



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
LICKING COUNTY**

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: 01-08052

DATE: 2/16/00

Bayer Corporation Polymers Division
W Buck Steorts
1111 O Neill Drive SE
Hebron, OH 43025

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

CDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: 2/16/00

FINAL PERMIT TO INSTALL 01-08052

Application Number: 01-08052
APS Premise Number: 0145020221
Permit Fee: **\$2400**
Name of Facility: Bayer Corporation Polymers Division
Person to Contact: W Buck Steorts
Address: 1111 O Neill Drive SE
Hebron, OH 43025

Location of proposed air contaminant source(s) [emissions unit(s)]:
1111 O'Neill Drive SE
Hebron, Ohio

Description of proposed emissions unit(s):
Thermoplastic compounding extruders.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

Part I - GENERAL TERMS AND CONDITIONS

A. 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

Bayer Corporation Polymers Division
PTI Application: 01-08052
Issued: 2/16/00

Facility ID: 0145020221

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>
PM	2.90
OC	11.35
HAP	0.90

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P018 - Thermoplastic compounding extruder #6 with electrostatic precipitator and carbon filter	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.55 pound per hour and 1.45 tons per year. Organic compound emissions shall not exceed 0.8 pound per hour and 2.10 tons per year. Styrene emissions shall not exceed 0.06 pound per hour and 0.16 ton per year. See A.2.a below
	OAC rule 3745-17-07 (A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11 (B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.
	OAC rule 3745-21-07 (G)(2)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

2. Additional Terms and Conditions

- 2.a The hourly emission limitations were established to reflect P018's potential to emit. Therefore, recordkeeping or reporting requirements are not necessary to ensure compliance with this emissions limit.

B. Operational Restrictions

1. The permittee shall operate the electrostatic precipitator (ESP) and the carbon filter when this emissions unit is in operation.
2. The permittee shall monitor the ESP inlet air temperature by an alarm system that shall be activated if the temperature drops below 140 degrees F.
3. There shall be no visible fugitive particulate emissions at the extruder die stage of the process.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the extruder die stage of the process for any fugitive emissions from the ESP at least once per shift. Monitoring shall be recorded in an operations log maintained at this facility.
2. The ESP inlet air temperature alarm system shall be checked on a monthly basis. Maintenance checks for this alarm system shall be recorded in an operations log maintained at this facility.
3. The carbon filters shall be inspected on a weekly basis and maintained in accordance with the manufacturers recommendations. Maintenance of carbon filters shall be recorded in an operations log maintained at this facility.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. identify all times during which the line operated without the ESP and/or carbon filter operating properly; and,
 - b. describe any corrective actions taken.

These quarterly reports shall be submitted to the Ohio EPA, CDO by February 15, May 15, August 15, and November 15, of each year and shall cover the previous calendar quarters (i.e., October through December, January through March, April through June, and July through September, respectively).

E. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be

determined in accordance with the following methods:

- a. Emission Limitation:
Particulate emissions shall not exceed 0.55 pound per hour and 1.45 tons per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.00011 lb PM/lb compounded (Based on Bayer Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

- a. Emission Limitation:
Organic Compound emissions shall not exceed 0.8 pound per hour and 2.10 tons per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.00016 lb OC/lb compounded (Based on Bayer Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

- b. Emission Limitation:
Styrene emissions shall not exceed 0.06 pound per hour and 0.16 ton per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.000013 lb Styrene/lb compounded (Based on Bayer Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

- c. Emission Limitation:
Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Bayer Corporation Polymers Division

PTI Application: 01-09052

Issued

Facility ID: 0145020221

Emissions Unit ID: **P018**

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

5. If required, the permittee shall perform a compliance demonstration to determine compliance with each of the above referenced short term emission limitations. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 0.55 lb PM/hour, 40 CFR Part 60, Appendix A, Method 5. 0.80 lb OC/hour, 40 CFR Part 60, Appendix A, Method 24. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

F. Miscellaneous Requirements

1. If, in the future, Bayer Corp. conducts testing of emission units which indicate emission factors different than those noted in the permit application submitted on September 9, 1999, a notification shall be submitted to the CDO within 45 days after the emissions testing is conducted.
2. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Particulate Matter (PM), Organic Compound (OC), Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable PM/OC/VOC/HAP emissions in this permit to install.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative PM/OC/HAP/VOC emission factors, the permittee may be required to reevaluate the estimated PM/OC/HAP/VOC emissions from the above referenced operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated PM, OC, HAP and/or VOC emissions the permittee shall submit the following (to the Central District Office):

- a. Revised PM/OC/HAP/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated PM/OC/HAP/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each operation covered under this permit, using the updated emission factors.

