

The Air You Breathe

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Long-Term Air Pollution Exposure Impacts Emphysema Risks

The Journal of the American Medical Association recently published an article outlining the results of a study that looked at exposure to air pollution—specifically ground-level ozone, fine particulate matter, oxides of nitrogen and black carbon. The study was funded by the National Institute of Environmental Health Sciences (NIEHS) and The National Heart, Lung, Blood Institute (NHLBI), both part of the National Institutes of Health (NIH).

Participants ranged in age from 45-84 and were followed from 2000-2018. According to the NIH press release, the participants lived in these six major metropolitan areas : Winston-Salem, NC; St. Paul, MN; New York, NY; Baltimore, MD; Chicago, IL; and Los Angeles, CA. The participants were part of the Multi-Ethnic Study of Atherosclerosis, a medical research study involving slightly more than 7,000 men and women from the above mentioned cities.

The study focused on one particular lung disease, emphysema, which is usually associated with cigarette smoking. Emphysema is a chronic lung condition in which lung tissue is destroyed and unable to effectively transfer oxygen to the blood. People with emphysema have difficulty breathing along with a persistent cough and phlegm. It makes physical and social activities difficult, creates work hardships and may result in detrimental emotional conditions. Emphysema is not curable, but treatments can help manage the disease. This study shows a link between long term exposure to air pollution and emphysema.

According to James Kiley, Ph.D. of the NHLBI, “These findings may offer one explanation for why emphysema is found in some people who never smoked. The study’s results, duration and timing offer insight into the long-term effect of air pollution on the U.S. Population.”

Researchers measured all major air pollutants along with collecting over 15,000 CT scans of participants’ lungs. Bonni Joubert, Ph.D. of NIEHS explained, “With the study’s long-running duration, repeated CT scans allowed analysis of changes in emphysema over time.

Air pollution is a significant public health concern around the world. Even in the US, with improving air quality, we still see significant health impacts where air pollution is persistent. “We need to assess the effectiveness of strategies to control air pollution in our efforts to improve heart and lung health,” aptly stated David Goff, M.D, Ph.D, of NHLBI.

Cleaner air is a foundational piece of improving public health!

in this issue

| | |
|---------------------------|-----|
| Air Pollution & Emphysema | P.1 |
| Federal Register Notice | P.2 |
| Ohio EPA Director | P.2 |
| AQ by the Numbers | P.3 |
| It's Our Turn Feature | P.4 |

Engineering Guide 44 has been Revised

In May 2019 revisions to Engineering Guide 44 were published by the Ohio Environmental Protection Agency.

This guide covers Portable Source Permitting, Relocation & Compliance. The purpose of Engineering Guide 44 is to establish a standardized approach to permitting, relocation, stack testing and inspecting portable sources. It pertains to all portable sources regulated by a permit-to-install (PTI), permit-to-install and operate (PTIO) or permit by rule (PBR).

To find out if your facility is impacted by the recent update you can contact your air permit engineer in our offices at 330.375.2480. You can also see the guide in its entirety at:

<https://epa.ohio.gov/Portals/27/engineer/eguides/guide44.pdf>

Reclassification of Major Sources as Area Sources

The Environmental Protection Agency (EPA) is proposing amendments to the General Provisions to the National Emission Standards for Hazardous Air Pollutants (NESHAP). The proposed amendments implement the plain language reading of the “major source” and “area source” definitions of section 112 of the Clean Air Act (CAA) and provide that a major source can reclassify to area source status at any time by limiting its potential to emit (PTE) hazardous air pollutants (HAP) to below the major source thresholds of 10 tons per year (TPY) of any single HAP or 25 TPY of any combination of HAP. The EPA is proposing that PTE HAP limits must meet the proposed effectiveness criteria of being legally and practicably enforceable. The proposal also clarifies the requirements that apply to sources choosing to reclassify to area source status after the first substantive compliance date of an applicable NESHAP standard. The EPA is proposing electronic notification when a source reclassifies. We are also proposing to revise provisions in specific NESHAP standards that specify the applicability of General Provisions requirements to account for the regulatory provisions we are proposing to add through this rule.



The public may submit comments on this proposed rule by submitting written remarks one of several ways including the Federal eRulemaking Portal, email, Fax, USPS mail, or hand/courier delivery (see link for specific details). Additionally, there will be at least one public hearing (date, time and location to be determined). Learn more about this by going to: <https://www.govinfo.gov/content/pkg/FR-2019-07-26/pdf/2019-14252.pdf>

Large Coal-Fired Power Plants to Close

Excerpted from *Climatewire* article, [American Mega-Emitters are Starting to Close](#) by Benjamin Storrow

When the Navajo Generating Station in Arizona shuts down later this year, it will be one of the largest carbon emitters to ever close in American history. The giant coal-fired power plant on Arizona's high desert emitted almost 135 million metric tons of carbon dioxide between 2010 and 2017, according to an E&E News review of federal figures.

