



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES**

**OPERATING PERMIT**

*CLARIANT CORPORATION*

*(Azo Production Area – Part 2 of 6)*

**DRAFT PERMIT NO. RI-45-06(R1)**

(Expiration date: October 13, 2011)

**Pursuant to the provisions of Air Pollution Control Regulation No. 29, this operating permit is issued to:**

Clariant Corporation  
500 Washington Street  
Coventry, RI 02816

**This permit shall be effective from the date of its issuance. All terms and conditions of the permit are enforceable by EPA and citizens under the federal Clean Air Act, 42 U.S.C. 7401, et seq., unless specifically designated as not federally enforceable.**

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**Stephen Majkut, Chief  
Office of Air Resources**

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**Date of revision: 04/10/2008**

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## SECTION I. SOURCE SPECIFIC CONDITIONS

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### A. Requirements for Emission Units P301 and T805

The following requirements are applicable to:

- Emission Unit P301 which is the Aqueous Pigment Manufacturing Process consisting of 5 kettles (K2101, K2201, K2301, K2401 and K2501) used to prepare naphthol components and 5 vats (V2106, V2206, V2306, V2406 and V2506) used to couple naphthol and diazo components and sometimes prepare the naphthol component.
- Emission Unit T805 which includes two 4500-gallon horizontal fixed roof storage tanks which contain acetic acid.
- Emission Units P301 and T805 are associated with air pollution control device C560 (Naphthol Scrubber) which is a packed tower scrubber.

#### 1. **Emission Limitations**

##### a. Volatile Organic Compounds (VOC)

VOC emissions generated from P301 shall be controlled:

- (1) By at least 90 percent if the actual VOC emissions from the five vats are 135,370 pounds per calendar year or greater, or [Consent Agreement 98-01-AP(8)(A)(1)]
- (2) To 13,537 pounds per calendar year or less if the actual VOC emissions from the five vats are less than 135,370 pounds per calendar year. [Consent Agreement 98-01-AP(8)(A)(2)]

##### b. Opacity

Visible emissions from C560 shall not exceed 10 percent opacity. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (1), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

## 2. Operating Requirements

- a. C560 shall operate in a choice of two modes:
  - (1) When operating the equipment in the “A Mode”, the scrubbing liquid shall be water and the water make-up/blowdown rate will be 30 gallons per minute.
  - (2) When operating in the “B Mode”, the scrubbing liquid shall be a dilute sodium hydroxide and sodium hydroxide make-up/blowdown rate shall be 2 gallons per minute. [Consent Agreement 98-01-AP(8)(B), Approval No. 560]
- b. C560 shall be operated according to its design specifications whenever P301 and/or T805 are in operation or emitting air contaminants. [16.1]
- c. In case of malfunction of C560, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C560 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P301 and T805 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]
  - (1) Identification of the specific air pollution control system (i. e., C560) and the source on which it is installed (i. e., P301, T1805); [16.2(a)]
  - (2) The expected period of time that C560 will be malfunctioning or out of service; [16.2(b)]
  - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
  - (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
  - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

## 3. Monitoring Requirements

- a. Pressure drop across control device C560, scrubbing flow rate and scrubbing make-up rate shall be monitored continuously. [29.6.3(b)]

#### 4. Testing Requirements

##### a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.A.1.b of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

#### 5. Recordkeeping Requirements

- a. The permittee shall use the records in Condition I.A.5.b and standard engineering calculations to calculate annual emissions and demonstrate compliance with the emission limits in Condition I.A.1.a of this permit. [Consent Agreement 98-01-AP(8)(C)]
- b. The permittee shall maintain records of all raw materials used in P301 and the VOC content of the materials, ingredients used in each individual batch type, and the total number of batches of individual products produced. [Consent Agreement 98-01-AP(8)(C)]
- c. The permittee shall maintain a log describing any malfunction, any observed visible emission, and any incident that may affect the performance of C560. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (6)]
- d. The permittee shall check the scrubbant flow rate, scrubbant make-up rate and pressure drop across C560 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]
- e. The permittee shall, contemporaneously when making a change from one operating mode (A mode) to another mode (B mode), record in a log at the facility a record of the scenario under which it is operating. [29.6.7(a)]

#### **B. Requirements for Emission Units P132, P309, P332 and P432**

The following requirements are applicable to:

- Emission Unit P132 which is a pigment drying operation consisting of a belt dryer (D2132), its associated cooling zone (CZ2132) and its associated solids collector (DF2132). Emission Unit P132 is associated with air pollution control devices C301 (Final Filter 1) which is an American Air Filter Duracel XL-90 filter and C995 which is a biofilter emissions system that includes a direct contact water condenser and an

air humidification unit.

