

**Draft Statement of Basis for  
Franz Seattle Division – 6<sup>th</sup> Ave  
AOP 11285 Renewal 3  
<issuance date TBD>**

## **1 Purpose of this Statement of Basis**

### **1.1 General**

This document summarizes the legal and factual bases for the draft permit conditions in the Franz Seattle Division – 6<sup>th</sup> Ave (hereafter known as Franz 6<sup>th</sup> Ave) air operating permit to be issued under the authority of the Washington Clean Air Act, Chapter 70A.15 Revised Code of Washington, Chapter 173-401 of the Washington Administrative Code and Puget Sound Clean Air Agency (PSCAA) 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 6<sup>th</sup> Ave’s emissions to the atmosphere. In addition, this Statement of Basis provides a description of Franz 6<sup>th</sup> Ave’s activities and a compliance history.

## **2 Why Franz 6<sup>th</sup> Ave is an Air Operating Permit Source**

Franz 6<sup>th</sup> Ave is subject to the requirement to obtain an air operating permit because it is a “major source” as defined in Title V of the federal Clean Air Act (CAA) Amendments of 1990 and its implementing regulations, 40 CFR Part 70 and Chapter 173-401 WAC. A major source has the potential to emit more than 100 tons per year of any pollutant subject to regulation (CO, SO<sub>2</sub>, NO<sub>x</sub>, VOC, particulate matter, etc.), 10 tons per year or more of any single hazardous air pollutant (HAP) listed in Section 112(b) of the federal Clean Air Act (such as hydrochloric acid), or 25 tons per year or more of any combination of HAPs.

The facility has the potential to emit more than 100 tons per year of VOC and therefore is a major source for purposes of the Title V program. The main VOC emitted is ethanol, which is formed from the fermentation of sugars in the yeast-leavened bread baked at the facility. Potential emissions of VOC from this facility are 141 tons per year. Emissions of VOC (ethanol) from one of the two direct-fired baking ovens at Franz are controlled by a recuperative catalytic oxidizer (RCO).

Potential emissions of all hazardous air pollutants (HAPs) listed under Section 112(b) of the Federal Clean Air Act are below the applicability thresholds of 10 tons per year for any single HAP, or 25 tons per year for all HAP combined, so Franz 6<sup>th</sup> Ave is classified as an “area source” for HAP. HAP emissions from the facility are from combustion of natural gas and from the yeasted bread fermentation process. The total HAP emissions from natural gas combustion on the combined two direct-fired ovens, two indirect ovens, and two boilers are less than 1 ton per year. Acetaldehyde, a HAP, is emitted as 1-3% of VOC emissions from fermentation of yeast-leavened bread<sup>1</sup>. Acetaldehyde potential to emit is under 5 tons per year when 3% of total VOC emissions are estimated to be acetaldehyde.

The facility does not have the potential to emit more than 250 tons per year of NO<sub>x</sub> and CO and is not a “Major Stationary Source” under the Prevention of Significant Deterioration regulations as defined by 40 CFR 52.21.

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<sup>1</sup> Parrish, Charles R. & Ricks, Solomon. (1992) *Determination of VOC, Ethanol, and Acetaldehyde Emissions from Commercial Bakeries Site 1-4 Test Report*

### 3 Source Description

Fran 6<sup>th</sup> Ave operates a bread baking facility located in the SoDo neighborhood of Seattle. The facility can operate 24 hours per day, 365 days per year. Currently the plant is operating 1 to 3 eight-hour shifts per day, five to six days per week (up to 7,488 hours per year).

The facility consists of:

- Emission Unit 1: One 5.5 MMBtu/hr natural gas-fired Baker Perkins 53 Tray oven for direct baking
- Emission Unit 2: Two 7.0 MMBtu/hr natural-gas fired Gabriel Boilers for steam generation
- Emission Unit 3: Flour storage and transfer consisting of three 28,000 lb capacity outdoor flour storage silos each equipped with a fabric breather bag and one 35,000 indoor flour use bin equipped with fabric bags and one 40,000 lb indoor flour use bin equipped with fabric bags.
- Emission Unit 4: One 4.75 MMBtu/hr natural-gas fired Baker Perkins direct-fired tray oven controlled by one 1.6 MMBtu/hr 4,500 CFM recuperative catalytic oxidizer.
- Other equipment at the facility that are considered insignificant emission units or do not emit air pollutants.

### 4 Permitting History

#### 4.1 New Source Review Permitting for the Facility

A summary of the new source review permitting at the facility is provided below.

Notice of Construction #12314: On January 4, 2023, Franz 6<sup>th</sup> Ave submitted an NOC application to modify the test method used for the volatile organic compound (VOC) destruction efficiency on the recuperative catalytic oxidizer controlling the 4.75 MMBtu/hr direct fired oven permitted under Order of Approval No. 11331 from EPA Method 25 to EPA CTM-042.

Order of Approval No. 12314 is intended to be issued concurrently with this Air Operating Permit renewal and will cancel and supersede Order of Approval No. 11331 upon issuance.

Notice of Construction #11331: On February 16, 2017, Franz 6<sup>th</sup> Ave submitted an NOC application for the establishment of one 4.75 MMBtu/hr direct fired oven with baking capacity of 147,744 pounds of product per day. The application included a Best Available Control Technology (BACT) analysis.

Order of Approval No. 11331 was issued on June 7, 2017 for the establishment of one 4.75 MMBtu/hr direct fired oven with exhaust emissions controlled by one 1.6 MMBtu/hr 4,500 SCFM recuperative catalytic oxidizer (RCO).

Notice of Construction #8347 On January 4, 2001, Order of Approval No. 8347 was issued to Franz 6<sup>th</sup> Ave for one soil vapor extraction system controlled by two vapor carbon vessels in series for the remediation of hydrocarbon contaminated soil. The soil vapor extraction system was decommissioned and the associated Order of Approval was inactivated in 2006. The soil vapor extraction system and associated Air Operating Permit Conditions were removed during the second renewal of the Air Operating Permit issued June 13, 2012.

#### **4.2 Regulatory Orders Issued to the Facility**

No regulatory orders have been issued to the facility.

#### **4.3 Prevention of Significant Deterioration**

There have been no Prevention of Significant Deterioration permits issued for the facility.

#### **4.4 Operating Permit Issuance and Renewal**

##### **4.4.1 Issuance of Original Permit**

An air operating permit application was received by PSCAA from Franz 6<sup>th</sup> Ave on April 15, 1995 pursuant to WAC 173-401-500(3). The application was determined to be complete on September 22, 1995. The final permit was issued on December 18, 1998.

##### **4.4.2 Renewal 1**

On October 1, 2002, Franz 6<sup>th</sup> Ave submitted an air operating permit renewal application. This was received on time with more than one year remaining on the active permit, which expired on December 18, 2003. On October 25, 2002, PSCAA sent a letter to Franz 6<sup>th</sup> Ave indicating that the renewal application had been found to be complete. PSCAA issued the first renewal to Air Operating Permit No. 11285 to Franz 6<sup>th</sup> Ave on December 18, 2003.

##### **4.4.3 Administrative Amendment 1**

On January 23, 2004, PSCAA finalized an administrative revision to correct the expiration date in the header of the permit and correct an error concerning the date that the first annual report was due (Section V. M, Compliance Certifications).

##### **4.4.4 Renewal 2**

On August 10, 2007, Franz 6<sup>th</sup> Ave submitted an air operating permit renewal application. This was received on time with more than one year remaining on the active permit, which expired on December 18, 2008. On January 11, 2008, PSCAA sent a letter to Franz 6<sup>th</sup> Ave indicating that the renewal application had been found to be complete. In accordance with WAC 173-401-705(2), Franz 6<sup>th</sup> Ave operated under the authority of their application shield from December 19, 2008 until PSCAA issued the second renewal to the Air Operating Permit No. 11285 on June 13, 2012.

