

## **DRAFT/PROPOSED** TITLE V OPERATING PERMIT

**ISSUED BY** 

## KNOX COUNTY DEPARTMENT OF AIR QUALITY MANAGEMENT

140 DAMERON AVENUE KNOXVILLE, TN 37917

ISSUED TO:	Republ	ic Plastics, L.P. – K1 Plant				
FACILITY AD	DRESS:	5316 S National Drive, Knoxville, TN 37	7914			
RESPONSI	BLE OFF	FICAL				
NAME: Te	erry Kirkse	ey	TITLE:	Operations Manager	PHONE:	(865) 637-7732
MAILING AD	DRESS:	5316 S National Drive, Knoxville, TN 37	7914			
PERMIT CO	ONTACI	FOR FACILITY				
NAME: Te	erry Kirkse	ey	TITLE:	Operations Manager	PHONE:	(865) 637-7732
MAILING AD	DRESS:	5316 S National Drive, Knoxville, TN 37	7914			
THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE STATE OF TENNESSEE AIR POLLUTION CONTROL REGULATIONS; PUBLIC CHAPTER NO. 367 AMENDED; PRIVATE CHAPTER NO. 37; AND SECTION 25 OF THE KNOX COUNTY AIR POLLUTION CONTROL REGULATIONS. THIS PERMIT FULFILLS THE REQUIREMENTS OF TITLE V OF THE FEDERAL CLEAN AIR ACT AND THE FEDERAL REGULATIONS PROMULGATED THEREUNDER AT 40 CFR PART 70. THE PERMITTEE HAS BEEN GRANTED PERMISSION TO OPERATE AN AIR CONTAMINANT SOURCE IN ACCORDANCE WITH EMISSION LIMITATIONS AND MONTORING REQUIREMENTS SET FORTH HEREIN.						
THIS PERMIT IS ISSUED SUBJECT TO THE ACCURACY OF ALL INFORMATION SUBMITTED RELATING TO THE PERMIT APPLICATION AND TO ANY CONDITIONS NOTED.						
THIS PERMIT MAY BE REVOKED AT ANY TIME A VIOLATION OF THE KNOX COUNTY AIR POLLUTION CONTROL REGULATIONS OR THE TENNESSEE AIR POLLUTION CONTROL REGULATIONS, WHICHEVER IS APPLICABLE, OCCURS.						
DATE ISSUED	D:		Al	oproved By:		
RENEWAL A	PPLICATIO	ON DEADLINE:			COUNTY	IAN RIVERA, P.E. DEPARTMENT OF
FXPIRATION	DATF.			Α	IR QUALITY	/ MANAGEMENT

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## **Section A. General Permit Conditions:**

#### A1. Definitions

The terms not otherwise defined in this permit shall have the meanings assigned to them in the referenced regulations.

#### A2. Visible Emissions

The permittee shall not cause, suffer, allow, or permit discharge from any single source visible emissions of an opacity in excess of the standards set forth in the Knox County Air Quality Management Regulations Section 17.0. If a source is subject to any additional opacity standards, the most stringent standard shall be taken as the emission limit. (KCAQMR Section 17.0)

## A3. Non-process Particulate Matter and Sulfur Oxide Emissions

The permittee shall not cause, suffer, allow, or permit emissions of particulate matter and sulfur oxide from non-process sources in excess of the standards set forth in the Knox County Air Quality Management Regulations Section 18.0. If a non-process source is subject to any additional particulate matter or sulfur oxide standards, the most stringent standard shall be taken as the emission limit. (KCAQMR Sections 18.2 and 18.4)

#### A4. Process Particulate Matter and Sulfur Oxide Emissions

The permittee shall not cause, suffer, allow, or permit emissions of particulate matter and sulfur oxide from process sources in excess of the standards set forth in the Knox County Air Quality Management Regulations Section 19.0. If a process source is subject to any additional particulate matter or sulfur oxide standards, the most stringent standard shall be taken as the emission limit. (KCAQMR Sections 19.2, 19.4, and 19.6)

#### **A5. Non-process Gaseous Emissions**

The permittee shall install and utilize the best equipment and technology currently available for controlling gaseous emissions from non-process sources. (KCAQMR Section 18.3)

#### **A6. Process Gaseous Emissions**

The permittee shall install and utilize the best equipment and technology currently available for controlling gaseous emissions from process sources. (KCAQMR Section 19.3)

## A7. Fugitive Dust

- (a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.
- (b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such a manner to exceed five (5) minutes per hour, or twenty (20) minutes per day, as to produce a visible emission beyond the property line of the property on which the emission originates.

