



National SBEAP 2024 Annual Training Environmental Rule Updates

Chattanooga, TN

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Agenda

- ❑ Introduction to ALL4
- ❑ Change to PM_{2.5} NAAQS Standard
- ❑ AERR Rule Update
- ❑ PFAS Regulatory Updates
- ❑ Q & A



About ALL4

ALL4 consults on all matters of environmental, health, and safety (EHS), and other regulated areas. As a team of 200+ hands-on experts, we've spent decades helping organizations of all sizes and industries grow their businesses - in the face of complex regulations and changing business drivers.



Air Quality



Environmental,
Health &
Safety

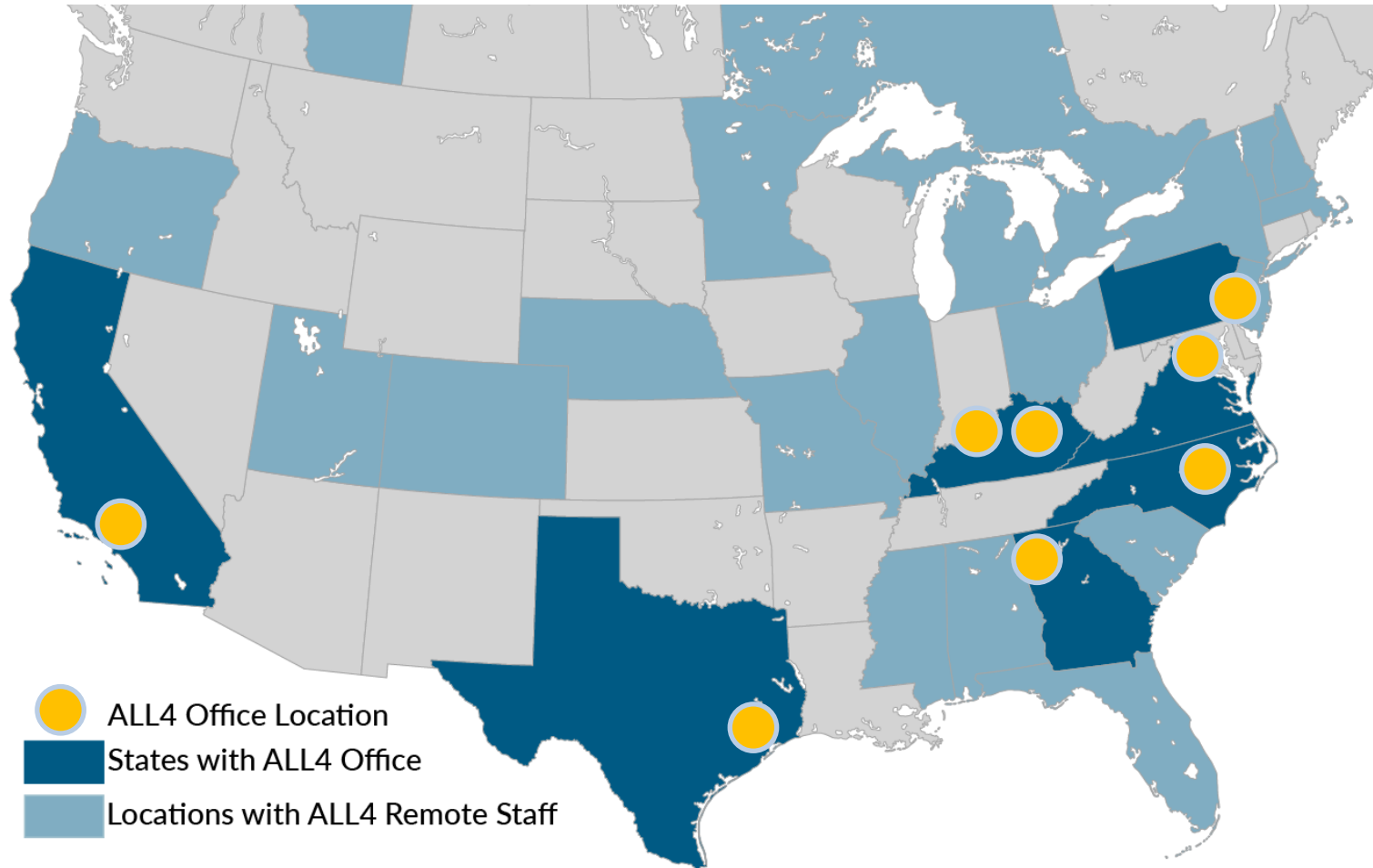


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Overview of change to PM_{2.5} NAAQs Standard

PM_{2.5} NAAQS Annual Standard

- ❑ On February 7, 2024, USEPA announced the annual PM_{2.5} NAAQS will be lowered from 12 µg/m³ to 9 µg/m³.
- ❑ A prepublication version of the rule was signed by USEPA Administrator Michael Regan on February 5th and was published in the Federal Register (FR) on March 6.
- ❑ The final rule will become effective 60 days after the rule was published in the FR.
- ❑ Once the rule takes effect (May 2024), the 2-year clock starts for states to make (and USEPA to approve) annual PM_{2.5} attainment designations.



