As many are aware, Canadian wildfire smoke continues to impact large parts of the United States. Smoke from wildfires contains fine particles that can harm health. Breathing fine particles in the air can reduce lung function, worsen asthma and other existing heart and lung conditions, and cause coughing, wheezing and difficulty breathing. Concentrations of smoke can change from day to day depending on weather conditions in the region.

Real time indicators of atmospheric pollutants can be viewed on the AirNow site. AirNow is a partnership between the Environmental Protection Agency (EPA), the National Oceanic and Atmospheric Administration (NOAA) and other governmental agencies. The AirNow site reports a real time Air Quality Index (AQI). Think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern. For example, an AQI value of 50 or below represents good air quality. AQI values at or below 100 are generally thought of as satisfactory, while an AQI value over 300 represents hazardous air quality. The Air Quality Index for Ann Arbor can be viewed here.

Behavioral modification recommendations when the AQI is considered “Unhealthy to Hazardous” are found below:

When the Air Quality Index is Unhealthy for Sensitive Groups (101-150):
- Sensitive groups should reduce prolonged or heavy exertion outdoors, take more breaks, do less intense activities and watch for symptoms such as coughing or shortness of breath.
- People with asthma or heart disease should be aware of symptoms and contact their health provider if needed.

When the Air Quality Index is Unhealthy for Everyone (151-200):
- Sensitive groups should avoid prolonged or heavy exertion outdoors and consider moving activities indoors or rescheduling.
- Others should reduce prolonged or heavy exertion outdoors and take more breaks during outdoor activities.

When the Air Quality Index is Very Unhealthy (201-300):
- Sensitive groups should avoid all physical activity outdoors and move activities indoors or reschedule to a time when air quality is better.
- Others should avoid prolonged or heavy exertion outdoors and consider moving activities indoors or rescheduling to a time when air quality is better.

When the Air Quality Index is Hazardous (301-500):
- Everyone should avoid all physical activity outdoors.
- Sensitive groups should remain indoors, keep activity levels low, and follow tips for keeping particle levels low indoors.

Additional guidance from the EPA on reducing exposure can be found here.

Spot checks at several campus buildings confirmed that particulate levels are lower inside buildings. Particulate levels inside buildings are typically much lower due to the filters on the HVAC system. This is the primary reason the EPA recommends staying indoors during periods of diminished air quality.

Outdoor workers can also reduce the impact of particulate exposure by wearing a face mask or respirator. To filter out fine particles, respirators must be labeled N-95, N-99, N-100, R-95, P-95, P-99, or P-100, and must be labeled as approved by the US National Institute for Occupational Safety and Health (NIOSH). Outdoor workers can voluntarily obtain and wear an N95 respirator. Contact EHS to obtain N95’s.