NOTICE OF CONSTRUCTION

PRELIMINARY DETERMINATION TO APPROVE

Olympic Region Clean Air Agency

Issued to:	**Crown Cork & Seal**		
Location:	**1202 Fones Road**	**File:**	**152**
	Olympia, WA 98501	**Cnty:**	**67**
Application:	**20NOR1454**	**SRCE:**	**8**
Prepared on:	**October 8, 2020**	**RC:**	**OP1**

1. Proposal and Preliminary Determination

Crown Cork & Seal (Crown) is an existing aluminum beverage can manufacturing facility located at 1202 Fones Road in Olympia, Washington. Crown seeks approval through a Notice of Revision (NOR) to modify Condition 3(d) of the Order of Approval for NOC# 19NOC1336 to allow the use of overvarnish containing up to 6.3% by weight of 2-butoxyethanol. Condition 3(d) currently allows overvarnish containing up to 3.2% by weight of 2-butoxyethanol. Although the revision will increase Crown's annual Potential to Emit (PTE) 2-butoxyethanol from overvarnish coating operations, 24-hour emissions of 2-butoxethanol and annual emissions of VOC will not increase as result of the change. Therefore, the requested change is exempt from New Source Review under ORCAA Rule 6.1(b)(2) and can be reviewed as a change in Approval Order conditions under ORCAA Rule 6.1.11.

ORCAA's Preliminary Determination is that the criteria under ORCAA's Rule 6.1.11 are met. Based on this conclusion, ORCAA's Preliminary Determination is that Crown's request to change Condition 3 of the Order of Approval for NOC# 19NOC1336 to allow the use of overvarnish containing up to 6.3% by weight of 2-butoxyethanol be approved (see Section 5 for discussion). The proposed Conditions of Approval are included in Section 15. Once issued, the Order of Approval (NOC# 20NOC1454) will supersede the Order of Approval for NOC# 19NOC1336.

2. Regulatory Background

ORCAA's Rule 6.1.11 allows for changes or revisions to Approval Order conditions, provided the following criteria are met:

1. ***Emissions Standards*** **-** The change in conditions will not cause the source to exceed an emissions standard;
2. ***Ambient Air Quality*** **-** No ambient air quality standard or PSD increment will be exceeded as a result of the change;
3. ***Compliance*** **-** The change will not adversely impact the ability of the Agency to determine compliance with an emissions standard;

4. ***Best Available Control Technology (BACT) -*** The revised order will continue to require BACT, as defined at the time of the original approval, for each new stationary source approved by the order except where the Federal Clean Air Act requires LAER; and
5. ***New Source Review -*** The revised order meets the requirements of Rule 6.1, as applicable.
6. ***Prevention of Significant Deterioration (PSD) -*** If the order was issued under the PSD program, the revised order will meet any applicable requirements of that section.

3. Facility History

A detailed facility history is contained within the Crown Cork & Seal Technical Support Document (TSD). The following is Crown's recent history with respect to inside spray lacquers and overvarnishes.

Crown submitted a Notice of Construction (NOC) application in 2017 for changes to inside spray lacquers and overvarnishes. ORCAA approved this change on April 4, 2018 (NOC# 17NOC1261). In addition to approving the proposed inside spray lacquer and overvarnish changes, the Order of Approval allowed Crown to use new inside spray lacquers and overvarnishes without prior approval from ORCAA if certain conditions are met. The Order of Approval for NOC# 17NOC1261 was superseded in 2019 with the Order of Approval for NOC# 19NOC1336, which approved additional inside spray lacquers.

4. Facility Description

Crown Cork & Seal Company (USA), Inc. is an aluminum beverage can manufacturing facility located at 1202 Fones Road in Olympia, Washington.

Can Coating Process

After the aluminum cans are formed, washed, and etched, the cans proceed to the coating process. The bottom of the can body is coated with a varnish which reduces friction and improves the can mobility through the rest of the process. Following rim coating the cans are sent to one of two can coating lines. Each can coating line is comprised of a decorator unit (a.k.a. Printer/Over-varnish unit), a printer (PIN) oven, lacquer spray machines (LSM), and internal bake oven (IBO).

In the decorator unit, the exterior of the cans are coated using a two-step process. Ink is applied by rotating the cans against a rotating rubber printing blanket and then overvarnish is applied with a varnish roller. Overvarnish is applied in slightly different weights dependent on the type of overvarnish applied. After printing and varnishing, the cans are blown by air onto pins and transported into the printer (PIN) oven for curing. The can spends approximately six seconds inside the natural gas-fired PIN oven. Typical oven temperature is 365-390 degrees Fahrenheit. The cans are heated indirectly in both PIN ovens. In Line 1, emissions from the use and curing of ink and varnish and combustion of natural gas are predominantly exhausted from one stack (1A), although small amounts of emissions were found in the cooling zone stack (1B) during the last stack test. In Line 2, emissions from the use and curing of ink and varnish and

combustion of natural gas are exhausted from one stack. Air emissions that result from outside printing and varnishing of the cans include volatile organic compounds (VOCs), hazardous air pollutants (HAPs), toxic air pollutants (TAPs), and products of combustion from combustion of natural gas in the PIN ovens.

