Notice of Construction (NOC) Worksheet

PUGET SOUND
Clean Air Agency

Source: Franz Seattle Division - 6th Ave.	**NOC Number:** 12314
Installation Address: 2901 6th Ave S | Seattle, WA 98134	**Registration Number:** 11285
Contact Name: Christian Rabadan	**Contact Email:** christian.rabadan@usbakery.com
Applied Date: 01/04/2023	**Contact Phone:** (206) 682-2244 x6236
Engineer: Madeline McFerran	**Inspector:** Ivan Rivera

A. DESCRIPTION

For the Order of Approval:
Installation of one (1) 4.75 MMBtu/hr Baker Perkins direct-fired tray oven equipped with two (2) natural gas burners for baking yeast-leavened bread products with a capacity of baking a maximum of 147,744 pounds of product per day (lb/day). Installation of one (1) 4,500 SCFM, CSM Recuperative Catalytic Oxidation System, Model 45A with a 1.6 MMBTU/hr natural gas burner. Catalytic oxidation system will control emissions from the new oven.

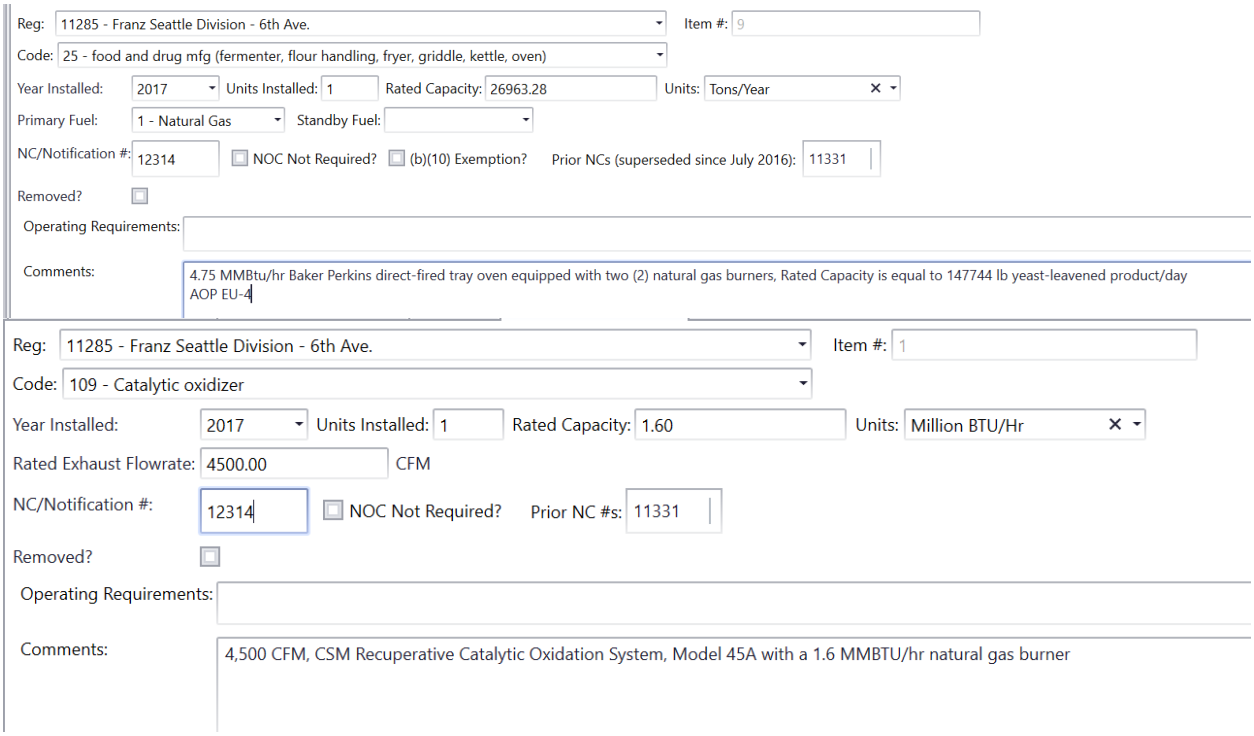
Facility
Franz 6th Ave is an existing commercial bread baking facility.

Proposed Equipment/Activities
This application is for the review of a change to the test method used for compliance demonstration with the 95% VOC destruction efficiency BACT limit on the recuperative catalytic oxidizer (RCO) serving the bun oven at Franz 6th Ave.
This review is limited to only the change in test method; no other changes to emission units or operations are proposed. The review of the bun oven and RCO under NOC 11331 continues to apply.

Permit History

This NOC 12314 will cancel and supersede NOC 11331 upon issuance. Reference to NOC 12314 will be incorporated into the Title V Air Operating Permit renewal for the facility.

B. DATABASE INFORMATION



C. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 6.04. All fees must be paid prior to issuance of the final Order of Approval.

