ORDER OF APPROVAL

NOTICE OF CONSTRUCTION 23NOC1620

ISSUED to Covabrelli Coffee, LLC on NOV 3 0 2023

This Order of Approval ("Order") is issued in accordance with Olympic Region Clean Air Agency ("ORCAA") Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6.

Conditional approval to establish a coffee roasting operation located at 584 Tilley Ct SE #112, in Tumwater ("Approved Location"), for operation solely as described in the associated Notice of Construction ("NOC") application 23NOC1620, is hereby GRANTED to Covabrelli Coffee, LLC ("Applicant"), subject to the Conditions of Approval listed below.

This Order and the Conditions of Approval herein remain in effect for the life of the Approved Equipment as used at the Approved Location and shall be binding on Applicant, current owners and operators of the equipment, and Applicant's heirs, successors and assigns unless amended or superseded by a subsequent Order issued by ORCAA or unless the equipment is permanently shut down. The Applicant must notify any subsequent owner, operator, heirs, successor or assigns of this Order and the Conditions of Approval herein.

Conditions of Approval established in this Order shall be enforceable in addition to any applicable state, local and federal regulations, or standards in existence now or in the future. Compliance with the conditions of this Order do not relieve the Applicant or any owner or operator from compliance with ORCAA Regulations, chapter 70A.15 of the Revised Code of Washington, or any other emissions control requirements, nor from any penalties for failure to comply with the same. Applicant may appeal this Order to the Pollution Control Hearings Board ("PCHB") by filing a written appeal with the PCHB and serving a copy upon ORCAA within thirty (30) days of receipt of this Order.

This Order is GRANTED, subject to the following Conditions of Approval:

- Approved Equipment. The coffee roasting operation as described in Notice of Construction application No. 23NOC1620 and the associated Final Determination is approved for construction and operation subject to conditions in this Order of Approval. [Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(I); 40 CFR part 52.2470(c), Table 6]
- Preapproval Required. Prior approval by ORCAA may be required for the following as specified in ORCAA Rule 6.1:
 - a) Construction, installation, or establishment of any stationary source;
 - b) Modification to any existing stationary source;
 - c) Replacement or substantial alteration of emission control technology installed on an existing stationary source; or,

d) Deviations from the approved plans, drawings, data, and specifications of the stationary sources listed in Table 1.

Table 1 Stationary sources located at Covabrelli Coffee, LLC

Emission Unit	Specifications:
Roaster	 Model: Mill City 10K Maximum Capacity: 10 kg (22 lbs)/batch Temperature: varies by roast Maximum heat input: 90,000 Btu/ hr Fuel: propane or natural gas Time: varies by roast
Electrostatic Precipitator (Control device; not Emission Unit)	 Model: Mistbuster 850 Smoke Eliminator Particulate Removal Efficiency: 99.4%

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(I); WAC 173-400-110(2); WAC 173-400-111(10)]

3. BACT Limits and Operating Requirements:

- a) **Electrostatic Precipitator:** The coffee roaster must not be operated if the electrostatic precipitator (ESP) is disabled, inoperable, or in a condition that prevents effective control of emissions. The owner or operator must operate the ESP in accordance with manufacturer recommended specifications.
- b) **Opacity Limit:** Visible emissions from the coffee roaster must not exceed 5% as determined by EPA Method 9.
- c) **Burners:** The roaster burners will be inspected and cleaned weekly. [Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2)]
- 4. **Operation and Maintenance Plan:** The owner or operator shall devise, implement and update when necessary, an Operations and Maintenance (O&M) plan for assuring good operating condition and repair of the coffee roaster, ESP, and related equipment. The plan shall be based on manufacturer recommendations and shall address the following items specifically:
 - a) Proper training of designated operators.
 - b) Operating procedures including:
 - i) Weighing coffee to ensure proper batch size.
 - ii) Attending roaster full time while roasting.
 - iii) Maintaining proper roaster temperature and air flow.
 - iv) Maintaining proper ESP operation and air flow.
 - v) Schedule to inspect coffee roaster burners during weekly cleanings.
 - vi) Schedule to tune-up coffee roaster burners at least annually; and,
 - vii) Long-term maintenance issues such as cleaning equipment and process ducting per manufacturer specification.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); ORCAA Rule 4.3(g); WAC 173-400-113(2); WAC 173-460-040(3); 40 CFR part 52.2470(c), Table 6]

- 5. **Required Records:** The following records shall be maintained on-site for no less than two years from origination, and made available for inspection by ORCAA upon request:
 - a) The O&M plan required by condition #4.
 - b) Records of all maintenance performed on the roaster and ESP.
 - c) Records of inspections and tune-ups of the coffee roaster burners; and,
 - d) Records of all complaints.

[Regulatory Basis: ORCAA 8.11; 40 CFR part 52.2470(c), Table 6]

PREPARED BY: Aaron Manley, Engineer II

Date

REVIEWED BY: Mark V. Goodin, PE

Date



Olympic Region Clean Air Agency

2940 Limited Lane NW Olympia, WA 98502

(360) 539-7610 Or 1-800-422-5623 Fax: (360) 491-6308

www.ORCAA.org

Executive Director *Jeff C. Johnston*

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NEW SOURCE

FINAL DETERMINATION to APPROVE:

Coffee Roaster

Covabrelli Coffee, LLC

23NOC1620

November 28, 2023

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NOTICE OF CONSTRUCTION FINAL DETERMINATION TO APPROVE

Olympic Region Clean Air Agency

Issued to:

Covabrelli Coffee, LLC

County:

Thurston - 67

Location:

584 Tilley Ct SE #112 Tumwater, WA 98512

Source:

58

Application #:

23NOC1620

RC: File: 5 313

Prepared on:

November 28, 2023

1. Summary

Covabrelli Coffee, LLC (Covabrelli) seeks pre-approval from Olympic Region Clean Air Agency (ORCAA) to relocate their 22 lb/batch, Mill City 10K, coffee roaster to 584 Tilley Ct SE #112, Tumwater, Washington. Relocating a stationary source of emissions qualifies as establishing a new stationary source of emissions at the new location and requires review and approval through a Notice of Construction (NOC). ORCAA staff reviewed Covabrelli's NOC application and proposal and concluded it may be conditionally approved. Recommended conditions of approval are detailed in Section 17 of this Final Determination report.