After curing in the PIN ovens, the inside of the can bodies are coated with an inside lacquer. The purpose of the inside lacquer is to provide a barrier preventing corrosion of the metal can by the soda or beer that will be contained in the can. Each coating line has seven lacquer spray machines (LSMs) that are vented collectively to a stack. Each machine contains a spray unit that applies lacquer to the inside of cans. Lacquer is applied in three different weights (from lowest to highest): beer weight, beverage weight, and import weight. After lacquer is applied, the cans are cured in a natural gas-fired internal bake oven (IBO). Each IBO has two burners, one in each curing zone. Typical oven temperatures are 375 degrees Fahrenheit in Zone 1 and 400-405 degrees Fahrenheit in Zone 2. The cans are heated indirectly, however, combustion gases are combined with exhaust from the curing of lacquer and are exhausted from the IBO stacks (one for each unit). Emissions from applying lacquer to the inside of the cans include VOC, HAPs, TAPs, and products of combustion from combustion of natural gas in the IBOs.

5. Requested Changes

Crown requests a change to Condition 3(d) in the Order of Approval for NOC# 19NOC1336 to allow overvarnishes with up to 6.3% by weight 2-butoxyethanol so that they may use a new overvarnish (Valspar 22Q14AG) in replacement of the discontinued Valspar 22Q05AW. The current limit in Condition 3(d) is 3.2% by weight 2-butoxyethanol.

The limits established in Condition 3 were established under ORCAA Rule 6.1.2(l) to document the approved material specifications. They are also used in Condition 2 to give Crown flexibility to make formula changes and use new materials without triggering ORCAA's review if certain conditions are met.

During the review for NOC# 17NOC1261, ORCAA conducted a "First Tier Review" under Chapter 173-460 WAC (see Section 10 for more information on First Tier Reviews) for 2-butoxyethanol. The First Tier Review involved comparing the calculated emission rate to the Small Quantity Emission Rate (SQER) for each TAP. The Small Quantity Emission Rate (SQER) for 2-butoxyethanol is based on a 24-hr averaging period. Maximum daily emission rates for overvarnish with 7.4% by weight 2-butoxethanol were calculated and shown to be lower than the Small Quantity Emission Rate. Therefore, compliance with the ambient air toxics analysis requirement in Chapter 173-460 WAC has already been demonstrated for overvarnishes containing up to 7.4% by weight 2-butoxyethanol. Therefore, ORCAA staff recommends approval of Crown's proposal to change Condition 3(d) to allow overvarnishes with up to 7.4% by weight 2-butoxyethanol.

The changes proposed above are reviewable under ORCAA Rule 6.1.11. The proposed revised Conditions of Approval are in Section 15 and include:

1. Changing the 2-butoxyethanol limit in Condition 3(d) to 7.4% by weight (as reviewed in NOC# 17NOC1261) and making it applicable to all overvarnish.
2. Removing the now redundant specialty overvarnish-specific limit in Condition 3(e).
3. Correcting Condition 2(f) to remove "glycol ethers" as they are not present in any formulation of overvarnish used at Crown.
4. Added inside spray lacquer PPG2012823 to Condition 1 (exempt from NSR – see 19NOI1367) and overvarnish Valspar 22Q14AG (included in this NOC application, exempt).
5. Made clarifying changes in wording in Conditions 1 and 2. These do not change the intent of the conditions.
6. Merged Conditions 3 and 4 for easier implementation. No changes were made to items moved from Condition 4.

6. Emissions

The can coating lines are sources of volatile organic compounds (VOCs), hazardous air pollutants (HAP), and toxic air pollutants (TAP). Natural gas combustion in the curing ovens (IBOs and PINs) are a source of combustion emissions, primarily oxides of nitrogen and carbon monoxide.

The proposal to modify Condition 3 will result in an increase in facility-wide annual emissions of 2-butoxyethanol. Maximum daily emission rates for 2-butoxethanol from the decorators and PIN ovens will remain the same because the overvarnish application rate will not increase. Although 2-butoxyethanol annual emissions will increase, annual VOC emissions will remain below facility-wide annual limits. The increase in annual emissions of 2-butoxyethanol emissions does not affect any of the determinations made during the previous review. Table 1 shows the potential to emit (PTE) of the facility for all criteria pollutants, HAPs, and TAPs.

Table 1. Facility-Wide PTE Emissions in Tons/Year

	CAS No.	Facility-wide Potential to Emit (tons/yr)
TSP	NA	0.1
PM_{10}	NA	0.1
$PM_{2.5}$	NA	0.1
CO	630-08-0	15.4
NOx	NA	18.4
SO2	7446-09-5	0.11
VOC	NA	249
Formaldehyde	50-00-0	9.9
2-butoxyethanol (EGBE) (TAP only)	111-76-2	115
Glycol ethers (HAP only)	NA	6.3
Phenol (HAP/TAP)	108-95-2	2.5

7. Performance Standards

ORCAA's Rule 6.1.4(a)(1) requires 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 70.94 of the Revised Code of Washington (RCW)(which is now reformatted to 70A.15 RCW), emissions standards of ORCAA, and federal emission standards including new source performance standards (NSPS), national emission standards for hazardous air pollutants (NESHAP), national emission standards for hazardous air pollutants for source categories (MACT standards).

