Hour), installed in 1978
- 3) Space heaters below 10 MMBTU/HR Heat Input Rating (natural gas only),

- 4) Natural Gas Fired Moline Fryer (Heat Input Rating = 490,000 Btu/Hour),
- 5) Natural Gas Fired Gouet Deck Oven (Heat Input Rating = 400,000 Btu/Hour),
- 6) Natural Gas Fired Petersen 8-Tray Oven (Heat Input Rating = 400,000 Btu/Hour),
- 7) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 625,000 Btu/Hour),
- 8) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 625,000 Btu/Hour),
- 9) Natural Gas Fired Gouet Tunnel Oven (Heat Input Rating = 3,300,000 Btu/Hour).
- 10) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
- 11) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
- 12) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
- 13) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
- 14) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
- 15) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)

7.2.3 EU-3 Donut Fryer

This emission unit consists of equipment associated with the donut frying line and consists of one Pillsbury/Moline 22-10S Donut Fryer. This donut fryer was permitted under Puget Sound Clean Air Agency Order of Approval No. 3313.

A July 13, 1998 inspection report by Agency inspector Elizabeth Gilpin indicated that visible emission in the range of 5% to 10% were seen from the donut fryer exhaust stack. The inspection report goes on to state that Mr. Wingle of Franz - Weller Street said that even if the stainless steel louvers had been cleaned just prior to the inspection, the same amount of visible emissions would come out of the stack. It is therefore assumed that normal operations of the donut fryer may include some visible emissions.

Visible emissions from the donut fryer are addressed through the requirement that Franz - Weller Street conduct monthly visible emission inspections. If visible emissions are seen from the donut fryer during the monthly inspections, Franz - Weller Street must do one of the following three items within 24 hours:

- take corrective action until there are no visible emissions or,
- record the opacity using the reference test method or,
- shut down the unit or activity until it can be repaired

8. General Facility-wide O&M Plan

In most instances, following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice.

Determination of whether good industrial practice is being used will be based on available information such as, but not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. Franz - Weller Street shall use the results of the inspections required by this permit in its annual review of the O&M Plan.

9. Obsolete Requirements

Order of Approval No. 3313 (8/3/89) Condition 1 requires the establishment of equipment according to plans and specifications on file with Puget Sound Clean Air Agency. The equipment permitted under this Order of Approval, a donut fryer, was installed in 1990. The requirement to establish the equipment according to plans and specifications on file with Puget Sound Clean Air Agency is therefore obsolete.

10. Prohibited Activities

Some of the requirements Franz - Weller Street identified in the operating permit application are included in Section III as prohibited activities. Since these activities are prohibited, routine monitoring of parameters is not appropriate. Instead, Puget Sound Clean Air Agency has listed these activities in this section to highlight that they cannot occur at the facility.

Puget Sound Clean Air Agency Regulation I, Section 9.13 and WAC 173-400-040(7) contain similar requirements addressing concealment and masking of emissions. Although both requirements apply, the permit language has been simplified by grouping these requirements together.

11. Activities Requiring Additional Approval

Some of the requirements Franz - Weller Street identified in the operating permit application are included in Section IV as activities that require additional approval. For new source review, the permit language has been simplified. Both the state (WAC 173-400-110 and Chapter 173-460 WAC) and Puget Sound Clean Air Agency (Regulation I, Article 6) new source review programs require approval to construct, install, establish, or modify an air contaminant source. All these requirements apply, but the language in these requirements has been incorporated into one section to simplify the permit language.

12. Standard Terms and Conditions

Some of the requirements Franz - Weller Street identified in the operating permit application are included in Section V, Standard Terms and Conditions. This provided a mechanism for describing requirements that are more general in nature. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

13. Basis for Inapplicable Requirements

The requirements listed in Section VIII of Franz - Weller Street air operating permit do not apply to the facility, or to the specific emissions units listed in the permit for the reasons listed below. The permit shield applies to all requirements so identified.

- The application identified Puget Sound Clean Air Agency Regulation I, Article 11 as an inapplicable requirement. Puget Sound Clean Air Agency has determined this is not an inapplicable requirement and has listed Regulation I, Article 11(b) as a prohibited activity in Section III. F. of the permit.
- The requirements in Regulation I, Article 12 are inapplicable because the source does not and is not required to operate a continuous emission monitoring system.
- The application identifies Puget Sound Clean Air Agency Regulation I, Article 13 and Chapter 173-433 WAC as inapplicable requirements. While Franz - Weller Street does not have any solid fuel burning devices, the permit does not prohibit Franz - Weller Street from installing one, nor will Puget Sound Clean Air Agency require approval before installing one. Hence, Puget Sound Clean Air Agency does not list it as an inapplicable requirement.
- Puget Sound Clean Air Agency Regulation II is an inapplicable requirement because Franz - Weller Street does not have any of the affected emission units and must get Puget Sound Clean Air Agency approval before installing any such equipment.
- Puget Sound Clean Air Agency Regulation III, Article 3 is an inapplicable requirement because Franz - Weller Street does not have any affected emission units and must get Puget Sound Clean Air Agency approval before installing any such equipment.
- Chapter 173-490 WAC is an inapplicable requirement because the Puget Sound Clean Air Agency is not currently an ozone nonattainment area, and further because Franz - Weller Street does not conduct any of the affected activities and must get Puget Sound Clean Air Agency approval before conducting any such activity.
- Chapters 173-470, 173-474, 173-475, 173-480 and 173-481 WAC are inapplicable requirements by definition in WAC 173-401-200(4)(xii).

