



PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Operating Permit Number: OP2014-027
Expiration Date: OCT 20 2019
Installation ID: 219-0038
Project Number: 2014-03-008

Installation Name and Address

Cascades Plastics, Inc.
7501 South Spoede Lane
Warrenton, MO 63383
Warren County

Parent Company's Name and Address

Cascades Plastics, Inc.
405 Marie Victorin
Kingsey Falls Quebec, JOA1B

Installation Description:

Cascades Plastics operates an installation that produces polystyrene products for food packaging in Warrenton, Missouri. The installation is a major source for volatile organic compounds (VOCs).

OCT 21 2014

Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Cascades Plastics operates an installation that produces polystyrene products for food packaging in Warrenton, Missouri. The primary emissions from this facility are Volatile Organic Compounds (VOCs) that are resultant of the extrusion and forming of the polystyrene resin into the end product. Particulate Matter (PM) emissions also are emitted from the storage and handling of raw materials.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2013	2012	2011	2010	2009
Particulate Matter \leq Ten Microns (PM ₁₀)	0.00	0.00	0.00	0.00	0.15
Particulate Matter \leq 2.5 Microns (PM _{2.5})	0.00	0.00	0.00	0.00	0.00
Sulfur Oxides (SO _x)	0.00	0.00	0.00	0.00	0.00
Nitrogen Oxides (NO _x)	0.00	0.00	0.00	0.00	0.00
Volatile Organic Compounds(VOC)	137.64	141.51	163.26	150.29	157.94
Carbon Monoxide (CO)	0.00	0.00	0.00	0.00	0.00
Lead (Pb)	0.00	0.00	0.00	0.00	0.00
Hazardous Air Pollutants (HAPs)	0.00	0.00	0.00	0.00	0.00
Ammonia (NH ₃)	0.00	0.00	0.00	0.00	0.00

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

EIQ Reference	Description	Emission Point
EP-001	Primary Extruder (4 1/2-inch) (2002)	
EP-001	Secondary Extruder (6-inch) (2012)	
EP-004	Flake Silo (2002)	
EP-004	Flake Silo (2002)	
EP-004	Flake Silo (2002)	
EP-004	Flake Silo (2012)	
EP-004	Flake Silo (2012)	
EP-006	Pelletizer Extruder/Feed Hopper (2002)	
EP-010	Mold Cleaning (2002)	

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source	
EP-002	Roll Warehouse (2002)
EP-002	Roll Warehouse (2012)
EP-003	Thermoforming (2002)
EP-003	Thermoforming (2002)
EP-003	Thermoforming (2012)
EP-003	Thermoforming (2012)

EP-003	Padding Machine (2002)
EP-003	Padding Machine (2002)
EP-003	Padding Machine (2012)
EP-003	Padding Machine (2012)
EP-008	Virgin Polystyrene Silo (2002)
EP-008	Virgin Polystyrene Silo (2002)
EP-011	Storage/Shipping Ventilation (2002)
EP-011	Storage/Shipping Ventilation (2012)
N/A	Electric Ovens (2)
N/A	18,000 Gallon Isobutane Storage Tank
N/A	Pyro-Clean System Model 3-EC (Pyro-Clean System)

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

1. Air Pollution Control Program Construction Permit #052000-010A
2. Air Pollution Control Program Construction Permit #12002-004
3. Air Pollution Control Program Construction Permit #112012-012

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

None

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION 1		
10 CSR 10-6.060 Construction Permits Required		
Air Pollution Control Program Construction Permit 112012-012		
EIQ Reference #	Description	Emission Unit ¹
EP-01	Secondary Extruder (6-inch) (2012)	EU-011
EP-04	Flake Silo (2002)	EU-040
EP-04	Flake Silo (2002)	EU-041
EP-04	Flake Silo (2002)	EU-042
EP-04	Flake Silo (2012)	EU-043
EP-04	Flake Silo (2012)	EU-044
EP-06	Pelletizer Extruder/Feed Hopper (2002)	EU-060

