



# Department of Environmental Protection **FILE COPY**

Lawton Chiles  
Governor

Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794

*W*  
Virginia B. Wetherell  
Secretary

Air Permit Number: 0330126-001-AO  
Date of Issue: April 15, 1996  
Expiration Date: October 1, 1997  
Amended: June 19, 1997  
County: Escambia  
Project: Terpene-Phenol Resin Process  
(Nirez 2000)

N. J. Merolli  
Plant Manager  
Arizona Chemical Co.  
Post Office Box 98  
Pensacola, Florida 32591-0098

Dear Mr. Merolli:

This is in response to your letter of May 27, 1997 requesting an amendment to permit 0330126-001-AO (old number AO17-214714) to increase the reaction temperature of the Nirez 2000 unit. It is our understanding that emissions from this unit are controlled by the recently installed Nirez 2000 Chiller and have been well within permit limitations.

By this letter Specific Condition 2 of permit 0330126-001-AO is amended to allow for a maximum reactor temperature of 90 degrees Celsius.

All **other** specific conditions of this permit remain in effect. This letter shall be attached to and made part of permit 0330126-001-AO.

If you have any questions or comments, please contact Rick Bradburn of this office at (850) 444-8364.

Sincerely,

Ed K. Middleswart, P.E.  
Air Program Administrator

EKM:rbc

cc: Earle Rader, Arizona Chemical Co.

*Copied to J. Bolton, DRCU MRC*



SPECIALTY PRODUCTS  
PENSACOLA PLANT  
411 SOUTH PACE BOULEVARD  
POST OFFICE BOX 98  
PENSACOLA FL 32591-0098  
PHONE 904 438 9222  
FAX 904 438 9505

May 27, 1997

CERT RET REC P 377 055 666

RECEIVED

JUN 10 1997

Mr. Rich Bradburn  
Air Program Section, Northwest District  
Florida Department of Environmental Protection  
160 Government Center  
Pensacola, FL 32501--5794

Northwest Florida  
DEP

RE: Request for Modification to the Maximum Reactor Temperature  
Permit No. AO17-214714 - ID No. 1OPEN17012624 (Nirez 2000 Unit)

0330126001-AO (Now)

Dear Mr. Bradburn:

This letter is a follow-up request to your recent conversation with Mark Huffman, Production Superintendent, and Earle Rader, Environmental Specialist, in your office on May 8. We are requesting a permit modification to our Nirez 2000 unit to allow a maximum reactor temperature change from 55° C to 90° C. Our customers are requesting a new product that requires this process change in order to produce. It can not be produced within the current permitted temperature ranges.

Emissions from this reactor are transferred to the Nirez 2000 Chiller which was recently installed. A VOC test was performed on November 20, 1996 at the maximum allowable production rate with an emissions rate of 0.123 pounds per hour (as reported to you). The allowable emissions rate is 3.5 pounds per hour. The higher reaction temperature would not affect the emissions as they would remain consistent with the previous test as explained below:

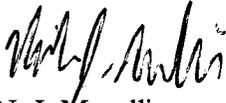
Present situation: Reactions take place at approximately 40° C with a cushion of 15° C to the maximum of 55° C. The reacted material is then transferred to the Quench Tank where the temperature is increased to 75° C. Vapor lines are connected to each vessel to balance out the vapor spaces and any excess vapors are transferred to the existing chiller.

Proposed modification: New product reactor temperature will take place at approximately 75° C with a cushion of 15° C to the maximum of 90° C. The reactor material will be transferred to the Quench Tank where the temperature will remain the same (approximately 75° C). The "Potential to Emit" would not change.

By this letter we are also requesting a modification to our Title V Application with this temperature modification to our Nirez 2000 Reactor. We appreciate your time in reviewing this modification and if we can provide any additional information, please contact Earle Rader. He can be reached at (904) 438-9222 ext. 104.