PM_{2.5} NAAQS Monitoring Data

- ❑ Ambient monitoring data is used to designate attainment areas.
- ❑ 3-year average of data is used.
- ❑ We currently have 2020-2022 data.
- ❑ USEPA will likely rely on 2021-2023 data for the rule.
- ❑ 2023 data won't be certified until May 2024.
- ❑ 4th quarter 2023 data will be posted on March 31st.
- ❑ Nationwide
 - There are currently 21 counties that are nonattainment counties
 - This could increase to 123 counties by estimates with new standard.



What does this mean for you? (Part 1)

- ❑ Implications of your area being designated as **“Nonattainment” in May 2026**
 - States then have 18 months to develop their State Implementation Plans (SIPs) to get area back into attainment.
 - States can implement Reasonably Available Control Technology (RACT)
 - “the lowest emission limitation that particular source is capable of meeting by the application of control technology that is reasonably available considering tech. and economic feasibility”
 - Permitting new sources or modifications becomes more stringent (see next slide)

Nonattainment Area Requirements

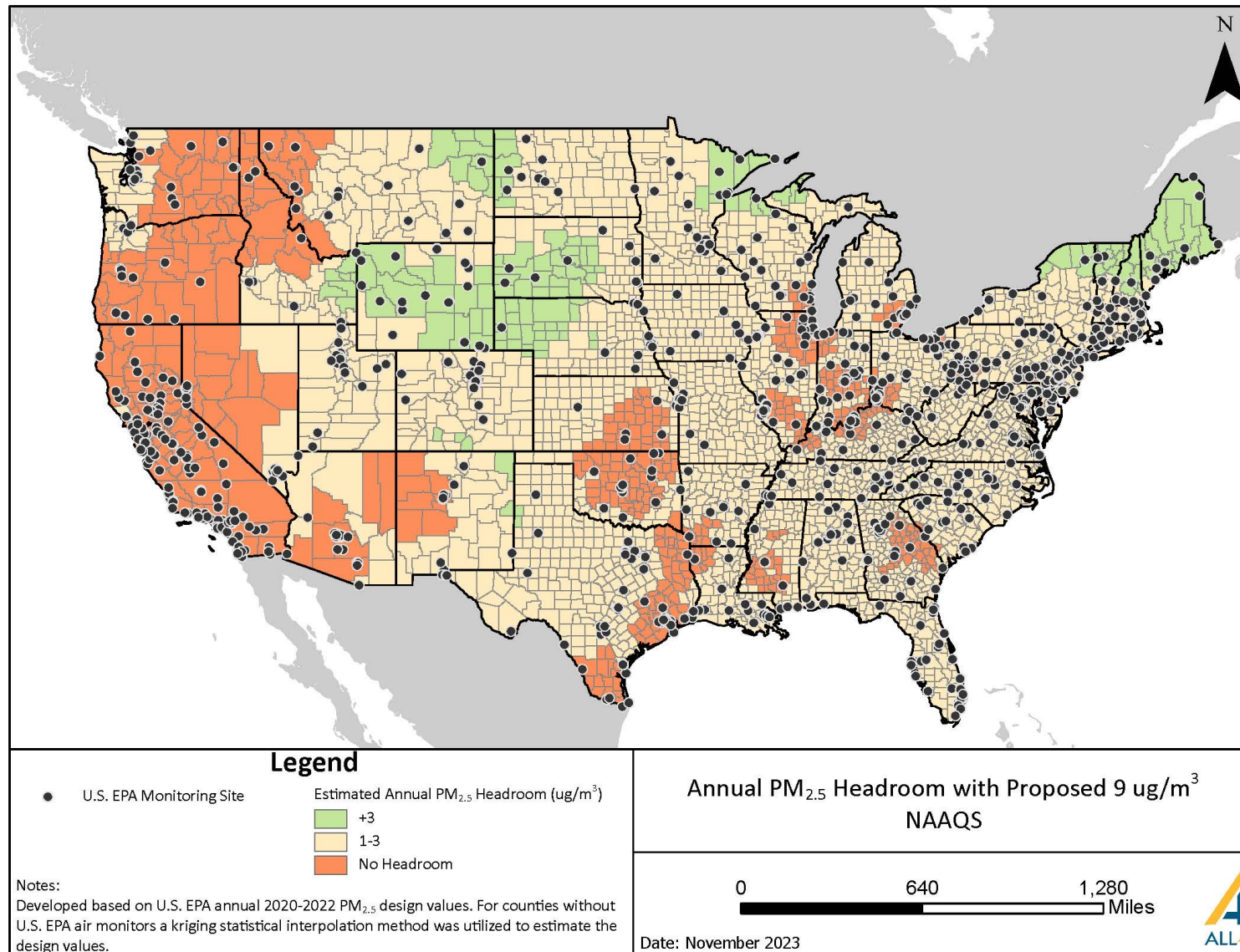
- PM_{2.5} Nonattainment new source review (NNSR) permits include additional requirements, including emissions reduction credits (ERCs), lowest achievable emissions rate, and the alternative sites analysis.
- Nonattainment NSR Thresholds:

NAAQS	Precursors	Non-attainment Classification	Major Source Threshold (tpy)	Significant Emissions Rate (tpy)
PM _{2.5}	Direct	Moderate	100	10
PM _{2.5}	Direct	Serious	70	10
PM _{2.5}	SO ₂ /NO _x /VOC/NH ₃	Moderate	100	40
PM _{2.5}	SO ₂ /NO _x /VOC/NH ₃	Serious	100	40

What does this mean for you? (Part 2)

- ❑ Implications of your area being designated as “**Attainment**” in **May 2026**
 - Your area is less than $9 \mu\text{g}/\text{m}^3$, but you’re not out of the water!
 - Any major NSR projects will have to go through PSD, which includes an air quality modeling demonstration.
 - Modeling could be something that grinds your big capital project to a halt.
 - Step 1 of a PSD modeling demonstration is to model just your project’s emissions and compare the results to the Significant Impact Levels (SIL)
 - Surprise: EPA is planning to lower the SIL in the final rule (the annual is currently at $.2 \mu\text{g}/\text{m}^3$)

PM_{2.5} Headroom with 9 µg/m³ NAAQS






Conclusions & Recommendations

- ❑ Major and Minor (in some states) NSR applications will immediately need to model against the lowered PM_{2.5} NAAQS.
- ❑ Adjustment of background data utilizing the exceptional event justification for modeling demonstrations should be closely evaluated.
- ❑ Modeling below the PM_{2.5} SIL to avoid NAAQS modeling will continue to be a critical option for modeling demonstrations in the next 2 years (and beyond for those still in attainment with the annual NAAQS)
- ❑ If you're located in an area that has the potential to become a PM_{2.5} nonattainment you still have 2 years to obtain a permit before NNSR permitting requirements kick in. But your background ambient headroom could be a huge issue!
- ❑ Make sure to let your capital projects team know that this could be a project deal breaker and so do your due diligence before planning the project.





Overview of Proposed Revisions to EPA's Air Emissions Reporting Requirements (AERR) Rule for Point Sources



Air Emissions Reporting Rule Proposal

- ❑ AERR currently requires states to report **criteria pollutants** to EPA.
- ❑ AERR is the basis for the National Emissions Inventory (NEI) and informs the National Air Toxics Assessment (NATA) (now called AirToxScreen) along with TRI.
- ❑ EPA uses the NEI to develop and review regulations, conduct air quality modeling, and conduct risk assessments.
- ❑ The rule is located in 40 CFR Part 51, Subpart A.





Air Emissions Reporting Rule Proposal

- ❑ EPA has proposed to expand applicability of the AERR Rule to >129,000 point sources (defined in rule) that emit more than certain Hazardous Air Pollutant (HAP) thresholds (several <10 tpy) and require annual reporting of **HAP emissions by release point**.
- ❑ These proposed changes would require thousands of facilities to report detailed information on HAP emissions to either their local agency or directly to EPA.



Air Emissions Reporting Rule Proposal

- ❑ If finalized, these changes will do the following:
 - Increase the frequency of emissions reporting for many facilities;
 - Increase the type and amount of information reported annually for all covered facilities; and
 - Expand the HAP and “incidental Criteria Air Pollutant” emissions reporting obligation to many small facilities that are not currently required to report emissions.



AERR Rule Proposal

- ❑ Facilities will report HAP emissions by release point plus other source information to EPA annually by May 31, 2027 (for CY2026) unless the state does a rulemaking and accepts reporting role.
 - Deadline moves to March 31st starting in 2031.
- ❑ Major sources – report all HAPs.
- ❑ Non-major sources report only HAPs that exceed thresholds and associated Criteria Air Pollutants.
- ❑ No de minimis or insignificant source exemptions, must also include mobile sources at stationary facilities, include portable facilities, no Confidential Business Information (CBI) treatment of emissions data, best available methods are required for emissions reporting, no exemption for unpermitted sources.



What does this mean?

