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# **EPA CONSIDERATION OF CAAAC RECOMMENDATIONS ON AIR TOXICS**

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# OVERVIEW

- EPA has been actively considering the 25 air toxics recommendations and additional comments provided in the Air Toxics Work Group report submitted to EPA in January 2016
  - These recommendations point toward important areas for investment to improve our understanding of air toxics risks and to design effective strategies to protect public health
- The CAAAC recommendations fall under nine themes:
  - Communications
  - Mobile Sources
  - Community and Urban Air Toxics
  - SEP Policy
  - Funding
  - Data Gaps
  - Best Practices
  - Recognition Programs
  - Next Steps
- To date, EPA has developed initial responses for almost all recommendations;
  - For most recommendations, EPA already has work underway (or is planning to do work) that is responsive.
  - The remaining recommendations are highly complex or resource-intensive and will require additional discussion to inform future decision making. Some may best be dealt with by the next Administration. Others involve decision makers or actors beyond EPA.
- Overall, the CAAAC recommendations are helping to inform ongoing and planned EPA activities, and to prompt new activities.

# GENERAL CONSIDERATIONS FOR EPA REVIEW OF CAAAC AIR TOXICS RECOMMENDATIONS

1. The CAAAC recommendations can inform and influence current and planned EPA activities that are responsive to the recommendations.
2. EPA plans to seek clarifications and feedback from the CAAAC, and to keep the committee informed about outcomes, as we continue to consider the recommendations.
3. To address the CAAAC recommendations, it makes sense to consider not only what EPA can do, but what can be done by other parties – such as state and local governments, industry, citizen groups, and academic institutions.
  - In many cases, the federal government’s role is to support community and local/state government actions to address localized air toxics issues. Community and local/state government are better positioned (e.g., existing relationships with affected stakeholders) and have more local knowledge to develop appropriate solutions.
4. Some recommendations would require substantial resource investments or programmatic changes. EPA must consider these investments carefully in the context of what efforts will be most useful to advance the goal of reducing toxic air pollution.
5. Many of the recommendations call for expanded or improved data; EPA recognizes the limits of existing data (e.g., toxics emissions data; health statistics for different socio-demographic groups) and encourages systematic efforts to collect additional information to improve air toxics programs.



# RECOMMENDATIONS FOR WHICH EPA HAS WORK UNDERWAY (OR IS PLANNING TO DO WORK)

## ■ Communications

- #1 – best practices, #2 – training tools

## ■ Mobile Sources

- #4 – diesel retirements

## ■ Community and Urban Air Toxics

- #6 – partner with communities, #7 cumulative impacts policy, #8 – characterize variation in air toxics

## ■ SEP Policy

- #10 – use of SEPs for air toxics, #11 – SEP funds to state/tribes/communities

## ■ Funding

- #13 – community programs, #14 – tribal programs

## ■ Data Gaps

- #15 – emission inventories, #16 – NATA, #17 – Indian country, #18-20 - sensors

## ■ Next Steps

- #24 – standing committee

# RECOMMENDATIONS STILL UNDER REVIEW

## ■ Mobile Sources

- #3 – carcinogenicity of diesel exhaust

## ■ Community and Urban Air Toxics

- #9 – CAA Section 112(b)

## ■ Best Practices

- #21 – platform for highlighting/sharing best practices

## ■ Recognition Programs

- #22 – recognition program for businesses, #23 – recognition program for states/tribes

## ■ Next Steps

- #25 – systematic review of federal programs

# RECOMMENDATIONS NEEDING INVOLVEMENT BY OTHER PARTIES

## ■ Mobile Sources

- #5 – Executive Order to require clean diesel technology

## ■ Funding

- #12 – continue/sustain DERA funding

# EXAMPLES OF EPA ACTIVITIES

- This presentation highlights several examples of ongoing or new agency activities that will help respond to the CAAAC recommendations.
- Four selected examples involve air toxics characterization, a common theme linking several CAAAC recommendations.
  - Emissions data gaps, air quality sensors, NATA improvements and streamlining, and cumulative impacts assessment
- Three other examples relate to mobile sources and communities
  - Cleaner diesel technology: White paper providing example contract language to encourage cleaner diesel in government contracting
  - Near- port capacity-building: Tools to support effective engagement between ports and nearby communities
  - Diesel emission reduction tribal grants: Opportunity for \$1 million in tribal grants for clean diesel under DERA
- In addition to information being presented today, we plan to provide further EPA responses to the 25 recommendations in the summer or fall.