(KCAQMR Section 22.0)

## **A8. New Source Review**

The permittee shall not begin the construction of a new source or make modifications to an existing source that is required to be reviewed under Department regulations without first receiving an approval or permit under such provisions. (KCAQMR Sections 25.1, 25.70-G, 41.2, and 45.2)

#### A9. Permit Renewal and Expiration

For the purposes of permit renewal, a timely application is one that is submitted at least six months prior to the date of permit expiration, or such other longer time as may be approved by the Administrator that ensures that the term of the permit will not expire before the permit is renewed. In no event shall this time be greater than 18 months. (KCAQMR Section 25.70-E.1.a(3))

## A10. Duty to Supplement and Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected

information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. (KCAQMR Section 25.70-E.2)

## **A11. Recordkeeping Requirements**

Where applicable, the permittee must maintain records of required monitoring information that include the following:

- (a) The date, place as defined in the permit, and time of sampling or measurements;
- (b) The date(s) analyses were performed;
- (c) The company or entity that performed the analyses;
- (d) The analytical techniques or methods used;
- (e) The results of such analyses; and
- (f) The operating conditions as existing at the time of sampling or measurement.

(KCAQMR Section 25.70-F.1.c(2)(a))

#### A12. Retention of Records

The permittee must retain records of all required monitoring data and support information for a period of at least 5 years from the date of monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (KCAQMR Section 25.70-F.1.c(2)(b))

## **A13.** Reporting Requirements

The permittee must:

- (a) Submit reports of any required monitoring at least every six months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must contain a certification by a responsible official that, based on information and belief formed after reasonable inquiry, that the statements and information in the document are true, accurate, and complete.
- (b) Promptly report deviation from permit requirements, including those attributed to malfunction of equipment as specified in the Knox County Air Quality Management Regulations Section 34.0, the probable cause of such deviations, and any corrective actions or preventative measures taken. The term "prompt" is defined to be within 24 hours of when the permit deviation occurs.

(KCAQMR Section 25.70-F.1.c(3))

## A14. Severability Clause

If any part of this permit is declared invalid, the remainder of this permit shall remain in effect and enforceable. (KCAQMR Section 25.70-F.1.e)

### A15. Duty to Comply

The permittee must comply with all conditions of the Part 70 permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (KCAQMR Section 25.70-F.1.f(1))

## A16. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a 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 conditions of this permit. (KCAQMR Section 25.70-F.1.f(2))

## A17. Modification, Revocation, etc for Cause

The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filling of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (KCAQMR Section 25.70-F.1.f(3))

#### **A18.** No Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. (KCAQMR Section 25.70-F.1.f(4))

#### A19. Duty to Provide Information

The permittee shall furnish the Department, within reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may furnish such records directly to the Director along with a claim of confidentiality. (KCAQMR Section 25.70-F.1.f(5))

## A20. Payment of Fees

The source must pay fees to the Knox County Department of Air Quality Management consistent with the approved fee schedule. (KCAQMR Section 25.70-F.1.g)

#### **A21. Emissions Trading**

No permit revision shall be required, under any approved economic incentives, marketable permits, emission trading and other similar programs or processes for change that are provided for in the permit. Such provisions must meet the requirements of 40 CFR 70.4(b)(12)(i) and (iii). (KCAQMR Section 25.70-F.1.h)

## **A22. Federally-enforceable Requirements**

All terms and conditions in a Part 70 permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act. (KCAQMR Section 25.70-F.2.a)

