

CERTIFICATION FORM

Received
SEP 08 2023

ORCAA

- 1. Facility/Source Name: Crown Cork & Seal
- 2. Company Name (if different): _____
- 3. ORCAA Source ID #: 152 Facility SIC Code: 3411
- 4. Unified Business Identification Number: 409010554
- 5. Company Owner: Crown Cork & Seal Company, Inc.
- 6. Parent Company: Crown Cork & Seal Company, Inc.
- 7. Environmental Contact for this submittal:
Name: Wesley McNallie Title: Plant Engineer Phone #: 360.438.6565
- 8. Mailing Address: 1202 Fones Rd, Olympia, WA, 98501

9. **Identification of Report Covered by this Certification:** *Identify the exact report which is certified as being true and accurate under this Certification Form. Please identify the period of time covered by the report and specify any extraneous materials which are not covered by the certification.*

a. Specify the period of time covered by the report:

9/08/2023

b. Specify the Type or Name of Report:

- Certification of Compliance Report (Semi-annual)
- Compliance Schedule (30 days after triggering per Condition 3.5)
- Permit Deviation Reports (per Condition 3.3)
- Annual Emissions Inventory (must include calculations and supporting data)
- Stack Testing Results (Within 45 days from conducting the testing)
- Other. Specify: NOC Submission

c. Please specify by page number any sections of the report not covered by this certification which are provided as background information and are not necessary to support the statements and information which are certified: _____

10. **Certification:**

By my signature below, I certify that all information and statements in the accompanying report, which is identified in item #9 above, including all attachments are true, accurate, and complete to the best of my knowledge.

Teresa Compton
Signature

9/8/2023
Date

Plant Manager
Title

Teresa Compton
Printed Name

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).
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: Crown Cork & Seal Company, Inc.	For ORCAA use only
Mailing Address: 1202 Fones Road, Olympia, WA 98501	File No: 152 County No: 67 Source No: 8 Application No: 23NOC16B
Physical Address of Project or New Source: 1202 Fones Road, Olympia, WA 98501	Date Received: Received SEP 08 2023 ORCAA
Billing Address: 1202 Fones Road, Olympia, WA 98501	
Project or Equipment to be installed/established: Inside Spray Revision & TAP Analysis	
Anticipated startup date: <u>09</u> / <u>08</u> / <u>2023</u> Is facility currently registered with ORCAA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<p>This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option:</p> <p><input checked="" type="checkbox"/> SEPA was satisfied by <u>City of Olympia</u> (government agency) on <u>08/28/20</u> (date) - Include a copy of the SEPA determination</p> <p><input type="checkbox"/> SEPA threshold determination by _____ (government agency) is pending - Include a copy of the environmental checklist</p> <p><input type="checkbox"/> ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist</p> <p><input type="checkbox"/> This project is exempt from SEPA per _____ (WAC citation).</p>	
Name of Owner of Business: Crown Cork & Seal Company, Inc.	Agency Use Only
Title: Corporation	
Email: <u>mantry@crowncork.com</u>	Phone: <u>215-698-5308</u>
Authorized Representative for Application (if different than owner): Teresa Compton	
Title: Plant Manager	
Email: <u>teresa.compton@crowncork.com</u>	Phone: <u>360-491-4900</u>
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: 9/8/2023
IMPORTANT: Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.	

OLYMPIC REGION CLEAN AIR AGENCY

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

FORM 1D- Contact Information

Business Name Crown Cork & Seal Company, Inc.	FOR ORCAA USE
Physical Site Address (Street address, city, state, zip) 1202 Fones Road, Olympia, WA 98501	FILE # 152
	CTY # 07
	SRC # 8
Previous Business Name (if applicable)	Date Received Received SEP 08 2023 ORCAA

Contact Information

Inspection Contact	
Name Teresa Compton	Title Plant Manager
Phone 360-491-4900	Email teresa.compton@crowncork.com
Billing Contact	
Name Teresa Compton	Title Plant Manager
Phone 360-491-4900	Email teresa.compton@crowncork.com
Emission Inventory Contact	
Name Wes McNallie	Title Plant Engineer
Phone 360-491-4900	Email wesley.mcnallie@corwncork.com
Complaint Contact	
Name Teresa Compton	Title Plant Manager
Phone 360-491-4900	Email teresa.compton@crowncork.com
Permit Contact	
Name Wes McNallie	Title Plant Engineer
Phone 360-491-4900	Email wesley.mcnallie@corwncork.com

The **inspection contact** is the on-site person responsible for the everyday operation of the site and is available for inspections.

The **billing contact** is the person invoices are sent.

The **emission inventory contact** is the person requests for emissions information and material use information are sent.

The **complaint contact** is the person who receives and responds to complaints received on-site and who is contacted regarding complaints ORCAA receives.

The **permit contact** is the person responsible for filling out permit applications and receiving approval from ORCAA.

Project Description:

The CROWN Olympia facility produces 2 piece aluminum beverage cans. Aluminum coil stock is cut and formed into can bodies. Can bodies are roll coated on the exterior and sprayed on the interior before curing ovens.

This project is for a coating content revision, the existing spray coating formulation was 6.8% EGBE, while the reformulation is 7.4% by weight. This project requests change in terms to accommodate the higher EGBE value.

No other facility changes are included in this NOC.

