Statement of Basis for Franz Seattle Division - Weller St. Air Operating Permit

(Formally known as United States Bakery, Franz Northern Division – Weller Street)

Administrative Amendment: June 26, 2016

Table of Contents

1. Purpose of the Statement of Basis

1.1 General

This statement of basis document summarizes the legal and factual bases for the draft permit conditions in Franz Seattle Division - Weller St. 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 Franz Seattle Division - Weller St. emissions to the atmosphere. In addition, this statement of basis provides a description of Franz Seattle Division - Weller St. activities, including a compliance history.

1.2 Why is Franz – Weller is an Air Operating Permit Source?

Franz - Weller qualifies as a major source of air pollution, and was required to obtain an Air Operating Permit because it has the potential to emit more than 100 tons per year of volatile organic compounds (VOCs). The main VOC emitted from bread baking is ethanol, which is formed in the dough through the leavening process, and vaporizes in the bakery oven.

2. Source Description

2.1 Facility Background and Process Information

Franz Seattle Division - Weller Street (referred to as "Franz – Weller" 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 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 2.3 through 2.9 of this Statement of Basis) are used to manufacture bakery products at Franz - Weller:

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.

2.2 Sponge Dough Process

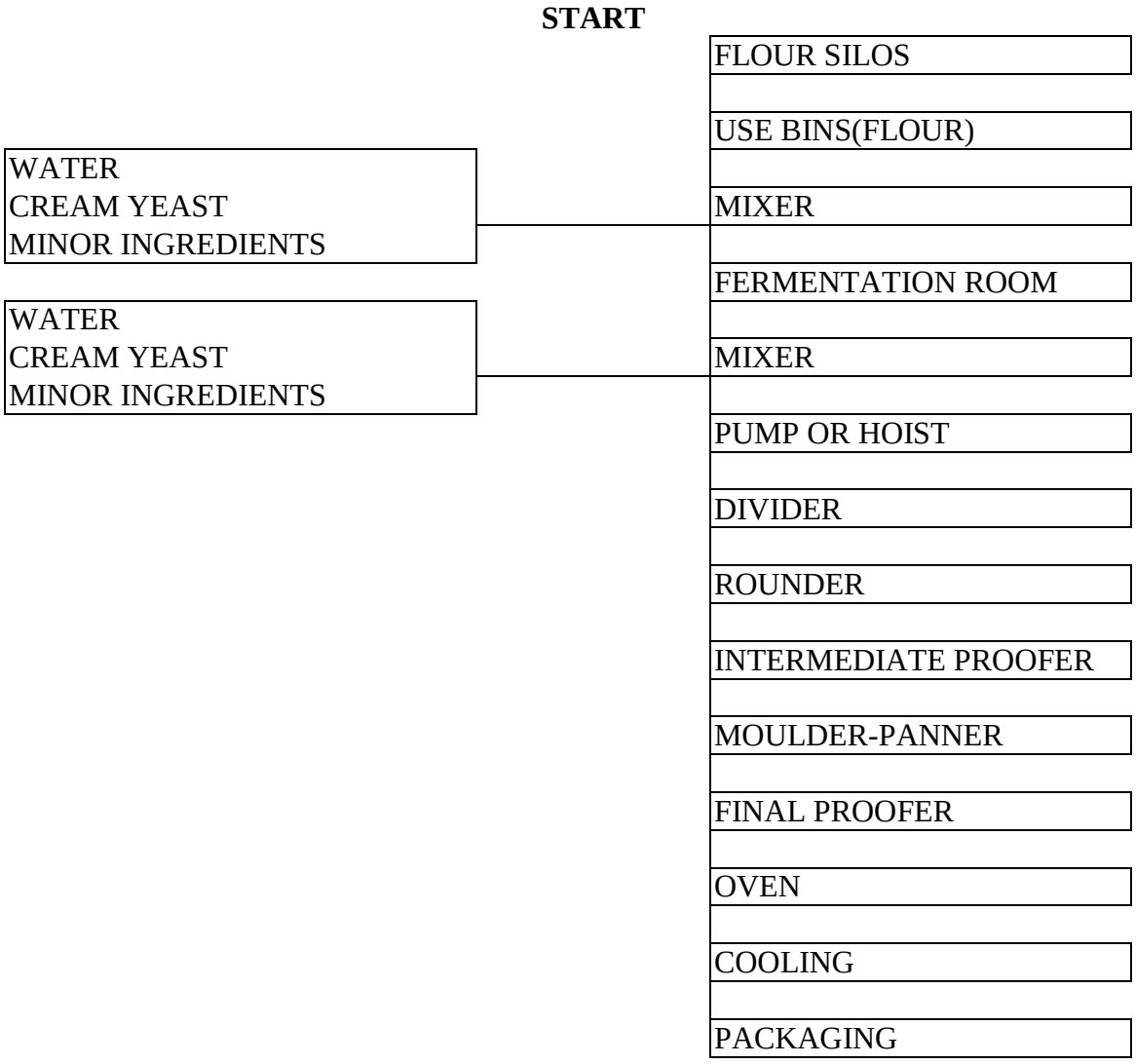
In the first mixing stage generally 60-100% of the total flour, minor ingredients and water are brought together with sufficient mixing to yield a stiff homogeneous mass. Bakers refer to this stage as the sponge. After being subjected to fermentation the sponge is brought back to the mixer where the 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



