



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE

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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Michael P. Murphy
Regional Director

STATE AIR POLLUTION CONTROL BOARD ENFORCEMENT ACTION - ORDER BY CONSENT ISSUED TO

**ADVANSIX RESINS & CHEMICALS LLC
FOR
ADVANSIX RESINS & CHEMICALS LLC, HOPEWELL SITE
Registration No. 50232**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code §§ 10.1-1309 and -1316, between the State Air Pollution Control Board and AdvanSix Resins & Chemicals LLC regarding the AdvanSix Resins & Chemicals LLC, Hopewell Site for the purpose of resolving certain violations of the Virginia Air Pollution Control Law and the applicable permit and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "AdvanSix" means AdvanSix Resins & Chemicals LLC, a limited liability company authorized to do business in Virginia and its members, affiliates, partners and subsidiaries. AdvanSix is a "person" within the meaning of Va. Code § 10.1-1300. AdvanSix was known as Honeywell Resins & Chemicals LLC prior to August 9, 2016.
2. "Board" means the State Air Pollution Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and -1301.
3. "CFR" means the Code of Federal Regulations, as incorporated into the Regulations.
4. "Consent Decree" means the judicial settlement between the Environmental Protection Agency, DEQ and Honeywell effective on July 18, 2013.

5. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
6. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
7. "Facility" means AdvanSix Resins & Chemicals LLC's Hopewell Plant, a chemical production facility located at 905 E. Randolph Road, Hopewell, Virginia. The Facility primarily produces caprolactam, a precursor chemical used in the production of nylon.
8. "Honeywell" means Honeywell Resins & Chemicals LLC, which changed its name to AdvanSix Resins & Chemicals LLC as of August 9, 2016.
9. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 10.1-1309.
10. "NSR Permit" means a New Source Review permit to operate a chemical production facility, which was issued under the Virginia Air Pollution Control Law and the Regulations to Honeywell on February 19, 2015.
11. "O&M" means operations and maintenance.
12. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the Virginia Air Pollution Control Law.
13. "PCE" means a partial compliance evaluation by DEQ staff.
14. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.
15. "Regulations" or "Regulations for the Control and Abatement of Air Pollution" mean 9 VAC 5 chapters 10 through 80.
16. "TV Permit" means the Title V Operating permit to operate a chemical production facility, which was issued under the Virginia Air Pollution Control Law and the Regulations to Honeywell on October 1, 2014.
17. "Va. Code" means the Code of Virginia (1950), as amended.
18. "VAC" means the Virginia Administrative Code.
19. "Virginia Air Pollution Control Law" means Chapter 13 (§ 10.1-1300 *et seq.*) of Title 10.1 of the Va. Code.
20. "VEE" means a Visible Emissions Evaluation, as determined by EPA Method 9 (*see* 40 CFR 60, Appendix A). This is also referred to as an opacity performance test.

SECTION C: Findings of Fact and Conclusions of Law

1. AdvanSix owns and operates the Facility. Caprolactam is one of the principal chemical products of the Facility.
2. The Facility is the subject of the TV Permit and the NSR Permit, which allow the operation of the Facility. It is also subject to the conditions of the Consent Decree.
3. The Facility contains an area where hydroxylamine diammonium sulfonate (“hydrox”) is produced, more commonly referred to as “Area 9”. Area 9 contains the following disulfonate towers, TW-9, TW-18, TW-23, TW-33 and TW-62.
4. On May 12 and 13, 2015, Honeywell conducted performance testing on TW-18 for SO₂ emissions at four different production rates. The test results were submitted to the DEQ on August 6, 2015. The results showed the following sulfur process and SO₂ emissions rates:
 - a. At the process rate of 14,500 lbs sulfur/hr the emissions rate was 3.77 lbs/hr SO₂.
 - b. At the process rate of 13,000 lbs sulfur/hr the emission rate was 3.54 lbs/hr SO₂.
 - c. At the process rate of 11,000 lbs sulfur/hr the emissions rate was 3.01 lbs/hr SO₂.
 - d. At the process rate of 9,000 lbs sulfur/hr the emissions rate was 0.72 lbs/hr SO₂.
Disulfonate tower TW-18 is subject to the Phase 3 emissions limit of 2.2 lbs/hr SO₂. Honeywell also submitted a letter dated September 24, 2015 stating that the SO₂ hourly emission limit was exceeded.
5. Conditions 112 of the NSR Permit and 101 of the TV Permit state, “Sulfur dioxide emissions from the operation of the 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 #107 (of the NSR Permit). (9 VAC 5-80-1180 and 9 VAC 5-50-260).” The applicable hourly emissions limit is listed in column Phase 3 of the chart below:

Hourly Emissions (lbs/hr)	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>	<u>Phase 5</u>
A: TW-62	9.7	9.7 ¹	9.7 ¹	2.2	2.2
B: TW-9	17.0	17.0 ¹	2.2 ¹	2.2	2.2
C: TW-18	1.7	2.2 ¹	2.2 ²	2.2	2.2
D: TW-23	1.7	1.7	1.7	1.7	2.2 ²
E: TW-33	2.1	2.1	2.1	2.1	2.1 ²

¹ NSR Permit Condition 107 states, “Phase 3 is defined as the period of time between the date the SCR systems referenced in Condition #87 continuously achieve a NOx removal efficiency of at least 95% and the date the SCR systems referenced in Condition #88 continuously achieve a NOx removal efficiency of at least 95%.” This time period exists between June 30, 2015 and June 30, 2017.

² Upon notification of the Director, Piedmont Regional Office, the permittee may elect to swap the order in which SCR systems are installed and emission limits are revised for “A”, “B” and “C” trains.

6. On December 3, 2015, DEQ issued NOV No. APRO000305-001 to Honeywell for the SO₂ emission violations described in paragraphs C.4. and C.5. and for other PM emission and stack test performance violations.
7. On January 7, 2016, DEQ met with representatives of Honeywell to discuss the violations noted in the NOV and potential corrective actions. During that meeting Honeywell agreed in principle to perform additional SO₂ stack testing and to implement a maintenance and repair plan to prevent future PM, PM-10 and PM-2.5 emission exceedances. This corrective action plan was received in writing by DEQ staff on January 11, 2016.
8. On February 5, 2016, DEQ staff received a letter from Honeywell detailing the corrective action items they had performed as agreed to in the January 7, 2016, meeting. They include:
 - a. Perform SO₂ emissions testing on Disulfonate tower numbers TW-62, TW-23 and TW-33. This was performed on February 3 and 4, 2016.
 - b. Verify the design and location of the scrubber pressure sensors for the other four Disulfonate towers. This was done and a schedule proposed to replace the sensors for A-Train (TW-62) during the fall of 2016 and B-Train (TW-9) although a firm date was not provided. The other gauges were already installed in a manner that would prevent flooding of their vacuum lines.
 - c. Confirm that Honeywell has a procedure or method to ensure gauge reliability and accuracy. They already have a maintenance procedure in place for periodic calibration and setpoint checks.
9. On March 4, 2016, DEQ received the stack test results from Honeywell's February 3 and 4, 2016 SO₂ performance test on the disulfonate towers on the A, D and E production trains, further identified as tower numbers TW-62, TW-23 and TW-33, respectively.
10. On March 4, 2016 and March 10, 2016, DEQ staff reviewed the stack test results from the testing on TW-62, TW-23 and TW-33 which indicated that the emissions rate of SO₂ were 0.31 lbs/hr, 0.19 lbs/hr, and 0.03 lbs/hr, respectively. The permitted SO₂ emission limits are 1.7 lbs/hr, 2.1 lbs/hr and 9.7 lbs/hr, respectively. See paragraph C.5.
11. Va. Code § 10.1-1322 states that failure to meet conditions of a permit is considered a violation of the Virginia Air Pollution Control Law.
12. 9 VAC 5-80-260 and 9 VAC 5-80-1210(I) require compliance with all terms and conditions of Title V operating permits and permits for stationary sources respectively.
13. Based on the results of the above mentioned inspections, meetings and submitted documentation, the Board concludes that Honeywell has violated conditions 112 of the NSR Permit and 101 of the TV Permit, Va. Code § 10.1-1322 and 9 VAC 5-80-260 and -1210 of the Virginia Air Pollution Control Law and Regulations as described above.