## A23. Certification of All Documents (including reports)

Any document (including reports) required by a Part 70 permit shall contain a certification by a responsible official that, based on information and belief formed after reasonable inquiry, that the statements and information in the document are true, accurate, and complete. (KCAQMR Section 25.70-F.3.a)

#### A24. Inspection and Entry

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director or an authorized representative to perform the following:

- (a) Enter upon the permittee's premises where a Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(KCAQMR Section 25.70-F.3.b)

## **A25. Compliance Certification**

Compliance certifications shall be submitted to the Department and EPA annually. The compliance certifications shall include the following:

- (a) The identification of each term or condition of the permit that is the basis of the certification;
- (b) The compliance status;
- (c) Whether compliance was continuous or intermittent;
- (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the required monitoring; and
- (e) Such other facts as the Department may require to determine the compliance status of the source.

(KCAQMR Section 25.70-F.3.e(3))

#### **A26. Emergency Provisions**

- (a) Definition. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- (b) Effect of an emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of paragraph 3 of this permit condition are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
  - (4) The permittee immediately notified the Department by phone or fax and submitted written notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of permit condition A11(b). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

(KCAQMR Section 25.70-F.7)

### A27. Reopening for Cause

A permit shall be reopened and revised under any of the following circumstances:

- (a) Additional applicable requirements under the Act become applicable to a major Part 70 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended by an EPA approved program pursuant to the Knox County Air Quality Management Regulations Section 25.70-M.
- (b) The Department or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- (c) The Administrator or the Department determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(KCAQMR Section 25.70-G.6.a)

## A28. Section 502(b)(10) Changes

The Department shall allow permitted sources to make Section 502(b)(10) changes without requiring a permit revision if the changes are not modifications under any provision of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions). The facility shall provide the Administrator and the Department with written notification 21 days in advance of the proposed changes. The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The source, Department, and EPA shall attach each such notice to their copy of the relevant permit. (KCAQMR Section 25.70-N)

## A29. Off-permit Changes and Prohibitions

The Department will allow changes that are not addressed or prohibited by the permit, other than those described in Knox County Air Quality Management Regulations Section 25.70-P, to be made without a permit revision providing they meet the following requirements:

- (a) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.
- (b) Sources must contemporaneous written notice to the Department and EPA of each such changes, except for changes that qualify as insignificant under the provisions adopted pursuant to Knox County Air Quality Management Regulations Section 25.70-E.3. Such written notice shall describe each such change, including the date, any change in emissions emitted, and any applicable requirements that would apply as a result of the change.
- (c) The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- (d) Sources are prohibited from making, without a permit revision, changes that are not addressed or prohibited by the Part 70 permit, if such changes are subject to any requirements under Title IV of the Act or are modifications under any provision of Title I of the Act.

(KCAQMR Sections 25.70-O and P)

## A30. Recordkeeping Data Entry Requirements

- (a) For monthly recordkeeping, all data, including the results of all calculations, must be entered into the record no later than thirty (30) days from the end of the month for which the data is required.
- (b) For weekly recordkeeping, all data, including the results of all calculations, must be entered into the record no later than seven (7) days from the end of the week for which the data is required.
- (c) For daily recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required.

(KCAQMR Section 26.5-B)

#### A31. Asbestos

The permittee shall comply with 40 CFR Part 61, Subpart M (asbestos NESHAP) when conducting any renovation or demolition at the facility. (KCAQMR Section 35.2.1-M)

#### A32. 112(r)

The permittee shall comply with the requirement to submit to the Administrator or designated State Agency a risk management plan, including a registration that reflects all covered processes, by June 21, 1999, if the permittee's facility is required pursuant to 40 CFR, 68, to submit such a plan.

## A33. Stratospheric Ozone and Climate Protection

The permittee shall comply with the standards for recycling and emissions reduction as provided in 40 CFR Part 82, Subpart F.