Sincerely,

ARIZONA CHEMICAL



N. J. Merolli  
Plant Manager

EMR/clh

cc: Glenn Rives  
Diane Staab  
Alvis Whitlock  
Mark Huffman  
Earle Rader



# Department of Environmental Protection

**FILE COPY**

Lawton Chiles  
Governor

Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794

**ENTERED** Virginia B. Wetherell  
Secretary

**APR 15 1996**

**PERMITTEE:**

Arizona Chemicals Company

AIRS I.D. Number: 0330126  
Air Permit Number: 0330126001AO  
Emission Unit: 024  
Date of Issue: April 15, 1996  
Expiration Date: October 1, 1997  
County: Escambia  
Project: Terpene-Phenol Resin Process  
(Nirez 2000)

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 62-296, 62-297 and 62-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of a Terpene-Phenol Resin Process (Nirez 2000). Terpene monomers are reacted with a phenol/solvent in the presence of a catalyst to form a terpene-phenol resin. The resin is finished by removing solvent and Dimer Oil to the desired resin softening point. The process includes a separate Dimer Oil Finishing Section. Molten resin is flaked under separate permit; and the finished resin is both bagged and bulk loaded into trucks and drums.

VOC and particulate emissions from the reactor process are controlled by a contact water scrubber manufactured by Doily and Roth Manufacturing Company (emission point 1), and by water-cooled condensers which will be consolidated into a cold vent condenser manufactured by APV Crepaco (emission point 2) as described below.

All other existing emission points are being connected to an additional cold vent condenser providing increased vapor recovery along with an increased maximum allowable operating rate with no increases in actual or allowable emissions.

Operation shall be consistent with operation permit AO17-214714, issued October 15, 1992; construction permit AC17-251895 issued July 5, 1994; Department letters dated January 25, 1996 and February 9, 1996 concerning Nirez 2000 process changes; and letter dated April 2, 1996 enclosing Certificate of Completion of Construction of the Nirez 2000 Dimer Oil Finishing Section.

Located: 411 South Pace Boulevard, Pensacola

**PERMITTEE:**

Arizona Chemicals Company

AIRS I.D. Number: 0330126

Air Permit Number: 0330126001AO

Emission Unit: 024

Date of Issue: April 15, 1996

Expiration Date: October 1, 1997

**SPECIFIC CONDITIONS:**

**General**

1. The attached General Conditions are part of this permit. [FAC Rule 62-4.160]

**Operation**

2. The maximum allowable operating rate is 6,710 pounds per hour of resin liquor feed to the evaporator. This is the operating rate at which compliance with standards shall be demonstrated.

Upon completion of the changes described by letter dated January 2, 1996, a maximum allowable operating rate of 12,500 pounds per hour of resin liquor feed to the evaporator shall be allowed, and monthly and yearly resin liquor feed rate shall not exceed 9,300,000 pounds per month and 87,600,000 pounds per year on a continuous/running basis.

Compliance with emissions limits is assured if the resin liquor evaporator feed rate does not exceed the maximum allowable operating rate, and the following operating parameters are met:

<u>Parameter</u>	<u>ID</u>	<u>Operating Limit</u>
Reactor temperature	TT112	Less than 55°C
BF <sub>3</sub> Scrubber water flow	FI113	Greater than 10 lbs/min
Quench tank temperature	TI117	Less than 85°C
Cold Condenser outlet temp		Less than 20°C

Records shall be maintained for the life of the permit and made available for Department inspection of parameter values of each work shift, of the maximum daily instantaneous resin liquor feed rate, and of the monthly and annual resin liquor feed.

3. The Terpene-Phenol Resin Process (Nirez 2000) may operate continuously, i.e., 8760 hrs/yr, based on 24 hours/day, 7 days/week and 52 weeks per year. [FAC Rule 62-4.070]

**PERMITTEE:**

Arizona Chemicals Company

AIRS I.D. Number: 0330126

Air Permit Number: 0330126001AO

Emission Unit: 024

Date of Issue: April 15, 1996

Expiration Date: October 1, 1997

**SPECIFIC CONDITIONS:**

4. All vats, containers, etc., that are used for temporary and permanent storage of VOC/organic solvents shall be covered to prevent vaporization of VOC when not in use. All equipment, pipes, hoses, lids, fittings, etc., shall be operated/maintained in such a manner as to minimize leaks, fugitive emissions and spills of VOC materials. [FAC Rule 62-296.320(1)(a)]

