ORDER OF APPROVAL

NOTICE OF CONSTRUCTION 23NOC1585

ISSUED to Pepsi Northwest Beverages, LLC on

APR 0 7 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 increase the isopropyl alcohol emission limit located at 3003 RW Johnson Blvd, in Tumwater ("Approved Location"), for operation solely as described in the associated Notice of Construction ("NOC") application #23NOC1585, is hereby GRANTED to Pepsi Northwest Beverages, 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current owners and operators of the equipment, and Applicant's heirs, successors and assigns unless amended or superseded by a subsequent Order issued by ORCAA or unless the equipment is permanently shut down.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 supersedes Order #21NOC1512 and is GRANTED, for the Approved Location, subject to the following Conditions of Approval:

1. **Approved Equipment.** The increase in isopropyl alcohol usage as described in Notice of Construction application No. 23NOC1585 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(l); 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 Pepsi

Emission Unit	Specifications:
EU1 – Boiler #1	• Make/Model: Miura, LX-300SGN • Manufacturer's serial #: 62030 • Customer Reference #: US01050101 • Design heat rate @ 11.54 MMBtu/hr • Natural gas only • Stack height & diameter: 30 ft & 20 in
EU2 – Boiler #2	• Make/Model: Miura, LX-300SGN-16 • Serial #: 22094 • Design heat rate @ 10 MMBtu/hr • Natural gas only • Stack height & diameter: 30 ft & 20 in
EU3 – Boiler #3	• Make/Model: Miura, LX-200SG, manufactured 2004 • Serial #: USO1030033 • Design heat rate @ 7.876 MMBtu/hr (200 hp) • Natural gas only & Low-NOx • Stack height & diameter: 30 ft & 20 in
EU4 – Coders (Inkjet Printers)	• Continuous Inkjet Printers • Number of units variable and may be replaced provided no increase in emissions per condition #2 below.
EU5 – Batch Mixing Operations	• Emissions of ethanol from batch mixing equipment and operations • Modifications of the batch mixing equipment and operations are allowed provided no increase in emissions per condition #3 below.
EU6 – Emergency Engine	• Make/Model: Cummins NTA, 855-G5 • 605 brake horsepower
EU7 – Cleaning and Laboratory Operations	Using isopropyl alcohol to: • Clean nozzles throughout facility to meet health and food safety standards • Disinfect and sterilize water ports in water room • Conduct microbial testing on bottling and canning lines

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

3. **Toxic Air Pollutant (TAP) Limits:** The following limits and conditions apply facility-wide:
   a. Emissions of Butanone (MEK) from the facility must not exceed 3,200 pounds over any 12-consecutive-month period;
   b. Emissions of 4-methylpentan-2-one (MIBK) from the facility must not exceed 290 pounds over any 12-consecutive-month period;
   c. Emissions of Propan-2-ol (isopropyl alcohol) from the facility must not exceed 1,800 pounds over any 12-consecutive-month period;
   d. Inks, makeup fluids or solvents containing any TAP other than Butanone (MEK), 4-methylpentan-2-one (MIBK) or Propan-2-ol (isopropyl alcohol) require prior approval by ORCAA.

   [Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2); WAC 173-460-040(3)]

4. **Ethanol Emission Limit:** Facility-wide ethanol emissions must not exceed 40 tons over any 12-consecutive-month period.
   [Regulatory Basis: ORCAA 6.1.2(l)]

5. **Emergency Generator Engine:** The following limits and requirements apply to the Cummins NTA, 855-G5 engine (engine) on the emergency generator:
   a. **Use Limit:** The engine shall only be operated as an emergency stationary reciprocating internal combustion engine (RICE) as defined in 40 CFR §63.6675.
   b. **Non-Emergency Operation:** Operation of the engine for testing and other non-emergency purposes allowed under 40 CFR §63.6640(f) shall not exceed 100 hours per any consecutive 12-month period as verified by a non-resettable run-time meter.
   c. **Emergency Operation:** There is no time limit on the use of the engine in emergency situations.
   d. **Fuel:** The engine must combust only diesel fuel with a sulfur content not greater than 15 ppm by weight.
   e. **Opacity Limit:** Visible emissions from the engine or must not exceed 10% opacity as measured in accordance with EPA 40 CFR Part 60 Appendix A Method 9.
   f. **Engine Replacements:** Replacing, adding or modifying any stationary engine may require prior approval by ORCAA.
   g. **Operations and Maintenance Plan:** Pepsi must devise, implement and update, when necessary, an Operations and Maintenance (O&M) plan for assuring good operating condition and repair of the engine. The O&M plan should be consistent with the manufacturer's emission-related written instructions for minimizing emissions.

   [Regulatory Basis: ORCAA Rule 6.1(a); ORCAA 6.1.2(l); 40 CFR part 52.2470(c), Table 6; ORCAA 6.1.4(a)(1) & (2); WAC 173-400-113(2)]

6. **Boilers:** The following limits and requirements apply to all boilers at the facility:
   a. **Stack Heights:** Exhaust stacks of all boilers must have a vertical discharge to the atmosphere at least 30 feet above grade. There should be no flow obstructions at the point of discharge from the stack (i.e., cap). However, a weatherproof stack exhaust configuration that does not obstruct the air flow as it exits the stack is acceptable.

