



State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
STARK COUNTY

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov.
Center

Application No: 15-01446

DATE: 2/06/01

Crown Cork and Seal Co. (USA) Inc.
Jim Skinner
700 Sixteenth St SE
Massillon, OH 44646-7152

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA Canton LAA



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: February 6, 2001

FINAL PERMIT TO INSTALL 15-01446

Application Number: 15-01446
APS Premise Number: 1576130634
Permit Fee: **\$200**
Name of Facility: Crown Cork and Seal Co. (USA) Inc.
Person to Contact: Jim Skinner
Address: 700 Sixteenth St SE
Massillon, OH 44646-7152

Location of proposed air contaminant source(s) [emissions unit(s)]:
700 Sixteenth St SE
Massillon, Ohio

Description of proposed emissions unit(s):
Can end line.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS**A. State and Federally Enforceable Permit To Install General Terms and Conditions****1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally

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applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

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Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35 , the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

7. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

8. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

9. Construction Compliance Certification

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The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	29.35
Particulates	0.07
CO	0.79
NOx	0.96

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

OAC rule
3745-21-09(D)(1)(e) and
(D)(2)(e)

Applicable Emissions
Limitations/Control Measures

pursuant to OAC rule 3745-31-05(A)(3).

VOC emissions shall not exceed
9.329 lbs/hr and 29.35 tons/yr.

NOx emissions shall not exceed 0.22
lb/hr and 0.96 ton/yr.

Carbon monoxide emissions shall not
exceed 0.18 lb/hr and 0.79 ton/yr.

Particulate emissions shall not exceed
0.017 lb/hr and 0.07 ton/yr.

See sections A.I.2.a, A.I.2.b and
A.I.2.c below.

Volatile organic compound emissions
from this emissions unit shall not
exceed 29.35 tons per year based
upon a rolling, 12-month summation
of the monthly emissions.

See sections A.I.2.d and A.II.1
below.

Repair Coat
The emission limitation specified by
this rule is less stringent than the
emission limitation established
pursuant to OAC rule
3745-31-05(A)(3).

Tab Lubricant
See section A.I.2.c below

End Sealing Compound
The emission limitation specified by
this rule is less stringent than the
emission limitation established

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2. Additional Terms and Conditions

- 2.a** The end sealing compound employed by this emissions unit shall not contain any VOCs.
- 2.b** The VOC emissions generated by the application of the repair coat shall be vented to a catalytic incinerator. The catalytic incinerator shall provide an overall control efficiency of at least eighty percent (80%), by weight, and a control destruction efficiency of not less than ninety percent (90%), by weight, for the VOC emissions vented to the control system.
- 2.c** The maximum tab lubricant usage rate shall not exceed 10 gallons in any day.
- 2.d** The annual emissions shall not exceed the following as a rolling, 12-month summation:
- i. 24.0 tons of all hazardous air pollutants (HAPs); and
 - ii. 9.0 tons of any individual HAP.

II. Operational Restrictions

1. The limitation for volatile organic compound emissions from this emissions unit of 29.35 tons per year based upon a rolling, 12-month summation of the monthly emissions shall be achieved by the following:
 - a. the maximum annual amount of cleanup material used shall not exceed 2,400 gallons, based upon a rolling, 12-month summation of the amount of cleanup material used each month;
 - b. the cleanup material employed shall not contain more than 7.5 lbs VOC/gallon;
 - c. the maximum annual amount of repair coat used shall not exceed 21,688 gallons, based upon a rolling, 12-month summation of the amount of repair coat used each month;
 - d. the VOC content of the repair coat employed shall not exceed 6.1 lbs/gallon;
 - e. the maximum annual amount of tab lubricant used shall not exceed 2,484 gallons, based upon a rolling, 12-month summation of the amount of tab lubricant used each month: and

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f. the VOC content of the tab lubricant employed shall not exceed 5.7 lbs VOC/gallon.

2. To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the repair coat usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Repair Coat Usage (gallons)
1	1,807
1-2	3,615
1-3	5,422
1-4	7,229
1-5	9,036
1-6	10,844
1-7	12,651
1-8	14,459
1-9	16,266
1-10	18,074
1-11	19,881
1-12	21,688

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual repair coat usage limitation shall be based upon a rolling, 12-month summation of the repair coat usage figures.

3. To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the tab lubricant usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Tab Lubricant Usage (gallons)
1	207
1-2	414
1-3	627
1-4	828
1-5	1035
1-6	1242
1-7	1449
1-8	1656
1-9	1863
1-10	2070
1-11	2277

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After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual tab lubricant usage limitation shall be based upon a rolling, 12-month summation of the tab lubricant usage figures.

4. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit was in operation, shall not be more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance.
5. The average temperature differences across the catalyst bed, for any 3-hour block of time when the emissions unit was in operation, shall not be less than 80 percent of the average temperature difference during the most recent performance test that demonstrated the emissions unit was in compliance.
6. The potential emissions [as defined by OAC rule 3745-77-01(BB)] of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this emissions unit shall be less than 10* TPY for any single HAP and 25* TPY for any combination of HAPs, based upon rolling, 12-month summations.
7. To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

Month(s)	Maximum Allowable Commutative Emissions of Each Individual HAP (tons)	Maximum Allowable Commutative Emissions of Total Combined HAPs (tons)
1	1.0	2.0
1-2	2.0	4.0
1-3	3.0	6.0
1-4	4.0	8.0
1-5	5.0	10.0
1-6	6.0	12.0
1-7	6.5	14.0
1-8	7.0	16.0
1-9	7.5	18.0
1-10	8.0	20.0
1-11	8.5	22.0
1-12	9.0	24.0

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After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitations shall be based upon a rolling, 12-month summation of the emission figures.

- 8. To ensure enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the cleanup material usage levels specified in the following table:

Month(s)	Cumulative Cleanup Material Usage (gallons)	Maximum Allowable
1	200	
1-2	400	
1-3	600	
1-4	800	
1-5	1000	
1-6	1200	
1-7	1400	
1-8	1600	
1-9	1800	
1-10	2000	
1-11	2200	
1-12	2400	

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual cleanup material usage limitation shall be based upon a rolling, 12-month summation of the tab lubricant usage figures.

III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall operate and maintain continuous temperature monitors and recorders which measure and record the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- 2. The permittee shall maintain records of the following during the operation of the emissions unit:

- a. a daily log or record of operating and downtime for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit (the log shall include any operational problems and/or malfunctions which reduce the average control efficiency, causes for those episodes and corrective actions to resolve the problem);
 - b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed is more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance; and
 - c. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average difference during the most recent performance test that demonstrated the emissions unit was in compliance.
3. The catalyst bed material shall be inspected once during the effective permit period for general catalyst condition and any signs of potential catalyst depletion as recommended by the manufacturer. The permittee shall also collect a representative sample of the catalyst from the incinerator, per manufacturer's recommendations, and have it tested to evaluate the catalyst's capability to continue to function at or above a 90% overall control efficiency. Selection of the testing company and procedures shall be in accordance with catalyst manufacturer's recommendations. Inspections of the catalyst bed shall be conducted when temperature monitoring records indicate a problem with the bed. An evaluation of the catalyst bed material shall be conducted whenever the results of the inspection indicate signs of potential catalyst depletion or poor catalyst condition based on manufacturer's recommendations, but not less than once during the effective period of the permit. The Canton local air agency shall be informed of the date of any inspections or sample collections at least 30 days prior.
 4. The permittee shall maintain in their files a detailed and signed catalyst evaluation report from the testing company for the testing conducted. The report shall provide the name and address of the testing company, the date the sample was collected and analyzed, the sampling techniques and methods used to collect and analyze the sample, the results of all analyses, an interpretation of all the data collected, and an evaluation by the manufacturer of the incinerator catalyst's current and future capability to meet the control and capture efficiencies required by this permit based on their expertise and the test report data.
 5. The permittee shall maintain daily records of the following information for the emissions unit:
 - a. the name and identification of each coating, tab lubricants and cleanup material employed;
 - b. the number of gallons of each coating, tab lubricants and cleanup material employed;
 - c. the VOC content of each coating, tab lubricants and cleanup material employed, in lbs VOC/gallon, as applied;