September 7, 2023

Jennifer DeMay
Olympic Region Clean Air Agency
2940 Limited Lane
Olympia, Washington 98502

Re: NOC Application #21NOC1483
Crown Cork & Seal Company, Inc.
Olympia, Washington

Ms. DeMay:

This letter is Crown's initial response to concerns recently raised by the Olympic Region Clean Air Agency (ORCAA) regarding information and analyses supporting the referenced NOC for our facility located in Olympia, Washington. Specifically, this response addresses ORCAA's question as to whether the use of an inside spray coating with a higher toxic air pollutant (TAP) content than what was evaluated in the NOC application will trigger dispersion modeling for this TAP. The particular TAP in question is ethylene glycol monobutyl ether (EGBE), which was originally excluded from modeling based on the TAP emission netting analysis that showed a reduction in EGBE emissions. This emission reduction was created by new control of coating line emissions from the RTO installed as part of the project.

Crown understands that ORCAA is concerned that the new inside spray coating with an EGBE content approximately 10% higher than the worst-case coating evaluated in the NOC application might impact the TAP emission netting analysis in a manner that would now require dispersion modeling of EGBE emissions. To address this concern, Crown has revised the TAP emission netting analysis for EGBE. The remaining TAPs emitted by the beverage can manufacturing process were not included in this revised netting analysis, as their maximum content in the coatings and other process materials have not changed. The following methodology was used to revise the EGBE emission netting analysis:

1. The maximum post-project EGBE emission rates used in the TAP netting analysis were recalculated to address the inside spray with a higher EGBE content. These adjustments to the post-project EGBE emissions included both routine coating line emissions (when the lines are controlled by the RTO) and the RTO bypass scenario where only one of the three lines is allowed to operate. These emission estimates were determined by using the same emission calculation spreadsheets presented in the NOC application. Printouts from these calculations are presented in Appendix A attached to this letter, which include derivation of the previous EGBE post-project emissions (values included in Table 7 of ORCAA's Final Determination to Approve the NOC) and the revised post-project emissions using the higher EGBE content in the inside spray coating. A live version of this spreadsheet is also being provided to ORCAA.
2. Post-project EGBE emissions for the routine operating condition were estimated by first calculating the maximum uncontrolled EGBE emissions generated by operating the line at the permitted maximum production rate using the worst-case EGBE coating formulations, including the higher EGBE content (7.4% by weight) for the inside spray coating. Specifications for this reformulated inside spray coating with the highest EGBE content are included as Appendix B. Next, the minimum capture efficiencies allowed by the permit (75% for Lines 1 & 2 and 84% for Line 3) were applied to estimate the mass rate of EGBE directed to the RTO and the amount emitted as fugitives within the plant (no control). Finally, the

minimum RTO destruction efficiency (98%) allowed by the permit was applied to the captured emission rate to estimate the EGBE emissions from the RTO which were added to the fugitive emissions rate to compute the total EGBE emissions from routine operations after the project was completed.

3. Post-project EGBE emissions for the RTO bypass operating condition were also estimated by starting with calculating the maximum uncontrolled EGBE emissions on a line-by-line basis but incorporated the 2,000 can per minute (CPM) production limit for Line 3 during RTO bypass events. The same worst-case EGBE coating formulations were used in this analysis. Since the permit only authorized operation of a single coating line during bypass events, the highest individual coating line emission rate (Line 3) was carried forward as the RTO bypass mode post-project EGBE emission rate.
4. As the final step, the net emission change in EGBE emissions was computed by subtracting the plant-wide baseline actual EGBE emission rate from the revised maximum post-project EGBE emissions rates. The baseline EGBE emissions were left at the average level (2018 / 2019) computed in the TAP emission netting analysis in the original NOC application. The post-project emission rates used in these calculations were the combined Line 1 – 3 EGBE emissions for routine operations, and the Line 3 only EGBE emission for the RTO bypass scenario. Line 3 bypass emission were the highest of the individual lines and, since bypass operations are restricted to operating a single line only, the Line 1 & 2 bypass emission were excluded from this calculation.

Results from the revised EGBE emission calculations are included in Appendix A, which is a series of printouts (Tables 1 thru 5) from revisions to the same spreadsheets used in the initial NOC application. The overall summary from revising the EGBE emission netting analysis follows:

Toxic Air Pollutants Netting (EGBE Emission Change from Project) - Initial NOC Application

Pollutant	Operating Mode	Avg. Period	Line 3 Emissions (lb/day)	Lines 1&2 Emissions (lb/day)	Baseline Emissions (lb/day)	Net Change in Emissions (lb/day)	SQER limit (lbs/day)	Model (Y/N)?
EGBE	Normal (w/ RTO)	24-hr	123.1	211.6	798.5	-463.8	6.10	N
	RTO Bypass	24-hr	464.1	399.2	798.5	-334.4	6.10	N

Toxic Air Pollutants Netting (EGBE Emission Change from Project) - Revised Inside Spray Formulation

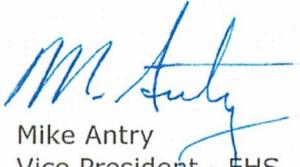
Pollutant	Operating Mode	Avg. Period	Line 3 Emissions (lb/day)	Lines 1&2 Emissions (lb/day)	Baseline Emissions (lb/day)	Net Change in Emissions (lb/day)	SQER limit (lbs/day)	Model (Y/N)?
EGBE	Normal (w/ RTO)	24-hr	130.8	225.2	798.5	-442.5	6.10	N
	RTO Bypass	24-hr	493.4	424.9	798.5	-305.1	6.10	N

These calculations verify that impact from use of a higher EGBE inside spray coating formulation, is relatively minor. Conclusions from the TAP netting analysis continue to show a significant reduction in EGBE emissions from the project; created by control of VOC and TAP emissions from the new RTO. Accordingly, EGBE emissions from the project continue to be exempt from dispersion modeling.