b. **Approved Fuels:** The boilers are approved to burn natural gas or propane only unless prior approval is granted by ORCAA.
c. **Opacity Limit:** Visible emissions from the boilers must not exceed five percent opacity, six-minute rolling average, as determined in accordance with EPA 40 CFR Part 60 Appendix A, Method 9. This limit does not apply during periods of cold start-up. For the purpose of compliance with this condition, cold start-up is defined as the period of time beginning when the boiler is started and ending when the boiler reaches normal operating temperature. This opacity limit is in addition to the state-wide general opacity standard of 20% required under WAC 173-400-040(1) and ORCAA Rule 8.2.
d. **NO_x Limit:** Emissions of oxides of nitrogen (NO_x) from each boiler must not exceed 20 ppmvd @ 3% O_2 on a one-hour average basis, except during startup and shutdown.
e. **CO Limit**: Emissions of carbon monoxide (CO) from each boiler must not exceed 100 ppmvd @ 3% O^2 on a one-hour average basis, except during startup and shutdown.
f. **Boiler Tuning:** The boilers must be tuned every 5-years as follows:
    i. Tuning must include measuring concentrations of NO_x, CO and O_2 from each boiler under normal loading using an electrochemical cell combustion analyzer, analyzer used for reference method testing, or other analyzer pre-approved by ORCAA;
    ii. The analyzer(s) response to span gas of a known concentration must be determined before and after testing.
    iii. No more than 12 hours may elapse between span gas response checks.
    iv. The results of the analyzer response check are not valid if the pre and post response check results vary by more than 10% of the span gas value.
    v. The CO and NO_x span gas concentrations must be no less than 50% and no more than 200% of the emission concentration corresponding to the Manufacturer's recommended operating range for the boiler.
    vi. A lower concentration span gas may be used if it is more representative of measured concentrations.
    vii. Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.
    viii. Corrective actions must be initiated promptly if results from tuning show O_2, NO_x or CO concentrations to be out-of-range, and then rechecked to confirm the boiler is operating properly.
g. **Boiler Replacements:** Replacing, adding or modifying any boiler may require prior approval by ORCAA.
h. **Boiler Operations and Maintenance Plan – Pepsi must:**
    i. Follow recommended operation and maintenance procedures supplied by the manufacturer of the boilers; and,
    ii. Keep a copy of the recommended operation and maintenance procedures supplied by the manufacturer of the boilers.

[Regulatory Basis: ORCAA Rule 6.1(a); ORCAA 6.1.2(l); WAC 173-400-110(2); WAC 173-400-111(10); ORCAA 6.1.4(a)(1) & (2); WAC 173-400-113(2)]

7. **Boiler Testing:** When required by ORCAA, Pepsi must conduct testing of the boilers to verify compliance with emission limits as follows:
   a. All testing will be in accordance with federal reference methods 1, 2, 3, 4, 5, 7e, 9 and 10 found of 40 CFR Part 60, appendix A. Equivalent methods may be used if approved by ORCAA in advance.
   b. Pepsi must submit to ORCAA for approval, a Test Plan specifying test methods, equipment and procedures proposed to be used during stack testing. The Test Plan must be submitted at least 30 days prior to any stack testing used for compliance demonstration purposes.
   c. Pepsi must submit to ORCAA results from any stack testing within 45 days from conducting the test unless prior approval is granted by ORCAA.

   [Regulatory Basis: ORCAA 1.5(i)]

8. **TAP and VOC Monitoring:** On a monthly basis, Pepsi must determine compliance with the limits in Conditions #3 and #4 based on actual material use rates, actual material compositions and mass-balance calculations.
   [Regulatory Basis: ORCAA 6.1.4(a)(2); 40 CFR part 52.2470(c), Table 6]

9. **Operation & Maintenance for Solvents:** Pepsi implement an operations & maintenance plan (O&M plan) to address the following requirements:
   a. Keep solvents, solvent-containing cloths, or other materials used to wipe down surfaces with a solvent in closed, air-tight containers when not in use.
   b. Minimize and promptly cleanup all solvent material spills and leaks.

   [Regulatory Basis: ORCAA 6.1.4(a)(2); ORCAA Rule 4.3(g); 40 CFR part 52.2470(c), Table 6]

10. **Required Records:** The following records are required to be maintained at the facility for at least 5-years from origination and made available to ORCAA upon request:
    a. The Operations and Maintenance Plan for the engine required by condition #5(g);
    b. A running log of engine run-time showing dates the engine was operated (including readiness testing), the mode of operation (i.e., emergency, non-emergency, testing) cumulative run-time for each event and cumulative run-time for each mode of operation over each 12-consecutive month period;
    c. Purchase invoices indicating the supplier, date, quantity, grade, and sulfur content of all diesel used to fuel the Emergency Generator Engine;
    d. Copy of the recommended operation and maintenance procedures supplied by the manufacturer of each boiler;
    e. A monthly log of natural gas combusted at the facility;
    f. Results from any boiler tuning or stack testing conducted;
    g. Safety Data Sheets for the inks, make-up fluids and solvents used;
    h. Monthly inventory of the amounts of inks, make-up fluids and solvents used during the previous 12-month period;
    i. Monthly inventory of the amounts of Ethanol, Butanone (MEK), 4-methylpentan-2-one (MIBK) and Propan-2-ol (isopropyl alcohol) emissions over the previous 12-month and the corresponding spreadsheet showing emissions calculations used to compile the inventory;
    j. The annual emissions inventory submitted to ORCAA;

k. A copy of the O&M Plan developed to ensure compliance with the provisions in condition #9.

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

3/22/23

PREPARED BY: Lauren Whybrew, Engineer II Date

4/7/23

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

Serving Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties.

NEW SOURCE
FINAL DETERMINATION to APPROVE:

Increase Isopropyl Alcohol Permit Limits

Pepsi Northwest Beverages, LLC

23NOC1585

March 22, 2023

Table of Contents

NOTICE OF CONSTRUCTION
FINAL DETERMINATION TO APPROVE

Olympic Region Clean Air Agency

Issued to:	**Pepsi Northwest Beverages, LLC**	**County:**	**Thurston**
Location:	**3003 RW Johnson Blvd Tumwater, WA 98512**	**Source:** **RC:**	**600 RC2**
Application #:	**23NOC1585**	**File:**	**781**
Prepared on:	**March 22, 2023**		

1. Summary

Pepsi Northwest Beverages, LLC (Pepsi) seeks approval from Olympic Region Clean Air Agency (ORCAA) to increase the existing isopropyl alcohol limit established in #21NOC1512 at 3003 RW Johnson Blvd, Tumwater, Washington. Isopropyl alcohol (IPA) is a regulated Toxic Air Pollutant (TAP) in Washington State; increasing the existing permitted emission limit for IPA is considered a modification of an existing stationary source because the proposal is expected to increase Pepsi's potential to emit for IPA. Therefore, the proposal to increase the IPA emission limit is subject to review and conditional approval under ORCAA's New Source Review (NSR) program. ORCAA staff reviewed Pepsi's proposal and concluded it may be conditionally approved. Recommended conditions of approval are detailed in Section 16 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), Table 6[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) application[2], 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 area[3] 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:

1. ***Performance Standards*** - The new stationary source will likely comply with applicable air-performance 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 Controls for New Sources of Toxic Air Pollutants under Chapter 173-460 WAC are met.