Its average annual emissions over that period are roughly equivalent to what 3.3 million passenger cars would pump into the atmosphere in a single year. Of all the coal plants to be retired in the United States in recent years, none has emitted more.

The Navajo Generating Station isn't alone. It's among a new wave of super-polluters headed for the scrap heap. Bruce Mansfield, a massive coal plant in Pennsylvania, emitted nearly 123 million tons between 2010 and 2017. It, too, will be retired by year's end.

In western Kentucky, the Paradise plant emitted some 102 million tons of carbon over that period. The Tennessee Valley Authority closed two of Paradise's three units in 2017. It will close the last one next year.

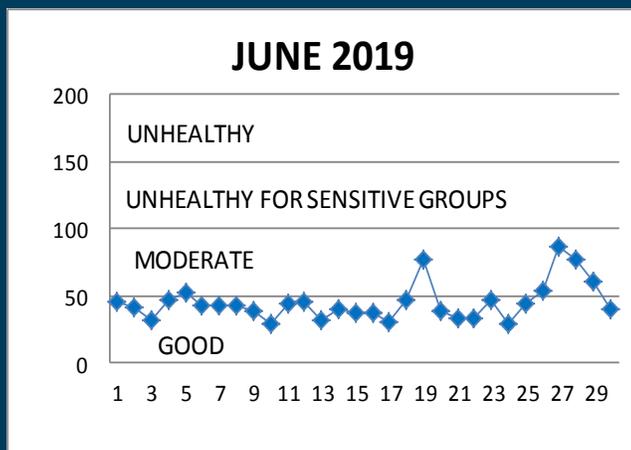
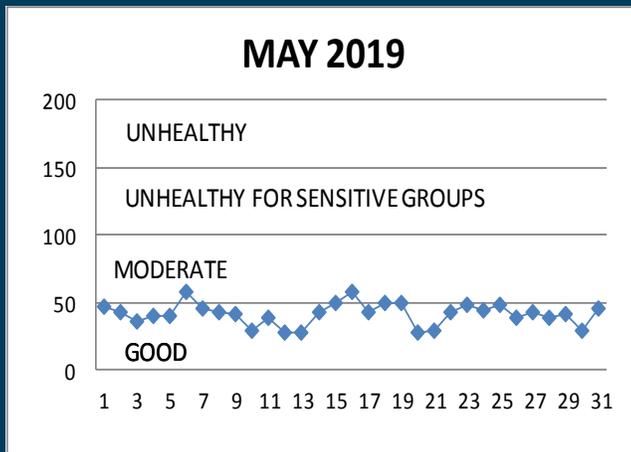
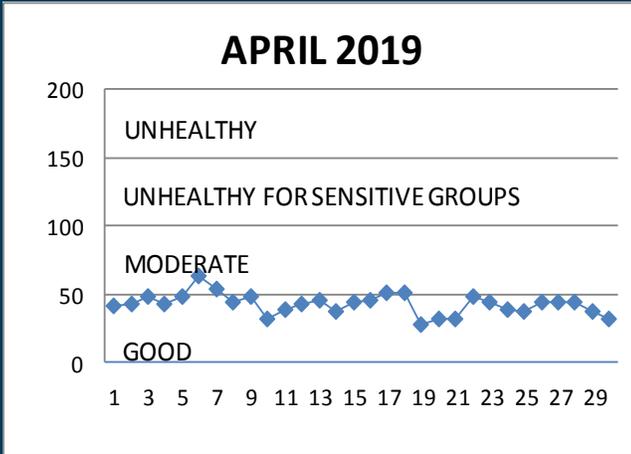
"The coal plants remaining have generally installed all the environmental controls," Larsen said. "There are no additional regulatory threats, or they are cost-effective in a world where gas is \$2.50 per MMBtu."

Another caveat: Coal plant closures don't guarantee power-sector emissions reductions on their own. In 2018, power-sector emissions increased for the first time in many years because electricity demand rose, prompting natural gas generation to spike.

As renewable sources and lesser polluting fossil fuel plants pick up the slack caused by these closures, hopefully we all see long term improvement to air quality.