##### **4.4.5 Administrative Amendment 2**

On May 5, 2016, Franz 6<sup>th</sup> Ave submitted an air operating permit renewal application and submitted additional information for the application on June 7, 2016. The renewal application also contained an administrative amendment to update the Responsible Official on the permit. As the second renewal of Air Operating Permit 11285 would not expire until June 13, 2017, PSCAA processed the administrative amendment to update the Responsible Official prior to completing the third renewal of the air operating permit. The administrative amendment was issued on July 7, 2016.

##### **4.4.6 Administrative Amendment 3**

On January 27, 2020, an Air Operating Permit Administrative Permit Amendment Request was received by PSCAA from Franz 6<sup>th</sup> Ave to change the responsible official name and contact phone

number to Jim Caples. A finalized an administrative revision to update the responsible official was issued 1-27-2020.

#### **4.4.7 Renewal 3**

On May 5, 2016, Franz 6<sup>th</sup> Ave submitted an air operating permit renewal application. PSCAA reviewed the application and requested by email additional information needed to find the application complete on June 6, 2016. On June 7, 2016, Franz 6<sup>th</sup> submitted the additional information requested and PSCAA acknowledged receipt of the complete application on June 7, 2016. This renewal application was received on time with more than one year remaining on the active permit which expired on June 13, 2017. Pursuant to WAC 173-401-705(2), Franz 6<sup>th</sup> Ave has operated under the authority of their application shield from June 13, 2017, until the issuance of the third renewal.

## **5 Compliance History**

The Franz 6<sup>th</sup> Ave facility has been inspected at least annually by the Puget Sound Clean Air Agency since 2012. Onsite inspections for Franz 6<sup>th</sup> Ave since the last permit renewal were conducted on the following dates:

- March 1, 2013
- March 5, 2014
- June 10, 2015
- August 11, 2016
- August 16, 2017
- March 20, 2018
- September 26, 2018 (source test observation)
- August 20, 2019
- September 26, 2019
- January 24, 2022

There have been no odor complaints filed with the Puget Sound Clean Air Agency naming the Franz 6<sup>th</sup> Ave facility as a potential source of the odor.

Additional inspections of the facility were conducted via telephone, due to COVID-19 measures to protect agency and Franz 6<sup>th</sup> Ave staff. These occurred on:

- August 21, 2020
- September 21, 2021

The facility is required to perform stack testing on the recuperative catalytic oxidizer (RCO) exhaust stack on the bun oven line once every five years. Testing completed on September 26, 2018, indicated the RCO was not meeting the 95% destruction efficiency required by Order of Approval 11331. Corrective actions included catalyst maintenance and cleaning, and follow-up testing on March 22, 2019, demonstrated compliance with the 95% destruction efficiency requirement for the RCO.

The Agency has issued 15 Notice of Violations to Franz 6<sup>th</sup> Ave since June 2012 as listed below. Ten of the fifteen violations were associated with errors and late submittal of semiannual and annual compliance reports. The remaining five violations were associated with Order of Approval 11331. Of the five violations of Order of Approval 11331, three violations were associated with stack testing requirements, one violation was associated with the exceedance of an emission limit, and one with the facility's Operation and Maintenance Plan.

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- NOV 3-008881 issued June 8, 2018, for December 27, 2017, failure to include a description of operating conditions of the oven and recuperative catalytic oxidizer in the test plan required by Order of Approval 11331 Condition 7. A civil penalty was recommended September 7, 2018. Subsequent test plans have included the description of operating conditions during testing.
- NOV 3-008756 issued June 8, 2018, for January 23, 2018, failure to submit to the Agency within 90 days of installation of the bun oven and recuperative catalytic oxidizer updates to the Operation and Maintenance Plan with key system operating parameters including inlet and outlet temperature of the catalyst bed and pressure drop across the catalyst as required by Order of Approval 11331 Condition 14. A civil penalty was recommended September 7, 2018. The facility took corrective action to update the Operation and Maintenance Plan with key parameters.
- NOV 3-008879 issued April 12, 2018, for February 1, 2018, late submittal of the annual compliance certification report required by AOP 11285 Section V. M. A civil penalty was recommended June 7, 2018. The facility took corrective action to update the maintenance management software to schedule work order for annual report submittal 30 days in advance of due date.
- NOV 3-00880 issued April 12, 2018, for February 1, 2018, late submittal of the semiannual compliance certification report required by AOP 11285 Section V.Q.1(a). A civil penalty was recommended June 7, 2018. The facility took corrective action to update the maintenance management software to schedule work order for semiannual report submittal 30 days in advance of due date.
- NOV 3-009804 issued March 18, 2019, for March 31, 2018, failure to submit a deviation report by March 30, 2019 for AOP 11285(V)(N)(1) deviation from requirements to follow PSCAA Regulation I 3.07 for the Recuperative Catalytic Oxidizer stack test completed February 14, 2018. The facility submitted the deviation report as corrective action.
- NOV 3-008619 issued June 8, 2018, for April 16, 2018, late submittal of source test report for the Recuperative Catalytic Oxidizer in violation of PSCAA Regulation I 3.07(c) and PSCAA Regulation I 7.09(c). A civil penalty was recommended September 7, 2018. The facility took corrective action to electronically submit future compliance reports.
- NOV 3-008620 issued June 8, 2018, for April 23, 2018, for failure to complete stack testing on the Recuperative Catalytic Oxidizer. Testing attempted February 14, 2018, did not utilize the required test method per Order of Approval 11331 Condition 7.f. Testing not completed within the 180 days after initial startup as required by Order of Approval 11331 Condition 7.d. A civil penalty was recommended on September 7, 2018. Facility completed corrective action by retesting following Order of Approval 11331 conditions and Puget Sound Clean Air Agency Regulation I 3.07 requirements.
- NOV 3-009803 issued March 6, 2019, for August 1, 2018, violation of AOP 11285 Section V(M) errors in annual compliance report. Annual report did not specify intermittent compliance associated with deviations from AOP 11285(V)(N)(1) for stack testing completed in the January 1, 2018 – December 31, 2018 reporting period. A civil penalty was recommended April 10, 2019. The facility resubmitted a corrected report.
- NOV 3-009811 (correction to NOV 3-009805) issued April 15, 2019, for errors in semiannual report submittal from January 1, 2018, through June 30, 2018. Report did not list the deviation from AOP 11285(V)(N)(1) for stack testing completed in the January 1, 2018- June 30, 2018 reporting period. The facility resubmitted a corrected report.

- NOV 3-009831 issued February 7, 2019, for September 26, 2018, violation of Order of Approval 11331 Condition 6 recuperative catalytic oxidizer minimum VOC destruction efficiency of 95%. Testing completed September 26, 2018, reported VOC destruction efficiency of 93%. NOV also noted deviations from test protocol for flow data and moisture data collection. A civil penalty was recommended on March 15, 2019. The facility completed catalyst activity testing and cleaning. Retesting on March 22, 2019, met minimum VOC destruction efficiency requirements.
- NOV 3-009795 issued March 14, 2019, for February 1, 2019, failure to submit the annual compliance report for January 2018-December 2018 electronically per AOP 11285 Section V(M). A civil penalty was recommended April 17, 2019. Facility corrective action submitted report electronically.
- NOV 3-009796 issued March 14, 2019 for February 1, 2019, failure to submit the semiannual compliance report for July 2018-December 2018 electronically. A civil penalty was recommended April 17, 2019. Facility corrective action submitted report electronically.
- NOV 3-009840 issued August 19, 2019, for August 1, 2019, failure to electronically submit the semiannual compliance report for January 2019-June 30 2019 electronically as required by PSCAA Regulation I 7.09. Facility corrective action submitted report electronically.
- NOV 3-A000072 issued October 22, 2020, for failure to electronically submit the semiannual compliance report by August 1, 2020. A civil penalty was recommended November 23, 2020. Facility corrective action submitted the report electronically.

## 6 Potential to Emit and Actual Emissions Inventory

Emission inventories are estimates of actual emissions from the facility developed by the permittee and submitted to the Agency annually. Emissions from this facility are primarily VOC (ethanol) emissions released from the yeast-leavened dough during the baking process. The VOC emissions from the 4.75 MMBtu/hr oven is controlled by the recuperative catalytic oxidizer. The 5.5 MMBtu/hr direct fired oven emits uncontrolled VOC. Emissions will vary from year to year depending on the amount of product made. Table 1 below shows the emissions reported by the facility for the last five years.