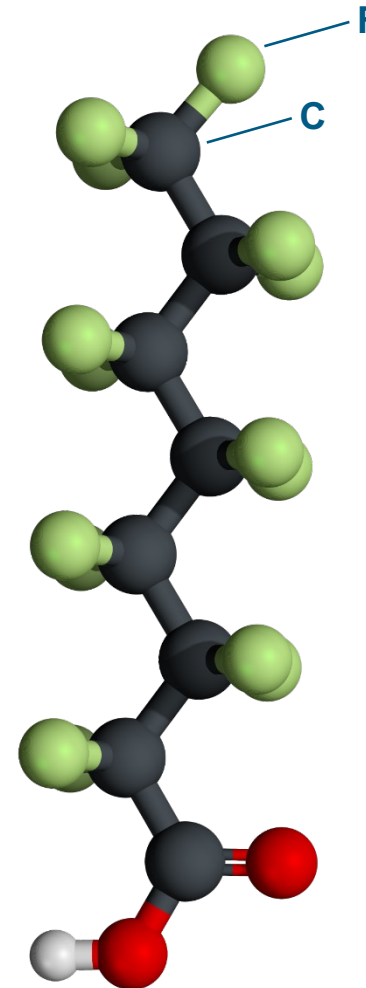
- ❑ Generally, this change will result in benchmarking, cumulative risk assessment, more rules ...
- ❑ EPA could determine your facility plus facilities adjacent to you are showing unacceptable risk to the community
- ❑ EPA could decide that you are not reporting enough HAPs if other facilities similar to you are reporting HAPs you don't
- ❑ EPA could decide you are not using a good enough emissions estimation methodology
- ❑ EPA could decide your sector needs a HAP regulation
- ❑ Your community could complain about your emissions
- ❑ EPA expects to finalize this rule by summer 2024.



Intro to PFAS: The What, Why, and How

PFAS Overview

- ❑ Per- and Polyfluoroalkyl Substances (PFAS)
- ❑ Man-made chemicals
- ❑ Chemical structure: Chain of carbon (C) atoms surrounded by fluorine (F) atoms with different terminal ends
 - C-F bond is very stable
- ❑ Thousands of different chemical variations exist (currently > 14,000 identified)



Perfluorooctanoic Acid (PFOA)



PFAS Overview (cont.)

- ❑ Widely used in industrial and consumer products
- ❑ Some are known PBTs
 - **Persistent** in the environment
 - **Bioaccumulative** in organisms
 - **Toxic** at relatively low levels [i.e., parts per trillion (ppt)]
- ❑ Most people have been exposed to PFAS

