



March 1, 2025

Advansix Hopewell Community Forum

Agenda

Our commitment to our communities continues



Hopewell AdvanSix Updates

- Community Partnership Spotlight: FOLAR



Special Topic: Protecting Air Quality

- Regulatory Framework
- Air Permitting
- Air Enforcement

Our Partnership with FOLAR

It all starts with...making a sustainable impact.

- The Friends of the Lower Appomattox River (FOLAR) is dedicated to building and improving the Appomattox River Trail and Park System to protect water, land and special places and foster environmental stewardship.
- AdvanSix is proud to be a sponsor for this program, with particular support for the shared use path to bike lanes and sidewalks in the Hopewell Section of the Appomattox River Trail.
- In the late fall, AdvanSix team members along with their extended family volunteered with the Friends of Lower Appomattox River for their monthly Stewardship Saturday program.
- Along with other community members and volunteers, we picked up trash from the riverside, cleared the trails, and removed invasive plant species that were crowding the viewsheds of the Appomattox River.



We'd love to see you on the trail!
Check out community events on the QR Code!



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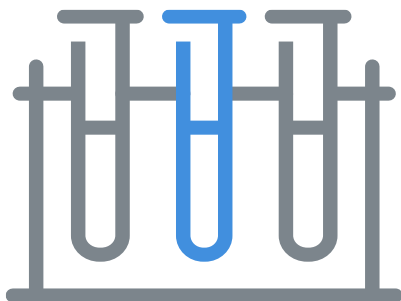
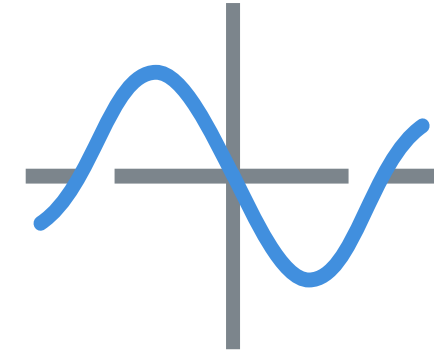
- Regulatory Framework
- Air Permitting
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Your Air is Protected by the Clean Air Act

Regulatory Framework and Protections

National Ambient Air Quality Standards (NAAQS)

- Controls common emissions from cars & trucks, powerplants, oil & gas production, factories, data centers, and more.
- EPA sets health-based standards to keep the air clean
- Air is monitored by Virginia DEQ & U.S. EPA.
- Standards are reviewed and revised every 5 years
- Individual plants must get air permits to ensure air quality can meet these standards

