

U.S. EPA Region 4 Regulatory Update

***Carolinas Air Pollution Control Association Meeting
Virtual***

April 8, 2021

**Caroline Y. Freeman
Director, Air & Radiation Division
U.S. Environmental Protection Agency, Region 4
Atlanta, GA**



Today's Topics

Administrative Updates

Air Program Update

- Air Quality Improvements
- Progress on NAAQS and Haze Implementation
- Clean Air Act Regulatory and Policy Activity
- Voluntary Activities

Questions





Leadership Changes at NCDEQ and SCDHEC



**NC DEQ Secretary
Dionne Delli-Gatti
Confirmed in February 2021**



**SC DHEC Director
Dr. Edward Simmer, MD, MPH, DFAPA
Confirmed in February 2021**



New EPA Administrator

- From North Carolina!!!



Michael S. Regan
Administrator
U.S. EPA

- Sworn in as EPA Administrator on March 21, 2021
- Native of Goldsboro, NC
- Served as Secretary of NC DEQ
- Associate Vice President of U.S. Climate and Energy, and Southeast Regional Director of the Environmental Defense Fund
- Began his environmental career at U.S. EPA



Senior Management Transition at R4



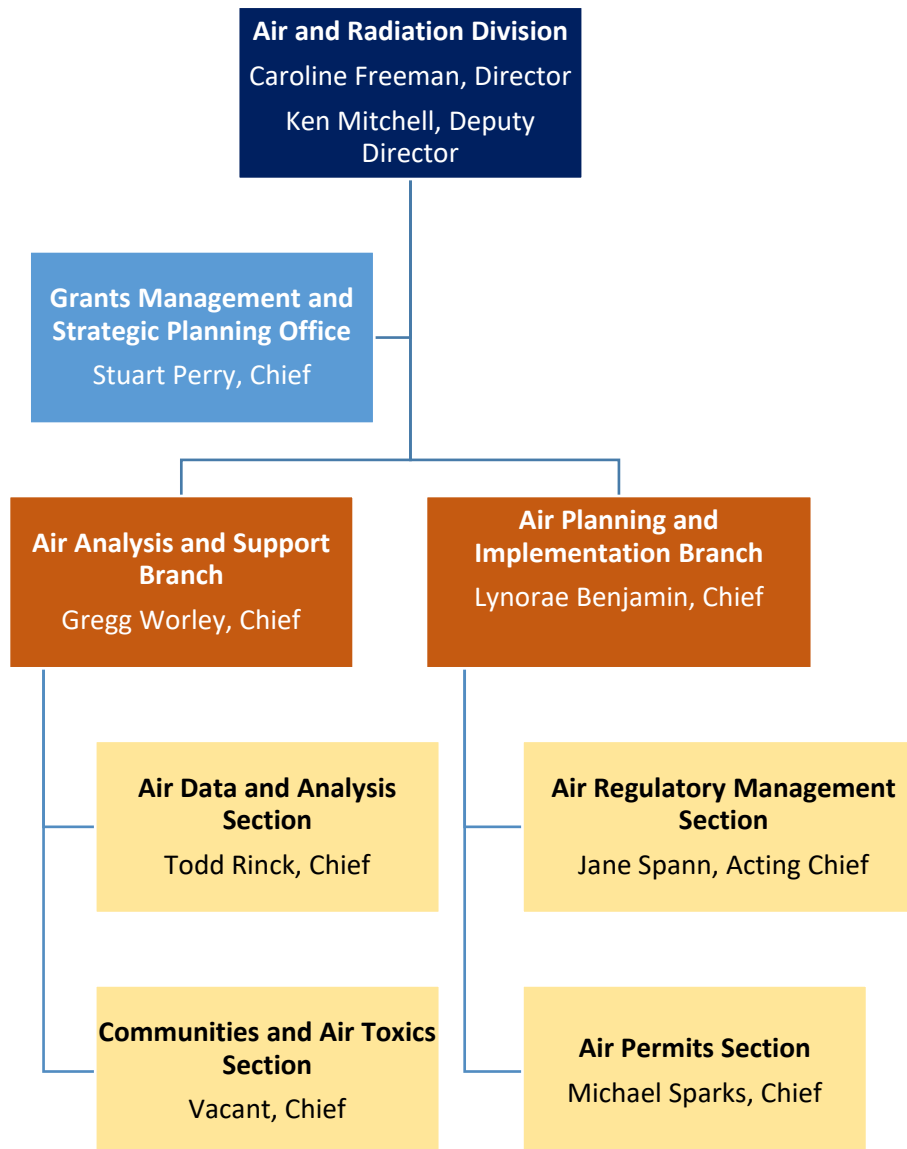
John Blevins
Acting Regional Administrator
EPA Region 4



