



State of Ohio Environmental Protection Agency

STREET ADDRESS:

1800 WaterMark Drive
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

Re: Permit to Install
Summit County
Application No: 16-1668
TOXIC REVIEW

CERTIFIED MAIL

December 10, 1997

BFGOODRICH COMPANY-AKRON CHEMICAL PLANT
GARY NIED
240 W EMERLING AVENUE
AKRON, OH 44301

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 with the Environmental Review Appeals Commission within thirty (30) days after 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
Thomas G. Rigo, Manager
Field Operations & Permit Section
Division of Air Pollution Control

cc: US EPA
AKRON AIR POLLUTION CONTROL

George V. Voinovich, Governor
Nancy P. Hollister, Lt. Governor
Donald R. Schregardus, Director



Permit to Install Terms and Conditions

Application No. 16-1668
APS Premise No. 1677010029
Permit Fee: \$200.00

Name of Facility: BFGOODRICH COMPANY-AKRON CHEMICAL PLANT

Person to Contact: GARY NIED

Address: 240 W EMERLING AVENUE
AKRON, OH 44301

Location of proposed source(s): 240 W EMERLING AVENUE
AKRON, OHIO

Description of proposed source(s):
ADVA (4,4-AZOBIS (4-CYANO-N-PENTANOIC ACID) MANUFACTURING PR
OCCESS.

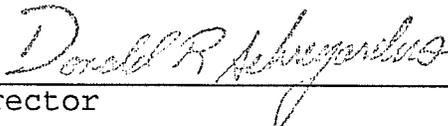
Date of Issuance: December 10, 1997

Effective Date: December 10, 1997

The above named entity is hereby granted a permit to install for the above described source(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 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 and specifications, the above described source(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

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

If the construction of the proposed source(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 Ohio Administrative Code (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)

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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 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 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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION 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 and regulations.

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AIR EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for BFGOODRICH COMPANY-AKRON CHEMICAL PLANT located in Summit County. The sources 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 Description</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P025	ADVA manufacturing process.	Primary wet scrubber shall control chlorine and acetone emissions. Emergency wet scrubber, operating only during a failure situation, shall control chlorine, hydrogen cyanide, and hydrogen chloride emissions.	3745-31-05 3745-21-07 3745-15-06	2.9 lbs/hr Acetone 0.27 lb/hr Chlorine Acetone and chlorine emissions shall each be reduced by at least 85 percent by the primary wet scrubber control system.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Acetone	12.7
Chlorine	1.2

CONSTRUCTION STATUS

The Akron Air Pollution Control shall be notified in writing as to (a) the construction starting date, (b) the construction completion date, and (c) the date the facilities were placed into operation for the following sources: P025 ADVA Manufacturing Process.

PERFORMANCE TEST REQUIREMENTS

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

Source

Pollutants

P025 - ADVA Manufacturing

Acetone and Chlorine

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.

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REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to Akron Air Pollution Control, 146 South High St., Room 904, Akron, Ohio 44308.

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.

MALFUNCTION/ABATEMENT

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 Akron Air Pollution Control, 146 South High St., Room 904, Akron, Ohio 44308.

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.

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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

- A. This emissions unit is not subject to the limitations specified in OAC rule 21-07(G)(1) nor (G)(2), since the materials used are not photochemically reactive materials nor do they polymerize in the presence of oxygen. The only organic material used in this emissions unit is acetone, which is an exempt organic compound.
- B. The permittee shall install, operate, and maintain, in accordance with the manufacturer's recommendations, instructions and operating manuals, a primary wet scrubber to control acetone and chlorine emissions from the process reactor. An emergency wet scrubber shall also be installed, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The emergency wet scrubber shall operate only during a failure situation to control chlorine emissions resulting from chlorine cylinder failure or to control chlorine, hydrogen cyanide, and hydrogen chloride emissions resulting from over-pressure conditions of the process reactor and/or the mix tank.
- C. Acetone and chlorine emissions shall each be reduced by at least 85 percent (i.e., overall control efficiency of at least 85 percent) by the primary wet scrubber control system. Chlorine, hydrogen cyanide, and hydrogen chloride emissions, during a failure situation, shall be reduced and controlled by the emergency wet scrubber control system, per manufacturer's design.
- D. The static gas pressure drop across the primary scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times while the emissions unit is in operation. The primary scrubber water flow rate shall be continuously maintained at a value of not less than 2 gallons per minute at all times while the emissions unit is in operation.
- E. The static gas pressure drop across the emergency scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times, while the scrubber is in operation. The emergency scrubber water flow rate shall be

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- continuously maintained at a value of not less than 400 gallons per minute at all times while the scrubber is in operation.
- F. The pH of the scrubber liquor, for each of the two scrubbers, shall be maintained at pH 9 or above. The temperature of the scrubber liquor, for each of the two scrubbers, shall be maintained at or below 100 degrees Fahrenheit.
- G. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the pH and temperature of the scrubber liquor, for the primary scrubber, while the emissions unit is in operation and the emergency scrubber, during a failure situation. Units of temperature shall be degrees Fahrenheit. The pH monitor, temperature monitor and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- H. The permittee shall properly install, operate and maintain equipment to continuously monitor the static gas stream pressure drop across each scrubber and the scrubber water flow rate, through each scrubber, while the scrubbers are 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.
- I. The permittee shall collect and record daily the following information, for each scrubber:
1. the pH of the scrubber liquor, on a continuous basis;
 2. the temperature of the scrubber liquor, on a continuous bases;
 3. the pressure drop across the scrubber, in inches of water, on a continuous basis;
 4. the scrubber water flow rate, in gallons per minute, on a continuous basis; and,
 5. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- J. The permittee shall submit required reports in the following manner:
1. reports of any required monitoring and/or recordkeeping information shall be submitted to Akron Air Pollution Control Agency; and,
 2. 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 Akron Air Pollution Control 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.)

- K. The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH, for either scrubber, did not comply with the pH requirements specified above.
- L. The permittee shall submit temperature deviation (excursion) reports that identify all periods of time during which the temperature of the scrubber liquor, for either scrubber, exceeded the temperature limitation specified above.
- M. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the static gas stream pressure drop across either scrubber was not maintained at or above the required level.
- N. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate through either scrubber was not maintained at or above the required level.
- O. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - 1. the emission testing shall be conducted within 3 months after the issuance of the permit;
 - 2. the emission testing shall be conducted to demonstrate compliance with the applicable mass emission rate limitations and overall control efficiency limitations for acetone and chloride;
 - 3. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rate for chlorine: Methods 1 - 4 and 26A of 40 CFR Part 60, Appendix A, or equivalent;

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4. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rate for acetone: Methods 1 - 4 and 18 of 40 CFR Part 60, Appendix A, or equivalent;
 5. demonstration of the overall control efficiency limitations for acetone and/or chlorine shall include the following: The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in the mass balance protocol approved on October 25, 1995. The test methods and procedures selected shall be based on a consideration of the diversity of the pollutant species present and their total concentration, and on a consideration of the potential presence of interfering gases; and,
 6. the test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Akron Air Pollution Control Agency.
- P. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Akron Air Pollution Control Agency. 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 Akron Air Pollution Control Agency's refusal to accept the results of the emission test(s).
- Q. Personnel from the Akron Air Pollution Control 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.
- R. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Akron Air Pollution Control

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Agency 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 Akron Air Pollution Control Agency.