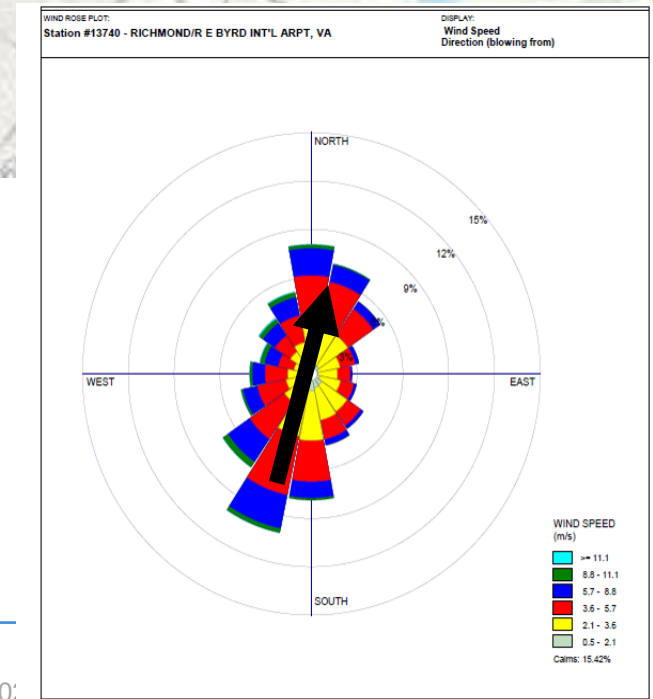
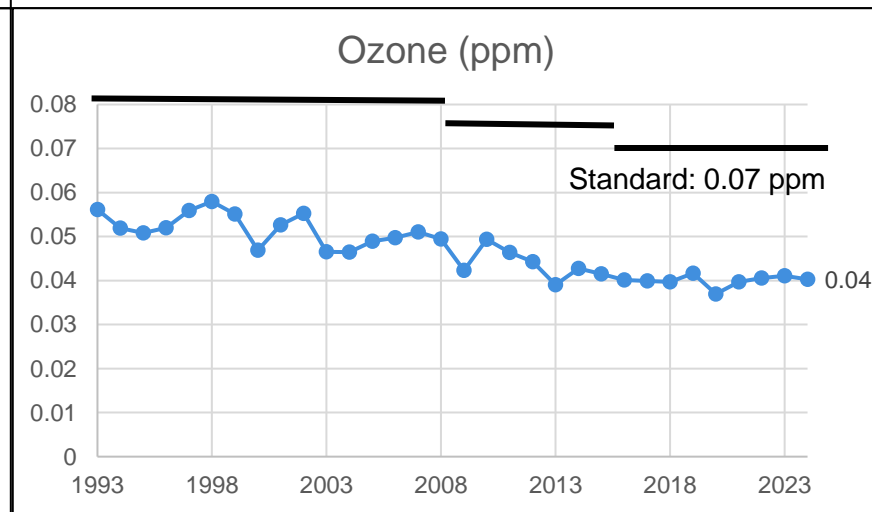
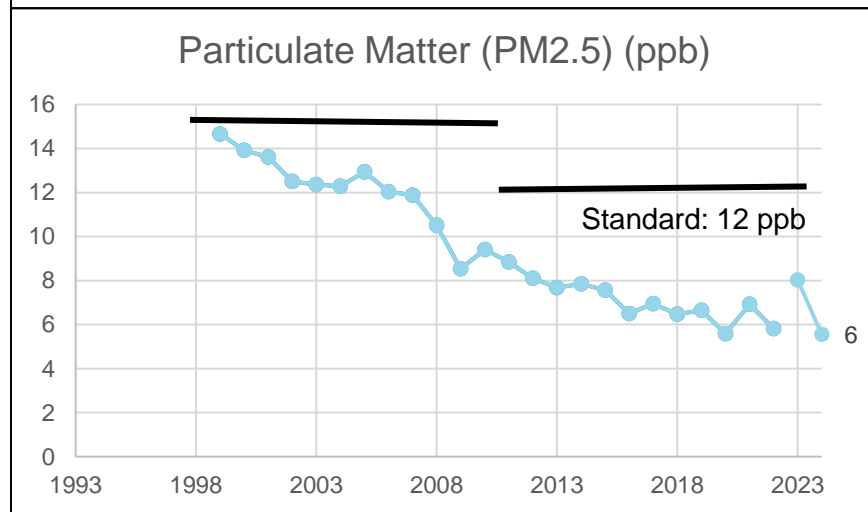
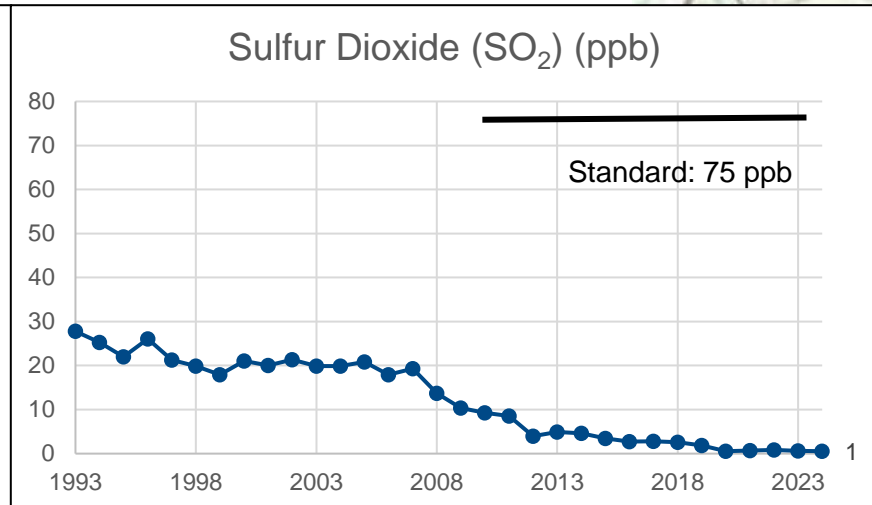
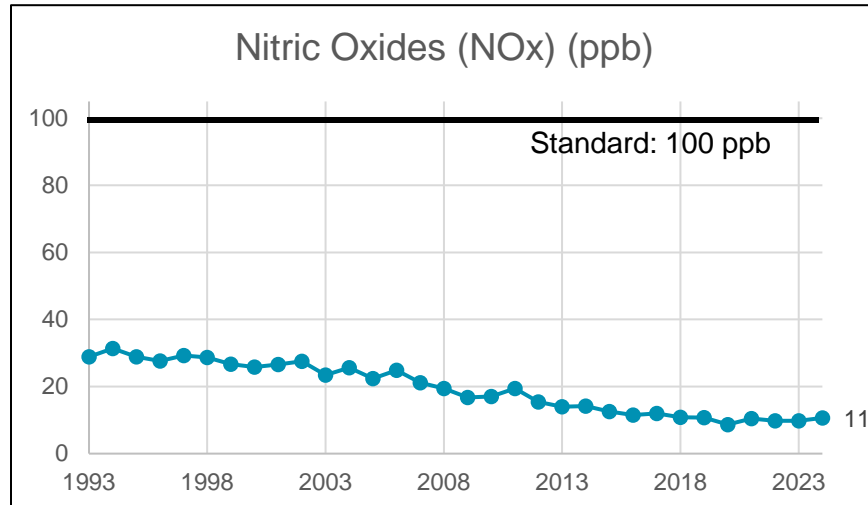