¹Emission unit numbers as assigned in Construction Permit 112012-012

Emission Limitations/Control Requirements:

- 1.) The permittee shall emit less than 250.0 tons of VOCs in any consecutive 12-month period from isobutane emissions associated with the Secondary Extruder (6-inch). [\[Special Condition 1.A\]](#)
- 2.) The permittee shall control emissions from the scrap (flake) storage silos as well as the cutting, grinding and and pelletizing process, using a cartridge filtration system whenever the units are in operation, and as specified in the permit application for Construction Permit 112012-012. [\[Special Condition 2.A\]](#)
 - a) The cartridge filtration system shall be operated and maintained in accordance with the manufacturer's specifications. The cartridge filtration system shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. [\[Special Condition 2.B\]](#)
 - b) Replacement filters for the cartridge filtration system shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [\[Special Condition 2.C\]](#)

Monitoring/Recordkeeping:

- 1.) The permittee shall monitor and record the operating pressure drop across the filtration system at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [\[Special Condition 2.D\]](#)
- 2.) The permittee shall maintain an operating and maintenance log for the filtration system which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [\[Special Condition 2.E\]](#)

- c) Attachment D or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with the operation and maintenance log requirement.
- 3.) Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with the 250 ton/year VOC limit. [Special Condition 1.B]
- 4.) The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used. [Special Condition 4.A]

Reporting Requirements:

The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

PERMIT CONDITION 2		
10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants		
EIQ Reference #	Description	Emission Unit ¹
EP-01	Secondary Extruder (6-inch) (2012)	EU-011
EP-04	Flake Silo (2002)	EU-040
EP-04	Flake Silo (2002)	EU-041
EP-04	Flake Silo (2002)	EU-042
EP-04	Flake Silo (2012)	EU-043
EP-04	Flake Silo (2012)	EU-044
EP-06	Pelletizer Extruder/Feed Hopper	EU-060

¹Emission unit numbers as assigned in Construction Permit 12012-012

Emission Limitation:

- 1.) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2.) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1.) The permittee shall conduct a visual emission observation on this emission unit once a month using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions were observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2.) Should a violation be observed, monitoring frequency will progress in the following manner:
 - a) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after the date of the initial violation. Should no violation of this regulation be observed during this period, then,

- b) Observations must be made once every two weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period, then,
- c) Observations must be made once per month.
- 3.) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1.) The permittee shall maintain records of all observation results (see Attachment B), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2.) The permittee shall maintain records of any equipment malfunctions. (see Attachment D)
- 3.) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4.) Attachments B or C, and D contain example logs to assist in compliance with these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5.) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6.) All records shall be maintained for five years.

Reporting:

- 1.) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2.) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION 3		
10 CSR 10-6.060 Construction Permits Required		
Air Pollution Control Program Construction Permit 112012 - 012		
EIQ Reference #	Description	Emission Unit ¹
EP-01	Primary Extruder (4 ½-inch) (2002)	EU-010
EP-01	Secondary Extruder (6-inch) (2012)	EU-011
¹ Emission unit numbers as assigned in Construction Permit 12012-012		

Cleaning Solution Cloths

The permittee shall keep the cleaning solution in sealed containers whenever the material is not in use. The permittee shall provide and maintain suitable, easily read, permanent markings on all cleaning solution containers used with this equipment. [\[Special Condition 3.A, Construction Permit 112012 - 012\]](#)

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premise having not more than four dwelling units, provided that the refuse originates on the same premises.
 - b) Yard waste.
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Cascades Plastics, Inc. may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Cascades Plastics, Inc. fails to comply with the provisions or any condition of the open burning permit.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971 is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to

the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;

- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The applicable requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable

under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days' notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)39 Responsible Official

The application utilized in the preparation of this permit was signed by Mr. Ron Kaminski, Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment A

VOC Compliance Worksheet

This sheet covers the period from _____ to _____. (Copy as needed)
 (month, year) (month, year)