- Emission Unit P309 which is the Alpine Mill process consisting of a blender (BL2656), its associated alpine mill (M1656), its associated baghouse (BH3656J) and its associated solids collector (DF4232). Emission Unit P309 is associated with air pollution control devices C302 (Final Filter 2) which is an American Air Filter Duracel XL-90D filter and C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit.
- Emission Unit P332 which is a pigment drying operation consisting of a belt dryer (D2332), its associated cooling zone (CZ2332) and its associated solids collector (DF2332). The belt dryer and solids collector are associated with air pollution control devices C193 (Final Filter 3) which is an American Air Filter Duracel XL-90 filter and C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit. The cooling zone is associated with air pollution control devices C196 which is a pulse jet baghouse and C305 (Final Filter 3/4) which is a American Air Filter Duracel XL-90 filter.
- Emission Unit P432 which is a pigment drying operation consisting of a belt dryer (D2432), its associated cooling zone (CZ2432) and its associated solids collector (DF2432). The belt dryer and solids collector are associated with air pollution control device C995 which is a biofilter emissions system which includes a direct contact water condenser and an air humidification unit. The cooling zone is associated with air pollution control devices C196 which is a pulse jet baghouse and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter.

## 1. Emission Limitations

### a. Opacity

Visible emissions from C301, C302, C193 and C995 shall not exceed 10 percent opacity. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (1), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

### b. Particulates

The permittee shall not emit into the atmosphere in any one hour from P132, P309, P332 or P432 particulate matter in excess of that determined from the following equation:

$$E = 4.10 P^{0.67}$$

Where: E = allowable rate of emissions in lb/hr, and;  
P = process weight rate in tons/hr

The process weight rate will be determined by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is not operating. [3.2]

## 2. Operating Requirements

- a. An odor rating shall be assigned to each new product introduced in the AZO Building, prior to production, to determine if venting to C995 is necessary. The odor ratings used will consist of 1 – no odor, 2 – slight odor, 3 – certain odor. Any pigment with an odor rating of 3 must be exhausted to C995 when being processed in any dryer. [Letter dated 15 March 2006 from Douglas L. McVay of RIDEM to Mia Angell DeCelles of Clariant Corporation]
- b. C193, C196, C301, C302, C305 and C995 shall be operated according to their design specifications whenever the emission unit on which they are installed is in operation or is emitting air contaminants. [16.1]
- c. In case of malfunction of C193, C196, C301, C302, C305 and/or C995, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C193, C196, C301, C302, C305 and/or C995 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate the source on which they are installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]
  - (1) Identification of the specific air pollution control system (i. e., C193, C196, C301, C302, C305, and/or C995) and the source on which it is installed; [16.2(a)]
  - (2) The expected period of time that C193, C196, C301, C302, C305 and/or C995 will be malfunctioning or out of service; [16.2(b)]
  - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
  - (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
  - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

## 2. Monitoring Requirements

- a. Pressure drop across C193, C196, C301, C302 and C305 shall be monitored continuously. [29.6.3(b)]
- b. Pressure drop across the demister in the humidifier of control device C995, pressure drop across the humidifier of C995, scrubbant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 shall be monitored continuously. [29.6.3(b)]

## 3. Testing Requirements

- a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.B.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

- b. Particulates

Compliance with the particulate emissions limitations specified in condition I.B.1.b of this permit shall be demonstrated by one of the following procedures:

- (1) Emissions testing conducted by the permittee according to 40 CFR 60, Appendix A, Method 5, or another method approved by the Director and USEPA, or
- (2) Technical evaluation based on such factors which may include the potential of P132, P309, P332 or P432 to emit particulates; process or equipment design; design efficiency of air pollution control systems; and emissions test results on similar processes or equipment. [3.3]

