



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
STARK COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 15-1395**

**DATE: December 15, 1999**

Hoover Company - Plant 1  
Monica A. Satrape  
101 East Maple Street  
North Canton, OH 44720

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

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

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

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

Very truly yours,

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

cc: USEPA  
CANTON CITY HEALTH DEPARTMENT



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install**

**Issue Date: December 15, 1999**

**FINAL PERMIT TO INSTALL 15-1395**

Application Number: 15-1395  
APS Premise Number: 1576170258  
Permit Fee: **\$2400**  
Name of Facility: Hoover Company - Plant 1  
Person to Contact: Monica A. Satrape  
Address: 101 East Maple Street  
North Canton, OH 44720

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**101 East Maple Street**  
**North Canton, Ohio**

Description of proposed emissions unit(s):  
**TWELVE THERMOPLASTIC RESIN INJECTION MOLDING MACHINES.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



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Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

**9. Construction of New Sources(s)**

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

Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

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

**10. Public Disclosure**

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

**11. Applicability**

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

**12. Best Available Technology**

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

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

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

**14. Construction Compliance Certification**

**Hoover Company - Plant 1**  
 PTI Application: **15-1395**  
**December 15, 1999**

Facility ID: **1576170258**

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

**15. Fees**

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

**B. Permit to Install Summary of Allowable Emissions**

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

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

| <u>Pollutant</u> | <u>Tons Per Year</u> |
|------------------|----------------------|
| VOC*             | 5.296                |
| Styrene          | 3.913                |

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\*Includes styrene

Hoover Company - Plant 1  
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Facility ID: 1576170258

Emissions Unit ID: P155

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

OAC rule 3745-21-07(G)(2)

Operations, Property,  
and/or Equipment

Applicable Rules/Requirements

|   |                                      |                     |
|---|--------------------------------------|---------------------|
| 85-ton,<br>thermoplastic<br>molding machine; No. 12 | 18.6 pounds/hour,<br>resin injection | OAC rule 3745-31-05 |
|---|--------------------------------------|---------------------|

OAC rule 3745-35-07(B)

**Hoove**PTI A<sub>1</sub>**December 15, 1999**Emissions Unit ID: **P155**

Applicable Emissions  
Limitations/Control Measures

0.016 pound OC/hour

0.067 ton OC/year

0.012 pound styrene/hour

0.05 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## 2. Additional Terms and Conditions

- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## B. Operational Restrictions

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

P044 No.2911504 P088 No.2932902 P132 No.2918802  
P045 No.2912505 P089 No.2933002 P133 No.2911705

Hoove  
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Emissions Unit ID: P155

|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P046            | No.2912605            | P090            | No.2933102            | P134 | No.2923802 |
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |

**Hoover Company - Plant 1**  
PTI Application: **15-1305**  
**Decen**

Facility ID: **1576170258**

Emissions Unit ID: **P155**

P086 No.2932502 P130 No.2934501  
P087 No.2932802 P131 No.2930401

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

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**Hoove**

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**December 15, 1999**

Emissions Unit ID: **P155**

- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.016 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.012 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.067 ton OC/hr and 0.05 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 106 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

**Hoover Company - Plant 1**PTI Application: **15 1305****Decem**Facility ID: **1576170258**Emissions Unit ID: **P155**

rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

**F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                    | <u>Applicable Rules/Requirements</u> |                           |
|--|--------------------------------------|---------------------------|
| 300-ton, 55.5 pounds/hour, thermoplastic resin injection molding machine; No. 47 | OAC rule 3745-31-05                  | OAC rule 3745-21-07(G)(2) |
|  | OAC rule 3745-35-07(B)               |                           |

**Hoove**PTI A<sub>1</sub>**December 15, 1999**Emissions Unit ID: **P156**Applicable Emissions  
Limitations/Control Measures

0.048 pound OC/hour

0.198 ton OC/year

0.036 pound styrene/hour

0.148 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

**2. Additional Terms and Conditions**

**2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

- To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

- The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

**Hoover Company - Plant 1**PTI Application: **15-1305****Decem**Facility ID: **1576170258**Emissions Unit ID: **P156**

|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

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**Decen**

Facility ID: **1576170258**

Emissions Unit ID: **P156**

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

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- d. any use of photochemically reactive mold-release agents or plastics.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.048 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.036 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.198 ton OC/hr and 0.148 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115  
machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

$0.00087 \text{ lb OC/pound (styrene plastic) times } 28,000,000 \text{ pounds/year times } 1 \text{ ton}/2000 \text{ lbs}$   
 $= 12.18 \text{ tons OC/yr}$