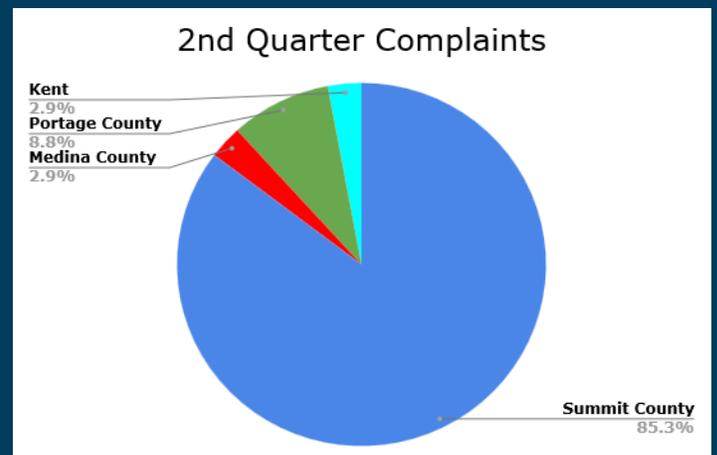
AQ by the Numbers: 2nd Quarter 2019

Air Quality Index



Complaints & Inspections

| Area/ Health District | Commercial/ Industrial | Residential | Total |
|--------------------------|---------------------------|-------------|-------|
| Summit County | 10 | 19 | 29 |
| Medina County | 1 | 0 | 1 |
| Portage County | 2 | 1 | 3 |
| Kent | 0 | 1 | 1 |



| Site Visits | 2nd Quarter 2019 |
|-----------------------------|------------------|
| FEPTIO | 8 |
| Title V | 1 |
| Non Title V | 38 |
| Full Compliance Evaluations | 31 |

Additional Stats

| Permits Issued | | | | | | | |
|---|-------------------|-------|-----------------------------|-------|---------|-------|----------------|
| 2nd Quarter 2019 | Permit to Install | | Permit to Install & Operate | | Title V | | Permit by Rule |
| | Draft | Final | Draft | Final | Draft** | Final | Total |
| *Includes - Preliminary Proposed Permits & Proposed Permits | 1 | 4 | 1 | 30 | 4 | 1 | 12 |

| Asbestos | |
|---------------------|----|
| 2nd Q—Notifications | 71 |
| 2nd Q—Inspections | 53 |



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It's Our Turn — Resist the Urge to Open Burn

The new school year is upon us. The time when “pumpkin spiced” everything is everywhere, folks flock to their local high schools for Friday night football, and I see a lot of social media posts about jeans, hoodies and bonfires.

I am 100% on board with all of that except the whole pumpkin spiced thing (not a fan) and the thought that we can't enjoy fall if we aren't burning something. Many folks find burning leaves, yard debris, or the occasional unwanted piece of furniture as some annual right of passage in the fall. In reality, those fires are creating unnecessary air pollution and perhaps negatively impacting the health of those nearby.

Also quite common, is the misconception that if the fire department says it's OK then the fire isn't illegal. I'd say most folks don't give any consideration to the fact that air pollution rules exist, and that there are people that enforce those rules —like your friends here at ARAQMD. Fire is dangerous, and any time someone burns fire safety protocols should be followed! Because smoke from fires carries air pollutants far from the fire, so if you intend to burn, you should get to know the environmental laws as well.

In general, anyone in Ohio can have a fire for cooking, warmth, pleasure, ceremonial or similar purposes with-

out notification and/or permission from Ohio EPA as long as you burn only **clean, dry, seasoned firewood** in an area no larger than 3 feet in diameter and 2 feet high (say it louder for the people in the back!!). Larger “ceremonial fires” (bonfires) are allowed using **clean, dry seasoned firewood** (not couches) and can be up to 5 feet in diameter and 5 feet high as long as it doesn't burn longer than 3 hours. If you live in a restricted area (generally within or just outside a municipal boundary), you must notify ARAQMD or Ohio EPA in advance of burning a larger ceremonial fire.

If you live in a township at least one mile from a municipal boundary and have at least 1,000 feet (approximately 3 football fields) between your fire and a neighboring structure, you do not need to notify Ohio EPA in advance of burning a larger ceremonial fire. You may also burn plant matter such as tree trimmings, stumps, brush, weeds, leaves, grass, shrubbery and crop residues that were generated on the property. **At no time can you burn solid waste/trash/litter of any kind.**

If you have any questions regarding what you can and cannot burn, please contact ARAQMD at 330-812-3945, or visit Ohio EPA's Open Burning information page located at: <https://www.epa.state.oh.us/dapc/general/openburning>