



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

RICHARDSON & ROBBINS BUILDING
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE
(302) 739-9000

**NOTICE OF ADMINISTRATIVE PENALTY ASSESSMENT
AND SECRETARY'S ORDER**

Pursuant to *7 Del. C. § 6005*

Order No. 2022-A-0017

*PERSONALLY SERVED BY AN ENVIRONMENTAL
PROTECTION OFFICER*

Issued To:

DuPont Nutrition USA, Inc. – Newark Site
Attn: Gregory Sherman
Plant Manager
1301 Ogletown Road
Newark, DE, 19711

Registered Agent:

The Corporation Trust Company
Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801

This Assessment and Secretary's Order serves to notify DuPont Nutrition USA, Inc. ("Respondent") that the Secretary of the Department of Natural Resources and Environmental Control ("Department") has found Respondent in violation of *7 Del. C. Chapter 60*, state air regulations and its permit. Accordingly, the Department is issuing this Notice of Administrative Penalty Assessment and Secretary's Order pursuant to *7 Del. C. §6005(b)(3)*.

BACKGROUND

Respondent owns and operates a facility located at 1301 Ogletown Road in Newark, Delaware, ("Facility") where it manufactures microcrystalline cellulose ("MCC") and cellulose derivatives for use in food, pharmaceutical, and industrial applications.

The facility receives paper pulp from specialized manufacturing companies. The pulp is chopped and placed into special reactors where it is mixed with water and hydrochloric acid to make a slurry that is then washed, passed through vacuum filters and then through spray dryers from which it exits as MCC. Some of Respondent's emission units are individually permitted by the Department's Division of Air Quality ("DAQ") pursuant to 7 DE Admin. Code 1102 ("Regulation 1102"). However, because all of its emission units collectively have the potential to emit carbon monoxide ("CO") and nitrogen oxides ("NO_x") at levels that subject Respondent to 7 DE Admin. Code 1130, also known as the Title V State Operating Permit Program, Respondent's Facility operations have been governed by a Title V permit since 1999. At the time of the violations addressed by this Order, Respondent was operating under Title V **Permit: AQM-003/00051-Renewal (3)-Revision (9)** issued November 22, 2017 ("TV Permit"). The Title V permit does not replace or cancel the Regulation 1102 permits, which remain in effect.

On June 28, 2018, the Department received an application from the Facility for a Regulation 1102 construction permit to authorize replacement of the EP-310 Barr & Murphy spray dryer's ("spray dryer") natural gas fired burner. The burner was last replaced in 2014 but having experienced reliability issues, Respondent wanted to replace it with a new, low NO_x design. Regulation 1102 **Permit: APC-2019/0001-CONSTRUCTION(NO_xRACT)** was issued May 6, 2019, that authorized the burner replacement. Following completion of the replacement and after a successful inspection, Regulation 1102 **Permit: APC-1992/0259-OPERATION (Amendment 2)(NO_xRACT)** was issued on November 14, 2019, ("Barr & Murphy Spray Dryer Regulation 1102 Amendment 2 Permit") that authorized use of the new burner as well as set forth emission limits, for the first time, for total hydrocarbons ("THC"), sulfur dioxide ("SO₂"), CO, and NO_x. The Barr & Murphy Spray Dryer Regulation 1102 Amendment 2 Permit required that Respondent stack test the unit no later than February 10, 2020, to demonstrate compliance with the permitted emission limits.

On January 22, 2020, Respondent conducted stack testing of the spray dryer and it was quickly apparent the unit was not in compliance with the permitted emission limit of 6.22 lbs./hr. for CO and 0.37 lb./hr. for THC. Both CO and THC emissions were so high they exceeded the testing company's instrumentation/calibration gas and therefore had to be estimated. The CO emissions were estimated to be 17 lbs./hr. and THC emissions were estimated to be 19 lbs./hr. The spray dryer was immediately shutdown for investigation into the cause.