Maximum Achievable Control Technology (MACT)

- Controls emissions from more specific compounds like – Toluene, Benzene, Phenol
- Establishes specific standards (174 categories of industrial facilities) that are included in Title V Clean Air Permits
- Health based standards protect down to less than 1 in 1 million cancer risk
- Standards are reviewed and revised every 8 years as technologies and science progress

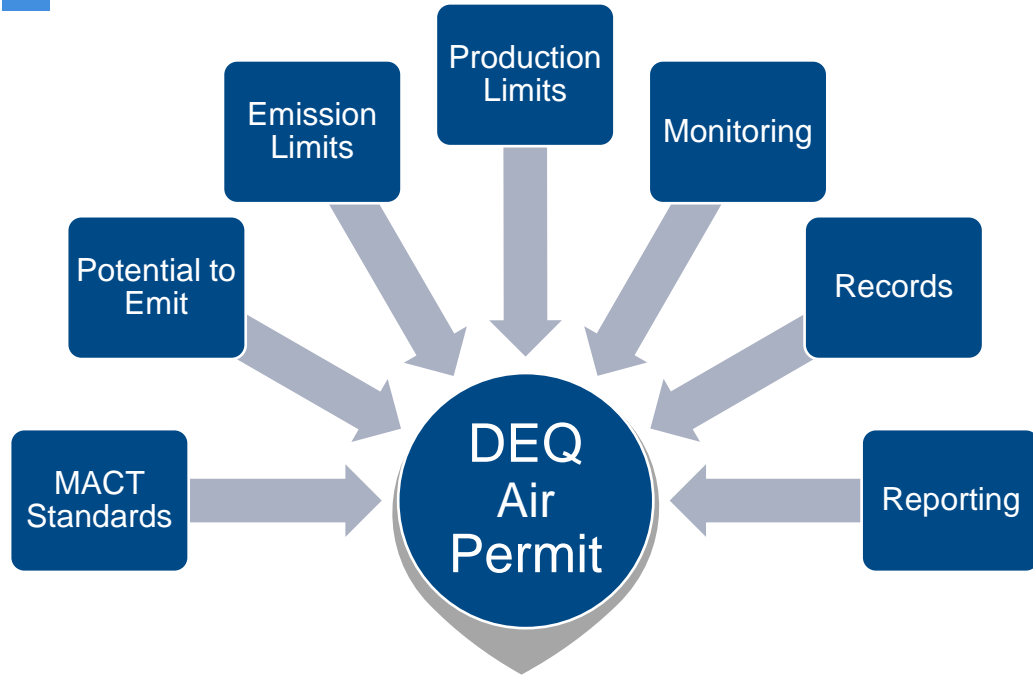
Regional Air Emissions (NAAQS)