## 4. Recordkeeping Requirements

- a. The permittee shall maintain records of all raw materials used in P132, P309, P332 and P432 and the VOC content of the materials, ingredients used in each individual batch type, and the total number of batches of individual products produced. [Consent Agreement 98-01-AP(9)(A)]
- b. The permittee shall maintain a log describing any malfunction, any observed visible emission, any incident that may affect the control equipment performance and any repairs, maintenance or replacement of

C193, C301, C302 and C305. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (6)]

- c. The permittee shall maintain a log to record the date and time that any high pressure drop occurs across C193, C196, C301, C302, C305 and any corrective action that is taken. [29.6.3(b)]
- d. The permittee shall check the pressure drop across the demister in the humidifier of control device C995, the pressure drop across the humidifier of C995, the scrubbant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]

## 5. Reporting Requirements

- a. The permittee shall submit an annual notification report to the Office of Air Resources no later than 30 May of each year. The annual notification report shall include the following: [Consent Agreement 98-01-AP (9)(B)]
  - (1) Certification that the potential emissions from belt drying of pigments has not changed from the original RACT estimates (21,170 lbs VOC/yr) or if the potential emissions have changed, the new potential emissions estimates for the process, and [Consent Agreement 98-01-AP (9)(B)(1)]
  - (2) Summary of any process change to determine that control options are not technically and/or economically feasible for the modified process. [Consent Agreement 98-01-AP (9)(B)(2)]
- b. The permittee shall notify the office of Air Resources, in writing, whenever a new product with an odor rating of 3 is introduced to be dried in the AZO Building. [Letter dated 15 March 2006 from Douglas L. McVay of RIDEM to Mia Angell DeCelles of Clariant Corporation]

## C. Requirements for Emissions Units P303, P304 and P307

The following requirements are applicable to:

- Emissions Unit P303 which includes 12 product storage silos for storing pigment (BN2031-BN2036 and BN2041-BN2046) and their associated process baghouses (BH3031-BH3036 and BH3041-BH3046). Emissions Unit P303 is associated with air pollution control devices C196 which is a pulse jet baghouse, and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter.

- Emissions Unit P304 which consists of Packaging Streets 3&4. Packaging Street 3 (PK3) contains a bulk bag packer to load product from the Street 3 dryer, an air jet mill (M1332), and a bag packer (BP1003) for the Street 3 blender. Packaging Street 4 (PK4) contains two bag packers (BP1432 and air pallet) to load product from the Street 4 dryer cooling zone, and a bag packer (BP1004) for the Street 4 blender. Emissions Unit P304 is associated with air pollution control devices C196 which is a pulse jet baghouse, and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter.
- Emissions Unit P307 which is the Vertomix 156 System consisting of a bulk bag unloading station, a mixer (MX2156), an air jet mill (M1156 - not vented), a process baghouse (BH2156), a product storage tank (T2156), and a bag packing station (BP1156). Emissions Unit P307 is associated with air pollution control devices C195 which is a pulse jet baghouse and C304 (Final Filter 1/2) which is an American Air Filter Duracel XL-90 filter.

## 1. Emission Limitations

### a. Opacity

Visible emissions from C304 and C305 shall not exceed 10 percent opacity. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (1), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

### b. Particulates

The permittee shall not emit into the atmosphere in any one hour from P303, P304 or P307 particulate matter in excess of that determined from the following equation:

$$E = 4.10 P^{0.67}$$

Where: E = allowable rate of emissions in lb/hr, and;  
P = process weight rate in tons/hr

The process weight rate will be determined by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is not operating. [3.2]

## 2. Operating Requirements

- a. C195, C196, C304, and C305 shall be operated according to their design specifications whenever the emission unit on which it is installed is in operation or is emitting air contaminants. [16.1]

- b. In case of malfunction of C195, C196, C304, and/or C305, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C195, C196, C304, and/or C305 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate the source on which it is installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]
- (1) Identification of the specific air pollution control system (i.e., C195, C196, C304, and/or C305) and the source on which it is installed (i.e., P303, P304, and/or P307); [16.2(a)]
  - (2) The expected period of time that C195, C196, C304, and/or C305 will be malfunctioning or out of service; [16.2(b)]
  - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
  - (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
  - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