(a)	(b)	(c)	(d)	(e)	(f)
Date (Month/Year)	Amount of Isobutane Gas Used (tons)	Emission Factor	This Month's VOC Emissions (tons)	Emissions from This Month Last Year	12-Month Rolling VOC Emissions
<i>Ex. 10/2012</i>	<i>100.0</i>	<i>0.64</i>	<i>64.0</i>	<i>54.0</i>	<i>100.0</i>
<i>Ex. 11/2012</i>	<i>50.0</i>	<i>0.64</i>	<i>32.0</i>	<i>36.0</i>	<i>96.0</i>
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			
		0.64			

- a.) Record the date
- b.) Record the tons of isobutane used as a blowing agent through the extruder (EU-011)
- c.) Emission factor is 0.64 from the isobutane loss test
- d.) Calculate using the following equation: $(d)=(b) \times (c)$
- e.) Record the emission calculation from this month last year.
- f.) Calculate using the following equation: $(f)=(\text{previous } f)-(e)+(d)$

A 12-month rolling VOC emission less than 250.0 tons indicates compliance.

Attachment C

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End		Sum	Average			

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received March 4, 2014;
- 2) Emissions Inventory Questionnaire, and;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

The following table is a modified Table 2 from Air Pollution Control Program Construction Permit 12012-012. The construction permit uses emission unit numbers contained in the application to help identify the units being constructed. Since there are emission units present at the facility that preexisted that serve in similar capacities, this table was inserted for clarification and ease of reference.

Emission Point	Emission Unit	Description
EP-001	EU-010	Extruder (old)
EP-001	EU-011	Extruder (new)
EP-002	EU-020	Roll Warehouse (old)
EP-002	EU-021	Roll Warehouse (new)
EP-003	EU-030	Thermoformer (old)
EP-003	EU-031	Thermoformer (old)
EP-003	EU-032	Thermoformer(new)
EP-003	EU-033	Thermoformer(new)
EP-003	EU-034	Padding Machine (old)
EP-003	EU-035	Padding Machine (old)
EP-003	EU-036	Padding Machine (new)
EP-003	EU-037	Padding Machine (new)
EP-004	EU-040	Flake Silo (old)
EP-004	EU-041	Flake Silo (old)
EP-004	EU-042	Flake Silo (old)
EP-004	EU-043	Flake Silo (new)
EP-004	EU-044	Flake Silo (new)
EP-006	EU-060	Pelletizer (old)
EP-008	EU-080	Virgin Polystyrene Silo (old)
EP-008	EU-081	Virgin Polystyrene Silo (old)
<i>EP-010</i>	--	<i>Mold Cleaning</i> ¹
EP-011	EU-110	Storage/Shipping Ventilation (old)
EP-011	EU-111	Storage/Shipping Ventilation (new)

¹Emission Point EP-010 was not included in Table 2 of Construction Permit 12012-012. The unit is however subject to the requirements

Process Description

Cascades Plastics produces polystyrene products for food packaging. The production process starts with polystyrene material in pellet form. The raw material arrives by tanker in bulk and is transferred to a 300,000-pound silo. The polystyrene resin is transferred from silos directly into the extruders, which are in tandem. The primary extruder (4½-inch) is used to melt the polystyrene and allow for the addition of

the blowing agent, isobutane. The isobutane is in gas form and is stored on site in an 18,000-gallon tank. The gas is transferred to the primary extruder by a high-pressure pump and is mixed with the polystyrene in the primary extruder. The melted blend then goes through a screen pack to avoid any foreign contamination, and enters the secondary extruder (6-inch) to be cooled.

Following the secondary extruder, the viscous styrene blend is fed to a circle die and emerges in tube form. This tube is attached to a cylinder to increase the diameter and is then split by a sharp blade into two separate polystyrene foam sheets. The sheets are wound in rolls that reach six (6) feet in diameter and are then removed from the line and put into storage for aging. The aging has the effect of stabilizing the pressure of the cells. After eight (8) to twelve (12) days, the rolls are ready to transform into trays. This part of the process is called thermoforming. The sheets are fed into an electric oven fifteen (15) feet long by forty four (44) inches wide. When the sheet exits the oven it is twice as thick as before and is ready to go through a mold press. The mold press gives form to the sheets and cools them at the same time. The shaped sheet goes through a trim press, designed to accommodate the shape of the mold, and produced the finished trays. The trays are then bagged, packaged and shipped to customers.

