



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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July 6, 2023

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
#7019 2280 0001 9799 9342

Andrew M. Girvin
Plant Manager
AdvanSix Resins and Chemicals LLC – Hopewell Plant
905 E. Randolph Road,
Hopewell, VA 23860

NOTICE OF VIOLATION

RE: NOV No. APRO001965-005
AdvanSix Resins and Chemicals LLC – Hopewell Plant
Registration #: 50232

Dear Mr. Girvin:

This letter notifies you of information upon which the Department of Environmental Quality (“Department” or “DEQ”) may rely in order to institute an administrative or judicial enforcement action. Based on this information, DEQ has reason to believe that AdvanSix Resins and Chemicals LLC (AdvanSix) – Hopewell Plant (Facility) may be in violation of the Air Pollution Control Law and Regulations.

This letter addresses conditions at the Facility named above and cites compliance requirements of the Air Pollution Control Law and Regulations. Pursuant to Va. Code § 10.1-1309 (A) (vi), this letter is not a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq.* The Department requests that you respond **within 10 days of the date of this letter** to arrange a prompt meeting.

OBSERVATIONS AND LEGAL REQUIREMENTS

AdvanSix owns and operates a chemical manufacturing facility located at 905 E. Randolph Road, Hopewell, Virginia. The Facility is subject to Title V Permit (Permit) dated July 30 2020 and a minor New Source Review (NSR) Permit (NSR-1) dated September 8, 2022. DEQ staff conducted a Partial Compliance Evaluation (PCE) following a National Response Center (NRC) Release Report on March 29, 2023 (Report No. 1363018). The following describes the staff's factual observations and identifies the applicable legal requirements:

1. **Observation:** The March 29, 2023, report submitted to the Department states that, due to a malfunction, nitrogen oxides (NOx) emissions from the ammonium nitrate tower (TW-2) were not controlled by the selective catalytic reduction (SCR) system from 02:18 to 08:30 on March 24, 2023. The malfunction follow-up report submitted to the Department dated April 7, 2023, shows that there were (17) instances where the SCR system did not meet the minimum NOx removal efficiency of 95%. The NOx removal efficiencies related to this malfunction are as follows:

Hour	Removal Efficiency (%)
March 23, 2023	
18:00	94
19:00	86
20:00	78
21:00	70
22:00	62
23:00	53
March 24, 2023	
00:00	47
01:00	43
02:00	42
03:00	36
04:00	25
05:00	16
06:00	18
07:00	24
08:00	26
09:00	49
10:00	74

Legal Requirements:

- Condition 74 of the Permit states, the permittee shall operate two (one for each tower) SCR systems for the control of NOx emissions from the ammonium nitrite and hydroxylamine diammonium sulfonate towers of either "A" train (TW-2 and TW-62), "B" train (TW-8 and TW-9) or "C" train (TW-17 and TW-18). Each of the SCR systems shall achieve a NOx

removal efficiency of at least 95% (Condition #86 of the 2/19/2015 NSR Permit and 9VAC5-80-110).

2. **Observation:** An excess emission of NO_x from TW-2 was reported at 13:03 on March 24, 2023. The written report submitted to the Department dated March 29, 2023, states that 817 lbs of NO_x were released from 19:30 on March 23 to 08:30 on March 24, 2023. This amount was later revised in the malfunction follow-up report submitted to the Department on April 7, 2023. It states that 782 lbs of NO_x were released from 19:30 on March 23 to 08:30 on March 24, 2023. The corresponding 3-hour average NO_x emission rates are as follows:

Hour	NO _x Emission Rate (lb/hr)
March 23, 2023	
21:00	54.2
22:00	68.4
23:00	82.4
March 24, 2023	
00:00	90.6
01:00	99.1
02:00	107.1
03:00	124.6
04:00	143.3
05:00	149.8
06:00	140.8
07:00	127.4
08:00	122.1
09:00	82.9

Legal Requirements:

- Condition 97 of the Permit states, NO_x emissions from the operation of the ammonium nitrite and hydroxylamine diammonium sulfonate towers shall not exceed the limits specified below. Annual emissions shall be calculated monthly as the sum of each previous consecutive 12-month period. Phases 1-5 shall be defined as specified in Condition #96 [TW-2 has completed Phase 5].

...