All emissions units at the facility are currently subject to the generally applicable air requirements from ORCAA's regulations and from the State's General Regulations for Air Pollution Sources under Chapter 173-400 of the Washington Administrative Code (WAC). These standards will continue to apply to the existing equipment.

40 CFR Part 60 Subpart WW – Standards of Performance of the Beverage Can Surface Coating Industry

In addition to these general requirements, coatings are subject to 40 CFR Part 60 Subpart WW: Standards of Performance for the Beverage Can Surface Coating Industry (Subpart WW). Subpart WW applies to new, modified, or reconstructed facilities at beverage can surface coating lines including each exterior base coat operations, each overvarnish coating operations, and each inside spray coating operation provided the modification or reconstruction is commenced after November 26, 1980.

In March 1998 under NOC 97NOC040, Crown installed a new printing and over-varnish unit and PIN oven for use as a swing line. This constituted a modification of an affected facility and triggered requirements in Subpart WW of 40 CFR Part 60. An Initial Compliance Demonstration for Subpart WW was received by ORCAA on April 14, 1998 addressing compliance for two types of over-varnish (body varnish and UV bottom varnish) and inside spray coating.

The affected facility consists of five coating operations: three overvarnish coating operations (one UV bottom varnish and two body varnish) and two inside spray coating operations. The UV bottom coat operation consists of a roll coat application and UV curing system. Each inside and outside coating operation consists of the coating application station, flashoff area, and curing oven. Crown does not have any exterior base coating operations at this facility; therefore, the exterior base coating limits are not currently applicable.

Subpart WW requirements include compliance with emissions standards and monthly performance tests. Volume weighted calendar-month average emissions shall not exceed:

1. 0.46 kilogram of VOC per liter of coating solids from each over-varnish coating operation.
2. 0.89 kilogram of VOC per liter of coating solids from each two-piece can inside spray coating operation.

The existing over varnishes and inside spray lacquers included in the Order of Approval are Subpart WW-compliant and Condition 2 requires any new or reformulated materials be compliant with Subpart WW emission standards. Crown currently complies with the monthly performance tests by determining the VOC content of the coatings based on manufacturer-supplied formulation data on a monthly basis.

40 CFR Part 63 Subpart KKKK – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans

The National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans was promulgated on November 13, 2003 and applies to all metal can surface coating operations at major sources. This rule applies to owners or operators of metal can surface coating operations that use at least 5,700 liters (1,500 gallons) of coatings per year and are major sources of HAPs or are part of a major source.

In this case, Crown Cork & Seal USA, Inc. (Crown) has a federally enforceable, voluntary limit (established through 05NOC420) on emission of hazardous air pollutants (HAPs). This limit established Crown as minor source of HAPs. As a minor source of HAPs Crown is not subject to the requirements of 40 CFR Part 63 Subpart KKKK. Crown does not propose to increase its emissions of HAPs above the current applicable limits. (Ethylene glycol monobutyl ether (2-butoxyethanol) (CAS 111-76-2) was removed from the list of hazardous air pollutants in November 2004.)

See the Technical Support Document for Crown's Air Operating Permit for more details on what other federal standards apply to this facility.

ORCAA staff's conclusion is that the proposed change in conditions will not cause the source to exceed applicable performance standards. This conclusion satisfies the criteria of approval required under ORCAA Rule 6.1.11(a)(1).

8. Best Available Control Technology (BACT)

In addition to applicable performance standards, Best Available Control Technology (BACT) is the required level of control for emissions of Criteria Air Pollutants from new or modified emissions units. Likewise, Best Available Control Technology for Toxic Air Pollutants (T-BACT) is the required level of control for TAP emissions from new or modified emissions units that will emit TAP. BACT and T-BACT share the same definition from Chapter 173-400-030 WAC as, *"an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under chapter 70.94 RCW (which is now reformatted to 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."*

As required by ORCAA 6.1.11(a)(4), Crown will continue to employ the pollution prevention strategies determined as BACT from NOC# 17NOC1261 as described in Table 2 below.