## **Section B. Facility Permit Conditions:**

Republic Plastics, L.P. - K1 Plant is a polystyrene foam products manufacturing facility. Republic Plastics K1 Plant expands polystyrene pellets with isobutane (sometimes blended with CO<sub>2</sub>) to produce polystyrene products. The scrap produced from the stamping process is grinded and transferred to fluff surge hoppers to be reused in production. The permitted sources include four extruders each with a fluff grinding system, along with thermoformers, stampers, grinders, and pellet receiving systems.

## **B1. Fee Payment: Actual Emissions Basis**

#### FEE EMISSION SUMMARY TABLE FOR MAJOR SOURCE V-0970

REGULATED POLLUTANTS	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PM <sub>10</sub>	AEAR	Includes all PM HAP
SO <sub>2</sub>	N/A	
NOx	N/A	
VOC	AEAR	Includes all VOC HAP
Hazardous Air Pollutants (HAP)	N/A	Excluding PM HAP and VOC HAP

#### **NOTES**

- AAP The Annual Accounting Period (AAP) is a twelve (12) consecutive month period that begins January 1 and ends
  December 31 of each year. The present Annual Accounting Period began January 1, 2021 and ends December 31,
  2021. The next Annual Accounting Period begins January 1, 2022 and ends December 31, 2022.
- **N/A N/A** indicates that no emissions are specified for fee computation.
- AEAR indicates that an Actual Emissions Analysis is Required to determine the actual emissions of each regulated pollutant.

## **END NOTES**

## The permittee shall:

- (1) Pay major source annual **actual based emission fees** for each annual accounting period (AAP) by January 31 of each year.
- (2) Prepare an actual emissions analysis in accordance with the above Fee Emissions Summary Table for each AAP (January 1 through December 31 of each year). The actual emissions analysis shall include:
  - (a) the completed Fee Emissions Summary Table,
  - (b) each AEAR required by the above Fee Emissions Summary Table, and
  - (c) the record required by D3(c) of this permit. This record shall be used to complete the **AEARs** required by the above **Fee Emissions Summary Table**.
- (3) Submit the actual emissions analysis at the time the fees are paid in full.
- (4) Calculate the fee due based upon the actual emissions analysis, and submit payment by January 31 following the end of the annual accounting period. If any part of any fee is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in KCAQMR Section 25.8-H. Major sources may request an extension of time to file their emissions analysis with the Director.

Payment of the fee due and the actual emissions analysis shall be submitted to the Department at the following address.

Knox County Department of Air Quality Management 140 Dameron Avenue Knoxville, TN 37917

#### **B2. Emission Limits**

None

#### **B3. Operating Restrictions**

None

#### **B4. Monitoring and Recordkeeping Requirements**

None

## **B5. Reporting Requirements**

- (a) Semi-annual reports shall be submitted to the Department (at the address specified in permit condition B5(b)) by July 31 and January 31 of each year covering the time period from January 1 through June 30 and July 1 through December 31, respectively. The semi-annual report shall include the following:
  - (1) Any monitoring and recordkeeping required by permit conditions C3(d) and D3(a) through D3(d). However, a summary report of this data is acceptable provided there is sufficient information to enable the Department to evaluate compliance.
  - (2) Identification of all instances of deviations from any permit requirements.

These reports shall contain a certification by a responsible official that, based on information and belief formed after reasonable inquiry, that the statements and information in the document are true, accurate, and complete. (KCAQMR Section 25.70-F.1.c(3)(a))

- (b) Compliance certifications shall be submitted to the Department and EPA (at the addresses specified below) by January 31 of each year for the previous calendar year. The compliance certifications shall include the following:
  - (a) The identification of each term or condition of the permit that is the basis of the certification;
  - (b) The compliance status;
  - (c) Whether compliance was continuous or intermittent;
  - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the required monitoring; and
  - (e) Such other facts as the Department may require to determine the compliance status of the source.