14. In order for AdvanSix to return to compliance, DEQ staff and representatives of AdvanSix have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 10.1-1309 and -1316, the Board orders AdvanSix, and AdvanSix agrees, to:

1. Perform the actions described in Appendix A of this Order; and
2. Pay a civil charge of \$26,843.00 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

AdvanSix shall include its Federal Employer Identification Number (FEIN) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF). If the Department has to refer collection of moneys due under this Order to the Department of Law, AdvanSix shall be liable for attorneys' fees of 30% of the amount outstanding.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of AdvanSix for good cause shown by AdvanSix, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, AdvanSix admits to the jurisdictional allegations, and agrees not to contest, but does not admit, the findings of fact, and conclusions of law in this Order.

4. AdvanSix consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. AdvanSix declares it has received fair and due process under the Administrative Process Act and the Virginia Air Pollution Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by AdvanSix to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority. AdvanSix does not waive any rights or objections it may have in any enforcement action by other federal, state, or local authorities arising out of the same or similar facts to those recited in this Order.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. AdvanSix shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. AdvanSix shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. AdvanSix shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
 - a. the reasons for the delay or noncompliance;
 - b. the projected duration of any such delay or noncompliance;
 - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
 - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert

will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

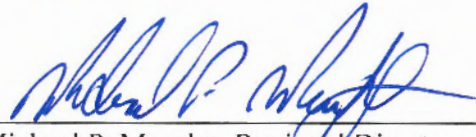
9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and AdvanSix. Nevertheless, AdvanSix agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after AdvanSix has completed all of the requirements of the Order;
 - b. AdvanSix petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to AdvanSix.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve AdvanSix from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by AdvanSix and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of AdvanSix certifies that he or she is a responsible official or officer authorized to enter into the terms and conditions of this Order and to execute and legally bind AdvanSix to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of AdvanSix.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.

15. By its signature below, AdvanSix voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 14th day of NOVEMBER, 2016.



Michael P. Murphy, Regional Director
Department of Environmental Quality

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AdvanSix Resins & Chemicals LLC voluntarily agrees to the issuance of this Order.

Date: 11/9/16 By: Fred Harry, Plant Manager
(Person) (Title)
AdvanSix Resins & Chemicals LLC

Commonwealth of Virginia

City/County of Hopewell

The foregoing document was signed and acknowledged before me this 9th day of November, 2016, by Fred Harry, who is Hopewell Plant Manager of AdvanSix Resins & Chemicals LLC, on behalf of the corporation.

Fredelda L. Toru
Notary Public

7649772

Registration No.

My commission expires: 12/31/2019

Notary seal:



APPENDIX A SCHEDULE OF COMPLIANCE

AdvanSix agrees to perform the following:

1. Within 60 days of the effective date of this Order, AdvanSix shall submit to DEQ for review and approval a corrective action plan ("CAP") regarding the parametric monitoring of the disulfonate tower mist eliminators located on A-Train tower TW-62, B-Train tower TW-9, C-Train tower TW-18, D-Train tower TW-23, and E-Train tower TW-33. Some of the monitoring parameters necessary to ensure compliance with particulate emissions limits include: new pressure differential instruments as needed, visual flow indicators on bottom flush nozzle supply lines to externally monitor flow to the spray nozzles, and sight glasses to visually observe the candles. The CAP shall include improvements implemented or planned for monitoring reliability, mist eliminator failure detection and nozzle reliability. At a minimum, the information provided shall include calibration schedules, parameter observation frequency, inspection schedule, recordkeeping and a spare parts inventory list.

DEQ Contact

Unless otherwise specified in this Order, AdvanSix shall submit all requirements of Appendix A of this Order to:

David Robinett
Enforcement Manager
VA DEQ – Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060
804-527-5128
804-527-5106 (fax)
david.robinett@deq.virginia.gov