State of Ohio Environmental Protection Agency

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

Street Address: Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Mailing Address: Lazarus Gov. Center

Application No: 14-05102

DATE: 7/31/2001

Bayer Corp
Terry Harris
367 Three Rivers Pkwy
Addyston, OH 45001

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
Field Operations and Permit Section
Division of Air Pollution Control

CC: **USEPA** **HCDES**
Kathy Clayton **OEM**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

FINAL PERMIT TO INSTALL 14-05102

Application Number:	14-05102
APS Premise Number:	1431010054
Permit Fee:	**$1200**
Name of Facility:	Bayer Corp
Person to Contact:	Terry Harris
Address:	367 Three Rivers Pkwy Addyston, OH 45001

Location of proposed air contaminant source(s) [emissions unit(s)]:
356 Three Rivers Pkwy
Addyston, Ohio

Description of proposed emissions unit(s):
two process units for plastic polymer compounding - modification of PTI 14-04863.

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. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.10 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. 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.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

11. 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.

B. State Only Enforceable 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 of state-only enforceable 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 state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the 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. 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.

4. 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.

5. 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.

6. 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 cannot meet the requirements of this permit 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 cannot meet the requirements of this permit or cannot meet applicable standards.

7. 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.

8. 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).

9. Construction Compliance Certification

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.

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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.

C. 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

Pollutant	Tons Per Year
OC	9.14
PM	20.46
PM-10	14.92

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

NONE

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

NONE

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P030 - plastic polymer compounding line #9	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11(B)(1)

Applicable Emissions Limitations/Control Measures
4.67 lbs PM/hr 3.42 lbs PM-10/hr 20.46 tons PM/yr, 14.92 tons PM-10/yr (combined total from emissions units P029, P030, P031, P034 and emissions unit P035 intermediate silos and overhead hoppers only)
8.15 lbs OC/hr from scrubber outlet 0.41 lb OC/hr from thermal oxidizer exhaust outlet 4.57 tons OC/yr total.
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six-minute average, except as specified by rule
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a Particulate emissions from the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers for emissions unit P030 shall be directed to control devices having control efficiencies of at least 99%.

2.b Particulate and organic compound emissions from the extruders associated with emissions unit P030 shall be captured and vented to a venturi scrubber having a particulate control efficiency of at least 95%. Organic compound emissions from the venturi scrubber shall be directed to a thermal oxidizer having a control efficiency of, at least, 95%, except during the allowable scrubber atmospheric venting period. Emissions unit P030 shall not vent to the atmosphere from the scrubber for more than 720 hours per calendar year.

2.c Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by operating and maintaining dust collectors with at least a 99% PM control efficiency for the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers; use of a scrubber to control particulate emissions from the extruder with at least a 95% PM control efficiency; use of a thermal oxidizer with at least a 95% OC control efficiency, bypassed to the atmosphere for no more than 720 hours per year; and compliance with Air Toxics Policy.

2.d The hourly emission limitations outlined in section A.I.1. are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

II. Operational Restrictions

1. Scrubber Operational Restrictions

The pressure drop across the scrubber shall be continuously maintained within the range of 20 to 35 inches of water at all times while emissions unit P030 is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 110 gallons per minute at all times while emissions unit P030 is in operation.

2. Particulate Emissions Control Devices Operational Restrictions

The permittee shall properly install, operate, and maintain equipment to control particulate emissions from the color weigh area, color charge stations, pigment feeders, polymer feeders, overhead hoppers and 20 of 28 intermediate silos while emissions unit P030 is in operation. The control devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Emissions unit P030 shall process only pellets through the uncontrolled intermediate silos.

3. Thermal Oxidizer Operational Restrictions

The thermal oxidizer's combustion chamber temperature shall not be less than 1450 degrees Fahrenheit at any time when organic emissions from emissions unit P030 are being vented to the thermal oxidizer.