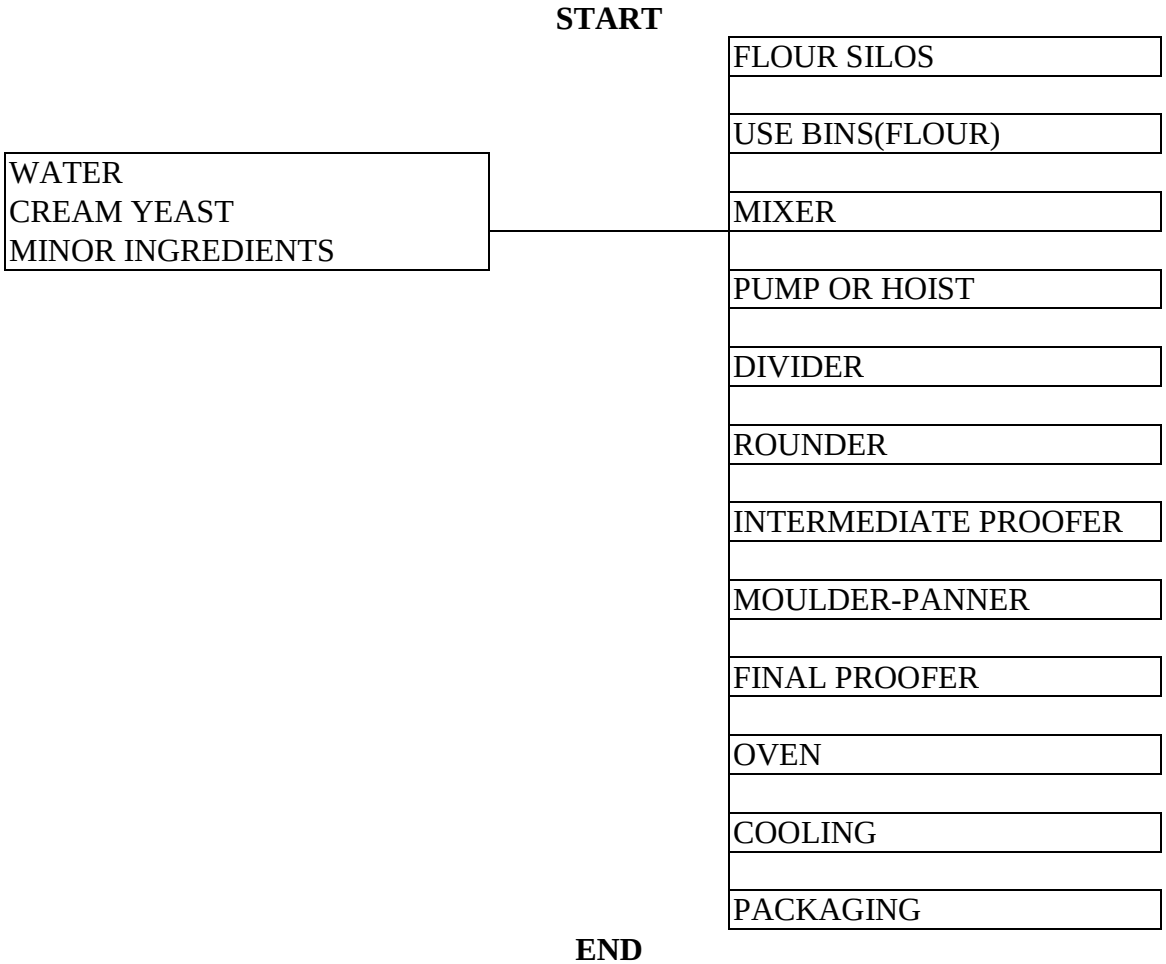
2.3 Straight Dough Process

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



2.4 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

START

FLOUR MIX WATER MINOR INGREDIENTS	MIXER
	HOIST
	EXTRUDER-CUTTERS
	FRYER
	ICER
	COOLING
	PACKAGING

END

2.5 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

START

FLOUR MIX WATER CREAM YEAST SCRAP DOUGH MINOR INGREDIENTS	MIXER
	PUMP
	EXTRUDER-CUTTERS
	FINAL PROOFER
	FRYER
	ICER
	COOLING
	PACKAGING

END

2.6 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

	START
FLOUR MIX WATER MINOR INGREDIENTS	MIXER
	DEPOSITING
	OVEN
	COOLING
	PACKAGING
	END

2.7 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

START	
	FLOUR SILOS
WATER CREAM YEAST MINOR INGREDIENTS	USE BIN
	MIXER
WATER CREAM YEAST MINOR INGREDIENTS	RETARDER
	MIXER
	DIVIDER
	MOULDING
	PROOFER
	OVEN
	COOLING
	PACKAGING
END	

2.8 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

START

FLOUR MIX WATER CREAM YEAST MINOR INGREDIENTS	MIXER
	DOUGH PUMP
	DOUGH EXTRUDER
	LAMINAT0R
	RETARDER
	MAKE-UP TABLE
	PROOF BOX
	OVEN
	COOLING
	PACKAGING

END

3. Review of AOP Application

3.1 Initial Application

An Air Operating Permit application was received by Puget Sound Clean Air Agency (Agency) from Franz - Weller on April 17, 1995 pursuant to WAC 173-401-500(3). The application was acknowledged to be complete in a letter from the Agency to Franz - Weller dated September 22, 1995. The Agency issued Air Operating Permit No. 10873 to Franz - Weller on November 10, 1997.