**Table 1. Emission Inventory Summary (tons per year)**

Pollutant	2017	2018	2019	2020	2021
Volatile Organic Compounds (VOC)	58.2	51.3	48.74	58.3	57.4

Facility-wide potential emission estimates from both ovens and natural gas combustion equipment emissions and is tabulated below. Given the significant combustion unit combined emissions are less than 50% of reporting thresholds, IEU emissions are not anticipated to affect facility applicable requirements.

**Table 2: Facility-wide Potential Emissions**

Pollutant	NOx	CO	SO2	PM10	PM2.5	VOC
TPY	8.7	8.0	0.2	1.3	1.3	141.3

## 7 Compliance Assurance Monitoring, NESHAP and NSPS Applicability Review

### 7.1 Compliance Assurance Monitoring

The Compliance Assurance Monitoring (CAM) rule requires owners and operators to monitor the operation and maintenance of their control equipment, so they can evaluate the performance of their control devices and ensure they are working properly. The rule also requires that facilities report whether or not they are meeting established emission standards. If owners and operators of these facilities find that their control equipment is not working properly, the CAM rule requires them to take action to correct any malfunctions and to report such instances to the appropriate enforcement agency, PSCAA in this case. Additionally, the CAM rule provides some enforcement tools that allows environmental agencies to require facilities to respond appropriately to the monitoring results and ensure pollution control operations are as effective as represented by the facility.

The CAM rule applies at major sources with emission units that have control devices and emissions could exceed major source thresholds if the control device was not operated. In accordance with 40 CFR Part 64, any emission unit that meets all three of the following criteria, and is not exempt under the CAM rule, requires a CAM Plan:

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

Franz 6<sup>th</sup> Ave has two different emission units with control equipment: EU 3 consisting of three silos with fabric breather bags for particulate matter (PM) and two flour use bins with fabric breather bags for PM, and EU 4 consisting of one 4.75 MMBtu/hr direct fired natural gas oven equipped with an RCO for VOC controls. EU-1 and EU-2 consist of emission units without control devices and are not further analyzed for CAM applicability.

**Table 3: CAM Applicability Summary**

EU ID and Description	CAM Regulated Pollutant	Pre-Control PTE (tpy)	Post-Control PTE (tpy)	Control Device	Emission Limit	Compliance Demonstration	Regulatory Citation	CAM Applies?
EU 3: Three 28,000 lb outdoor flour storage silos One 35,000 indoor flour use bin One 40,000 lb indoor flour use bin	Opacity  Particulate Matter	<1	NA	Fabric Breather Bag	20% opacity for a period or periods aggregating more than 3 minutes in any hour  0.05 gr/dscf from equipment used in manufacturing process	AOP 11285 1.14 Opacity Monitoring  AOP 11285 2.2 Fabric Filter Inspections	PSCAA Regulation I 9.03  PSCAA Regulation I 9.09	No; pre-control PTE below 100 TPY

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EU 4: One 4.75 MMBtu/hr natural-gas fired Baker Perkins direct-fired tray oven	VOC	82.64	4.13	4,500 CFM recuperative catalytic oxidizer.	95% minimum VOC control efficiency	AOP 11285 2.8 VOC Source Testing  AOP 11285 2.10, 2.11, 2.13 & 2.14 RCO Monitoring	Order of Approval 12314 #6	No; pre-control PTE below 100 TPY
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**7.1.1 EU 3 Flour Silos and Use Bins**

The flour silos at Franz 6<sup>th</sup> Ave have filter bags attached to the top of each silo to control flour emissions. Flour emissions could occur primarily when the silos are filled. The silos are passively vented such that no fans draw air through the filters. The flour silos can emit PM and are subject to a 0.05 gr/dscf particulate matter limit as required in PSCAA Regulation I Section 9.09. When the facility is at full production capacity of 160 hrs. per production line per week, the two flour silos are used up every 72 hours and the whole wheat silo is used up every 2 weeks, equal to a transfer of 3,575 tons of flour per year. Assuming the AP-42 9.9.1-1 PM railcar grain receiving emission factor of 0.032 lb/ton, the uncontrolled emissions from the three silos would be 120 pounds per year, 0.06 ton/yr. The same emissions are estimated for each flour use bin. As the combined uncontrolled emissions from the silos are below 100 tons per year, the silos do not meet the criteria requiring a CAM Plan.

**7.1.2 4.75 MMBtu/hr Direct Fired Oven**

The uncontrolled VOC emissions from the 4.75 MMBtu/hr direct fired natural gas oven were calculated as part of the review of NOC 11331 as 82.64 tons/year as calculated using a worst case VOC bread baking emission factor of 6.13 lb/ton product derived from Franz 6<sup>th</sup> Ave’s maximum initial baker’s percent of yeast (3.43%), total yeast action time (5.42 hours) as calculated using the equation in EPA’s AP-42 Section 0.0.6 and the maximum oven throughput of 2,6963 tons of product per year. As the uncontrolled emissions from the 4.75 MMBtu/hr oven are below 100 tons per year, the oven does not meet the criteria requiring a CAM Plan.

**7.2 NESHAP Applicability**

The Franz 6th Ave facility is an area source of HAP. As part of the renewal process, PSCAA reviewed federal National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for area sources that might apply to this facility to determine applicability. PSCAA determined that Franz 6th Ave is not subject to any federal NESHAP.

**7.2.1 Inapplicable NESHAPs**

Other NESHAPs reviewed for potential applicability and determined to be inapplicable are listed below in Table 4. This is not an exhaustive list of all NESHAPs but ones that might apply to this facility based on current operations.

**Table 4. Inapplicable NESHAPs**

Regulation	Description	Basis for Inapplicability
40 CFR Part 63 Subpart JJJJJ	Industrial, Commercial and Institutional Boilers and Process Heaters Area Source NESHAP	This NESHAP applies to area source of HAP. However, the two 7.0 MMBtu/hr boilers at the facility fire natural gas only, so both boilers meet the definition of “gas-fired boiler” as defined in 40 CFR 63.11237. Gas-fired boilers are exempt from all the requirements in the NESHAP as specified in 40 CFR 63.11195.
40 CFR Part 63 Subpart DDDDD	Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP.	The permittee is a natural minor source of HAP. This NESHAP only applies to major sources of HAP.

**7.3 NSPS Applicability**

As part of the renewal process, PSCAA reviewed federal New Source Performance Standards (NSPS) that might apply to this facility to determine applicability. PSCAA determined that Franz 6<sup>th</sup> Ave is not subject to any federal NSPS.

**7.3.1 Inapplicable NSPS**

Other NSPS reviewed for potential applicability and determined to be inapplicable are listed below in Table 5. This is not an exhaustive list of all NSPS but ones that might apply to this facility based on current operations.

**Table 5. Inapplicable NSPS**

Regulation	Description	Basis for Inapplicability
40 CFR Part 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The Gabriel fire tube boilers at the facility are each 7.0 MMBtu/hr, which is less than the 10 MMBtu/hr applicability threshold for Subpart Dc.

**8 Explanation of Applicable Requirements Tables and Compliance Methods**

Applicable requirements are listed in several sections of this operating permit as outlined below. The permit only lists the requirements that PSCAA has determined to be within the scope of the definition of “applicable requirements” under the operating permit program. Franz 6<sup>th</sup> Ave. is legally responsible for complying with all applicable requirements of the operating permit as well as other requirements that do not fit the definition of “applicable requirements” found in Chapter 173-401 Washington Administrative Code (WAC). Some of the applicable requirements contain terms or monitoring, maintenance and recordkeeping conditions for which an explanation is included in this statement of basis. The specific requirements are listed below, along with any necessary explanations in monitoring, maintenance, and recordkeeping conditions.

Applicable requirements that are not ongoing are not included in the permit because they are not in effect during the term of the permit and are considered obsolete. However, these requirements are addressed later in this statement of basis.