Key inputs and the emission rates used in the final EGBE emissions netting summary are highlighted in yellow in Tables 2 thru 5. The TAP emissions analysis initially completed for the 2021 NOC application are presented in Tables 2 and 4. These calculations precisely match the emission rates presented in Table 7 of ORCAA's Final Determination to Approve the NOC. The revised TAP emissions analysis that includes the higher EGBE content inside spray coating are presented in Tables 3 and 5. These are the rates that are used in the revised TAP emissions netting analysis presented above.

Please do not hesitate to contact me at 215.698.5308, if you have any questions about this NOC application addendum.

Sincerely,



Mike Antry
Vice President - EHS
Crown Cork and Seal Company

Enclosures

APPENDIX A

EGBE Emission Calculations and Revises TAP Netting Analysis

Table 1
Crown Cork & Seal Company, Inc.
Olympia, WA
Revision to EGBE Netting Evaluation

Toxic Air Pollutants Netting (EGBE Emission Change from Project) - Initial NOC Application

Pollutant	Operating Mode	Avg. Period	Line 3	Lines 1&2	Baseline	Net Change in	SQER	Model
			Emissions (lb/day)	Emissions (lb/day)	Emissions (lb/day)	Emissions (lb/day)	limit (lbs/day)	(Y/N)?
EGBE	Normal (w/ RTO)	24-hr	123.1	211.6	798.5	-463.8	6.10	N
	RTO Bypass	24-hr	464.1	399.2	798.5	-334.4	6.10	N

Toxic Air Pollutants Netting (EGBE Emission Change from Project) - Revised Inside Spray Formulation

Pollutant	Operating Mode	Avg. Period	Line 3	Lines 1&2	Baseline	Net Change in	SQER	Model
			Emissions (lb/day)	Emissions (lb/day)	Emissions (lb/day)	Emissions (lb/day)	limit (lbs/day)	(Y/N)?
EGBE	Normal (w/ RTO)	24-hr	130.8	225.2	798.5	-442.5	6.10	N
	RTO Bypass	24-hr	493.4	424.9	798.5	-305.1	6.10	N

Table 2
Lines 1&2 Process Line - TAP Emissions, including RTO Bypass Scenario - Initial Ananlysis from NOC Application

Operating Parameters		Speciated VOC (% By Weight) ¹	
Normal Production (hrs/yr)	8,560	Inside Spray Capture Efficiency	75%
RTO Bypass (hrs/yr)	200	Inside Spray Destruction Efficiency	98%
Combined Lines 1 & 2 Rated Capacity (cans/min)	3,800	Varnish/link Capture Efficiency	75%
Line 1 / Line 2 RTO Bypass Rate (cans/min)	1,900	Varnish/link Destruction Efficiency	98%
Line 1 and Line 2 Production Efficiency	90%	UV Varnish Capture and Control	0.0%

Material	Use	Density (lb/gal)	Speciated VOC (% By Weight) ¹				Formaldehyde
			Ethylene Glycol Monobutyl Ether (EGBE)	Isopropyl Alcohol (IPA)	Propylene Glycol Methyl Ether (PGME)	Ethylene Glycol Monoethyl Ether (EGHE)	
Various	Inside spray	8.46	6.80%	0.00%	0.20%	0.50%	
Various	Varnish	8.90	7.40%	0.00%	0.00%	0.00%	
Various ²	Ink	9.78	0.00%	0.00%	0.00%	0.00%	
IPA	Cleanup	6.56	0.00%	100.00%	0.00%	0.00%	

¹ Material content based on the worst case formulation of the possible coating/ink, based on manufacturer SDSs.

² More than 500 types of ink products are used, this calculation uses a reasonable worst-case density (9.78 lb/gal) and VOC content (5%)

Material	Use	Application (gal/hr)	Speciated VOC Emissions (lb/hr) ¹				Formaldehyde
			EGBE	IPA	PGME	EGHE	
Various	Inside spray	42.1	24.20	0.00	0.71	1.78	--
Various	Varnish	13.8	9.07	0.00	0.00	0.00	--
Various	Ink	2.0	0.00	0.00	0.00	0.00	--
IPA	Cleanup	1.50	0.00	9.84	0.00	0.00	--
Total Uncontrolled Emission Factor			33.27	9.84	0.71	1.78	2.60
Fugitive Emissions			8.32	9.84	0.18	0.44	0.00
Total Controlled Speciated VOC Emissions			0.50	0.00	0.01	0.03	0.05

¹ Hourly emissions are based on the Line 3 rated capacity of 2,800 gpm, the material application rate, speciated VOC content, and respective capture efficiency and destruction efficiency for the application.

Potential TAP Emissions	Pollutant	CAS	Normal Operation ¹			RTO Bypass ²		
			lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr
	EGBE	111-76-2	8.8	211.6	67922	16.6	399.2	3326.9
	IPA	67-63-0	9.8	236.1	75801	4.9	118.1	983.9
	PGME	107-98-2	0.2	4.5	1453	0.4	8.5	71.2
	EGHE	112-25-4	0.5	11.3	3633	0.9	21.4	177.9
	Formaldehyde	50-00-0	0.05	1.2	400	1.3	31.2	259.9

¹ Hourly emissions during normal operation are based on the combined Line 1 and 2 rated throughput of 3,800 gpm. Daily emissions based on the maximum hourly rate and continuous operation for 24 hours. Annual emissions based on the maximum hourly rate, the 90% line efficiency, and continuous operation for 8,560 hours per year.

² Hourly emissions during RTO bypass operation are based on only Line 2 operating at its rated capacity of 1,900 gpm. Daily emissions based on the maximum hourly rate and continuous operation for 24 hours. Annual emissions based on the maximum hourly rate and continuous operation for 200 hours per year.