3.2 Renewal

An Air Operating Permit renewal application was received by the Agency from Franz – Weller on November 9, 2001. This was received on time with more than one year remaining on the active permit, which would expire on November 10, 2002. The Agency reviewed the application and acknowledged it to be complete in a December 12, 2001 letter to Franz - Weller. The Agency issued the first renewal to Air Operating Permit No. 10873 to Franz - Weller on June 11, 2003.

3.3 Second Renewal

An Air Operating Permit renewal application was received by the Agency from Franz – Weller on May 30, 2007. This was received on time with more than one year remaining on the active permit, which would expire on June 11, 2008. The Agency reviewed the application and acknowledged it to be complete in a June 7, 2007 letter to Franz - Weller. As of June 12, 2008, Franz – Weller has been operating under the authority of their permit shield until the Agency issues the second renewal of their air operating permit [WAC 173-401-640].

4. CAM, NESHAP and NSPS Applicability Review

4.1 Compliance Assurance Monitoring (CAM)

As part of the air operating permit renewal application, an analysis of whether a Compliance Assurance Monitoring (CAM) Plan is required for any emission unit at the facility is required. Under 40 CFR Part 64, any emission unit that meets all three of the following criteria requires a CAM Plan:

1. The unit is subject to an emission limitation or standard for the applicable regulated air pollutant. [40 CFR 64.2(a)(1)]
2. The unit uses a control device to achieve compliance with any such emission limitation or standard. [40 CFR 64.2(a)(2)]

3. The unit has potential pre-control device emissions of the applicable pollutant of at least 100% of the major source amount. [40 CFR 64.2(a)(3)].

The Puget Sound Clean Air Agency has reviewed the emission units at Franz – Weller, and believes that CAM does not apply to any emission unit at the facility. The vast majority of units do not meet criteria 2 above as they do not have control devices. The flour silos cannot be excluded based on criteria 2 as they do have filter (baghouse) controls. Hence, further review is necessary. The following calculations demonstrate why CAM does not apply to the flour silos:

The largest silos at this facility have a capacity of 125,000 lbs flour and are equipped with baghouses rated at 650 cfm. Calculations assume that the baghouses conservatively emit particulate matter at the grain loading limit in Agency rule. Actual emissions are expected to be much less):

[(0.05 gr/scf) x (lb/7,000 gr) x (650 ft^3/min) x (60 min/hr) x (8760 hr/yr) x (ton/2000 lb)]

= 1.22 tpy [for one unit]

2 units at the facility = 1.22 tpy x 2 = 2.44 tons PM/year.

This worst case emission rate would not come close to the major threshold of 100 tons/year. Therefore it is clear that the silo units do not require a CAM Plan. In addition, the calculation assumes that the baghouses are operating all the time; however, this is not realistic and the emission would be much smaller. The facility also has many small baghouses located inside of the facility, which they use to minimize dust inside. These are not included in this calculation, because they are smaller units than the two reviewed above, and therefore would reasonably also not be subject to a CAM Plan.

4.2 National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Subpart 63

A review of federal NESHAP was conducted to identify potentially applicable National Emissions Standards for Hazardous Air Pollutants (NESHAP). Based on this review, Franz - Weller is not subject to any federal NESHAP.

- 40 CFR Part 63, Subpart DDDDD applies to boilers and process heaters located at facilities that are major sources of hazardous air pollutants (HAPs). Franz - Weller is not a major source of HAP, so the rule is not applicable.
- 40 CFR Part 63, Subpart JJJJJJ, does apply to some boilers located at HAP area sources (National Emission Standards for Area Sources: Industrial/Commercial/Institutional Boilers and Process Heaters). Franz - Weller is

an area source for HAP. Therefore, this NESHAP would apply if the source meets the applicability criteria. However, 40 CFR Section 63.11195 specifies that gas-fired boilers as defined in 40 CFR Section 60.111237 are not subject to this NESHAP. Gas-fired boilers are defined as "any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel". Periodic testing of liquid fuel cannot exceed a combined total of 48 hours during any calendar year. Since Franz - Weller burns natural gas and only burns liquid fuel during periods of gas curtailment, the boilers used at the source meet the definition of gas-fired boiler and are not subject to this NESHAP.

4.3 Standards of Performance for New Stationary Sources (NSPS), 40 CFR Subpart 60

A review of federal New Source Performance Standards (NSPS) was conducted to identify potentially applicable standards. 40 CFR 60 Subpart Dc was identified as needing further review. This NSPS applies to boilers in the 10 MMBtu/hr to 100 MMBtu/hr size range that were constructed, reconstructed, or modified after June 9, 1989. The Franz – Weller facility does have a 17 MMBtu/hr boiler. However, this boiler was constructed in 1977 and has not been reconstructed or modified since that date. Therefore, the NSPS does not apply. None of the other units at Franz - Weller has a capacity greater than 10 MMBtu/hr.

The equipment at Franz - Weller is not subject to any NSPS.