Carol Monell
Acting Deputy
Regional Administrator
EPA Region 4



Changes in R4's Air and Radiation Division





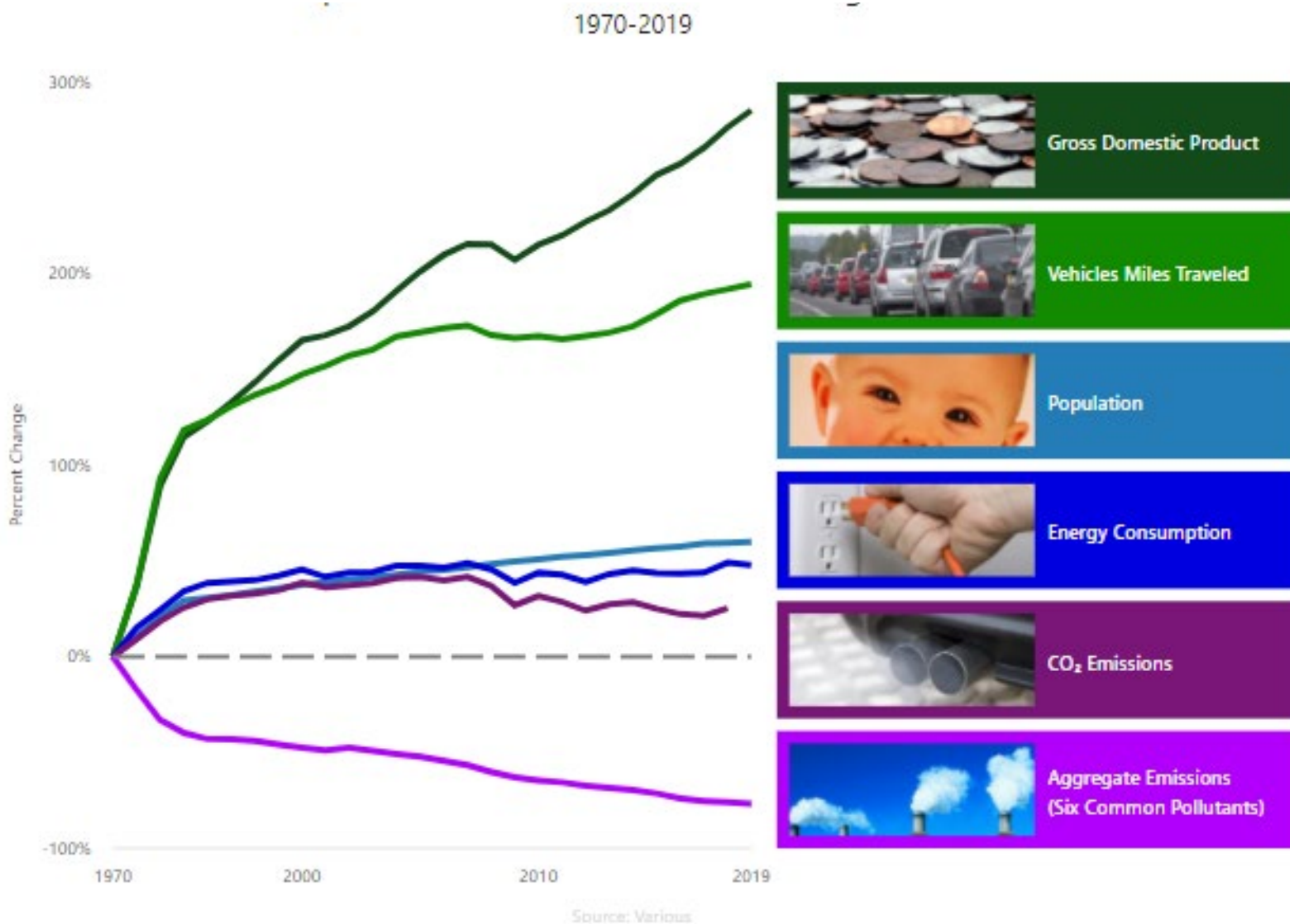
Some EPA Focus Areas – National and R4

Region 4 is working with its stakeholders to implement the regulatory requirements of the Clean Air Act and to look for risk reduction opportunities through voluntary efforts.

- NAAQS, SIPs, and Regional Haze
- MACT Risk and Technology Reviews (RTR)
- 129 Rules
- Landfills
- Ethylene Oxide (EtO)
- PFAS
- MM2A
- NSR and Title V