# EMISSIONS DATA GAPS

- CAAAC recommended (#15) that EPA form a workgroup to identify data gaps and limitations of the NEI including gaps for hazardous air pollutants (“HAPs”) and determine potential solutions to fill those gaps.
- EPA develops the NEI through collaboration with numerous groups and has numerous ongoing efforts focused on improving emissions estimates and filling data gaps. These efforts involve representatives from a broad group of experts and stakeholders as suggested by CAAAC.
  - EPA utilizes a Federal Advisory Committee Act work group to assist in identifying and addressing data gaps in the MOVES (Motor Vehicle Emissions Simulator) model.
  - EPA collaborates with the US Forest Service and uses research being done by EPA/ORD on fire emissions.
  - EPA collaborates with academia for livestock emissions.
  - EPA established sector workgroups for nonpoint categories, as well as collaborative approaches for identifying and addressing data gaps for mobile sources. EPA established several sector-specific workgroups for residential wood combustion, oil and gas and several other nonpoint categories.
  - EPA established Nonpoint Methods Advisory Committee (NOMAD) which address the nonpoint categories that don’t already have specific work groups.



# EMISSIONS DATA GAPS (CONTINUED)

- For point sources, EPA is collaborating with stakeholders on the “Combined Air Emissions Reporting (CAER) project”, an E-Enterprise project
  - Designed to improve the quality, consistency, timeliness and transparency, accessibility and utility of emissions data while reducing the reducing industry burden for point source reporting.
  - Ongoing “Short Term Win” projects wrapping up through July
    - Includes a CAER implementation plan
    - Implementing findings to improve ongoing 2014 NEI development
  - Coordinating with the another E-Enterprise Team to develop a new approach to facility identification data for CAER
  - FY16 projects
    - Use the new facility identification approach for the Residual Risk and Technology Review (RTR) data collection
    - CAER prototype project to start by August
- Ongoing outreach (see also <https://www.epa.gov/e-enterprise/e-enterprise-projects-spotlight>)
  - E.g., Stakeholder input forums (industry and state/local/tribes)

# SENSORS AND CITIZEN SCIENCE

- CAAAC recommendations 19 and 20 indicate that EPA should support community monitoring and citizen science projects that provide quality data and guidance how to use the data to assess air toxics and inform effective strategies to address them; and evaluate portable and personal environmental monitors (“PEMS”) for air toxics and other pollutants to ensure high quality data
- Over the last several years, we have pursued projects that respond to CAAAC’s recommendations
  - Sensor evaluations and pilot projects <https://www.epa.gov/air-research/air-sensor-toolbox-citizen-scientists>
  - Village Green pilot and expansion <http://bit.ly/VillageGreenPilot>
  - Community air quality training for over 800 attendees
  - Messaging short term sensor measurements of ozone and particles

# SENSORS AND CITIZEN SCIENCE (CONT'D)

- EPA has recently established an E-Enterprise Advanced Monitoring Team (EEAMT) that will advance the understanding of low cost and high end equipment collected by non-regulatory agencies and set the stage for future EPA responses to CAAAC
  - Members: States (organized by ECOS), OAR, ORD, OECA, OW, OEI, and EPA Regions 1 & 2
  - E-Enterprise Leadership five recommendations
    - #1: Feasibility study for a voluntary 3<sup>rd</sup> party certification program for sensors
    - #2: Technology screening and support network
    - #3: Interpretation of data from advanced monitoring approaches
    - #4: Data standards & data quality tiers
    - #5: Lean technology evaluation parameters
- Portable or personal devices providing continuous measurements of speciated air toxics (e.g. benzene) are not currently available on the commercial market nor are they anticipated to be available in the near future; although low cost, miniaturized devices are available to detect total VOC – further testing and evaluation is needed. Our current work on criteria pollutant sensors will inform all future work on air toxics.
- For additional information contact Kristen Benedict ([benedict.kristen@epa.gov](mailto:benedict.kristen@epa.gov))