- b. Reevaluation of BAT:

Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each operation the permittee shall submit a Best Available Technology (BAT) analysis or study that defines BAT for the operation(s).

- c. Title V Permit Application (if necessary):

- i. "New" Title V facilities (only applicable to facilities which become subject to Title V permitting requirements (OAC Chapter 3745-77 as a result of increased PM/OC/HAP/VOC emissions from the use of the updated emission factors)

- (a) Within thirty (30) days of submittal of the revised estimated emissions (item #1 above), the permittee shall submit a revised "potential to emit" determination for the facility to the Ohio EPA, CDO.

Bayer Corporation Polymers Division

PTI Application: 01-09052

Issued

Facility ID: 0145020221

Emissions Unit ID: P018

- (b) Within one year of submittal of the revised emissions estimates (item #1), the permittee shall submit a complete Title V permit application, federally enforceable state operating permit application, or permit to install application.

- d. Emissions Fee Report (if necessary):

Within ninety (90) days of submittal of the revised estimated emissions (item #1), the permittee shall submit a Fee Emission Report to the Ohio EPA, in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide #61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P019 - Thermoplastic compounding extruder #7 with electrostatic precipitator and carbon filter	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.55 pound per hour and 1.45 tons per year. Organic compound emissions shall not exceed 0.8 pound per hour and 2.10 tons per year. Styrene emissions shall not exceed 0.06 pound per hour and 0.16 ton per year. See A.2.a below
	OAC rule 3745-17-07 (A)(1)	Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11 (B)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.
	OAC rule 3745-21-07 (G)(2)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

2. Additional Terms and Conditions

- 2.a** The hourly emission limitations were established to reflect P019's potential to emit. Therefore, recordkeeping or reporting requirements are not necessary to ensure compliance with this emissions limit.

B. Operational Restrictions

1. The permittee shall operate the electrostatic precipitator (ESP) and the carbon filter when this emissions unit is in operation.
2. The permittee shall monitor the ESP inlet air temperature by an alarm system that shall be activated if the temperature drops below 140 degrees F.
3. There shall be no visible fugitive particulate emissions at the extruder die stage of the process.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the extruder die stage of the process for any fugitive emissions from the ESP at least once per shift. Monitoring shall be recorded in an operations log maintained at this facility.
2. The ESP inlet air temperature alarm system shall be checked on a monthly basis. Maintenance checks for this alarm system shall be recorded in an operations log maintained at this facility.
3. The carbon filters shall be inspected on a weekly basis and maintained in accordance with the manufacturers recommendations. Maintenance of carbon filters shall be recorded in an operations log maintained at this facility.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. identify all times during which the line operated without the ESP and/or carbon filter operating properly; and,
 - b. describe any corrective actions taken.

These quarterly reports shall be submitted to the Ohio EPA, CDO by February 15, May 15, August 15, and November 15, of each year and shall cover the previous calendar quarters (i.e., October through December, January through March, April through June, and July through

September, respectively).

E. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall not exceed 0.55 pound per hour and 1.45 tons per year.

Applicable Compliance Measure:
Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.00011 lb PM/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.
 - b. Emission Limitation:

Organic Compound emissions shall not exceed 0.8 pound per hour and 2.10 tons per year.

Applicable Compliance Measure:
Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.00016 lb OC/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.
 - c. Emission Limitation:

Styrene emissions shall not exceed 0.06 pound per hour and 0.16 ton per year.

Applicable Compliance Measure:
Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.000013 lb Styrene/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.
 - d. Emission Limitation:

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Bayer Corporation Polymers Division

PTI Application: 01-09052

Issued

Facility ID: 0145020221

Emissions Unit ID: P019

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

5. If required, the permittee shall perform a compliance demonstration to determine compliance with each of the above referenced short term emission limitations. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 0.55 lb PM/hour, 40 CFR Part 60, Appendix A, Method 5. 0.80 lb OC/hour, 40 CFR Part 60, Appendix A, Method 24. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

F. Miscellaneous Requirements

1. If, in the future, Bayer Corp. conducts testing of emission units which indicate emission factors different than those noted in the permit application submitted on September 9, 1999, a notification shall be submitted to the CDO within 45 days after the emissions testing is conducted.
2. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Particulate Matter (PM), Organic Compound (OC), Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable PM/OC/VOC/HAP emissions in this permit to install.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative PM/OC/HAP/VOC emission factors, the permittee may be required to reevaluate the estimated PM/OC/HAP/VOC emissions from the above referenced operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated PM, OC, HAP and/or VOC emissions the permittee shall submit the following (to the Central District Office):

- a. Revised PM/OC/HAP/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated PM/OC/HAP/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each operation covered under this permit, using the updated emission factors.

