

## Protecting Minnesota communities from air pollution

Monitoring equipment is essential to detecting and addressing air quality inequities

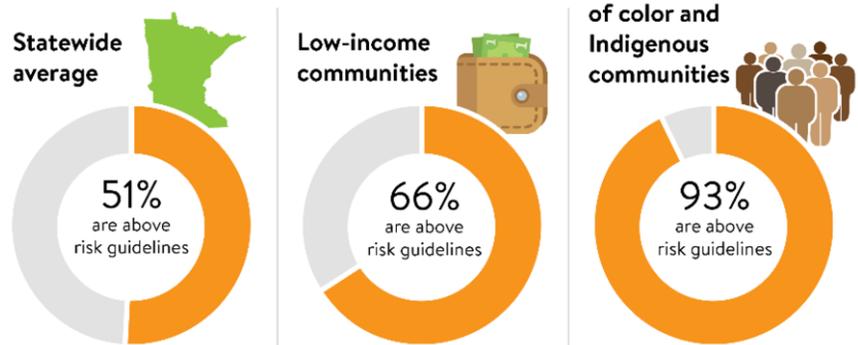
### Challenge

The MPCA is responsible for ensuring facilities are compliant with permits and state and federal air quality regulations. In addition to providing technical assistance to help permittees remain in compliance with their permits, the MPCA conducts inspections and reviews stack test reports and continuous monitoring reports. These activities are necessary to ensure compliance, provide a deterrent to violators, create a level playing field, and recover economic benefit gained from violations.

While most permittees comply with their permits, MPCA staff increasingly need to verify or conduct their own air monitoring assessments for Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) while in the field. When emitted, VOCs can form ozone and create smog, and HAP emissions are known to cause cancer or other serious health effects. The MPCA currently does not have the equipment necessary to identify VOCs and HAPs during inspections.

### Air quality risk

These communities are more likely to be near higher levels of air pollution.



### Proposal

This proposal requests a \$180,000 appropriation from the Environmental Fund in FY23 for the purchase of several specific pieces of air monitoring equipment, and an ongoing appropriation of \$4,000 in FY24 and beyond from the Environmental Fund for ongoing equipment maintenance. This new equipment is US EPA approved and includes:

#### Forward-looking Infrared (FLIR) Camera

Allows leak detection at very low levels of pollution. Readings can be used for screening or directly as evidence of a violation.

#### Toxic Vapor Analyzer (TVA)

Measures gas concentrations down to parts per million. Readings can be used to detect violations.

#### Digital Opacity Software Package

Provides an opacity result that can be directly compared to an opacity limit in a permit or a rule. This software is also used to identify permit violations.

With this equipment, MPCA will be able to identify Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs) while in the field. When emitted, VOCs can form ozone and create smog. HAPs emissions are

known to cause cancer or other serious health effects. This equipment will enable MPCA to more effectively monitor compliance statewide, including in areas disproportionately impacted by air pollution.

## Why it's important

The air emissions compliance and enforcement program works to ensure human health and environmental risks are managed to benefit all Minnesotans. Many air emission facilities are in former or current industrialized areas, which are often co-located within MPCA-designated environmental justice areas. Currently, hundreds of air emission facilities are located within MPCA defined environmental justice areas. This proposal will help improve the air quality in any community, with emphasis on communities disproportionately impacted by pollution and located near a facility that has an air emissions permit.

MPCA models show lower income communities and areas of higher concentrations of people of color are at a greater risk from air pollution. Residents in 46% of lower income areas and 91% of communities of color experience air pollution risk above health guidelines. The requested funding for air monitoring equipment will ensure that facilities located in these areas comply.

This air emissions monitoring equipment, along with increased inspections, compliance determination and enforcement activities at air emission facilities, will help MPCA detect potential problems, giving Minnesotans greater confidence that nearby businesses are complying with the law and with their air permits and operating in a way that protects human health and the environment.

## For more information

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