In this case, Pepsi is proposing to increase the existing isopropyl alcohol (IPA) emission limit, established under #21NOC1512, at their manufacturing plant located in Tumwater, Washington. Isopropyl alcohol (IPA) is a regulated Toxic Air Pollutant (TAP) in Washington State; increasing the existing permitted emission limit for IPA is considered a modification of an existing stationary source because the proposal is expected to increase Pepsi's potential to emit for IPA. Therefore, the proposal to increase the IPA emission limit is subject to review and conditional approval under ORCAA's New Source Review (NSR) program.

3. Facility Background

[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.

Pepsi has been registered with ORCAA since 1992. The recognized stationary sources of emissions at the facility include three existing natural gas-fired boilers, inkjet printers, process VOC emissions from batch mixing operations and cleaning operations, and a diesel emergency generator. The following is a summary of Pepsi's NSR actions with ORCAA:

Table 1: Permitting History with ORCAA

Permit # *(date)*	Description	Status
93NOC527	Two new Envirotec Energy System boilers.	Superseded
95NOC622	New Bryan boiler	Superseded
07NOC569 *(1/28/2008)*	Diesel-fired emergency generator	Superseded
11NOC820 *(6/2/2011)*	Two new Miura boilers and four new inkjet printers.	Superseded
15NOC1079 *(4/20/2016)*	Boiler replacement, add batch-mixing operations, flexible permit provisions	Superseded
16NOC1192 *(1/4/2017)*	Boiler replacement	Superseded
18NOC1293 *(10/29/2018)*	Boiler replacement	Superseded
20NOC1429 *(5/12/2020)*	Request to increase isopropyl alcohol emission limit from 50 lbs/year to 1,000 lbs/year	Superseded
21NOC1512 *(11/10/2021)*	Boiler replacement	Will be superseded upon issuance of 21NOC1512
23NOC1585 *(current)*	Current application – Request to increase existing 1,000 lbs/year isopropyl alcohol emission limit	Will be only active NOC upon issuance

4. Facility Description

Pepsi is a beverage bottling facility that mixes, carbonates and bottles soft-drink beverages. Concentrated syrups of proprietary composition are used to batch-mix the various beverages produced and bottled. Batch mixing operations result in minor emissions of ethanol, which is contained in the concentrated syrups in varying degrees. Ethanol is a Volatile Organic Compound (VOC) and is monitored by Pepsi and reported to ORCAA through an annual emissions inventory. Batch missing operations have been approved with ORCAA since the facility first registered as an air pollution source. Emissions of ethanol from batch-mixing operations are subject to a plant-wide emission limit that was established in 2016 by ORCAA through approval of #15NOC1079.

Inkjet printers, referred to as "coders" by Pepsi, are used to print labels on all beverage containers produced. Volatiles in the inks used by the coders causes emissions of certain Toxic Air Pollutants (TAP), which are regulated by ORCAA. Currently, the facility operates twelve coders in the bottling lines. Existing coders at the facility have gone through NSR and are approved and registered with ORCAA. In addition, the facility has a "flexible permit" issued by ORCAA with respect to coders whereby the number of coders at the facility can be changed without ORCAA's prior approval through NSR, provided the composition of inks used by the coders remains the same and emissions remain below established limits. This flexibility was accomplished through a previous Approval Order issued by ORCAA for Pepsi (NOC #15NOC1079), which does not specify the number of coders approved or make/model of the coders, but instead imposes limits on the amount and composition of the inks used and on

emissions. Therefore, replacing or adding coders is allowed and does not trigger NSR, provided the limits on ink usage and composition are met and provided emissions limits are maintained.

Pepsi operates one diesel-fired emergency generator. The generator is a 605 horsepower, Cummins, NTA 855-G5 model generator. It was conditionally approved by ORCAA under NOC #07NOC569 in 2007. The generator is approved for emergency service only, which allows up to 100 hours per year for testing the generator.

Batch mixing operations require hot water and steam, which is provided by gas-fired boilers. Gas-fired boilers emit products of combustion including regulated air pollutants such as Carbon Monoxide (CO) and Oxides of Nitrogen (NO_x). The facility currently utilizes three boilers; each one went through NSR and are approved and registered by ORCAA.

Pepsi uses isopropyl alcohol for cleaning the equipment throughout the facility. Isopropyl alcohol (IPA) is a Toxic Air Pollutant (TAP) and is monitored by Pepsi and reported to ORCAA through an annual emissions inventory report. The use of IPA throughout the facility is necessary to meet food and health safety standards (e.g., cleaning nozzles between product runs). Due to increased production on both of Pepsi's bottle and can lines, Pepsi is required to do more microbial testing. Microbial testing requires Pepsi to use IPA more frequently, thereby triggering the need to request for an increase in the permitted IPA emission limit under this permitting action.