- b. Reevaluation of BAT:

Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each operation the permittee shall submit a Best Available Technology (BAT) analysis or study that defines BAT for the operation(s).

- c. Title V Permit Application (if necessary):

- i. "New" Title V facilities (only applicable to facilities which become subject to Title V permitting requirements (OAC Chapter 3745-77 as a result of increased PM/OC/HAP/VOC emissions from the use of the updated emission factors)

- (a) Within thirty (30) days of submittal of the revised estimated emissions (item #1 above), the permittee shall submit a revised "potential to emit" determination for the facility to the Ohio EPA, CDO.

Bayer Corporation Polymers Division
PTI Application: 01 09050
Issued

Facility ID: 0145020221

Emissions Unit ID: P019

- (b) Within one year of submittal of the revised emissions estimates (item #1), the permittee shall submit a complete Title V permit application, federally enforceable state operating permit application, or permit to install application.
- d. Emissions Fee Report (if necessary):

Within ninety (90) days of submittal of the revised estimated emissions (item #1), the permittee shall submit a Fee Emission Report to the Ohio EPA , in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide #61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.

3. There shall be no visible fugitive particulate emissions at the extruder die stage of the process.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the extruder die stage of the process for any fugitive emissions from the ESP at least once per shift. Monitoring shall be recorded in an operations log maintained at this facility.
2. The ESP inlet air temperature alarm system shall be checked on a monthly basis. Maintenance checks for this alarm system shall be recorded in an operations log maintained at this facility.
3. The carbon filters shall be inspected on a weekly basis and maintained in accordance with the manufacturers recommendations. Maintenance of carbon filters shall be recorded in an operations log maintained at this facility.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. identify all times during which the line operated without the ESP and/or carbon filter operating properly; and,
 - b. describe any corrective actions taken.

These quarterly reports shall be submitted to the Ohio EPA, CDO by February 15, May 15, August 15, and November 15, of each year and shall cover the previous calendar quarters (i.e., October through December, January through March, April through June, and July through September, respectively).

E. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
Organic Compound emissions shall not exceed 0.8 pound per hour and 2.10 tons per year.

Applicable Compliance Measure:

Emissions Unit ID: P020

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.00016 lb OC/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

b. Emission Limitation:

Styrene emissions shall not exceed 0.06 pound per hour and 0.16 ton per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 5000 lbs/hr by the emission factor of 0.000013 lb Styrene/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

2. If required, the permittee shall perform a compliance demonstration to determine compliance with each of the above referenced short term emission limitations. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 0.80 lb OC/hour, 40 CFR Part 60, Appendix A, Method 24. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

F. Miscellaneous Requirements

1. If, in the future, Bayer Corp. conducts testing of emission units which indicate emission factors different than those noted in the permit application submitted on September 9, 1999, a notification shall be submitted to the CDO within 45 days after the emissions testing is conducted.
2. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Particulate Matter (PM), Organic Compound (OC), Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable PM/OC/VOC/HAP emissions in this permit to install.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative PM/OC/HAP/VOC emission factors, the permittee may be required to reevaluate the estimated PM/OC/HAP/VOC emissions from the above referenced operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated PM, OC, HAP and/or VOC emissions the permittee shall submit the following (to the Central District Office):

- a. Revised PM/OC/HAP/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated PM/OC/HAP/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each operation covered under this permit, using the updated emission factors.

b. Reevaluation of BAT:

Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each operation the permittee shall submit a Best Available Technology (BAT) analysis or study that defines BAT for the operation(s).

c. Title V Permit Application (if necessary):

i. "New" Title V facilities (only applicable to facilities which become subject to Title V permitting requirements (OAC Chapter 3745-77 as a result of increased PM/OC/HAP/VOC emissions from the use of the updated emission factors)

(a) Within thirty (30) days of submittal of the revised estimated emissions (item #1 above), the permittee shall submit a revised "potential to emit" determination for the facility to the Ohio EPA, CDO.