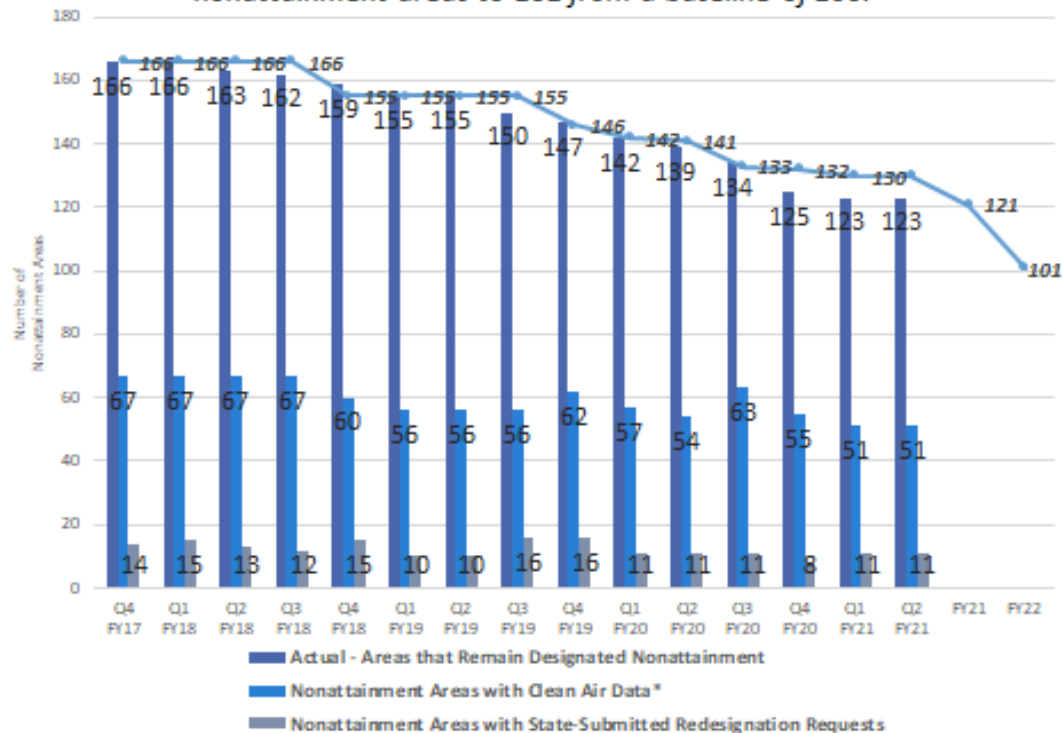
Comparison of Growth vs Emissions



EPA National Designations

Reducing Number of Nonattainment Areas

Goal: By September 30, 2022, EPA, in close collaboration with states, will reduce the number of nonattainment areas to 101 from a baseline of 166.