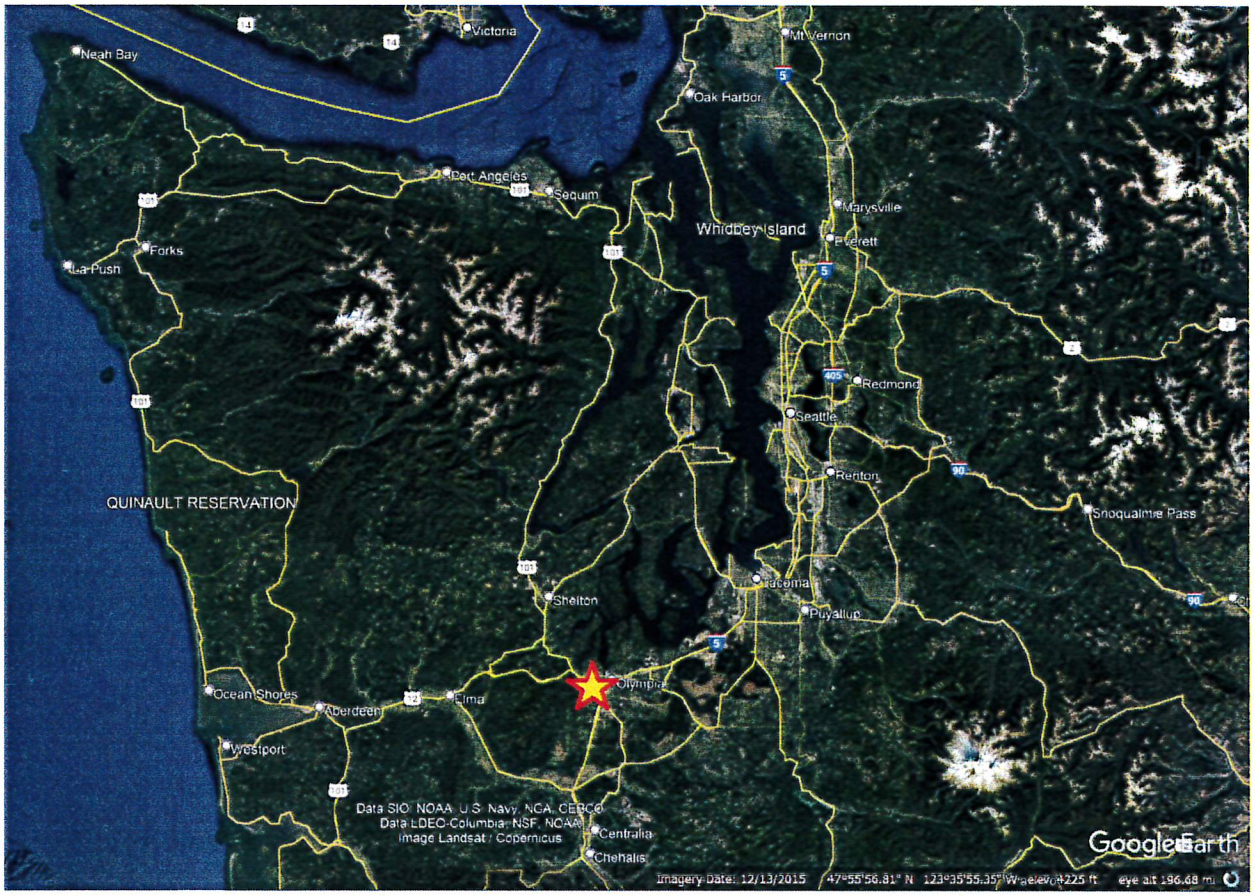
Table 2: Existing Emission Units

Emission Unit	Description
EU1 – Miura Boiler #1	• Make/Model: Miura, LX-300SGN-16 • Manufacturer's serial #: 62030 • Customer Reference #: US01050101 • Design heat rate @ 11.54 MMBtu/hr • Natural gas only & Low NOx technology • Stack height & diameter: 30 ft & 20 in • Stack temp: ~350 F Approved by ORCAA in 2018
EU2 – Miura Boiler #2	• Make/Model: Miura, LX-300SGN-16 • Serial #: 22094 • Design hate rate @ 10 MMbtu/hr • Natural gas only & low NOx technology • Stack height & diameter: 30 ft & 20 in • Stack temperature: ~350° F • Approved by ORCAA in 2021
EU3 – Miura Boiler #3	• Make/Model: Miura, LX-200SG • Serial #: USO1030033 • Design heat rate @ 7.876 MMBtu/hr (200 hp) • Natural gas only & Low-NOx • Stack height & diameter: 30 ft & 20 in. (OD) • Stack temp: 270 – 300 F • Approved by ORCAA in 2017
EU4 – Coders (Inkjet Printers)	• Continuous inkjet printers • Variable # of units

	• For application of inks (including make-up fluids) containing only the following TAPs:
	  ○ Methyl Ethyl Ketone (MEK), CAS# 78-93-3
	  ○ Isopropyl Alcohol, CAS# 67-63-0
	  ○ Methyl Isobutyl Ketone (MIBK), CAS# 108-10-1

EU5 – Batch Mixing Operations	• Batch mixing of syrups containing ethanol • Emissions through batch mixing room ventilation system
EU6 – Emergency Generator	• Make/Model: Cummins NTA, 855-G5 • Power rating: 605 brake horsepower • Generator size: 451 kW • Approved by ORCAA in 2007
EU7 – Cleaning and Laboratory Operations	• Cleaning capper heads and filler valves throughout facility using isopropyl alcohol to meet health and food safety standards • Disinfect and sterilize water ports in water room • Used in microbial testing on bottling and canning lines

Figure 1: Pepsi's Tumwater Manufacturing Plant Location



*Imagery ©2022 Google LLC, Google Earth Pro 7.3.6.9345 (64-bit)
** Annotated by ORCAA

Figure 2: Pepsi Tumwater Manufacturing Plant Property

* Imagery ©Pictometry International Corp | Thurston County GeoData Center, Thurston County, WA
** Annotated by ORCAA

Pepsi reports actual calendar-year emissions for the Tumwater Manufacturing facility on an annual basis as part of ORCAA's emission inventory program. Registered emission and process units that are reported on the emission inventory include the natural-gas fired boilers (EU1-EU3), the inkjet coders (EU4), the product batchers (EU5), and isopropanol usage for cleaning operations (EU7). Below are the actual emissions report in the 2021 emission inventory.

