



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov.
Center

RE: **FINAL PERMIT TO INSTALL MODIFICATION** CERTIFIED MAIL
DARKE COUNTY
Application No: 08-02256

DATE: 12/18/2001

BASF Corp
Michael Murphy
1175 Martin St
Greenville, OH 453310000

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

RAPCA



**Permit To Install
Terms and Conditions**

**Issue Date: 12/18/2001
Effective Date: 12/18/2001**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 08-02256

Application Number: **08-02256**
APS Premise Number: **0819070134**
Permit Fee: **\$400**
Name of Facility: **BASF Corp Murphy**
Person to Contact: **Michael**
Address: **1175 Martin St
Greenville, OH 453310000**

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1175 Martin St
Greenville, OHIO**

Description of modification:

The permittee has requested removal of all references to the hydrocarbon analyzer in PTI 08-2256 issued April 1, 1992 and subsequently modified March 30, 1995.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

BASF CorpFacility ID: **0819070134****PTI Application: 08-02256****Modification Issued: 12/18/2001****GENERAL PERMIT CONDITIONS****TERMINATION OF PERMIT TO INSTALL**

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

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.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted

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source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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.

SOURCE OPERATION AND OPERATING PERMIT REQUIREMENTS AFTER COMPLETION OF CONSTRUCTION

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).

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.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **BASF Corp** located in **DARKE** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

<u>Ohio EPA Source Number</u>	<u>Source Identification</u>	<u>Description</u>	<u>BAT Determination</u>
P022	B008	5710 Gallon Resin Reactor (RX-1)	RRP Hot Thermal Oil (HTO) Heater Z-801; 9.84 MMBTU/hr
P023	B008 (cont'd)	5710 Gallon Resin Reactor (RX-2)	
P024		5710 Gallon Resin Reactor (RX-3)	
P025		1586 Gallon Resin Reactor (RX-4)	
B007	B009	RRP Boiler No. 1; 60 MMBTU/hr	(2) 300 HP Diesel Firewater Pumps No. 1 & No. 2 at 2.13 MMBTU/hr Each

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		eng		3745-31-05 3745-17-07 3745-17-10
			<u>Applicable Federal & OAC Rules</u>	
			3745-31-05 3745-21-07(G) 3745-15-07	
*			3745-31-05 3745-21-07(G) 3745-15-07	
*			3745-31-05 3745-21-07(G) 3745-15-07	
*			3745-31-05 3745-21-07(G) 3745-15-07	3745-31-05 3745-17-07 3745-17-11
			3745-31-05 3745-21-07(G) 3745-15-07	
			3745-31-05 3745-17-07 3745-17-10	
Minimal Emissions Due to Being Used on Only An			NSPS Subpart Dc, 40 CFR, Part 60	
	E m			

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
Permit Allowable Mass Emissions and/or Control/Usage Requirements	OC - 0.31 lb/hr, 7.51 lbs/day, 1.37 TPY	0.02 TPY; SO ₂ - 0.47 lb/hr, 0.02 TPY; NO _x - 7 lbs/hr, 0.31 TPY;		
	PM - 0.85 lb/hr, 3.72 TPY; SO ₂ - 3.05 lbs/hr, 13.40 TPY; NO _x - 5.25 lbs/hr, 22.86 TPY; CO - 2.13 lbs/hr, 9.33 TPY;	CO - 1.53 lbs/hr, 0.07 TPY; OC - 0.02 lb/hr, 0.02 TPY		
OC - 1.12 lbs/hr, 26.88 lbs/day, 4.90 TPY	OC - 0.17 lb/hr, 0.74 TPY; 5% Instantaneous Opacity Requirement, Visible Emissions			
OC - 1.12 lbs/hr, 26.88 lbs/day, 4.90 TPY	PM - 0.14 lb/hr, 0.60 TPY; SO ₂ - 0.50 lb/hr, 2.20 TPY; NO _x - 2.16 lbs/hr, 9.46 TPY; CO - 0.40 lb/hr, 1.50 TPY;			
OC - 1.12 lbs/hr, 26.88 lbs/day, 4.90 TPY	OC - 0.05 lb/hr, 0.22 TPY; 5% Instantaneous Opacity Requirement, Visible Emissions			
	PM - 0.25 lb/hr,			

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- * Compliance with the specified allowable emission rates achievable through the application of a thermal oxidizer with a minimum organic compound destruction efficiency of 98%; continuous monitoring and recording of the thermal oxidizers operating temperature; record keeping and reporting.
- ** Use of natural gas primarily with #2 fuel oil (less than 0.05% sulfur content) used only as backup fuel; compliance with the allowables; ~~the use of a continuous NO_x monitor~~; record keeping and reporting.
- *** Use of natural gas primarily with #2 fuel oil (less than 0.05% sulfur content) used only as backup fuel; compliance with the allowables; record keeping and reporting.

SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	4.73
SO ₂	17.07
NO _x	37.75
CO	15.72
OC	17.20

- (a) Included in these allowables are the emissions from the thermal oxidizer fuel combustion. See the Additional Special Terms and Conditions for the specific emissions from the thermal oxidizer. The thermal oxidizer is a common control device for sources P022, P023, P024 and P025.

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR, Part 60.

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<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
B007	RRP Boiler No. 1 60 MMBTU/hr	Dc

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR, Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Air Quality Modeling and Planning
P.O. Box 1049
Columbus, OH 43216-1049

and

Regional Air Pollution Control Agency
451 West Third Street
Dayton, Ohio 45422

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in

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accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.
- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutant(s):

Source**Pollutant(s)**

B007
P022, P023, P024, P025

NO_x
Organic Compounds; NO_x

- D. Tests shall include a determination of the uncontrolled mass rate of emissions for organic compounds.