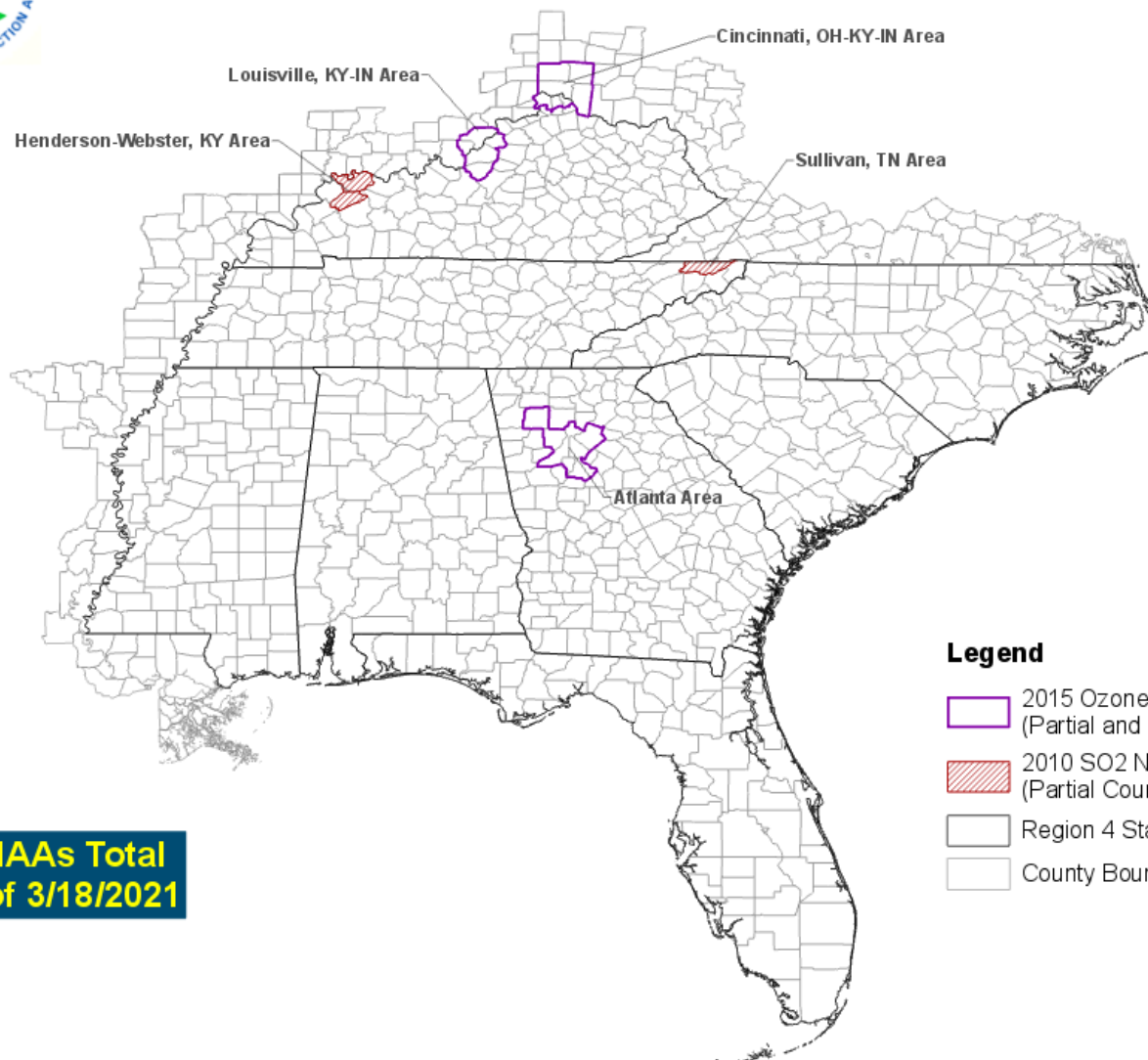


*Clean air data is a key step to redesignation to attainment, which can occur once an area's air quality attains the federal standard.









Current R4 Nonattainment Areas (all NAAQS Pollutants)



**5 NAAs Total
as of 3/18/2021**

Legend

-  2015 Ozone NAAQS Current NAA (Partial and Whole Counties)
-  2010 SO₂ NAAQS Current NAA (Partial Counties)
-  Region 4 State Boundary
-  County Boundary



NAAQS Reviews

NAAQS Reviews Status

(February 2021)

	Ozone	Lead	Primary NO ₂	Primary SO ₂	Secondary (Ecological) NO ₂ , SO ₂ , PM ¹	PM ²	CO
Last Review Completed (final rule signed)	Dec 2020	Sept 2016	April 2018	Feb 2019	Mar 2012	Dec 2020	Aug 2011
Recent or Upcoming Major Milestone(s)	<u>TBD</u> ⁴	<u>July 2020</u> Call for Information	<u>TBD</u> ⁴	<u>TBD</u> ⁴	<u>2021</u> Draft PA with REA Appendices ³	<u>TBD</u> ⁴	<u>TBD</u> ⁴

¹ Combined secondary (ecological effects only) review of NO₂, SO₂, and PM

² Combined primary and secondary (non-ecological effects) review of PM

³ REA – Risk and Exposure Assessment; PA – Policy Assessment

⁴ TBD = To be determined



2010 SO₂ Designations Process

Round 1: Completed August 2013 – EPA Region 4 designated 5 areas nonattainment based on existing monitors violating the standard*

Round 2: Completed June 30 and November 29, 2016
– EPA designated 65 areas in 24 states based on air dispersion modeling and 2013-2015 violating monitors (6 areas designated in Region 4)

Round 3: Completed December 21, 2017 and March 28, 2018 – EPA completed an additional round of designations for all remaining undesignated areas except where states have deployed new monitoring networks by January 1, 2017 if executed under the SO₂ Data Requirements Rule (DRR); one new area was designated nonattainment

Round 4: Signed on December 21, 2020 (re-signed on March 10, 2021) – EPA completed the final round of designations for 44 areas in 21 states (based on 2017-2019 monitoring data).

Rounds 1-4

EPA currently has two areas designated as nonattainment in two states in Region 4



Regional Haze Updates

9/11/18: EPA Releases Regional Haze Reform Roadmap to Continue Improving Visibility and Reduce Regulatory Burdens

12/20/18: Regional Haze Technical Guidance was issued

8/20/19: Guidance on Regional Haze State Implementation Plans (SIPs) for the Second Implementation Period issued

9/19/19: EPA released updated 2028 Visibility Modeling and associated Technical Support Document (TSD)

10/28 – 10/30/19: EPA hosted Regional Haze Workshop in St. Louis, MO

7/31/2021: Second Implementation Period SIPs due



Recent Risk and Technology Review (RTR) Rules

- RTR combines an evaluation of both risk and technology review subsequent to original maximum achievable control technology (MACT) standard
- Proposed RTRs published in FY21; court ordered deadline to finalize is 11/1/21 (no RTRs finalized in 2021 to date)

<u>Generic MACT II - Cyanide Chemicals Manufacturing</u>	01/15/2021
<u>Generic MACT II - Carbon Black Production</u>	01/14/2021
<u>Refractory Products Manufacturing</u>	01/14/2021
<u>Flexible Polyurethane Foam Fabrication Operations</u>	01/11/2021
<u>Mercury Emissions from Mercury Cell Chlor-Alkali Plants</u>	01/08/2021
<u>Primary Magnesium Refining</u>	01/08/2021

<https://www.epa.gov/stationary-sources-air-pollution/risk-and-technology-review-national-emissions-standards-hazardous>
Team Lead: Katy Lusky - lusky.Kathleen@epa.gov



Proposed OSWI Amendments

8/31/2020: EPA proposed amendments to new source performance standards (NSPS) and emission guidelines (EG) for new and existing “other” solid waste incineration units (OSWI)

- Proposal amends standards for small OSWI units by:
 - Amending rule applicability provisions to recognize that some units previously subject to the Commercial and Industrial Solid Waste Incineration (CISWI) rule are OSWI units
 - Increasing testing and monitoring flexibilities so small units with rudimentary designs can demonstrate compliance with the OSWI rule
 - To address some issues that resulted in a voluntary remand of the 2005 OSWI rule, the Agency is also proposing to revise standards for small OSWI units based on data from representative units.
- EPA is proposing other minor amendments to the rule, including
 - The applicability of title V permitting for certain Air Curtain Incinerators
 - Revised regulatory provisions related to emissions during periods of startup, shutdown and malfunction
 - Provisions for electronic reporting of certain notifications and reports.