A condition was added for each emission unit that has an active Order of Approval to include Condition 1 from each of the Orders. This condition states, “Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install

or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.” This condition was added into the permit to make it clear that the facility is always required to install and establish only that which was approved by the Order of Approval. Any changes to anything that was included in the Notice of Construction and/or Order of Approval would need to go through the New Source Review process.

### **8.1 Requirement Tables**

Sections 1 and 2 of the permit have applicable requirements set up in tables. Section 1 contains the requirements that apply facility-wide to all the emission units regulated by this permit. These requirements also apply to emission units identified in Section 2 of the permit. If the compliance method for any requirement in Section 1 is more extensive for a specific emission unit, that requirement is repeated in Section 2 of the permit with the additional monitoring, maintenance and recordkeeping requirements.

The tables list the citation for the “applicable requirement” and the effective date in the second column. In some cases, the effective dates of the “Federally Enforceable” requirement and the “*State Only*” requirement are different because either the state (or local authority) has not submitted the regulation to the Environmental Protection Agency (EPA) for approval into the State Implementation Plan (SIP), or the state (or local authority) has submitted it and the EPA has not yet approved it. “*State Only*” effective dates are in italicized font and shall be understood to include the Washington Department of Ecology and PSCAA. When the EPA does approve the new requirement into the SIP, the old requirement will automatically be replaced and superseded by the new requirement. The new requirement will be enforceable by the EPA as well as PSCAA from the date that it is adopted into the SIP, and the old requirement will no longer be an applicable requirement.

The requirement tables in Sections 1 and 2 also contain a brief description of the applicable requirement. This description is not an enforceable condition. In the event of conflict or omission between the information contained in the brief description and the actual statute or regulation cited, 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 column, refer to the actual requirements cited.

The "Compliance Method" listed in the tables refers to permit conditions below the tables that include monitoring, recordkeeping and reporting obligations the permittee must conduct to comply with the permit. Following the monitoring method is an enforceable requirement of this permit.

The "Reference Test Method" listed in the requirements table is the test method to be used when a source test is required to determine compliance. In some cases where the applicable requirement does not cite a test method, one has been added. If a reference test method is not listed with the requirement, this means a test method is not applicable to the requirement. Reference Test Methods included in the permit are listed in Section 7 of the permit and include the applicable averaging period.

#### **Changes to the AOP during the Renewal Process:**

A new table was added prior to Section 1 that gives a general description of the four emission units at the facility. The table is reproduced below and lists the emission units regulated under this permit located at Franz 6<sup>th</sup> Ave. The information in the table is for informational purposes only.

Source	Description	Install Date	Rated Capacity
Emission Unit No. 1 Direct Fired Baking Process	Baker Perkins 53 Tray oven	1987	5.5 MMBtu/hr (natural gas)
Emission Unit No. 2 Steam Generating Process	2 natural gas-fired Gabriel Boilers	1952	7.00 MMBtu/hr each (natural gas)
Emission Unit No. 3 Flour Storage and Transfer	3 outdoor flour storage silos each equipped with fabric breather bag on silo	1968	28,000 lb each
		1990	
		1990	
	Indoor flour use bin equipped with 3 fabric bags	1968	35,000 lb
			40,000 lb
Emission Unit No. 4 Bun Oven	Baker Perkins direct-fired tray oven, controlled by 4,500 CFM Recuperative Catalytic Oxidizer	2017	4.75 MMBtu/hr (natural gas) oven burner 1.6 MMBtu/hr (natural gas) RCO burner

The table includes the three emission units specified in the previous permit and adds EU-4, the bun oven permitted and installed in 2017.

Sections 1 and 2 are reformatted in the AOP renewal so that all facility-wide requirements and the corresponding compliance methods are in Section 1, and the emission unit specific requirements and corresponding compliance methods are in Section 2. The intent was to make it easier to connect the applicable requirement and the compliance method.

In the previous AOP, EU-1, EU-2 and EU-3 each repeated facility-wide requirements under emission unit specific requirements. Each of the emission unit specific requirements (Sections 2.A-2.D) have been updated to remove repeated facility-wide requirements.

The previous AOP predated the permitting and installation of EU-4 Bun Oven. Section 2.D has been added to this renewal to include the applicable requirements for EU-4.

In the previous AOP, some of the applicable requirements listed the effective date, and others listed the adoption date. For consistency, the AOP has been updated to list the effective date for all applicable requirements.

## 8.2 Compliance Methods

As noted above, compliance methods listed in the applicable requirements table are in permit conditions listed below the tables. The compliance methods include monitoring, recordkeeping and reporting obligations specific to the requirement that will be used by the permittee in determining if they are in continuous or intermittent compliance. In some cases where the applicable requirement has little or no ongoing monitoring requirements, monitoring has been added. This is called “gapfilling” and is authorized under WAC 173-401-615(1)(b).

## 9 General Facility-wide Emission Limits and Requirements

### 9.1 RACT Requirement (Condition 1.1)

PSCAA Regulation I, Section 3.04 establishes reasonably available control technology (RACT) requirements. There is no monitoring required. Condition 6.19 of the permit specifies that in accordance with WAC 173-401-605(3), emission standards and other requirements contained in rules or regulatory orders in effect at the time of this operating permit renewal shall be considered RACT for purposes of permit renewal.

**Changes to the AOP during the Renewal Process:** WAC 173-400-040(1)(c), General Standards for Maximum Emissions – General Requirements, was replaced by PSCAA Regulation I, Section 3.04, Reasonably Available Control Technology, in the 4/22/20 approval of the SIP. This condition has been updated to list PSCAA Regulation I, Section 3.04 as the enforceable requirement.

### 9.2 Opacity Standards (Condition 1.2)

PSCAA Regulation I, Section 9.03, Emission of Air Contaminant: Visual Standard, prohibits more than 20 percent opacity for more than three minutes in an hour and applies to all stationary sources. The compliance method is included in Condition 1.14 and requires monthly inspections for visible emissions from all emission points at the facility during each month that the facility operates. The source must take corrective action or use the reference test method, Ecology Method 9A, to determine opacity if any visible emissions are noted. Based on a review of the facility activities, including compliance evaluations, the basis for monthly monitoring is still valid and the permit renewal retains the same monitoring requirements.

**Changes to the AOP during the Renewal Process:** The monitoring method and frequency for the opacity monitoring have not changed, but the recordkeeping requirements have been included in the compliance method and language has been added to make it clear that failure to implement one of the response actions must be reported as a deviation.

The 9/20/93 version of WAC 173-400-040(1) was previously listed as an enforceable requirement for opacity standards. Changes to the state regulation caused WAC 173-400-040(1) to be renumbered as WAC 173-400-040(2). In the most recent SIP approved 4/22/2020, EPA has identified the 5/1/04 version of PSCAA Reg. I, Section 9.03 as applicable in the Agency's jurisdiction and replaces the WAC visual emission standard at 173-400-040(2). WAC 173-400-040(1) was removed from the list of enforceable requirements.

### 9.3 PM Standards (Conditions 1.3 and 1.4)

#### 9.3.1 General Process Units

PSCAA Regulation I, Section 9.09, Particulate Matter Emission Standards, limits particulate emissions to 0.05 grain per dry standard cubic foot (gr/dscf) from equipment used in a manufacturing process. The monitoring method in the AOP is based on the assumption that particulate emissions less than 0.05 gr/dscf usually do not generally result in visible emissions over 20 percent opacity. Therefore, the permit requires the same monitoring method at the same frequency as the opacity requirements in Condition 1.2. The emission units that are general process units are unlikely to generate particulate matter emissions above this grain loading standard if operating as permitted.

**Changes in the AOP Renewal:** The monitoring method and frequency still include the opacity monitoring from the previous permit, but an additional requirement was added, Condition 5.12

Investigations. This condition allows the Agency or the Department of Ecology to require a test to determine whether the emission units are complying with the standard.

In addition, the recordkeeping requirements have been included in the compliance method. Language has been added to make it clear that failure to implement any one of the response actions must be reported as a deviation.