Shirley Plantation Monitoring Station monitors across broad area



AdvanSix's Permits Protect Your Air

The Virginia DEQ has delegated authority from the U.S. EPA



Air Permitting Basics

- Goal = Protect air quality while allowing for investments
- Title V Permit includes all regulatory requirements in one place
- Monitoring, recordkeeping and reporting requirements established
- Permit requires renewal every 5 years

- **AdvanSix's Title V Clean Air permit is 249 pages long with 678 conditions**
- **It covers 180 units and 72 control devices**

How Does AdvanSix Ensure Compliance?

Responsible Care – Certified Health, Safety and Environmental Management System



Air Permit Management System Elements

- Proactive risk assessment process
- Compliance task lists
- **Emission control device performance**
- Standard operating procedures (SOPs) and training
- Internal inspection/auditing program
- External 3rd party certification of the management system
- Incident investigation and corrective actions to prevent reoccurrence
- Metrics to identify trends and address issues
- Monthly updates to executive team



- Continuous emission measurement (CEMS)
- Instrumentation for performance monitoring – all control devices
- Instrumentation calibration
- Electronic data collection and reporting systems
- Early warning and exceedance alarms
- Preventative maintenance and inspection program
- Spare parts inventory onsite

What About the Events in the News?

Enforcement is part of the regulatory process – we cooperate fully to resolve open issues

Compliance

- Requires Perfection
- Over 2.8 Million Compliance Points per Year
- 100% Uptime Expectation for Air Emission Control Equipment
- Leak Detection and Repair (LDAR) Program
- Self-Reporting Required plus DEQ inspections

Continuous Improvement Actions

- Enhanced interlocks for control equipment
- Investment in control equipment reliability
- Enhanced mechanical integrity inspections
- Continuous Emissions Monitoring System (CEMS) optimization
- LDAR program optimizations and training

Results

- 71% Reduction in total criteria pollutant emissions – sitewide since 2015
- 85% reduction in control equipment malfunctions since 2020
- 83% reduction in reportable LDAR events since 2020
- Goal is zero events

Oversight and Enforcement

- 98% identified by AdvanSix management systems and immediately reported to DEQ and addressed
- When a report is made, the DEQ takes action
- Events that may be community risks are immediately reported and managed through HENs and emergency process (LEPC)

Know the Facts – Richmond Times Dispatch Coverage

Understanding the regulatory landscape provides much needed context

Compliance Measurements

Over the course of eight years cited in the RTD article, AdvanSix had more than 14 million compliance measurements.

Out of **14 million**, there were 66 violations cited:

- **Approximately 90%** were self-identified, self-reported to DEQ and quickly remediated by the company.
- **Approximately 70%** resulted in no emissions or discharges to environment.
- **More than half** were recordkeeping, monitoring or reporting issues; AdvanSix commissions periodic independent third-party audits to help ensure its compliance.



- We take great pride in the safety of our community as a Responsible Care® company. Keeping employees and communities safe is a critical priority for the chemical industry.
- Our environmental management system is designed to help us comply with over 2.8 million annual compliance measurements (monitoring, reporting, inspections, uptime) and includes routine audits.
- Items uncovered during internal and independent third-party audits are promptly self-reported to regulators and remediated quickly.

With All These Protections, What Are You Actually Seeing?