### **3. Monitoring Requirements**

- a. Pressure drop across C195, C196, C304 and C305 shall be monitored continuously. [29.6.3(b)]

### **4. Testing Requirements**

- a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.C.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

- b. Particulates

Compliance with the particulate emissions limitations specified in condition I.C.1.b of this permit shall be demonstrated by one of the following procedures:

- (1) Emissions testing conducted by the permittee according to 40 CFR 60, Appendix A, Method 5, or another method approved by the Director and USEPA, or
- (2) Technical evaluation based on such factors which may include the potential of P303, P304 or P307 to emit particulates; process or equipment design; design efficiency of air pollution control systems; and emissions test results on similar processes or equipment. [3.3]

## **5. Recordkeeping Requirements**

- a. The permittee shall maintain a log describing any malfunction, any observed visible emission, any incident that may affect the control equipment performance of C304 and/or C305, and any repairs, maintenance or replacement of C304 and/or C305. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (6)]
- b. The permittee shall maintain a log to record the date and time that any high pressure drop occurs across C195, C196, C304 and C305 and any corrective action that is taken. [29.6.3(b)]

## **D. Requirements for Emissions Unit P305**

The following requirements are applicable to:

- Emissions Unit P305 which is a DCB Mix Kettle consisting of a single kettle (K3700). P305 is associated with air pollution control devices C944 which is a Croll Reynolds packed tower water scrubber (DCB), and C945 which is a HEPA filter.

### **1. Emission Limitations**

- a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

- b. Particulates

The permittee shall not emit into the atmosphere in any one hour from P305 particulate matter in excess of that determined from the following equation:

$$E = 4.10 P^{0.67}$$

Where: E = allowable rate of emissions in lb/hr, and;  
P = process weight rate in tons/hr

The process weight rate will be determined by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is not operating. [3.2]

## 2. Operating Requirements

- a. The measured fresh water make-up flow rate to C944 shall be a minimum of 0.3 gallons per minute. [Approval Nos. 944 & 945 (2)]
- b. C944 and C945 shall be operated according to their design specifications whenever P305 is in operation or is emitting air contaminants. [16.1]
- c. In the case of malfunction of C944 and/or C945, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C944 and/or C945 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P305 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]
  - (1) Identification of the specific air pollution control system (i. e., C944, C945) and the source on which it is installed; (i.e., P305), [16.2(a)]
  - (2) The expected period of time that C944 and/or C945 will be malfunctioning or out of service; [16.2(b)]
  - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
  - (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
  - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

## 3. Monitoring Requirements

- a. The fresh water make-up flow rate to C944 shall be continuously measured during operation. [Approval Nos. 944 & 945 (1)]

- b. Pressure drop across C944 and C945 shall be monitored continuously during operation. [29.6.3(b)]

#### **4. Testing Requirements**

- a. Opacity

Tests for determining compliance with the opacity limitations specified in condition I.D.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1,1.3.2]

- b. Particulates

Compliance with the particulate emissions limitations specified in condition I.D.1.b of this permit shall be demonstrated by one of the following procedures:

- (1) Emissions testing conducted by the permittee according to 40 CFR 60, Appendix A, Method 5, or another method approved by the Director and USEPA, or
- (2) Technical evaluation based on such factors which may include the potential of P305 to emit particulates; process or equipment design; design efficiency of air pollution control systems; and emissions test results on similar processes or equipment. [3.3]

#### **5. Recordkeeping Requirements**

- a. The permittee shall check the fresh water make-up flow rate of C944 once per batch and the date, time and reading shall be recorded. [Approval Nos. 944 & 945 (1)]
- b. The permittee shall check the pressure drop across C944 and C945 a minimum of once per batch and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]

**E. Requirements for Emissions Unit P306**

The following requirements are applicable to:

- Emissions Unit P306 which includes 6 diazo kettles (K2102, K2202, K2302, K2402, K2502 and K2701). Emissions Unit P306 is associated with air pollution control devices C191, which is a packed tower scrubber (Diazo Scrubber) and C995, which is a biofilter emissions system which includes a direct contact water condenser and an air humidification unit.