WAC 173-400-060, Emission Standards for General Process Units, was replaced by PSCAA Regulation I, Section 9.09 in the 4/22/20 approval of the SIP, so WAC 173-400-060 has been removed as an enforceable requirement.

### **9.3.2 Combustion Sources**

PSCAA Regulation I, Section 9.09, Particulate Matter Emission Standards, 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.

Aside from the two 7.00 MMBtu/hr natural gas-fired boilers that comprise EU-2, there are small (<5 MMBtu/hr) natural gas-fired hot water heaters, which have very low particulate matter emissions when maintained and operated in good working order and should not have visible emissions. Therefore, the Agency has determined that the same compliance method as is used for particulate matter standards for general process units is adequate – monthly opacity monitoring.

#### **Changes in the AOP Renewal:**

The monitoring method and frequency have not changed, but the recordkeeping requirements have been included in the compliance method and language has been added to make it clear that failure to implement one of the response actions must be reported as a deviation.

WAC 173-400-050(1) and WAC 173-400-060 Emission Standards for Combustion and Incineration Units and Emission Standards for General Process Units, respectively, were replaced by PSCAA Regulation I, Section 9.09 in the 4/22/20 approval of the SIP, so WAC 173-400-050(1) has been removed as an enforceable requirement and WAC 173-400-060 is not an applicable requirement in the Agency's jurisdiction

### **9.4 Fugitive Emissions (Conditions 1.5 and 1.6)**

PSCAA Regulation I, Section 9.15, Fugitive Dust Control Measures, and WAC 173-400-040(4)(a), General Standards for Maximum Emissions – Fugitive Dust, both require reasonable precautions to minimize or prevent fugitive emissions. PSCAA's rule also describes specific examples of reasonable precautions. Quarterly facility-wide inspections and complaint response are sufficient to monitor for changes that would cause fugitive emissions or unexpected buildup of dust.

**Changes in the AOP Renewal:** The monitoring method and frequency have not changed, but the language has been updated to reflect the updated format. For facility-wide inspections, Franz 6<sup>th</sup> Ave. is required to examine/inspect the same elements as is currently required although the previous AOP references prohibited activities under Section III and activities requiring additional approval under Section IV and those conditions are now described as the general applicable requirements at the facility to reflect the updated formatting of the AOP.

For both the facility-wide inspections and complaint response, recordkeeping requirements have been included in the compliance methods and language has been added to make it clear failure to implement one of the response actions must be reported as a deviation. Specifically, Condition 1.16 has also been updated to remove reference to Report of Problems Not Corrected Within 24

hours (previously in Section V.Q.4 of the prior AOP, removed in this renewal) and to clarify the options for either initiating corrective action or shutting down the unit/activity until repaired/corrected. Condition 1.16 updated language for categories of complaints from “fugitive dust emissions” to “any emissions from fallout” and from “complaints regarding other applicable requirements” to “other emissions” for clarity.

The 9/20/93 version of WAC 173-400-040(8), General Standards for Maximum Emissions – Fugitive Dust Sources, was previously listed as an enforceable requirement for fugitive dust emissions standards. Changes to the state regulation caused WAC 173-400-040(8) to be renumbered as WAC 173-400-040(9). WAC 173-400-040(9)(a) was replaced by PSCAA Regulation I, Section 9.15 in the 4/22/20 approval of the SIP, so the 9/20/93 version of WAC 173-400-040(8) has been removed as an enforceable requirement.

### **9.5 Other Standards (Conditions 1.7 through 1.9)**

PSCAA Regulation I, Section 9.11, Emission of Air Contaminant: Detriment to Person or Property, and WAC 173-400-040(5), General Standards for Maximum Emissions – Odors, are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. The monitoring method is based on responding to complaints and quarterly 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. Receiving complaints does not necessarily mean Franz 6<sup>th</sup> Ave. is in violation of this requirement, but Franz 6<sup>th</sup> Ave. has a responsibility to investigate complaints and take corrective action if necessary. PSCAA has not noted nor has PSCAA received complaints about Franz 6<sup>th</sup> Ave. causing emissions that are likely to be injurious to health, plant or animal life, or property or that unreasonably interferes with enjoyment of life and property. Franz 6<sup>th</sup> Ave. receives flour pneumatically from rail cars which are stored in silos included in EU-3 and, with maintenance of the flour handling system are not likely to result in fugitive dust emissions or fallout.

The Agency has determined that the as-needed complaint response and the quarterly facility-wide inspections required in Condition 1.15 of the permit are sufficient to monitor for changes that would cause nuisance emissions.

**Changes in the AOP Renewal:** The requirements in WAC 173-400-040(3), General Standards for Maximum Emissions – Fallout, is a state-only requirement and is not federally enforceable as it regulates emissions which EPA does not regulate. The rule specifies that Franz 6<sup>th</sup> Ave. shall not deposit particulate matter beyond the property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of property have been included as a separate requirement. The monitoring method and frequency have not changed, but the language has been updated to reflect the updated format. For facility-wide inspections, Franz 6<sup>th</sup> Ave. is required to examine/inspect the same elements as is currently required although the previous AOP references prohibited activities under Section III and activities requiring additional approval under Section IV and those conditions are now described as the general applicable requirements at the facility to reflect the updated formatting of the AOP.

For both the facility-wide inspections and complaint response, recordkeeping requirements have been included in the compliance methods and language has been added to make it clear that failure to implement one of the response actions must be reported as a deviation. Specifically, Condition 1.16 has also been updated to remove reference to Report of Problems Not Corrected Within 24 hours (previously in Section V.Q.4 of the prior AOP, removed in this renewal) and to clarify the options for either initiating corrective action or shutting down the unit/activity until repaired/corrected. Condition 1.16 updated language for categories of complaints from “fugitive

dust emissions” to “any emissions from fallout” and from “complaints regarding other applicable requirements” to “other emissions” for clarity.

The 9/20/93 version of WAC 173-400-040(5) was previously listed as an enforceable requirement for nuisance standards. Changes to the state regulation caused WAC 173-400-040(5) to be renumbered as WAC 173-400-040(6). WAC 173-400-040(6) was replaced by PSCAA Regulation I, Section 9.11(a) in the 4/22/20 approval of the SIP, so the 9/20/93 version of WAC 173-400-040(5) has been removed as an enforceable requirement.

### **9.6 Maintain Equipment in Good Working Order (Condition 1.10)**

PSCAA Regulation I, Section 9.20(b), Maintenance of Equipment, requires Franz 6<sup>th</sup> Ave. to maintain equipment or control equipment not subject to Section 9.20(a) in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under PSCAA Regulation I, Article 6. Since it applies to specific emission units, Section 9.20(a) requirements are included in Section 2 of the permit.

**Changes in the AOP Renewal:** The monitoring method has been revised to refer to facility-wide monitoring and the facility O&M Plan requirements. The facility-wide inspections provide monitoring of the general effectiveness of Franz 6<sup>th</sup> Ave.’s O&M Plan. This general monitoring and compliance with the O&M Plan provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, PSCAA reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

Since RCW 70A.15.2210 applies to equipment that received a Notice of Construction Order of Approval, references to this requirement were removed from Section 1 of the permit and added to Section 2 of the permit.

The specific requirements for the O&M Plan in the Agency’s Regulation 1, section 7.09(b) have been explicitly included in the permit at EPA’s request as new condition 1.17. This new condition was added to the compliance method for conditions 1.10 and 1.11.

### **9.7 O&M Plan (Condition 1.11)**

In accordance with PSCAA Regulation I, Section 7.09(b), General Reporting Requirements for Operating Permits – Operation and Maintenance Plan, Franz 6<sup>th</sup> Ave. is required to develop and implement an O&M Plan to assure continuous compliance with PSCAA 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, PSCAA 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. This language is consistent with the Ecology requirement in WAC 173-400-101(4). PSCAA also added language establishing criteria for determining if good industrial practice is being used. These include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. PSCAA 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.

As described in Condition 5.5, Franz 6<sup>th</sup> Ave. must report to PSCAA all deviations, including any instances where it failed to promptly repair any defective equipment. In addition, Franz 6<sup>th</sup> Ave.

has the right to claim certain problems were a result of an emergency (Condition 5.14) or unavoidable (Conditions 5.15 – 5.19).