Most of what you see is water vapor



Example – Heating water on the stove



Vapors are impacted by the weather

- Temperature
- Humidity

Example – Typical Cooling Tower Operation

News Stories Can Be Misleading...

Most of what you see is water vapor



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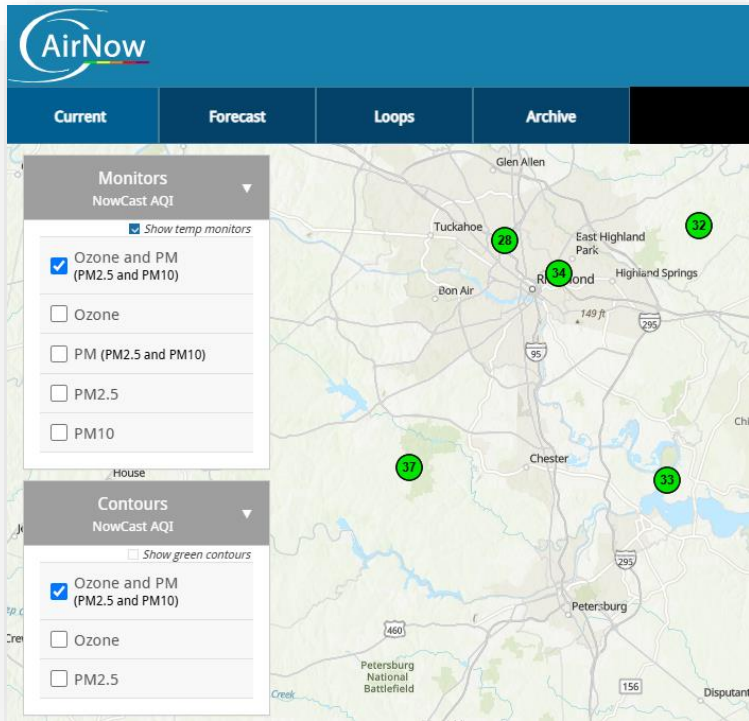


Picture of Cooling Tower Operation used in News Stories

Air Emissions

Continuous Monitoring Data Available

DEQ Regional Data Source

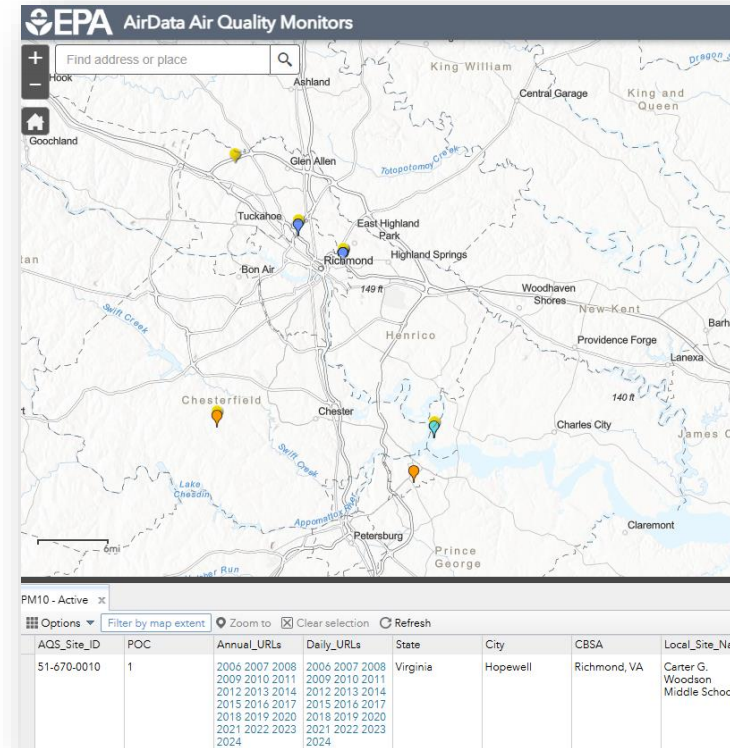


DEQ AirNow



AirNow VA

EPA Public Data Source



AirData
Air Quality
Monitors



Thank you for coming!