2. Regulatory Background

Pursuant to the Washington Clean Air Act under chapter 70A.15 of the Revised Code of Washington, ORCAA's Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c)¹ require New Source Review (NSR) for new stationary sources of air pollution (referred to as new sources) in ORCAA's jurisdiction. NSR is also required prior to installing, replacing, or substantially altering any air pollution control technology. NSR generally refers to the process of evaluating air quality impacts and the likelihood of compliance with applicable air regulations and standards. NSR and approval of an air permit by ORCAA is required prior to commencing construction or modification of any new source or prior to installing, replacing, or substantially altering air pollution control technology. The goal of NSR is to assure compliance with applicable air regulations and standards, including equipment performance standards and ambient air quality standards.

¹ A State Implementation Plan (SIP) is a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce the National Ambient Air Quality Standards, or NAAQS, and to fulfill other requirements of the federal Clean Air Act. The Clean Air Act requires the EPA to review and approve all SIPs. ORCAA's SIP was last approved by EPA in 1995.

NSR is initiated by a project proponent submitting an air permit application referred to as Notice of Construction (NOC) application², which provides ORCAA information on the proposed project of sufficient detail to characterize air impacts. NOC applications are posted on ORCAA's website and may undergo a public notice and comment period if requested by the public or if emissions increases trigger an automatic public notice. Approval of a NOC in an attainment or unclassifiable area³ is contingent on verifying a proposed project meets the following criteria from ORCAA's Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6:

- Performance Standards The new stationary source will likely comply with applicable airperformance standards such as federal new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), or any performance standards adopted under chapter 70A.15 RCW;
- 2. **BACT** The new stationary source will employ "Best Available Control Technology" (BACT) to control all air pollutants emitted;
- 3. RACT Replaced or substantially altered air pollution control technology meets the standard of "Reasonably Available Control Technology" (RACT) as defined in ORCAA Rule 1.4;
- 4. Ambient Air Quality Emissions from the new stationary source will not cause or contribute to a violation of any ambient air quality standard;
- 5. **Federal Air Permitting Requirements -** The new stationary source secures all applicable federal air permits that may apply; and,
- 6. Air Toxics If there are increases in toxic air pollutant (TAP) emissions, the requirements of Washington's <u>Controls for New Sources of Toxic Air Pollutants</u> under Chapter 173-460 WAC are met.

In this case, Covabrelli is proposing to establish a new coffee roasting operation at their new facility located in Tumwater, Washington. Covabrelli's operations at their new facility is a "new source" of air emissions at the proposed location. Emissions from the new facility requires review and approval by ORCAA which is accomplished through this NOC permit application.

3. Facility Background

This is the second time a commercial coffee roaster owned and operated by Covabrelli has been permitted through ORCAA. Covabrelli previously operated their Mill City 10k coffee roaster at another location. The prior property owner decided to use the property for other uses and Covabrelli is relocating. While most coffee roasting operations use an afterburner to control

² There are two categories of NOC applications: Notice of Construction (NOC) and Notice of Construction Revision (NOR). NOCs are required for new or modified sources, new control technology, replacing an existing stationary source or control technology, and substantially altering control technology. NORs are required when an owner or operator requests a revision to an existing air permit issued by ORCAA.

³ Unclassified area or "attainment area" means an area that has not otherwise been designated by EPA as nonattainment with ambient air quality standards for a particular regulated pollutant. Attainment area means any geographic area in which levels of a given criteria air pollutant (e.g., ozone, carbon monoxide, PM10, PM2.5, and nitrogen dioxide) meet the health-based National Ambient Air Quality Standards (NAAQS) for that pollutant. An area may be an attainment area for one pollutant and a nonattainment area for others.

particulate emissions, Covabrelli's roaster at their previous location used an Electrostatic Precipitator (ESP) to control emissions, which ORCAA approved through NOC 18NOC1303. ORCAA received no complaints from the roaster at Covabrelli's previous location, which is a good indication that the ESP was effective at eliminating smoke and odors from the roaster's exhaust. For their proposed new location, Covabrelli requests approval to continue operating the ESP to control emissions from the coffee roasting operation.

4. Facility Description

Covabrelli is moving into a new 'greenfield' industrial complex recently constructed. The Mill City 10K coffee roaster and Mistbuster 850 Smoke Eliminator ESP will be the only equipment at the facility regulated by ORCAA.

Figure 4.1: Facility Location



^{*} Imagery © 2023 Airbus, CNES/Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO, Map data © 2023

5. Project Description

Covabrelli Coffee, LLC (COVABRELLI) is a specialty coffee roaster that roasts fresh green coffee beans in the Tumwater area. COVABRELLI requests approval for a 22 lb/batch Mill City 10K coffee roaster. Air emissions from the Mill City roaster at the new location is regulated as an increase in emissions. COVABRELLI plans to use an electrostatic precipitator (ESP) to control emissions from the coffee roasting process.