Emissions Unit ID: P031

- d. the number of operating hours for this emissions unit;
 - e. the total calculated, uncontrolled VOC emissions from all coatings, tab lubricants and cleanup materials in pounds or tons;
 - f. the total calculated, controlled VOC emissions in pounds or tons from all coatings, tab lubricants and cleanup materials (This value is calculated by multiplying the total calculated, uncontrolled pounds of VOC emission rate from the application of the repair coat by a factor of one minus the overall control efficiency/100. The overall control efficiency shall be from the most recently approved performance test demonstrating compliance with the control efficiency limits in this permit and adding to this value the uncontrolled emissions from the application of the tab lubricant and the use of cleanup materials); and
 - g. the controlled average hourly VOC emission rate for this emissions unit. (This VOC emission rate shall be determined by dividing each daily controlled VOC emission value by the number of hours this emissions unit operated during the day.)
6. The permittee shall collect and record the following information for each month for each tab lubricant, cleanup material, and repair coat material employed:
- a. the name and identification of each repair coating employed;
 - b. the total VOC content, in pounds of VOC per gallon of each repair coating employed, as applied;
 - c. the individual Hazardous Air Pollutant (HAP) content, for each HAP of each repair coating, in pounds of individual HAP per gallon of repair coating, as applied;
 - d. the total combined HAP content of each repair coating, in pounds of combined HAPs per gallon of repair coating, as applied (sum all the individual HAP contents from (c));
 - e. the number of gallons of each repair coating employed, as applied;
 - f. the name and identification of each tab lubricant employed;
 - g. the total VOC content, in pounds of VOC per gallon of each tab lubricant employed, as applied;
 - h. the individual Hazardous Air Pollutant (HAP) content, for each HAP of each tab lubricant, in pounds of individual HAP per gallon of tab lubricant, as applied;
 - i. the total combined HAP content of each tab lubricant, in pounds of combined HAPs per gallon of tab lubricant, as applied (sum all the individual HAP contents from (h));
 - j. the number of gallons of each tab lubricant employed, as applied;

- k. the name and identification of each cleanup material employed;
- l. the total VOC content, in pounds of VOC per gallon of each cleanup material employed, as applied;
- m. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- n. the total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied (sum all the individual HAP contents from (m));
- o. the number of gallons of each cleanup material employed, as applied;
- p. the total uncontrolled individual HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (for each HAP, the sum of (c) times (e) for all repair coatings plus the sum of (h) times (j) for all of the tab lubricants plus the sum of (m) times (o) for all cleanup materials);
- q. the total uncontrolled combined HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (the sum of (d) times (e) for all repair coatings plus the sum of (i) times (j) for all of the tab lubricants plus the sum of (n) times (o) for all cleanup materials);
- r. the total uncontrolled VOC emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (the sum of (b) times (e) for all of the repair coatings plus the sum of (g) times (j) for all tab lubricants plus the sum of (l) times (o) for all cleanup materials);
- s. the total controlled individual HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (for each HAP, the sum of (c) times (e) times (0.2) for all repair coatings plus the sum of (h) times (j) for all of the tab lubricants plus the sum of (m) times (o) for all cleanup materials);
- t. the total controlled combined HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (the sum of (d) times (e) times (0.2) for all repair coatings plus the sum of (i) times (j) for all of the tab lubricants plus the sum of (n) times (o) for all cleanup materials);
- u. the total controlled VOC emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (the sum of (b) times (e) times (0.2) for

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all of the repair coatings plus the sum of (g) times (j) for all tab lubricants plus the sum of (l) times o for all cleanup solvents);

- v. the rolling, 12-month summation of controlled individual HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per year (the sum of (s) for the previous 12 calendar months);
- w. the rolling, 12-month summation of the controlled total combined HAP emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per year (the sum of (t) for the previous 12 calendar months);
- x. the rolling, 12-month summation of the controlled total combined VOC emissions from all repair coatings, tab lubricants and cleanup materials employed, in pounds or tons per month (the sum of (u) for the previous 12 calendar months);
- y. the rolling, 12-month summation of the gallons of repair coating employed (the sum of (e) for the previous 12 calendar months);
- z. the rolling, 12-month summation of the gallons of tab lubricant employed (the sum of (j) for the previous 12 calendar months); and
- aa. the rolling, 12-month summation of the gallons of cleanup materials employed (the sum of (o) for the previous 12 calendar months).

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Canton local air agency. This information does not have to be kept on a line-by-line basis.

- 7. During the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative tab lubricant usage, the cumulative cleanup material usage and the cumulative repair coat usage for each calendar month.

IV. Reporting Requirements

- 1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 50 degrees Fahrenheit below the average temperature of the exhaust gases during the most recent performance test that demonstrated the emissions unit was in compliance; and
 - b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference of the bed during the most recent performance test that demonstrated the emissions unit was in compliance.