Affordable Clean Energy Rule (ACE)

- 1/19/21, D.C. Circuit vacated the Affordable Clean Energy (ACE) rule and remanded to the EPA for further proceedings consistent with its opinion
 - Vacates the timelines with the associated 40 CFR Part 60 Subpart Ba implementing regulations
- 2/12/21, EPA issued a memo clarifying that states are not expected to continue work on their ACE state plans and will not be expected to begin work again on the Clean Power Plan
 - https://www.epa.gov/sites/production/files/2021-02/documents/ace_letter_021121.doc_signed.pdf

<https://www.epa.gov/stationary-sources-air-pollution/affordable-clean-energy-rule>



Landfills – Recent Rulemakings

01/19/21: Portions of 40 CFR Part 60 Subpart Ba (implementing regulations) vacated by D.C. Circuit court in conjunction with ACE ruling

03/09/20: EPA issued notice of failure to submit 111(d) plans for existing landfills

- Applies to 42 states/territories, including all eight Region 4 states
- Five Region 4 states have submitted regulations for review by EPA; 1 state has submitted a final MSW State Plan

03/26/20: EPA finalized Amendments to the Landfill Emission Guidelines

EPA expects to promulgate the MSW Landfill Federal Plan in May 2021

<https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards>



Ethylene Oxide (EtO) Regulations

Commercial Sterilizers Rule (Part 63 Subpart O)

- **12/12/19** Advanced Notice of Proposed Rulemaking
 - Solicited nominations for representatives regarding small business concerns
 - Issued a CAA Section 114 Information questionnaire to 9 companies
- **06/05/20** Proposed ICR Expansion
 - EPA estimates that the new ICR will be issued soon (Spring 2021)
- EPA will evaluate this and other information (e.g., an upcoming risk analysis) to inform the future rulemaking



Ethylene Oxide Regulations (cont.)

MON Rule (Part 63 Subpart FFFF)

- **8/12/20** EPA final RTR amendments to the 2003 MON
 - Added requirements for EtO emissions from storage tanks, process vents and equipment leaks
 - Added monitoring and operational requirements for flares that control EtO emission
 - Corrects/clarifies regulatory provisions related to SSM emissions
 - Strengthens heat exchange system and equipment leak control requirements
- EPA estimates the finalized amendments will achieve reduced HAP emissions by 107 tons per year (tpy) from tanks and equipment leaks, including 0.76 tpy of EtO, and ~260 tpy of HAPs from flares

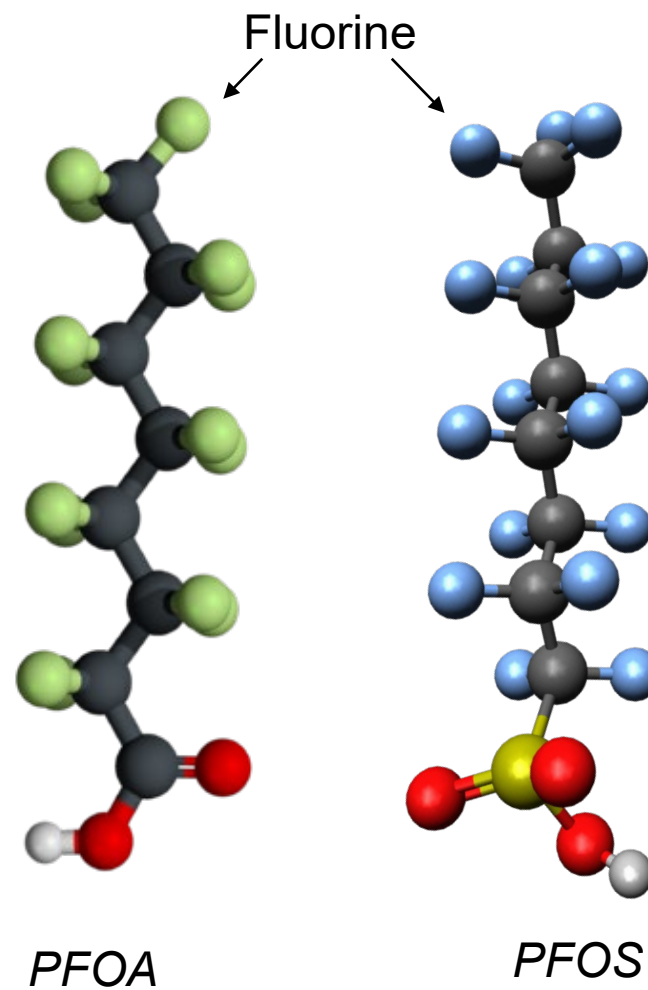


Ethylene Oxide Updates (cont.)