Table 2. BACT and T-BACT Summary as defined in NOC# 17NOC1261

Pollutant	BACT Applicable?	BACT & T-BACT Description
NOx	No	
CO	No	
VOC	No	
SO2	No	
PM10	No	
Toxics	Yes	Use of inside spray lacquers and overvarnishes that meet all the following criteria: 1) 40 CFR Part 60 Subpart WW-compliant (low-VOC) 2) Zero or low-HAP coating 3) Contain TAPs with lower toxicity than alternatives

9. Ambient Air Quality Impacts Analysis (Criteria Pollutants)

Ambient Air Quality Standards (AAQS) that apply in Thurston County include both the National Ambient Air Quality Standards (NAAQS) and Washington Ambient Air Quality Standards (WAAQS). ORCAA's Rule 6.1.4(a)(3) requires demonstration that any new stationary source of air pollution or modification to an existing stationary source of air pollution not delay the attainment date for an area not in attainment, or cause or contribute to a violation of any AAQS. This is typically accomplished through an Ambient Air Quality Impacts Analysis (Impacts Analysis). Typically, an Impacts Analyses requires use of air dispersion models to predict concentrations of air pollutants at the fence line of a facility and beyond. Air dispersion models consider the air pollutant emissions rate of the new source being evaluated, characteristics of the new source, topography and local meteorological data, and use this information to predict the maximum concentrations of pollutants outside the property line of the facility.

Regulatory standards for conducting Impacts Analyses are largely dictated by EPA through formal guidance on ambient air dispersion modeling techniques. EPA's Guideline on Air Quality Models in 40 CFR 51 Appendix W (The Guideline) addresses the regulatory application of air quality models for assessing air pollutant impacts under the Clean Air Act. The objective of EPA's guidance on air dispersion modeling is to ensure consistent Impacts Analyses under the Clean Air Act. EPA's guidelines also help ensure Impacts Analyses provide reliable results that can be used to protect air quality and maintain compliance with the NAAQS. ORCAA is responsible for reviewing all modeling decisions and data used in the Impacts Analysis with respect to the regulatory standards and practices recommended by EPA. Any deviation from recommendations in The Guideline must be justified for a particular Impacts Analysis.

The proposed change in conditions is not expected to increase criteria pollutant emissions (see Section 6); therefore, the requested change in conditions is not likely to cause or contribute to a violation of any AAQS.

10. Ambient Air Quality Impacts Analysis (Toxic Air Pollutants)

Washington's regulations titled Controls for New Sources of Toxic Air Pollutants (Air Toxics Regulation) under Chapter 173-460 of the Washington Administrative Code apply to new stationary sources of TAP. The purpose of this regulation is to, "… maintain such levels of air quality as will protect human health and safety." The TAP covered under the regulation include carcinogens and non-carcinogens. The regulation allows for a multi-tiered approach to assess potential health and safety impacts from TAP increases.

The "First Tier Review" involves comparing estimated ambient TAP impacts with the Acceptable Source Impact Levels (ASILs), which are established in the Air Toxics Regulation on a pollutant-by-pollutant basis. If the modeled impact of the increase in emissions of a TAP does not exceed its corresponding ASIL, the First Tier Review is passed for that TAP. This analysis typically involves the use of an ambient air quality model to predict ambient concentrations of the pollutant followed by a comparison with the ASIL. However, the Air Toxics Regulation also provides that if the calculated emission rate is less than the Small Quantity Emission Rate (SQER) for any TAP, then emissions are sufficiently low to ensure compliance with the ASIL without further analysis (WAC 173-460-020(7)). SQER are listed in the Air Toxics Regulation for all TAP.

For pollutants with an ambient concentration found to be greater than the ASIL, a "Second Tier Review" is required by the Air Toxics Regulation. Second Tier Reviews require more refined modeling analyses and approval by the Washington Department of Ecology in addition to ORCAA's review. Lastly, for those pollutants that cannot pass a Second Tier Review, the Air Toxics Regulation requires an even more refined "Third Tier Review."

The proposed change in conditions will not result in an increase in TAP emissions beyond the emissions levels reviewed in previous Notice of Construction applications.

11. Title V Air Operating Permit (AOP)

Crown Cork & Seal is a major source with respect to the Title V program. The change approved by this Notice of Construction does not require a revision to the AOP under WAC 173-401-700 as it qualifies as an "off-permit change" according to WAC 173-401-724. The change is not specifically addressed or prohibited by the permit terms and conditions and will not weaken the enforceability of the existing permit conditions. Contemporaneous written notice is required by WAC 173-401-724.

12. Prevention of Significant Deterioration (PSD) Permitting

A PSD permit is not required since the proposed new stationary source or modification will result in a minor source with respect to the State's PSD program in WAC 173-400-141.

13. 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. As this proposal involved reissuance of a permit regulating a present activity and no material changes are involved, the action is exempt from SEPA under 197-11-800(13)(i).

14. Public Involvement

Public notice of ORCAA's receipt of the NOC application, pursuant to ORCAA Rule 1.7.04(a), was issued March 12, 2019. No comments were received during the comment period.

As annual emission increases of the toxic air pollutant 2-butoxyethanol are greater than 10 tons per year, this Preliminary Recommendation is being noticed for a 30-day public comment period in accordance with ORCAA Rule 6.1.3(c). If significant public interest is expressed during the public comment period, a public hearing will be scheduled by ORCAA and the public comment period will be extended through the hearing date.

15. Recommended Conditions of Approval

The following revised conditions of approval are recommended to be included in the Order of Approval (Order) issued by ORCAA for approving this NOC application. Once approved, conditions in the Order become applicable requirements that are enforceable and may be subject to enforcement actions including penalties if compliance is not maintained. This Order will supersede the Order of Approval for NOC# 19NOC1336.