^{**} Annotated by ORCAA

Table 5.1: New Emission Unit

Emission Unit	Description
	■ Model: Mill City 10K
1, 1	Maximum Capacity: 10 kg (22 lbs)/batch
Coffee Roaster	Temperature: varies by roast
(EU1)	Maximum heat input: 90,000 Btu/ hr
	Fuel: natural gas
	Time: varies by roast
ESP	Model: Mistbuster 850 Smoke Eliminator
(Control Device)	Particulate Removal Efficiency: 99.4%

6. Emission Increases

Emissions from coffee roasting include emissions from the roasting of the coffee beans, and combustion emissions from combustion of either propane or natural gas in the roaster. Table 6.2 below shows Covabrelli's potential to emit considering the Mill City 10K coffee roaster operating at 8,760 hours per year. For combustion emissions, ORCAA staff considered both fuel types proposed and chose the fuel type resulting in the worst-case emissions of each pollutant. Because the air review considered both fuel types, Covabrelli will have latitude to use either fuel in the future. Because Covabrelli will only use propane or natural gas for fuel and will control odors and toxics emitted during roasting using best management practices and an ESP, emissions are expected to be minor. Calculations are included in the attachments.

Table 6.1. Emission Increases (Project Emissions)

Pollutant	Classification (Criteria ^a /HAP ^b /TAP ^c)	Emission Rate (lb/hr)	Emission Rate (lb/day)	Emission Rate (lb/yr)
PM (Total Particulate)	Criteria	0.0060	0.14	52
PM ₁₀ (Total Particulate) (<= 10 μm)	Criteria	0.0060	0.14	52
PM _{2.5} (Fine Particulate (<=2.5 μm)	Criteria	0.0060	0.14	52
VOC ^d (Volatile Organic Compounds as VOC)	Criteria	0.0031	0.073	27
SO ₂ (Sulfur Dioxide)	Criteria	5.3E-05	1.3E-03	0.47
NO _x (Nitrogen Oxides)	Criteria	0.013	0.31	110
CO (Carbon Monoxide)	Criteria, TAP	0.032	0.76	280
Hazardous Air Pollutants (total HAP)	HAP	0.0010	0.025	9.2
Toxic Air Pollutants (Total TAP)	TAP	0.033	0.78	290
Acetaldehyde	TAP, HAP	0.00040	0.0097	3.5
Formaldehyde	TAP, HAP	0.00064	0.015	5.6

^a EPA has established national ambient air quality standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

^b HAP means Hazardous Air Pollutant. Hazardous Air Pollutants are those known to cause cancer and other serious health impacts and are regulated under the federal Clean Air Act.

^c TAP means any toxic air pollutant regulated in Washington and listed in WAC 173-460-150.

d VOC is regulated as a Criteria Air Pollutant because it is a precursor to Ground Level Ozone (O3)

7. Administrative Requirements for NOC Applications

NOC applications are subject to filing fees according to ORCAA Rule 3.3(b) and may incur additional NOC processing fees at an hourly rate according to ORCAA Rule 3.3(c). Applicable NOC filing fees for Covabrelli's NOC application were paid prior to ORCAA commencing processing of the application. Additional NOC processing fees may apply and will be determined and assessed prior to issuing a Final Determination and the Approval Order (a.k.a.: Air Permit).

NOC applications are subject to a 15-day public notice and an opportunity to request a 30-day public comment period and opportunity for a public hearing. Public notice of Covabrelli's NOC application was posted on ORCAA's website on October 19, 2023. The time period for filing comments on the application and requests for a public comment period expired on November 3, 2023. The project did not receive any comments.

8. SEPA Review

The State Environmental Policy Act (SEPA) under Chapter 197-11 WAC is intended to provide information to agencies, applicants, and the public to encourage the development of environmentally sound proposals. The goal of SEPA is to assure that significant impacts are mitigated.

ORCAA staff contacted the City of Tumwater, lead agency, on October 31, 2023. City of Tumwater staff stated the project was covered under the Mitigated Determination of Non-Significance (MDNS) DSD-08-00027 which was issued on March 29, 2011.

9. Criteria for Approval

ORCAA's Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, establish the following general criteria for approving new stationary sources and modifications to existing stationary sources of air pollution in ORCAA's region:

- Performance Standards Any new stationary source or modification will likely comply
 with applicable air-performance standards such as the federal new source performance
 standards (NSPS), national emission standards for hazardous air pollutants (NESHAPs), and
 any performance standards adopted under chapter 70A.15 RCW;
- BACT The new or modified stationary source is controlled to a level that meets the standard of "Best Available Control Technology" (BACT);
- 3. Ambient Air Quality Any increase in air emissions will not cause or contribute to violation of any ambient air quality standard;
- 4. *Federal Air Permitting Requirements* All applicable federal air permits, if required, are secured;
- Washington Air Toxics Regulations If there are increases in toxic air pollutant (TAP)
 emissions, the requirements of Washington's <u>Controls for New Sources of Toxic Air</u>
 <u>Pollutants</u> under Chapter 173-460 WAC are met; and,
- 6. **Public Outreach** Public notice and comment requirements in ORCAA's regulations and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6 are met.

The following sections provide more detail on each criterion.

10. Applicable Performance Standards (Summary)

ORCAA's Rule 6.1.4(a)(1) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require a finding that any new or modified stationary source will likely comply with applicable state, federal and local performance standards for air emissions including emission standards adopted under chapter 70A.15 RCW, emissions standard of ORCAA, and federal emission standards including New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT standards). The performance standards in Table 10.1 were determined applicable to the proposed coffee roasting operation. A comprehensive list of applicable performance standards that apply to all stationary sources of air pollution located at the facility, as well as general air regulations and standards that apply, are included in the Appendix.

Table 10.1: Applicable Performance Standards specific to the Proposed Coffee Roasting Operation

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	discussion/determination	
WAC 173-400-050 ORCAA 8.3	General Particulate Standards for Combustion Units - Prohibits emissions from any combustion unit in excess of 0.1 grain/dscf. EPA test methods from 40 CFR Part 60 Appendix A shall be used should demonstration of compliance be required.	Applicable – Compliance likely	

11. Best Available Control Technology (BACT)

ORCAA Rule 6.1.4(a)(2) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require the finding that a new source or modification to an existing source of air pollution in an attainment or unclassifiable area will employ best available control technology for all pollutants (BACT) not previously emitted or whose emissions would increase as a result of the new source or modification.