Table 3: Actual Emissions for Calendar Year 2021

Pollutant	Classification (Criteria[a]/HAP[b]/TAP[c])	Annual Emissions	Units
PM (Total Particulate)	Contains Criteria	0.03	Tons/yr
PM_{10} (Total Particulate) (<= 10)	Criteria	0.03	Tons/yr
$PM_{2.5}$ (Fine Particulate (<=2.5)	Criteria	0.02	Tons/yr
Ground Level Ozone (O_3)	Criteria	*Not Evaluated*	
VOC[d] (Volatile Organic Compounds as VOC)	Criteria (Precursor to ground level ozone)	20.5	Tons/yr
SO_2[e] (Sulfur Dioxide)	Criteria	0.03	Tons/yr
NO_x (Nitrogen Oxides)	Contains Criteria	2.7	Tons/yr
CO (Carbon Monoxide)	Criteria and TAP	4.5	Tons/yr
Lead	Criteria and TAP	*Not Evaluated*	
Hazardous Air Pollutants (total HAP)[f]	HAP	0.5	Tons/yr
Isobutyl Ketone (CAS# 108-10-1)	HAP and TAP	10.1	Lbs/yr
Isopropyl Alcohol (CAS# 67-63-0)	TAP	665	Lbs/yr
Ethanol[g] (CAS# 64-17-5)	Criteria (VOC)	38,565	Lbs/yr
Methyl Ethyl Ketone (CAS# 78-93-3)	TAP	1,154	Lbs/yr

[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 (O_3)
[e] SO_2 based on 100% conversion for fuel sulfur to SO_2
[f] HAPs from boilers' combustion of natural gas not evaluated
[g] Ethanol is not a TAP or HAP, but is included separately for informational purposes because it accounts for most of Pepsi's VOC emissions.

5. Project Description

Pepsi uses isopropyl alcohol for cleaning the equipment throughout the facility. Isopropyl alcohol (IPA) is a Toxic Air Pollutant (TAP) and is monitored by Pepsi and reported to ORCAA through an annual emissions inventory report. The use of IPA throughout the facility is necessary to meet food and health safety standards (e.g., cleaning nozzles between product runs). Due to increased production on both of Pepsi's bottle and can lines, Pepsi is required to do more microbial testing. Microbial testing requires Pepsi to use IPA more frequently, thereby triggering the need to request for an increase in the permitted IPA emission limit under this permitting action. Other than IPA, PTE is not expected to increase.

Table 4: Modified Emission Unit

Emission Unit	Description
EU7 – Cleaning and Laboratory Operations	• Cleaning capper heads and filler valves throughout facility using isopropyl alcohol to meet health and food safety standards • Disinfect and sterilize water ports in water room • Used in microbial testing on bottling and canning lines Pepsi requests approval to increase the existing 1,000 lbs/12-mo IPA limit to 1,800 lbs/12-mo to allow for increased IPA usage, to accommodate increased production on Pepsi's bottling and canning lines.

6. Emission Increases

Since IPA is the only pollutant expected to increase as part of this proposal, ORCAA staff evaluated potential emissions increases through the lens of Washington State's Air Toxics Rule, Chapter 173-460 WAC, to determine what increase is allowable to establish Pepsi's PTE for IPA via an emissions limit.

Please refer to Section 13, Ambient Impact Analysis (Toxic Air Pollutants), for more details on how ORCAA staff evaluated the emission increases associated with Pepsi's request to increase the IPA emission limit in NOC# 21NOC1512.

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 Pepsi'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 Pepsi's NOC application was posted on ORCAA's website on February 28th, 2023. The time period for filing comments on the application and requests for a public comment period expired on March 15th, 2023. No comments on the NOC application or requests for a public comment period or hearing were received during the NOC application noticing period. Based on this result, neither a public comment period nor public hearing were initiated.

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.

This proposal is exempt from a threshold determination and environmental impact statement (EIS) per WAC 197-11-800(3) because it involves no material expansions or changes in use beyond that previously existing.

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:

1. ***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;
2. ***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;
5. ***Washington Air Toxics Regulations*** - If there are increases in toxic air pollutant (TAP) emissions, the requirements of Washington's Controls for New Sources of Toxic Air Pollutants 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 5 were determined applicable to the proposed increase in IPA emissions. The performance standards in Table 6 were determined relevant to the proposed increase in IPA usage, but inapplicable. 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 5: Applicable Performance Standards specific to the proposed increase in IPA emissions

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	discussion/determination
ORCAA Requirements, Prohibitions, and Performance Standards *ORCAA Regulations 4, 7 and 8*	These general regulations may apply to any source or emission unit causing air pollution.	Compliance likely
General Regulations for Air Pollution Sources *WAC Chapter 173-400*	Implementing the WCAA, these regulations may apply to any source where any emission unit is required to use RACT. A more detailed description of the general regulations is shown Table A1 of Appendix 1.	Compliance likely
Requirements for New Sources of Toxic Air Pollutants *WAC Chapter 173-460*	Implementing the WCAA, these regulations may apply to any source emitting TAPs, where the source must quantify the increase of each TAP emission, employ T-BACT, and prevent air pollution maintaining an air quality that will protect human health.	Compliance likely

Table 6: Relevant Performance Standards Determined Inapplicable

Regulation Title Citation	Relevant Performance Standard Determined Inapplicable	Basis
Standards of Performance for the Beverage Can Surface Coating Industry *40 CFR Part 60, Subpart WW*	Standards that apply to all new, modified, and reconstructed beverage can surface coating operations (excluding containers for fruit and vegetable juices).	Pepsi does not coat aluminum cans. IPA is used to clean and disinfect equipment.
Surface Coating of Metal Cans: National Emission Standards for Hazardous Air Pollutants *40 CFR Part 63, Subpart KKKK*	Establishes emission standards for HAPs from metal can surface coating facilities.	Pepsi does not coat metal cans. IPA is used to clean and disinfect equipment.
Surface Coating of Miscellaneous Metal Parts and Products: National Emission Standards for Hazardous Air Pollutants *40 CFR Part 63, Subpart MMMM*	Establishes national emission standards for HAPs from miscellaneous metal parts and products surface coating facilities.	Pepsi does not conduct any coating operations, and IPA is not a regulated HAP.