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,550	
Filing received		$ 1,550 (fill in date)
Additional fee received		NA (under AOP Renewal Fees)
Total	**$2,150**	

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 7.07. Registration fees are unchanged due to this test method modification.

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

State Environmental Policy Act (SEPA) review was conducted in accordance with Regulation I, Article 2. The SEPA review is undertaken to identify and help government decision-makers, applicants, and the public to understand how a project will affect the environment. A review under SEPA is required for projects that are not categorically exempt in WAC 197-11-800 through WAC 197-11-890. A new source review action which requires a NOC application submittal to the Agency is not categorically exempt.

A new SEPA determination is not required because the potential impacts from this project were reviewed under SEPA by Puget Sound Clean Air Agency and a DNS was issued on 6/7/17. A copy of this DNS is included below and is being relied upon for this project.

11331-dns.pdf

E. TRIBAL CONSULTATION

On November 21, 2019, the Agency's Interim Tribal Consultation Policy was adopted by the Board. Criteria requiring tribal consultation are listed in Section II.A of the policy and include establishment of a new air operating permit source, establishment of a new emission reporting source, modification of an existing emission reporting source to increase production capacity, or establishment or modification of certain equipment or activities. In addition, if the Agency receives an NOC application that does not meet the criteria in Section II.A but may represent similar types and quantities of emissions, the Agency has the discretion to provide additional consultation opportunities.
This project does not meet any of the criteria for consultation listed in Section II.A of the Agency's Interim Tribal Consultation Policy.

F. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REVIEW

The BACT review of NOC 11331 continues to apply. The application is a request to modify the test method used for the compliance demonstration with the VOC BACT limit of 95% control efficiency for the recuperative catalytic oxidizer serving the bun oven (Condition #6 of NOC 11331).

Condition 7 of NOC 11331 outlined an initial source test with requirements to utilize EPA test method 25. Testing with EPA test method 25 was completed March 22, 2019 to show initial compliance with the 95% DRE requirement for the RCO. Condition 7.e specifies that a source test must be conducted once every five years (between 4 years 9 months and 5 years 3 months from the last test) and Condition 7.f specifies that ongoing source tests will be completed using test method 25.

Franz 6th Ave is proposing that use of EPA test method 25 be replaced by EPA CTM-042, consistent with the test methodology used for the sourdough oven line RCO at Franz Weller permitted under NOC 11674. PSCAA agrees with the proposal to update the test method based on the following:

- CTM-042 is EPA conditional test method using flame ionization detection-methane cutter analysis for VOC compliance testing at bakeries. Bakery exhaust VOC is primarily ethanol and

use of a test method designed specifically to handle this exhaust stream would be representative for testing.

- The destruction efficiency calculation utilizes the same method at inlet of the RCO and outlet of the RCO. Changing the methodology but remaining consistent between inlet and outlet readings is not expected to bias the evaluation of destruction efficiency from the RCO.
- CTM-042 has also been used for another Franz Family Bakery in Lane Regional Air Protection Agency (LRAPA) jurisdiction for testing destruction efficiency of a similar catalytic oxidizer.

NOC 11311 Condition 7 is reproduced below with red-lined updates that are being made based on this review:

7. The owner or operator shall verify compliance with the minimum control efficiency of 95% with an initial source test.
    a. Source test shall measure VOC concentration at the inlet and outlet of the oxidizer to determine the control efficiency
    b. A source test plan must be submitted to the Agency for approval within 60 days after initial startup of the oven burners
    c. The test plan must include a description of operating conditions during the test for both the oven and the recuperative catalytic oxidizer and a list of operating parameters that will be measured during the test for both the oven and the recuperative catalytic oxidizer.
    d. A source test must be conducted within 180 days after initial startup of the oven burners and follow the approved test plan.
    e. A source test must be conducted once every five years, no sooner than 4 years and 9 months after the last test and no later than 5 years and 3 months after the last stack test.
    f. Source test shall be conducted in accordance with USEPA CTM-042 ~~USEPA test method 25~~. The test shall be conducted while the oven is venting to the oxidizer and is baking at normal operating capacity.
    g. Source test must be performed according to Regulation 1, Article 3: Section 3.07.
    h. The source test report shall include a description of operating conditions achieved during the test for both the oven and the recuperative catalytic oxidizer and values of all operating parameters during the test for both the oven and the recuperative catalytic oxidizer.

G. EMISSION ESTIMATES

There are no changes to emissions associated with this change in specified test method. The summary of the total potential emissions from the bun oven controlled by the recuperative catalytic oxidizer from NOC worksheet 11331 is shown below for informational purposes only.

