



John R. Kasich, Governor  
 Mary Taylor, Lt. Governor  
 Craig W. Butler, Director

6/19/2015

Bill Nickoloff  
 Crown Cork & Seal - Massillon Plant 42  
 700 16th Street S.E.  
 P.O. Box 642  
 Massillon, OH 44648-0642

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 1576130634  
 Permit Number: P0118489  
 Permit Type: Initial Installation  
 County: Stark

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
 77 South High Street, 17th Floor  
 Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging 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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

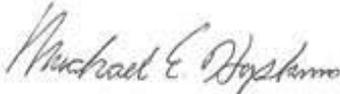
Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.  
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA  
Canton; Pennsylvania; West Virginia



## Response to Comments

Facility ID:	1576130634
Facility Name:	Crown Cork & Seal - Massillon Plant 42
Facility Description:	can & can end mfg. (part of the Crown Food Packaging USA Division)
Facility Address:	700 16th Street S.E. P.O. Box 642 Massillon, OH 44648-0642 Stark County
Permit:	P0118489, Permit-To-Install - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Canton Repository on 05/18/2015. The comment period ended on 06/17/2015.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

**No comments were received during the draft comment period.**

**No changes were made to the terms and conditions from the draft issuance to those recommended for final issuance.**





**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Crown Cork & Seal - Massillon Plant 42**

Facility ID:	1576130634
Permit Number:	P0118489
Permit Type:	Initial Installation
Issued:	6/19/2015
Effective:	6/19/2015





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Crown Cork & Seal - Massillon Plant 42

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**Final Permit-to-Install**  
Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:** 6/19/2015

## Authorization

Facility ID: 1576130634  
Facility Description: can & can end mfg. (part of the Crown Food Packaging USA Division)  
Application Number(s): A0052820  
Permit Number: P0118489  
Permit Description: Initial installation of a can end line that includes airless spray application of a solvent-based, zero-HAPs end sealing compound to the inner lip seal of can ends and in-line application of a solvent material to the nozzle tip to prevent clogging. Parts are air-dried. Synthetic minor restrictions to avoid being a major modification since the unrestricted potential-to-emit for VOC exceeds the significant increase level.  
Permit Type: Initial Installation  
Permit Fee: \$200.00  
Issue Date: 6/19/2015  
Effective Date: 6/19/2015

This document constitutes issuance to:

Crown Cork & Seal - Massillon Plant 42  
700 16th Street S.E.  
P.O. Box 642  
Massillon, OH 44648-0642

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section 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 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

A handwritten signature in black ink that reads "Craig W. Butch".



Craig W. Butler  
Director

**Final Permit-to-Install**  
Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:** 6/19/2015



**Final Permit-to-Install**  
Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:**6/19/2015

## Authorization (continued)

Permit Number: P0118489

Permit Description: Initial installation of a can end line that includes airless spray application of a solvent-based, zero-HAPs end sealing compound to the inner lip seal of can ends and in-line application of a solvent material to the nozzle tip to prevent clogging. Parts are air-dried. Synthetic minor restrictions to avoid being a major modification since the unrestricted potential-to-emit for VOC exceeds the significant increase level.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>K033</b>
Company Equipment ID:	B-31
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:** 6/19/2015

## **A. Standard Terms and Conditions**

**1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. General Requirements**

- a) 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 re-issuance, or modification.
- 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, 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 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.

#### **4. Monitoring and Related Record Keeping 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:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) 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:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Canton City Health Department.
  - (2) 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 Canton City Health Department. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

- (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Canton City Health Department every six months, 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.
  - (4) This permit is for an emissions unit located at a Title V facility. 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.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. 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 Canton City Health Department 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).

## **6. Compliance Requirements**

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule

3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally 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:
- (1) 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.
  - (2) 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.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) 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 Canton City Health Department 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:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) 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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

## **8. 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.

## **9. Reporting 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 Canton City Health Department.
- 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 Canton City Health Department. 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, 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.)

## **10. 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) not exempt from the requirement to obtain a Permit-to-Install.