Respondent conducted another stack test of the spray dryer on January 28, 2020, and submitted the certified test report to the Department on February 26, 2020, alleging the spray dryer demonstrated compliance with all the permitted emission limits. However, a later review by the Department of the report showed, that while CO was shown to be in compliance with the permitted limits, Respondent had failed to report results for THC. Instead, Respondent reported results for Total Non-Methane Hydrocarbons ("TNMHC" a type of "VOC"). The Department was able to use raw data from the testing to calculate the THC results and determined that THC emissions still exceeded permitted limits, with an emission rate of 0.41 lb./hr. The Department met with Respondent virtually on September 1, 2020, to inform it of its findings. Despite knowing the spray dryer was not operating in compliance with the permitted THC emission limits, Respondent continued to operate the spray dryer in full production until October 27, 2020, when pretesting for a third stack test showed again, non-compliant THC emissions. From then until the spray dryer was shut down completely on November 11, 2020, Respondent intermittently operated the spray dryer for an additional 42 hours for troubleshooting purposes only.

Respondent's investigation concluded that the burner could not meet the permit requirement which was based on the information provided in the Company's permit application received on June 28, 2018, and on EPA's AP-42, Table 1.4-2 "Natural Gas Combustion" for boilers. The burner manufacturer does not specify THC emissions and in cases like this the Department has typically used EPA's AP-42 for boiler combustion to set emission limits for spray dryer burners. The Department did not receive any comments from the Company in this matter when the permit was processed and issued on November 14, 2019. As a result of this determination, on November 12, 2020, Respondent submitted a Regulation 1102 permit

application to increase the THC emissions for the spray dryer and **Permit: APC-1992/0259-OPERATION (Amendment 3)(NO_xRACT)** was issued on December 1, 2020 (“Barr & Murphy Spray Dryer Regulation 1102 Amendment 3 Permit”) that authorized an increase in THC emissions from 0.37 lb./hr. and 1.62 tons per twelve (12) month rolling period to 1.38 lbs./hr. and 6.05 tons per twelve (12) month rolling period. This change was appropriate because the initial permit limit was calculated using an emission factor for boilers. The stack testing of the unit demonstrated that the assumption that a boiler was an appropriate surrogate for the spray dryer was incorrect. The new limit is based on stack test data from the unit. The permit also required stack testing of the spray dryer be conducted no later than March 21, 2021.

During pretesting of the spray dryer on February 3, 2021, CO emissions exceeded permitted limits. While this was not an official test and is not considered a violation, the Department had concerns about the ability of the spray dryer to be operated in compliance with permitted emission limits. Therefore, the Department requested, and Respondent submitted, a Compliance Schedule and Monitoring Plan for the spray dryer. The Department judged the submittal to be satisfactory on March 19, 2021. In the meantime, Respondent conducted the stack testing on March 2, 2021, witnessed by the Department, and submitted the report to the Department on March 16, 2021, which indicated the spray dryer was in compliance with all of its permitted emission limits. The report was reviewed and approved by the Department on August 6, 2021. The requirements of Barr & Murphy Spray Dryer Regulation 1102 Amendment 3 Permit and the Compliance Schedule and Monitoring Plan were incorporated into Respondent’s Title V **Permit: AQM-003/00051 (Renewal 4)** issued July 16, 2021.

FINDINGS OF FACT

1. Respondent owns and operates a facility located at 1301 Ogletown Road in Newark, Delaware, (“Facility”) where it manufactures microcrystalline cellulose (“MCC”) and cellulose derivatives for use in food, pharmaceutical, and industrial applications.