New sources of air pollution and modifications to existing sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under chapter 70A.15 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant."

The proposed new stationary source or will employ Best available Control Technology (BACT) for all pollutants not previously emitted or whose emissions would increase as a result of the new stationary source or modification.

Table 11.1 BACT Determination

Pollutant	BACT Applicable?	BACT Limits & Requirements	Proposed control technologies or methods to meet BACT limits.	
CO, NO _x , VOCs	Yes	Weekly inspection and cleaning of the burners.	Use of propane or natural gas and properly designed gas burners. Mill City Roasters are equipped with gas burners that are resilient and maintain proper combustion provided they burn pipeline quality gas or propane, and provided they are cleaned periodically ⁴ .	
SO ₂	Yes	Combustion of low sulfur fuels.	Use of propane or natural gas.	
PM, PM ₁₀ and PM _{2.5}	Yes	General standards and 0% opacity limit	Chaff collector integrated into the design of the roaster and proper operation of the ESP.	

Based on the information provided in the application, an ESP will remove upwards of 99% of the particulate in the roaster exhaust stream. This level of control meets BACT. The competing control technology, an after-burner, achieves an estimated 92% destruction of particulate. Also, an after-burner requires combustion of additional fuel, which contributes to more NOx, CO, and CO₂.

12. Ambient Impact Analysis (Criteria Pollutants)

ORCAA's Rule 6.1.4(a)(3) and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6, require emissions from any new stationary source or modification not delay the attainment date of an area not in attainment, nor cause or contribute to a violation of any Ambient Air Quality Standard (AAQS). ORCAA's current Dispersion Modeling Guidance (2009) recommends this approval criteria be demonstrated using dispersion modeling techniques when Potential to Emit (PTE) of any pollutant with an ambient standard is above ORCAA's adopted significant emission level for the pollutant. Any pollutant with a PTE below its significant emission level can be considered insignificant with respect to maintaining the AAQSs.

PTE emissions of all criteria pollutants are well below ORCAA's adopted significant emission rate thresholds. Therefore, project emissions are considered insignificant with respect to maintaining the AAQSs.

13. Ambient Impact Analysis (Toxic Air Pollutants)

Washington's regulation titled <u>Controls for New Sources of Toxic Air Pollutants</u> (Air Toxics Rule) under Chapter 173-460 of the Washington Administrative Code applies to new stationary

⁴ According to Mill City Roasters, the burners are engineered to maintain proper combustion for pipeline natural gas or propane provided they are periodically cleaned.

sources of Toxic Air Pollutants (TAP), including modifications to existing emissions units that increase TAP. The purpose of the Air Toxics Rule is to, "... maintain such levels of air quality as will protect human health and safety." The TAPs covered under the Air Toxics Rule include carcinogens and non-carcinogens. TAP emissions increases for determining applicability are the increases attributable to the new or modified emissions unit - Decreases from existing emissions units are not allowed to be subtracted from project-attributable TAP increases when determining applicability. Also, the Air Toxics Rule provides that review of modifications are limited to the emission unit or units proposed to be modified and the TAPs whose emissions would increase as a result of the modification.

The Air Toxics Rule has two independent requirements for new sources and modifications that increase TAP emissions above de-minimis levels:

- 1) **tBACT:** The new or modified emission units must use Best Available Control Technology to control TAP emissions (WAC 173-460-040(3)(a)).
- 2) Ambient Impact: The NOC application must demonstrate that any increase in TAP from the new or modified emission units are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects (WAC 173-460-070).

tBACT

The tBACT requirement applies to any new or modified emission units that triggers the Air Toxics Rule (results in a TAP increase above de-minimis levels), regardless of facility-wide or "net" TAP emissions. The term tBACT means Best Available Control Technology, as that term is defined in WAC 173-400-030, but applied to control of TAP (see BACT definition in Section 11).

The TAP that will be emitted by the new roaster are all VOCs. ORCAA staff determined the same BACT used to control VOCs meets requirement for tBACT. See Table 13.1 below.

Table	12 1	+BACT	Determi	nation
rabie	13.1	LDACI	Determi	nation

Pollutant	tBACT Applicable?	tBACT Limits & Requirements	Proposed control technologies or methods to meet BACT limits.
ТАР	Yes	Weekly inspection and cleaning of the burners.	Use of propane or natural gas and properly designed gas burners. Mill City Roasters are equipped with gas burners that are resilient and maintain proper combustion provided they burn pipeline quality gas or propane, and provided they are cleaned periodically ⁵ .

Ambient Impact Review

The Air Toxics Rule provides a multi-tiered, screening approach under WAC 173-460-080 to assess health impacts and demonstrate compliance with the ambient impact requirement

⁵ According to Mill City Roasters, the burners are engineered to maintain proper combustion for pipeline natural gas or propane provided they are periodically cleaned.

under WAC 173-460-070, which is that TAP increases must be sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects.

The "First Tier Review" (Tier 1 Review) is a two-step process. First, the emissions increase of each TAP is compared to its unique Small Quantity Emission Rate (SQER). SQERs are listed for each TAP under WAC 173-460-150. An SQER is the level of emissions of a TAP below which dispersion modeling is not required to demonstrate compliance with the ambient impact requirement. TAP emissions increases used in this first step must be based on the maximum potential to emit considering control or reduction in emissions achievable using the air pollution control technology or methods proposed to meet the tBACT requirement. Any TAP with an increase below its SQER can be presumed to be in compliance with the ambient impact requirement. If this is the outcome, further analysis is not required for that TAP. However, TAPs with emissions increases above their SQER must undergo the second step of the Tier 1 Review.

