



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL**  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

Office of the  
Secretary

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**NOTICE OF CONCILIATION AND  
ADMINISTRATIVE PENALTY ASSESSMENT ORDER**

Pursuant to *7 Del. C. § 6005*

**Order No. 2007-A-54**

*PERSONALLY SERVED BY ENVIRONMENTAL  
ENFORCEMENT OFFICER*

**Issued To:**

E.I. du Pont de Nemours & Company, Inc.  
Red Lion Plant  
Attn: John Jeffries  
766 Governor Lea Road  
Delaware City, DE 19706

**Registered Agent:**

E.I. du Pont de Nemours & Company, Inc.  
Attn: Legal  
1007 Market Street, Suite D-4076  
Wilmington, DE 19808

Dear Mr. Jeffries:

This is to notify E.I. du Pont de Nemours & Company, Inc. (“Respondent”) that the Secretary of the Department of Natural Resources and Environmental Control (“Department”) has found that Respondent is violating *7 Del. C. Chapter 60* and an Air Quality Management Operating Permit at its Red Lion Plant in Delaware City, Delaware. Accordingly, the Department in its discretion is issuing this Notice of Conciliation and Administrative Penalty Assessment Order (“Notice and Order”) in an endeavor to obtain compliance with the requirements of *7 Del. C. Chapter 60*.

***BACKGROUND***

Respondent owns and operates a sulfuric acid regeneration plant (“SAR Plant”) adjacent to Valero’s Delaware City Refinery in New Castle, Delaware. The SAR Plant processes spent acid from the refinery and other outside sources and converts it into fresh sulfuric acid. The Delaware City Refinery utilizes the recycled sulfuric acid in its process of refining crude oil into marketable products. Processing of the sulfuric acid at the DuPont site allows the sulfuric acid to be recycled without it being considered a hazardous waste. Without the recycling process, the

Delaware City Refinery would have to dispose of the spent sulfuric acid (that could otherwise be recycled) and would have to import larger quantities of sulfuric acid for its refining processes.

One of the pollutants emitted by the SAR Plant during the processing of the spent acid is Nitrogen Oxide (“NO<sub>x</sub>”). NO<sub>x</sub> is a major precursor chemical to the formation of both ground-level ozone and fine particulate matter (PM<sub>2.5</sub>). The entire State of Delaware is in nonattainment with the National Ambient Air Quality Standard (“NAAQS”) for ground-level ozone. New Castle County, Delaware, is in nonattainment with the NAAQS for PM<sub>2.5</sub>.

On February 3, 2004, the Department issued a construction permit **APC-2003/0739-CONSTRUCTION(NSPS)** to Respondent, authorizing Respondent to construct the SAR Plant. Respondent’s construction permit application had been based on the operation at a similar facility in another state and contained proposed emissions limits that Respondent believed it could achieve, based on its review of the operation of the similar facility. When the Department issued the construction permit, the permit contained emissions limits for various pollutants emitted from equipment to be constructed, including the Process Air Pre-heater and the Decomposition Furnace (“Main Stack”). These limits were also based on the data from the out-of-state facility. Respondent completed construction of the SAR Plant and began to operate the completed SAR Plant on September 14, 2005. Respondent’s permit contained a short-term NO<sub>x</sub> emission rate of 0.03 lb/mmBTU and a long-term, rolling 12-month emission limit of 12.2 tons. These limits applied to the Process Air Pre-heater and Main Stack combined.

On April 25 and 26, 2006, stack testing was conducted on the Process Air Pre-heater and Main Stack. The testing was required by the permit. The Main Stack’s and Process Air Pre-heater’s combined NO<sub>x</sub> emission rate during the stack test was 0.10 lb/mmBTU—considerably above its permitted short-term average of 0.03 lb/mmBTU. Further, subsequent calculations based on the stack test data show that from September 14, 2005, to July 14, 2006, before Respondent had been operating a full year, the rolling 12-month emission limit of 12.2 tons for NO<sub>x</sub> had been exceeded. Moreover, Respondent continued to exceed the 12-month rolling average in each month it has operated. Specifically, the calculations below show the 12-month rolling averages for the relative periods ending:

July 2006.....	13.0 tons	March 2007.....	15.6 tons
August 2006.....	14.4 tons	April 2007.....	15.5 tons
September 2006.....	15.1 tons	May 2007.....	15.3 tons
October 2006.....	14.3 tons	June 2007.....	15.8 tons
November 2006.....	14.5 tons	July 2007.....	15.6 tons
December 2006.....	15.2 tons	August 2007.....	15.3 tons
January 2007.....	16.0 tons	September 2007.....	14.9 tons
February 2007.....	15.7 tons	October 2007.....	16.1 tons

Respondent worked with the Department to develop a Compliance Plan which the Department approved on August 31, 2006. Pursuant to the Compliance Plan, Respondent conducted an extensive test program and took multiple steps to reduce NO<sub>x</sub> generation in the Decomposition Furnace and to reduce NO<sub>x</sub> emissions from the Main Stack. Respondent

submitted Quarterly Progress Reports consistent with the terms of the Compliance Plan beginning in the third quarter of 2006.

Based on the stack test and subsequent calculations, the Department issued Respondent a Notice of Violation dated January 22, 2007, for the exceedances that occurred July through November 2006.

Respondent partially attributed the violation of the NO<sub>x</sub> emission limit for the Main Stack to both the need for separate limits for the Main Stack and Process Air Pre-Heater as well as to the method of measurement for the NO<sub>x</sub> emissions from the Main Stack. To address this, Respondent requested that the Department issue a separate NO<sub>x</sub> emission limit of 0.04 lb/mmBTU for the Process Air Pre-Heater and that the Department convert the NO<sub>x</sub> emission limit for the Main Stack into a pounds per hour limit for the Main Stack. The Department agreed with Respondent's request to issue separate limits, and those changes are reflected in the operating permit **APC-2003/0739-OPERATION (NSPS)** that the Department issued on February 2, 2007. However, the Department did not agree to Respondent's request for a higher pounds per hour limit for the Main Stack, and did not make that requested change, because the Department believed additional measurement of NO<sub>x</sub> at the Main Stack was needed to justify the requested modification.

Consistent with the Compliance Plan, Respondent installed a Continuous Emission Monitoring System ("CEMS") to measure NO<sub>x</sub> at the Main Stack in March 2007. As required, certification testing of the CEMS was conducted on March 28, 2007. That testing indicated that the Main Stack was actually emitting NO<sub>x</sub> at a rate of 2.9 lbs/hr. Therefore, despite the Department making changes in the Respondent's operating permit to give separate limits for the Process Air Pre-heater and the Main Stack, the Department believes that Respondent continues to be in violation of the NO<sub>x</sub> emission limit for the Main Stack as set forth in Condition 2.1.2.2. of Respondent's operating permit.

Respondent subsequently determined that its construction permit application based on operations at a similar facility in another state was not an appropriate indication of the actual emissions from the Red Lion Facility in Delaware City, Delaware. In fact, Respondent has carefully reviewed the available data and believes that it failed to consider differences in parameters between the two facilities. As a result, of the Respondent's misapplication of data, the NO<sub>x</sub> emissions at the Red Lion facility in Delaware have been much higher than originally estimated.

Respondent has undertaken multiple actions to determine whether it could reduce the NO<sub>x</sub> emissions from the Main Stack and the Process Air Pre-Heater in order to meet the limits set forth in its permit. Respondent's conclusion was that it could not meet the NO<sub>x</sub> emission limits. The Department reviewed Respondent's actions and conclusion and has determined that it is appropriate to endeavor by conciliation to obtain compliance with the requirements of 7 *Del. C.* Chapter 60. The Department envisions a conciliation process that it anticipates will take no longer than six weeks from the date of this Order and will involve Respondent submitting an application to amend its permit to modify the NO<sub>x</sub> emission limits to limits that Respondent's facility can actually achieve.

In fact, the Respondent has already submitted the necessary permit application, which was received by the Department on or about November 5, 2007. Based on that application, the Department intends to publish public notice of receipt of the permit application attached hereto as "Exhibit A." Further, the Department has prepared a draft permit responding to the application that is attached hereto as "Exhibit B." The Department intends to follow its customary public notice process and take comment on the application and/or hold a public hearing as necessary. Should the Department as a result of any public comment; however, determine that it is not appropriate to issue the permit in the form attached hereto as Exhibit B, Respondent will not by signing the waiver herein have waived its appeal rights with respect to issuance of whatever permit might be issued.