III. Monitoring and/or Recordkeeping Requirements

1. Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly install, operate and maintain equipment to measure the pressure drop across the scrubber and the scrubber water flow rate while emissions unit P030 is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. The pressure drop across the scrubber, in inches of water, on a once/shift basis.
b. The scrubber water flow rate, in gallons per minute, on a once/shift basis.
c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. Particulate Emissions Control Devices Monitoring and Recordkeeping Requirements

The permittee shall visually inspect each of the control devices which are required to control particulate emissions from the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers for emissions unit P030 for visible holes or tears, bag leaks, and excessive dusting or visible emissions on a daily basis. Corrective actions shall be initiated if any of the above control device malfunctions are detected.

The permittee shall maintain daily records of the date, time, and the results of the visual inspections. The date, time, and description of any corrective actions taken to remedy control device malfunctions shall also be recorded.

3. Thermal Oxidizer Monitoring and Recordkeeping Requirements

The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion chamber temperature within the thermal oxidizer when emissions unit P030 is venting to the thermal oxidizer. Units shall be in degrees Fahrenheit. The

monitoring and control devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record all periods of time during which the combustion chamber temperature of the thermal oxidizer is less than 1450 degrees Fahrenheit while emissions unit P030 is vented to the thermal oxidizer.

The permittee shall maintain records that include the following information for each period during which organic emissions from emissions unit P030 are vented to the atmosphere from the scrubber during thermal oxidizer outages:

a. The date of the thermal oxidizer control device shutdown.
b. The time interval over which the thermal oxidizer control device shutdown occurred.

IV. Reporting Requirements

1. Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The pressure drop across the scrubber.
b. The scrubber water flow rate.

2. Particulate Emissions Control Devices Reporting Requirements

The permittee shall submit semi-annual reports to the Hamilton County Department of Environmental Services which summarize any visible inspections that detected a control device malfunction during the previous six months. This report shall also include a description of the corrective actions which have been or will be taken to remedy the control device malfunction(s). The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six (6) calendar months (July through December and January through June, respectively).

3. Thermal Oxidizer Reporting Requirements

The permittee shall submit deviation reports which provide the following information for each time the thermal oxidizer combustion chamber temperature falls below 1450 degrees Fahrenheit

when emissions unit P030 is being vented to the thermal oxidizer:

a. The date of the excursion;
b. The time interval over which the excursion occurred;
c. The temperature values during the excursion;
d. The cause(s) for the excursion; and
e. The corrective action which has been or will be taken to prevent similar excursions in the future.

The permittee shall notify the Hamilton County Department of Environmental Services in writing of any scheduled major maintenance requiring the shutdown of the thermal oxidizer control device and the scheduled shutdown duration two (2) weeks prior to the shutdown.

4. The permittee shall submit annual reports which identify any exceedance of the 720 hours per year limitation for venting to the atmosphere from the scrubber. These reports shall be submitted by January 31 of each year.

5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation:

20% opacity from stack

Applicable Compliance Method:

Compliance with OAC rule 3745-17-07(A)(1) shall be determined using the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

2. Emission Limitation:

4.67 lbs PM/hr, 3.42 lbs PM-10/hr; 20.46 tons PM/yr, 14.92 tons PM-10/yr (combined total from emissions units P029, P030, P031, P034 and emissions unit P035 intermediate silos and overhead hoppers only)

8.15 lbs OC/hr from scrubber outlet, 0.41 lb OC/hr from thermal oxidizer exhaust outlet, 4.57 tons OC/yr total.

Applicable Compliance Method:

Compliance with the emission limitations outlined in this permit shall be tracked by the emission

factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05102, submitted 02/14/2001.

If testing is required to demonstrate compliance with the allowable particulate and organic compound emission limitations, then testing shall be conducted using the following methods:

for particulates, Method 5 of 40 CFR, Part 60, Appendix A,
for organic compounds, Method 25 or Method 18 of 40 CFR Part 60, Appendix A. Other appropriate test methods may be used upon prior written approval from the Hamilton County Department of Environmental Services.