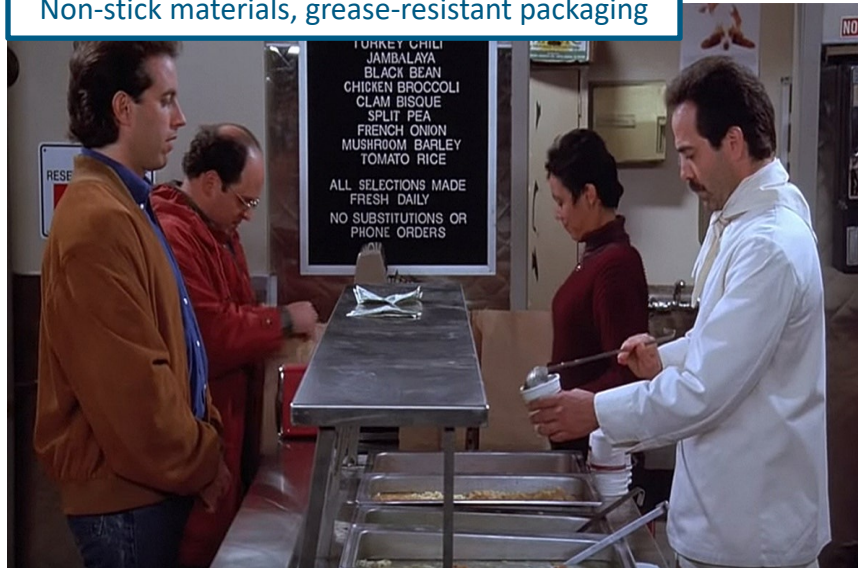


Product Examples

Stain-resistant coatings



Non-stick materials, grease-resistant packaging



Paints, varnishes, sealants, waxes



Water-resistant fabrics



Cosmetic/personal care products

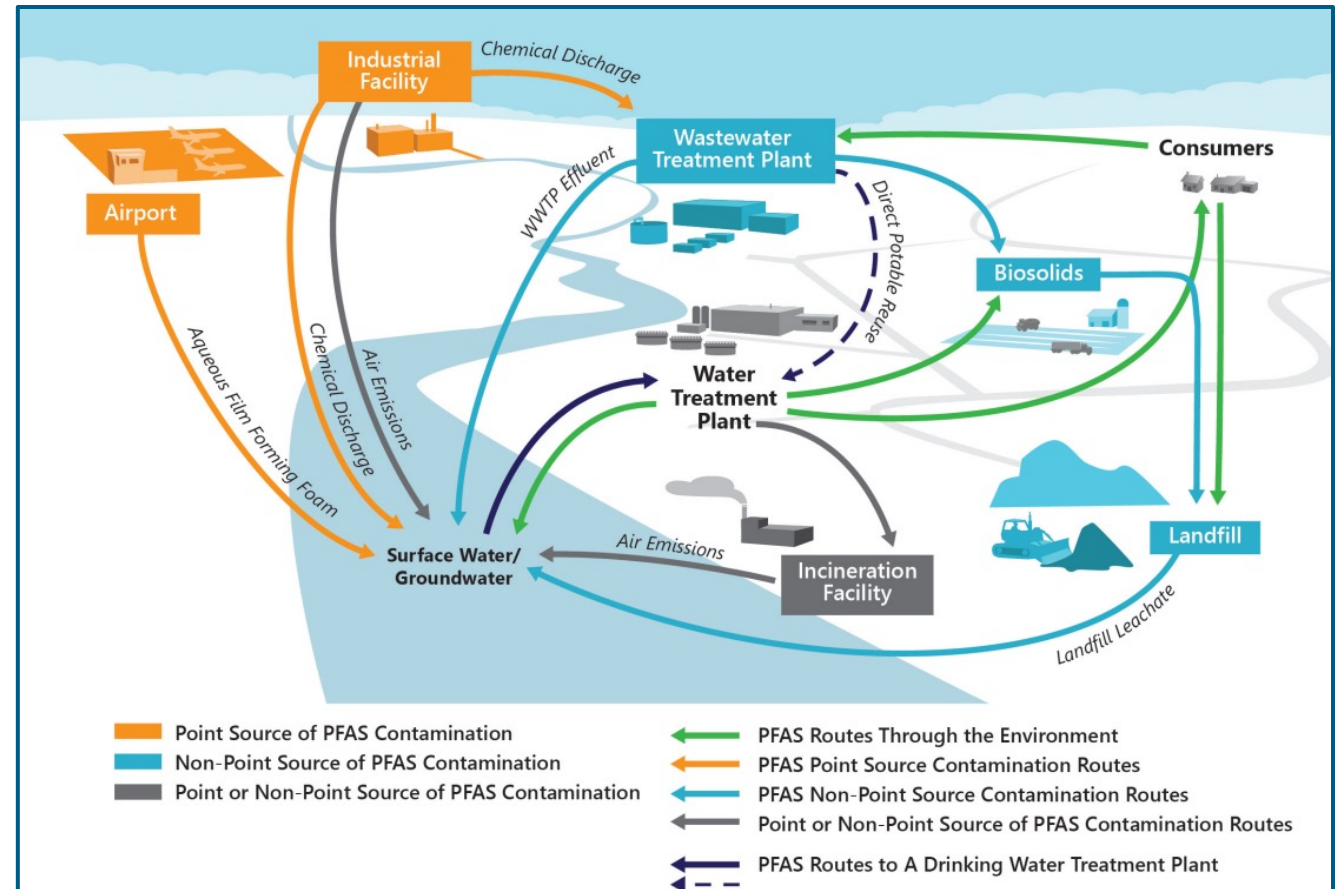


Aqueous Film Forming Foam (AFFF)



Industry Examples

- Upstream manufacturers
 - Facilities that manufacture (or process) PFAS chemicals
- Downstream users
 - Facilities that use PFAS-containing materials
- Airports/military bases
- Waste treatment facilities



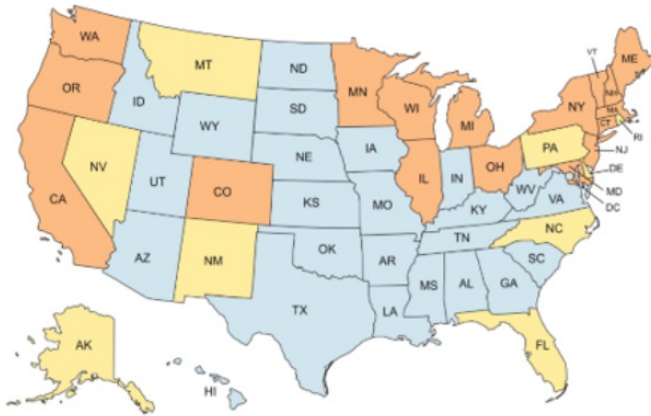
Source: https://www.aaas.org/sites/default/files/2021-06/AAAS-EPI-Center_FactSheet__PFAS.pdf

Regulatory Update



STRATEGY WITH SOLUTION.

PARTNERSHIP WITH A PURPOSE.





Federal PFAS Regulations

- ❑ ***“PFAS Strategic Roadmap: EPA’s Commitments to Action 2021-2024”***
 - Goals summarized as: **Research, Restrict, Remediate.**
 - “Lifecycle approach” to address potential impacts at all stages of PFAS lifecycle (i.e., manufacturing, processing, distribution, use, and disposal).
 - Equal focus upstream to restrict the introduction of new PFAS.
 - Declaration to hold polluters accountable for remediation efforts.
 - New research on groups/subcategories of PFAS to accelerate rulemaking for multiple chemicals at once.
 - Continuing development of sampling/analytical methods in all media.