Table 3
Line 3 Process Line - TAP Emissions, Including RTO Bypass Scenario - Initial Analysis from NOC Application

Operating Parameters			
Normal Production (hrs/yr)	8,560	Inside Spray Capture Efficiency	84%
RTO Bypass (hrs/yr)	200	Inside Spray Destruction Efficiency	98%
Line 3 Rated Capacity - Normal (cans/min)	3,000	Varnish/Ink Capture Efficiency	84%
Line 3 RTO Bypass Rate (cans/min)	2,000	Varnish/Ink Destruction Efficiency	98%
Line 3 Production Efficiency	90%	UV Varnish Capture and Control	0%

Material	Use	Density (lb/gal)	Speciated VOC (% By Weight) ¹										
			n-Butanol	Ethylene Glycol Monobutyl Ether (EGBE)	Dimethyl ethanalamine (DMEA)	n-Amyl Alcohol (n-AmOH)	Isopropyl Alcohol (IPA)	Propylene Glycol Methyl Ether (PGME)	Tridecyl alcohol (TDA)	Ethylene Glycol Monohexyl Ether (EGHE)	Formaldehyde		
Various	Inside spray	8.46	5.20%	6.80%	1.10%	3.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	0.00%
Various	Varnish	8.90	2.20%	7.40%	2.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	0.00%	0.07%
Various ²	Ink	9.78	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
IPA	Cleanup	6.56	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

¹ Material content based on the worst case formulation of the possible coating/ink, based on manufacturer SDSs.

Material	Use	Application (gal/hr)	Speciated VOC Emissions (lb/hr) ¹										
			n-Butanol	EGBE	DMEA	n-AmOH	IPA	PGME	TDA	EGHE	Formaldehyde		
Various	Inside spray	36.0	15.84	20.71	3.35	9.75	0.00	0.00	0.00	0.00	0.34	1.52	0.00
Various	Varnish	12.6	2.47	8.30	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Various	Ink	1.6	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPA	Cleanup	1.12	0.00	0.00	0.00	0.00	0.00	7.33	0.00	0.00	0.00	0.00	0.00
Total Uncontrolled Emission Factor			18.30	29.01	7.16	9.75	7.33	0.00	0.00	0.34	1.52	2.06	0.00
Total Controlled Speciated VOC Emissions			2.93	4.64	1.15	1.56	7.33	0.00	0.00	0.05	0.24	0.00	0.04
Total Controlled Speciated VOC Emissions			0.31	0.49	0.12	0.16	0.00	0.00	0.01	0.01	0.03	0.00	0.04

¹ Hourly emissions are based on the Line 3 rated capacity of 2,800 cpm, the material application rate, speciated VOC content, and respective capture efficiency and destruction efficiency for the application.
² Resin curing in the oven forms formaldehyde. It is captured 100% in the oven and routed to the RTO. The formation rate is from 2009 stack test at Crown's Olympia Washington plant.

Speciated VOC Emissions	Pollutant	CAS	Normal Operation ¹			RTO Bypass ²		
			lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr
	n-Butanol	71-36-3	3.2	77.7	24,932	12.2	292.9	24,406
	EGBE	111-76-2	5.1	123.1	39,511	19.3	464.1	38,678
	DMEA	108-01-0	1.3	30.4	9,754	4.8	114.6	9,548
	n-AmOH	71-41-0	1.7	41.4	13,275	6.5	155.9	12,995
	IPA	67-63-0	7.3	175.8	62,708	4.9	117.2	9,768
	PGME	107-98-2	0.0	0.0	0	0.0	0.0	0.0
	TDA	112-70-9	0.1	1.4	458	0.2	4.9	44.9
	EGHE	112-25-4	0.3	6.5	2,074	1.0	24.4	203.0
	Formaldehyde	50-00-0	0.04	1.0	331	1.4	33.0	275.1

¹ Hourly emissions during normal operation are based on Line 3 rated throughput of 2,800 cpm. Daily emissions based on the maximum hourly rate operated for 24 hours continuously. Annual emissions based on the maximum hourly rate, the 90% line efficiency, and continuous operation for 8,560 hours per year.

² Hourly emissions during RTO bypass operation are based on the reduce Line 3 throughput of 2,000 cpm. Daily emissions based on the maximum hourly rate operated for 24 hours continuously. Annual emissions based on the maximum hourly rate and operation for 200 hours per year.

Table 4
Line 1&2 Process Line - TAP Emissions, including RTO Bypass Scenario - Revised for Higher Inside Spray EGBE Content

Operating Parameters		Inside Spray Capture Efficiency	
Normal Production (hrs/yr)	8,560	Inside Spray Capture Efficiency	75%
RTO Bypass (hrs/yr)	200	Inside Spray Destruction Efficiency	98%
Combined Lines 1 & 2 Rated Capacity (cans/min)	3,800	Varnish/Ink Capture Efficiency	75%
Line 1 / Line 2 RTO Bypass Rate (cans/min)	1,900	Varnish/Ink Destruction Efficiency	98%
Line 1 and Line 2 Production Efficiency	90%	UV Varnish Capture and Control	0.0%

Material	Use	Density (lb/gal)	Speciated VOC (% By Weight) ¹				
			Ethylene Glycol Monobutyl Ether (EGBE)	Isopropyl Alcohol (IPA)	Propylene Glycol Methyl Ether (PGME)	Ethylene Glycol Monohexyl Ether (EGHE)	Formaldehyde
Various	Inside spray	8.46	7.40%	0.00%	0.20%	0.50%	
Various	Varnish	8.90	7.40%	0.00%	0.00%	0.00%	
Various ²	Ink	9.78	0.00%	0.00%	0.00%	0.00%	
IPA	Cleanup	6.56	0.00%	100.00%	0.00%	0.00%	

¹ Material content based on the worst case formulation of the possible coating/ink, based on manufacturer SDSs.