**Emissions**

5. The maximum allowable emission limit for each pollutant is as follows:

<u>Pollutant</u>	<u>FAC Rule</u>	<u>Allowable Emissions</u>
VOC	62-4.070	3.5 lbs/hour; 15.4 TPY

6. This source shall be operated in such a fashion so as to preclude objectionable odors. Objectionable odor is any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance pursuant to FAC Rule 62-296.200(123)

If the Department determines objectionable odors are being emitted from this facility, the Permittee shall submit within 45 days of receipt of written notification from the Department an odor remediation plan. The plan shall include, but is not limited to, the following:

1. Dispersion modeling analysis to show compliance with ambient acceptable odor threshold value(s).
2. Strategies to reduce odorous chemical utilization or emissions.
3. Modification of manufacturing production cycles.
4. Modification or manufacturing methods.
5. Modification of plant exhaust systems.

(FAC Rule 62-296.320(2))

**Testing**

7. Emissions tests are required to show compliance with the standards of the Department. The test results must provide reasonable assurance that the source is capable of compliance at the permitted maximum operating rate.

PERMITTEE:

Arizona Chemicals Company

AIRS I.D. Number: 0330126

Air Permit Number: 0330126001AO

Emission Unit: 024

Date of Issue: April 15, 1996

Expiration Date: October 1, 1997

SPECIFIC CONDITIONS:

[7. (cont.'d)]

A VOC emissions test is required at the permitted maximum operating rate, conducted in accordance with EPA method 25 or 25A within 30 days of completion of the debottlenecking changes described by letter dated January 2, 1996.

The Department shall be notified at least 15 days prior to testing to allow witnessing. A test report complying with F.A.C. Rule 62-297.570, Test Reports shall be submitted to the Department within 45 days of testing.

Test reports shall comply with F.A.C. Rule 62-297.570, Test Reports. Additionally, the compliance test report shall provide the following information on the air pollution control devices:

a. General condition of equipment, noting any deficiencies or problems with the equipment which occur during testing.

b. Normal operating parameters of the equipment and the actual operation parameters for each test run.

The Department can require special compliance tests in accordance with F.A.C. Rule 62-297.340(2).

Other test methods and alternate compliance procedures may be used only after prior Departmental approval has been obtained in writing.

Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of rated capacity. If it is impractical to test at capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department.

**Administrative**

8. An annual operating report for air pollutant emitting facility, DEP Form 62-210.990(5), shall be submitted by March 1 of each year. A copy of the form and instructions may be obtained from the Department of Environmental Protection, Northwest District Air Resources Management Program, (904) 444-8364. [FAC Rule 62-210.370]

PERMITTEE:

Arizona Chemicals Company

AIRS I.D. Number: 0330126

Air Permit Number: 0330126001AO

Emission Unit: 024

Date of Issue: April 15, 1996

Expiration Date: October 1, 1997

SPECIFIC CONDITIONS:

9. In accordance with F.A.C. Rule 62-213, a Major Air Pollution Source Annual Operation Fee Form [DEP Form 62-213.900(11) attached] must be completed and submitted with appropriate fee between January 15 and March 1 of each year. If the Department has not received the fee payment by March 1, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee, plus interest on such amount computed in accordance with s.220.807, Florida Statutes. The Department may revoke any major air pollution source operation permit if it finds that the permit holder has failed to pay timely and required annual operation license fee, penalty or interest. The completed form and appropriate fees must be submitted to the Department of Environmental Protection, Title V Annual Emissions Fee, Cashiers Office, P.O. Box 3070, Tallahassee, Florida 32351-3070.