2. Some of Respondent's emission units are individually permitted pursuant to Regulation 1102. However, because all of its emission units collectively have the potential to emit carbon monoxide ("CO") and nitrogen oxides ("NO_x") at levels that subject Respondent to 7 DE Admin. Code 1130, Respondent's Facility operations have also been governed by a Title V permit since 1999.
3. Respondent submitted a Regulation 1102 construction permit application on June 28, 2018, to replace the EP-310 Barr & Murphy spray dryer's ("spray dryer") natural gas fired burner which was subsequently authorized by Regulation 1102 **Permit: APC-2019/0001-CONSTRUCTION(NO_xRACT)** issued on May 6, 2019.
4. Following completion of the burner replacement and a successful inspection, Regulation 1102 **Permit: APC-1992/0259-OPERATION (Amendment 2)(NO_xRACT)** was issued on November 14, 2019, authorizing use of the new burner as well as setting forth, for the first time, emission limits for THC, SO₂, CO, and NO_x. The permit further required that Respondent stack test the unit no later than February 10, 2020, to demonstrate compliance with the permitted emission limits.
5. On January 22, 2020, Respondent conducted stack testing of the spray dryer that showed CO and THC emissions so high that they exceeded the testing company's instrumentation/calibration gas and therefore had to be estimated at 17 lbs./hr. and 19 lbs./hr. respectively. The permitted emission limits for CO and THC were 6.22 lbs./hr. and 0.37 lb./hr., respectively. The spray dryer was immediately shutdown for investigation into the cause.
6. Respondent conducted another stack test of the spray dryer on January 28, 2020, and submitted the certified test report to the Department on February 26, 2020, alleging the spray dryer demonstrated compliance with all the permitted emission limits.
7. A subsequent review by the Department of the report showed that Respondent had failed to report results for THC as required by the stack test protocol. Instead,

- Respondent reported compliant results for Total Non-Methane Hydrocarbons (“TNMHC” a type of “VOC”).
8. The Department used raw data from the January 28, 2020, stack test to calculate the THC results and determined that THC emissions still exceeded permitted limits with an emission rate of 0.41 lb./hr.
 9. On September 1, 2020, the Department informed Respondent of its failure to report stack test results for THC for the spray dryer as well as the results of the Department’s calculations using the raw data that showed the spray dryer was not in compliance with the permitted THC emission limit.
 10. Despite knowing the spray dryer was not in compliance with the permitted THC emission limit, Respondent continued to operate the spray dryer until November 11, 2020.
 11. Respondent’s investigation concluded that the burner could not meet the permit emission limit for THC and on November 12, 2020, submitted a Regulation 1102 permit application to increase the THC emissions for the spray dryer from 0.37 lb./hr. and 1.62 tons per twelve (12) month rolling period to 1.38 lbs./hr. and 6.05 tons per twelve (12) month rolling period. The new permit limit was based upon an achievable emission rate as demonstrated by the stack test.
 12. The increased THC emission limit was authorized in Regulation 1102 **Permit: APC-1992/0259-OPERATION (Amendment 3)(NO_xRACT)** issued on December 1, 2020. This permit required stack testing of the spray dryer be conducted no later than March 21, 2021.
 13. Respondent conducted stack testing of the spray dryer on March 2, 2021, and results submitted March 16, 2021, indicated the spray dryer was in compliance with all of its permitted emission limits.

14. A Notice of Violation (“NOV”) dated April 3, 2020, was issued to Respondent on April 13, 2020, for the violations associated with excess CO and THC emissions resulting from the January 22, 2020, stack test of the spray dryer.

15. A Notice of Violation (“NOV”) dated May 21, 2021, was issued to Respondent on May 25, 2021, for the violations associated with the January 28, 2020, stack test of the spray dryer, including the failure to test for THC, as required by the stack test protocol, and the excess THC emissions, as calculated by the Department using raw stack test data.

STATUTORY, REGULATORY AND PERMIT PROVISIONS

1. In Condition 2.1.2 of **Permit: APC-1992/0259-OPERATION (NO_x RACT)(Amendment 02)**, it states:
“CO emissions shall not exceed 6.22 pounds per hour and 27.25 tons per twelve (12) month rolling period;”

2. In Condition 2.1.4 of **Permit: APC-1992/0259-OPERATION (NO_x RACT)(Amendment 02)**, it states:
“THC emissions shall not exceed 0.37pound per hour and 1.62 tons per twelve (12) month rolling period;”

3. In Condition 4.1 of **Permit: APC-1992/0259-OPERATION (NO_x RACT)(Amendment 02)**, it states in part:
“Compliance with Conditions 2.1.1, NO_x emissions, 2.1.2 CO emissions, 2.1.3 PM emissions and 2.1.4 THC emissions shall be based on stack testing in accordance with a protocol approved by the Department.”