- **9/28/20** EPA announced the selection of 11 air toxics monitoring projects to receive \$5 million in funding under the agency's Community-Scale Air Toxics Ambient Monitoring grants program
- In R4, three recipients:
 - **SC DHEC:** \$261,128 for monitoring and characterizing concentrations of EtO in the North Charleston area, including in environmental justice communities
 - **GA EPD:** \$571,670 to evaluate new technology for measuring EtO and to continue the evaluation of ambient EtO concentrations in communities in the Atlanta metropolitan area
 - **Shelby County** Health Department Pollution Control Section: \$353,516 to evaluate low-cost equipment for measuring and analyzing VOC and SVOC air toxics compounds in the Memphis area

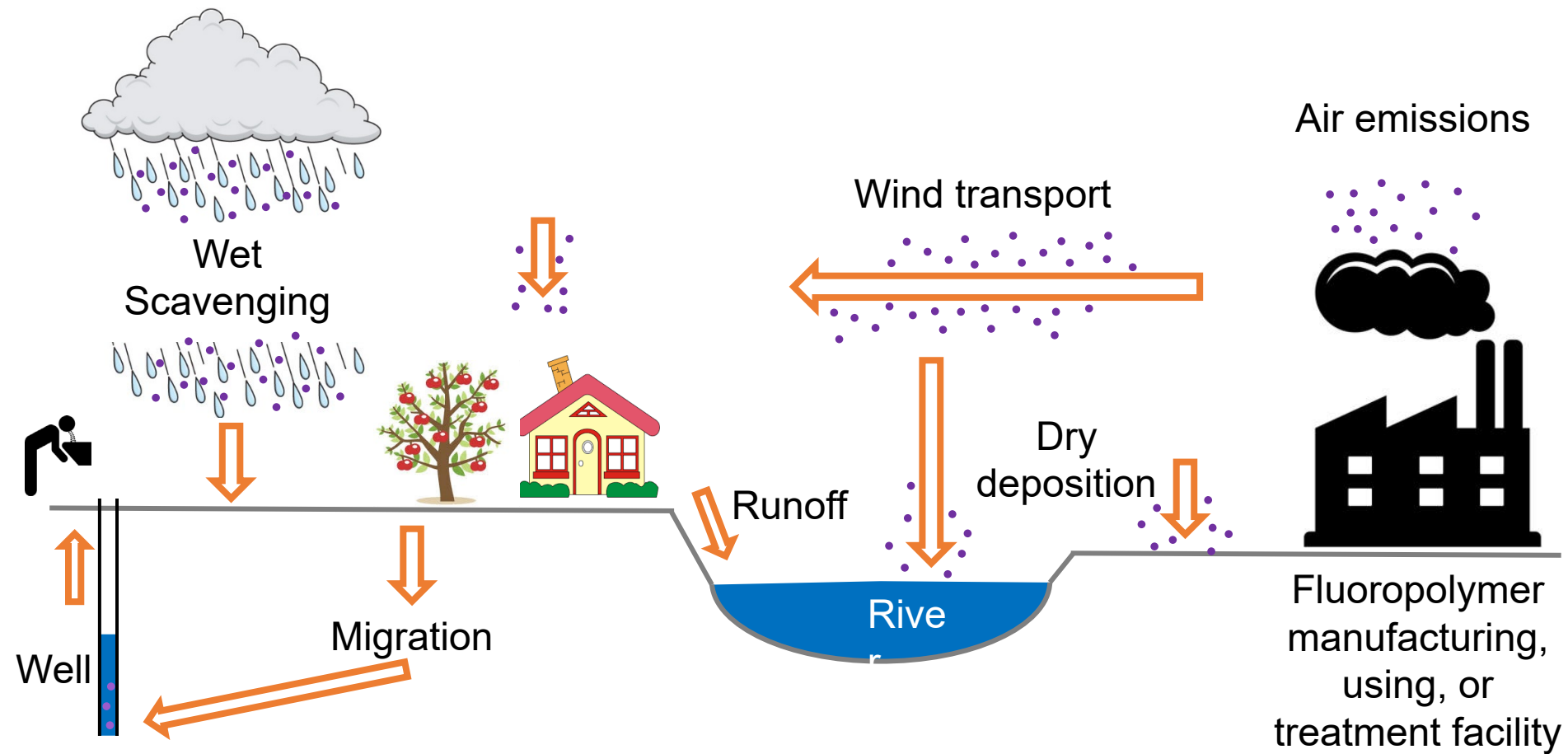
PFAS

- Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been in use since the 1940s, found in a wide array of consumer products and facilities
- Most people have been exposed to PFAS. Some PFAS chemicals can accumulate and can stay in the human body for long periods of time
- There is evidence that exposure to certain PFAS may lead to adverse health effects
- PFAS is an issue of high and growing concern for EPA stakeholders, and so EPA is committed to taking action to address public concerns