**Changes in the AOP Renewal:** The specific requirements for the O&M Plan in the Agency's Regulation 1, section 7.09(b) have been explicitly included in the permit at EPA's request as new condition 1.19. This new condition was added to the compliance method for conditions 1.10 and 1.11.

Following these requirements demonstrates that Franz 6<sup>th</sup> Ave. has properly implemented the O&M Plan, but it does not prohibit PSCAA or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

### **9.8 Other Changes in the AOP Renewal**

RCW 70.94.040 has been deleted from facility-wide applicable requirements. The provisions of RCW 70.94 RCW (now codified at RCW 70A.45), or the ordinances, resolutions, rules or regulations adopted thereunder are included in the permit as applicable requirements.

## **10 Emission Unit Specific Applicable Requirements**

Section 2 contains requirements that apply to specific emission units at the facility.

### **10.1 Requirements that Apply to Emission Unit No. 1 (5.5 MMBtu/hr Oven)**

The 5.5 MMBtu/hr oven comprising EU-1 has emission unit specific requirements outlined in Table 2 of this renewal.

### **Changes in the AOP Renewal:**

In the previous AOP, EU-1 repeated facility-wide requirements under emission unit specific requirements. In this renewal Section 2.A has been updated to remove repeated facility-wide requirements.

PSCAA Regulation I, Section 9.07, Sulfur Dioxide Emission Standard, limits sulfur dioxide emissions to 1,000 ppmvd (corrected to 7% oxygen for fuel burning equipment).

The direct fired oven comprising EU-1 fires natural gas only. Based on the amount of sulfur in natural gas fuel, it has been shown that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO<sub>2</sub> limits. Therefore, no additional monitoring is required for natural gas combustion.

This renewal adds the previous compliance method (natural gas combustion) with Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

The 9/20/93 version of WAC 173-400-040(6), General Standards for Maximum Emissions – Sulfur Dioxide, was previously listed as an enforceable requirement for maximum emissions standards. Changes to the state regulation caused WAC 173-400-040(6) to be renumbered as WAC 173-400-040(7). WAC 173-400-040(7) was replaced by PSCAA Regulation I, Section 9.07 in the 4/22/20 approval of the SIP, so the 9/20/93 version of WAC 173-400-040(6) has been removed as an enforceable requirement and WAC 173-400-040(7) was not added.

PSCAA Regulation I, Section 9.10, Emission of Hydrochloric Acid, specifies that hydrochloric acid emissions shall not exceed 100 ppm (dry) corrected to 7% O<sub>2</sub> for combustion sources, including both internal and external combustion units. The direct fired oven only burns natural gas which

does not contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded.

The previous permit has had “No monitoring required” as the compliance method. This was changed and two compliance demonstrations were added: natural gas combustion and Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

### ***10.2 Requirements that Apply to Emission Unit No. 2 (Steam Generating Process)***

The two 7.0 MMBtu/hr boilers comprising EU-2 has emission unit specific requirements outlined in Table 3 of this renewal.

#### **Changes in the AOP Renewal:**

In the previous AOP, EU-2 repeated facility-wide requirements under emission unit specific requirements. In this renewal Section 2.B has been updated to remove repeated facility-wide requirements.

PSCAA Regulation I, Section 9.07, Sulfur Dioxide Emission Standard, limits sulfur dioxide emissions to 1,000 ppmvd (corrected to 7% oxygen for fuel burning equipment).

The boilers in EU-2 fire natural gas only. Based on the amount of sulfur in natural gas fuel, it has been shown that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO<sub>2</sub> limits. Therefore, no additional monitoring is required for natural gas combustion.

This renewal adds the previous compliance method (natural gas combustion) with Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

The 9/20/93 version of WAC 173-400-040(6), General Standards for Maximum Emissions – Sulfur Dioxide, was previously listed as an enforceable requirement for maximum emissions standards. Changes to the state regulation caused WAC 173-400-040(6) to be renumbered as WAC 173-400-040(7). WAC 173-400-040(7) was replaced by PSCAA Regulation I, Section 9.07 in the 4/22/20 approval of the SIP, so the 9/20/93 version of WAC 173-400-040(6) has been removed as an enforceable requirement and WAC 173-400-040(7) was not added.

PSCAA Regulation I, Section 9.10, Emission of Hydrochloric Acid, specifies that hydrochloric acid emissions shall not exceed 100 ppm (dry) corrected to 7% O<sub>2</sub> for combustion sources, including both internal and external combustion units. The steam generating units only burns natural gas which does not contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded.

The previous permit has had “No monitoring required” as the compliance method. This was changed and two compliance demonstrations were added: natural gas combustion and Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

### **10.3 Requirements that Apply to Emission Unit No. 3 (Flour Storage and Transfer)**

The three 28,000 lb capacity outdoor silos with flour breather bags, two indoor flour use bins of 35,000 lb and 40,000 lb capacity, and the pneumatic conveying blowers which transfer the flour to the use bins comprising EU-3 have emission unit specific requirements listed in Table 4.

#### **Changes in the AOP Renewal:**

In the previous AOP, EU-3 repeated facility-wide requirements under emission unit specific requirements. In this renewal Section 2.C has been updated to remove repeated facility-wide requirements.

This renewal updated the description of EU-3 to include silo capacity details as well as the flour use bins and the conveying blowers for the flour storage and transfer.

The fabric filter inspections are now more clearly organized as an emission unit specific compliance method.

### **10.4 Requirements that Apply to Emission Unit No. 4 (Bun Oven)**

The 4.75 MMBtu/hr bun oven controlled by 1.6 MMBtu/hr recuperative catalytic oxidizer permitted and installed in 2017 has been added as a new emission unit for this renewal. The ongoing enforceable requirements of Order of Approval 12314 were added to Table 5 of this renewal followed by the associated compliance methods.

#### **Changes in the AOP Renewal:**

- As discussed in Section 8 of this Statement of Basis, a condition was added for each emission unit that has an active Order of Approval to include Condition 1 from each of the Orders.
- Order of Approval 12314 (cancelling and superseding Order of Approval 11331) contains BACT requirements that all exhaust from the 4.75 MMBtu/hr be routed through an RCO meeting a minimum VOC destruction efficiency of 95% and zero visible emissions from the oxidizer stack. The compliance methods for the specific VOC and visible emission limits and overarching requirement that the oven emissions be controlled by the RCO are required in Order of Approval 12314 as a combination of testing for VOC destruction efficiency once every five years, annual catalyst activity testing, cleaning or replacement of the catalyst when indicated by manufacturer or results of catalyst activity testing, quarterly visible emission observations of the oxidizer stack and maintaining minimum RCO inlet and outlet temperatures during operation with associated records. Since the 2017 installation of the RCO, stack testing completed September 26, 2018, indicated compliance with the 95% destruction efficiency testing, annual catalyst activity testing has identified required cleaning and no visible emissions have been observed during quarterly observations. The facility uses a strip chart to record minimum inlet and outlet temperature for the RCO. Based on the performance of the RCO, PSCAA has determined that the compliance methods identified in NOC 12314 and reproduced in this renewal as RCO Visible Emissions Observations (Requirement 2.17), VOC Source Testing (Requirement 2.18), RCO Monitoring (Requirements 2.19 – 2.25) are sufficient. Conditions from NOC 12314 are reproduced in Table 3 Applicable Requirements to the Bun Oven or in Compliance Methods 2.17-2.25 with the following exceptions:
  - Order of Approval 12314 Condition 6 requires that the recuperative oxidizer maintain a minimum VOC destruction efficiency of 95%. This requirement was

added to Table 3. The compliance methods include VOC source testing as required in Order of Approval 12314 Conditions 7 and 8 which is Requirement 2.10 in this renewal. Order of Approval 12314 Condition 7 outlines initial testing requirements and deadlines, as well as ongoing testing requirements. As initial testing was completed September 26, 2018, the content of Condition 7 pertaining to initial testing is not included in this renewal.