1. **Approved Coating Materials**: The coating materials ~~as~~ described in the following table and in Notice of Construction (NOC) #17NOC1261, #19NOC1336, and #20NOC1454 are approved for use at Crown Cork and Seal Co located at 1202 Fones Road, in Olympia, Washington. Except as provided under Condition #2, ~~D~~deviations from approved coating materials or the material specifications, whether stated in the above listed NOC or this Order of Approval, may constitute a violation of this condition and ORCAA regulations, unless prior approval is granted by ORCAA.

Coating Type	Approved Coatings
Inside Spray Lacquer	9823-001
	40Q60AA
	V70Q11AA
	83XW098
	PPG2012825
	V70Q38AA
	PPG2012823
Overvarnish	22Q05AW
	CT 4891
	9201811
	9201807

	3852815
	22Q14AG

[Regulatory Basis: ORCAA 6.1.2 (l)]

2. **~~Material Changes~~ Approved Coating Specifications:** Coatings not listed in Condition #1 or changes to composition of the coatings listed in Condition #1 are approved under this Order, provided ~~The owner or operator may make changes in the composition of the approved coating materials or use new inside spray lacquers or overvarnishes without prior approval from ORCAA if all~~ the following conditions are met:
    a. The coating material meets all ~~the~~ applicable limits in Conditions 3 ~~and 4~~ of this Order of Approval.
    b. The coating material complies with the applicable VOC emission standards in 40 CFR Part 60 Subpart WW.
    c. For ~~The~~ inside spray lacquers, the material does not contain any toxic air pollutants as defined by Chapter 173-460 WAC, except for 2-butoxyethanol, formaldehyde, and phenol.
    d. For ~~The~~ overvarnishes, the material does not contain any toxic air pollutants as defined by Chapter 173-460 WAC, except for 2-butoxyethanol and formaldehyde.
    e. For ~~The~~ inside spray lacquers, the material does not contain any hazardous air pollutants as defined by the Federal Clean Air Act, except for glycol ethers, formaldehyde, and phenol.
    f. For ~~The~~ overvarnishes, the material does not contain any hazardous air pollutants as defined by the Federal Clean Air Act, except for ~~glycol ethers and~~ formaldehyde.

[Regulatory Basis: ORCAA 6.1.2 (l)]

3. **Coating Limits:** The owner or operator shall comply with the following limits:
    a. The total amount of inside spray lacquer used shall not exceed 297,000 gallons per consecutive 12-month period.
    [Regulatory Basis: ORCAA 6.1.2 (l)]
    b. All inside spray lacquers shall not contain more than 6.8% by weight 2-butoxyethanol (CAS 111-76-2).
    [Regulatory Basis: ORCAA 6.1.2 (l)]
    c. No inside spray lacquers shall contain more than 0.5% by weight glycol ethers, as defined by the Federal Clean Air Act.
    [Regulatory Basis: ORCAA 6.1.2(l); ORCAA 6.1.4(a)(2)]
    d. No inside spray lacquers shall contain more than 0.2% by weight phenol.
    [Regulatory Basis: ORCAA 6.1.2(l); ORCAA 6.1.4(a)(2)]
    e. The total amount of overvarnish used shall not exceed 90,000 gallons per consecutive 12-month period.
    [Regulatory Basis: ORCAA 6.1.2 (l)]

f. All overvarnish~~, except for specialty overvarnish as detailed in (e) of this condition,~~ shall not contain more than ~~3.2%~~ 7.4% by weight 2-butoxyethanol (CAS 111-76-2). *[Regulatory Basis: ORCAA 6.1.2 (l)]*

g. No overvarnish shall contain glycol ethers as defined by the Federal Clean Air Act. *[Regulatory Basis: ORCAA 6.1.2(l); ORCAA 6.1.4(a)(2)]*

h. ~~Crown may use specialty overvarnish up to 13,500 gallons per consecutive 12-month period. Specialty overvarnish shall not contain more than 7.4% by weight 2-butoxyethanol (CAS 111-76-2).~~

~~*[Regulatory Basis: ORCAA 6.1.2 (l)]*~~

~~4. **BACT:** The following coating specifications shall apply:~~

~~a. No inside spray lacquers shall contain more than 0.5% by weight glycol ethers, as defined by the Federal Clean Air Act.~~

~~b. No overvarnish shall contain glycol ethers as defined by the Federal Clean Air Act.~~

~~c. No inside spray lacquers shall contain more than 0.2% by weight phenol.~~

~~*[Regulatory Basis: ORCAA 6.1.2(l); ORCAA 6.1.4(a)(2)]*~~

5. **Material Use Limit Monitoring:** Compliance with the material use limits in Condition 3 shall be monitored on at least monthly by calculating the actual amount of each type of inside spray lacquer and overvarnish used during the previous month and 12-consecutive month period.