**1. Emission Limitations**

a. Opacity

Visible emissions from C995 shall not exceed 10 percent opacity. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (1), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

**2. Operating Requirements**

a. C191 and C995 shall be operated according to their design specifications whenever P306 is in operation or is emitting air contaminants. [16.1]

b. In the case of malfunction of C191 and/or C995, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C191 and/or C995 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P306 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]

(1) Identification of the specific air pollution control system (i. e., C191, C995) and the source on which it is installed; (i.e., P306), [16.2(a)]

(2) The expected period of time that C191 and/or C995 will be malfunctioning or out of service; [16.2(b)]

(3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]

(4) Measures that will be taken to minimize the length of said period, and [16.2(d)]

- (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

**3. Monitoring Requirements**

- a. Pressure drop across control device C191, scrubbant flow rate to C191 and air flow rate through C191 shall be monitored continuously. [29.6.3(b)]
- b. Pressure drop across the demister in the humidifier of control device C995, pressure drop across the humidifier of C995, scrubbant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 shall be monitored continuously. [29.6.3(b)]

**4. Testing Requirements**

- a. Opacity

Tests for determining compliance with the opacity limitations specified in condition I.E.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1,1.3.2]

**5. Recordkeeping Requirements**

- a. The permittee shall maintain a log describing any malfunction, any observed visible emission, and any incident that may affect the performance of C995. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (6)]
- b. The permittee shall check the pressure drop across C191, the scrubbant flow rate to C191 and the air flow rate through C191 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]
- c. The permittee shall check the pressure drop across the demister in the humidifier of control device C995, the pressure drop across the humidifier of C995, the scrubbant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]

**F. Requirements for Emissions Unit P308**

The following requirements are applicable to:

- Emissions Unit P308 which is the Vertomix 556 System consisting of a bulk bag unloading station, a mixer (MX2556), an air jet mill (M1005), a process baghouse (BH3556), a product storage bin (BN2556), and a bag packing station (BP1005).

Emissions Unit P308 is associated with air pollution control devices C894, which is a pulse jet baghouse followed by C306 (Final Filter 5) which is an American Air Filter Duracel XL-90 filter.

## 1. Emission Limitations

### a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

### b. Particulates

The permittee shall not emit into the atmosphere in any one hour from P308 particulate matter in excess of that determined from the following equation:

$$E = 4.10 P^{0.67}$$

Where: E = allowable rate of emissions in lb/hr, and;  
P = process weight rate in tons/hr

The process weight rate will be determined by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is not operating. [3.2]

## 2. Operating Requirements

- a. C894 and C306 shall be operated according to their design specifications whenever P308 is in operation or is emitting air contaminants. [16.1]
- b. In case of malfunction of C306 and/or C894, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C306 and/or C894 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P308 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to,

the following: [16.2]

- (1) Identification of the specific air pollution control system (i. e., C306 and/or C894) and the source on which it is installed (i. e., P308); [16.2(a)]
- (2) The expected period of time that C306 and/or C894 will be malfunctioning or out of service; [16.2(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
- (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
- (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

### **3. Monitoring Requirements**

- a. Pressure drop across C306 and C894 shall be monitored continuously. [29.6.3(b)]

### **4. Testing Requirements**

- a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.F.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

- b. Particulates

Compliance with the particulate emissions limitations specified in condition I.F.1.b of this permit shall be demonstrated by one of the following procedures:

- (1) Emissions testing conducted by the permittee according to 40 CFR 60, Appendix A, Method 5, or another method approved by the Director and USEPA, or

- (2) Technical evaluation based on such factors which may include the potential of P308 to emit particulates; process or equipment design; design efficiency of air pollution control systems; and emissions test results on similar processes or equipment. [3.3]

## **5. Recordkeeping Requirements**

- a. The permittee shall maintain a log to record the date and time that any high pressure drop occurs across C306 and C894 and any corrective action that is taken. [29.6.3(b)]

## **G. Requirements for Emissions Unit T8803**

The following requirements are applicable to:

- Emissions Unit T803 (Muriatic Acid Tank) which consists of a 14,000-gallon vertical fixed roof storage tank installed in 1990.

There are no specific requirements for T803. This does not relieve the permittee from compliance with the General Provisions, outlined in Section II of this permit, as they apply to T803.