² More than 500 types of ink products are used, this calculation uses a reasonable worst-case density (9.78 lb/gal) and VOC content (5%)

Material	Use	Application (gal/hr)	Speciated VOC Emissions (lb/hr) ¹				
			EGBE	IPA	PGME	EGHE	Formaldehyde
Various	Inside spray	42.1	26.33	0.00	0.71	1.78	--
Various	Varnish	13.8	9.07	0.00	0.00	0.00	--
Various	Ink	2.0	0.00	0.00	0.00	0.00	--
IPA	Cleanup	1.50	0.00	9.84	0.00	0.00	--
Total Uncontrolled Emission Factor			35.40	9.84	0.71	1.78	2.60
Fugitive Emissions			8.85	9.84	0.18	0.44	0.00
Total Controlled Speciated VOC Emissions			0.53	0.00	0.01	0.03	0.05

¹ Hourly emissions are based on the Line 3 rated capacity of 2,800 cpm, the material application rate, speciated VOC content, and respective capture efficiency and destruction efficiency for the applica

Potential TAP Emissions	Pollutant	CAS	Normal Operation ¹			RTO Bypass ²		
			lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr
	EGBE	111-76-2	9.4	225.2	72,281	17.7	424.9	3,540
	IPA	67-63-0	9.8	236.1	75,801	4.9	118.1	984
	PGME	107-98-2	0.2	4.5	1,453	0.4	8.5	71
	EGHE	112-25-4	0.5	11.3	3,633	0.9	21.4	178
	Formaldehyde	50-00-0	0.05	1.2	400	1.3	31.2	260

¹ Hourly emissions during normal operation are based on the combined Line 1 and 2 rated throughput of 3,800 cpm. Daily emissions based on the maximum hourly rate and continuous operation for 24 hours. Annual emissions based on the maximum hourly rate, the 90% line efficiency, and continuous operation for 8,560 hours per year.

² Hourly emissions during RTO bypass operation are based on only Line 2 operating at its rated capacity of 1,900 cpm. Daily emissions based on the maximum hourly rate and continuous operation for 24 hours. Annual emissions based on the maximum hourly rate and continuous operation for 200 hours per year.

Line 3 Process Line - TAP Emissions, including RTO Bypass Scenario - Revised for Higher Inside Spray EGBE Content

Operating Parameters

Normal Production (hrs/yr)	8,560	Inside Spray Capture Efficiency	84%
RTO Bypass (hrs/yr)	200	Inside Spray Destruction Efficiency	98%
Line 3 Rated Capacity - Normal (cans/min)	3,000	Varnish/Ink Destruction Efficiency	84%
Line 3 RTO Bypass Rate (cans/min)	2,000	Varnish/Ink Destruction Efficiency	98%
Line 3 Production Efficiency	90%	UV Varnish Capture and Control	0%

Material	Use	Density (lb/gal)	Speciated VOC (% By Weight) ¹										
			n-Butanol	Ethylene Glycol Monobutyl Ether (EGBE)	Dimethyl ethanalamine (DMEA)	n-Amyl Alcohol (n-AmOH)	Isopropyl Alcohol (IPA)	Propylene Glycol Methyl Ether (PGME)	Tridecyl alcohol (TDA)	Ethylene Glycol Monohexyl Ether (EGHE)	Formaldehyde		
Various	Inside spray	8.46	5.20%	7.40%	1.10%	3.20%	0.00%	0.00%	0.00%	0.00%	0.30%	0.50%	0.00%
Various	Varnish	8.90	2.20%	7.40%	2.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
Various ²	Ink	9.78	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
IPA	Cleanup	6.56	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

¹ Material content based on the worst case formulation of the possible coating/ink, based on manufacturer SDSs.

Material	Use	Application (gal/hr)	Speciated VOC Emissions (lb/hr) ¹										
			n-Butanol	EGBE	DMEA	n-AmOH	IPA	PGME	TDA	EGHE	Formaldehyde		
Various	Inside spray	36.0	15.84	22.54	3.35	9.75	0.00	0.00	0.00	0.00	0.34	1.52	0.00
Various	Varnish	12.6	2.47	8.30	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Various	Ink	1.6	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IPA	Cleanup	1.12	0.00	0.00	0.00	0.00	0.00	7.33	0.00	0.00	0.00	0.00	0.00
Total Uncontrolled Emission Factor			18.30	30.84	7.16	9.75	7.33	0.00	0.34	1.52	2.06	2.06	0.00
Total Fugitive Emissions			2.93	4.93	1.15	1.56	7.33	0.00	0.05	0.24	0.03	0.04	0.00
Total Controlled Speciated VOC Emissions			0.31	0.52	0.12	0.16	0.00	0.00	0.01	0.03	0.04	0.04	0.00

¹ Hourly emissions are based on the Line 3 rated capacity of 2,800 cpm, the material application rate, speciated VOC content, and respective capture efficiency and destruction efficiency for the application.

² Resin curing in the oven forms formaldehyde. It is captured 100% in the oven and routed to the RTO. The formation rate is from 2009 stack test at Crown's Olympia Washington plant.