Total Project Annual PTE

Project Potential Annual	Units	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$	VOC
Emissions	tpy	0.308	1.069	0.046	0.284	0.284	6.53

H. OPERATING PERMIT OR PSD

The Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The facility is a Title V "**air operating permit source**" and conditions of this Order will be incorporated into the AOP during the next AOP opening.

I. AMBIENT TOXICS IMPACT ANALYSIS

No toxic air pollutant (TAP) emission increase associated with this change to test method; The potential air toxic emissions reviewed within NOC worksheet 11331 indicating all emissions below the small quantity emission rate is shown below for informational purposes only.

PTE Toxic emission estimates

Pollutant	CAS	Emission Factor	Emission Rate			SQER	SQER	
		lb/MMBTU	lb/hr	lb/day	lb/yr	avg period	(lb/avg period)	
Acetaldehyde	75070	5.68E-06	0.00	0.00	0.32	year	71	pass
Acrolein	107028	2.65E-06	0.00	0.00040	0.15	24-hr	0.00789	pass
Ammonia	7664417	1.15E-03	0.01	0.17	63.81	24-hr	9.31	pass
Arsenic	7440382	2.00E-07	0.00	0.00	0.01	year	0.0581	pass
Benzene	71432	4.08E-06	0.00	0.00	0.23	year	6.62	pass
Dichlorobenzene	106467	1.18E-06	0.00	0.00	0.07	year	17.4	pass
Ethylbenzene	100414	6.76E-06	0.00	0.00	0.38	year	76.8	pass
Formaldehyde	50000	5.69E-05	0.00	0.01	3.16	year	32	pass
Hexane	110543	8.84E-04	0.01	0.13	49.19	24-hr	92	pass
Mercury	7439976	2.55E-07	0.00	0.00	0.01	24-hr	0.0118	pass
Naphthalene	91203	4.46E-07	0.00	0.00	0.02	year	5.64	pass
Nitrogen dioxide	10102440	1.11E-03	0.01	0.17	61.62	1-hr	1.03	pass
Propylene	115071	5.20E-04	0.00	0.08	28.90	24-hr	394	pass
Toluene	108883	1.47E-05	0.00	0.00	0.82	24-hr	657	pass
Xylenes	1330207	1.96E-05	0.00	0.00	1.09	24-hr	29	pass

J. APPLICABLE RULES & REGULATIONS

Puget Sound Clean Air Agency Regulations

SECTION 7.09 (b): Operation and Maintenance Plan. Owners or operators of air contaminant sources subject to Article 7 of this regulation shall develop and implement an operation and maintenance plan to assure continuous compliance with Regulations I, II, and III. A copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall

include, but not be limited to, the following: (1) Periodic inspection of all equipment and control equipment; (2) Monitoring and recording of equipment and control equipment performance; (3) Prompt repair of any defective equipment or control equipment; (4) Procedures for start up, shut down, and normal operation; (5) The control measures to be employed to assure compliance with Section 9.15 of this regulation; and (6) A record of all actions required by the plan. The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency, and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.03: (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
(1) Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
(2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
(b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
(c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;

(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
(4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

Washington State Administrative Code

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(4): Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

(a) If located in an attainment area and not impacting any nonattainment area, shall take reasonable precautions to prevent the release of air contaminants from the operation.

WAC173-400-111(7): Construction limitations.

(a) Approval to construct or modify a stationary source becomes invalid if construction is not commenced within eighteen months after receipt of the approval, if construction is discontinued for a period of eighteen months or more, or if construction is not completed within a reasonable time. The permitting authority may extend the eighteen-month period upon a satisfactory showing by the permittee that an extension is justified.

Federal

Franz 6th Ave is a major source of VOC as defined in Title V of the federal Clean Air Act.

K. PUBLIC NOTICE

This project does not meet the criteria for mandatory public notice under WAC 173-400-171(3). Criteria requiring public notice includes, but is not limited to, a project that exceeds emission threshold rates as defined in WAC 173-400-030 (e.g. 40 tpy NOx, VOC, or SO_2, 100 tpy CO, 15 tpy PM_{10}, 10 tpy $PM_{2.5}$, 0.6 tpy lead), includes a WAC 173-400-091 synthetic minor limit, has a toxic air pollutant emission increase above the acceptable source impact level in WAC 173-460-150, or has significant public

interest. A notice of application was posted on the Agency's website for 15 days. No requests or responses were received. A copy of the website posting is below:

Company	Address	Project Description	Date Posted	Contact Engineer
Franz Seattle Division - 6th Ave.	2901 6th Ave S, Seattle, WA 98134	Request to modify the air emissions testing method used to test the existing recuperative catalytic oxidizer controlling the bun oven at a commercial bakery.	1/12/23	Madeline McFerran

L. RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. 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.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:

Recuperative Catalytic Oxidizer Emissions

3. All emissions from the oven shall be vented through the recuperative catalytic oxidizer at all times.
4. There shall be no visible emissions from the recuperative catalytic oxidizer exhaust stack.
5. At least once every calendar quarter, while baking at normal operating capacity, the owner or operator shall observe the emissions from the recuperative catalytic oxidizer stack throughout the entire baking cycle. During the time of the observation the owner or operator shall note the highest and lowest catalyst bed temperatures. For each observation, note the date and time of the observation, the observer's name, whether or not visible emissions were observed, and the catalyst bed temperatures.