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2. The permittee shall submit quarterly deviation (excursion) reports that identify any day when the calculated, controlled VOC emission rate exceeded 9.329 lbs VOC/hr.
3. The permittee shall submit a copy of any catalyst evaluation report to the Canton local air agency within 30 days of the receipt of the report by the permittee from the catalyst testing company.
4. The permittee shall submit quarterly deviation (excursion) reports that identify any daily record showing that this coating line employed more than 10 gallons of tab lubricant.
5. The permittee shall notify the Canton local air agency in writing of any daily record showing the use of noncomplying tab lubricants, cleanup materials, and repair coats. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 30 days following the end of the calendar month in which the exceedance occurred.
6. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the following:
 - a. the average hourly mass emission limitation for VOC and the actual VOC emissions for each such period;
 - b. the rolling, 12-month usage limitation of 2,484 gallons of tab lubricant and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative tab lubricant usage levels;
 - c. the rolling, 12-month usage limitation of 2,400 gallons of cleanup material and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative cleanup material usage levels; and
 - d. the rolling, 12-month usage limitation of 21,688 gallons of repair coat and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative repair coat usage levels.
7. The permittee shall submit annual reports which specify the VOC material usage (includes tab lubricants, cleanup materials, and repair coats) and the VOC emissions, in tons. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.
8. The permittee shall notify the Canton local air agency in writing of any daily record showing that this emissions unit employed more than the applicable maximum daily usage limit of ten gallons for tab lubricants. The notification shall include a copy of such record and shall be sent to the Canton local air agency within 45 days after the exceedance.

V. Compliance Methods and Emission Testing Requirements

1. Compliance with the limitations in section A.I. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:
9.329 lbs VOC/hr

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.5.g.

- b. Emissions Limitation:
29.35 tons VOC/yr

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.x.

- c. Emission Limitation
NOx emissions shall not exceed 0.22 lb/hr and 0.96 ton/yr.

Applicable Compliance Method

$100 \text{ lbs NOx/MMCF (AP-42)} \times 0.0022 \text{ MMCF/hr} = 0.22 \text{ lb NOx/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton/2000 lbs} = 0.96 \text{ ton NOx/yr}$

- d. Emission Limitation
Particulate emissions shall not exceed 0.017 lb/hr and 0.07 ton/yr.

Applicable Compliance Method

$7.6 \text{ lbs PM/MMCF (AP-42)} \times 0.0022 \text{ MMCF/hr} = 0.017 \text{ lb PM/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton/2000 lbs} = 0.07 \text{ ton PM/yr}$

- e. Emission Limitation
Carbon monoxide emissions shall not exceed 0.18 lb/hr and 0.79 ton/yr.

Applicable Compliance Method

$84 \text{ lbs CO/MMCF (AP-42)} \times 0.0022 \text{ MMCF/hr} = 0.18 \text{ lb CO/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton/2000 lbs} = 0.79 \text{ ton CO/yr}$

- f. Emission Limitation
The annual emissions of any individual HAP shall not exceed 9.0 tons/yr as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in

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section A.III.6.v.

- g. Emission Limitation
The annual emissions of any total combined HAPs shall not exceed 24.0 tons/yr as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.w.

- h. Emission Limitation:
Volatile organic compound emissions from this emissions unit shall not exceed 29.35 tons per year based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.x.

- 2. Compliance with the operational limitations of this permit shall be determined in accordance with the following methods:

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- a. **Operational Limitation:**
The maximum tab lubricant usage rate shall not exceed 10 gallons in any day.

Applicable Compliance Method
Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.5.b.
- b. **Operational Limitation**
The maximum annual amount of cleanup material used shall not exceed 2,400 gallons, based upon a rolling, 12-month summation of the amount of cleanup material used each month.

Applicable Compliance Method
Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.aa.
- c. **Operational Limitation**
The VOC content of the cleanup material used shall not exceed 7.5 lbs VOC/gallon.

Applicable Compliance Method:
Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.5.c.
- d. **Operation Limitation:**
The maximum annual amount of repair coat used shall not exceed 21,688 gallons, based upon a rolling, 12-month summation of the amount of repair coat used each month.

Applicable Compliance Method:
Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.y.
- e. **Operational Limitation**
The VOC content of the repair coat used shall not exceed 6.1 lbs VOC/gallon.

Applicable Compliance Method:
Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.5.c.
- f. **Operational Limitation:**
The maximum annual amount of tab lubricant used shall not exceed 2,484 gallons, based upon a rolling, 12-month summation of the amount of tab lubricant used each month.

Crown Cork and Seal Co. (USA) Inc.

PTI Application: 15-01446

Issued

Facility ID: 1576130634

Emissions Unit ID: P031

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.6.z.

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- g. Operational Limitation
The VOC content of the tab lubricant used shall not exceed 5.7 lbs VOC/gallon.

Applicable Compliance Method:

Compliance shall be achieved based on the monitoring and recordkeeping as specified in section A.III.5.c.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted during the first 12 calendar months of operation following the issuance of this permit to install.
 - b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for VOCs, Method 25 or 25A (whichever is appropriate) of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs are specified below. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Canton local air agency.
 - e. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton local air agency. The "Intent to Test"

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notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Canton local air agency's refusal to accept the results of the emission test(s).