10. Sixty days prior to the expiration date of this operation permit or as required for a Title V operating permit, the Permittee shall submit four permit renewal applications using the appropriate renewal application form to the Northwest District Office of the Department. (FAC Rule 62-4.090)

11. The emission unit covered by this permit is 0330126024. Please cite this number on all test reports and other correspondence specific to this permitted emission unit. [FAC Rule 62-297.570]

12. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 444-8364, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 444-8364 during normal working hours. [FAC Rule 62-210.700]

Expiration Date:

October 1, 1997

Issued this 15<sup>th</sup> day of April, 1996.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



ED K. MIDDLESWART  
Air Program Administrator



# Department of Environmental Protection

R

Lawton Chiles  
Governor

Northwest District  
160 Governmental Center  
Pensacola, Florida 32501-5794  
January 25, 1996

Virginia B. Wetherell  
Secretary

N. J. Merolli  
Plant Manager - Pensacola Plant  
Arizona Chemical Company  
Post Office Box 98  
Pensacola, Florida 32591-0098

Dear Mr. Merolli:

This is in response to your January 2, 1996 letter requesting changes to permit AO17-214714 covering the operation of Arizona Chemical's Pensacola Plant Nirez 2000 processes. The requested changes include an increased maximum operation rate with no increase in emissions, installation of an additional condenser for additional recovery from several existing emission points, and simplification of the existing permit by elimination of several unnecessary surrogate compliance monitoring parameters.

This letter approves your request and amends permit AO17-214714, issued October 15, 1992, as follows:

Specific condition 2 is changed to read as follows:

Compliance with emissions limits is assured if the resin liquor evaporator feed rate does not exceed 12,500 pounds per hour instantaneously, and the following operating parameters are met:

<u>Parameter</u>	<u>ID</u>	<u>Operating Limit</u>
Reactor temperature	TT112	Less than 55° C
BF <sub>3</sub> Scrubber water flow	FI113	Greater than 10 lbs/min
Quench tank temperature	TI117	Less than 85° C
Cold Condenser outlet temp		Less than 20° C

Instantaneous resin liquor feed rate shall not exceed 12,500 pounds per hour; and, monthly and yearly resin liquor feed rate shall not exceed 9,300,000 pounds per month and 87,600,000 pounds per year on a continuous/running basis.

Records shall be maintained for the life of the permit and made available for Department inspection of parameter values of each work shift, of the maximum daily instantaneous resin liquor feed rate, and of the monthly and annual resin liquor feed.

*1,400.  
Should  
be 9,300,000  
lbs/mo.  
Advised to  
put in k  
change.  
RLS*

Page Two  
Arizona Chemical  
Amendment to AO17-214714

A VOC emissions test is required at the permitted maximum operating rate. conducted in accordance with EPA method 25 within 30 days of completion of construction. The Department shall be notified at least 15 days prior to testing to allow witnessing. A test report complying with F.A.C. Rule 62-297.570, Test Reports shall be submitted to the Department within 45 days of testing.

This letter shall be attached to permit AO17-214714. If you have any questions, please contact Bob Kriegel at 444-8364.

Sincerely,

A handwritten signature in black ink that reads "Ed K. Middleswart" with a stylized flourish at the end.

Ed K. Middleswart, P.E.  
Air Program Administrator

EKM:asc

cc: DEP Division of Air Resources Management, Tallahassee



# Florida Department of Environmental Regulation

Northwest District • 160 Governmental Center • Pensacola, Florida 32501-5794

Lawton Chiles, Governor

Carol M. Browner, Secretary

**PERMITTEE:**

Arizona Chemicals Company

I.D. Number: 10PEN17012624

Permit/Certification Number: A017-214714

Date of Issue: October 15, 1992

Expiration Date: October 1, 1997

County: Escambia

Latitude/Longitude: 30°24'33"N/87°14'37"W

Section/Township/Range: Pensacola/2S/30W

Project: Terpene-Phenol Resin Process  
(Nirez 2000)

This permit is issued under the provisions of Section 403.087, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Operation of a terpene-phenol resin process (Nirez 2000). Design capacity is 26,806,000 pounds per year. Phenol and solvent are dehydrated by batch distillation. Volatile organic compound (VOC) emissions are controlled by two water-cooled condensers. The phenol solvent is then fed to a polymerization reactor to react with terpene monomer. The finished resin is both bagged and truck loaded. VOC and particulate emissions are controlled by a contact water scrubber manufactured by Doyle & Roth Manufacturing Company, serial number J4600-1.