(b) Within one year of submittal of the revised emissions estimates (item #1), the permittee shall submit a complete Title V permit application, federally enforceable state operating permit application, or permit to install application.

d. Emissions Fee Report (if necessary):

Within ninety (90) days of submittal of the revised estimated emissions (item #1), the permittee shall submit a Fee Emission Report to the Ohio EPA, in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide #61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P021 - Thermoplastic compounding extruder #9 - underwater pelletizer with electrostatic precipitator and carbon filter	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 1.92 pound per hour and 5.05 tons per year. Styrene emissions shall not exceed 0.16 pound per hour and 0.42 ton per year. See A.2.a below
	OAC rule 3745-21-07 (G)(2)	The emission limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

2. Additional Terms and Conditions

- The hourly emission limitations were established to reflect P021's potential to emit. Therefore, recordkeeping or reporting requirements are not necessary to ensure compliance with this emissions limit.

B. Operational Restrictions

- The permittee shall operate the electrostatic precipitator (ESP) and the carbon filter when this emissions unit is in operation.
- The permittee shall monitor the ESP inlet air temperature by an alarm system that shall be activated if the temperature drops below 140 degrees F.

3. There shall be no visible fugitive particulate emissions at the extruder die stage of the process.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the extruder die stage of the process for any fugitive emissions from the ESP at least once per shift. Monitoring shall be recorded in an operations log maintained at this facility.
2. The ESP inlet air temperature alarm system shall be checked on a monthly basis. Maintenance checks for this alarm system shall be recorded in an operations log maintained at this facility.
3. The carbon filters shall be inspected on a weekly basis and maintained in accordance with the manufacturers recommendations. Maintenance of carbon filters shall be recorded in an operations log maintained at this facility.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. identify all times during which the line operated without the ESP and/or carbon filter operating properly; and,
 - b. describe any corrective actions taken.

These quarterly reports shall be submitted to the Ohio EPA, CDO by February 15, May 15, August 15, and November 15, of each year and shall cover the previous calendar quarters (i.e., October through December, January through March, April through June, and July through September, respectively).

E. Testing Requirements

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

- a. Emission Limitation:

Organic Compound emissions shall not exceed 0.1.92 pound per hour and 5.05 tons per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 12,000 lbs/hr by the emission factor of 0.00016 lb OC/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission

limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

b. Emission Limitation:

Styrene emissions shall not exceed 0.16 pound per hour and 0.42 ton per year.

Applicable Compliance Measure:

Compliance with the short term emission limit shall be demonstrated by multiplying maximum production rate of 12,000 lbs/hr by the emission factor of 0.000013 lb Styrene/lb compounded (Based on Stack Testing, 5/96). Compliance with the long term emission limitation shall be demonstrated by multiplying the short term emission rate in lbs/hr by the maximum potential hours of operation, 5256 hrs/yr and divide by 2000 lbs/ton.

2. If required, the permittee shall perform a compliance demonstration to determine compliance with each of the above referenced short term emission limitations. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 0.80 lb OC/hour, 40 CFR Part 60, Appendix A, Method 24. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

F. Miscellaneous Requirements

1. If, in the future, Bayer Corp. conducts testing of emission units which indicate emission factors different than those noted in the permit application submitted on September 9, 1999, a notification shall be submitted to the CDO within 45 days after the emissions testing is conducted.
2. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Particulate Matter (PM), Organic Compound (OC), Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable PM/OC/VOC/HAP emissions in this permit to install.

Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative PM/OC/HAP/VOC emission factors, the permittee may be required to reevaluate the estimated PM/OC/HAP/VOC emissions from the above referenced operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated PM, OC, HAP and/or VOC emissions the permittee shall submit the following (to the Central District Office):

- a. Revised PM/OC/HAP/VOC Emissions Estimates:

Within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee

shall submit updated PM/OC/HAP/VOC emissions estimates (maximum rate in lbs/hour and tons/year) for each operation covered under this permit, using the updated emission factors.

b. Reevaluation of BAT:

Within one hundred and twenty (120) days of submittal of the revised emissions estimates, for each operation the permittee shall submit a Best Available Technology (BAT) analysis or study that defines BAT for the operation(s).

- c. Title V Permit Application (if necessary):
- i. "New" Title V facilities (only applicable to facilities which become subject to Title V permitting requirements (OAC Chapter 3745-77 as a result of increased PM/OC/HAP/VOC emissions from the use of the updated emission factors))
- (a) Within thirty (30) days of submittal of the revised estimated emissions (item #1 above), the permittee shall submit a revised "potential to emit" determination for the facility to the Ohio EPA, CDO.
- (b) Within one year of submittal of the revised emissions estimates (item #1), the permittee shall submit a complete Title V permit application, federally enforceable state operating permit application, or permit to install application.
- d. Emissions Fee Report (if necessary):

Within ninety (90) days of submittal of the revised estimated emissions (item #1), the permittee shall submit a Fee Emission Report to the Ohio EPA , in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide #61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.