5. Compliance History for June 2003 through March 2011

The compliance history for Franz - Weller from the time the last AOP was issued in June 2003 until the current time, March 2011is summarized below. Notice of Violations and Written Warnings issued are listed in chronological order.

A review of the Agency database found that no complaints have been received about Franz - Weller from June 2003 to March 2011. The last compliant on record was for an odor impact on April 11, 1995. The Puget Sound Clean Air Agency has no open or outstanding Assurances of Discontinuance (AODs) for this source.

At the time of this review (March 22, 2011), the Agency considers all matters listed below to be closed and has no open or unresolved enforcement actions with Franz - Weller.

Written Warning No. 2-006826 was issued February 24, 2004 for missing records associated with Facility-wide inspections as required per Air Operating Permit Section II.A.1.(c) and Section V.O.(d). Franz - Weller Street responded to this Written Warning with written

responses on March 8th, 9th and 19th which showed they had updated the self-inspection procedures. No further enforcement action was taken and the Agency closed this Written Warning on May 13, 2004.

Notice of Violation No. 3-003404 was issued May 17, 2007 for failure to either correct, shut down or properly notify the Agency about a compliance problem as required per Air Operating Permit Section II.A.1.(c). The facility had a hole in their flour silo piping, which started 4/26/07. The Agency was onsite on 5/2/07 and observed the equipment still in operation with visible emissions from the leak. The leak was fixed on May 8, 2007. Franz - Weller responded to this violation with a fax on 5/9/07 and an email on 5/23/07. No further enforcement action was taken in association with this violation, and the Agency closed this Notice of Violation ticket on October 3, 2007.

6. Emission Inventory

The latest emission inventory is listed in the Attachment to this Statement of Basis. The attached emission inventory includes a breakdown of the total annual emissions listed by chemical name, CAS number, and the point sources where the emissions originate. Table 9 summarizes the VOCs and ethanol emissions from Franz – Weller St. for last seven years of available data as of March 2011.

TABLE 9: FRANZ - WELLER STREET REPORTED TOTAL VOC AND ETHANOL EMISSIONS (TONS PER YEAR)

Pollutant	2003	2004	2005	2006	2007	2008	2009	2010
Total VOC	79.6	73.5	86.4	83.5	85.8	120.7	111.9	84
Ethanol	79.6	73.5	86.4	83.5	85.8	120.7	111.9	84

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/m^3 of ethanol and 1 to 5 mg/m^3 of the remaining VOC components. The source only reports ethanol emissions to the Agency, although the anaerobic fermentation process in yeast-leavened breads is also known to produce carbon dioxide, and small amounts of other alcohols, esters and aldehydes.

Franz – Wellers' building is heated by natural gas as are the baking ovens. Emissions of criteria pollutants arising from combustion from natural gas-fired units are well below reporting thresholds.

7. Explanation of Applicable Requirements

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

Some of the applicable requirements contain monitoring, maintenance and recordkeeping that require detailed explanation in this statement of basis. The specific conditions are listed below, along with any necessary explanations in monitoring, maintenance and recordkeeping requirements.

7.1 How the tables in AOP Section I work

Section I.A. contains the requirements that are applicable to Franz - Weller on a facility-wide basis. Section I.B. contains requirements applicable only to specific emission units within the facility. It should be noted here that all the requirements in Section I.A. apply to the specific emission units as well. If the monitoring, maintenance and recordkeeping method for any requirement in Section I.A. is more extensive for a specific emission unit, that requirement is repeated in Section I.B. with the additional monitoring, maintenance and recordkeeping requirements.

The tables in Section I of the AOP list all the local (Agency), state (Department of Ecology), and federal (EPA) emission limits and emission limiting operational requirements that apply to the facility and emission units within the facility. All requirements are federally enforceable unless they are identified in column two by the words "*STATE ONLY*."

To simplify the permit, similar applicable requirements are grouped together in the table if the same monitoring and test methods were required. Facility-wide emission limits are not repeated for each emission unit unless a monitoring method is more extensive for a specific emission unit. However, all the requirements in Section I.A. do apply to the specific emission units.

The following information is contained in each column of the tables:

Column 1: The first column identifies the requirement. I.A.1 is the first facility-wide requirement. EU-1.5 if the fifth requirement for Emission Unit 1. This column is for information only and the information contained in the column is not enforceable.

Column 2: The second column contains the actual rule citation for each individual requirement. This can be an Agency requirement from Regulation I, II, or III, a Department of Ecology requirement (WAC or RCW), or a federal requirement such as a New Source Performance Standard (NSPS) or a National Emission Standard for Hazardous Air Pollutants (NESHAP).

Column 3: The third column contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable, or "SIP[1]," requirement and the Non-Federally Enforceable, or "State Only," requirement are different because either the state has not yet submitted the regulation to the EPA for approval into the State Implementation Plan (SIP) or the EPA has not yet approved it. "*STATE ONLY*" adoption dates are in *italicized* font. When the EPA does approve the new requirement into the SIP, the old requirement will be replaced and superseded by the new requirement. This replacement will take place automatically, with no changes being made to this AOP until the AOP is renewed. The new requirement will be enforceable by the EPA as well as the Agency from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement.

