Open Burning in Allegheny County

Wood burning is regulated within Allegheny County due to the numerous pollutants, including air toxics, found in wood smoke. These pollutants have a negative impact on our region's air quality and can cause serious health effects in sensitive populations.

Wood smoke doesn't remain inside property lines. Wood stoves, fireplaces, and outdoor firepits are all sources of air pollution that can negatively impact a neighbor's, or family member's, health.

While there are strategies to reduce the amount of smoke produced in recreational and home-heating fires, all fires are capable of producing nuisance smoke which can cause serious health effects.

HIDDEN POLLUTION

Allegheny County does not currently meet the federal air quality standards for fine particulate pollution, as measured annually. Fine particulate pollution, or PM2.5, can come from a variety of sources: power plants, industrial plants, motor vehicle traffic, and even a backyard fire pit.

Wood smoke contains numerous air toxics, and contributes to high levels of regional air pollution. While for some, bonfires and campfires have never posed a problem, many people may experience increased asthma symptoms, breathing difficulty, and other health effects when they are exposed to wood smoke.

With the numerous hills and valleys in Allegheny County, wood smoke can become trapped near the ground, smoking out entire neighborhoods, or it can be carried across a hilly backyard and directly into a neighbor's bedroom.

Most of us are familiar with what happens when you get caught downwind of a campfire – Your eyes water, you begin to cough, it's hard to breathe – so it should come as no surprise that even the smallest backyard bonfire might affect your family and your neighbors.

POLLUTANTS IN WOOD SMOKE

CARBON MONOXIDE
METHANE
BENZENE
FORMALDEHYDE
TOLUENE
NITROGEN DIOXIDE
SULFUR DIOXIDE
NAPTHALENE
PROPIONALDEHYDE
ACETALDEHYDE
FURFURAL
FORMIC ACID
GUAIACOL
PHENOL
SYRINGOL
CATECHOL
PHENANTHRENE
ANTHRACENE
HYLANTHRACENES
BENZO(E)PYRENE
BENZO(A)PYRENE

Wood smoke contains numerous pollutants. Some are on EPA's list of 6 common pollutants, also known as criteria pollutants, like carbon monoxide, fine particulate pollution, and sulfur dioxide.

Wood smoke also contains numerous air toxics. Air toxics, also known as hazardous air pollutants, are pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

Concentrations of air toxics and other emissions in wood smoke vary depending on the wood burned and the temperature at which it is burned.

An example of some of the pollutants in wood smoke are listed to the left. ***The only way to completely minimize your risk of exposure to these pollutants is to refrain from burning entirely.***

List of emissions from Summary of the Emissions Characterization and Noncancer Respiratory Effects of Wood Smoke, Timothy V. Larson & Jane Q.Koenig, From Table 2, PA-453/R-93-036, 46p. (US EPA December 1993)

HEALTH EFFECTS OF WOOD SMOKE

The effects of wood smoke can vary depending on the person. Even if you have never experienced a negative side effect, your family members and neighbors may.

Fine particulate pollution is a primary component of wood smoke. Numerous scientific studies have linked fine particulate pollution with decreased lung function, aggravated asthma, irregular heartbeat, nonfatal heart attacks, and premature death in people with heart or lung disease.

Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections.

If you have heart or lung disease, such as congestive heart failure, angina, chronic obstructive pulmonary disease, emphysema or asthma, you may experience health effects earlier and at lower smoke levels than healthy people.

Children also are more susceptible to smoke for several reasons: their respiratory systems are still developing; they breathe more air (and air pollution) per pound of body weight than adults; and they're more likely to be active outdoors.

The EPA estimates that a single fireplace operating for an hour and burning 10 pounds of wood will generate 4,300 times more Polycyclic Aromatic Hydrocarbons (PAHs, known carcinogens,) than 30 cigarettes.

Even if you aren't a member of a sensitive population, wood smoke can cause coughs, headaches, eye and throat irritation, and illness such as bronchitis in otherwise healthy people.

BURNING REGULATIONS

On January 1st, 2015, The Allegheny County Health Department implemented a new Open Burning regulation. This regulation pertains to all burning which occurs outside of a contained device -- Campfires, bonfires, chimineas, and even small fire pits in your backyard fall under this regulation.

15 feet

The distance required from an open-air fire to the nearest property line

The only allowable fuel that can be used in open burning, other than propane or natural gas, is

clean, dry wood

no burn days

When Allegheny County is forecasted to have an Air Quality Action Day, all recreational burning is ***prohibited***

Sign up to recieve notifications of No Burn Days at

alleghenycounty.us/alerts

3' wide x 3' long x 2' high

The maximum size allowed for any burn pile

Visit www.achd.net/air/burning to read the full regulation

COMPLAINTS

ACHD operates a 24 hour complaint line. All air pollution related complaints - Not just about wood smoke - can be reported. Complaints will be investigated by ACHD staff and violations can be issued when necessary.

ACHD Complaint Line

412-687-2243

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Violators of ACHD's Open Burning regulation can be fined for noncompliance. Fines can begin around $250 and can increase with repeated noncompliance.

Wood burning is legal in Allegheny County, however, all open burning must be done in compliance with the ACHD regulation. Read the full regulation online at **www.achd.net/air/burning.**

WHAT YOU CAN DO

The easiest way to avoid fines, minimize your contribution to regional air pollution, and protect the health of your family and neighbors, is to not burn. All fires will produce smoke, and all smoke can affect your health.

Properly **dry and season all wood** before burning. Wet wood produces excess smoke and wastes your fuel. Treated wood and painted wood are illegal to burn, and contain harmful toxins that when burned will end up in your lungs.

If you have a device such as a wood stove or fireplace, make sure they are properly maintained and cleaned on a regular schedule. EPA-certified devices can produce up to 90% less pollution than non-certified devices - see if you can upgrade yours.

Sign up to receive notifications of No Burn Days at **alleghenycounty.us/alerts**. Know when you can't burn.

Be a good neighbor. Even on days when burning is allowed, be considerate of your neighbors. Watch where your smoke is going - it may pass by you and go straight into someone else's bedroom.

Call ACHD when you suspect a fire is not in compliance with local open burning regulations, is dangerous, contains fuel other than clean dry wood, or when smoke has become a nuisance. **412-687-2243.**

Allegheny County Health Department
Air Quality Program

301 39th Street, Building 7
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www.achd.net/air