Personnel from the Canton local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Canton local air agency.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>P031 - This process is a two- and three-piece food can end seal compound coating line designated EOLE line. This process consists of the following equipment: shell press, curlers, compound lines, electric oven, conversion press and score repair system. VOC emissions from the line are generated from the application of solvent-based tab lubricant during the tab forming process and a repair coating that is applied to cover the score. Additional VOC emissions will be generated from the cleanup solvents used to maintain the repair coating systems. The end sealing compound employed does not contain any VOCs. Only repair coating VOC emissions are vented to a catalytic oxidizer for destruction of VOCs. VOC emissions from the tab lubricant application and the cleanup solvent usage are not vented to a control device.</p>	<p>OAC rule 3745-31-05</p>	<p>See section B.III.1 below.</p>

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Crowi

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2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Cyclohexanone

TLV (mg/m³): 96

Maximum Hourly Emission Rate (lbs/hr): 0.0944

Predicted 1 Hour Maximum Ground-Level Concentration (ug/m³): 984.4

MAGLC (ug/m³): 2,290

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in

Emissions Unit ID: P031

an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and,
- c. where computer modeling is performed, a copy of the resulting computer model runs that shows the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

SIC CODE 3411 SCC CODE 40201726 EMISSIONS UNIT ID P031

EMISSIONS UNIT DESCRIPTION Can end line EOLE Line.

DATE INSTALLED Scheduled to be installed
in 02/2001.

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			0.017 lb/hr	0.07
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			9.329 lbs/hr	29.35
Nitrogen Oxides	Attainment			0.22 lb/hr	0.96
Carbon Monoxide	Attainment			0.18 lb/hr	0.79
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Catalytic oxidizer to control emissions.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ 200,000 for installation only.

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: cyclohexanone, xylene, n-butyl alcohol, MIBK, toluene, heavy naptha

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	0000000c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input checked="" type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

[NSR Discussion](#)

Calculations of VOC Emissions

End Seal Compound

The End Seal Compound used by this emissions unit does not contain any VOCs.

Repair Coat

This coating is applied at a maximum rate of 0.00003099 gal/end.

The VOC content of this coating is 6.1 lbs VOC/gallon.

The maximum production rate is 96,000 ends/hour.

The overall control efficiency for VOCs is 80%.

Maximum annual usage is 21,688 gal/yr.

Uncontrolled Emissions

$96,000 \text{ ends/hr} \times 0.00003099 \text{ gal/end} \times 6.1 \text{ lbs VOC/gal} = 18.15 \text{ lbs VOC/hr}$

$21,688 \text{ gal/yr} \times 6.1 \text{ lbs VOC/gal} \times 1 \text{ ton}/2000 \text{ lbs} = 66.15 \text{ tons VOC/yr}$

Fugitive Emissions

$18.15 \text{ lbs VOC/hr} \times 0.111 \text{ (88.9\% capture)} = 2.015 \text{ lbs VOC/hr}$

$66.15 \text{ tons VOC/yr} \times 0.111 \text{ (88.9\% capture)} = 7.34 \text{ tons VOC/yr}$

Stack Emissions

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

$18.15 \text{ lbs VOC/hr} \times 0.889 \text{ (88.9\% capture)} \times 0.1 \text{ (90\% destruction)} = 1.614 \text{ lbs VOC/hr}$

$66.15 \text{ tons VOC/yr} \times 0.889 \text{ (88.9\% capture)} \times 0.1 \text{ (90\% destruction)} = 5.88 \text{ tons VOC/yr}$

Total Hourly

$2.015 \text{ lbs VOC/hr (fugitive)} + 1.614 \text{ lbs VOC/hr (stack)} = 3.629 \text{ lbs VOC/hr}$

Total Annual

$7.34 \text{ tons VOC/yr (fugitive)} + 5.88 \text{ tons VOC/yr (stack)} = 13.22 \text{ tons VOC/yr}$

OAC rule 3745-21-09(U)(1)(a) limits the VOC content to 4.3 lbs VOC/gallon of coating, excluding water and exempt solvents, or, if a control system is employed, 10.3 lbs VOC per gallon of solids.

$6.1 \text{ lbs VOC/gallon} / 0.134 \text{ (\% solids)} = 45.52 \text{ lbs VOC/gallon of solids} \times 0.2 \text{ (80\% control)} = 9.1 \text{ lbs VOC/gallon of solid}$ which is less than 10.3 lbs VOC/gallon of solids limit.