Column 4: The fourth column paraphrases the requirement. This column is for information only and the information contained in the column is not enforceable. The actual enforceable requirement is embodied in the requirement cited in the second and third columns.

Column 5: The fifth column identifies the Monitoring, Maintenance & Recordkeeping Method methods described in Section II of the AOP. Following these methods is required to

[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.*

"reasonably assure continuous compliance", and is an enforceable requirement of the AOP. Note that all inspections, tests, and other actions must be documented (the specific recordkeeping requirement for this is in Section V.O.4 of the AOP).

Columns 6 and 7: The sixth column identifies the averaging time for the reference test method, while the seventh column identifies the test method itself. This test method 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.

In the event of conflict or omission between the information contained in the fourth and sixth columns 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.

7.2 How monitoring methods in Section II of the AOP are determined

The permit lists the applicable emissions standards and operating limits in tabular form in Section I of the AOP, with a reference to the applicable monitoring method. A full description of the monitoring method is contained Section II. State and local emission limits listed in the permit either have little or no ongoing monitoring methods included in the regulations. Therefore, "gap-filling" monitoring methods have been developed for these requirements, as provided under WAC 173-401-615(1)(b).

Whenever the Agency uses a "gap-filling" monitoring method, we determine the monitoring frequency using criteria contained in EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. We consider "the five criteria" listed below in determining how often the facility should perform a monitoring activity: hourly, once per shift, daily, weekly, monthly, quarterly, annually, and so on. These five criteria are:

1) **Initial compliance** A facility with history of compliance issues with standards and limits will be required to perform more frequent monitoring.

2) **Margin of compliance** The monitoring method and frequency are designed so that the source will identify a problem early and take corrective action before a violation occurs.

3) **Variability of process and emissions** A highly variable process may need more frequent watching than one that runs only intermittently, or one that runs continuously well below the maximum rate.

4) **Environmental impacts of problems** More frequent inspections may be required for a process for which a maintenance problem is likely to result in emissions that would have a significant environmental impact.

5) **Technical considerations** It is a requirement to perform routine maintenance on all equipment in accordance with an acceptable operation and maintenance (O&M) Plan. Frequently, it is sufficient to operate, maintain, and monitor equipment in accordance with manufacturer's instructions. Where such operations, maintenance, and monitoring has been found to be insufficient, the Agency has included gap-filling measures.

Section V.P, Data Recovery, addresses the amounts of data recovery required for monitoring requirements that were developed specifically for the permit. 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 the frequency of the monitoring and the nature of the information required to monitor. For monitoring required on a quarterly or less frequent basis, the data recovery requirements are 100%.

8. Applicable Requirements

8.1 Section I.A (Facility-wide)

Section I.A of the permit contains the facility-wide emission limits. In developing the permit, the 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.

8.1.1 Requirement I.A.2 - Opacity

Both WAC 173-400-040(1) and 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 6th Ave. must comply with each of these requirements.

The monitoring method is based on monthly visible emission inspections and quarterly facility-wide inspections. The source must take corrective action or use the reference test method, WDOE Method 9A, to determine opacity if any visible emissions are noted. The source has requested a change to the donut fryer monitoring frequency, because visible emissions are a normal component in the exhaust, as documented by years of monthly WDOE Method 9A tests. The years of data on the donut fryer exhaust, also document that although opacity is present, it has not exceeded the opacity 20% limit (3 minutes within one hour). A change has been made to the opacity monitoring frequency on the donut fryer from monthly to quarterly as described below. The facility wide opacity monitoring remains the same at monthly.

Initial compliance With the exception of the donut fryer, none of the emission units at Franz - Weller 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. A reference test method would most likely not occur for other exhaust points, other than the donut fryer. Franz - Weller has been monitoring emissions from the donut fryer using Ecology Method 9 as required by its Air Operating Permit on a monthly basis. Franz - Weller reviewed the last 5 years of visible emissions observations conducted by a certified testing consultant, and the donut fryer has never exceeded the applicable visible emissions standard (greater than 20% for 3 minutes in 1 hour). In fact, no reading has ever been above 20 percent, with most readings consistently at zero, five, ten, or fifteen percent opacity.

Margin of compliance The data indicates that the donut fryer operates under normal conditions in a stable manner with visible emissions that are below the applicable standard, providing a reasonably large margin of error.

Variability of process and emissions Over five years of data show that the donut fryer consistently operates below 20% opacity. If the fryer were to exhibit higher opacity, it would likely be caused by problems with the fryer oil. If this were the case, the company would not only be obligated to correct the problem pursuant to the operating permit, but it would also do so to maintain product quality.

Environmental impacts of problems The visible emissions result from food-grade fryer fat and do not pose a threat to human health or the environment, as they do not represent particulate matter in any significant quantity. Over five years of data show that the fryer operates in compliance with the applicable standard.

Technical considerations The donut fryer uses hot oil to cook donuts. The fryer normally operates with a low level of opacity from the fryer stack. As noted, over five years of data show that the fryer operates in compliance with the applicable standard.

8.1.2 Requirements I.A.3 and I.A.4 (Particulate Matter)

Agency Regulation I, Section 9.09 limits particulate emissions to 0.05 grain per dry standard cubic foot (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 Agency has determined that the monitoring should be monthly, employing the same

monitoring method at the same frequency, for the same reasons, as the opacity requirements in Requirement I.A.2. The facility does not normally have particulate emissions from any of its equipment (with the exception of the donut fryer, as discussed in Section 8.1.1 above). Monitoring for visible emissions would identify particulate emissions, and would lead the facility to look for underlying problems that are causing the emissions. 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.