# NATA IMPROVEMENTS AND STREAMLINING

- Several CAAAC recommendations (1, 7, 8, 16) indicated that EPA should develop tools to better evaluate risks from toxic air pollutants and to communicate these risks to the public in a more clear and timely fashion.
- We released the 2011 NATA in December 2015 that includes several updates and enhancements that address some of CAAAC's recommendations:
  - We have included new mapping and data visualization tools in NATA that allow users to identify the sources and pollutants that drive risks in their community.
  - We have expanded and updated the quality of toxic emissions data that are included in NATA so that a more complete picture of risks to communities is achieved.
  - We have improved the dispersion modeling in NATA by using a “hybrid approach” which blends both a local-scale and a long-range air quality model.
  - We have improved the exposure analysis in NATA by using updated human activity data.

# NATA IMPROVEMENTS AND STREAMLINING

- We have initiated several activities that address CAAAC's comments on improving the timeliness of NATA assessments.
  - Inventory Improvements – NATA is reliant on timely inventories
    - Pursuing E-Enterprise Combined Air Emissions (CAER) scoping project with state and industry partners to modernize emissions reporting.
    - Will result in more timely emission inventories, and therefore, more timely NATAs.
  - NATA Process Improvements
    - Completed successful Lean event on the NATA process.
    - Identified methods and process improvements that will improve NATA timeliness.

# CUMULATIVE IMPACTS ASSESSMENT

- CAAAC recommended (#7) that EPA develop tools for evaluating cumulative impacts and a cumulative impacts policy to reduce air pollution in EJ and overburdened communities.
- EPA continues to improve and update our existing screening tools that can be used to assess community impacts: EJSCREEN and the National Air Toxics Assessment (NATA).
  - EJSCREEN is a web-based environmental justice mapping and screening tool that provides a nationally consistent approach for combining multi-media environmental indicators with demographic data into EJ indexes.
  - NATA models point and area source air toxics emissions and provides cancer and non-cancer risk estimates at the census tract level. NATA was recently updated with the most recent (2011) air toxics inventory and enhanced with new mapping and data visualization tools (see NATA slides).

# CUMULATIVE IMPACTS ASSESSMENT

- Other EPA cumulative impacts initiatives include:
  - CFERST (Community-Focused Exposure and Risk Screening Tool) will be released in Fall 2016 and will support cumulative human exposure and risk screening assessments.
  - In recognition of the need to further our understanding of cumulative impacts, the Agency (ORD) has recently developed the [Environmental Justice Research Roadmap](#) (Draft November 6, 2015) that outlines the Agency's commitment to building the scientific foundation to conduct such assessments.
  - The Draft EJ 2020 Action Agenda (released in May 2016 with public comment accepted until July 7, 2016) also commits to implementing the EJ Research Roadmap as a foundational step towards addressing cumulative impacts.
  - In addition, in recognition that states such as New Jersey are working on cumulative impacts issues, the agency plans to reach out through ECOS to gather information on state approaches.

# CLEAN DIESEL TECHNOLOGY: MODEL LANGUAGE FOR CONSTRUCTION CONTRACTS

- CAAAC recommended (#5) that EPA advocate for the issuance of an executive order to require clean diesel technology (or other lower emissions technology) engines be used in all federally funded infrastructure projects.
- In response, EPA plans to develop and distribute a white paper that describes benefits of cleaner diesel specifications in construction contracts and highlights previously developed model language. This will be a new activity.
- EPA has created and made available examples of clean diesel model contract language
  - Based on what's been used successfully in a number of projects: Big Dig, Ground Zero, State and local regulations; has informed additional state/local regulation development
  - Also worked with LEED on a credit for clean diesel equipment during construction for green building rating program
  - Created a video about such efforts [<https://www.northeastdiesel.org/construction.html>]
- Good example of federal infrastructure requirement for clean diesel technology: New requirement in Superfund site remediation statements of work
  - Requires all Tier 2 or higher on Superfund job sites for nonroad equipment and proper engine maintenance
  - Also requires vehicle and equipment idling be kept to minimum on job site
  - ~\$443 million in 2015 so substantial number of sites/contracts