[Regulatory Basis: ORCAA Rule 8.11]

6. **Recordkeeping:** The following records shall be maintained for at least five years from the date the record originated, or as specified, and made available for inspection upon request:
    a. Records of all determinations made under Condition 2 for changes in composition of approved coatings or new coatings.
    b. Records of monthly and 12-month rolling totals of material usage as required by Condition 3.
    c. Records of material usage, composition data, and any other data used to calculate emissions.
    d. Safety data sheets (SDS) for all VOC-containing materials used in the process.

[Regulatory Basis: ORCAA Rule 8.8]

16. Preliminary Recommendation

ORCAA staff recommends approval of Crown's request to modify Condition 3(d) of NOC# 19NOC1336 provided that:

1. Public notice and opportunity for public comment are provided according to ORCAA Rule 6.1.3(c) and (d);
2. A public hearing and opportunity for public testimony is provided according to ORCAA Rule 6.1.3(e), if required; and
3. ORCAA staff's recommended conditions of approval are adopted and included in an enforceable Approval Order issued to Crown.

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PREPARED BY: Jennifer A. DeMay, P.E. **Date**

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REVIEWED BY: Mark V. Goodin, P.E. **Date**

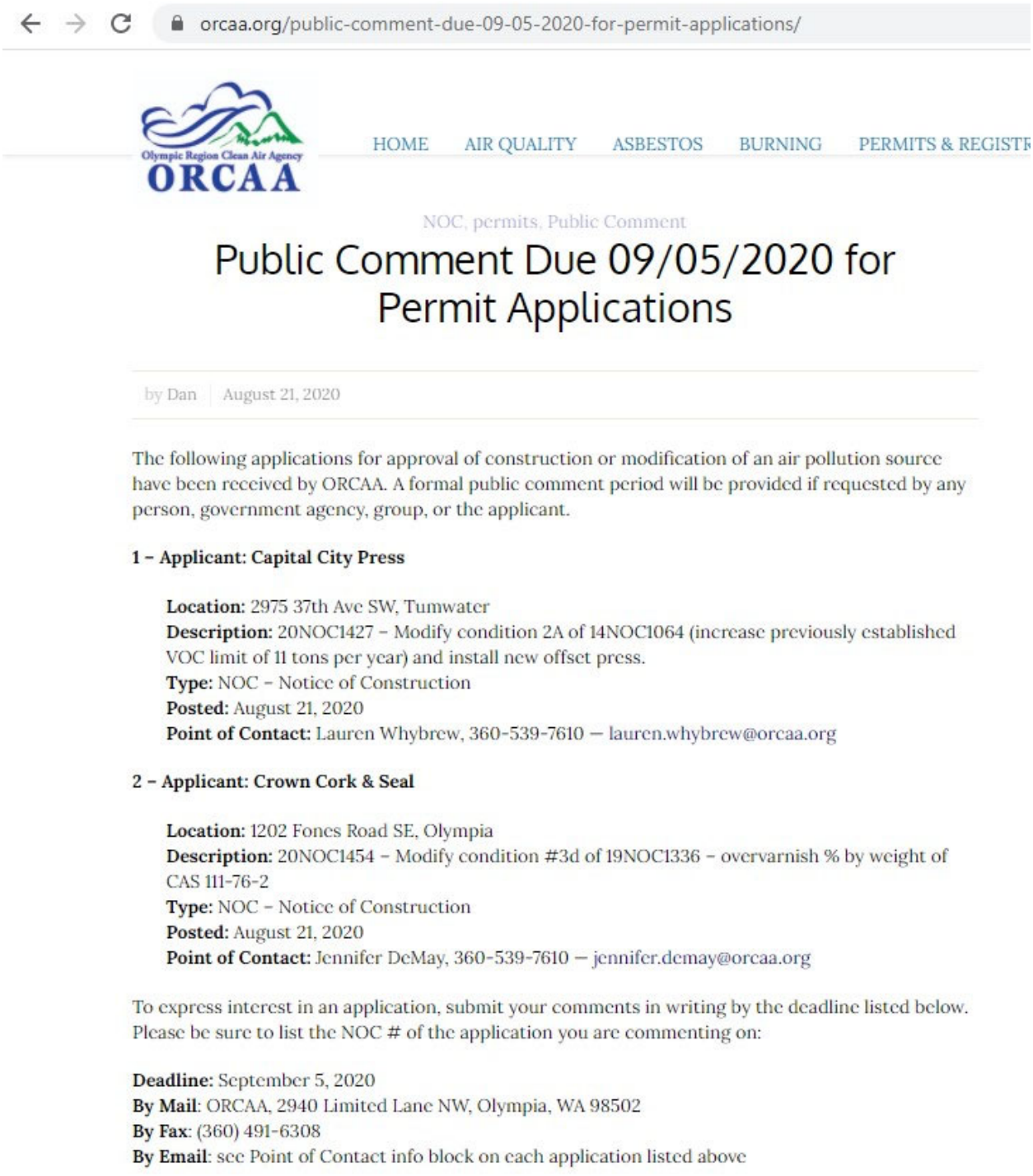
ATTACHMENTS

☒ **Emission Calculations**
☒ **Public Involvement**

Emission Calculations

20NOR1454	Proposal										Subpart WW Limits	kg VOC/L	lb/gal coating solids							lb HCOH /lb solid[5]			
PTE	Inside spray lacquer - Use 83XW098, 9823-001, 40Q60AA, V70Q11AA, PPG2012825, PPG2012823, or V70Q38AA.										Inside Spray Lacquer	0.89	7.43						Inside Spray	0.012			
	Over varnish - Use 22Q05AW, 3852815, CT 4891, 9201811, 9201807.										Overvarnish	0.46	3.84						Overvarnish	0.027			
EU9, EU10, EU13, EU14 - INSIDE SPRAY LACQUER APPLICATION AND CURING		kg VOC/L solids	< Subpart WW limits	DENSITY LBS/GAL	VOLUME % SOLIDS	Wt % Solid	Glycol ether (wt %) (HAP)[2,7]	EGBE (wt %) (TAP)[3]	Phenol (wt%)(HAP/ TAP)[2,3]	Maximum Production (cans/min)	Application Rate gal/1000 can	Maximum Usage[1] gal/yr	USAGE RATES gal/hr	gal/24-hr	Glycol Ether lb/yr	EGBE lb/24-hr	EGBE lb/yr	HCOH[4] lb/yr	Phenol lb/24-hr	Phenol lb/yr	VOC[6] ton/yr
98NOC021	83XW098	0.71	Yes	8.43	16.4%	19.3%	0.2%	5.0%	0.0%			306,705			5171		129276	5975				152.2
Previous	9823-001	0.6	Yes	8.46	18.0%	21.1%	0.2%	4.1%	0.0%		0.1843	297,000	42.02	1008.49	5025	350	103017	6348	0	0	0	137.0
New 2017	40Q60AA	0.69	Yes	8.35	18.5%	21.1%	0.5%	4.5%	0.0%		0.1843	297,000	42.02	1008.49	12400	379	111598	6265	0	0	0	161.3
New 2017	V70Q11AA	0.73	Yes	8.43	18.0%	21.1%	0.5%	6.1%	0.0%		0.1845	297,000	42.07	1009.58	12519	519	152726	6326	0	0	0	166.0
Historical	83XW098	0.7	Yes	8.43	16.4%	19.3%	0.2%	5.2%	0.0%	3800	0.1845	297,000	42.07	1009.58	5007	443	130193	5786	0	0	0	145.2
New 2019	PPG2012825	0.86	Yes	8.43	17.3%	20.7%	0.0%	4.0%	0.2%		0.1845	297,000	42.07	1009.58	0	340	100148	6206	17	5007	0	187.5