During the process, some of the trays do not meet the quality control standards and are rejected. With a grinder, the scrap sheets or trays are ground and blown by a pneumatic system to different silos. There are multiple silos since more than one (1) color of trays is produced. Each silo exhaust is connected to a dust collector in order to prevent air pollution. A small grinder is located under the trim press to chip the excess material from the trims after die cutting tray process. All ground material in the silos is extruded and transformed into pellets. The 4½-inch extruder is used to reprocess the scrap from grinding. At the end of the extruder is a die with rotating knives called the pelletizer which cuts the polystyrene into smaller pieces. The repelletized product is then added in part into the primary extruder in accordance with production specifications. Occasionally certain types of trays are produced to meet particular customer's needs, such as having the ability to collect the fluid from meat products. These trays are fed into a padder which is used to put pad absorbers into the trays before packaging.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.100, Alternate Emission Limits

This rule is not applicable because the installation is in an ozone attainment area.

Construction Permit Revisions

The following New Source Review permits have been issued to Cascades Plastics, Inc. from the Air Pollution Control Program:

APCP Construction Permit Number	Description
112012-012	An extruder, thermoforming press, two flake silos, as well as increased storage capacity in both intermediate and padding storage
OP2008-017	Part 70 Operating Permit Renewal
122002-004	Increase Production by replacing extruder screws
052000-10A	Amend Name
052000-10	Foam container manufacturing

The following revisions were made to construction permits for this installation:

Air Pollution Control Program Construction Permit 12002-004

Construction Permit 12002-004 had only one special condition, and it requires the facility to maintain the cleaning solution for the primary and secondary extruders in closed marked containers. This condition was repeated for the secondary extruder when it was replaced in Construction Permit 112012-012. For streamlining purposes, and to avoid confusion, only the reference to Special Condition 3.A of Construction Permit 112012-012 was used in Permit Condition 3 of this permit. Compliance with the requirements of PERMIT CONDITION 3 satisfies the requirements of both Construction Permits 12002-004 and 112012-012.

Air Pollution Control Program Construction Permit 052000-010A

The permit conditions from Construction Permit #052000-010A were restated in Construction permit 112012-012 (*See Permit Condition 1*). For streamlining purposes, only the references to the Special Conditions of Construction Permit 112012-012 were used in PERMIT CONDITION 1 of this permit. Compliance with the requirements of PERMIT CONDITION 1 satisfies the requirements of both Construction Permits 052000-010A and 112012-012.

Air Pollution Control Program Construction Permit 122012-012

Special Condition 2.A refers to the pelletizer (EP-006) as EU-045, but then refers to the same unit as EU-060 in Table 2: Emission Units of the same construction permit. For clarification purposes, the unit designation of EU-060 which is listed in Table 2: Emission Units was used for consistency.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*

This standard does not apply to the 18,000-gallon isobutane storage tank, because it has a capacity less than 75 m³ (19,800 gallons).

Maximum Achievable Control Technology (MACT) Applicability

None

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

Greenhouse Gas Emissions (GHG)

The facility is a minor source of GHG and does not meet the requirements of paragraphs §98.2(a)(1), (a)(2) or (a)(3), therefore is not subject to the Greenhouse Gas Reporting Rule outlined in 40 CFR 98.

Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
CO	N/A
CO ₂ e	N/A
HAP	N/A
NO _x	N/A
PM ₁₀	8.32
PM ₂₅	8.32
SO _x	N/A
VOC	439.2

¹ Potential to Emit taken from Construction Permit 112012 - 012

Other Regulatory Determinations and Information

300,000-lb virgin polystyrene silos

The term “virgin” refers to the bead form in which the facility receives bulk polystyrene. In this form, minimal particulate material emissions result from loading and transfer of the polystyrene. It is for this reason that these units are grouped separately from the ground polystyrene silos. There are two silos for virgin feedstock, and five silos for the ground material. The five silos for the ground material are referred to as Flake Silos (EP-04) and are subject to the requirements of Construction Permit 112012-012 (*See Permit Condition 1*)

Extruders

The primary (4½-inch) extruder is used to melt raw polystyrene and inject isobutane, while the secondary (6-inch) extruder is used to cool the polystyrene blend. The heat to the primary extruder is provided by electricity. Fugitive isobutane emissions are associated with this process, however there are no specific state or federal rules regulating VOC’s that apply to the 4 1/2 inch Primary Extruder (EP-01). However, Construction Permit 112012-012 limits the Secondary Extruder (6-inch) to 250 tons/yr VOC.

The pelletizing line (4½-inch) extruder is used to transfer grinding scraps to the pelletizer. There are requirements to control particulate emissions from this process in Special Condition 2.A of Construction Permit 112012-012. (*See Permit Condition 1*)

Electric Ovens (EP-03)

These ovens are used in the thermoforming process. Fugitive isobutane emissions are the only emissions associated with this process.

Molding Presses and Trim Presses (EP-03)

Fugitive isobutane emissions are the only emissions associated with these processes.

Padding and Packaging (EP-05)

Individual foam trays are padded using a hot melt glue applicator, then packaged in boxes and stored as a final product for shipment. The hot melt glue is a non-VOC glue and no PM emissions are expected during the application process.

Mold Cleaning (EP-10)

Solvent cleaning of thermoformer dies is done with a citrus solvent cleaning compound with a VOC content of one hundred percent (100%). Annual use of cleaner is expected to be less than two hundred fifty (250) pounds. This activity is subject to the requirements of PERMIT CONDITION 3 of this permit.

Pyro-Clean System

Cascade Plastics requested a permit applicability determination for the Pyro-Clean System which removes organic residue from metal parts by heating the organics above their decomposition temperature. This unit is considered an emission unit without unit specific limitations. The following is an excerpt of the relevant portions of Construction Permit Applicability Determination - Project Number: 2009-06-033:

The Pyro-Clean System has been in use since it was installed in the year 2000 and has not been previously identified as a source of emissions. Cascade Plastics uses the Pyro-Clean System to clean polystyrene residue from metal breaker plates used in the pelletizer recycling process. A conservative (worst case) assumption is that heating the polystyrene material to its decomposition temperature would produce styrene monomer which is a hazardous air pollutant (HAP). The maximum design rate for the Pyro-Clean System is 27 plates per 2-hour cycle, and the maximum expected polystyrene contamination is 1 ounce (0.0625 pounds) per plate. However, Cascade Plastics currently has only 4 breaker plates, therefore the maximum potential uncontrolled emissions of styrene are estimated to be 0.125 pounds per hour (0.55 tons per year) based on the bottleneck capacity of 4 breaker plates per cycle. The Pyro-Clean System also includes an electric afterburner emissions control device as part of the design of the unit. The electric afterburner component heats the exhaust gases with excess air to a minimum of 1300 degrees Fahrenheit prior to being emitted to the ambient air. At these temperatures, at least 98% of the styrene present in the exhaust stream is expected to be converted to water and carbon dioxide. Therefore, the maximum potential controlled emissions of styrene considering the electric afterburner component are 0.011 tons per year (22 pounds per year).

