WISCONSIN IAQ NEWS

Wisconsin Department of Health Services
Indoor Air Quality and Radon Program

IN THIS ISSUE:
- ❖ Policy
- ❖ Equipment Loan Program Spotlight
- ❖ Resources
- ❖ Air Quality in Schools
- ❖ Health Equity
- ❖ Success Story

QUICK LINKS:
- Radon measurement and mitigation courses
- Webinar recording: Controlling Mold and Moisture Toolkit Webinar (recorded on May 6)
- Wildfires and Indoor Air Quality

UPCOMING EVENTS:
- **Conference:** 2021 AARST International Radon Symposium, October 11—13, Bethesda, Maryland
- **Save the Date:** Radon Information Center (RIC) Meeting, October 19

Webinars on Demand:
- Navigating the Landscape of Air Cleaning Technology for COVID-19

POLICY

Radon Risk Reduction: A Fractured Policy Landscape

During 2019 and 2020, Harvard Law School Center for Health Law and Policy Innovation conducted a survey of the laws and policies on radon disclosure, testing and mitigation in all 50 states. In January 2021, the results of this survey were released in the Radon Risk Reduction: A Fractured Policy Landscape publication. The report compares each state's approach to radon risk reduction and includes inequities that result from the policies that exist and are missing. It also identifies model policies to improve protection from radon for residents of all states.
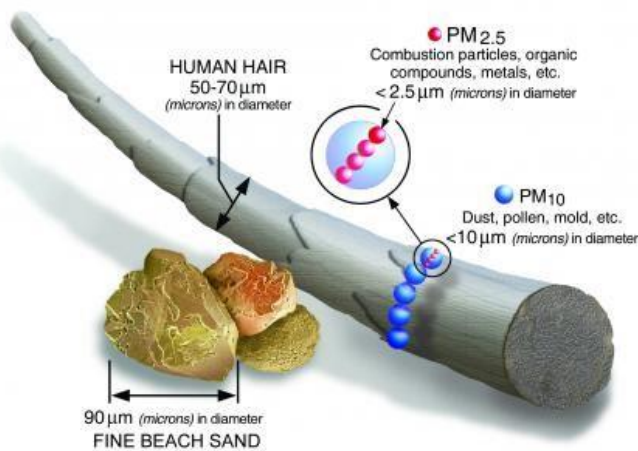
Wisconsin Department of Health Services
Division of Public Health | Bureau of Environmental and Occupational Health
dhs.wisconsin.gov/air | DHSEnvHealth@wi.gov | P-03079 (08/2021)

1

EQUIPMENT LOAN PROGRAM SPOTLIGHT
Particulate Monitoring, Part 1

This article is the first in a series covering the environmental site assessment instrumentation available on loan, at no charge, to Wisconsin local and tribal health partners. This opportunity is co-administered by the Wisconsin Department of Health Services (DHS) and the Wisconsin State Laboratory of Hygiene (WSLH). Our first topic involves equipment available for monitoring particulate matter (or PM). Particulates are emitted from many combustion sources including vehicle exhaust; cigarette smoke; gas furnaces; indoor fireplaces and wood stoves; unpaved roads; forest or brush fires; and industrial smokestacks. Most particles formed in the atmosphere arise from complex reactions of pollutants emitted from industry and transportation sources, like sulfur dioxide and nitrogen oxides.

PM size comparison (source: EPA)

PM pollution is a human health concern for both outdoor and indoor air, and the exposure to certain types of PM is related to both short-term and long-term health issues, such as asthma, atherosclerosis, and heart disease. Airborne particles less than 2.5 micrometers in diameter, also known as fine particulate, or PM2.5, pose the greatest risk to health because they are capable of penetrating into the deep lung and moving into the bloodstream.

In order to protect citizens from unhealthy exposures to PM, the U.S. EPA has established National Ambient Air Quality Standards (NAAQS) which are:

PM_{10} 24 hour average	0.150 mg/m^3
$PM_{2.5}$ 24 hour average	0.035 mg/m^3
$PM_{2.5}$ annual average	0.012 mg/m^3

OSHA has a respirable dust standard of 5 mg/m3 over an eight-hour workday for all particulates not otherwise regulated, which is a level above those in which exposure control measures such as ventilation and/or respiratory protection should be enacted.