The Department further recognizes that Respondent will continue to violate Condition 2.1.2.2. and Condition 2.1.2.3. of its operating permit until such time as an amended permit with achievable NO<sub>x</sub> emission limits is issued by the Department. Consequently, in addition to requiring Respondent to take this corrective action, the Department is also requiring Respondent to pay an administrative penalty related to the past and ongoing violations of the present permit, until it is amended. The administrative penalty is further discussed and assessed in the Section entitled "Assessment of Penalty" below. In addition to paying the administrative penalty, the Respondent will be voluntarily retiring 12 tons per year of validated NO<sub>x</sub> credits from the Holly Run facility shutdown that currently reside in DNREC's emission bank and implementing an Environmental Improvement Project as set out herein to reduce NO<sub>x</sub> and other toxic particle pollutant emissions in the state. As a condition of conciliation, Respondent shall complete its notification of the voluntary retirement of the NO<sub>x</sub> credits no later than February 1, 2008. Further, the Respondent shall submit a Title V permit application no later than February 2, 2008, to the Department for the Facility. Finally, as a condition of conciliation, Respondent agrees not to appeal the air quality management permit attached as Exhibit B, if it is issued in the form attached hereto. Should however the Department, as a result of public comment, issue a permit that is substantively different from Exhibit B, Respondent may appeal that permit. Provided, however, that if Respondent appeals any permit issued as a result of the public process that differs substantively from Exhibit B, the Department will evaluate Respondent's rationale for the appeal and whether or not it is appropriate to extend the period of conciliation or to assess any further administrative penalty to cover any interim time period.

### ***FINDINGS OF FACT***

1. Stack testing conducted on April 25 and 26, 2006, revealed that Respondent is emitting NO<sub>x</sub> at a rate of 0.10 lb/mmBTU from the Main Stack and the Process Air Pre-heater combined.
2. Subsequent calculations have shown that Respondent has exceeded the rolling 12-month emission limit of 12.2 tons for NO<sub>x</sub> each month beginning July 2006 and continuing during the time period that the current NO<sub>x</sub> emission limit is applicable.
3. The Department issued Respondent an operating permit on February 2, 2007, that included a separate NO<sub>x</sub> emission limit for the Main Stack and for the Process Air

Pre-Heater and which also changed the unit of measurement for the Main Stack NO<sub>x</sub> emissions.

4. A CEMS was installed in March of 2007 and certification testing conducted on March 28, 2007. The CEMS data reports that the Main Stack's NO<sub>x</sub> emission rate is 2.9 lbs/hr. Therefore Respondent continues to exceed the NO<sub>x</sub> emission limit of 1.26 lbs/hr for the Main Stack as set forth in Condition 2.1.2.2. of Respondent's operating permit.
5. Respondent has undertaken multiple actions pursuant to the approved Compliance Plan and has concluded that it cannot achieve the NO<sub>x</sub> emission limits set forth in Condition 2.1.2.2. and Condition 2.1.2.3. of its operating permit. Based on its review of Respondent's actions, the Department agrees with Respondent's conclusion.
6. Until an amended operating permit with achievable NO<sub>x</sub> emission limits is issued by the Department, Respondent is expected to continue to violate Condition 2.1.2.2. and Condition 2.1.2.3. of its operating permit.
7. Respondent shall submit a Title V permit application by February 2, 2008.

### ***STATUTORY AND PERMIT REQUIREMENTS***

1. 7 Del. C. § 6003(a)(1) states:

*"No person shall, without first having obtained a permit from the Secretary, undertake any activity in a way which may cause or contribute to the discharge of an air contaminant."*

2. Condition 2.1.2.1. of Permit **APC-2003/0739-CONSTRUCTION (NSPS)** states:

*"NO<sub>x</sub> emissions from the Process Air Pre-heater and the Decomposition Furnace shall not exceed an average of 0.03 pound per million BTU heat input."*

3. Condition 2.1.2.2. of Permit **APC-2003/0739-CONSTRUCTION (NSPS)** states:

*"NO<sub>x</sub> emissions from the facility shall not exceed 12.2 tons per 12 month rolling period."*