Tab Lubricant

Maximum hourly usage rate is 0.34 gal/hr

Maximum monthly usage rate is 207 gallons/month.

Maximum annual usage rate is 2,484 gal/yr.

The VOC content of this lubricant is 5.7 lbs VOC/gal.

The emissions are not controlled.

$0.34 \text{ gal/hr} \times 5.7 \text{ lbs VOC/gal} = 1.94 \text{ lbs VOC/hr}$

$207 \text{ gal/month} \times 5.7 \text{ lbs VOC/gal} \times 1 \text{ ton/2000 lbs} = 0.59 \text{ ton VOC/month}$

$2,484 \text{ gal/yr} \times 5.7 \text{ lbs VOC/gal} \times 1 \text{ ton/2000 lbs} = 7.08 \text{ tons VOC/yr}$

Cleanup Material

Hourly usage limit is 0.5 gallon.

Monthly usage is limited to 250 gallons.

Yearly usage is limited 2,400 gal/yr.

VOC content of cleanup material is 7.5 lbs VOC/gallon.

The emissions are not controlled.

$0.5 \text{ gal/hr} \times 7.5 \text{ lbs VOC/gal} = 3.75 \text{ lbs VOC/hr}$

$250 \text{ gal/month} \times 7.5 \text{ lbs VOC/gal} \times 1 \text{ ton/2000 lbs} = 0.94 \text{ ton VOC/month}$

$2400 \text{ gal/yr} \times 7.5 \text{ lbs VOC/gal} \times 1 \text{ ton/2,000 lbs} = 9 \text{ tons VOC/yr}$

Air Toxic Emissions

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

Repair Coat (Repair Coat is made up of a mixture of two repair coats. It is mixed at a 1 to 1 ratio.)

The emission rate from the use of repair coat is 3.629 lbs VOC/hr.

Repair Coat P-2987804 Xylene = 51.4%, n-Butyl Alcohol = 36.5%, Ethyl Benzene = 12.1%

Repair Coat P-2987805 Xylene = 40.5%, n-Butyl Alcohol = 36.5%, MIBK = 12.3%, Ethyl Benzene = 9.5%, Toluene = 0.6%, Exempt mineral spirits = 0.6%

Xylene

$$(3.629 \text{ lbs/hr} \times 0.514/2) + (3.629 \text{ lbs/hr} \times 0.405/2) =$$

$$0.933 \text{ lb/hr} + 0.735 \text{ lb/hr} = 1.668 \text{ lbs/hr}$$

$$1.668 \text{ lbs/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 6.38 \text{ tons/yr}$$

N-Butyl Alcohol

$$(3.629 \text{ lbs/hr} \times 0.365/2) + (3.629 \text{ lbs/hr} \times 0.365/2) =$$

$$0.662 \text{ lb/hr} + 0.662 \text{ lb/hr} = 1.324 \text{ lbs/hr}$$

$$1.324 \text{ lbs/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 5.6 \text{ tons/yr}$$

Ethyl Benzene

$$(3.629 \text{ lbs/hr} \times 0.121/2) + (3.629 \text{ lbs/hr} \times 0.095/2) =$$

$$0.22 \text{ lb/hr} + 0.172 \text{ lb/hr} = 0.392 \text{ lb/hr}$$

$$0.392 \text{ lb/hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 1.717 \text{ tons/yr}$$

MIBK

$$3.629 \text{ lbs/hr} \times 0.123/2 = 0.223 \text{ lb/hr}$$

$$0.223 \text{ lb/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 = 0.977 \text{ ton/yr}$$

Toluene

$$3.629 \text{ lbs/hr} \times 0.006/2 = 0.01 \text{ lb/hr}$$

$$0.01 \text{ lb/hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2,000 = 0.04 \text{ ton/yr}$$

Tab Lubricant**Hydrotreated heavy naptha**

$$0.34 \text{ gal/hr} \times 5.7 \text{ lbs/gal} = 1.94 \text{ lbs/hr}$$

$$207 \text{ gal/month} \times 5.7 \text{ lbs/gal} \times 1 \text{ ton}/2000 \text{ lbs} = 0.59 \text{ ton/month}$$

$$2,484 \text{ gal/yr} \times 5.7 \text{ lbs/gal} \times 1 \text{ ton}/2000 \text{ lbs} = 7.08 \text{ tons/yr}$$