The DHS/WSLH Equipment Loan Program has two options available for PM monitoring:

The TSI DustTrak II is a hand held, portable monitor, that is useful for property walk-through assessments or area monitoring efforts. It can be set up to monitor for PM_1, $PM_{2.5}$, PM_4, and PM_{10} measurements.

The TSI DRX Aerosol Monitor is able to monitor for PM_1, $PM_{2.5}$, PM_4, PM_{10}, and total particulate simultaneously, providing a chart of the different size fractions over time.

Both of these monitors have data-logging capabilities, and can save PM measurements over several days, if needed.

Recent DHS Hazard Assessment Section collaborations with Wisconsin local and tribal health departments for PM monitoring include:
- Community PM monitoring from a refinery fire in Superior.
- Community PM monitoring from a large fire related to a bomb response in Beaver Dam.
- PM monitoring in a Milwaukee community affected by a pallet burning operation.
- PM monitoring of play sand and potential exposures at a child care center.
- PM monitoring of issues related to outdoor wood burner operation in neighborhoods throughout Wisconsin.
- Monitoring of unknown particulate emitting from a Madison building's HVAC system.

In the next installment, we will discuss how theses instruments might assist with environmental assessments related to PM concerns, ultra-fine particulate monitoring concerns, and related DHS/WSLH Equipment Loan Program capabilities.

Reach out to DHS Environmental Health to learn more about instruments available through the DHS/WSLH Equipment Loan Program.

AIR QUALITY IN SCHOOLS

Indoor Air Quality in Early Care and Education Facilities

An issue brief by the Association of State and Territorial Health Officials (ASTHO) was released in May 2021 to provide an overview of strategies for mitigating airborne transmission of COVID-19 in early care and education facilities. The issue brief includes links to resources and examples of mitigation strategies based on guidance from the Centers for Disease Control and Prevention (CDC).

School IAQ Assessment Mobile App

The EPA has created a School IAQ Assessment Mobile App designed to assist schools in conducting walk-through assessments of facilities to address indoor air quality (IAQ) and other building-related environmental health issues. These include ventilation, cleaning and maintenance, environmental asthma triggers, radon, and pest management. The app complements the EPA's school IAQ management guidance and can be used to track district-wide building assessments and prioritize improvements. The app can be downloaded from the Apple iTunes App Store or the Google Play Store.

RESOURCES

EPA Burn Wise Tip Sheets

A common indoor air quality concern is wood burning. Fine particles are carried in wood smoke and once they enter the respiratory system, they can cause adverse health effects including bronchitis, asthma symptoms, and heart failure. The EPA Burn Wise tip sheet discusses how to safely burn wood indoors and outdoors. Tip sheets are available in 10 languages and feature steps to ensure that wood is burned the right way and in the right appliance.

HEALTH EQUITY

Resources on Framing Messages

It's clear we are in the midst of a cultural shift. As public health professionals, we are consistently challenged with effectively communicating with diverse audiences. There are a variety of resources available to help us better communicate and empower those we serve. Each newsletter will offer a few resources for you to consider as we move forward toward equitable solutions:

- Frameworks Institute: Research and resources on framing messages around social and scientific issues
- CDC health equity resources and newsletter

SUCCESS STORY

Overview of EPA's State Indoor Radon Grants Program

The 2020 Overview of the EPA's State Indoor Radon Grants Program features many success stories from grantee states working to reduce radon risk. The following success story from Wisconsin was included in this report:

"The Wisconsin Department of Health partnered with the United States Department of Agriculture (USDA), EPA, the Brown County Health Department, and the Oneida Nation to offer radon testing in low income areas. The Oneida Nation was supplied with 150 test kits, all of which were placed in homes and analyzed. Mitigation systems were installed in homes with elevated radon. By partnering with USDA, residents were educated about resources available to low income rural homeowners to install mitigation systems and conduct other indoor air quality repairs."

Email us your success stories to be featured in a future edition of the IAQ newsletter!