# NEAR-PORT COMMUNITY CAPACITY BUILDING

- CAAAC recommended (#1) that EPA should evaluate and recommend best practices in air toxics communications (states/local/tribal/industry) to help improve risk communications.
- Relevant to that recommendation, EPA is developing tools/resource materials for communities and ports to promote decision-making engagement between the two groups
  - Referenced and supported in MSTRS Recommendations for EPA's Ports Program
  - Developed in concert with Office of Environmental Justice, Regions and other EPA offices
- Three Tools which will be available on EPA's website later this summer
  - Ports Primer for Communities
    - Interactive tool and reference document
    - Characterizes port sector – overview of planning & operations, environmental & community health impacts
    - Features geographically diverse case studies
  - Community Action Roadmap
    - Implementation companion for Ports Primer
    - Step-by-step process for building capacity and preparing community to engage with port and local/regional stakeholders
    - For Pilots: Expert contractor facilitation on location with EPA Regional staff
  - Environmental Justice Primer for Ports
    - Tool for orienting port sector and other stakeholders about EJ perspectives, priorities, unique challenges
    - Step-by-step good neighbor guidance to build partnerships and social equity with communities
    - Improve effectiveness of port-community engagement



# NEAR-PORT COMMUNITY CAPACITY BUILDING

- In June 2016, EPA will:
  - Post tools and information for public comment and use
  - Solicit interest for pilot locations to test tools
    - Support port/community engagement with contractor and EPA assistance
  
- In Fall 2016, EPA will select, announce, and begin pilots
  - Agency will revise/refine tools based on pilot feedback
  
- Responsive to Recommendation #1, EPA will refine messages and outreach on near-port capacity building and engagement
  - EPA looking at options to develop a community of practice for community/port engagement to further communication



# DIESEL EMISSIONS REDUCTION TRIBAL GRANTS

- CAAAC recommended (#14) that EPA provide grant funding options for tribes that support tribal air toxics programs and projects.
- Competitive grants to Tribes and Alaskan Native Villages for clean diesel projects on Tribal lands are available through DERA
- Since 2009, 20 grants have totaled ~\$5.8 million
  - Fishing vessels, school buses, generator upgrades, mining equipment
- \$1M is available nationwide in 2016
- Competition:
  - Opened June 14, 2016
  - RFP will be open for 60 days from start date (closing August 23, 2016)

More information can be found here: <https://www.epa.gov/cleandiesel/clean-diesel-tribal-grants#rfp>
- EPA is conducting outreach through National Tribal Forum on Air Quality, National Tribal Air Association, Webinars and conference calls



# FUTURE INTERACTIONS WITH CAAAC

- Recommendation #24 calls for EPA promptly to “create a standing independent committee that reports to CAAAC consisting of members representing community groups, industry, state-local/tribal governments that evaluates and reviews the progress and shares information – at least annually – on the programs and processes related to urban air toxics.”
- EPA plans to update the CAAAC on our further consideration of the 25 recommendations in the summer or fall.
  - The agency intends to provide the CAAAC with a chart that summarizes EPA’s response to each recommendation-- or in the case of recommendations that remain under consideration, indicates the status of EPA’s consideration.
- The Federal Advisory Committee Act calls for advisory committees to provide advice to, rather than oversee, federal agencies. Also, such committees are not allowed to carry out governmental functions. As a result, EPA has concerns about creating a new standing committee of the CAAAC to play an oversight role or to co-author reports on air toxics.
- For now, the agency plans to use the Subcommittee on Permits, NSR and Air Toxics (and full committee as appropriate) on an ongoing basis to provide advice related to the CAAAC’s air toxics recommendations (subject to new direction by a future administration).

# QUESTIONS FOR DISCUSSION

## ■ Data gaps:

- Which voices are missing in EPA's ongoing efforts to fill data gaps?
- Should mandatory emissions reporting be pursued?

## ■ Cumulative impacts:

- Are CAAAC members aware of further approaches that EPA could pursue to enhance the capability to assess cumulative impacts?

## ■ Best practices:

- What dissemination approaches, especially electronic ones, should EPA consider to highlight best practices on air toxics and update stakeholders on air toxics program developments?