$0.00023 \text{ lb OC/pound (nonstyrene plastic) times } 297,000,000 \text{ lbs/year times } 1 \text{ ton}/2000 \text{ lbs}$   
 $= 34.16 \text{ tons/year}$

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                     | <u>Applicable Rules/Requirements</u>   |
|---|--|
| 420-ton, 151.1 pounds/hour, thermoplastic resin injection molding machine; No. 64 | OAC rule 3745-21-07(G)(2)<br><br>OAC rule 3745-31-05<br><br>OAC rule 3745-35-07(B) |

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Applicable Emissions  
Limitations/Control Measures

0.131 pound OC/hour  
0.538 ton OC/year  
0.098 pound styrene/hour  
0.4 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

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- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## **B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |

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P087 No.2932802 P131 No.2930401

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.131 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.098 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.538 ton OC/hr and 0.4 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

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rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

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0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

**F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.



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Applicable Emissions  
Limitations/Control Measures

0.407 pound OC/hour

1.7 tons OC/year

0.3 pound styrene/hour

1.25 tons styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## 2. Additional Terms and Conditions

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- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## B. Operational Restrictions

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

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Facility ID: **1576170258**

Emissions Unit ID: **P158**

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.407 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.3 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
1.7 tons OC/hr and 1.25 tons styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

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rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                   | <u>Applicable Rules/Requirements</u>   |
|---|--|
| 85-ton, 18.6 pounds/hour, thermoplastic resin injection molding machine; No. 13 | OAC rule 3745-31-05<br><br>OAC rule 3745-35-07(B)<br><br>OAC rule 3745-21-07(G)(2) |

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Applicable Emissions  
Limitations/Control Measures

0.016 pound OC/hour

0.067 ton OC/year

0.012 pound styrene/hour

0.05 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

**2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

- To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

- The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |

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P087 No.2932802 P131 No.2930401

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

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- d. any use of photochemically reactive mold-release agents or plastics.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.016 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.012 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.067 ton OC/hr and 0.05 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

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rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property,<br/>and/or Equipment</u>                                      | <u>Applicable Rules/Requirements</u> |                           |
|--|--------------------------------------|---------------------------|
| 230-ton, 40.2 pounds/hour,<br>thermoplastic resin injection<br>molding machine; No. 21 | OAC rule 3745-31-05                  | OAC rule 3745-21-07(G)(2) |
|  | OAC rule 3745-35-07(B)               |                           |

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Applicable Emissions  
Limitations/Control Measures

0.035 pound OC/hour

0.144 ton OC/year

0.026 pound styrene/hour

0.107 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

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- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## **B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

**Hoover Company - Plant 1**  
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**Decen**

Facility ID: **1576170258**

Emissions Unit ID: **P160**

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting

plastic molded or the total plastic molded; and,

- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.035 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.026 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.144 ton OC/hr and 0.107 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                    | <u>Applicable Rules/Requirements</u> |                           |
|--|--------------------------------------|---------------------------|
| 230-ton, 40.2 pounds/hour, thermoplastic resin injection molding machine; No. 22 | OAC rule 3745-31-05                  | OAC rule 3745-21-07(G)(2) |
|  | OAC rule 3745-35-07(B)               |                           |

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Applicable Emissions  
Limitations/Control Measures

0.035 pound OC/hour

0.144 ton OC/year

0.026 pound styrene/hour

0.107 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

**Hoove**PTI A<sub>1</sub>**December 15, 1999**Emissions Unit ID: **P161**

- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## **B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |

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Emissions Unit ID: **P161**

P087 No.2932802 P131 No.2930401

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

- d. any use of photochemically reactive mold-release agents or plastics.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.035 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.026 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.144 ton OC/hr and 0.107 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

Emissions Unit ID: **P162**

rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs = 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs = 34.16 tons/year

**F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                    | <u>Applicable Rules/Requirements</u> |
|--|--------------------------------------|
| 300-ton, 55.2 pounds/hour, thermoplastic resin injection molding machine; No. 46 | OAC rule 3745-31-05                  |
|  | OAC rule 3745-35-07(B)               |

OAC rule 3745-21-07(G)(2)

**Applicable Emissions  
Limitations/Control Measures**

0.035 pound OC/hour  
0.144 ton OC/year  
0.026 pound styrene/hour  
0.107 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