## **11. Construction of New Sources(s) and Authorization to Install**

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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 cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way

that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## **12. Permit-To-Operate Application**

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

## **13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. 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.

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**16. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

**18. 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.

**19. 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.



**Final Permit-to-Install**  
Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:** 6/19/2015

## **B. Facility-Wide Terms and Conditions**

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

- a) Paragraph 2. - Definitions

2. Definitions as used in this permit:

Cleaning material or cleanup material: a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried (e.g., depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both. [OAC rule 3745-21-01(D)]

Coating or surface coating: a material applied onto or saturated within a substrate for decorative, protective or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, adhesives and inks. [OAC rule 3745-21-01(D)]

Coating line: an operation consisting of a series of one or more coating applicators and any associated flash-off areas, drying areas and ovens wherein a surface coating is applied, dried, and/or cured. It is not necessary for an operation to have an oven, or flash-off area, or drying area in order to be included within this definition. [OAC rule 3745-21-01(D)]

End sealing compound: a synthetic rubber or plastic compound which is applied onto can ends and which functions as a gasket when the end is assembled on the can. [OAC rule 3745-21-01(D)]

Excluding water and exempt solvents means subtracting the volume (or volume fraction) of water and other volatile materials which are not VOC (and thus are known as "exempt solvents") from the total volume of a coating material. [Adapted from OAC rule 3745-21-01(D)].

Exempt solvent: 1. volatile matter in a coating or cleaning material other than VOC or water. [OAC rule 3745-21-10(B)(5)] 2. any of the organic compounds that are specifically identified as exempt under the definition of "volatile organic compound" in paragraph (B)(16) of OAC rule 3745-21-01.

Solids: all nonvolatile matter in a coating material. Percent solids + percent volatile matter = 100%.

Toxic air contaminant (TAC): an air contaminant that has been identified by the Ohio EPA as having known toxicological effects, pursuant to ORC 3704.03(F)(3)(c). The complete list of toxic air contaminants regulated in Ohio can be found in OAC rule 3745-114-01.

Volatile matter: all non-solid matter in a coating material, including water. Percent solids + percent volatile matter = 100%.

Volatile organic compounds (VOC): a subset of organic compounds that participate in atmospheric photochemical reactions. Organic compounds that are specifically identified as *not* being "volatile organic compounds" are listed under the definition of "volatile organic compound" in paragraph (B)(16) of OAC rule 3745-21-01. When used in coating or cleaning materials, those compounds in the list just described are known as "exempt solvents."



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Crown Cork & Seal - Massillon Plant 42  
**Permit Number:** P0118489  
**Facility ID:** 1576130634  
**Effective Date:** 6/19/2015

## **C. Emissions Unit Terms and Conditions**

**1. K033, B-31**

**Operations, Property and/or Equipment Description:**

Airless spray application of a solvent-based, zero-HAP end sealing compound to the inner lip seal of can ends on a can end production line rated at 82,500 can ends per hour. The nozzle tip is cleaned in-line with a solvent to prevent clogging. Parts are air-dried. VOC emissions are captured at the point of application, then vented uncontrolled to the atmosphere.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)b., b)(1)f., b)(2)b., and d)(2)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008 [Best Available Technology (BAT)]	Emissions of VOC shall comply with the requirements established pursuant to OAC rule 3745-21-09(D)(1)(e) and/or (D)(2)(e).  See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008 [less than 10 tpy BAT exemption]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source, since the calculated annual emission rate is less than ten tons per year taking into account the voluntary synthetic minor restriction from OAC rule 3745-31-05(D).  See b)(2)b. below.
c.	OAC rules 3745-31-05(D) [Synthetic minor restrictions to avoid a major modification and PSD permitting requirements as requested by permittee]	Emissions of volatile organic compounds (VOC) shall not exceed 5.91 tons per year, based upon a rolling 12-month summation of the monthly emissions.  See c)(1) below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rules 3745-21-09(D)(1)(e) and/or (D)(2)(e) [Emissions limitations for a can end sealing compound coating line]	3.7 pounds of VOC per gallon of coating, excluding water and exempt solvents (where "coating" refers only to the end sealing compound applied in this emissions unit.)
e.	OAC rule 3745-17-11 [Restrictions on particulate emissions from industrial processes]	Exempt pursuant to paragraph (A)(1)(j) of this rule because the process for this Emissions Unit Group is a surface coating process (e.g., for sealers, adhesives, and deadeners) that employs airless spray and/or bead-type (extrusion) application methods."
f.	ORC 3704.03(F)(4) OAC rule 3745-114-01 [Toxic Air Contaminants]	N/A - see d)(2) below.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements in b)(1)a. above apply until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

b. The exemption described in b)(1)b. above applies once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

[Comment: For this emissions unit, "best available technology" was determined to be equivalent to the applicable reasonably available control technology (RACT) rule for VOC as defined by OAC rules 3745-21-09(D)(1)(e) and/or (D)(2)(e). In this case, because BAT was *not* determined to be more stringent than the applicable OAC rule(s), there will be no practical change for the permittee once the less than 10 tons per year BAT exemption applies, since the emissions limitations in b)(1)d. above will still apply.]