**Department Address:** 

Knox County Department of Air Quality Management 140 Dameron Avenue Knoxville, TN 37917 EPA Address:

U.S. EPA Region 4
Air and EPCRA Enforcement Branch
61 Forsyth Street, SW
Atlanta, GA 30303

These reports shall contain a certification by a responsible official that, based on information and belief formed after reasonable inquiry, that the statements and information in the document are true, accurate, and complete. (KCAQMR Section 25.70-F.3.e(3))

## **B6. Testing Requirements**

None

#### **B7. Miscellaneous Requirements**

- (a) Locally enforceable only. No person shall cause, suffer, allow, or permit open burning of any kind except as specifically permitted in the Knox County Air Quality Management Regulation Section 16.0. (KCAQMR Section 16.0)
- (b) Locally enforceable only. No person shall cause, suffer, or allow any emissions of gases, vapors, or "objectionable" odors beyond the property line from which such emissions occur to be in sufficient quantities and of such

characteristics and duration as to be injurious, or tend to be injurious, to human health and welfare, plant or animal life, or to property, or which unreasonably interferes with the enjoyment of life or property. (KCAQMR Section 21.0)

(c) Unless otherwise specified, the averaging times for the applicable emission and/or opacity limit in this permit are tied to or based upon the run time of the test methods used for determining compliance. (KCAQMR Section 25.70-F.1)



## Section C. Emission Group 001 (Pellet Feed Silo Bins and Fluff Surge Hoppers) Specific Conditions

The following table lists the permitted sources within Emission Group 001.

Emission Unit #	Source(s)	Control(s)
001-01	Extruder #1 Pellet Feed Silo Bin	Bin Vent Filter
001-02	Extruder #1 Fluff Surge Hopper	Baghouses 1-1 and 1-2
001-03	Extruder #2 Pellet Feed Silo Bin	Bin Vent Filter
001-04	Extruder #2 Fluff Surge Hopper	Baghouses 2-1 and 2-2
001-05	Extruder #3 Pellet Feed Silo Bin	Bin Vent Filter
001-06	Extruder #3 Fluff Surge Hopper	Baghouses 3-1 and 3-2
001-07	Extruder #4 Pellet Feed Silo Bin	Bin Vent Filter
001-08	Extruder #4 Fluff Surge Hopper	Baghouses 4-1 and 4-2

#### C1. Emission Limits

(a) Emissions of particulate matter (TSP) from emission units 001-01 through 001-08 (silo bins and fluff surge hoppers) shall not exceed 9.03 lb/hr. (KCAQMR Section 19.2-C)

#### **C2. Operating Restrictions**

- (a) The owner or operator shall not operate emission units 001-01, 001-03, 001-05, and 001-07 (silo bins) unless the associated bin vent filter is in operation. (KCAQMR Section 25.3-F and permit application)
- (b) The owner or operator shall not operate emission units 001-02, 001-04, 001-06, and 001-08 (fluff surge hoppers) unless the associated baghouses are in operation. (KCAQMR Section 25.3-F and permit application)

## C3. Monitoring and Recordkeeping Requirements

- (a) The owner or operator shall install, operate, and maintain a device to measure the pressure drop across the baghouses. (KCAQMR Section 26.5-A)
- (b) The owner or operator shall inspect the bin vent filters associated with emission units 001-01, 001-03, 001-05, and 001-07 (silo bins) weekly and take appropriate corrective action if visible emissions or other indications of a leak or malfunction is observed. (KCAQMR Section 26.5-A and permit application)
- (c) At least once during each week emission unit 001-02, 001-04, 001-06, or 001-08 (fluff surge hoppers) operated, the owner or operator shall monitor the pressure drop across the associated baghouses and take appropriate corrective action if the pressure drop exceeds 6 inches of WP. (KCAQMR Section 26.5-A and permit application)
- (d) The owner or operator shall keep a record of the weekly inspections required by permit conditions C3(b) and C3(c) which includes the date, bin vent filter observations, baghouses pressure drop readings, and any corrective actions taken. (KCAQMR Section 26.5-B)

## **C4. Reporting Requirements**

None

## **C5. Testing Requirements**

None

#### **C6. Miscellaneous Requirements**

None

# <u>Section D. Emission Group 002 (Extruders with Associated Roll Storage, Thermoforming, and Stamping Processes) Specific Conditions</u>

The following table lists the permitted sources within Emission Group 002.