Franz - Weller Street has air make-up heaters, and space heaters below 10 MMBtu/hr heat input rating, and an 8,000 gallon diesel fuel storage tank that are not listed in the specific emission unit section. Franz - Weller Street also has air conditioning and refrigeration units and battery chargers. These units are subject only to the generally applicable, facility-wide requirements.

The transportation demand management plan requirement is an inapplicable requirement due to the size of the facility.

The application states that the NOC Orders of Approval Nos. 3261 and 3313 do not impose any source-specific emissions limitations or standards. This is correct, but the NOC Orders of Approval do impose the requirement to develop and implement an O&M Plan and to construct the emission unit according to the specifications in the application. Puget Sound Clean Air Agency addresses Order No. 3313 in Emission Unit 3. The other Order, NOC No. 3261, is no longer applicable because the approved equipment either no longer exists or vents to the atmosphere.

14. Public Comments and Responses

14.1 1997 Public Comment Period

Three parties commented on the 1997 draft operating permit and statement of basis (then known as a fact sheet) during the public comment period: the Samish Indian Nation, Franz - Weller Street Seattle French Baking Company, and the U.S. EPA, Region 10.

U.S. EPA, Region 10, requested that the Emission Standard Reference Test Methods in the operating permit be more fully identified. In response, we expanded these references further. US EPA Region 10 also requested that we make a wording change in the Recordkeeping section to reflect actual wording in the regulation. In response, we made this change.

The Samish Indian Nation comments dealt with the nature of the emissions from Franz - Weller Street and the impacted area. Franz - Weller Street Seattle French Baking Company's comments dealt with the fuel burning requirements, the 112(r) risk management plans required by the federal Clean Air Act and EPA regulations and some suggested changes to the Statement of basis. The comments and PSAPCA's response to them are attached to this fact sheet.

14.2 2003 Public Comment Period

The only comment submitted during this comment period was from Kirk Lilley of Preston, Gates, and Ellis, who is Franz – Weller Street's attorney. The comment letter was received on January 28, 2003. The comment letter states:

“As we have discussed by phone, we believe that there is no regulatory basis for the references to 0.05 percent sulfur oil in the draft permit. Specifically, the Fuel Oil Monitoring provision in Section II.A.2(b) contains two references to fuel oil that contains less than 0.05 percent sulfur. The Agency should remove these references from the draft permit.

The only oil sulfur content requirement that applies to this bakery is the one in Regulation I, Section 9.08(a), which limits fuel oil sulfur content to 2 percent. As reflected in the general and source specific limits section of the draft permit, Franz - Weller Street is not subject to any existing requirement to use 0.05% sulfur fuel oil. A draft monitoring condition requiring a certification that oil used at the plant “contains less than 0.05 percent sulfur” is, therefore, inappropriate.”

Response: Air Operating Permit Section II.A.2(b) and the statement of basis have been modified as requested. However, the Puget Sound Clean Air Agency remains aware that while Franz – Weller Street is not required to use 0.05% sulfur oil, this is the oil that the facility has been purchasing.

14.3 Name Change

On March 12, 2003 I received a letter from Mr. Barry Ware, Vice President of United States Bakery – Franz Family Bakeries Division. Mr. Ware is the responsible official for this Air Operating Permit. In the letter, Mr. Ware asked that the name of United States Bakery, Franz

Northern Division be on the new operation permits for both the Weller Street bakery (formerly Gai's Bakery) and the 6th Ave Bakery (formerly Franz Bakery). However, Mr. Ware didn't distinguish how the names for the two bakeries would be different from each other. Having the same name for the facilities can cause confusion. Therefore, I contacted Mr. Dan Wingle, facility contact for United States Bakery- Franz Family Bakeries Division, to request clarification. On March 12, 2003 I spoke with Mr. Wingle and he requested that the Gai's bakery (Reg. No. 10873) be renamed to United States Bakery, Franz Northern Division – Weller Street. At Mr. Ware's and Mr. Wingle's request, the name has been changed throughout this Air Operating Permit.