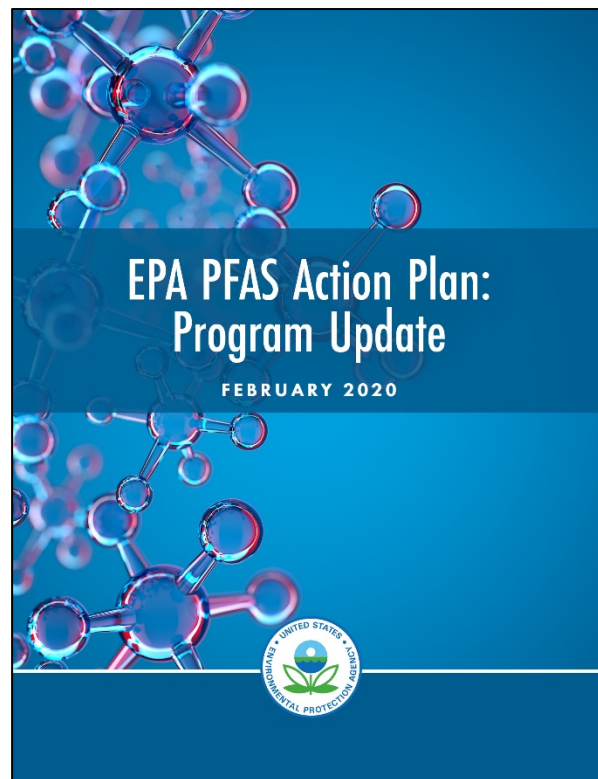
PFAS Can Be An Air Issue





EPA PFAS Air-Related R&D

- **Sampling and Analytical Methods** to detect, identify, quantify PFAS in emissions and ambient air
- **Fate and Transport** to evaluate air transport and deposition associated with air sources
 - Wet deposition measurements
 - Air dispersion and deposition modeling
- **Toxicity Assessment** (no inhalation assessments to date)
- **Treatment Technologies** (e.g., Incineration)



www.epa.gov/pfas

Important Paper: Results of EPA/NC DAQ study regarding the transport and deposition of PFAS air emissions from the Chemours facility in Fayetteville, NC, published on January 4, 2021. <https://pubs.acs.org/doi/10.1021/acs.est.0c06580>



§112 Major to Area Source Reclassification

Final Rule Signed 10/1/2020 - Effective 60 days after publication

- Implements the January 25, 2018 EPA memorandum which withdrew the 1995 Once-In-Always-In Policy (OIAI)
- Amends the National Emission Standards for Hazardous Air Pollutants (NESHAP) General Provisions
- Provides sources that have lowered HAP emissions to below major source thresholds the flexibility to reclassify to area source status



§112 Major to Area Source Reclassification

- Benefits reclassified sources due to reduced compliance burden
 - Exempts some reclassified sources from the requirement to obtain an operating permit under Title V of the CAA
 - Some of these sources possibly become subject to CAA section 112 area source requirements rather than major source requirements
- Encourages sources with emissions above major source thresholds to evaluate their operations and consider changes that can further reduce their HAP emissions to below the major source thresholds



Title V and NSR Permitting

- **Rulemakings and Guidance in Progress**
 - **Final Title V Petitions Process Rulemaking**
(published 2/5/2020)
 - Rule effective April 6, 2020
 - Provides mandatory content, format, and submission process
 - Clarifies the timing of EPA's 45-day review period and the citizen petition deadline under parallel review (105 days vs. 135 days used by Region 4)
 - Reaffirms that response to significant comments is mandatory
 - Region 4 will continue to calculate and post petition deadlines on our website

<https://www.epa.gov/nsr>



Title V and NSR Permitting

- **Electronic Permits System (EPS)**

- New system for EPA receipt and comment on State/local permits
- Went live for State and locals permitting authorities in March 2020
- Region 4 is providing training to our permitting agencies and will be working with those interested in connecting their database to EPS
- Includes an optional dashboard that permit authorities can use for public notices
- Has been piloted by several permit agencies and ECOS
- Ultimately will replace TOPS reporting and the BACT/LAER Clearinghouse