- Order of Approval 12314 Condition 7 specifies testing be conducted according to PSCAA Regulation I Section 3.07. The requirements of PSCAA Regulation I 3.07 are reproduced in the General Compliance Requirements of Requirements 5.30-5.32 of this renewal and Requirements 5.30-5.32 are referenced in Requirement 2.18 of this renewal.
- Order of Approval 11331 (cancelled and superseded by Order of Approval 12314) included specific requirements for a test plan to be submitted associated with initial testing of the bun oven RCO. PSCAA has utilized gapfilling to require test plans be submitted for ongoing testing as outlined in Condition 2.18 of this renewal following the same procedures as were completed for the initial test.
- Condition 8 of Order of Approval 12314 allows for the permittee to request in writing stack testing frequency be reduced after ten years of operation. This option is included in Requirement 2.18 of this renewal however Franz 6<sup>th</sup> Ave will not be eligible to petition for a reduction in frequency until 2027.
- Order of Approval 12314 Condition 11 requires that annual catalyst activity testing be completed and that the results of the test must be submitted to PSCAA. As Order of Approval 12314 Condition 11 does not include a timeline for reporting activity testing results or specify how to submit the reports, when this condition was adapted to Requirement 2.20 in this renewal, a 30-day due date for submittal of the catalyst activity test data and a reference to the general compliance reporting requirement in Section 5.9 was added as gapfilling authorized under WAC 173-401-615(1)(b). Given the catalyst activity data is typically provided in an electronic format to Franz 6<sup>th</sup> Ave, Requirement 2.20 notes that hard copies of the catalyst activity data are not required for these compliance reports.
- Order of Approval 12314 Condition 10 specifies that the owner or operator shall maintain a temperature measuring and recording system to continuously measure and record the temperatures at the inlet and outlet of the catalyst bed pursuant to the operation and maintenance requirements specified in 40 CFR 64.7. EU-4 does not meet the three criteria of 40 CFR 64.2(a) for Continuous Assurance Monitoring, as discussed in Section 7.1.2 however the operation and maintenance requirements of 64.7(b) and 64.7(c) are included as part of the BACT requirements from minor NSR permitting under PSCAA Regulation I 6.03 such that this renewal contains Requirement 2.19 as a compliance method for the minimum temperature requirement of Requirement 2.13.
- PSCAA Regulation I, Section 9.07, Sulfur Dioxide Emission Standard, limits sulfur dioxide emissions to 1,000 ppmvd (corrected to 7% oxygen for fuel burning equipment).

The bun oven and RCO of EU-4 fire natural gas only. Based on the amount of sulfur in natural gas fuel, it has been shown that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO<sub>2</sub> limits. Therefore, no additional monitoring is required for natural gas combustion.

This renewal adds the previous compliance method (natural gas combustion) with Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

- The 9/20/93 version of WAC 173-400-040(6), General Standards for Maximum Emissions – Sulfur Dioxide, was previously listed as an enforceable requirement for maximum emissions standards. Changes to the state regulation caused WAC 173-400-040(6) to be renumbered as WAC 173-400-040(7). WAC 173-400-040(7) was replaced by PSCAA Regulation I, Section 9.07 in the 4/22/20 approval of the SIP, so the 9/20/93 version of WAC 173-400-040(6) has been removed as an enforceable requirement and WAC 173-400-040(7) was not added.
- PSCAA Regulation I, Section 9.10, Emission of Hydrochloric Acid, specifies that hydrochloric acid emissions shall not exceed 100 ppm (dry) corrected to 7% O<sub>2</sub> for combustion sources, including both internal and external combustion units. The bun oven and RCO only burn natural gas which does not contain chlorine in sufficient quantities to cause the HCl emission limit to be exceeded.

The previous permit has had “No monitoring required” as the compliance method. This was changed and two compliance demonstrations were added: natural gas combustion and Condition 5.12 Investigations and Testing. This condition allows the Agency or the Department of Ecology to investigate and require a test to determine whether the emission units are complying with the standard.

## **11 Standard Terms and Conditions**

Some of the requirements that are more general in nature are included in Section 3, Standard Terms and Conditions. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620. These terms have been updated to reflect the most recent rules and permit language.

### **Changes in the AOP Renewal:**

The previous AOP organized the requirements under Standard Terms and Conditions in Section V Standard Terms and Conditions. These terms are now located in Section 3 of the renewal.

## **12 General Permitting Requirements**

Section 4 of the permit includes the requirements for renewing, revoking, reopening, amending, and modifying the operating permit. It also includes the new source review requirements, both minor NSR and Prevention of Significant Deterioration requirements. This section has been edited to more accurately reflect the Air Operating Permit regulations.

### **Changes in the AOP Renewal:**

The previous AOP set a timeline for submittal of a renewal application no later than 12 months prior to the expiration of the AOP and included that PSCAA would send a renewal application no later than 18 months prior to the expiration of the permit. The updated Permit Renewal requirement 4.1 requires that the permittee submit a complete Title V permit renewal application to PSCAA no less than six months prior to the expiration of the permit. This update was made to reflect the minimum timeline for renewal application submittal in WAC 173-401-500(3)(d) and WAC 173-401-710. The WAC 173-401-710 requirement that the permitting authority send a

permit application to each source at least six months before a complete application is due applies to PSCAA and not to Franz 6<sup>th</sup> Ave and has been removed from the AOP.

The previous AOP outlined the procedure for processing an administrative amendment. As these requirements apply to PSCAA and not to Franz 6<sup>th</sup> Ave the procedure has been removed from this renewal.

This renewal updated the requirements for New Source Review under PSCAA Regulation I Section 6 to include the New Source Notification requirements of PSCAA Regulation I 6.03(b) as well as the Notice of Completion requirements under PSCAA Regulation I Section 6.09 as these applicable requirements were omitted in the previous AOP.

This renewal added the requirements to comply with the Prevention of Significant Deterioration (PSD) program as this applicable requirement was omitted in the previous AOP.

Several requirements located in Section V of the previous permit have been moved to Section 4 in this renewal given that the requirements relate specifically to permitting.

### **13 General Compliance Requirements**

General compliance requirements are included in Section 5 of the permit. These include certification and reporting requirements, requirements associated with inspections and investigations, and compliance testing requirements. Actions required for an affirmative defense for emergencies or excess emissions are also included in this section. Finally, this section provides a table summarizing the effective date of the regulations in the permit at the time of permit issuance. Regulations that are approved into the Washington State Implementation Plan (SIP) are federally enforceable. In some cases, there are two versions of the regulation because the newer version has not been adopted into the SIP. In this case, the older version of the regulation would be federally enforceable and the current rule would only be enforceable by the Agency (or State). The SIP is updated on a somewhat regular basis and what is contained in the SIP can change over time.

#### **Changes in the AOP Renewal:**

Data recovery requirements were previously listed in Section V.Q of the AOP and are now listed in Condition 5.10. In the previous AOP there were four types of monthly monitoring which were excepted from the 100% data recovery requirement: monitoring of opacity, fallout and odor bearing contaminant monitoring, baking process and steam generating units, and fabric filter inspections, all of which were allowed to have 9 out of 10 records required. In this renewal these exceptions are removed as the frequency for the facility-wide inspections allows for corrections to missed monitoring to occur within a month-long window. Language was also added to clarify that data do not need to be collected during any period that the monitored equipment does not operate. In addition, language was added requiring that the deviation reports required by Condition 5.5 include an explanation of each instance in which the permittee failed to meet the data recovery requirements of this condition for any monitored process or parameter and any instances of reconstructing lost data.

Requirement 5.3 Compliance Certification, Requirement 5.4 Semiannual Report, and Requirement 5.5 Deviation Report were each updated from the previous AOP to include the email address for submission of annual compliance certifications electronically. Likewise Requirement 5.9 was added to include the email address for electronic submittal of all other compliance reports.

Condition 5.33 Federal Enforceability was updated to reflect the newest approval of the Agency's State Implementation Plan. Additional language was added to the introductory paragraph for clarity and completeness.

The previous AOP included a table with a summary of reporting requirements. This table repeats the applicable requirements already in the AOP and has been removed from this renewal.

