



Street Address:

State of Ohio Environmental Protection Agency
Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

**RE: FINAL PERMIT TO INSTALL
LORAIN COUNTY
Application No: 02-14070**

CERTIFIED MAIL

DATE: 9/21/00

BF Goodrich Company - Avon Lake Plant
Ronald F. Spears Jr
550 Moore Rd
Avon Lake, OH 44012-0134

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 Director's 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

NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: September 21, 2000
Effective Date: September 21, 2000**

FINAL PERMIT TO INSTALL 02-14070

Application Number: 02-14070
APS Premise Number: 0247030004
Permit Fee: **\$200**
Name of Facility: BF Goodrich Company - Avon Lake Plant
Person to Contact: Ronald F. Spears Jr
Address: 550 Moore Rd
Avon Lake, OH 440120134

Location of proposed air contaminant source(s) [emissions unit(s)]:

**550 Moore Rd
Avon Lake, Ohio**

Description of proposed emissions unit(s):

Manufacture of AVDA.

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

BF Goodrich Company - Avon Lake Plant

Facility ID: 0247030004

PTI Application: 02-14070

Issued: September 21, 2000

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

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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

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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

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Facility ID: 0247030004

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>
Organic Compound	9.1
Chlorine	2.9

BF Goodrich Company - Avon Lake Plant

Facility ID: 0247030004

PTI Application 02-11070

Issue

Emissions Unit ID: P033

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>
<p>P033 - Modification to the existing ADVA [4,4 - Azobis (4 - cyano - N - pentanoic Acid)] manufacturing process located in Building 421. Process includes a reactor, mix tank, hold tank, column feed tank, acetone scrubber, receiver tank, two condensers, and venturi scrubber.</p>	OAC rule 3745-31-05 (A)(3)	Organic compound emissions: 2.6 pounds per hour and 9.1 tons per year
<p>Organic compound control equipment: Venturi Scrubber at Egress Point No. 2; Column Condenser at Egress Point No. 4</p>	OAC rule 3745-21-07 (G)	Chlorine emissions: 0.7 pound per hour and 2.9 tons year.
<p>Chlorine control equipment: Venturi Scrubber at Egress Point No. 2.</p>		<p>The requirements of this rule do not apply as the use of photochemically reactive materials is prohibited. See A.2.a</p>
<p>Organic compound and chlorine uncontrolled Egress Points: Mix Tank at Egress Point No. 1; Column Feed Tank at Egress Point No. 3; Product Trailer at Egress Point No. 5; and Fugitive emissions from piping and associated equipment.</p>		

BF G

PTI /

Emissions Unit ID: P033

Issued: September 21, 2000

2. Additional Terms and Conditions

- 2.a** The use of photochemically reactive materials, as defined in OAC rule 3745-21-01 (C)(5), in this emissions unit is prohibited.

Prior to employing any photochemically reactive materials, the permittee shall provide written notification to, and obtain approval from, the Ohio EPA, Northeast District Office. Such notification shall include information sufficient to determine that the emissions associated with the proposed change in materials will comply with the emission limits and/or control requirements as defined in OAC 3745-21-07 (G)(2). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour.

B. Operational Restrictions

1. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. An alternative operational restriction that measures a parameter of the condenser may be acceptable. The permittee shall receive written approval from the Ohio EPA that an alternative operational restriction is acceptable.
2. The pH of the scrubber liquor shall be maintained at a pH of 8 or higher.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day:
 - a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.
 - b. A log or record of operating time for the capture (collection) system, control device,

monitoring equipment, and the associated emissions unit.

3. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
4. The permittee shall collect and record the following information each day:
 - a. The pH of the scrubber liquor, on a once per shift basis.
 - b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
5. The permittee shall calculate and record the annual emissions of chlorine from this emissions unit.

D. Reporting Requirements

1. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified above. If an alternative operational restriction is accepted by the Ohio EPA, the permittee shall submit deviation (excursion) reports if the restriction(s) is (are) exceeded.
2. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.
3. The permittee shall submit annually, by January 31, the emissions of chlorine from the previous calendar year.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of issuance of this permit to install.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for organic compounds and chlorine.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): organic compounds: Method 25 or 25A of 40 CFR, Part 60, Appendix A; Chlorine: Method 26 or 26 A of 40 CFR, Part 60, Appendix A. Alternative U.S.E.P.A. approved test methods may be used with prior approval from the

BF G**PTI /****Issued: September 21, 2000**Emissions Unit ID: **P033**

Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

2. Emission Limitation: 2.6 pounds of Organic Compounds per hour.

Applicable Compliance Method:

This emission limitation shall apply to the summation of controlled and uncontrolled organic compound emissions. Controlled organic emissions shall be determined by Method 25 or 25A of 40 CFR Part 60, Appendix A. Uncontrolled emissions shall be determined by mass balance calculations provided by the facility.

