

Annual Air Toxics Data Update – New Approach

CAAAC MEETING

JULY 21, 2021

Outline

Describe our new, more coordinated approach for updating and delivering Air Toxics Data: Emissions, Air Quality Modeling, Risk Estimates, and Monitoring

Annual national risk screening assessment

Transition plan: Dec 2021 release (based upon 2017 data) leading to a January 2024 release (based upon 2020 data)

Next Steps

New Approach: Systematic Air Toxics Updates

Previously, we released the National Air Toxics Assessment (NATA) every 3 years with AQ modeling / risk estimates every 3-4 years

New approach will

- Provide an annual, more systematic update for all Air Toxics information: emissions, AQ concentrations, national screening risk estimates, and monitoring
- Allow for appropriate EPA Region and SLT emissions and risk review
- Air Trends Report as the likely main vehicle for OAQPS release of the information including new data visualization products.
- Result in integrated and predictable dissemination of criteria and air toxics information

It will take a few years to build up to the final products, so we anticipate a step-wise transition process to get there

- 2017 data release by end of year 2021
- 2018 data release in Spring 2022
- 2019 data release in Jan 2023
- 2020 data release in Jan 2024

How does the new approach compare to NATA?

	NATA	New Approach
Frequency of Release	every 3 - 4 years	annual
Spatial Resolution of Information	census tract	census tract (all sources) plus census block (point sources)
Release of Information	NATA rollout w/ press release	Initially incorporated into EJSCREEN and eventually included in annual Air Trends Report

National Risk Screen

Plans to provide the following:

Annual, National, Screening-level Risk Assessment for Air Toxics

- National = Contiguous US and AK, HI, PR, VI
- Sources/Pollutants = All sources / All hazardous air pollutants (HAPs)
- Spatial resolution:
 - Census tract-level risk estimates for all sources (cumulative exposures)
 - Work toward more detailed risk estimates for stationary point sources (community exposure from these sources)
- Technical basis:
 - Emissions & Air Quality Modeling: Annual multi-pollutant platform
 - Exposure and Risk Modeling
- Review Processes:
 - EPA Region and SLT-level review of emissions, which is facilitated by prioritizing facility risk estimates during NEI development (earlier in process than in the past)
 - EPA/OAR internal review of final risk estimates prior to public release

National Risk Screen (cont)

Internal Uses & Analyses

- Support OAQPS Air Toxics Strategy
- Data transfers internally within EPA to OEJ for EJSCREEN, OECA for ECATT, and others?
- OTAQ rulemaking support
- Environmental Justice outreach efforts
- Inform the regulatory process

External release & dissemination

- Consider how OAQPS will publicly disseminate data/products
 - Coordinate with OEJ on EJSCREEN release for 2021 and 2022
 - Anticipate incorporating into Air Trends release in future
 - Includes Interactive Map App (Visual display of tabular results)
 - Includes links to technical support document, FAQs and other documentation as necessary

Transition Plan

Planning a transition to this new annual assessment:

1. Initial focus on late 2021 release (2017 data) and Spring 2022 release (2018 data) to provide OEJ with updated air toxics risk data for EJSCREEN
 - Provide Census tract-level risk results, same as previous OAQPS data provided to OEJ
 - Limited EPA Region and SLT review of emissions and risks
 - Initiate internal OAQPS and OAR review process prior to release to OEJ
2. Final products will evolve over time to incorporate additional features and review processes as part of 2023 and 2024 releases and beyond
 - Annual scheduled release in 2024 and future years
 - Release full suite of data and products (e.g., emissions, concentrations, risks, data visualization, etc.)
 - Full EPA Region and SLT review of point source emissions and risks (starting with 2024 release)

Next Steps

Engage stakeholders and co-regulators on interim data needs

Complete risk estimates including SLT review for larger stationary sources for release in 2021

Begin assessment (includes all aspects: EI, AQ Modeling, and risk) for release in 2022

Determine how best to release and disseminate the products in 2023 and 2024

APPENDIX

EPA Region and SLT Point Source Emissions and Risk Review

EPA Region and SLT review is an important step in our national screening assessment because it improves our emissions inventory and gains SLT buy-in. To facilitate this review, OAQPS provides preliminary risk information for point sources to assist SLT in prioritizing their emissions review.

2024 release and beyond

- Establish standard practice to include risk-based review of point source emissions early in the NEI development process (~60 days) so that feedback can be incorporated prior to the start of the AQ modeling and development of risk estimates.

For 2021, 2022, and 2023 releases

- Limited review process due to current stage of emissions inventory development, air quality modeling, and time available to meet our schedule needs
- Focus of review on 2017, 2018, and 2019 emissions data currently available or 'in-process'
- Provide risk results based on point source emissions data to identify priority facilities and HAPs

OAQPS Review Process Improvements

Purpose: Establish formal review of emissions, air quality and risk results across OAQPS prior to public release

Project Team established with expertise in the following:

- emissions and air quality modeling
- risk estimation
- risk communications

Data Analytics Team to provide status updates to management and initial communications across divisions

- Status and schedule updates to management
- Ensure all parties are aware of all potential high-risk pollutants, facilities, and/or areas

Focus on connections to regulatory and outreach efforts

- Identify high-risk pollutants and sources for consideration current or future regulatory actions
- Identify high-risk pollutants and sources for consideration in EJ outreach and related engagements
- Identify other necessary connections across OAQPS and/or OAR