Cleanup Material (40% xylene, 30% PM acetate, 20% cyclohexanone, 10% n-Butyl alcohol)**Xylene**

$$3.75 \text{ lbs/hr} \times 0.4 = 1.5 \text{ lbs/hr}$$

$$9 \text{ tons/yr} \times 0.4 = 3.6 \text{ tons/yr}$$

PM acetate

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

3.75 lbs/hr x 0.3 = 1.125 lbs/hr

9 tons/yr x 0.3 = 2.7 tons/yr

Cyclohexanone

3.75 lbs/hr x 0.2 = 0.75 lb/hr

9 tons/yr x 0.2 = 1.8 tons/yr

n-Butyl alcohol

3.75 lbs/hr x 0.1 = 0.375 lb/hr

9 tons/yr x 0.1 = 0.9 ton/yr

Total Air Toxics

Compound	lbs/hr		tons/yr	TLV(mg/m3)	TLV(lbs/hr)
Xylene (HAP)	3.168 (1.668 + 1.5)	17.18	434		
N-Butyl alcohol	1.699 (1.324 + 0.375)	5.60	303		
Ethyl Benzene (HAP)	0.392	1.72	434		
MIBK (HAP)	0.223	1107	0.9820	5	919
Toluene (HAP)	0.010	0.04	188		
Hydrotreated Heavy Naptha	1.940		18800		
PM acetate (non-air toxic)	1.125				
Cyclohexanone	0.750	1.80	96	128	(lowest)

NEW SOURCE REVIEW FORM B

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12/13/00

09:12:07

*** SCREEN3 MODEL RUN ***

*** VERSION DATED 96043 ***

PTI 15-01446 Crown Cork cyclohexanone

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .944000E-01
STACK HEIGHT (M) = 6.1000
STK INSIDE DIAM (M) = .9146
STK EXIT VELOCITY (M/S)= 3.5900
STK GAS EXIT TEMP (K) = 293.0000
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = 1.5000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 6.1000
MIN HORIZ BLDG DIM (M) = 95.0000
MAX HORIZ BLDG DIM (M) = 95.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .000 M**4/S**3; MOM. FLUX = 2.695 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	U10M STAB	USTK (M/S)	MIX (M/S)	HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	.0000	0	.0	.0	.0	.00	.00	.00	NA
100.	333.0	6	1.5	1.5	10000.0	7.79	4.07	5.36	SS
200.	199.2	6	1.5	1.5	10000.0	7.79	7.73	6.80	SS

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION										Can end line.	CITY/TWP	Massillon (city)
300.	138.4	6	1.5	1.5	10000.0	7.79	11.23	8.16	SS			
400.	115.9	6	1.0	1.0	10000.0	10.33	14.64	8.44	SS			
500.	97.96	6	1.0	1.0	10000.0	10.33	17.97	9.73	SS			
600.	82.97	6	1.0	1.0	10000.0	10.33	21.24	10.59	SS			
700.	70.99	6	1.0	1.0	10000.0	10.33	24.46	11.69	SS			
800.	61.34	6	1.0	1.0	10000.0	10.33	27.63	12.71	SS			
900.	53.51	6	1.0	1.0	10000.0	10.33	30.78	13.69	SS			
1000.	47.47	6	1.0	1.0	10000.0	10.33	33.88	14.41	SS			

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

19. 984.4 6 2.0 2.0 10000.0 6.39 .91 3.26 SS

DWASH= MEANS NO CALC MADE (CONC = 0.0)

DWASH=NO MEANS NO BUILDING DOWNWASH USED

DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED

DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED

DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

*** REGULATORY (Default) ***

PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)

*** CAVITY CALCULATION - 1 *** *** CAVITY CALCULATION - 2 ***

CONC (UG/M**3) = 48.80 CONC (UG/M**3) = 48.80
CRIT WS @10M (M/S) = 4.45 CRIT WS @10M (M/S) = 4.45
CRIT WS @ HS (M/S) = 4.45 CRIT WS @ HS (M/S) = 4.45
DILUTION WS (M/S) = 2.23 DILUTION WS (M/S) = 2.23
CAVITY HT (M) = 6.10 CAVITY HT (M) = 6.10
CAVITY LENGTH (M) = 33.97 CAVITY LENGTH (M) = 33.97
ALONGWIND DIM (M) = 95.00 ALONGWIND DIM (M) = 95.00

END OF CAVITY CALCULATIONS

*** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION MAX CONC DIST TO TERRAIN

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

PROCEDURE (UG/M**3) MAX (M) HT (M)

Table with 4 columns: FACILITY DESCRIPTION, (UG/M**3), MAX (M), HT (M). Rows include SIMPLE TERRAIN, BLDG. CAVITY-1, and BLDG. CAVITY-2.