4. Condition 2.1.2.2. of Permit **APC-2003/0739-OPERATION (NSPS)** states:

*"NO<sub>x</sub> emissions from the main plant stack (emission point 1) shall not exceed 1.26 pounds per hour."*

5. Condition 2.1.2.3. of Permit **APC-2003/0739-OPERATION (NSPS)** states:

*"NO<sub>x</sub> emissions from the facility shall not exceed 12.2 tons per 12 month rolling period."*

### ***CONCLUSIONS***

Based on the foregoing facts, the Department has determined that Respondent has violated and will continue to violate 7 *Del. C.* Chapter 60 and its permit conditions as follows:

1. Respondent violated 7 *Del. C.* § 6003(a)(1) by exceeding the emission limit of 0.03 lb/mmBTU of NO<sub>x</sub> for the Decomposition Furnace (Main Stack) according to stack testing performed on April 25 and 26, 2006, that recorded combined NO<sub>x</sub> emissions of 0.10 lb/mmBTU.
2. Respondent has violated 7 *Del. C.* § 6003(a)(1) because calculations show that the rolling 12-month emission limit of 12.2 tons for NO<sub>x</sub> was exceeded beginning July of 2006, and continuing monthly thereafter through October of 2007.
3. Respondent violated Condition 2.1.2.1. of Permit **APC-2003/0739-CONSTRUCTION (NSPS)** by exceeding the emission limit of 0.03 lb/mmBTU of NO<sub>x</sub> according to stack testing performed on April 25 and 26, 2006, that recorded combined NO<sub>x</sub> emissions of 0.10 lb/mmBTU.
4. Respondent violated Condition 2.1.2.2. of Permit **APC-2003/0739-CONSTRUCTION (NSPS)** by exceeding the rolling 12-month emission limit of 12.2 tons of NO<sub>x</sub> beginning July 2006, and continuing monthly thereafter through January 2007.
5. Respondent violated Condition 2.1.2.2. of Permit **APC-2003/0739-OPERATION (NSPS)** by exceeding the NO<sub>x</sub> emission limit of 1.26 lbs/hr for the Main Stack when a CEMS installed in March 2007 and certification tested on March 28, 2007, showed the Main Stack's emission rate of NO<sub>x</sub> was 2.9 lbs/hr.
6. Respondent violated Condition 2.1.2.3. of Permit **APC-2003/0739-OPERATION (NSPS)** by exceeding the rolling 12-month emission limit of 12.2 tons of NO<sub>x</sub> beginning in February of 2007 and continuing through October of 2007.
7. The Department believes that Respondent's violations of 7 *Del. C.* § 6003(a)(1), Conditions 2.1.2.2. and 2.1.2.3. of Permit **APC-2003/0739-OPERATION (NSPS)** will continue to occur as long as Respondent operates its facility until such time as an amended operating permit is issued to reflect limits that are achievable.

### ***NOTICE OF CONCILIATION AND ORDER***

It is the desire of the Department that Respondent correct the current violations related to NO<sub>x</sub> emissions at its facility. Therefore, in consideration of the foregoing findings, notice is hereby given that it is proposed, pursuant to 7 *Del. C.* § 6005(b)(2), that Respondent can best achieve compliance by requesting an amendment of the NO<sub>x</sub> emission limits in Condition 2.1.2.2. and Condition 2.1.2.3. of Permit **APC-2003/0739-OPERATION(NSPS)**. Respondent submitted such an application on or about November 5, 2007. The application requests that the

NO<sub>x</sub> emission limits set forth in Condition 2.1.2.2. be changed from 1.26 lbs/hr to 6.3 lbs/hr on a 3 hour rolling basis and Condition 2.1.2.3 be changed from 12.2 tons per 12 month rolling period to 22 tons per 12 month rolling period. Within 2 weeks after the date of issuance of this Notice and Order, the Department will advertise the permit application as required by law. The public notice will indicate that the Department is allowing a time period of 30 days for the public to submit comments to the Department and that it will not take action on this matter prior to the expiration of the public comment period. The Department will provide Respondent with copies of any public comments it receives and Respondent shall have 7 days from its receipt from the Department of any public comments to provide the Department with its response, if any, thereto. Within 10 days of expiration of either the 7 day period for Respondent to respond to any public comment, or, if no public comments are received within the 10 day public comment period, the Department intends to issue the amended permit.