According to 10 CSR 10-6.060, Construction Permits Required, all incinerators are required to obtain a construction permit. However, the Pyro-Clean System, including the preheat chamber and the afterburner control, does not burn or use a controlled flame to initiate decomposition of the polystyrene or oxidize the exhaust stream gases into carbon dioxide and water. Therefore, the Pyro-Clean System does not satisfy the definition of an incinerator as defined in either 10 CSR 10- 6.020 or 40 CFR 260.10. As the equipment is not considered an incinerator, the potential uncontrolled emissions of styrene are less than the 0.5 pound per hour insignificant emission exemption level for hazardous air pollutants listed in 10 CSR 10-6.061, Construction Permit Exemptions (3)(A)3.B., and the potential uncontrolled emissions of styrene are less than the 1.0 ton per year screening model action level (SMAL) for styrene, a construction permit is not required for this unit from the Air Pollution Control Program. Additionally, styrene is classified by the Emissions Inventory Unit as a Category 2 HAP, and Category 2 HAPs have a reporting threshold level of 200 pounds per year. As the Pyro-Clean System has potential controlled emissions less than the 200 pound per year reporting threshold level, Cascade Plastics is not required to track or report emissions from this unit on the facility's Emission Inventory Questionnaire. However, the Pyro-Clean System is considered a potential source of air contaminants and should be included in the facility's operating permit as an emission unit. Therefore, Cascade Plastics should include the Pyro-Clean System as an insignificant emissions unit in their next application for renewal of their Part 70 Operating Permit.

As demonstrated in the Air Pollution Control Program response, the unit is not subject to 10 CSR 10-6.060. Due to the anticipated emissions rates, there are no other unit specific requirements applicable to this unit.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

- 1) The specific pollutant regulated by that rule is not emitted by the installation;
- 2) The installation is not in the source category regulated by that rule;
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule;
- 4) The installation does not contain the type of emission unit which is regulated by that rule;
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program 's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Don Murphy
Environmental Engineer

MEMORANDUM

DATE: August 27, 2014

TO: 2014-03-008 File, Cascades Plastics, Inc. (219-0038)

FROM: Don Murphy, Environmental Engineer

SUBJECT: Response to Public Comments

A draft of the Part 70 operating permit for the Cascades Plastics, Inc. facility was placed on public notice June 23, 2014, by the Missouri Department of Natural Resources (MDNR). Comments were received on July 17, 2014 from Mark Smith, Air Permitting and Compliance Branch Chief at Environmental Protection Agency Region 7. The eighteen comments are presented below as submitted, with the response to each comment by the Air Pollution Control Program (APCP) directly following.

Comment 1:

Permit Condition 1 limits the permittee's volatile organic compound (VOC) emissions to less than 250 tons in any consecutive 12-month period. Attachment A or an approved equivalent form shall be used to demonstrate compliance with this emission limit. Attachment A utilizes an emission factor developed by the permittee in a "one-time" test for isobutene loss at various points throughout the production process. Permit Condition 1 does not appear to require the permittee to confirm the accuracy of this emission factor at any time in the future. A "one-time" determination of an emission factor without a recurring validation is a concern to the EPA. Additionally, 10 CSR 10-6.065(6)(C)1C(b) requires periodic monitoring sufficient to yield data for the relevant time period that are representative of the permittee's compliance with the permit where the applicable requirement does not require periodic monitoring. In as much as Permit Condition 1 does not require periodic monitoring to verify an emission factor used to verify compliance with a synthetic minor VOC limit, EPA would therefore encourage MDNR to include a requirement that Cascade Plastics, Inc. determine an accurate emission factor at least once during the life of the operating permit and make appropriate adjustments to the compliance tracking document.

APCP Response to Comment

Construction Permit 112012-012 discussed the emission factor development at length and did not set forth any requirements for periodic emission factor verification through testing.

10 CSR 10-6.065(6)(C)1.C(b). states that "The permit shall contain the following requirements with respect to monitoring: Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), then periodic monitoring sufficient to yield reliable data for the relevant

time period that are representative of the installation's compliance with the permit, as reported pursuant to part (6)(C)1.C.(III) of this rule. These monitoring requirements shall assure the use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Record-keeping provisions may be sufficient to meet the requirements of this paragraph;

The APCP does not agree that recordkeeping using the established emission factor is inconsistent with 10 CSR 10-6.065(6)(C)1.C(b). While confirmation testing is prudent for emission control equipment due to degradation issues, this emission factor was developed using a material balance through various points in the process and is not subject to change unless the process or raw materials are changed. In the event that the process or raw materials are changed, a construction permit would be required at that time, pursuant to 10 CSR 10-6.060, which would also then invoke a Title V permit modification. For these reasons, no changes were made to the draft in response to his comment.