**2. Additional Terms and Conditions**

**2.a** This emissions unit shall not employ any photochemically reactive materials as defined in

OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

## B. Operational Restrictions

- To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

- The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |
| P047 | No.2913205 | P091 | No.2930302 | P135 | No.2918205 |
| P048 | No.2927501 | P092 | No.2931802 | P136 | No.2928901 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:
  - a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
  - a. the company identification of each grade of plastic;
  - b. the amount of styrene monomer in each grade of plastic; and,
  - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
  - a. the company identification of each mold-release agent employed; and,
  - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;

- c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,
- d. any use of photochemically reactive mold-release agents or plastics.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.035 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.026 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.144 ton OC/hr and 0.107 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                    | <u>Applicable Rules/Requirements</u>   |
|--|--|
| 300-ton, 55.2 pounds/hour, thermoplastic resin injection molding machine; No. 54 | OAC rule 3745-21-07(G)(2)<br><br>OAC rule 3745-31-05<br><br>OAC rule 3745-35-07(B) |

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Applicable Emissions  
Limitations/Control Measures

0.048 pound OC/hour

0.198 ton OC/year

0.036 pound styrene/hour

0.148 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

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Emissions Unit ID: **P163**

- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |

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**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

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- d. any use of photochemically reactive mold-release agents or plastics.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.048 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.036 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.198 ton OC/hr and 0.148 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

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rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                    | <u>Applicable Rules/Requirements</u> |                           |
|--|--------------------------------------|---------------------------|
| 300-ton, 55.2 pounds/hour, thermoplastic resin injection molding machine; No. 55 | OAC rule 3745-31-05                  | OAC rule 3745-21-07(G)(2) |
|  | OAC rule 3745-35-07(B)               |                           |

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Applicable Emissions  
Limitations/Control Measures

0.048 pound OC/hour  
0.198 ton OC/year  
0.036 pound styrene/hour  
0.148 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

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- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

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**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:

0.048 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:

0.036 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:

0.198 ton OC/hr and 0.148 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation

47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

$0.00087 \text{ lb OC/pound (styrene plastic) times } 28,000,000 \text{ pounds/year times } 1 \text{ ton}/2000 \text{ lbs}$   
 $= 12.18 \text{ tons OC/yr}$

$0.00023 \text{ lb OC/pound (nonstyrene plastic) times } 297,000,000 \text{ lbs/year times } 1 \text{ ton}/2000 \text{ lbs}$   
 $= 34.16 \text{ tons/year}$

**F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                       | <u>Applicable Rules/Requirements</u>   |
|---|--|
| 1100-ton, 468.6 pounds/hour, thermoplastic resin injection molding machine; No. 126 | OAC rule 3745-21-07(G)(2)<br><br>OAC rule 3745-31-05<br><br>OAC rule 3745-35-07(B) |

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Applicable Emissions  
Limitations/Control Measures

0.048 pound OC/hour

0.198 ton OC/year

0.036 pound styrene/hour

0.148 ton styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## 2. Additional Terms and Conditions

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- 2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |

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Emissions Unit ID: **P165**

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**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:

- a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
    - a. the company identification of each grade of plastic;
    - b. the amount of styrene monomer in each grade of plastic; and,
    - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
  3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
    - a. the company identification of each mold-release agent employed; and,
    - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;
  - b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
  - c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,

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- d. any use of photochemically reactive mold-release agents or plastics.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.048 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.036 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
0.198 ton OC/hr and 0.148 ton styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

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rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. Applicable Emissions Limitations and/or Control Requirements**

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

| <u>Operations, Property, and/or Equipment</u>                                   | <u>Applicable Rules/Requirements</u> |                           |
|---|--------------------------------------|---------------------------|
| 85-ton, 18.6 pounds/hour, thermoplastic resin injection molding machine; No. 12 | OAC rule 3745-31-05                  | OAC rule 3745-21-07(G)(2) |
|   | OAC rule 3745-35-07(B)               |                           |

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Applicable Emissions  
Limitations/Control Measures

0.407 pound OC/hour

1.7 tons OC/year

0.3 pound styrene/hour

1.25 tons styrene/year

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded. No plastic shall contain more than 0.4% styrene monomer.

The total annual organic compound emissions from all 115 plastic injection molding machines at this facility shall not exceed 47.4 tons/year. To achieve this limit, the maximum amount of plastic molded shall not exceed 325,000,000 pounds/year, based upon a rolling, 12-month summation of the plastic molded

This emissions unit shall not employ any photochemically reactive material. (See section II.A.2.a.)