Federal Highlights – Water

□ Drinking Water

- Proposed drinking water MCLs and Maximum Contaminant Level Goals (MCLGs) (*Mar. 2023*)

Compound	Proposed MCLG	Proposed MCL (enforceable levels)
PFOA	Zero	4.0 parts per trillion (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFNA	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index
PFHxS		
PFBS		
HFPO-DA (commonly referred to as GenX Chemicals)		

□ Water Discharges

- Increased NPDES sampling, monitoring, and data collection requirements
- Future Effluent Limitations Guideline (ELG) actions

<https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>



Federal Highlights – CERCLA

- ❑ Proposed designation of PFOA and PFOS as “hazardous substances” *(Aug. 2022)*
 - Requires immediate reporting of certain releases greater than reportable quantity (RQ)
 - RQ of 1 pound listed in pre-publication version of proposed rule
 - Impact to site investigations/cleanups
 - Impact to due diligence/site transactions
 - Liability concerns
- ❑ Advance Notice of Proposed Rulemaking (ANPRM) asking public input on potential hazardous substance designations of additional PFAS *(Apr. 2023)*



Federal Highlights – TSCA

- ❑ Finalized Significant New Use Rule (SNUR) (*Jan. 2024*)
 - Rulemaking for PFAS that are designated as “inactive” on the TSCA inventory.
 - Must notify U.S. EPA at least 90 days before commencing any manufacturing (including importing) or processing of the chemical substance for a significant new use.
- ❑ PFAS Framework for Premanufacture Notices and Significant New Use Notices (*Jun. 2023*)
 - Framework designed as an element of the larger U.S. EPA PFAS Strategic Roadmap
 - For new PFAS-containing chemicals entering commerce.
 - U.S. EPA will be applying a “rigorous premanufacture notice review process” for new PFAS.





Federal Highlights – TSCA (cont.)

- ❑ PFAS Data Gathering Rule (*Oct. 2023*)
 - Final rule requiring all manufacturers (including importers) of PFAS in any year since 2011 to report information for each year related to chemical identity, categories of use, volumes manufactured and processed, byproducts, environmental and health effects, worker exposure, and disposal.
 - One-time reporting (not part of TSCA 4-year reporting cycle)
 - Report submission period open
November 12, 2024 - May 8, 2025





Federal Highlights – TRI

- ❑ PFAS first added to TRI list January 1, 2020, with additional PFAS added each year.
- ❑ Reporting threshold = 100 lbs/yr, each
- ❑ *“Best readily available information”*
 - TRI does not require additional monitoring/measurement beyond what other law or regulations require
 - Supplier notifications



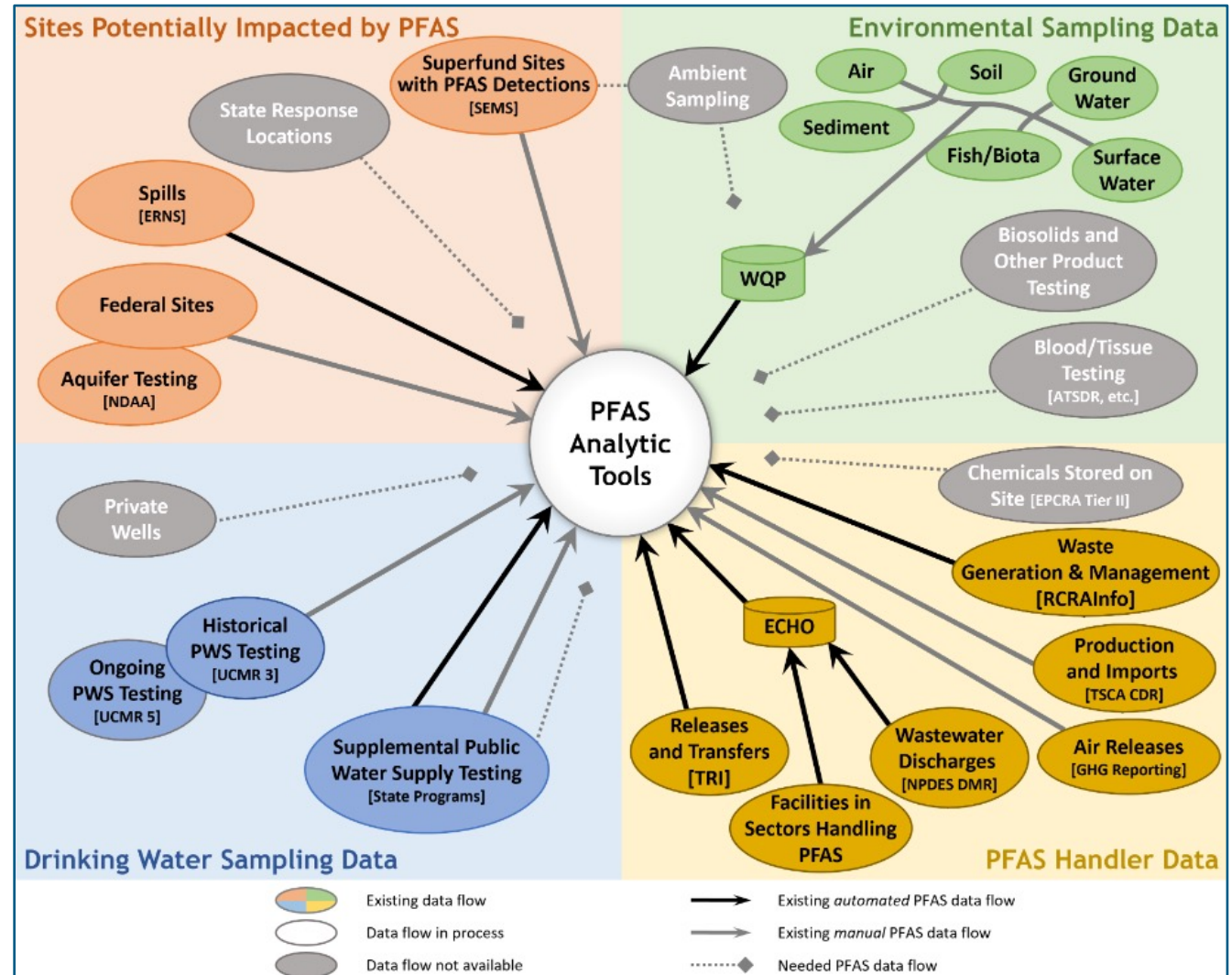
Federal Highlights – TRI (cont.)