The second step of the Tier 1 Review requires evaluating TAP impacts against Acceptable Source Impact Levels (ASIL) and is referred to as an ASIL Analysis. An ASIL is the adopted health-based concentration for a TAP below which can be presumed as meeting the ambient impact requirement of WAC 173-460-070. ASILs are provided for each TAP under WAC 173-460-150. An ASIL analysis typically involves using an ambient air dispersion model to estimate ambient concentrations resulting from TAP emissions increases and considering air dispersion and local meteorological characteristics of the source. If the modeled impact of the increase in emissions of a TAP does not exceed its corresponding ASIL, the ambient impact requirement of WAC 173-460-070 may be considered met and the First Tier Review is completed for that TAP.

Emissions rates used to support an ASIL Analysis must be based on the maximum potential to emit considering control or reduction in emissions achievable using the air pollution control technology or methods proposed to meet the tBACT requirement. In addition, the Air Toxics Rule allows TAP reductions from existing emission units not subject to review to be subtracted or "netted out" from TAP increases, provided the reductions are included in the approval order as enforceable voluntary emission limits and meet all the requirements of WAC 173-460-071. These requirements include:

- (1) The voluntary emissions reductions must be enforceable through a regulatory order issued by the air permitting agency.
- (2) The approval order enforcing the voluntary emissions reductions must include monitoring, recordkeeping, and reporting requirements sufficient to ensure the reductions are maintained.
- (3) The agency's preliminary determination to approve the voluntary emissions reductions are subject to a 30-day public notice and comment period and opportunity for a public hearing.

For pollutants with ambient concentrations found to be greater than their ASIL, a "Second Tier Review" (Tier 2 Review) by the Washington Department of Ecology (Ecology) is required. An application for a Tier 2 Review by Ecology is referred to a Tier 2 petition. Tier 2 petitions must include a Health Impacts Assessment (HRA) and estimated ambient TAP impacts based on refined air dispersion modeling. Ecology will not act on a Tier 2 petition unless a written preliminary determination on the NOC application for the new or modified TAP source and a draft approval order have been completed by the local agency with jurisdiction. Ecology's

review and approval of a Tier 2 petition is contingent on a finding that TAP impacts meet the ambient impact requirement of WAC 173-460-070 that increases in TAP emissions are sufficiently low to protect human health and safety from potential carcinogenic and/or other toxic effects. If Ecology recommends denial of a Tier 2 petition, the permitting authority may not approve the project. The applicant then has the option of submitting a petition for a "Third Tier Review" (Tier 3 Review) by Ecology and a request for a risk management decision.

ORCAA staff performed PTE emissions calculations conservatively assuming 8,760 hours of operation per year and using the worst-case emissions factors of propane and natural gas. Since Covabrelli's operation is controlled by an ESP and not an afterburner, ORCAA staff conservatively calculated VOC pollutant emissions without a 94.5% destruction efficiency. The results of the Tier I analysis are shown in Table 13.2 below.

Table 13.2 TAP Tier I Review

Pollutant	PTE (lbs/hr)	PTE (lbs/yr)	WAC 173-460 SQER	Result
Acetaldehyde	4.0E-04	3.5	60 (lbs/year)	Pass
Carbon Monoxide	0.032	277	43 (lbs/hr)	Pass
Formaldehyde	6.4E-04	5.6	27 (lbs/year)	Pass

14. Requirements for Major Stationary Sources and Major Modifications to Major Stationary Sources

Projects that are major stationary sources and major modifications to major stationary sources as defined in 40 CFR 52.21(b) may be subject to permitting requirements under WAC 173-400-700 through 173-400-860.

Covabrelli Coffee, LLC is not a "Major Stationary Source" as defined in 40 CFR 52.21(b) and not subject to the permitting program required by WAC 173-400-700 through WAC 173-400-860. Therefore, these permitting requirements do not apply.

15. Title V Air Operating Permit (AOP) Implications

The State of Washington program pursuant to Title V of the federal Clean Air Act is governed under Chapter 173-401 WAC, the Washington Air Operating Permit Program. Chapter 173-401 WAC requires existing major stationary sources to operate in compliance with an approved Air Operating Permit (AOP). Major stationary sources are those stationary sources with a potential to emit which is greater than 100 tons per year of any criteria pollutant, greater than 10 tons per year of any hazardous air pollutants (HAP), or greater than 25 tons per year of any combination of HAP.

Covabrelli is not a "Major Source" under the Title V program and is not subject to the requirement to operate under an AOP.

16. Environmental Justice Considerations

EPA defines Environmental Justice (EJ) as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The purpose of an EJ review in

conjunction with an air permitting action is to ensure no group of people bear a disproportionate share of the negative environmental consequences as the result of the permitting action. Further, ORCAA strives to engage the affected community effectively and meaningfully regarding the permitting action, and to ensure compliance with obligations pursuant to Title VI of the Civil Rights Act.

With respect to factoring EJ into air permitting decisions, EPA Region 10 expects air agencies to:

- · Identify overburdened communities;
- · Engage with communities;
- · Evaluate cumulative impacts; and,
- · Use available authority to minimize emissions.

However, EPA Region 10 does not expect air agencies to use the Clean Air Act's authorities to address existing disproportional impacts to communities when implementing New Source Review in areas that are "attainment/unclassifiable" with respect to meeting the NAAQS.

The following subsections describe how these expectations from EPA Region 10 were met.

16.1 Identify Overburdened Communities

The initial step in an EJ review is to identify any affected populations or communities of concern and to identify whether they are disproportionally impacted.

ORCAA used EPA's environmental justice screening and mapping tool, EJScreen, to answer this first part of this question. An EJScreen Community Report was generated for Thurston County. The Community Report estimates a minority population of 27%, with approximately 4% of the total population speaking Spanish and 8% speaking another Non-English language at home. All demographic indicators were below the 80th percentile for the nation. Likewise, the Community Report indicates that Thurston County is below the 80th percentile for all environmental indicators. Environmental indicators above the 80th percentile are an indication that a community is already disproportionately impacted. Therefore, ORCAA staff's conclusion is that the project impact area does not include any preexisting, overburdened communities. A copy of the Community Report with more detailed information will be filed as part of the supporting documentation for the project.