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."

ORCAA staff's conclusion is that the following meets BACT for increasing the isopropyl alcohol emission limit:

- Proper disposal and storage of solvents according to O&M plan
- Enforceable emission limit and associated monthly monitoring including actual material use rates, actual material compositions and mass-balance calculations.

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.

The only pollutant expected to increase as part of this permitting action is IPA, which does not have an associated AAQS. Therefore, this criterion is met.

13. Ambient Impact Analysis (Toxic Air Pollutants)

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

ORCAA staff's conclusion is that the following meets tBACT for increasing the isopropyl alcohol emission limit:

- Proper disposal and storage of solvents according to O&M plan
- Enforceable emission limit and associated monthly monitoring including actual material use rates, actual material compositions and mass-balance calculations.

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 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.

In NOC# 20NOC1429, Pepsi requested a limit of 1,000 lbs of isopropyl alcohol per year. Since the Small Quantity Emission Rate (SQER) for isopropyl alcohol is listed as an hourly standard in Chapter 173-460 WAC, ORCAA staff conservatively evaluated hourly isopropyl alcohol emissions by assuming Pepsi uses the cleaning products for an average of one hour per day, six days per week, and 52 weeks a year. This conservative assumption meant that hourly isopropyl alcohol emissions would only amount to 3.2 lbs of isopropyl alcohol per hour. For this permitting action, ORCAA staff elected to apply the same logic to establish an 1,800 lbs/12-month limit, which would correspond to 5.8 lbs/hr. The SQER for isopropyl alcohol is 5.9 lbs/hr; therefore, emissions of IPA can be presumed to be in compliance with the ambient impact requirement of the Air Toxics Rule.

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.

Pepsi 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.

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

16. Conditions of Approval

The recommended Conditions of Approval for this application are largely identical to the conditions established through previous NOC approvals issued to Pepsi. The strikethrough and underlined text in Condition #3 show the recommended changes for this application, #23NOC1585. The recommended conditions of approval will become effective once the approval order is issued, and will supersede all past Approval Orders issued by ORCAA for this facility.

1. **Approved Equipment.** The increase in isopropyl alcohol usage as described in Notice of Construction application No. 23NOC1585 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(l); 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 Pepsi

Emission Unit	Specifications:
EU1 – Boiler #1	• Make/Model: Miura, LX-300SGN • Manufacturer's serial #: 62030 • Customer Reference #: US01050101 • Design heat rate @ 11.54 MMBtu/hr • Natural gas only • Stack height & diameter: 30 ft & 20 in
EU2 – Boiler #2	• Make/Model: Miura, LX-300SGN-16 • Serial #: 22094 • Design heat rate @ 10 MMBtu/hr • Natural gas only

	• Stack height & diameter: 30 ft & 20 in
EU3 – Boiler #3	• Make/Model: Miura, LX-200SG, manufactured 2004 • Serial #: USO1030033 • Design heat rate @ 7.876 MMBtu/hr (200 hp) • Natural gas only & Low-NOx • Stack height & diameter: 30 ft & 20 in
EU4 – Coders (Inkjet Printers)	• Continuous Inkjet Printers • Number of units variable and may be replaced provided no increase in emissions per condition #2 below.
EU5 – Batch Mixing Operations	• Emissions of ethanol from batch mixing equipment and operations • Modifications of the batch mixing equipment and operations are allowed provided no increase in emissions per condition #3 below.
EU6 – Emergency Engine	• Make/Model: Cummins NTA, 855-G5 • 605 brake horsepower
EU7 – Cleaning and Laboratory Operations	Using isopropyl alcohol to: • Clean nozzles throughout facility to meet health and food safety standards • Disinfect and sterilize water ports in water room • Conduct microbial testing on bottling and canning lines

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

3. **Toxic Air Pollutant (TAP) Limits:** The following limits and conditions apply facility-wide:
   a. Emissions of Butanone (MEK) from the facility must not exceed 3,200 pounds over any 12-consecutive-month period;
   b. Emissions of 4-methylpentan-2-one (MIBK) from the facility must not exceed 290 pounds over any 12-consecutive-month period;
   c. Emissions of Propan-2-ol (isopropyl alcohol) from the facility must not exceed ~~1,000~~ 1,800 pounds over any 12-consecutive-month period;
   d. Inks, makeup fluids or solvents containing any TAP other than Butanone (MEK), 4-methylpentan-2-one (MIBK) or Propan-2-ol (isopropyl alcohol) require prior approval by ORCAA.

   [Regulatory Basis: ORCAA Rule 6.1.4(a)(2); WAC 173-400-113(2); WAC 173-460-040(3)]

4. **Ethanol Emission Limit:** Facility-wide ethanol emissions must not exceed 40 tons over any 12-consecutive-month period.
   [Regulatory Basis: ORCAA 6.1.2(l)]

5. **Emergency Generator Engine:** The following limits and requirements apply to the Cummins NTA, 855-G5 engine (engine) on the emergency generator:
   a. **Use Limit:** The engine shall only be operated as an emergency stationary reciprocating internal combustion engine (RICE) as defined in 40 CFR §63.6675.

b. **Non-Emergency Operation:** Operation of the engine for testing and other non-emergency purposes allowed under 40 CFR §63.6640(f) shall not exceed 100 hours per any consecutive 12-month period as verified by a non-resettable run-time meter.
c. **Emergency Operation:** There is no time limit on the use of the engine in emergency situations.
d. **Fuel:** The engine must combust only diesel fuel with a sulfur content not greater than 15 ppm by weight.
e. **Opacity Limit:** Visible emissions from the engine or must not exceed 10% opacity as measured in accordance with EPA 40 CFR Part 60 Appendix A Method 9.
f. **Engine Replacements:** Replacing, adding or modifying any stationary engine may require prior approval by ORCAA.
g. **Operations and Maintenance Plan:** Pepsi must devise, implement and update, when necessary, an Operations and Maintenance (O&M) plan for assuring good operating condition and repair of the engine. The O&M plan should be consistent with the manufacturer's emission-related written instructions for minimizing emissions.