New 2019	V70Q38AA	0.78	Yes	8.44	17.8%	21.1%	0.1%	6.8%	0.0%		0.1845	297,000	42.07	1009.58	2507	579	170454	6333	0	0	0	175.2
New 2019, exempt	PPG2012823	0.83	Yes	8.4	17.8%	20.5%	0.0%	4.9%	0.2%		0.1845	297,000	42.07	1009.58	0	416	122245	6124	17	4990	0	185.4
EU7, EU8, EU11, EU12 - OVER VARNISH APPLICATION AND CURING																							
Current	22Q05AW	0.31	Yes	8.9	34.3%	39.5%	0%	3.2%	0.0%		0.0604	90,000	13.77	330.51	0	94	25632	8496	0	0	0	44.2
Current	22Q05AW	0.31	Yes	8.9	34.3%	39.5%	0%	3.2%	0.0%		0.0604	76,500	13.77	330.51	0	94	21787	7221	0	0	0	37.6
17NOC1261	CT 4891	0.35	Yes	8.9	35.4%	41.0%	0%	7.4%	0.0%		0.06	13,500	13.68	328.32	0	216	8891	1323	0	0	0	7.6
17NOC1261	9201811	0.35	Yes	9.15	32.2%	39.5%	0%	5.9%	0.0%	3800	0.06	13,500	13.68	328.32	0	177	7288	1310	0	0	0	7.0
17NOC1261	9201807	0.35	Yes	8.95	31.5%	37.5%	0%	6.1%	0.0%		0.06	13,500	13.68	328.32	0	179	7370	1217	0	0	0	6.8
Historical	3852815	0.17	Yes	8.83	33.6%	38.3%	0%	0.6%	0.0%		0.06	90,000	13.68	328.32	0	17	4768	8173	0	0	0	25.3
New 2020, exempt	22Q14AG	0.28	Yes	8.9	34.5%	39.9%	0%	6.3%	0.0%		0.06	75,500	13.68	328.32	0	184	42333	7199	0	0	0	33.6
20NOR1454 calc	N/A	0.35	Yes	8.90	35.4%			7.4%			0.06	76,500	13.68	328.32			50383					39.6
													Current	PTE (ton/yr)	6.3		101	7.4		2.5	2.5	233
[1]As proposed													Proposed	PTE (ton/yr)	6.3		115	7.4		2.5	2.5	235
[2]Hazardous Air Pollutant (HAP) per Federal Clean Air Act.													Increase	(ton/yr)	0.0		14.3	0[4]		0.0	0[6]	
[3]Toxic Air Pollutants (TAPs) per Chapter 173-460 WAC.														(lb/24-hr)		0.0			0.0			
[4]Formaldehyde emissions are limited by a facility-wide 9.9 ton per year limit. No changes proposed to limit.													De minimis	(lb/24-hr)		0.3			0.74			
[5]ORCAA used Crown's site-specific stack test data to calculate a site-specific lb HCOH/lb solid based on the source test. This is based on the assumption that formaldehyde (HCOH) is created from the solids portion of the lacquer/overvarnish (as stated by Crown)													Tier 1 Review Required?			No			No			
													SQER	(lb/24-hr)		6.1			15			
[6]VOC emissions from these emission units only. Includes Cure HAPs. Facility-wide VOC emissions limited to 249 tons per year. No changes proposed to this limit.													Modeling required?			No			No			
Inside spray - Formaldehyde - Claim from Sherwin-Williams that none of the components of 40Q60AA or V70Q11AA contain or generate formaldehyde. No supporting data provided. Assumed HCOH emission rate similar to current.																							
	V40 Series	Water based interior spray, acrylic series; non-BPA																					
	V70 Series	Water based interior spray, epoxy series; non-BPA																					
[7]Glycol ethers include diethylene glycol monoethyl ether (111-90-0) and ethylene glycol monohexyl ether (112-25-4)																							
The EPA removed the compound ethylene glycol monobutyl ether (EGBE) (2-Butoxyethanol) (Chemical Abstract Service (CAS) No. 111-76-2) from the group of glycol ethers on November 29, 2004 (69FR69320).																							