Preexisting air quality impacts were evaluated based on ambient air quality monitoring data and designation of the area with respect to maintaining compliance with the NAAQS. If air quality in a geographic area meets or is cleaner than a national standard based on ambient air monitoring data, it is called an attainment area and designated "attainment/unclassifiable." Areas may also be presumed "attainment/unclassifiable" based on population density and air pollutant emissions being below certain thresholds. For this case, the project impact area and Thurston County as a whole is designated "attainment/unclassifiable." Therefore, there are no preexisting nonattainment issues identified within

the County. The project's criteria emissions will not cause or contribute to a violation of an AAQS. Therefore, ORCAA staff's conclusion is that there are no indications of any existing disproportional impacts to communities of concern within the project impact area.

16.2 Engage with Communities

Based on the size and scope of the project, and that there are no overburdened communities near the project, ORCAA staff determined the public noticing procedures outlined in Section 7 above are sufficient notifications.

16.3 Evaluate Cumulative Impacts

The air permitting action for this case did not trigger a cumulative impacts analysis under either the Clean Air Act or the Washington Clean Air Act. The TAP review demonstrated emissions are below their respective SQERs by a comfortable margin. Therefore, the air analysis can be considered a cumulative analysis with respect to the NAAQS.

16.4 Use Available Authority to Minimize Emissions

As described elsewhere in this report, ORCAA applied existing New Source Review authorities provided under the Clean Air Act and the Washington Clean Air Act to minimize emissions from the proposed new coffee roasting operation. Principally among these authorities is the requirement to use BACT for controlling emissions. The BACT requirement was applied and corresponding BACT emissions limits are included in the air permit.

17. Conditions of Approval

The following conditions of approval were determined necessary for assuring compliance with applicable air regulations and standards and protecting air quality. Recommended conditions of approval will become effective once the Approval Order is issued:

- Approved Equipment. The coffee roasting operation as described in Notice of Construction application No. 23NOC1620 and the associated Final Determination is approved for construction and operation subject to conditions in this Order of Approval.
 [Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(I); 40 CFR part 52.2470(c), Table 6]
- 2. **Preapproval Required.** Prior approval by ORCAA may be required for the following as specified in ORCAA Rule 6.1:
 - a) Construction, installation, or establishment of any stationary source;
 - b) Modification to any existing stationary source;
 - c) Replacement or substantial alteration of emission control technology installed on an existing stationary source; or,
 - d) Deviations from the approved plans, drawings, data, and specifications of the stationary sources listed in Table 1.

Table 1 Stationary sources located at Covabrelli Coffee, LLC

Emission Unit	Specifications:
Roaster	 Model: Mill City 10K Maximum Capacity: 10 kg (22 lbs)/batch Temperature: varies by roast Maximum heat input: 90,000 Btu/ hr Fuel: propane or natural gas Time: varies by roast
Electrostatic Precipitator (Control device; not Emission Unit)	 Model: Mistbuster 850 Smoke Eliminator Particulate Removal Efficiency: 99.4%

[Regulatory Basis: ORCAA 6.1(a); ORCAA 6.1.2(l); WAC 173-400-110(2); WAC 173-400-111(10)]

3. BACT Limits and Operating Requirements:

- a) **Electrostatic Precipitator:** The coffee roaster must not be operated if the electrostatic precipitator (ESP) is disabled, inoperable, or in a condition that prevents effective control of emissions. The owner or operator must operate the ESP in accordance with manufacturer recommended specifications.
- b) **Opacity Limit:** Visible emissions from the coffee roaster must not exceed 5% as determined by EPA Method 9.
- c) **Burners:** The roaster burners will be inspected and cleaned weekly. [Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2)]
- 4. **Operation and Maintenance Plan:** The owner or operator shall devise, implement and update when necessary, an Operations and Maintenance (O&M) plan for assuring good operating condition and repair of the coffee roaster, ESP, and related equipment. The plan shall be based on manufacturer recommendations and shall address the following items specifically:
 - a) Proper training of designated operators.
 - b) Operating procedures including:
 - i) Weighing coffee to ensure proper batch size.
 - ii) Attending roaster full time while roasting.
 - iii) Maintaining proper roaster temperature and air flow.
 - iv) Maintaining proper ESP operation and air flow.
 - v) Schedule to inspect coffee roaster burners during weekly cleanings.
 - vi) Schedule to tune-up coffee roaster burners at least annually; and,
 - vii) Long-term maintenance issues such as cleaning equipment and process ducting per manufacturer specification.

[Regulatory Basis: ORCAA Rule 6.1.4(a)(2); ORCAA Rule 4.3(g); WAC 173-400-113(2); WAC 173-460-040(3); 40 CFR part 52.2470(c), Table 6]

- 5. **Required Records:** The following records shall be maintained on-site for no less than two years from origination, and made available for inspection by ORCAA upon request:
 - a) The O&M plan required by condition #4.
 - b) Records of all maintenance performed on the roaster and ESP.

- c) Records of inspections and tune-ups of the coffee roaster burners; and,
- d) Records of all complaints.

[Regulatory Basis: ORCAA 8.11; 40 CFR part 52.2470(c), Table 6]

17. Final Determination to Approve

This Final Determination documents ORCAA staff's determinations with respect to the applicable criteria of approval in ORCAA Rule 6.1 and the Washington State Implementation Plan under 40 CFR part 52.2470(c), Table 6. ORCAA staff recommends approval of Covabrelli's proposed coffee roasting operation relocation, provided the conditions identified in Section 17 of this Final Determination are implemented through an enforceable Order of Approval (AKA: Air Permit). Emissions calculations, modeling summary and other data supporting this Final Determination are provided as attachments.

