

Fugitive Emissions-Particulate Matter Working Group

Key Problems

- Regional haze
- Emission Trading
- Title V Permitting-Air Toxics (HAPs)
- Stakeholder Concerns
- Homeland Security

By better characterizing the emissions being emitted by industry (used in the generic) allows industry more capability of obtaining and remaining in compliance with regulatory and permit requirements. Also better understanding the types of emissions being produced from “daily activities from industry” assist in addressing the concerns of the local stakeholder. There is a need for remote sensing capabilities for on going efforts for Homeland Security.

Present State of Technology

- Network of high volume samples
 - Time Average Sampling
 - Gross characterization
 - Speciation
- Drawbacks
 - Time
 - Not fully characterizing the emissions
 - No real time data

Improvements

The present “tool box” needs to be improved by adding remote sensing capabilities to better characterize emissions from industries and potentially assisting with homeland security. This requires the regulator and industry to work closely together in developing and approving methodologies that can be implemented cost effectively thru communities and industries. This will enhance further technical research in remote sensing technologies making the equipment faster, better, smaller and driving the cost down to a reasonable value for industry to implement the “entire tool box”.

Potential Applicability

- Regulatory Enforcement
- Industry
 - The First Responder requires a simple “red/green light” tool to allow them to make quick field decisions concerning the immediate emergency. As we start to put our arms around the needs of “Homeland Security” there will be high demand for standoff remote sensing capabilities that could be networked nation wide to establish some type of continuous monitoring capabilities serving as early warning system. This type of system will also serve as continuous training program for technicians to assure that their techniques remain sharp and responsive to any type of chemical or biological warfare.

Recommendations

Partnering by the regulatory and industries to develop acceptable methodologies and tools that will increase the capability of the “tool box” to better characterize emissions. By accomplishing this first recommendation this will eventually drive the cost of the remote sensors down because the demand will increase. Industry should also work to refine and simplify some of the tools allowing the First Responder to have quick screening tool to assist in dealing with the emergency at hand. Homeland Security should network with federal, state and local agencies to utilize existing infrastructure allowing funds to be used more efficiently and economically to increase the “tool box” and technology.