Comment 2:

Monitoring / Recordkeeping requirement #3, in Permit Condition 1, requires the permittee to use Attachment A or equivalent approved form to demonstrate compliance with "**Special Condition 1.A.**" (emphasis added) Part 70 operating permits do not normally include "Special Conditions." (emphasis added) Part 70 operating permits do however incorporate the "special conditions from construction permits as applicable requirements. "Special Condition LA is incorporated in emission limitation #1 of Permit Condition 1. Therefore, EPA encourages MDNR to modify the reference in Monitoring/Recordkeeping requirement #3 of Permit Condition 1.

APCP Response to Comment

The suggested change was made to the draft.

Comment 3:

Monitoring / Recordkeeping requirement #2 in Permit Condition 1 requires the permittee to maintain an operating and maintenance log for the filtration system. MDNR's customary practice is to include an Attachment of an approved form for collecting compliance information. However, there is not attachment reference in this monitoring / recordkeeping requirement. There is, however, an Attachment D, which is referenced in Permit Condition 2 that is an inspection, maintenance, repair and malfunction log to be used to certify compliance with the requirements in Permit Condition 2. It appears that this Attachment D would also work to collect compliance information for Permit Condition 1 and EPA encourages MDNR to consider adding an Attachment D reference in Permit Condition 1; Monitoring / Recordkeeping requirement #2.

APCP Response to Comment

The suggested change was made to the draft.

Comment 4:

Permit Condition 2 Emission Limitation #1 says: "no owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%." EPA provides the following suggestion for MDNR's consideration:

- a. Replace "No owner or other person shall" with the words "Permittee shall not;" and

- b. Replace the "from any new source" with the words "any source installed or constructed after February 24, 1971."

APCP Response to Comment

The suggested change was made to the draft.

Comment 5:

Core Permit Requirements Section IV incorporates the applicable requirements associated with open burning from 10 CSR 10-6.045. Cascade Plastics, Inc. is located in Warren County, which is not part of the definition of the Kansas City metropolitan area; Springfield-Greene County area; and the St Louis metropolitan area nor would Warren County be considered in the St. Joseph area. Therefore, the draft operating permit appears to include requirements that are not applicable to Cascade Plastics and EPA recommends MDNR remove the non-applicable requirements.

APCP Response to Comment

The suggested change was made to the draft.

Comment 6:

The Statement of Basis, included with this draft operating permit, has no mention of greenhouse gases (GHG); except within the updated potential to emit table for the installation. The table includes CO₂e as a pollutant; and a potential to emit of N/A tons per year. The statement of basis included with all Part 70 operating permits issued by MDNR, have included a section describing the permitted facility greenhouse gases (GHG) status. Therefore MDNR should consider including their following standard language for sources that are not major for greenhouse gases but are or may be subject to the mandatory reporting rule; in the Statement of Basis.

- a. "This installation is not a major source for greenhouse gases. While Part 70 Permits generally do not establish new emission limits, they consolidate applicable requirements, as defined in Missouri State Regulations 10 CSR 10-6.020 (2)(A)23, into a comprehensive air permit. This source is subject to 40 CFR Part 98 - Mandatory Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 operating permits at this time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's actual CO₂ emissions were not included within this permit. The applicant is required to report actual CO₂ emissions data directly to EPA."

APCP Response to Comment

The draft was edited for clarification by placing the following text into the Statement of Basis: The facility is a minor source of GHG and does not meet the requirements of paragraphs §98.2(a)(1), (a)(2) or (a)(3), therefore is not subject to the Greenhouse Gas Reporting Rule outlined in 40 CFR 98.

Mr. Ron Kaminski
Cascades Plastics, Inc.
7501 South Spoede Lane
Warrenton, MO 63383

Re: Cascades Plastics, Inc., 219-0038
Permit Number: **OP2014-027**

Dear Mr. Kaminski:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Don Murphy at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:dmk

Enclosures

c: St. Louis Regional Office
PAMS File: 2014-03-008