Solvent is recovered from the polymer solution by evaporation. VOC emissions are controlled by water-cooled condensers. Dimer oil is separated from the molten resin and is used as fuel in a boiler.

The molten resin is fed to resin flaking (permit A017-214712, 10PEN17012625).

Located at 407 South Pace Boulevard, Pensacola.

Specific Condition No. 2 requires adherence to operating parameters with logs kept for Department inspection.

Specific Condition No. 4 requires submittal of an annual operations report.

Specific Condition No. 5 requires submittal of permit renewal application by August 1, 1997.

PERMITTEE:

Arizona Chemicals Company

I.D. Number: 10PEN17012624

Permit/Certification Number: A017-214714

Date of Issue: October 15, 1992

Expiration Date: October 1, 1997

SPECIFIC CONDITIONS:

1. The attached General Conditions are part of this permit.
2. Compliance with emissions limits are assured if the production rate does not exceed the design capacity of 6,710 pounds per hour and the following operating parameters are adhered to:

<u>PARAMETER</u>	<u>I.D.</u>	<u>LIMIT/CONDITION</u>	<u>LIMIT/UNITS</u>
Vent Condenser Temperature	TI105	less than	50°C
Dehydrator Pressure	PT104	between	0.5-45"H <sub>2</sub> O
Dehydrator Inert Gas Blanket	FIL20D	non-pumpout	0 cfm
Reactor Temperature	TT112	less than	50°C
Reactor Pressure	PIL100	between	0.5-12"H <sub>2</sub> O
Reactor Nitrogen Sparge	FIL101	less than	100 scfh
Reactor Inert Gas Blanket	FIL100	non-pumpout	0 cfm
BF <sub>3</sub> Scrubber Water Flow	FIL113	greater than	10 gpm
Quench Tank Temperature	TI117	less than	85°C
Quench Tank Pressure	PIL300	between	0.5-12"H <sub>2</sub> O
Quench Tank Inert Gas Blanket	FIL300	non-pumpout	0 cfm
Solvent Receiver Pressure	PI124	between	50-760 mmHg
Solvent Receiver Temperature	TI125	less than	60°C
Dimer Oil Receiver Pressure	PI126	between	5-760 mmHg
Dimer Oil Receiver Temp.	TT129	less than	100°C

°C - degrees centigrade

"H<sub>2</sub>O - inches of water

cfm - cubic feet per minute

scfh - standard cubic feet per hour

gpm - gallons per minute

mmHg - millimeters of Mercury

Values for these parameters shall be logged at appropriate times during each batch or operation shift. The logs shall be available for Department inspections.

3. Total volatile organic compounds (VOC) emissions shall not exceed 3.5 pounds per hour based on 15.4 tons per year operated continuously.
4. An annual operation report (DER Form 17-1.202(6) attached) shall be submitted by March 1 each year. The attached form shall be reproduced by the permittee and used for future annual submittals.
5. An application to renew this permit shall be submitted prior to August 1, 1997.

PERMITTEE:

Arizona Chemicals Company

I.D. Number: 10PEN17012624

Permit/Certification Number: Aol7-214714

Date of Issue: October 15, 1992

Expiration Date: October 1, 1997

SPECIFIC CONDITIONS:

6. The permanent source identification number for this point source is 10PEN17012624. Please cite this number on all test reports and other correspondence specific to this permitted point source.

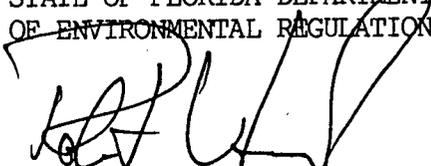
7. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (904) 436-8300, day or night, and for emergencies involving a significant threat to human health or the environment is (904) 488-1320. For routine business, telephone (904) 436-8364 during normal working hours.

Expiration date:

October 1, 1997

Issued this 15th day of Oct,  
1992.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
\_\_\_\_\_  
ROBERT V. KRIEDEL  
District Director