### ***ASSESSMENT OF PENALTY***

Pursuant to the provisions of 7 *Del. C.* § 6005(b)(3), this is written notice to Respondent that on the basis of its findings, the Department is assessing Respondent an administrative penalty for the violations identified in this Assessment and Order and costs according to 7 *Del. C.* § 6005(c). According to this conciliation order and penalty assessment, the Respondent shall pay an administrative penalty in the amount of \$50,000 to the Department, undertake the Environmental Improvement Project at a cost of \$200,000 and reimburse the Department for costs as described in the attached Waiver. The Environmental Improvement Project is intended to reduce NO<sub>x</sub> and other toxic particle pollutants and consists of donating \$200,000 to a fund to provide for reimbursement for diesel retrofit projects. Respondent shall pay the administrative penalty and costs and complete the Environment Improvement Project within 30 days of the date this Order becomes final.

### ***PUBLIC HEARING***

This Notice of Conciliation and Administrative Penalty Assessment Order shall become effective and final unless the Department receives from Respondent, no later than 30 days from the receipt of this Notice, a written request for a public hearing on these matters as provided in 7 *Del. C.* § 6005(b)(3) and (c). In the event Respondent requests a hearing, the Department reserves the right to withdraw this Assessment and Order and take additional enforcement actions regarding these and other violations at Respondent's facility, including but not limited to, the imposition of civil penalties and recovery of the Department's costs and attorney's fees. The Department does not otherwise intend to convene a public hearing on these matters, but reserves the right to do so at its discretion.

### ***PRE-PAYMENT***

Respondent may pay the administrative penalty of \$50,000 and the Department's estimated costs in the amount of \$7,500 and undertake the Environmental Improvement Project in the amount of \$200,000 in the manner described in the attached waiver. By doing so, Respondent waives its right to a hearing and the opportunity to appeal or contest the Assessment which shall become a final Order.

If you have any questions, please contact Paul Foster at (302) 323-4542.

\_\_\_\_\_  
Date

/S/\_\_\_\_\_  
(David S. Small for)  
John A. Hughes, Secretary

## ***WAIVER OF STATUTORY RIGHT TO A HEARING***

**E.I. du Pont de Nemours & Company, Inc.** hereby waives its right to a hearing and its opportunity to appeal or contest this Notice of Conciliation and Administrative Penalty Assessment Order and agrees to the following:

1. **E.I. du Pont de Nemours & Company, Inc.** will pay the administrative penalty in the amount of \$50,000 by sending a check payable to the “State of Delaware” within 30 days of receipt of this Assessment and Order. The check shall be directed to Valerie S. Csizmadia, Deputy Attorney General, Department of Justice, 102 W. Water Street—3<sup>rd</sup> Floor, Dover, DE 19904; and

2. **E.I. du Pont de Nemours & Company, Inc.** will undertake the Environmental Improvement Project in the form of paying a \$200,000 cash contribution to the Department’s reimbursement program for diesel retrofit projects to reduce NO<sub>x</sub> and other toxic particle pollutants by sending a check payable to the “State of Delaware” within 30 days of receipt of this Assessment and Order. The check shall be directed to Valerie S. Csizmadia, Deputy Attorney General, Department of Justice, 102 W. Water Street—3<sup>rd</sup> Floor, Dover, DE 19904; and

3. **E.I. du Pont de Nemours & Company, Inc.** will reimburse the Department in the amount of \$7,500, which represents the Department’s estimated costs. The reimbursement shall be paid within 30 days of receipt of this Assessment and Order. The check shall be made payable to the “State of Delaware” and be directed to Valerie S. Csizmadia, Deputy Attorney General, Department of Justice, 102 W. Water Street—3<sup>rd</sup> Floor, Dover, DE 19904.

4. **E.I. du Pont de Nemours & Company, Inc.** further agrees to abide by all of the terms and conditions set out in this Notice, Order and Assessment.

**E.I. du Pont de Nemours & Company, Inc.**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

xc: Valerie S. Csizmadia, Deputy Attorney General  
James D. Werner, Director  
Ali Mirzakhali, P.E., Program Administrator  
Paul E. Foster, P.E., Program Manager  
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