VOC Control Efficiency

6. The recuperative catalytic oxidizer shall achieve and maintain a minimum VOC control efficiency of 95% at all times during operation.
7. The owner or operator shall verify compliance with the minimum control efficiency of 95% with an initial source test.
    a. Source test shall measure VOC concentration at the inlet and outlet of the oxidizer to determine the control efficiency
    b. A source test plan must be submitted to the Agency for approval within 60 days after initial startup of the oven burners

c. The test plan must include a description of operating conditions during the test for both the oven and the recuperative catalytic oxidizer and a list of operating parameters that will be measured during the test for both the oven and the recuperative catalytic oxidizer.
d. A source test must be conducted within 180 days after initial startup of the oven burners and follow the approved test plan.
e. A source test must be conducted once every five years, no sooner than 4 years and 9 months after the last test and no later than 5 years and 3 months after the last stack test.
f. Source test shall be conducted in accordance with USEPA CTM-042. The test shall be conducted while the oven is venting to the oxidizer and is baking at normal operating capacity.
g. Source test must be performed according to Regulation 1, Article 3: Section 3.07.
h. The source test report shall include a description of operating conditions achieved during the test for both the oven and the recuperative catalytic oxidizer and values of all operating parameters during the test for both the oven and the recuperative catalytic oxidizer.

8. The owner or operator may request in writing that the stack testing frequency be decreased after the ten years of operation. The testing frequency may be decreased upon approval by the Agency.

<u>Oxidizer Catalyst Requirements</u>

9. Both the inlet and outlet catalyst bed temperatures shall be maintained at a minimum of 600 degrees Fahrenheit whenever the equipment it serves is in operation.

10. 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 Part 64.7. Such a temperature measuring system shall have an accuracy of within +/- 1% of the temperature being monitored and shall be inspected, maintained, and calibrated on an annual basis in accordance with the manufacturer's specifications using an applicable EPA method or other method approved by the Agency.

11. The owner or operator must conduct annual catalyst activity testing following the manufacturer's or catalyst supplier's recommended procedures. The annual catalyst activity test results, including curves, tables, and reports, must be submitted to the agency. Cleaning should be performed when the activity test results or report indicates cleaning or replacement is necessary.

12. The owner or operator shall replace the catalyst bed if the activity test indicates replacement is necessary. At a minimum the catalyst must be replaced at the frequency recommended by the manufacturer.

13. A log containing the date and a description of each catalyst cleaning and each catalyst replacement shall be kept.

<u>Recuperative Catalytic Oxidizer Operation, Maintenance, and Corrective Actions</u>

14. The owner or operator must maintain daily records of key system operating parameters of the recuperative catalytic oxidizer. If the oven is not in operation, this should be noted in the daily record. Key system operating parameters shall be identified and submitted to the agency within 90 days of installation and must be based on the operation and maintenance plan and preventative maintenance plan provided by the manufacture after equipment installation. The operation and maintenance plan shall be submitted to the agency within 90 days of installation. Key Parameters shall include but are not limited to:
    i. Inlet and outlet temperature of the catalyst bed
    ii. Pressure drop across the catalyst
15. If observations taken under Condition 5 show that the oxidizer is out of compliance with conditions 4 or 9, the baking process shall be shut down until the problem is fixed. The date of the noncompliance, a description of the noncompliance and actions taken to resolve it shall be logged at the time the actions are taken.
16. In the event of a recuperative catalytic oxidizer thermocouple failure or in the event of any other failure such that the owner or operator cannot meet Conditions 4 or 9, the baking process shall be shut down until the problem is fixed. The date of the failure, a description of the failure and actions taken to resolve it shall be logged at the time the actions are taken.

Recordkeeping

17. The owner or operator must maintain records needed to calculate or otherwise determine VOC emissions for this oven including type of product, initial and final yeast percentage, spiking time, and yeast action time.
18. All logs or records maintained in compliance with this Order of Approval shall be kept for at least five years and made available to Agency personnel upon request. Electronic data collection of key parameter is acceptable.
19. Upon issuance, this NOC 12314 will cancel and supersede NOC 11331 issued June, 7, 2017.

M. CORRESPONDENCE AND SUPPORTING DOCUMENTS

N. REVIEWS

Reviews	Name	Date
Engineer:	Madeline McFerran	2/9/2023
Inspector:		
Second Review:	John Dawson	2/14/2023
Applicant Name:		