Title V and NSR Permitting

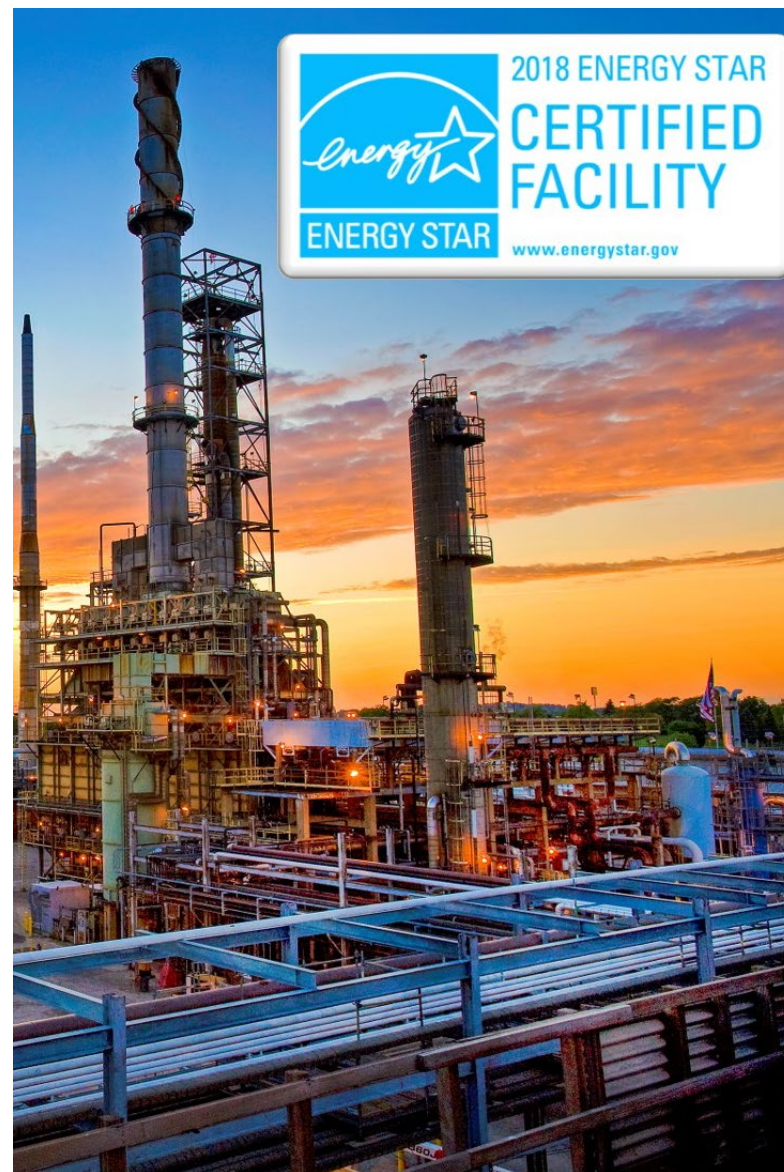
- **Electronic Permits System (continued)**

- Goal: standardize the air permitting review process and provide a data-driven framework for permit oversight
- EPA R4 ARD A3 project provides a plan to consistently identify and resolve recurring permit quality issues and identify opportunities to assist permitting authorities
- The scope includes permitting authorities with more than 20 title V sources and focuses on title V permitting oversight
- **Next Steps:** In the upcoming months, ARD will provide our R4 partners with a more detailed overview of the details of this project



Voluntary Programs and Successes

- Advance Program
- SEDC/STRIDE
- ENERGY STAR For Industry





Advance Program

The Advance Program promotes local actions in attainment areas to reduce ozone and/or fine particle pollution ($PM_{2.5}$) to help these areas continue to maintain the National Ambient Air Quality Standards (NAAQS).

Program Goals:

- Help attainment areas ensure continued health protection
- Better position areas to remain in attainment
- Efficiently direct available resources toward actions to address ozone and $PM_{2.5}$ problems quickly

Participants in Region 4

SC – entire state
Catawba Tribe, SC
Middle GA (including Robins Air Force Base)
Louisville, KY
Augusta, GA-SC
Cumberland County, NC (including Fort Bragg)
Charlotte, NC
NC – Entire State

<https://www.epa.gov/advance>
Contact: Kelly Sheckler
sheckler.kelly@epa.gov



SEDC/STRIDE

This year the Southeast Diesel Collaborative (SEDC) became The Southeastern Team Reducing the Impacts of Diesel Emissions (STRIDE) Collaborative

- Voluntary public/private partnership formed in 2006 (part of the National Clean Diesel Campaign), focused on clean diesel opportunities that incorporate Energy, the Environment and Economics
- Diverse Partners from government, industry, state/local groups with the goal of improving air quality and public health by reducing emissions from existing diesel engines
- Annual funding under the Diesel Emissions Reduction Act (DERA)
- The 15th Annual Partners Meeting was held in September virtually with over 175 participants



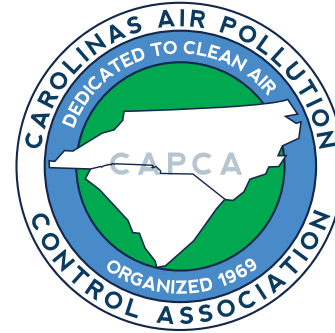
<https://stridecollaborative.org/>

Contact: Alan Powell
Powell.Alan@epa.gov



ENERGY STAR for Industry

- No cost strategic energy management
- Over 750 partner companies
- 30 Sector-specific industry initiatives
- Manufacturers of all sizes



Carolinas ENERGY STAR Award Winners:

- Atrium Health
- Food Lion
- Hanesbrands
- Lowe's Companies
- Nationwide Marketing Group
- Southern Energy Management

<https://www.energystar.gov/>

Questions?

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