Emission Unit #	Source(s)	Control(s)
002-01	Extruder #1 with associated roll storage, thermoforming, and stamping processes	None
002-02	Extruder #2 with associated roll storage, thermoforming, and stamping processes	None
002-03	Extruder #3 with associated roll storage, thermoforming, and stamping processes	None
002-04	Extruder #4 with associated roll storage, thermoforming, and stamping processes	None

#### **D1. Emission Limits**

(a) Emissions of VOC from emission units 002-01 through 002-04 (extruder operations) shall not exceed 396 tons during any consecutive 12-month period. (KCAQMR Section 25.1-D & F and PSD permit PSD-0970-01)

### **D2. Operating Restrictions**

- (a) Emission units 002-01 through 002-04 (extruder operations) are permitted to use isobutane and carbon dioxide (CO<sub>2</sub>) as blowing agents only. Where foam sheet quality requirements allow, carbon dioxide (CO<sub>2</sub>) shall be substituted for a portion of the isobutane in the blowing agent. (KCAQMR Section 25.3-F and permit application)
- (b) The foam sheet production rate for emission units 002-01 through 002-04 (extruder operations) shall not exceed 9041 lb/hr based on a daily average. (KCAQMR Section 25.1-D & F and PSD permit PSD-0970-01)
- (c) The usage of isobutane by emission units 002-01 through 002-04 (extruder operations) shall not exceed 271 lb/hr based on a daily average. (KCAQMR Section 25.1-D & F and PSD permit PSD-0970-01)
- (d) The minimum isobutane retention mass fraction in the finished products of emission units 002-01 through 002-04 (extruder operations) shall be 0.031 lb<sub>isobutane</sub>/lb<sub>product</sub> based on an annual average. (KCAQMR Section 25.1-D & F and PSD permit PSD-0970-01)

## D3. Monitoring and Recordkeeping Requirements

- (a) The owner or operator shall keep a daily record of the mass of isobutane used, the mass of foam sheet produced, and the mass of finished product produced by emission units 002-01 through 002-04 (extruder operations). (KCAQMR Section 26.5-B)
- (b) The owner or operator shall keep a record of the isobutane used during each period of operation of emission units 002-01 through 002-04 (extruder operations). The record shall include the following:
  - (1) The initial isobutane totalizer value with the date, time, shift, and operator's name; and
  - (2) The final isobutane totalizer value with the date, time, shift, and operator's name.

(KCAQMR Section 26.5-B)

- (c) The owner or operator shall keep a record of the daily, monthly, and 12-month rolling total mass of isobutane released by emission units 002-01 through 002-04 (extruder operations). The total mass of isobutane released is the difference between the total mass of isobutane used and the total mass of isobutane retained in the finished product. The total mass of isobutane retained in the finished product shall be calculated as the total mass of finished product times the most recent quarterly isobutane retention mass fraction. (KCAQMR Section 26.5-B)
- (d) The owner or operator shall keep a record of the quarterly and 4-quarter rolling average isobutane retention mass fraction in the finished products. (KCAQMR Section 26.5-B)

## **D4. Reporting Requirements**

None

## **D5. Testing Requirements**

(a) The owner or operator shall submit finished product samples to an independent laboratory each calendar quarter to determine the mass of isobutane retained in the finished product (the isobutane retention mass fraction). A calendar quarter is defined as January to March, April to June, July to September, and October to December. The owner or operator shall submit the results of the quarterly isobutane retention analysis to the Department within 30 days of receiving the results. (KCAQMR Section 26.5-A and permit PSD-0970-01)

## **D6. Miscellaneous Requirements**

None

## **ATTACHMENT A: Insignificant Activities**

- (a) Natural gas fired combustion units less than 10 MMBtu/hr per KCAQR 25.70-L.2.b(1)
- (b) Electric ovens per KCAQMR 25.70-L.2.a
- (c) Space heaters per KCAQMR 25.70-L.2.h