Public Involvement



orcaa.org/public-comment-due-09-05-2020-for-permit-applications/

Olympic Region Clean Air Agency ORCAA

HOME AIR QUALITY ASBESTOS BURNING PERMITS & REGISTR

NOC, permits, Public Comment

Public Comment Due 09/05/2020 for Permit Applications

by Dan | August 21, 2020

The following applications for approval of construction or modification of an air pollution source have been received by ORCAA. A formal public comment period will be provided if requested by any person, government agency, group, or the applicant.

1 – Applicant: Capital City Press

Location: 2975 37th Ave SW, Tumwater
Description: 20NOC1427 – Modify condition 2A of 14NOC1064 (increase previously established VOC limit of 11 tons per year) and install new offset press.
Type: NOC – Notice of Construction
Posted: August 21, 2020
Point of Contact: Lauren Whybrew, 360-539-7610 — lauren.whybrew@orcaa.org

2 – Applicant: Crown Cork & Seal

Location: 1202 Fones Road SE, Olympia
Description: 20NOC1454 – Modify condition #3d of 19NOC1336 – overvarnish % by weight of CAS 111-76-2
Type: NOC – Notice of Construction
Posted: August 21, 2020
Point of Contact: Jennifer DeMay, 360-539-7610 — jennifer.demay@orcaa.org

To express interest in an application, submit your comments in writing by the deadline listed below. Please be sure to list the NOC # of the application you are commenting on:

Deadline: September 5, 2020
By Mail: ORCAA, 2940 Limited Lane NW, Olympia, WA 98502
By Fax: (360) 491-6308
By Email: see Point of Contact info block on each application listed above

Public Notice
Olympic Region Clean Air Agency (ORCAA)
Change in Approval Order Conditions
Crown Cork & Seal
NOC# 20NOR1454

PERMIT APPLICANT:
Crown Cork & Seal
1202 Fones Road
Olympia, WA

PERMITTING AUTHORITY:
Olympic Region Clean Air Agency
2940 Limited Lane NW
Olympia, WA 98502
360-539-7610 or 1-800-422-5623, FAX (360) 491-6308

PROJECT DESCRIPTION: Crown Cork & Seal (Crown) submitted an application requesting to modify Condition 3(d) of the Order of Approval for NOC# 19NOC1336 to allow the use of overvarnish containing up to 7.4% by weight of 2-butoxyethanol.

ORCAA has reviewed Crown's request and conclude it meets the criteria under ORCAA Rule 6.1.11 that allows for changes to Approval Order conditions and compliance with applicable air regulations and standards will likely be maintained. On this basis, ORCAA recommends the request be approved.

PUBLIC NOTICE: Pursuant to ORCAA Rule 6.1.3(b), notice is hereby given of ORCAA's Preliminary Recommendation to approve Crown's application as described above.

DOCUMENT AVAILABILITY: A copy of ORCAA's Preliminary Recommendation is available on ORCAA's website at www.orcaa.org/news-info. If you do not have internet access or need assistance, please contact our office at 360-539-7610.

PUBLIC COMMENTS: Comments on this case may be submitted to ORCAA in writing by 4:30 p.m. on November 10, 2020. Comments may be mailed to ORCAA at the address above or emailed to jennifer.demay@orcaa.org. Comments that may be considered by ORCAA in making a final determination are those pertaining to air quality implications of the proposed project.

Published by Francea L. McNair, ORCAA Director. (360) 539-7610 extension 100.