## **2. Additional Terms and Conditions**

**2.a** This emissions unit shall not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). This includes both plastics and any mold-release agents. If no photochemically reactive materials are used, this emissions unit is exempt from the limits on organic compound emissions found in OAC rule 3745-21-07 because it qualifies for the exemption found in OAC rule 3745-21-07(G)(9)(f).

**B. Operational Restrictions**

1. To achieve enforceability during the first 12 calendar months of operation following issuance of this permit, the permittee shall not exceed the production levels specified in the following table for all plastic injection molding machines:

| Calendar Month(s)<br>(After Permit Issuance) | Maximum Allowable<br>Cumulative lbs of<br>Styrene-Emitting<br>Plastic Molded | Maximum Allowable<br>Cumulative lbs. of<br>Plastic Molded |
|--|--|---|
| 1  | 2,333,000  | 27,083,333  |
| 1-2  | 4,666,000  | 54,166,667  |
| 1-3  | 7,000,000  | 81,250,000  |
| 1-4  | 9,333,000  | 108,333,333   |
| 1-5  | 11,666,000   | 135,416,667   |
| 1-6  | 14,000,000   | 162,500,000   |
| 1-7  | 16,333,000   | 189,583,333   |
| 1-8  | 18,666,000   | 216,666,667   |
| 1-9  | 21,000,000   | 243,750,000   |
| 1-10   | 23,333,000   | 270,833,333   |
| 1-11   | 25,666,000   | 297,916,667   |
| 1-12   | 28,000,000   | 325,000,000   |

After the first 12 calendar months of operation following the issuance of this permit, the annual production rate limitations shall be based upon a rolling, 12-month summation of the amount of styrene-emitting plastic molded and the total plastic molded.

2. The following is a list of the plastic injection molding machines at this facility:

|      |            |      |            |      |            |
|------|------------|------|------------|------|------------|
| P044 | No.2911504 | P088 | No.2932902 | P132 | No.2918802 |
| P045 | No.2912505 | P089 | No.2933002 | P133 | No.2911705 |
| P046 | No.2912605 | P090 | No.2933102 | P134 | No.2923802 |

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|                 |                       |                 |                       |      |            |
|-----------------|-----------------------|-----------------|-----------------------|------|------------|
| P047            | No.2913205            | P091            | No.2930302            | P135 | No.2918205 |
| P048            | No.2927501            | P092            | No.2931802            | P136 | No.2928901 |
| P049            | No.2920101            | P093            | No.2934102            | P137 | No.2929001 |
| P050            | No.2920201            | <del>P094</del> | <del>No.2917202</del> | P138 | No.2929101 |
| P051            | No.2923902            | <del>P095</del> | <del>No.2917302</del> | P139 | No.2929502 |
| P052            | No.2924102            | P096            | No.2914602            | P140 | No.2929402 |
| <del>P053</del> | <del>No.2924002</del> | P097            | No.2917502            | P141 | No.2929302 |
| P054            | No.2925402            | P098            | No.2919604            | P142 | No.2929202 |
| P055            | No.2920502            | P099            | No.2911004            | P143 | No.2923002 |
| P056            | No.2927302            | P100            | No.2912804            | P144 | No.2922602 |
| P057            | No.2927702            | P101            | No.2912904            | P145 | No.2923102 |
| P058            | No.2926002            | P102            | No.2913104            | P146 | No.2923202 |
| P059            | No.2926102            | P103            | No.2918904            | P147 | No.2929602 |
| P060            | No.2927902            | <del>P104</del> | <del>No.2919505</del> | P148 | No.2923602 |
| P061            | No.2928502            | <del>P105</del> | <del>No.2910805</del> | P149 | New        |
| P062            | No.2934801            | P106            | No.2914405            | P150 | New        |
| P063            | No.2926501            | P107            | No.2914305            | P151 | New        |
| P064            | No.2926401            | P108            | No.2912405            | P152 | New        |
| P065            | No.2926601            | P109            | No.2911405            | P153 | New        |
| P066            | No.2921101            | P110            | No.2915705            | P154 | New        |
| P067            | No.2928201            | <del>P111</del> | <del>No.2915605</del> | P155 | No. 12     |
| P068            | No.2931201            | <del>P112</del> | <del>No.2919005</del> | P156 | No. 47     |
| P069            | No.2932301            | P113            | No.2924201            | P157 | No. 64     |
| P070            | No.2932601            | P114            | No.2924601            | P158 | No. 125    |
| P071            | No.2934201            | P115            | No.2925201            | P159 | No. 13     |
| P072            | No.2934301            | P116            | No.2925601            | P160 | No. 21     |
| P073            | No.2934401            | P117            | No.2925801            | P161 | No. 22     |
| P074            | No.2935001            | P118            | No.2926301            | P162 | No. 43     |
| P075            | No.2934901            | P119            | No.2921701            | P163 | No. 46     |
| P076            | No.2935201            | P120            | No.2925502            | P164 | No. 54     |
| P077            | No.2930902            | P121            | No.2927802            | P165 | No. 55     |
| P078            | No.2931002            | P122            | No.2928802            | P166 | No. 126    |
| <del>P079</del> | <del>No.2931102</del> | P123            | No.2922402            |      |            |
| P080            | No.2931402            | P124            | No.2928602            |      |            |
| P081            | No.2931602            | P125            | No.2921602            |      |            |
| P082            | No.2931502            | P126            | No.2932701            |      |            |
| P083            | No.2931702            | P127            | No.2933201            |      |            |
| P084            | No.2931902            | P128            | No.2933301            |      |            |
| P085            | No.2932102            | P129            | No.2934001            |      |            |
| P086            | No.2932502            | P130            | No.2934501            |      |            |
| P087            | No.2932802            | P131            | No.2930401            |      |            |