3. Compliance with the operational restrictions in term A.II.1, A.II.2 and A.II.3 shall be demonstrated by the record keeping in term A.III.1, A.III.2 and A.III.3.

VI. Miscellaneous Requirements

1. The terms and conditions listed in this permit to install shall supersede all the air pollution control requirements for this emission unit contained in permit to install 14-4327 as issued on May 21, 1997.

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P030 - plastic polymer compounding line - Line #9	Ohio EPA Air Toxics Policy	see term B.III.1

2. Additional Terms and Conditions

none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P030) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

   Pollutant: Styrene
   TLV (ug/m3): 85,000
   Maximum Hourly Emission Rate (lbs/hr): 5.7
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 171.6
   MAGLC (ug/m3): 2024

   Pollutant: Acrylonitrile
   TLV (ug/m3): 4300

Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12
MAGLC (ug/m3): 102

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determined that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification to the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii))] then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters. etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P031 - plastic polymer compounding line #10	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11(B)(1)

Emissions Unit ID: P031

Applicable Emissions Limitations/Control Measures

4.67 lbs PM/hr
3.42 lbs PM-10/hr
20.46 tons PM/yr, 14.92 tons PM-10/yr (combined total from emissions units P029, P030, P031, P034 and emissions unit P035 intermediate silos and overhead hoppers only)

8.15 lbs OC/hr from scrubber outlet
0.41 lb OC/hr from thermal oxidizer exhaust outlet
4.57 tons OC/yr total.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).

Visible particulate emissions from any stack shall not exceed twenty percent (20%) opacity, as a six-minute average, except as specified by rule

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a Particulate emissions from the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers for emissions unit P031 shall be directed to control devices having control efficiencies of at least 99%.

2.b Particulate and organic compound emissions from the extruders associated with emissions unit P031 shall be captured and vented to a venturi scrubber having a particulate control efficiency of at least 95%. Organic compound emissions from the venturi scrubber shall be directed to a thermal oxidizer having a control efficiency of, at least, 95%, except during the allowable scrubber atmospheric venting period. Emissions unit P031 shall not vent to the atmosphere from the scrubber for more than 720 hours per calendar year.

2.c Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by operating and maintaining dust collectors with at least a 99% PM control efficiency for the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers; use of a scrubber to control particulate emissions from the extruder with at least a 95% PM control efficiency; use of a thermal oxidizer with at least a 95% OC control efficiency, bypassed to the atmosphere for no more than 720 hours per year; compliance with Air Toxics Policy.

2.d The hourly emission limitations outlined in section A.I.1. are based upon the emissions unit's potential to emit. Therefore, no hourly records are required to demonstrate compliance with these limits.

II. Operational Restrictions

1. Scrubber Operational Restrictions

   The pressure drop across the scrubber shall be continuously maintained within the range of 20 to 35 inches of water at all times while emissions unit P031 is in operation.

   The scrubber water flow rate shall be continuously maintained at a value of not less than 110 gallons per minute at all times while emissions unit P031 is in operation.

2. Particulate Emissions Control Devices Operational Restrictions

   The permittee shall properly install, operate, and maintain equipment to control particulate emissions from the color weigh area, color charge stations, pigment feeders, polymer feeders, overhead hoppers and 20 of 28 intermediate silos while emissions unit P031 is in operation. The control devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). Emissions unit P031 shall process only pellets through the uncontrolled intermediate silos.

3. Thermal Oxidizer Operational Restrictions

The thermal oxidizer's combustion chamber temperature shall not be less than 1450 degrees Fahrenheit at any time when organic emissions from emissions unit P031 are being vented to the thermal oxidizer.