3. Emission Limitation: 9.1 tons of Organic Compounds per year.

Applicable Compliance Method:

This emission limitation shall apply to the summation of controlled and uncontrolled organic compound emissions. Controlled organic compound emissions shall be determined by multiplying the hourly emission rate (established by the initial compliance test or most recent compliance test) by the emission units' hours of operation and then dividing by 2000 (pounds per ton).

BF Goodrich Company - Avon Lake Plant

PTI Application 02-14070

Issue

Facility ID: 0247030004

Emissions Unit ID: **P033**

Uncontrolled organic compound emissions shall be determined by mass balance calculations supplied by the facility.

4. Emission Limitation: 0.7 pound of Chlorine per hour.

Applicable Compliance Method:

This emission limitation shall apply to the summation of controlled and uncontrolled chlorine emissions. Controlled chlorine emissions shall be determined in accordance with Method 26 or 26A of 40 CFR, Part 60, Appendix A or equivalent method. Uncontrolled chlorine emissions shall be based on material balance calculations and the facility's knowledge of the operations.

BFG**PTI**Emissions Unit ID: **P033****Issued: September 21, 2000**

5. Emission Limitation: 2.9 tons of Chlorine per year

Applicable Compliance Method:

This emission limitation shall apply to the summation of controlled and uncontrolled chlorine emissions. Controlled chlorine emissions shall be determined by multiplying the hourly emission rate (established by the most recent compliance test, or material balance calculation) by the emission units' hours of operation and then dividing by 2000 (pounds per ton). Uncontrolled chlorine emissions shall be determined by material balance calculations supplied by the facility.

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 02-14070 Facility ID: 0247030004

FACILITY NAME BF Goodrich Company - Avon Lake Plant

FACILITY DESCRIPTION Manufacture of ADVA CITY/TWP Avon Lake

SIC CODE 2821 SCC CODE 3-01-018-22 EMISSIONS UNIT ID P033

EMISSIONS UNIT DESCRIPTION ADVA Manufacturing

DATE INSTALLED Upon Issuance of PTI

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					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	attainment	2.6	6.01	2.6	9.1
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	Chlorine	0.7	1.92	0.7	2.9

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination: Use of non-photochemically reactive materials, 2.9 TPY of Chlorine, 9.1 tons per year of Organic Compounds.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

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

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*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 02-14070 Facility ID: 0247030004

FACILITY NAME BF Goodrich Company - Avon Lake Plant

FACILITY DESCRIPTION Manufacture of ADVA CITY/TWP Avon Lake

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	Electronic	Additional information File Name Convention (your PTI # plus this letter)	Hard Copy	None
Calculations (required)	<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

This emissions unit manufactures ADVA [4,4 - Azobis (4 - Cyano - N - Pentanoic Acid)] and was originally permitted as part of P016. The facility increased production of ADVA and NEDO decided that the two operations, which are not operationally linked, should be permitted as two separate emission units. The increases in Chlorine and Acetone emissions is not sufficient to perform modeling. The facility wants to ensure that total HAP emissions stay below 25 TPY; therefore, this permit is to be issued draft to make the chlorine emission limitation federally enforceable. This is not to be issued as a synthetic minor since there are no production restrictions.

Please complete for these type permits ([For PSD/NSR Permit, place mouse over this text](#)):

Synthetic Minor Determination and/or Netting Determination
Permit To Install 02-14070

- A. [Source Description:](#)
- B. [Facility Emissions and Attainment Status:](#)
- C. [Source Emissions:](#)
- D. [Conclusion:](#)

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

Please complete:

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS
Pollutant Tons Per Year

NEW SOURCE REVIEW FORM B

PTI Number: 02-14070

Facility ID: 0247030004

FACILITY NAME BF Goodrich Company - Avon Lake Plant

FACILITY DESCRIPTION	Manufacture of ADVA	CITY/TWP	Avon Lake
Organic Compound		9.1	
Chlorine		2.9	

NEW SOURCE REVIEW FORM B

PTI Number: 02-14070

Facility ID: 0247030004

FACILITY NAME BF Goodrich Company - Avon Lake Plant

FACILITY DESCRIPTION Manufacture of ADVA

CITY/TWP Avon Lake