Hourly	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Emissions ³ (lb/hr)					
A: TW-2	781.0	781.0 ¹	781.0 ¹	47.0	47.0

...

(Condition #108 of the 2/19/2015 NSR Permit and 9VAC5-80-110)

Permit Condition 97 Footnote 3: Unless otherwise allowed by (1) any United States Environmental Protection Agency Consent Decree entered to resolve the Notices of Violation issued to the permittee on March 10, 2009 and August 21, 2010, (2) the provisions of

9VAC5-20-180 or (3) approved by the Piedmont Regional Office, the permittee shall demonstrate compliance with hourly emission limits of this condition at all times, including periods of startup, shutdown or malfunction.

- Condition 154 of the NSR-1 states, NOx emissions from the operation of the ammonium nitrite and hydroxylamine diammonium sulfonate towers shall not exceed the limits specified below. Annual emissions shall be calculated monthly as the sum of each previous consecutive 12-month period.

	Hourly Emissions ¹ (lb/hr)	Annual Emissions (tons/yr)
A: TW-2	47.0	117

Permit condition 154 Footnote 1: In accordance with the United States Environmental Protection Agency Consent Decree dated July 18, 2013 and entered to resolve the Notices of Violation issued to the permittee on March 10, 2009 and August 21, 2010, hourly emission limits listed above for each tower in the “A” train, “B” train, “C” train, and “E” train processes do not apply during startup. The short-term emission limits during startup for these eight towers is 200 lb/hr per tower. Startup shall mean, with respect to any nitrite tower, the period of time beginning when the feed of ammonia to the ammonia oxidation system commences, and shall mean, with respect to any disulfonate tower, the period of time when the feed of sulfur to the sulfur burning system commences, and in either case, lasting for no more than 12 consecutive hours, during which the tower has an elevated rate of NOx emissions.

(9VAC5-80-1180 and 9VAC5-50-260)”

ENFORCEMENT AUTHORITY

Va. Code § 10.1-1316 of the Air Pollution Control Law provides for an injunction for any violation of the Air Pollution Control Law, the Air Board regulations, an order, or permit condition, and provides for a civil penalty up to \$32,500 per day of each violation of the Air Pollution Control Law, regulation, order, or permit condition. In addition, Va. Code §§ 10.1-1307 and 10.1-1309 authorizes the Air Pollution Control Board to issue orders to any person to comply with the Air Pollution Control Law and regulations, including the imposition of a civil penalty for violations of up to \$100,000. Also, Va. Code § 10.1-1186 authorizes the Director of DEQ to issue special orders to any person to comply with the Air Pollution Control Law and regulations. Va. Code §§ 10.1-1320 and 10.1-1309.1 provide for other additional penalties.

FUTURE ACTIONS

DEQ staff wishes to discuss all aspects of their observations with you, including any actions needed to ensure compliance with state law and regulations, any relevant or related measures you plan to take or have taken, and a schedule, as needed, for further activities. In addition, please advise us if you

dispute any of the observations recited herein or if there is other information of which DEQ should be aware. To avoid adversarial enforcement proceedings, AdvanSix Resins and Chemicals LLC may be asked to enter a Consent Order with the Department to formalize a plan and schedule of corrective action and to settle any outstanding issues regarding this matter, including the assessment of civil charges.

If discussions with staff do not lead to a satisfactory conclusion concerning the contents of this letter, you may elect to participate in DEQ's Process for Early Dispute Resolution. Also, if informal discussions do not lead to a satisfactory conclusion, you may request in writing that DEQ take all necessary steps to issue a final decision or fact finding under the APA on whether a violation has occurred. For further information on the Process for Early Dispute Resolution, please visit Virginia's Townhall website:

(https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\440\GDoc_DEQ_2672_v1.pdf) or ask the DEQ contact listed below.

Please contact Melanie Davenport at (804) 698-4038 or melanie.davenport@deq.virginia.gov **within 10 days** of the date of this letter to discuss this matter and arrange a meeting.

Sincerely,



David Robinett
Air Compliance Manager

Attachments:

March 29, 2023, DEQ Inspection Report (Report Not Otherwise Classified)

April 10, 2023, DEQ inspection Report (Surveillance/File Review)

Ec: Case File
Edward Rinehart (DEQ)
Melanie Davenport (DEQ)