Speciated VOC Emissions	Normal Operation ¹				RTO Bypass ²			
	CAS	lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr	lb/yr
Pollutant								
n-Butanol	71-36-3	3.2	77.7	24,932	12.2	292.9	2,441	2,441
EGBE	111-76-2	5.5	130.8	42,000	20.6	493.4	4,111	4,111
DMEA	108-01-0	1.3	30.4	9,754	4.8	114.6	955	955
n-AmOH	71-41-0	1.7	41.4	13,275	6.5	155.9	1,299	1,299
IPA	67-63-0	7.3	175.8	62,708	4.9	117.2	977	977
PGME	107-98-2	0.0	0.0	0	0.0	0.0	0	0
TDA	112-70-9	0.1	1.4	458	0.2	5.4	45	45
EGHE	112-25-4	0.3	6.5	2,074	1.0	24.4	203	203
Formaldehyde	50-00-0	0.04	1.0	331	1.4	33.0	275	275

¹ Hourly emissions during normal operation are based on Line 3 rated throughput of 2,800 cpm. Daily emissions based on the maximum hourly rate operated for 24 hours continuously. Annual emissions based on the maximum hourly rate, the 90% line efficiency, and continuous operation for 8,560 hours per year.

² Hourly emissions during RTO bypass operation are based on the reduce Line 3 throughput of 2,000 cpm. Daily emissions based on the maximum hourly rate operated for 24 hours continuously. Annual emissions based on the maximum hourly rate and operation for 200 hours per year.

APPENDIX B

Reformulated Inside Spray Coating Specifications

ORIGINAL



Supplier's Code:V70Q38AASupplier:Valspar Version:2Version Status:Accepted

Material Description

Coating Type : Water Based

Dry Film Colour : Colourless

Major Resin Type : Epoxy

Limitations Of Use Crown :

Purchasing Codes (0)

Supplier Aliases (0)
No Record found

Crown Aliases (0)
No Record found

Physical Properties

pH :

Flash Point : 130 F

Pct Solids Half Gram (%
by weight at the
recommended cure
schedule) - for NA only :
21.1 +/- 0.5 %

Pct Solids 1 Gram (% by
weight at the
recommended cure
schedule) :

Specific Gravity @ 20C /
80F : 1.013

Glass Transition Temp :

Storage and Handling

Storage Temperature
Optimum : 80 F

Storage Temperature
Minimum : 50 F

Storage Temperature
Maximum : 12 F

Shelf Life At Optimum
Temperature : 6 months

Storage And Handling
Comments : KEEP FROM FREEZING.

Material Ingredients

Resin Modifiers (0)
No Record found

Pigments (0)
No Record found

Internal Lubricant on Dry Film (0)

[No Record found]

Hazardous Ingredients (0)				
No Records found				
Volatile Ingredients (8)				
CAS Number	Name	Weight % to Volatile Ingredients	Weight % to Total Material	Volume % to Volatile Ingredients
0007732-18-5	Water	82.6	65.2	80.6
0000111-76-2	Ethylene glycol monobutyl ether	8.6	6.8	9.3
0000071-36-3	n-butanol	3.9	3.1	4.7
0000071-41-0	1-Pentanol (n-Amyl alcohol)	2.6	2.1	3.1
0000137-32-6	2-Methyl-1-butanol	1.1	0.9	1.3
0000108-01-0	Dimethylethanolamine (DMEA)	0.8	0.6	0.9
0000112-25-4	*Ethylene glycol monoethyl ether	0.1	0.1	0.1
0000123-51-3	Isoamyl alcohol	0.3	0.2	0

VOC Data

Liquid Density (ASTM D1475 - US, or other accredited measurement method - EU) : 8.44 lb/gal
VOC Content (Method 24 ASTM D3960 - US, or other accredited measurement method - EU) : 3.4 lb/gal
Density Wt VOC By Vol Solids (Method 24 ASTM D3960 - US, or other accredited measurement method -EU) : 6.5 lb/gal
Solvent System Density : 8.10 lb/gal
Solids Non Volatiles Weight (Method 24 ASTM D2369) : 21.1 %
Water Content Weight : 65.2 %
Solids Non Volatiles Volume (Method 24 ASTM D2369) :

Water Content Volume : 66.1 %
 Water Content Method : ASTM 3792

VOC Calculation

Total Volatiles(Water included) Volume% : 82.20 %
 Total Volatiles(Less water) Volume% : 16.10 %

Data Sheets

Safety Data Sheets (SDS) (1)						
Name	Issue Date	Review Date	Verification Date	Language	Uploaded By	
V70Q38AA sds	9/20/2018	9/20/2020		English	Morris, Mary	

Technical Data Sheets (0)					
Name	Issue Date	Review Date	Verification Date	Language	Uploaded By

Applications (1)					
CCS Code ↓	Version ↓	Application Status ↓	Action By ↓	Action Date ↓	End Use Codes ↓
20.15.725	1	Accepted	Smith, Steven	12/11/2017	X3030 - Beverage, Interior, Aluminium DWI. For CSD's

This record is only valid on Thu Mar 07 2019

REVISED

Crown Materials Database

Coating - Material View
Material

Unit Region : America

Trislon Locking

View : EHS

Supplier's Code: V70Q38AA

Supplier: Valspar

Version: 6

Version Status: Accepted

Add To Favourites Print

Mat Properties

Mat Ingredients

Mat Regulatory

Applications

Material Ingredients

CAS Number	Name	Weight % to Volatile Ingredients	Weight % to Total Material	Volume % to Volatile Ingredients
000732-18-5	Water	84.3	66.5	82.3
0000111-76-2	Ethylene glycol monobutyl ether	9.4	7.4	10.2
0000071-36-3	n-butanol	3.8	3	4.6
0000071-41-0	1-Pentanol (n-Amyl alcohol)	1.1	0.9	1.3
0000137-32-6	2-Methyl-1-butanol	0.5	0.4	0.6
0000108-01-0	Dimethylethanolamine (DMEA)	0.8	0.6	0.9
0000112-25-4	*Ethylene glycol monohexyl ether	0.1	0.1	0.1