8.1.3 Requirement I.A.5 – Particulate Matter from Combustion Sources

WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O_2 from combustion units (units using combustion for waste disposal, steam production, chemical recovery or other process requirements; but excludes outdoor burning.). Franz - Weller burns only pipeline grade natural gas and fuels that are certified to comply with the fuel oil standards of Regulation I, Section 9.08. It can be shown below in Section 8.1.4 of this document for SO_2 that if fuels are properly burned, Franz - Weller 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 or through complaint response. Therefore, the monitoring method specified for this requirement is monthly opacity monitoring.

8.1.4 Requirement I.A.6 (SO_2)

The Agency Regulation I, Section 9.07 and WAC 173-400-040(6) have been grouped together under Requirements IA.6 since they are equivalent requirements (SO_2 emissions not

to exceed 1,000 parts per million on a dry, volumetric basis[2] (ppm)) and have the same monitoring requirements.

The second paragraph of WAC 173-400-040(6), which is not in the Agency regulations and is not adopted into the SIP, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO_2 concentrations to 1,000 ppm. This requirement is not federally enforceable and is not an applicable requirement for sources regulated by the Agency.

The boilers and heaters burn only natural gas, and the diesel engines burn only distillate or very low sulfur oil. The following calculations show that it is mathematically impossible for a unit to emit 1,000 ppm sulfur dioxide while burning natural gas or very low sulfur oil. Therefore, no additional monitoring is required.

Natural gas:

All the natural gas burned at Franz - Weller 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 (gr S/ft^3 nat gas) is equivalent to approximately 3.4 parts of sulfur per million cubic feet of natural gas on a dry, volumetric basis (ppmdv S), as shown in the following calculation:Franz - Weller

$$\frac{2{,}000\,gr\,S}{1{,}000{,}000\,ft^3\,nat.gas}\times\frac{1\,lb}{7000\,gr}\times\frac{385\,\frac{ft^3}{mole\,S}}{32\,\frac{lb}{mole\,S}}=3.44\times10^{-6}\,\frac{ft^3\,S}{ft^3\,nat.gas}\equiv3.44\ ppmdv\,S$$

According to *Perry's Chemical Engineer's Handbook*, each cubic foot of natural gas requires

[2] *"ppm" means "parts per million on a dry, volumetric basis." Sometimes this is written as "ppmdv." Stack gas is usually sampled through a probe placed somewhere in the middle of the stack cross-section. The moisture is removed from the gas stream as part of the sampling process. The stack gas sample is analyzed for the pollutant in question, with the lab results being calculated as cubic feet (or meters) of pollutant per million cubic feet (or meters) of dry stack gas. If you had a stack with 50% moisture that was running right at the 1,000 ppm SO_2 standard, you would have 1,000 cubic feet of SO_2 for every million cubic feet of dry stack gas. You would also have 1,000 cubic foot of SO_2 for every* two *million cubic feet of "wet" (as is) stack gas, which is 500 ppm. This is why it's important to know how stack sampling is done and why stack sampling and continuous emission monitoring methods are so specific.*

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 x 10^{-6} cubic foot of sulfur, each cubic foot of stack exhaust will contain approximately 0.31 ppmvd SO_2 as shown below:

$$3.44\times10^{-6}\,\frac{ft^3\,S}{ft^3\,nat.gas}\times\frac{1\,ft^3\,SO_2}{1\,ft^3\,S}\times\frac{1\,ft^3\,nat.gas}{11\,ft^3\,stack\,exhaust}=3.13\times10^{-7}\,\frac{ft^3\,SO_2}{ft^3\,stack\,exhaust}$$

This estimated value is less than one-tenth of one percent of the 1,000 ppm SO_2 standard. Therefore, it is reasonable to assume that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO_2 limits in Agency Regulation I, Section 9.07 and WAC 173-400-040(6).

Oil, "very low sulfur" and "distillate":

"Very low sulfur oil" is defined by the US EPA in NSPS Subpart Db as "an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input." "Distillate oil" is defined in NSPS Subpart Db as "fuel oils that contain 0.05% weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 23, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils, which has been incorporated by reference into 40 CFR 60.17."

We can use the conversion factors given in 40 CFR 60 Appendix A, Reference Method 19 to estimate the maximum possible SO_2 concentration in the diesel exhaust in ppm if all the diesel engine was burning 0.5% sulfur oil and emitting 0.5 lb/MMBtu SO_2.

According to Table 19.1, burning a million Btu of oil produces 9,190 dry standard cubic feet of stack gas. One part per million SO_2 is equivalent to 1.66×10^{-7} pound of sulfur dioxide per dry standard cubic foot.