[Regulatory Basis: ORCAA Rule 6.1(a); ORCAA 6.1.2(l); 40 CFR part 52.2470(c), Table 6; ORCAA 6.1.4(a)(1) & (2); WAC 173-400-113(2)]

6. **Boilers:** The following limits and requirements apply to all boilers at the facility:
   a. **Stack Heights:** Exhaust stacks of all boilers must have a vertical discharge to the atmosphere at least 30 feet above grade. There should be no flow obstructions at the point of discharge from the stack (i.e., cap). However, a weatherproof stack exhaust configuration that does not obstruct the air flow as it exits the stack is acceptable.
   b. **Approved Fuels:** The boilers are approved to burn natural gas or propane only unless prior approval is granted by ORCAA.
   c. **Opacity Limit:** Visible emissions from the boilers must not exceed five percent opacity, six-minute rolling average, as determined in accordance with EPA 40 CFR Part 60 Appendix A, Method 9. This limit does not apply during periods of cold start-up. For the purpose of compliance with this condition, cold start-up is defined as the period of time beginning when the boiler is started and ending when the boiler reaches normal operating temperature. This opacity limit is in addition to the state-wide general opacity standard of 20% required under WAC 173-400-040(1) and ORCAA Rule 8.2.
   d. **NO_x Limit:** Emissions of oxides of nitrogen (NO_x) from each boiler must not exceed 20 ppmvd @ 3% O_2 on a one-hour average basis, except during startup and shutdown.
   e. **CO Limit**: Emissions of carbon monoxide (CO) from each boiler must not exceed 100 ppmvd @ 3% O^2 on a one-hour average basis, except during startup and shutdown.
   f. **Boiler Tuning:** The boilers must be tuned every 5-years as follows:
      i. Tuning must include measuring concentrations of NO_x, CO and O_2 from each boiler under normal loading using an electrochemical cell combustion analyzer, analyzer used for reference method testing, or other analyzer pre-approved by ORCAA;
      ii. The analyzer(s) response to span gas of a known concentration must be determined before and after testing.
      iii. No more than 12 hours may elapse between span gas response checks.
      iv. The results of the analyzer response check are not valid if the pre and post response check results vary by more than 10% of the span gas value.

v. The CO and NO_x span gas concentrations must be no less than 50% and no more than 200% of the emission concentration corresponding to the Manufacturer's recommended operating range for the boiler.

vi. A lower concentration span gas may be used if it is more representative of measured concentrations.

vii. Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.

viii. Corrective actions must be initiated promptly if results from tuning show O_2, NO_x or CO concentrations to be out-of-range, and then rechecked to confirm the boiler is operating properly.

g. **Boiler Replacements:** Replacing, adding or modifying any boiler may require prior approval by ORCAA.

h. **Boiler Operations and Maintenance Plan – Pepsi must:**

i. Follow recommended operation and maintenance procedures supplied by the manufacturer of the boilers; and,

ii. Keep a copy of the recommended operation and maintenance procedures supplied by the manufacturer of the boilers.

[Regulatory Basis: ORCAA Rule 6.1(a); ORCAA 6.1.2(l); WAC 173-400-110(2); WAC 173-400-111(10); ORCAA 6.1.4(a)(1) & (2); WAC 173-400-113(2)]

7. **Boiler Testing:** When required by ORCAA, Pepsi must conduct testing of the boilers to verify compliance with emission limits as follows:

a. All testing will be in accordance with federal reference methods 1, 2, 3, 4, 5, 7e, 9 and 10 found of 40 CFR Part 60, appendix A. Equivalent methods may be used if approved by ORCAA in advance.

b. Pepsi must submit to ORCAA for approval, a Test Plan specifying test methods, equipment and procedures proposed to be used during stack testing. The Test Plan must be submitted at least 30 days prior to any stack testing used for compliance demonstration purposes.

c. Pepsi must submit to ORCAA results from any stack testing within 45 days from conducting the test unless prior approval is granted by ORCAA.

[Regulatory Basis: ORCAA 1.5(i)]

8. **TAP and VOC Monitoring:** On a monthly basis, Pepsi must determine compliance with the limits in Conditions #3 and #4 based on actual material use rates, actual material compositions and mass-balance calculations.
[Regulatory Basis: ORCAA 6.1.4(a)(2); 40 CFR part 52.2470(c), Table 6]

9. **Operation & Maintenance for Solvents:** Pepsi implement an operations & maintenance plan (O&M plan) to address the following requirements:

a. Keep solvents, solvent-containing cloths, or other materials used to wipe down surfaces with a solvent in closed, air-tight containers when not in use.

b. Minimize and promptly cleanup all solvent material spills and leaks.

[Regulatory Basis: ORCAA 6.1.4(a)(2); ORCAA Rule 4.3(g); 40 CFR part 52.2470(c), Table 6]

10. Required Records: The following records are required to be maintained at the facility for at least 5-years from origination and made available to ORCAA upon request:

- **a.** The Operations and Maintenance Plan for the engine required by condition #5(g);
- **b.** A running log of engine run-time showing dates the engine was operated (including readiness testing), the mode of operation (i.e., emergency, non-emergency, testing) cumulative run-time for each event and cumulative run-time for each mode of operation over each 12-consecutive month period;
- **c.** Purchase invoices indicating the supplier, date, quantity, grade, and sulfur content of all diesel used to fuel the Emergency Generator Engine;
- **d.** Copy of the recommended operation and maintenance procedures supplied by the manufacturer of each boiler;
- **e.** A monthly log of natural gas combusted at the facility;
- **f.** Results from any boiler tuning or stack testing conducted;
- **g.** Safety Data Sheets for the inks, make-up fluids and solvents used;
- **h.** Monthly inventory of the amounts of inks, make-up fluids and solvents used during the previous 12-month period;
- **i.** Monthly inventory of the amounts of Ethanol, Butanone (MEK), 4-methylpentan-2-one (MIBK) and Propan-2-ol (isopropyl alcohol) emissions over the previous 12-month and the corresponding spreadsheet showing emissions calculations used to compile the inventory;
- **j.** The annual emissions inventory submitted to ORCAA;
- **k.** A copy of the O&M Plan developed to ensure compliance with the provisions in condition #9.