- ❑ **PFAS added to list of “chemicals of special concern”** (*Oct. 2023*)
 - Applies for the reporting year 2024 (reports due July 1, 2025)
 - Removal of the current de minimis exemptions (0.1% for PFOA; 1% for all other PFAS), which also apply to supplier notification requirements
 - Removal of the option to submit a Form A instead of a Form R
 - No change to the 100 lb/yr reporting threshold
 - Limited number of facilities provided data for PFAS in RY2020 – RY2022.



U.S. EPA PFAS Analytic Tool

- ❑ U.S. EPA launched new PFAS Analytic Tool in 2023.
- ❑ Publicly available.
- ❑ Ability to search for PFAS manufacturers, releases, test results, etc.
- ❑ Data compiled from several sources.



Source: <https://echo.epa.gov/trends/pfas-tools#background>

U.S. EPA PFAS Analytic Tool (cont.)

Map Legend and Layers

Data Available from Water Quality Portal:

	Above Median	Below Median	Non-Detect
<input checked="" type="checkbox"/> Water			
<input type="checkbox"/> Tissue			
<input checked="" type="checkbox"/> Air			
<input checked="" type="checkbox"/> Soil			
<input checked="" type="checkbox"/> Sediment			
<input checked="" type="checkbox"/> Other			

Drinking Water - UCMR and State Data:

- ☒ UCMR Drinking Water Detects
 - Detection above the Health Advisory Level
 - Detection above the Minimum Reporting Level
 - No Detections above the Minimum Reporting Level
- ☒ State-Reported County-Level Data (ng/L)

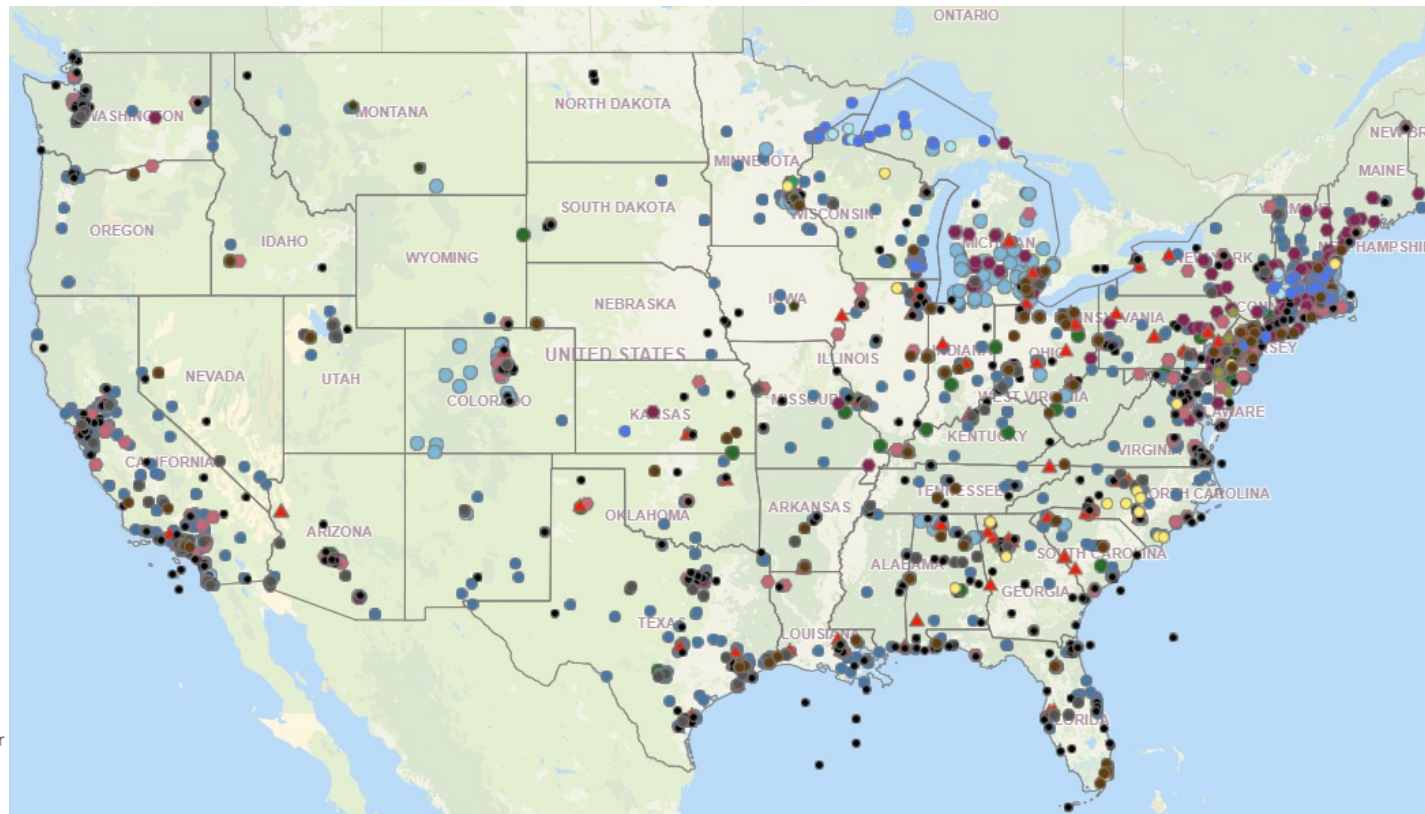
The counties only display once a State is selected.