MAGLC for cyclohexanone 96 mg/m3(TLV)/42 = 2.29 mg/m3 or 2290 ug/m3

Maximum concentration (roof vent) = 984.4 ug/m3 at 19 meters

Since 984.4 ug/m3 is less than 2,290 ug/m3, the Air Toxic Policy is not violated.

Emissions from Combusting Natural Gas

Total BTU rating for 4 score repair ovens (0.55 MMBtu/hr) equals 2.2 MMBtu/hr/0.0022 MMCF/hr. (Note the applicant listed the emissions from the catalytic incinerator based on the rated capacity of 2.5 MMBtu/hr. Ohio EPA's policy is to not include the emissions generated by the control device in determining the allowable emission rate.)

NOx
100 lbs/MMCF x 0.0022 MMCF/hr = 0.22 lb/hr x 8,760 hrs/yr x 1 ton/2000 lbs = 0.96 ton/yr

Particulates
7.6 lbs/MMCF x 0.0022 MMCF/hr = 0.017 lb/hr x 8,760 hrs/yr x 1 ton/2000 lbs = 0.07 ton/yr

CO
84 lbs/MMCF x 0.0022 MMCF/hr = 0.18 lb/hr x 8,760 hrs/yr x 1 ton/2000 lbs = 0.79 ton/yr

VOC
5.5 lbs/MMCF x 0.0022 MMCF/hr = 0.01 lb/hr x 8,760 hrs/yr x 1 ton/2000 lbs = 0.04 ton/yr

Total VOC Emissions

Table with 4 columns: Material, Hourly, Monthly, Annual. Rows include End Seal Compound and Repair Coat.

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION	Can end line.	CITY/TWP	Massillon (city)
Tab Lubricant	1.94 lbs	0.59 ton	
		7.08 tons	
Cleanup Material	3.75 lbs 0.94 ton	9.00 tons	
Fuel Combustion	0.01 lb 0.005 ton	0.05 ton	
Total	9.329 lbs	2.635 tons	29. 35 tons

MACT Determination

This emissions unit falls under the metal can (surface coating) industry MACT subpart kkkk. MACT subpart kkkk is a 10-year MACT. The Tentative Proposal Date for MACT subpart kkkk is 05/01/2001. The permittee is accepting limits of 9.0 tons/yr for individual HAPs and 24.0 tons/yr for combined HAPs to avoid having to do a MACT determination to comply with OAC rule 3745-31-28(B).

Please complete for these type permits ([For PSD/NSR Permit, place mouse over this text:](#))

Synthetic Minor Determination and/or Netting Determination
Permit To Install 15-01446

A. Source Description

This process is a two- and three-food can end seal compound coating line designated EOLE line. This process consists of the following equipment: shell press, curlers, compound lines, electric oven, conversion press and score repair system. VOC emissions from the line are generated from the application of solvent based tab lubricant during the tab forming process and a repair coating that is applied to cover the score. Additional VOC emissions will be generated from the cleanup solvents used to maintain the repair coating systems. The end sealing compound employed does not contain any VOCs. Only repair coating VOC emissions are vented to a catalytic oxidizer for destruction of VOCs. VOC emissions from the tab lubricant application and the cleanup solvent usage are not vented to a control device.

B. Facility Emissions and Attainment Status

This facility is a major facility as defined in the PSD definitions because it has the PTE of more than 250 tons VOC/yr. Stark County is attainment for all pollutants. This facility will be a major source of HAPs when the MACT subpart kkkk is issued.

C. Source Emissions

Based on the hourly VOC allowable of 9.329 lbs/hr times 8,760 hrs/yr, the potential to emit is 40.86 tons VOC/yr. The permittee is accepting limits of 9.0 tons of individual HAPs and 24.0 tons/yr of total combined HAPs to avoid 112(g) and OAC rule 3745-31-28.

D. Conclusion

NEW SOURCE REVIEW FORM B

PTI Number: 15-01446 Facility ID: 1576130634

FACILITY NAME Crown Cork and Seal Co. (USA) Inc.

FACILITY DESCRIPTION Can end line. CITY/TWP Massillon (city)

By lowering the potential to emit of VOCs to 29.35 tons VOC/yr, the installation of this emissions unit will not be a major modification because the potential to emit is less than the threshold of 40 tons VOC/yr. By lowering the allowable for individual HAPs to 9.0 tons/yr and for combined HAPs to 24.0 tons/yr, the installation of this emissions unit will avoid 112(g) and OAC rule 3745-31-28.

Please complete:

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	29.35
Particulates	0.07
CO	0.79
NOx	0.96