III. Monitoring and/or Recordkeeping Requirements

1. Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly install, operate and maintain equipment to measure the pressure drop across the scrubber and the scrubber water flow rate while emissions unit P031 is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. The pressure drop across the scrubber, in inches of water, on a once/shift basis.
b. The scrubber water flow rate, in gallons per minute, on a once/shift basis.
c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

2. Particulate Emissions Control Devices Monitoring and Recordkeeping Requirements

The permittee shall visually inspect each of the control devices which are required to control particulate emissions from the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers for emissions unit P031 for visible holes or tears, bag leaks, and excessive dusting or visible emissions on a daily basis. Corrective actions shall be initiated if any of the above control device malfunctions are detected.

The permittee shall maintain daily records of the date, time, and the results of the visual inspections. The date, time, and description of any corrective actions taken to remedy control device malfunctions shall also be recorded.

3. Thermal Oxidizer Monitoring and Recordkeeping Requirements

The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion chamber temperature within the thermal oxidizer when emissions unit P031 is venting to the thermal oxidizer. Units shall be in degrees Fahrenheit. The monitoring and control devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record all periods of time during which the combustion chamber

temperature of the thermal oxidizer is less than 1450 degrees Fahrenheit while emissions unit P031 is vented to the thermal oxidizer.

The permittee shall maintain records that include the following information for each period during which organic emissions from emissions unit P031 are vented to the atmosphere from the scrubber during thermal oxidizer outages:

a. The date of the thermal oxidizer control device shutdown.
b. The time interval over which the thermal oxidizer control device shutdown occurred.

IV. Reporting Requirements

1. Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The pressure drop across the scrubber.
b. The scrubber water flow rate.

2. Particulate Emissions Control Devices Reporting Requirements

The permittee shall submit semi-annual reports to the Hamilton County Department of Environmental Services which summarize any visible inspections that detected a control device malfunction during the previous six months. This report shall also include a description of the corrective actions which have been or will be taken to remedy the control device malfunction(s). The reports shall be submitted by February 15 and August 15 of each year and shall cover the previous six (6) calendar months (July through December and January through June, respectively).

3. Thermal Oxidizer Reporting Requirements

The permittee shall submit deviation reports which provide the following information for each time the thermal oxidizer combustion chamber temperature falls below 1450 degrees Fahrenheit when emissions unit P031 is being vented to the thermal oxidizer:

a. The date of the excursion;
b. The time interval over which the excursion occurred;
c. The temperature values during the excursion;
d. The cause(s) for the excursion; and

e. The corrective action which has been or will be taken to prevent similar excursions in the future.

The permittee shall notify the Hamilton County Department of Environmental Services in writing of any scheduled major maintenance requiring the shutdown of the thermal oxidizer control device and the scheduled shutdown duration two (2) weeks prior to the shutdown.

4. The permittee shall submit annual reports which identify any exceedance of the 720 hours per year limitation for venting to the atmosphere from the scrubber. These reports shall be submitted by January 31 of each year.

5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

   Emission Limitation:

   20% opacity from stack

   Applicable Compliance Method:

   Compliance with OAC rule 3745-17-07(A)(1) shall be determined using the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

2. Emission Limitation:

   4.67 lbs PM/hr, 3.42 lbs PM-10/hr; 20.46 tons PM/yr, 14.92 tons PM-10/yr (combined total from emissions units P029, P030, P031, P034 and emissions unit P035 intermediate silos and overhead hoppers only)

   8.15 lbs OC/hr from scrubber outlet, 0.41 lb OC/hr from thermal oxidizer exhaust outlet, 4.57 tons OC/yr total.

   Applicable Compliance Method:

   Compliance with the emission limitations outlined in this permit shall be tracked by the emission factors, control efficiencies (if applicable) and the operational parameters as submitted in PTI application 14-05102, submitted 02/14/2001.

   If testing is required to demonstrate compliance with the allowable particulate and organic compound emission limitations, then testing shall be conducted using the following methods:

for particulates, Method 5 of 40 CFR, Part 60, Appendix A,
for organic compounds, Method 25 or Method 18 of 40 CFR Part 60, Appendix A. Other appropriate test methods may be used upon prior written approval from the Hamilton County Department of Environmental Services.