### **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain records which list the following information for all plastic injection molding machines at this facility:
  - a. during the first 12 calendar months of operation following the issuance of this permit, the cumulative total amount of both the styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility during each calendar month; and,
  - b. beginning after the first 12 calendar months of operation following issuance of this permit, the rolling, 12-month summation of both the total amount of styrene-emitting plastic molded and of the total plastic molded in all 115 of the plastic injection molding machines at this facility for each calendar month.
2. The permittee shall collect and record the following information for each grade of plastic employed in this emissions unit:
  - a. the company identification of each grade of plastic;
  - b. the amount of styrene monomer in each grade of plastic; and,
  - c. whether each grade of plastic contains photochemically reactive materials (PRM) as defined in OAC rule 3745-21-01(C)(5).
3. The permittee shall collect and record the following information for each mold-release agent employed in this emissions unit:
  - a. the company identification of each mold-release agent employed; and,
  - b. documentation on whether or not each mold-release agent is a photochemically reactive material (PRM) as defined in OAC rule 3745-21-01(C)(5).

### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. any use of plastic which contains more than 0.4% styrene monomer;

- b. any exceedance of the total cumulative monthly limitations on either the amount of styrene-emitting plastic molded or the total plastic molded in the 115 plastic injection molding machines at this facility;
- c. any exceedances of the rolling, 12-month limits of either the amount of styrene-emitting plastic molded or the total plastic molded; and,
- d. any use of photochemically reactive mold-release agents or plastics.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in these terms and conditions shall be determined in accordance with the following methods(s):

- a. Emission Limitation:

The total annual styrene emissions from all 115 plastic injection molding machines at this facility shall not exceed 9.1 tons/year. To achieve this limit, the maximum amount of styrene-emitting plastic molded shall not exceed 28,000,000 pounds/year, based upon a rolling, 12-month summation of the styrene-emitting plastic molded.

Applicable Compliance Method:

Record keeping as required in section II.C.1.

- b. Emission Limitation:  
0.407 pound OC/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene containing plastics of 0.00087 lb OC/pound of plastic times the pounds of plastic made per hour.

- c. Emission Limitation:  
0.3 pound styrene/hour

Applicable Compliance Method:

Multiply the facility-provided emission factor for styrene-emitting plastic of 0.00065 lb styrene/ lb of styrene-emitting plastic times the pounds of styrene-emitting plastic per hour.

- d. Emission Limitation:  
1.7 tons OC/hr and 1.25 tons styrene/year

Applicable Compliance Method:

Multiply the hourly emission limit times 8,760 hours/year and divide by 2,000.

- d. Emission Limitation  
47.74 tons OC/year from the 115 machines at this facility

Applicable Compliance Method

Limiting the amount of total plastics molded to 325,000,000 pounds/year, based upon a

rolling, 12-month summation. The facility supplied emission factor for styrene containing plastic is 0.00087 lb OC/pound. The facility supplied emission factor for nonstyrene plastic is 0.00023 lb OC/pound.

0.00087 lb OC/pound (styrene plastic) times 28,000,000 pounds/year times 1 ton/2000 lbs  
= 12.18 tons OC/yr

0.00023 lb OC/pound (nonstyrene plastic) times 297,000,000 lbs/year times 1 ton/2000 lbs  
= 34.16 tons/year

#### **F. Miscellaneous Requirements**

1. FESOPs will be used to make the limits found in this permit to install federally enforceable.