c) Operational Restrictions

(1) Throughput shall not exceed 100 million can ends per year (at 3" nominal diameter), based upon a rolling 12-month summation of the monthly number of can ends.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month:

- a. the name and/or identification number of each end-sealing compound and each cleaning material employed in this emissions unit;
- b. the actual VOC content, in pounds per gallon, of each material identified in “a” above, calculated in accordance with the procedure described for  $C_{VOC,1}$  in g)(1) below, under Miscellaneous Requirements;
- c. (having chosen to demonstrate compliance by using only compliant coatings) the VOC content, in pounds per gallon of coating, excluding the volume of water and exempt solvents, of each end sealing compound, calculated in accordance with the procedure described for  $C_{VOC,2}$  in g)(2) below, under Miscellaneous Requirements;  
[Comment: for materials that contain zero water and zero exempt solvents, the values for  $C_{VOC,1}$  and  $C_{VOC,2}$  will be identical.]
- d. the number of can ends processed during the month;
- e. the rolling 12-month summation of the number of can ends processed; i.e., the summation of the monthly number of can ends from “d” above for the most recent month and the previous 11 months;
- f. the monthly VOC emissions, in tons, to be calculated as follows:
  - i. multiply the number of can ends processed during the month from “d” above by the maximum end sealing compound application rate of 0.0287 gallons per 1000 ends to get the number of gallons of end sealing compound employed during the month;
  - ii. multiply the number of gallons of end sealing compound from “i” above by the actual VOC content in lb/gal from “b” above;  
[Comment: If more than one end sealing compound is used during the same calendar month, then a weighted-average approach must be taken based on the number of can ends processed with each end sealing compound in order to calculate the pounds of VOC emissions.]
  - iii. multiply the number of can ends processed during the month from “d” above by the maximum cleaning material usage rate of 0.00253 gallons per 1000 ends to get the number of gallons of cleaning material employed during the month;
  - iv. multiply the number of gallons of cleaning material “iii” above by the actual VOC content in lb/gal from “b” above; and  
[Comment: If more than one cleaning material is used during the same calendar month, then a weighted-average approach must be taken based on the number of can ends processed with each cleaning material in order to calculate the pounds of VOC emissions.]
  - v. sum the results from “ii” and “iv” above, then divide by 2000 pounds per ton; and





(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

Emissions of volatile organic compounds (VOC) shall not exceed 5.91 tons per year, based upon a rolling 12-month summation of the monthly emissions.

Applicable Compliance Method:

The above emissions limitation was established, as shown in the calculations below, based upon information provided by the permittee in permit application No. A0052820, received 2/16/2015, including material usage rates, VOC content data, and a request for a voluntary restriction that throughput shall not exceed 100 million can ends per year (at 3" nominal diameter), based upon a rolling 12-month summation of the monthly number of can ends.

END SEALING COMPOUND:

$$(100 \text{ million ends/yr}) \times (0.0287 \text{ gal}_{\text{COMPOUND}}/1000 \text{ ends}) \times (3.6 \text{ lb}_{\text{VOC}}/\text{gal}) \div (2000 \text{ lb/ton}) = 5.17 \text{ ton}_{\text{VOC}}/\text{yr}$$

CLEANING MATERIAL FOR NOZZLE TIP (AND ANY OTHER USES):

$$(100 \text{ million ends/yr}) \times (0.00253 \text{ gal}_{\text{CLEANING MATERIAL}}/1000 \text{ ends}) \times (5.84 \text{ lb}_{\text{VOC}}/\text{gal}) \div (2000 \text{ lb/ton}) = 0.74 \text{ ton}_{\text{VOC}}/\text{yr}$$

TOTAL VOC:

$$5.17 \text{ ton/yr}_{\text{FROM COMPOUND}} + 0.74 \text{ ton/yr}_{\text{FROM CLEANING MATERIAL}} = 5.91 \text{ ton}_{\text{VOC}}/\text{yr}$$

Compliance with the above VOC emissions limitation shall be demonstrated based upon the recordkeeping requirements specified in d)(1) above.

b. Emissions Limitation:

The VOC content of the coatings employed shall not exceed 3.7 pounds of VOC per gallon of coating, excluding water and exempt solvents (where "coating" refers only to the end sealing compound applied in this emissions unit).