#### **14 Generally Applicable Requirements**

Some of the requirements that are generally applicable are included in Section 6 of the permit. This includes record retention, asbestos requirements, open burning requirements, stratospheric ozone and climate protection requirements, chemical accident prevention provisions in 40 CFR Part 68, concealment and masking, tampering, RACT requirements, annual emission reporting requirements, greenhouse gas reporting requirements and non-road engine notification requirements.

#### **15 Inapplicable Requirements**

The requirements identified in Section 8 of the air operating permit do not apply to the facility, or to the specific emissions units identified in the permit. The permit shield applies to all requirements so identified.

#### **Changes in the AOP Renewal:**

PSCAA Regulation I 9.08(a) Fuel Oil Standards were previously identified as an inapplicable requirement, however while Franz 6<sup>th</sup> Ave does not currently utilize fuel oil for any combustion equipment on-site and would need to receive PSCAA approval for installation of any significant new fuel oil burning equipment or modification of existing significant equipment, Franz 6<sup>th</sup> Ave is not prohibited from combustion of fuel oil on insignificant emission units. In the case of combustion of fuel oil on insignificant emission units, PSCAA Regulation I 9.08(a) would apply.

The previous permit cited WAC 173-470, WAC 173-474, WAC 173-475, WAC 173-480 and WAC 173-481 as inapplicable requirements. WAC 173-470, WAC 173-474, and WAC 173-475 are no longer active regulations and have been removed from the Inapplicable Requirements table in this renewal. WAC 173-476 Ambient Air Quality Standards have replaced the inactive WAC references for ambient air quality standards. WAC 173-480 and WAC 173-481 are still included in the Inapplicable Requirements Table.

#### **16 Insignificant Emission Units and Activities**

Section 9 of the permit addresses insignificant emission units and activities. In accordance with WAC 173-401-530(1), determination of an emission unit or activity as insignificant does not exempt the unit or activity from any applicable requirement.

An emission unit or activity is insignificant based on one or more of the criteria identified in WAC 173-401-530. This includes categorical exemption, exemption based on emissions being below emission thresholds in WAC 173-401-530(4), or exemption based on size or production rate. Activities that generate only fugitive emissions which are subject to no applicable requirement other than generally applicable requirements can also be classified as insignificant. Categorically exempt units or activities do not need to be listed in the permit application, but all others do.

Monitoring requirements for insignificant emission units are detailed in Condition 1.17 of the permit. In essence, Franz 6<sup>th</sup> Ave. will be required to use good industrial practices to maintain insignificant emission units, and to promptly repair defective equipment or shut down the unit until defective equipment can be repaired. Franz 6<sup>th</sup> Ave. will not have to keep records of maintenance

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of insignificant emission units except when such equipment is inspected and a problem requiring prompt repair is discovered during a quarterly plant-wide inspection.

### **17 Public Comments and Responses during renewal process**

<include discussion after public comment period>

### **18 EPA Comment Period**

<include discussion after EPA review>

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Appendix A: Emission Calculations

Franz 6<sup>th</sup> Ave calculates VOC emission factors for each of the facility's bread baking recipes from the equation in AP-42 Chapter 9.9.6 as reproduced below.

$$VOC\ E.F. = 0.95 \times Y_i + 0.195 \times t_i - 0.51 \times S - 0.86 \times t_s + 1.90$$

where

- VOC E.F. = pounds VOC per ton baked bread
- $Y_i$  = initial baker's percent yeast
- $t_i$  = total yeast action time in hours
- S = final (spike) baker's percent of yeast
- $T_s$  = spiking time in hours

$NO_x$  and CO emissions from the two 7.0 MMBtu/hr natural gas-fired boilers and 5.5 MMBtu/hr oven are estimated using the Uncontrolled Small Boiler emission factor from AP-42 Chapter 1 Section 4 Table 1.4-1 and continuous operation:

$$100 \frac{lb\ NO_x}{10^6 scf} \times \frac{\frac{lb}{MMBtu}}{1020 \frac{lb}{10^6 scf}} \times \left( 7.0 \frac{MMBtu}{hr} + 7.0 \frac{MMBtu}{hr} + 5.5 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 8.4\ TPY\ NO_x$$

$$84 \frac{lb\ CO}{10^6 scf} \times \frac{\frac{lb}{MMBtu}}{1020 \frac{lb}{10^6 scf}} \times \left( 7.0 \frac{MMBtu}{hr} + 7.0 \frac{MMBtu}{hr} + 5.5 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 7.0\ TPY\ CO$$

$NO_x$  and CO emissions from the 4.75 MMBtu/hr oven burner and 1.6 MMBtu/hr RCO burner are estimated from Cleaver Brooks emission factors as reviewed in Notice of Construction Application 11331:

$$0.011 \frac{lb\ NO_x}{MMBtu} \times \left( 4.75 \frac{MMBtu}{hr} + 1.6 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 0.3\ TPY\ NO_x$$

$$0.038 \frac{lb\ CO}{MMBtu} \times \left( 4.75 \frac{MMBtu}{hr} + 1.6 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 1.0\ TPY\ CO$$

$SO_2$  emissions from combustion sources are estimated using the AP-42  $SO_2$  emission factor scaled by a ratio of the site specific fuel sulfur content (9 ppm) to the fuel sulfur content assumed in AP-42:

$$0.60 \frac{lb\ SO_2}{10^6 scf} \times \frac{\frac{lb}{MMBtu}}{1020 \frac{lb}{10^6 scf}} \times \frac{9\ ppmv}{3.45\ ppmv} \left( 7.0 + 7.0 + 5.5 + 4.75 + 1.6 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 0.2\ TPY\ SO_2$$

PM emissions from combustion sources are estimated using Cleaver Brooks emission factors as reviewed in Notice of Construction Application 11331. Total PM emissions are assumed to be equal to  $PM_{10}$  and  $PM_{2.5}$  emissions.

$$0.01 \frac{lb}{MMBtu} \left( 7.0 + 7.0 + 5.5 + 4.75 + 1.6 \frac{MMBtu}{hr} \right) \times 8760 \frac{hr}{yr} \times \frac{ton}{2000\ lb} = 1.1\ TPY\ PM$$

PM emissions from flour handling are discussed in Section 7.1.1. Potential emissions from flour handling silos is estimated at 0.1 TPY and potential emissions from use bin handling is also estimated at 0.1 TPY. Total PM emissions are assumed to be equal to  $PM_{10}$  and  $PM_{2.5}$ -emissions.

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VOC emissions from bread baking are calculated based on one oven with average product capacity of 222,108 lb product/day (EU-1) and one oven with 147,744 lb product/day capacity and 95% VOC control efficiency (EU-4). The VOC emission factor used for potential emissions is the worst-case emission rate of 6.13 lb VOC/ton product for both ovens, calculated from the equation in AP-42 Chapter 9.9.6. As the EU-1 capacity is an average based on 2016 throughput and a 90.3% utilization rate, a 10% safety factor has been added for VOC emission estimates from EU-1:

$$\left(1.1 \times 222,108 \frac{\text{lb bread}}{\text{day}} + (1 - 0.95) \times 147,744 \frac{\text{lb bread}}{\text{day}}\right) \times \frac{1 \text{ ton bread}}{2000 \text{ lb bread}} \times 365 \frac{\text{day}}{\text{yr}} \times 6.13 \frac{\text{lb VOC}}{\text{ton bread}} \times \frac{1 \text{ ton VOC}}{2000 \text{ lb VOC}} \\ = 140.8 \text{ TPY VOC}$$

VOC emissions from combustion sources are estimated using Cleaver Brooks emission factors as reviewed in Notice of Construction Application 11331.

$$\frac{0.0044 \text{ lb}}{\text{MMBtu}} \left(7.0 + 7.0 + 5.5 + 4.75 + 1.6 \frac{\text{MMBtu}}{\text{hr}}\right) \times 8760 \frac{\text{hr}}{\text{yr}} \times \frac{\text{ton}}{2000 \text{ lb}} = 0.5 \text{ TPY VOC}$$