~ end of section ~	
At Mary	11/30/2023
PREPARED BY: Aaron Manley, Engineer II Auak Mooh	Date $U/30/23$

REVIEWED BY: Mark Goodin, PE Date

Applicable Performance Standards that apply to Covabrelli

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
Registration ORCAA Regulation 4	Requires facilities that are minor sources of emissions to register annually with ORCAA and pay annual registration fees.	Covabrelli will continue to be a minor source requiring registration.
Annual Registration Fees ORCAA Rule 3.1	Requires payment of annual registration fees to ORCAA based in part on air pollutants emitted during the previous year.	Covabrelli is required to register and pay annual registration fees.
Initial Notification ORCAA Rule 4.3(a)&(b); 4.3(f)	Requires facilities subject to registration to register by submitting an initial notification with the information in ORCAA Rule 4.3(b) within 30 days from: 1) Commencement of operation of any new or recommissioned stationary source; 2) Change in ownership of existing registered stationary source. The notification must be signed by the owner or operator or by the agent appointed by the owner.	
Administrative Change Notification ORCAA Rule 4.3(e); 4.3(f)	Requires facilities to notify ORCAA of any changes to administrative information within 30 days from the change taking place including, but not limited to, contact names, address, phone numbers, and permanent shut down or decommissioning of a stationary source. The notification must be signed by the owner or operator or by the agent appointed by the owner.	
Annual and/or Periodic Reports ORCAA Rule 4.3(c)&(d); 4.3(f)	Requires stationary sources to submit reports with information directly related to the registration program when requested by the Agency within 30 days of receipt of the request. The submittal must be signed by the owner or operator or by the agent appointed by the owner.	
Interference or Obstruction ORCAA Rule 7.1	Prohibits willfully interfering with or obstructing the Executive Director or any Agency employee in performing any lawful duty.	Applies generally to all air pollution sources
False or Misleading Statements ORCAA Rule 7.2	Prohibits any person from willfully making a false or misleading statement to the Board or its representative as to any matter within the jurisdiction of the Board.	Applies generally to all air pollution sources
Unlawful Reproduction or Alteration of Documents ORCAA Rule 7.3	Prohibits reproducing or altering, or causing to be reproduced or altered, any order, registration certificate or other paper issued by the Agency if the purpose of such reproduction or alteration is to evade or violate any provision of these Regulations or any other law.	Applies generally to all air pollution sources
Display of Orders and Certificates ORCAA Rule 7.4	Any order or registration certificate required to be obtained by these Regulations shall be available on the premises designated on the order or certificate. In the event that the Agency requires	The Approval Order issued in conjunction with this NOC approval must be retained on site.

Title		
Citation	(Consult rule/regulation for specific	Applies to
	requirements)	
	order or registration certificate to be displayed, it	
	shall be posted. No person shall mutilate, obstruct,	
	or remove any order or registration certificate	
	unless authorized to do so by the Board or the	
	Executive Director.	
General Requirements	All and a single and a second and a second above	Analiaa sanandhuta allain
WAC 173-400-040(1)(c)	All emissions units are required to use reasonably	Applies generally to all air
ORCAA Rule 8.3	available control technology (RACT).	pollution sources.
 Visible Emissions	Prohibits emissions with opacity of greater than	
WAC 173-400-040(2)	20% for more than three (3) minutes in any one	Applies generally to all air
ORCAA Rule 8.2(a)	hour.	pollution sources
	No person shall cause or allow the emission from	
	any emissions unit in excess of one thousand ppm	
Sulfur Dioxide	of sulfur dioxide on a dry basis, corrected to seven	Applies generally to facilities
WAC 173-400-040(7)	percent oxygen for combustion sources, and based	that emit Sulfur Dioxide.
	on the average of any period of sixty consecutive	
	minutes.	
Control Equipment	ORCAA Rule 8.8 requires that all air contaminant	
Maintenance and Repair	sources keep any process and/or air pollution	Applies generally to all air
	control equipment in good operating condition and	pollution control devices.
ORCAA Rule 8.8	repair.	pomanon common de consciona
	Prohibits particulate emissions from any source to	
Fallout	be deposited, beyond the property under direct	0 0
	control of the owner or operator of the source, in	Applies generally to all air
WAC 173-400-040(3)	sufficient quantity to interfere unreasonably with	pollution sources.
ORCAA Rule 8.3(e)	the use and enjoyment of the property upon which	
	the material was deposited.	
	The owner or operator of any emissions unit	
Fugitive Emissions	engaging in materials handling, construction,	Applies generally to any
	demolition, or other operation which is a source of	Applies generally to any activity that results in fugitive
WAC 173-400-040(4)(a)	fugitive emission shall take reasonable precautions	
ORCAA Rule 8.3(c)	to prevent the release of air contaminants from	emissions.
	the operation.	
Odor	ORCAA Rule 8.5 contains general requirements for	
	controlling odors and a general prohibition of	Applies generally to all air
WAC 173-400-040(5)	odors that unreasonably interfere with the use or	pollution sources.
ORCAA Rule 8.5	enjoyment of a person's property.	
Emissions Detrimental to	Prohibits causing or allowing the emission of any	
Persons or Property	air contaminant from any source if it is detrimental	Applies generally to all air
MAC 173, 400, 040/C\	to the health, safety, or welfare of any person, or	pollution sources
WAC 173-400-040(6)	causes damage to property or business.	
ORCAA Rule 7.6	Prohibits installation or use of any device or means	
Concealment and Masking	to conceal or mask emissions of an air	
	contaminant, which causes detriment to health,	Applies generally to all air
WAC 173-400-040(8)	safety, or welfare of any person, or causes damage	pollution sources
ORCAA Rule 7.5	to property or business.	
Fugitive Dust	The owner or operator of a source or activity that	
0 2 430	generates fugitive dust must take reasonable	Applies to any activity that
	Sellergies inbilive unst must take reasonable	results in fugitive dust.

