

Rezoning ozone action days

New EPA standards will lead to an increase in unhealthy air days

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By KATIE FOUTZ

Health advocates predict the Chicago area will have twice the number of unhealthy air days this summer than last summer.

It's not that there will necessarily be more smog. It's because the U.S. Environmental Protection Agency set tougher standards for ozone pollution in March - which means days that used to have good air forecasts now will have moderate or unhealthy forecasts, especially for people sensitive to this form of air pollution.

"Ozone is essentially a caustic gas people are breathing in, chemically burning the inside of their lungs," said Brian Urbaszewski, director of Environmental Health Programs for the Respiratory Health Association of Metropolitan Chicago. "So while people are putting on sunscreen to protect the outside of their bodies, it's good to know about air quality so they can protect the inside of their body as well. Unfortunately, there's no 'ozone-screen' for lungs."

What is ozone?

Ozone in the upper atmosphere is a good thing, protecting the earth from the sun's harmful ultraviolet rays. But ground-level ozone is an air pollutant that is a key component of smog. Humans provide the ingredients - emissions from cars and industry - while the sun cooks them into pollution on hot, sunny days with little wind.

Smog can irritate even a healthy person's lungs, said Brooke Emmerich, respiratory therapist and asthma coordinator at Edward Hospital in Naperville. For example, people who exercise breathe 10 percent to 20 percent more air than others, she said. So on days when air quality is bad, she recommends exercising indoors or at least away from major roadways.

"Everybody can be affected, but on certain days, certain populations can be affected more than others," she said. "Little particles in ozone pollution lodge into our lung tissue. It makes the tissue irritated and inflamed, and can cause coughing and difficulty breathing."

A National Research Council report released in April confirmed that short-term exposure to current levels of ozone in many areas is likely to contribute to premature death, and not

just among people who are already within a few days of dying. Emmerich said young children who are exposed to ozone can experience stunted lung development.

Why the new standard?

While the old standard was 84 parts of ozone per billion parts of air, the new EPA standard is 75 parts per billion.

The Respiratory Health Association, analyzing EPA data for the six-county Chicago area, found that last summer, eight days were considered unhealthy air days for sensitive groups including children, seniors and people with lung and heart conditions. If the new EPA standard had been in place in 2007, the Chicago area would have had 18 days with bad air quality.

But Urbaszewski said the new standard doesn't go far enough. His organization supports an even tougher standard recommended by a scientific advisory committee to the EPA: 60 to 70 parts per billion.

Under that standard, more than 50 days in 2007 would have been listed as having unhealthy air quality due to high ozone smog levels, according to the Respiratory Health Association.

EPA spokeswoman Cathy Milbourn said the new standard is the first revision in a decade and is the most stringent set by the agency since it started setting ozone standards in 1971. To make the decision, EPA considered its advisers as well as more than 1,700 peer-reviewed studies, written public comments and EPA staff members, she said.

What is an unhealthy air quality day?

The federal government puts air quality into color-coded categories people can recognize quickly in weather forecasts.

Green means air quality is good, and it's a good day for outdoor activities. Yellow means air quality is moderate, when long or excessive outdoor activities may cause breathing problems for a few people who are very sensitive to ozone, particulates and other air pollutants. "You can do shorter exercising - like if you're a runner, not your usual one-hour run," Emmerich said.

Orange means air quality is unhealthy for sensitive groups, and they should limit prolonged outdoor exertion. Red means air quality is very unhealthy. For the elderly, asthmatics, allergics and all children, outside activity should be little to none, Emmerich said.

Finally, maroon means air quality is dangerous.

"No playing, no taking a run, no taking a bike ride," she said. "Everyone's encouraged to stay inside on those days."

People with asthma or allergies might feel fine while outside on unhealthy air days, but they'll feel that polluted air in a day or two, Emmerich said. She said ozone has another quirky effect: people who are allergic to pollen will almost always react to ozone on high pollution days.

What is an Air Quality Action Day?

String two to four "orange" air quality days together, and the government likely will declare an Air Quality Action Day, Urbaszewski said.

On those days, the Respiratory Health Association and other groups send notices to businesses and institutions that urge them to limit or delay polluting activities, such as idling vehicles, mowing grass and painting.

Notices also go to meteorologists, so individuals know to carpool or take public transit to limit their own pollution emissions. Forecasters also reach people with lung disease or parents of children with lung disease, Urbaszewski said.

"So they can prepare their medication or limit outdoor activities so people don't end up in the ER or hospital or worse," he said.