4. In Condition 4.1.4.2.3 and Condition 4.1.4.2.4 of **Permit: APC-1992/0259-OPERATION (NO_x RACT)(Amendment 02)**, it states:
“The final report of the results must meet the following requirements to be considered valid: Summary of Results and Statement of Compliance or Non-Compliance: The owner or operator shall supplement the report from the emissions testing firm with a summary of results that includes the following information: [s]ummary of results with respect to each permit condition; [s]tatement of compliance or non-compliance with each permit condition.”

CONCLUSION

Based on the above, the Department has concluded that Respondent committed the following violations:

1. Respondent is found to be in violation of the hourly CO emission limit of 6.22 lbs./hr. for the spray dryer set forth in Condition 2.1.2 of **Permit: APC-1992/0259-OPERATION (NOx RACT)(Amendment 02)**, when stack testing conducted on January 22, 2020, resulted in an estimated emission rate of 17 lbs./hr.
2. Respondent is found to be in violation of the hourly THC emission limit of 0.37 lb./hr. for the spray dryer set forth in Condition 2.1.2 of **Permit: APC-1992/0259-OPERATION (NOx RACT)(Amendment 02)**, when stack testing conducted on January 22, 2020, resulted in an estimated emission rate of 19 lbs./hr.
3. For the failure to test for THC per the stack test protocol and report results for THC for the January 28, 2020 spray dryer stack test, Respondent is found to be in violation of Condition 4.1; Condition 4.1.4.2.3 and Condition 4.1.4.2.4 of **Permit: APC-1992/0259-OPERATION (NOx RACT)(Amendment 02)**.
4. Respondent is found to be in violation of the hourly THC emission limit of 0.37 lb./hr. for the spray dryer set forth in Condition 2.1.2 of **Permit: APC-1992/0259-OPERATION (NOx RACT)(Amendment 02)**, when Department calculations using raw data from the January 28, 2020, stack test, showed an emission rate of 0.41 lb./hr.

ASSESSMENT OF PENALTY

Pursuant to 7 Del. C. § 6005(b)(3), the Secretary may impose an administrative penalty of not more than \$10,000 for each day of violation detailed in this Order. In assessing the administrative penalty, 7 Del. C. § 6005(b)(3) instructs the Secretary to consider the following factors: (1) the nature, circumstances, extent, and gravity of each violation of the violation, or

violations; (2) the ability of the violator to pay; (3) any prior history of such violations; (4) the degree of culpability; (5) the economic benefit or savings (if any) resulting from each violation; and (6) such other matters as justice may require. A brief discussion of these factors is set out below.

Having considered these factors, an administrative penalty of \$99,740 is assessed for the violations identified in this Order.

1. The Nature, Circumstances, Extent and Gravity of the Violation, or Violations:

The nature, circumstances, extent and gravity of the violations are significant. Violations involving THC's, which include VOC's, contribute to New Castle County's non-attainment for ozone precursors. THC emissions exceeded the original permit limit from January 22, 2020, until the spray dryer was taken out of service on November 11, 2020. The permit limit was raised by permit amendment issued on December 1, 2020, at the request of the Respondent. Other than on January 22, 2020, none of the recorded THC values during this period exceeded the new final permit limit. Therefore, a higher penalty assessment was not warranted.

2. Respondent's Ability to Pay:

The record contains no information that the Respondent does not have the ability to pay the administrative penalty assessed. Furthermore, the size and nature of Respondent's operations indicate Respondent has the ability to pay the administrative penalty imposed and that the penalty is sufficient to deter Respondent from future violations.

3. Prior History of Violations:

The Respondent's Barr & Murphy spray dryer has failed two stack tests and they have cancelled two prescheduled stack tests based on pretesting, all within thirteen months. A moderate penalty was assessed however, because the Respondent's other three spray dryers have been successfully tested on their five-year cycles with no violations.

4. Degree of Culpability:

The Respondent did not test for, or report, results on the air pollutant specified in both their permit and their own stack test protocol submitted to the Department. The Department was not notified of the change and spent significant engineering effort reviewing the raw data to determine whether the Respondent was in compliance. After the Respondent was notified by the Department of the failed stack test, the Respondent continued to operate the spray dryer in production for 2 months. A significant penalty was assessed based on the Respondent's decision to disregard their permit and testing protocol without notification to the Department, thereby substantially interfering with the determination of the source's compliance.