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to	
	becoming airborne and must maintain and operate the source to minimize emissions.		
Excess Emissions Provisions	Requires excess emissions be reported to the		
WAC 173-400-107; WAC 173-400-108 ORCAA 8.7	Agency as soon as possible and within 24 hours and establishes criteria qualifying excess emissions as unavoidable.	Applies generally to all air pollution sources	
Record Keeping and Reporting.	Requires the following: 1. Maintenance of records on the nature and amounts of emissions and other related	Required of all facilities registered with ORCAA.	
ORCAA Rule 8.11	information as deemed necessary by ORCAA; 2. Reporting of emissions to ORCAA upon request.		
Particulate Standards for	Prohibits emissions from any combustion unit in	Applies generally to all	
Combustion Units	excess of 0.1 grain/dscf. EPA test methods from 40	stationary combustion units	
ORCAA Rule 8.3(a)	CFR Part 60 Appendix A shall be used should demonstration of compliance be required.	that exhaust to the atmosphere.	
WAC 173-400-050(1)			

Calculations

<u>Assumptions</u>	10 kg/batch Mill City Roaster		Mill City 10K Roaster		
Roaster Capacity	4	batch/hr		Afterburner	
	22	lb/batch			
	90000	btu/hr	0	btu/hr	
	90000	btu/nr	0	btu/nr	

8760 hrs/yr 385 Tons Roasted/yr

Criteria Pollutants (Combustion of Natural Gas or Propane in Roaster)

Citeria i citatants (Combastion of Natural Gas of Propane in Roaster)			
Pollutant	Emission Factor ^a (lb/mmbtu)	Potential To Emit ^b (lbs/hr)	Potential To Emit (tons/yr)
Nox	0.14	0.013	5.6E-02
СО	0.082	0.0074	3.2E-02
PM	0.0077	0.00069	3.0E-03
VOC	0.011	0.00098	4.3E-03
SO ₂	0.00059	0.000053	2.3E-04

Criteria Pollutants From Roasting Coffee Beans d			-
	Factor	PTE	PTE
Pollutant	(lb/ton)	(lb/hr)	(ton/yr)
CO	0.55	0.024	0.11
PM	0.12	0.0053	0.023
VOC	0.047	0.0021	0.0091

Pollutant	Emission Factor (lb/ton roasted)	PTE (lbs/hr)	PTE (lbs/yr)
Acetaldehyde ^c	0.0091	4.0E-04	3.5
Carbon Monoxide	-	3.2E-02	277
Formaldehyde ^c	0.015	6.4E-04	5.6

a - Uncontrolled emissions factors in lbs/ MMBtu natural gas fired. Factors from AP-42 Table 1.4-1 Emission Factors for Nitrogen Oxides and Carbon Monoxide from Natural Gas Combustion and 1.4-2 Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas Combustion. Uses AP-42 Table 1.5 Emission Factors for Propane Combustion

Assumes 2516 btu/ft3 energy content of propane; Assumes 1020 btu/ft3 energy content of natural gas

b - Potential To Emit (PTE) is based on the assumption that coffee is batch-roasted continuously. PTE (lbs/hr) = (emission factor lb/ton)*(ton/2000 lb)*(4 batch/hr)*(22 lbs/batch). PTE (tons/yr) = (PTE lb/hr)*(8760 hrs/yr)*(ton/2000 lb).

c - emissions from Bay Area Air Quality Management District (BAAQMD) Handbook 08/09/2021; no afterburner so assumes uncontrolled; does not account for 94.5% afterburner CE for VOCs

d- emissions from AP-42 Tables 9.13.2-1 and 9.13.2-2

OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 - Fax 360-491-6308

FORM 1- NOTICE OF CONSTRUCTION

TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

Form 1 Instructions:

- 1. Please complete all the fields below. This NOC application is considered incomplete until signed.
- 2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records (www.orcaa.org/forms).
- 3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

information.					
Business Name:	For ORCAA use only				
Covabrelli Coffee, LLC		File No: 3/3			
Mailing Address:	County No: 67				
8804 Lake Lucinda Dr Su	olympia 90512	Source No: 58 Application No: 23 NOC 1629			
Physical Address of Project or New Source:		Date Received:			
584 Filler Tilley Ct SE # 112	- Tumwater 98512	Received			
Billing Address:	,	OCT 0 6 2023			
8804 Lake Lucinda Dr SW 01	ympia 98512	ORCAA			
Project or Equipment to be installed/established	ed:				
10K Mill City Coffee Roast	10K Mill City Coffee Roaster, Mistbuster 850 Smoke Eliminator				
Anticipated startup date: _ l / _l / _2o24 Is f	acility currently registered wit	h ORCAA? Yes X No			
This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option: SEPA was satisfied by					
Name of Owner of Business:		Agency Use Only			
Title: owner					
Email: coffee à covabrelli. com	Phone: 360 480-7003	CONDITIONALLY APPROVED			
Authorized Representative for Application (if di		FOR CONSTRUCTION ONLY			
		IN ACCORDANCE WITH			
Title:		RCW 70A.15, WAC 173-400			
Email:	Phone:	ORCAA REGULATIONS (SEE ATTACHED ADDENDUM FOR			
I hereby certify that the information contained in this knowledge, complete and correct.	application is, to the best of my	CONDITIONS OF APPROVAL)			
Signature of Owner or Authorized Representati	11/30/2023				
Lan Nemeth	Date: 10 /5 /23	ON CHATE 304			
IMPORTANT: Do not send via email or	CI DORCAN ON TO				
ORCAA must receive Original, hardcopy, sign	Totales (19)				
prior to processing appli	cation.				