Applicable Compliance Method:

Compliance shall be demonstrated based upon the recordkeeping requirements specified in d)(1) above.

g) Miscellaneous Requirements

Values for material properties required in g)(1) and g)(2) below shall be determined either by the procedures set forth in U.S. EPA Method 24\* or from formulation data provided by the manufacturer of the material, except for exempt solvents information that can *only* be obtained from formulation data.

\* Method 24, as described in 40 CFR Part 60, Appendix A, is applicable for the determination of volatile matter content, water content, density, volume solids, and weight solids of paint, varnish, lacquer, or other related surface coatings.

- (1) The following method shall be used to calculate the actual VOC content, in pounds per gallon, of each VOC-containing material. This value is defined as  $C_{VOC,1}$  in OAC rule 3745-21-10.:

$$C_{VOC,1} = (D)(W_{VOC})$$

where:

D = the overall density of the material, in pounds per gallon.

$W_{VOC}$  = the weight fraction of VOC in the material, in pounds of VOC per pound of material.

$$= W_{VM} - W_W - W_{ES}$$

where:

$W_{VM}$  = the weight fraction of volatile matter in the material, in pounds of volatile matter per pound of material.

[For coatings, if this weight fraction is determined by ASTM D2369-04, "Standard Test Method for Volatile Content of Coatings," the drying conditions shall be one hundred ten degrees Celsius for one hour, except where otherwise authorized by the director based on an alternate analytical procedure that is satisfactorily demonstrated to the director by the coating manufacturer to be more representative of the actual cure mechanism of the coating.]

$W_W$  = the weight fraction of water in the material, in pounds of water per pound of material.

$W_{ES}$  = weight fraction of exempt solvents in the material, in pounds of exempt solvents per pound of material.

- (2) The following method shall be used to calculate the VOC content of each coating in pounds of VOC per gallon of coating, excluding water and exempt solvents. This value is defined as  $C_{VOC,2}$  in OAC rule 3745-21-10. Either of the following two options may be used to calculate  $C_{VOC,2}$ :

Option 1

$$C_{VOC,2} = (D_C)(W_{VOC}) / (V_S + V_{VOC})$$

Option 2

$$C_{VOC,2} = C_{VOC,1} / (1 - V_W - V_{ES})$$

Option 2 was derived from Option 1 by making the following substitutions: In the numerator,  $(D_C)(W_{VOC})$  was replaced by  $C_{VOC,1}$  (see g)(1) above) because, by

definition,  $C_{VOC,1} = (D_C)(W_{VOC})$ . In the denominator,  $(V_S + V_{VOC})$  was replaced by  $(1 - V_W - V_{ES})$  because for any coating-related material,  $V_S + V_{VOC} + V_W + V_{ES} = 1$ , so by rearrangement,  $(V_S + V_{VOC}) = (1 - V_W - V_{ES})$ .

Option 2 is more intuitive than Option 1 because it corresponds directly to the definition for  $C_{VOC,2}$  as “pounds of VOC per gallon of coating excluding water and exempt solvents.”

where:

$D_C$  = the overall density of the coating, in pounds per gallon.

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

= the weight fraction of VOC in the coating, in pounds of VOC per pound of coating.

where:

$W_{VM}$  = the weight fraction of volatile matter in the coating, in pounds of volatile matter per pound of coating.

[For coatings, if this weight fraction is determined by ASTM D2369-04, "Standard Test Method for Volatile Content of Coatings," the drying conditions shall be one hundred ten degrees Celsius for one hour, except where otherwise authorized by the director based on an alternate analytical procedure that is satisfactorily demonstrated to the director by the coating manufacturer to be more representative of the actual cure mechanism of the coating.]

$W_W$  = the weight fraction of water in the coating, in pounds of water per pound of coating.

$W_{ES}$  = the weight fraction of exempt solvents in the coating, in pounds of exempt solvents per pound of coating.

$V_S$  = the volume fraction of solids in the coating, in gallons of solids per gallon of coating.

$$V_{VOC} = V_{VM} - V_W - V_{ES}$$

= the volume fraction of VOC in the coating, in gallons of VOC per gallon of coating.

where:

$V_{VM}$  = the volume fraction of volatile matter in the coating, in gallons of volatile matter per gallon of coating.

$V_W$  = the volume fraction of water in the coating, in gallons of water per gallon of coating.

$V_{ES}$  = the volume fraction of exempt solvents in the coating, in gallons of exempt solvents per gallon of coating.



**Final Permit-to-Install**  
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