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to Regional Air Pollution Control Agency, 451 West Third Street, Dayton, Ohio 45422.

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

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In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the Regional Air Pollution Control Agency, 451 West Third Street, Dayton, Ohio 45422.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

ADDITIONAL SPECIAL TERMS AND CONDITIONS**A. Emission/Control Requirements**

1. The organic compound emissions from source operations identified as P022, P023, P024, and P025 shall be controlled through the application of a common thermal oxidizer operating at a minimum destruction efficiency of 98.0%.
2. At no time shall the operating temperature of the thermal oxidizer be less than 1400°F or that level which is required to maintain compliance with a 98.0% destruction efficiency.
3. The aggregate organic compound emissions from the common thermal oxidizer control device shall not exceed:

3.67 lbs/hr
88.15 lbs/day
16.07 t/yr

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4. The thermal oxidizer is a common control device for sources P022, P023, P024 and P025. The fuel combustion by product emissions produced by operating the thermal oxidizer, shall not exceed the following:

PM	-	0.39 TPY
SO ₂	-	1.45 TPY
NO _x	-	5.12 TPY
CO	-	4.82 TPY
OC	-	0.15 TPY

B. Inspection/Maintenance

5. This facility shall initiate an inspection and maintenance program designed to help ensure the control equipment is operating in accordance with the manufacturer's specification. Such an I and M program shall outline the specific steps taken and/or the specific items checked on a routine basis to ensure proper operation of the control equipment adjoining the above referenced sources.
6. Additionally, in order that fugitive emissions of organic compounds may be minimized or eliminated from the identified process equipment, this facility shall develop and maintain an inspection and maintenance program designed to identify potential leak points and ensure that such points, are secured to the fullest extent possible.
7. The I and M programs shall be in writing and shall be submitted to the Regional Air Pollution Control Agency in conjunction with subsequent Permit to Operate applications 90 days prior to startup. Further detail regarding the I and M programs may be provided after startup if necessary.

C. Continuous Emission & Temperature Monitoring

8. ~~This facility shall install, operate, and maintain equipment to continuously monitor and record emissions of nitrogen oxides from source B007. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR, Part 60.13.~~
9. This facility shall install, operate, and maintain equipment to continuously monitor and record the operating temperature of the thermal oxidizer.

D. Additional Record keeping

10. In addition to the continuous recording ~~of nitrogen oxide emissions (B007), organic compound emissions (P022-P025), and~~ *of the* thermal oxidizer temperatures, this facility shall:
- maintain records of the instances the B007-RRP Boiler identified as backup to the thermal oxidizer, is utilized and the duration of each instance.
 - maintain monthly records for each source B007 and B008, which include the following:

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- i. the amount of fuel burned: cubic feet of natural gas; gallons of No. 2 distillate fuel oil; and,
 - ii. certification from the fuel supplier regarding the percent sulfur in each delivery of No. 2 distillate fuel oil.
11. This facility shall maintain monthly records for the two fire water pumps identified under source B009 which include the following:
 - a. the number of hours of operation; and,
 - b. the amount (gallons) of diesel fuel burned.

E. Reporting

12. This facility shall submit reports on a quarterly basis to the Regional Air Pollution Control Agency documenting:
 - a. ~~instances of any NO_x (B007) and OC emission exceedances (P022-P025); the duration of each exceedance; the cause of the exceedance; and the corrective action taken to prevent reoccurrence;~~
 - b. instances of any deviation from the minimum thermal oxidizer temperature of 1400°F or that temperature necessary to maintain a destruction efficiency of at least 98.0%; the cause of the deviation, and the corrective action taken to prevent reoccurrence;
 - c. instances the B007-RRP Boiler identified as backup to the thermal oxidizer, is utilized; the duration of RRP Boiler operation;
 - d. fuel usage for boilers B007 and B008; sulfur content (percent) for any No. 2 distillate fuel oil that may have been burned; and,
 - e. fuel usage and hours of operation for source B009.
13. These quarterly reports shall be submitted by January 15, April 15, July 15, and October 15 and shall cover the previous three calendar months (October through December, January through March, April through June, and July through September, respectively.)

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14. The annual fuel analysis required for No. 2 distillate fuel oil (Ref. T&C(F)(17)) shall be submitted to the Regional Air Pollution Control Agency by no later than January 15 of each year.

F. General Requirements

15. This facility shall use primarily natural gas with No. 2 distillate fuel oil used only as backup fuel for sources B007 and B008, with the exception of control of solvent laden air in source B007 when operated in backup capacity for the thermal oxidizer.
16. The maximum allowable sulfur content of the No. 2 distillate fuel oil shall be 0.05%.
17. This facility shall annually sample and analyze the No. 2 distillate fuel oil to be burned in sources B007 and B008. The analysis shall be conducted in accordance with test methods and procedures outlined in 40 CFR, Part 60, "Appendix A", method 19 or the appropriate ASTM methods; [Ref: OAC Rule 3745-18-004(E) measurement methods and procedures.]
18. Except for use on an emergency basis, source B009, identified as two 300 HP Diesel firewater pumps, shall be limited in operation to no more than 1 hr/day, 1 day/week, 52 weeks/yr per each diesel firewater pump.
19. This facility shall not accept receipt of any distillate fuel oil for use in sources B007, B008 and the thermal oxidizer until fuel with a 0.05% sulfur content is available. If neither natural gas or distillate fuel oil with a 0.05% sulfur content are available, then this facility shall shut down the operation of sources B007, B008 and the thermal oxidizer until such time that one or the other fuel is available.

In the event the specified fuels are not available the operation of the thermal oxidizer must cease, the source operations identified as P022, P023, P024 and P025, which are controlled by the thermal oxidizer, must also cease operation.