 - Detection above the Health Advisory Level
 - Detection of at least one PFAS
 - No current record of PFAS Detection
 - No current record of samples collected

Other Locations with Known or Suspected PFAS:

- ☒ PFAS Manufacturer or Importer
- ☒ Water Discharger with PFAS Monitoring
- ☒ Superfund (Private)
- ☒ Superfund (Federal)
- ☐ Federal Site with Known or Suspected PFAS:
 - DoD Air Force
 - DoD Army
 - DoD Navy
 - DoD DLA
 - FAA
 - DOE
 - NASA
 - Other
- ☐ Industry/Sector Facility

The facilities only display once a State is selected.
- ☒ Transfer (Generator)
- ☒ Transfer (Destination)
- ☒ Spill
- ☒ Toxics Release Inventory (Reporting Facility)
- ☒ Toxics Release Inventory (Reported Recipient Facility)



https://awsedap.epa.gov/public/extensions/PFAS_Tools/PFAS_Tools.html



Latest USEPA Actions

- ❑ January 2024 – Methods 1633 and 1621 are finalized
 - Analysis of PFAS in certain substances
 - This is expected to cause a major increase in sampling/monitoring requirements for NPDES permits, POTWs, etc.
- ❑ January 2024 – PFAS Significant New Use Rule (SNUR) is finalized
 - strengthens the regulation of PFAS by preventing anyone from resuming manufacture or processing of inactive PFAS without EPA review of the significant new use.
- ❑ February 2024
 - EPA is proposing to modify the definition of hazardous waste as it applies to cleanups at permitted hazardous waste facilities.
 - Proposed RCRA rules to add 9 PFAS to the list of RCRA “Hazardous Constituents”
 - A hazardous constituent listing is a step toward a potential hazardous waste listing
- ❑ February 20
- ❑ Maximum Contaminant Levels (MCLs) not finalized yet
 - Expected to be coming very soon



Challenges & Watch Outs





Challenges

- ❑ Classification and definition of “PFAS”
- ❑ Limited information on Safety Data Sheets (SDS)
- ❑ Detection levels vs. limits
- ❑ Background concentrations
- ❑ Public scrutiny and media attention





Tips, Take Aways, and Best Practices

- ❑ Engage legal team
- ❑ Conduct evaluation of potential PFAS-related operations (past and present)
 - Historic AFFF emergency response events or training
 - PFAS-containing product formulas and environmental releases
 - Background concentration contributors
- ❑ Develop site procedures for identification and quantification of PFAS materials/releases
- ❑ Prepare “back up” options for formulas that contain PFAS



LINKS

❑ PFAS Added to TRI by the NDAA

- <https://www.epa.gov/toxics-release-inventory-tri-program/addition-certain-pfas-tri-national-defense-authorization-act>

❑ U.S. EPA PFAS Master Lists (CompTox)

- <https://comptox.epa.gov/dashboard/chemical-lists/PFASSTRUCT>
- <https://comptox.epa.gov/dashboard/chemical-lists/PFASDEV>

❑ U.S. EPA PFAS Analytic Tools

- <https://echo.epa.gov/trends/pfas-tools#background>

❑ U.S. EPA PFAS Destruction and Disposal Guidance

- <https://www.epa.gov/pfas/interim-guidance-destroying-and-disposing-certain-pfas-and-pfas-containing-materials-are-not>



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Questions?

www.all4inc.com