[3] *ASTM D396-78 requires that No. 2 fuel oil containing greater than 0.05% sulfur be dyed with Solvent Red 164 at the concentration spectrally equivalent to at least 3.9 pounds of the solid dye Standard Red 26 per 1,000 barrels in accordance with the mandates of the US EPA and IRS.*

$$0.5\,lb\,SO_2 / MMBtu \times \frac{1\,MMBtu}{9{,}190\,dscf} \times \frac{1\,ppmdv}{1.66\times10^{-7}\,\frac{dscf}{lb}} = 327.7\ ppmdv\,SO_2$$

Based on the above calculations, it is reasonable to assume that the Franz - Weller facility will not emit SO_2 in excess of 1,000 ppmdv if the boilers, heaters, and diesel engine burn only natural gas or very low sulfur oil. Also, Franz - Weller only operates on fuel oil during natural gas curtailment. Therefore, no additional monitoring is required.

8.1.5 Requirement I.A.7 (HCl)

Agency Regulation I, Section 9.10(a) specifies that HCl emissions shall not exceed 100 ppm (dry), corrected to 7% O_2 for combustion sources, including both internal and external combustion units. Franz - Weller can only burn pipeline grade natural gas and diesel, and neither of these fuels can contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded. Therefore, no additional monitoring is required.

8.1.6 Requirements I.A.8 (nuisance)

Puget Sound Clean Air Agency Regulation I, Section 9.11, WAC 173-400-040(5), and RCW 70.94.040 are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. All of these requirements have been grouped together because they are so similar in nature. The monitoring method is based on responding to complaints and general inspections 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. The Agency has determined that the as-needed complaint response in Section II.A.1(b) and quarterly inspections required in Section 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. The basis for this determination is as follows:

Initial compliance The Agency has not received any complaints concerning Franz - Weller facility regarding fugitive dust or odor emissions over the past five years. Therefore, we conclude that Franz - Weller is generally in compliance with the nuisance requirements.

Margin of compliance The Agency has not observed nuisance problems, and the current operations are unlikely to cause nuisance problems. Therefore, the 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.

Variability of process and emissions Franz - Weller does not have emission units that are likely to generate emissions that would cause a nuisance. In addition, Franz - Weller is unlikely to install such emission units during the life of the permit.

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.

Technical considerations Catastrophic failure of a fabric filter attached to a flour silo is the likeliest cause of a nuisance causing a deviation at Franz - Weller.. The high efficiency fabric filters at Franz – Weller are monitored at least monthly by Franz - Weller. Therefore, the chance of generating emissions that may cause a nuisance is minimized. The monitoring method is designed so that Franz - Weller will take corrective action before a violation occurs. 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 6th Ave. from the obligation to comply with the nuisance requirement itself.

8.1.7 Requirements I.A.9 and I.A.10 (fugitive dust)

WAC 173-400-040(3) addresses fugitive dust emissions for some activities, and WAC 173-400-040(8) requires reasonable precautions or reasonably available control technology (RACT) to control fugitive emissions. Agency Regulation I, Section 9.15 requires the use of reasonable precautions for fugitive dust and lists some examples of reasonable precautions. Franz - Weller conducts its manufacturing operations indoor, and all the roads and parking lots are paved. In the past five years, the Agency has not received any complaints about fugitive dust emissions, but did cite the facility (see Notice of Violation No. 3-003404) for not correcting a problem within 24-hours. This was about a fugitive dust problem caused by hole in flour line to flour silo. Therefore, I conclude that the margin of compliance is intermediate.

Based on the factors above, we conclude that the appropriate monitoring method for this requirement is as-needed complaint response, as per AOP Section II.A.1(b), along with quarterly facility-wide inspections and monthly checks for visible emissions and fugitive dust from emission generating equipment, the flour silo doors, and the exits of exhaust ducts as per Section II.A.1(c).

8.1.8 Requirements I.A.11 (maintain equipment)

Agency Regulation I, Section 9.20 requires Franz - Weller to maintain equipment in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under Agency Regulation I, Article 6, while Section 9.20(b) applies to equipment that didn't receive a Notice of Construction Order of Approval. The Agency has determined that following the requirements of Section II provides sufficient monitoring criteria for compliance with Section 9.20(a) and 9.20(b). The 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 Agency has listed them in Section II.A.2. However, the Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

8.1.8 Requirements I.A.12 (O&M Plan)

In accordance with Agency Regulation I, Section 7.09(b), Franz - Weller is required to develop and implement an O&M Plan to assure continuous compliance with 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 Agency added 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. The Agency also added language establishing criteria for determining if good industrial practice is being used. These may include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The Agency added this wording in response to Washington State court decision, Longview Fibre Co. v. DOE, 89, Wn. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct.

Agency Regulation I, Section 7.09(b) also requires Franz - Weller to promptly correct any defective equipment. However the underlying requirement in most instances does not define "promptly". For significant emission units and applicable requirements that Franz - Weller has a reasonable possibility of violating or that a violation would cause an air quality problem, the Agency added clarification that "promptly" usually means within 24 hours. For many insignificant emission units and equipment not listed in the AOP, the meaning of "promptly" will vary because the emission sources and suitable pollution control techniques

vary widely, depending on the contaminant sources and the pollution control technology employed. However, the AOP identifies a means by which to identify if Franz - Weller is following good industrial practice.

Franz - Weller must report to the Agency any instances where it failed to promptly repair any defective equipment. Franz - Weller has the right to claim certain problems were a result of an emergency or unavoidable.