VOC Data

Liquid Density (ASTM D1475 - US, or other accredited measurement method - EU) : 8.44 lb/gal

VOC Content (Method 24 ASTM D3960 - US, or other accredited measurement method - EU) : 3.2 lb/gal

Density Wt VOC By Vol Solids (Method 24 ASTM D3960 - US, or other accredited measurement method - EU) : 5.8 lb/gal

Solvent System Density : 8.13 lb/gal

Solids Non Volatiles Weight (Method 24 ASTM D2369) : 21.1 %

Water Content Weight : 66.5 %

Solids Non Volatiles Volume (Method 24 ASTM D2369) : 18.1 %

Water Content Volume : 67.4 %

Water Content Method : ASTM 3792

VOC Calculation

Total Volatiles(Water included) Volume% : 81.90 %

Total Volatiles(Less water) Volume% : 14.50 %



**Notice of Land Use Approval
and State Environmental Policy Act
Determination of Nonsignificance
(SEPA DNS)
08/28/2020**

Community Planning & Development
601 4th Avenue E. – PO Box 1967
Olympia WA 98507-1967
Phone: 360.753.8314
Fax: 360.753.8087
cpdinfo@ci.olympia.wa.us
www.olympiawa.gov

Project Number/Name: 20-2922; Crown Cork & Seal Olympia Facility Addition and Renovation
Description of Proposal: Land use review for 10,960 sf addition and renovations to existing facility
Location of Proposal: 1202 Fones Rd SE, Olympia, WA
Applicant/Proponent: SCJ Alliance; 8730 Tallon Lane NE Suite 200 Lacey, WA 98516

Lead Agency: City of Olympia
SEPA Official: Nicole Floyd, AICP, Principal Planner, nfloyd@ci.olympia.wa.us, 360. 570.3768
Lead Planner: Joyce Phillips, AICP, Senior Planner, jphillip@ci.olympia.wa.us, 360.570.3722
Date of Issue: August 28, 2020
Appeal Deadline: 5:00 p.m., September 11, 2020

Threshold Determination: The lead agency for this proposal has determined that this action is not likely to have a significant adverse impact upon the environment. Therefore, an Environmental Impact Statement is not required under RCW 43.21C.030(2)(C). The environmental review and SEPA threshold determination of this proposed action are based upon the environmental checklist and related information on file with the City. This information is available to the public on request.

Comments regarding the potential environmental impacts of this proposal were solicited early in the review process, from August 7, 2020 through August 21, 2020, using the Optional DNS process. All comments received were reviewed and considered prior to issuance of the Determination of Nonsignificance. This DNS is issued under Washington Administrative Code 197-11-355. The applicant shall not begin work until after the appeal deadline has expired and any other necessary permits have been granted.

The proposed Crown Cork & Seal Olympia Facility Addition and Renovation is approved by the Director with the following conditions. These conditions must be met prior to issuance of construction permits or Certificate of Occupancy, or as specifically noted in the condition.

CONDITIONS

1. Site Plan: Development shall be substantially similar to the approved site plan, sheet S-01 dated July 22, 2020, except as modified below.
2. Engineering Permit: The engineering plans shall comply with the Engineering Design and Development Standards (EDDS) and Drainage Design and Erosion Control Manual (DDECM) in effect at the time of Engineering Permit plan submission. The following shall be addressed as part of the Engineering Permit Application:
 - a. Access: The relocation of the north driveway shall be coordinated with the City of Olympia in conjunction with the Fones Road Project Improvement plans. The driveway location is an element of both projects and must be coordinated. All efforts shall be made to get the location finalized in order to avoid duplicating work or needing to make further adjustments when the City of Olympia moves to the construction phase of their project.
 - b. Right of Way: The existing western property line shall be clearly labeled on the engineering plans. The anticipated future property line shall also be shown. The new addition of the building shall

clearly show the ability to be constructed without encroaching of the future right of way dedication needed as part of the City of Olympia's future Fones Road improvements.

- c. Wastewater: The applicant shall address and significantly reduce the gritty discharge. The applicant must comply with applicable federal, state and local regulations including Chapter 173-240 WAC, and Olympia Municipal Code Sections 13.20.070 A and 13.20.340.
- d. Landscaping: A final landscape plan, prepared in accordance with OMC 18.36, shall be submitted for review and approval at the time of engineering permit application submittal. The landscaping plan shall be revised as follows:
 - i. Provide information to demonstrate that the additional Hornbeam trees proposed adjacent to the western wall of the addition will be at the same spacing as the existing Hornbeam trees adjacent to the existing building.
 - ii. Provide a cost estimate for site preparation, installation, and 3 –years of maintenance of all landscaping and irrigation on a separate sheet of paper.
- e. Soil and Vegetation Plan: The Engineering Permit application shall include a modified Level 2 Soil and Vegetation Report prepared by a qualified professional forester that only includes the on and off-site trees to be saved which require protection during construction (as determined by the Project Forester). The tree protection measures information from the project forester shall be added directly to the Civil Plan set. In addition, the following Tree Protection Fence Installation Timeline shall be noted directly on the Civil Plan set:

Tree Protection Fence Installation Timeline

- i. Contact Project Forester to identify location for Tree Protection fence on site.
 - ii. Contractor to install Tree Fence.
 - iii. Project Forester inspects location and installation of Tree Fence and sends City of Olympia Forester inspection notice of Approval.
 - iv. City Forester notifies Inspector the Pre-construction conference may be scheduled.
 - v. Contact Project Forester to attend the pre-construction conference to discuss tree protection issues.
 - vi. Removal of trees and grading may begin within the clearing limits in the construction area
 - vii. Maintain all tree protection fences throughout construction.
 - viii. If any unplanned construction activity will affect a save tree, contact Project Forester prior to the impact. Project Forester assesses the proposed impact and recommends cultural care, mitigation, or removal. Project Forester sends email to City of Olympia Forester for final approval.
3. Building Permit: The project shall comply with the City of Olympia Construction Codes as adopted through the Olympia Municipal Code, Chapter 16.04. Project shall comply with the provisions of accessibility as required by the International Building Code (IBC) and ICC ANSI 117.1 2009 (or the version in effect at the time of permit submittal). Plans for the building permit application shall include:
- a. The long-term bike parking room/enclosure shall be identified with dimensions on building permit plans. The dimensions of the room, dimensions of the three bicycle parking stalls, rack type, style and size shall be identified as well as the locking mechanism, and signage shall be provided on plans.
 - b. The short-term bicycle parking stall locations shall be identified on the building permit plans. The three parking spaces shall be shown with dimensions. The awning covering or other roof cover that covers the stalls shall extend no less than 1.5' beyond the outer edge of each bicycle. Plans shall identify the rack to be used and shall include a minimum distance of 24" to ensure both wheels can

be independently locked to the frame and rack.

- c. The regenerative thermal oxidizer and any associated equipment located on the exterior of the building shall be screened from view by a Type 1 screen, such as a fence or landscaping screen. The building permit application shall include a detail of the screening proposed to show the proposed screening material(s) and height.
 - d. The Site Plan shall be submitted with the building permit application.
4. Fire: This project shall adhere to Olympia Municipal Code (OMC) Ch. 16.32 and 2015 IFC.
 5. Hours of Operation/Noise: Pursuant to Section 18.40.080.C.7 of the Olympia Municipal Code (OMC), construction activity detectable beyond the site boundaries shall be restricted to the hours between 7:00 a.m. and 6:00 p.m. Longer term operation activity shall comply with noise standards of the OMC.
 6. Solid Waste: Solid waste collection for the ongoing business operation shall not be impacted by the construction activity and access shall remain available.
 7. Pursuant to OMC 18.12.140, an Inadvertent Discovery Plan shall be prepared and submitted with the construction permit application(s). The plan outlines how the project proponent and site crew will respond in the event that archaeological or cultural resources are uncovered during the course of project work. The plan shall be completed and approved prior to issuance of any construction permits or commencement of any site work, and a copy of the plan maintained on site throughout construction. In the event that any such resources are uncovered during construction, work shall halt immediately, and the applicant shall contact the City of Olympia, Washington State Department of Archaeological and Historic Preservation, the Squaxin Island Tribe, and the Nisqually Indian Tribe for consultation before any further work may proceed.
 8. Signage: The plan shows relocation of the existing sign. A building permit is required to relocate the sign. All new or relocated signage must meet the current sign code pursuant to Chapter 18.43 of the Olympia Municipal Code.
 9. All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from the local jurisdictional health department prior to filling. All removed debris resulting from this project must be disposed of at an approved site.
 10. This property is within a quarter mile of a known or suspected contaminated site (Taylor Wetland Fill, FSID #26298). If contamination is discovered or occurs during construction, testing of the potentially contaminated media must be conducted. If contamination of soil or groundwater is readily apparent, or is revealed by sampling, the Department of Ecology must be notified by contacting the Environmental Report Tracking System Coordinator at the Southwest Regional Office.
 11. Stormwater Permitting: The developer or their contractor shall obtain a Construction Stormwater General Permit from the Washington State Department of Ecology, if one is required, before any permit is issued for earth-disturbing activities associated with this project.
 12. Vegetation Maintenance Bond: A vegetation maintenance bond (or other assurance) shall be provided following City acceptance of the landscape installation including street trees before issuance of the Certificate of Occupancy. The bond amount shall be 125% of the cost estimate submitted with the Landscape Plan and approved by the City.

13. Right of Way Performance Bond: Bonds or other allowable securities will be required by the City to guarantee the performance of work within the subject site and rights-of-way, or maintenance of required public infrastructure intended to be offered for dedication as a public improvement. See both EDDS Section 2.030.F and Volume 1 Section 2.6.1 of the 2016 DDECM for more information.

Impact Fee Note:

This project will be subject to impact fees. These fees will be due and payable when building permits are issued. Specific impact fees will be determined when a complete building permit application is submitted. Prior to that date, all impact fees are subject to change. Enclosed is the current impact fee handout for your reference.

APPEAL PROCEDURE: Pursuant to RCW 43.21C.075(3) and Olympia Municipal Code 14.04.160(A), this DNS may be appealed by any agency or aggrieved person. Appeals must be filed with the Community Planning and Development Department at the address above within fourteen (14) calendar days of the date of issue. Any appeal must be accompanied by a \$1,000.00 administrative appeal fee.

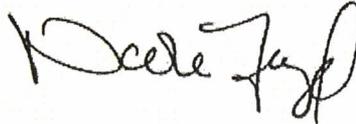
APPEAL DEADLINE: 5:00 p.m., SEPTEMBER 11, 2020

EXPIRATION OF APPROVAL:

Pursuant to 18.60.240 and 18.72.140.D., this approval will expire two years from the date of the appeal period deadline, unless there is an application for unexpired construction permits or explicitly extended by the Director in response to a written request submitted prior to the expiration date.



Joyce Phillips, AICP, Senior Planner
Lead Planner on behalf of Leonard Bauer, FAICP,
Director of Community Planning and Development



Nicole Floyd, AICP, Principal Planner
SEPA Official