[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 Pepsi's proposed emission limit increase for isopropyl alcohol, provided the conditions identified in Section 16 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 ~

Lauren Whybrew 3/22/23

PREPARED BY: Lauren Whybrew Date

Mark Goodin 4/7/23

REVIEWED BY: Mark Goodin, PE Date

Attachments

Applicable Performance Standards that apply to Pepsi Northwest Beverages, LLC

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.	Pepsi 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.	Pepsi 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.	Pepsi will continue to be a registered minor source.
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.	Pepsi because the facility will continue to be a registered minor source.
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.	Applies to Pepsi because the facility is a stationary source subject to registration.
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 must 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.

Attachments

Title Citation	Brief Description (Consult rule/regulation for specific requirements)	Applies to
	order or registration certificate to be displayed, it must be posted. It is unlawful for any person to mutilate, obstruct, or remove any order or registration certificate unless authorized to do so by the Board or the Executive Director.	
General Requirements WAC 173-400-040(1)(c) ORCAA Rule 8.3	All emissions units are required to use reasonably available control technology (RACT).	Applies generally to all air pollution sources.
Visible Emissions WAC 173-400-040(2) ORCAA Rule 8.2(a)	Prohibits emissions with opacity of greater than 20% for more than three (3) minutes in any one hour.	Applies generally to all air pollution sources
Sulfur Dioxide WAC 173-400-040(7)	No person shall cause or allow the emission from any emissions unit in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected to seven percent oxygen for combustion sources, and based on the average of any period of sixty consecutive minutes.	Applies generally to facilities that emit Sulfur Dioxide.
Control Equipment Maintenance and Repair ORCAA Rule 8.8	ORCAA Rule 8.8 requires that all air contaminant sources keep any process and/or air pollution control equipment in good operating condition and repair.	Applies generally to all air pollution control devices.
Fallout WAC 173-400-040(3) ORCAA Rule 8.3(e)	Prohibits particulate emissions 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 was deposited.	Applies generally to all air pollution sources.
Fugitive Emissions WAC 173-400-040(4)(a) ORCAA Rule 8.3(c)	The owner or operator of any emissions unit engaging in materials handling, construction, demolition, or other operation which is a source of fugitive emission shall take reasonable precautions to prevent the release of air contaminants from the operation.	Applies generally to any activity that results in fugitive emissions.
Odor WAC 173-400-040(5) ORCAA Rule 8.5	ORCAA Rule 8.5 contains general requirements for controlling odors and a general prohibition of odors that unreasonably interfere with the use or enjoyment of a person's property.	Applies generally to all air pollution sources.
Emissions Detrimental to Persons or Property WAC 173-400-040(6) ORCAA Rule 7.6	Prohibits causing or allowing the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	Applies generally to all air pollution sources
Concealment and Masking WAC 173-400-040(8) ORCAA Rule 7.5	Prohibits installation or use of any device or means to conceal or mask emissions of an air contaminant, which causes detriment to health, safety, or welfare of any person, or causes damage to property or business.	Applies generally to all air pollution sources
Fugitive Dust WAC 173-400-040(9)	The owner or operator of a source or activity that generates fugitive dust must take reasonable precautions to prevent that fugitive dust from	Applies to any activity that results in fugitive dust.

Attachments

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 WAC 173-400-107; WAC 173-400-108 ORCAA 8.7	Requires excess emissions be reported to the 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. ORCAA Rule 8.11	Requires the following: 1. Maintenance of records on the nature and amounts of emissions and other related information as deemed necessary by ORCAA; 2. Reporting of emissions to ORCAA upon request.	Required of all facilities registered with ORCAA.
Particulate Standards for Combustion Units ORCAA Rule 8.3(a) WAC 173-400-050(1)	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.	Applies generally to all stationary combustion units that exhaust to the atmosphere.

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.

Business Name: Pepsi Northwest Beverages, LLC

Mailing Address: 3003 RW Johnson Blvd, Tum, Wa 98512

Physical Address of Project or New Source: Same

Billing Address: Same

For ORCAA use only

File No: 781
County No: 67
Source No: 600
Application No: 23NOC1585

Date Received: Received FEB 06 2023 ORCAA

Project or Equipment to be installed/established:

Anticipated startup date: 3 / 1 / 23 Is facility currently registered with ORCAA? Yes ☑ 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 _____ (government agency) on ___/___/___ (date) - Include a copy of the SEPA determination
- ☐ SEPA threshold determination by _____ (government agency) is pending - Include a copy of the environmental checklist
- ☐ ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist
- ☐ This project is exempt from SEPA per _____ (WAC citation).

Name of Owner of Business:

Title:

Email: Phone:

Authorized Representative for Application (if different than owner): Grant Bistritz

Title: General Manager

Email: Grant.Bistritz@pepsico.com Phone: 360-970-3289

I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.

Signature of Owner or Authorized Representative: (sign in Blue Ink)

Date: 02/06/2023

IMPORTANT: Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.

Agency Use Only

CONDITIONALLY APPROVED FOR CONSTRUCTION ONLY IN ACCORDANCE WITH RCW 70A.15, WAC 173-400 ORCAA REGULATIONS (SEE ATTACHED ADDENDUM FOR CONDITIONS OF APPROVAL)

4/7/2023 DATE

ORCAA