## **H. Alternative Operating Scenario**

The following requirements are applicable to:

- Emissions Unit P303 which includes 12 product storage silos for storing pigment (BN2031-BN2036 and BN2041-BN2046) and their associated process baghouses (BH3031-BH3036 and BH3041-BH3046). Emissions Unit P303 is associated with air pollution control devices C196 which is a pulse jet baghouse, and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter. When the filters in C305 are removed for cleaning, P303 is vented to air pollution control device C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit.
- Emissions Unit P304 which consists of Packaging Streets 3&4. Packaging Street 3 (PK3) contains a bulk bag packer to load product from the Street 3 dryer, an air jet mill (M1332), and a bag packer (BP1003) for the Street 3 blender. Packaging Street 4 (PK4) contains two bag packers (BP1432 and air pallet) to load product from the Street 4 dryer cooling zone, and a bag packer (BP1004) for the Street 4 blender. Emissions Unit P304 is associated with air pollution control devices C196 which is a pulse jet baghouse, and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter. When the filters in C305 are removed for cleaning, P304 is vented to air pollution control device C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit.

- Emission Unit D132 which is a pigment drying operation consisting of a belt dryer (BD132), its associated cooling zone (CZ132) and its associated solids collector (DF132). Emissions Unit D132 is associated with air pollution control devices C301 (Final Filter 1) which is an American Air Filter Duracel XL-90 filter and C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit. When the filters in C301 are removed for cleaning, D132 is vented to air pollution control device C995.
- Emission Unit D332 which is a pigment drying operation consisting of a belt dryer (BD332), its associated cooling zone (CZ332) and its associated solids collector (DF332). The belt dryer and solids collector are associated with air pollution control devices C193 (Final Filter 3) which is an American Air Filter Duracel XL-90 filter. The cooling zone is associated with air pollution control devices C196 which is a pulse jet baghouse and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter and C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit. When the filters in C193 and C305 are removed for cleaning, D332 is vented to air pollution control device C995.
- Emission Unit D432 which is a pigment drying operation consisting of a belt dryer (BD432), its associated cooling zone (CZ432) and its associated solids collector (DF432). The belt dryer and solids collector are associated with air pollution control device C995 which is a biofilter emissions system that includes a direct contact water condenser and an air humidification unit. The cooling zone is associated with air pollution control devices C196 which is a pulse jet baghouse and C305 (Final Filter 3/4) which is an American Air Filter Duracel XL-90 filter. When the filters in C305 are removed for cleaning, CZ432 is vented to air pollution control device C995.

The following requirements are applicable to P303, P304, D132, D332 and D432 during filter cleaning operations:

**1. Emission Limitations**

a. Opacity

Visible emissions from C995 shall not exceed 10 percent opacity. [Letter dated May 12, 1995 from Douglas L. McVay of RI DEM to Karen Peltier of Hoechst Celanese Corporation (1), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

**2. Operating Requirements**

- a. C995 shall be operated according to its design specifications whenever P303, P304, D132, D332 and/or D432 are in operation or are emitting air contaminants. [16.1]
- b. In case of a malfunction of C995, all reasonable measures shall be taken to

assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C995 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate the source on which it is installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.2]

- (1) Identification of the specific air pollution control system (i.e., C995) and the source on which it is installed (i.e., P303, P304, D132, D332 and/or D432); [16.2(a)]
- (2) The expected period of time that C995 will be malfunctioning or out of service; [16.2(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.2(c)]
- (4) Measures that will be taken to minimize the length of said period, and [16.2(d)]
- (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.2(e)]

### **3. Monitoring Requirements**

- a. Pressure drop across the demister in the humidifier of control device C995, pressure drop across the humidifier of C995, scrubant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 shall be monitored continuously. [29.6.3(b)]

### **4. Testing Requirements**

- a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.H.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

### **5. Recordkeeping Requirements**

- a. The permittee shall check the pressure drop across the demister in the humidifier of control device C995, the pressure drop across the humidifier of C995, the scrubant flow rate through the humidifier of C995, and the temperature of the exhaust gas stream from the humidifier of C995 a

minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because all processes are shut down, the permittee shall record that all processes are shut down in lieu of a measurement. [29.6.3(b)]