Following these requirements demonstrates that Franz - Weller has properly implemented the O&M Plan, but it does not prohibit the Agency or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

8.1.9 Requirements I.A.13 (Odor)

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 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 to investigate and prevent a violation. The Agency has not received odor complaints concerning Franz - Weller since the 1990's. The Agency has determined that responding to complaints within three working days is appropriate.

8.1.10 Requirements I.A.14 (Deposition of Particulate Matter)

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 is in violation of this requirement, but triggers action by the source to prevent a violation.

8.2 AOP Section I.B (Emission Unit Specific)

Section I.B of the permit contains requirements that apply to specific emission units cited in the permit. As in Section 8.1 of this document, the basis for each grouping of requirements and a discussion of the appropriateness of the monitoring method for assuring compliance with the requirements (if needed) are provided below.

8.2.1 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.

The monitoring method is based on visual inspections with the source taking action if visible emissions are noted, and on conducting maintenance as outlined in the facility's O&M Plan. Observing visible emissions is not necessarily a violation of the standard. The permit requires that Franz – Weller take corrective action before a violation occurs and document such action.

8.2.2 EU-2 Steam Generating Process and Indirectly Fired Ovens

This emission unit includes indirect fired baking ovens used in the baking process, boilers 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), with diesel back-up
2) Natural Gas and Diesel Fuel Fired 400 Horsepower Cleaver Brooks Boiler (Heat Input Rating = 16,000,000 Btu/Hour), with diesel back-up
3) Space heaters all 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)
16) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
17) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)
18) Natural Gas Fired Revent Rack Oven (Heat Input Rating = 380,000 Btu/Hour)

The monitoring method is based on visual inspections with the source taking action if visible emissions are noted, on conducting maintenance as outlined in the facility's O&M Plan, and on monitoring fuel oil to make sure it meets the requirements of Agency Regulation I Section 9.08. Observing visible emissions is not necessarily a violation of the standard. The permit requires that Franz – Weller take corrective action before a violation occurs and document such action.

8.2.3 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.

The facility shall conduct quarterly visible emission checks for smoke. If smoke is seen, the facility must either correct the problem or run a Method 9A test to confirm opacity does not exceed 20% limit. In reality, the fryer has constant low-level visible emissions during normal operation. The facility's practice has been to routinely run Method 9A test at the frequency required by the AOP.

The frequency of the Method 9A tests has been decreased from monthly to quarterly based on the data supporting this change, as submitted by Franz - Weller. The facility submitted documentation on 5 years of certified opacity data on the donut fryer, which shows that it is normal to have visible emission when operating the donut fryer; however, they have never exceeded the 20% opacity limit.

8.2.4 EU-4 Flour Storage and Transfer

(1) Two flour storage silos, each with 125,000 lb capacity, with filter controls on each flour storage silo.

(2) Four flour use bins, with filter controls

(3) One flour storage silo with 170,000 lb capacity with fabric vent bags

This emission unit was added as part of Air Operating Permit Renewal No. 2. The flour storage silos were previously incorrectly considered to be insignificant emission units. The flour silos at Franz – Weller should be treated in the same manner as the silos at Franz – 6th Ave. Franz – 6th Ave is a sister facility to the Franz – Weller facility, and just like Franz – Weller, the facility has a Title V permit issued by Puget Sound Clean Air Agency. The conditions listed for the flour silos in the Franz 6th Ave. Air Operating Permit were copied into the Franz – Weller Air Operating Permit.

The monitoring method is based on routine maintenance of the fabric bags such as checking for broken or plugged bags, broken ductwork, damaged seals or damaged hoppers. The units at Franz – Weller do not have pressure gauges to check.
In addition, the monitoring method is based on visual inspections with the source taking corrective action if any broken or plugged bags are observed, or ductwork, seals or hoppers integrity is found to require repair, or visible emissions are noted. Recording of visible emissions is not necessarily a violation of the grain loading standard. The permit requires that Franz - Weller take corrective action before a violation occurs and document such action.

8.3 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 shall use the results of the inspections required by this permit in its annual review of the O&M Plan.

9. Prohibited Activities

Some of the requirements Franz - Weller 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. .

Personnel that perform the facility-wide inspections, required in Section II of the permit, should be aware of these requirements and if they find any evidence that any of these activities are being conducted, they should take appropriate action to investigate them and take corrective action if necessary.

10. Activities Requiring Additional Approval

Some of the requirements Franz - Weller 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.

11. Standard Terms and Conditions

Requirements that are more general in nature are included in Section V, Standard Terms and Conditions. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

12. Basis for Inapplicable Requirements

The requirements listed in Section VIII of Franz - Weller Air Operating Permit do not apply to the facility, or to the specific emissions units listed in the permit. The permit shield applies to all requirements so identified.

13. Public Comments and Responses

The 30-day public comment period for the 2012 Air Operating Permit renewal started February 23, 2012 and ended March 26, 2012. Notices were published on the Agency's website, in the Seattle Times, and in the Daily Journal of Commerce. No public comments were received.

On April 25, 2012 the proposed 2012 Air Operating Permit renewal documents (permit and Statement of Basis) were sent to Laurie Kral, EPA Region 10, for EPA's 45 day review. The 45-day review period ended June 9, 2012. No comments were received.

14. Administrative Modification, June 27, 2016

On June 6, 2016, the Agency received an email requesting changing the responsible official to Rick Roberston. That change has been made.