5. Economic Benefit or Savings Resulting from the Violation(s):

Respondent incurred a significant economic benefit in finished good sales by operating the spray dryer in full production for 9 months after the second failed stack test of January 28, 2020. A significant penalty was assessed for this matter based on the economic benefit in the profit on finished good sales.

6. Such Other Matters as Justice May Require:

Lastly, considering such other matters as justice may require, the Secretary has determined that the penalty assessed is proportional to the violations and calculated so as to deter Respondent and those similarly situated from engaging in future violations.

Therefore, 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 of \$99,740 for the violations identified in this Assessment and Order.

Respondent shall submit a check to the Department in the amount of \$99,740 to pay the penalty within 30 days from the receipt of this Assessment and Order. The check shall be made payable to the "State of Delaware" and shall be directed to: Valerie S. Edge, Deputy Attorney General, Department of Justice, Environmental Unit, 102 W. Water Street, Dover, Delaware 19904.

The Department reserves the right to take additional enforcement actions regarding these and other violations by Respondent, including but not limited to one or more of the following: an action under the authority vested in the Secretary by *7 Del. C.* Chapter 60 and *7 DE Admin. Code* 1100 to revoke Respondent's air quality permit(s) for the State of Delaware, an action under *7 Del. C.* §6005(b)(1) seeking penalties for past violations, an action under *7 Del. C.* §6005(b)(2) seeking penalties for continuing violations, an action in the Court of Chancery pursuant to *7 Del. C.* §6005(b)(2) seeking a temporary restraining order or an injunction, and the imposition of civil penalties and recovery of the Department's costs and attorney's fees pursuant to *7 Del. C.* §§6005(b)(3) & (c)(1).

PUBLIC HEARING AND APPEAL RIGHTS

This Assessment and Order is effective and final upon receipt by Respondent. Pursuant to *7 Del. C.* §6008, any person whose interest is substantially affected by this action of the Secretary may appeal to the Environmental Appeals Board within 20 days of the receipt of the Assessment and Order. In the alternative, Respondent may, pursuant to *7 Del. C.* §6005(b)(3), request a public hearing on the penalty assessment and Order, within 30 days of receipt of the Assessment and Order. A hearing would be conducted pursuant to *7 Del. C.* §6006, and the Secretary's Order following the hearing would be subject to appeal, pursuant to *7 Del. C.* §6008, by any person substantially affected.

To submit an appeal to the Environmental Appeals Board, there is a \$50.00 filing fee, with a check made payable to the: "Environmental Appeals Board" and sent to:

Department of Natural Resources and Environmental Control
Office of the Secretary
Attn: Assistant to the Environmental Appeals Board
89 Kings Highway
Dover, DE 19901
Phone: (302) 739-9000

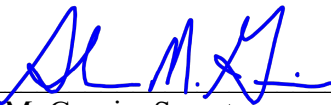
If you want a hearing and opportunity to contest this Assessment and Order, you must submit your request, in writing, within 30 days of receipt of this Assessment and Order to:

Department of Natural Resources and Environmental Control
Office of the Secretary
89 Kings Highway
Dover, DE 19901
Phone: (302) 739-9000

Respondent may waive its right to request a hearing or to file an appeal by signing the waiver attached herein and prepaying the penalty. If no hearing is requested or appeal filed as described above and the administrative penalty of \$99,740 is not paid within the time frame above, DNREC may immediately take action to collect the above amount.

9/8/22

Date


Shawn M. Garvin, Secretary
Department of Natural Resources
and Environmental Control

cc: Valerie S. Edge, Deputy Attorney General
Angela Marconi, P.E., Director

WAIVER OF STATUTORY RIGHT TO A HEARING

DuPont Nutrition USA, Inc. – Newark Site hereby waives its right to a hearing and its opportunity to appeal or contest this Assessment and Order and agrees to the following:

DuPont Nutrition USA, Inc. – Newark Site will pay the administrative penalty in the amount of \$99,740 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. Edge, Deputy Attorney General, Department of Justice, 102 W. Water Street, Dover, DE 19904; and

DuPont Nutrition USA, Inc. – Newark Site

Date: _____

By: _____

Title: _____