3. Compliance with the operational restrictions in term A.II.1, A.II.2 and A.II.3 shall be demonstrated by the record keeping in term A.III.1, A.III.2 and A.III.3.

VI. Miscellaneous Requirements

1. The terms and conditions listed in this permit to install shall supersede all the air pollution control requirements for this emission unit contained in permit to install 14-4327 as issued on May 21, 1997.

B. State Only Enforceable Section

I. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P031 - plastic polymer compounding line - Line #10	Ohio EPA Air Toxics Policy	see term B.III.1

2. Additional Terms and Conditions

none

II. Operational Restrictions

none

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P031) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

   Pollutant: Styrene
   TLV (ug/m3): 85,000
   Maximum Hourly Emission Rate (lbs/hr): 5.7
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 171.6

MAGLC (ug/m3): 2024

Pollutant: Acrylonitrile
TLV (ug/m3): 4300
Maximum Hourly Emission Rate (lbs/hr): 0.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12
MAGLC (ug/m3): 102

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determined that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification to the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters. etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

none

V. Testing Requirements

none

VI. Miscellaneous Requirements

none

NEW SOURCE REVIEW FORM B

PTI Number: 14-04863 Facility ID: 1431010054

FACILITY NAME Bayer Corp

FACILITY DESCRIPTION two plastic polymer compounding operations - modification of PTI 14-4327. CITY/TWP Addyston

SIC CODE 2821 SCC CODE 3-08-010-02 EMISSIONS UNIT ID P030

EMISSIONS UNIT DESCRIPTION plastic polymer compounding line

DATE INSTALLED Modification

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	2.98 lbs/hour*	12.52*	4.67 lbs/hour*	20.46*
PM_{10}	Attainment	2.14 lbs/hour*	8.98*	3.42 lbs/hour*	14.92*
Sulfur Dioxide					
Organic Compounds	Attainment	0.33 lb/hour	1.37	8.15 lbs/hour	4.57
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES * Note: PM and PM10 numbers are based on combined totals for P029, P030, P031 P034 and P035.

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Operating and maintaining dust collectors with at least a 99% PM control efficiency for the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers; use of a scrubber to control particulate emissions from the extruder with at least a 95% PM control efficiency; use of a thermal oxidizer with at least a 95% OC control efficiency, bypassed to the atmosphere for no more than 720 hours per year; compliance with Air Toxics Policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

IDENTIFY THE AIR CONTAMINANTS: Styrene, Acrolynitrile

NEW SOURCE REVIEW FORM B

PTI Number: 14-04863 Facility ID: 1431010054

FACILITY NAME Bayer Corp

FACILITY DESCRIPTION two plastic polymer compounding CITY/TWP Addyston

Emissions Unit ID: P031

SIC CODE 2821 SCC CODE 3-08-010-02 EMISSIONS UNIT ID P031

EMISSIONS UNIT DESCRIPTION plastic polymer compounding line

DATE INSTALLED Modification

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	2.98 lbs/hour*	12.52*	4.67 lbs/hour*	20.96*
PM_{10}	Attainment	2.14 lbs/hour*	8.98*	3.42 lbs/hour*	14.92.*
Sulfur Dioxide					
Organic Compounds	Attainment	0.33 lb/hour	1.37	8.15 lbs/hour	4.57
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

* Note: PM and PM10 numbers are based on combined totals for P029, P030, P031 P034 and P035.

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Operating and maintaining dust collectors with at least a 99% PM control efficiency for the color weigh area, color charge station, pigment feeders, polymer feeders, and overhead hoppers; use of a scrubber to control particulate emissions from the extruder with at least a 95% PM control efficiency; use of a thermal oxidizer with at least a 95% OC control efficiency, bypassed to the atmosphere for no more than 720 hours per year; compliance with Air Toxics Policy.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

IDENTIFY THE AIR CONTAMINANTS: Styrene, Acrolynitrile