



# Clark Seif Clark Environmental Newsletter

[www.csceng.com](http://www.csceng.com) 800.807.1118

January 2017



Every day, Clark Seif Clark professionals are deployed across the nation helping both large and small customers resolve health & safety, industrial hygiene, environmental and indoor air quality issues.

At a moment's notice, Clark Seif Clark can send their experts anywhere they are needed. No matter if it's in response to a hurricane, wildfire, flood, tornado, or other natural disaster, Clark Seif Clark is ready to help and can respond in no time at all.

**Employment Opportunity:** *Clark Seif Clark, Inc. is hiring at our Chandler, Arizona office. CSC seeks an Indoor Environmental Professional (IEP)/Industrial Hygienist (IH) with education, experience, and relevant certifications to provide indoor environmental quality (IEQ) and indoor air quality (IAQ) consulting and testing services. To learn more visit [here](#) or contact [timhebert@csceng.com](mailto:timhebert@csceng.com) to submit a resume.*

## Occupational Airborne Hazards and the Importance of Proper Respiratory Protection

Each year, the United States Occupational Safety and Health Administration (OSHA) publishes a preliminary list of the 10 most frequently cited safety and health violations for the fiscal year. It is comprised and compiled from thousands of workplace inspections conducted by federal OSHA staff from across the country. Most years, one of the top 10 cited violations involves respiratory protection.

According to OSHA, an estimated 5 million workers are required to wear respirators in 1.3 million workplaces throughout the United States. Respirators can help to protect workers against insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors and sprays. Some of these hazards could cause cancer, lung impairment, diseases or death.

OSHA reports that respirators protect workers in two basic ways:

### In This Issue

[Occupational Airborne Hazards and the Importance of Proper Respiratory Protection](#)

[Occupational and Residential Wood Smoke Exposure Concerns](#)



**Clark Seif Clark  
(CSC)**

[csc@csceng.com](mailto:csc@csceng.com)  
800.807.1118

### [Office Locations](#)

### [SERVICES](#)

[Asbestos](#)

[Lead](#)

[Mold](#)

[Indoor Air Quality](#)

[Workplace Health & Safety](#)

[Site Assessments](#)

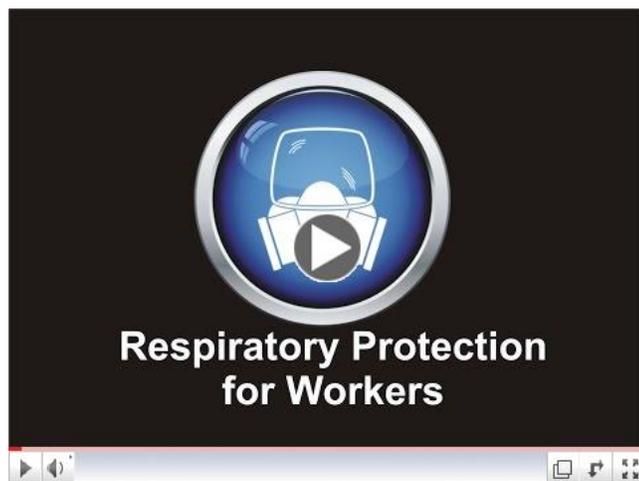
[Energy Efficiency](#)

[Green Building](#)

- The first is by the removal of contaminants from the air. Respirators of this type include particulate respirators, which filter out airborne particles, and air-purifying respirators with cartridges/canisters, which filter out chemicals and gases.
- Other respirators protect by supplying clean respirable air from another source. Respirators that fall into this category include airline respirators, which use compressed air from a remote source, and self-contained breathing apparatus (SCBA), which include their own air supply.

"It is preferential to prevent or limit airborne hazards whenever feasible. However, the use of a respirator is often still required to prevent injury or death of workers," said Derrick A. Denis, V.P. of Indoor Environmental Quality (IEQ) at Clark Seif Clark (CSC). "Not only is employer adherence to OSHA's Respiratory Protection Standard mandatory, but also the standard helps institutions and their staff appropriately select, operate and care for these critical safety devices. Compliance with the OSHA respirator regulations greatly reduces the risk of atmospheric threats to employees and decreases the likelihood of costly noncompliance violations."

To help keep companies and institutions in compliance with respiratory protection regulations and to identify airborne hazards, CSC's IEQ and industrial hygiene professionals offer air testing, compliance and management system audits, and training and education. They recently sponsored an educational video about respiratory protection for workers that can be viewed here:



To learn more about this or other occupational, environmental, indoor air quality, health and safety testing services, please visit [www.csceng.com](http://www.csceng.com), email [csc@csceng.com](mailto:csc@csceng.com) or call (800) 807-1118.

## Occupational and Residential Wood Smoke Exposure Concerns

During the cold winter months, many people burn wood in their

[Litigation Support](#)

[FOLLOW ME ON facebook](#)

Follow CSC on  
Facebook



View our videos on [YouTube](#)

**Is It Safe?**

homes for heat and ambience. While this can provide for an economical way to heat a home, some people could be exposed to wood smoke in the air they breathe. Workers in some occupations may also be exposed to wood smoke on a daily basis.

The smell of burning wood is pleasant to some people, but even though wood is a natural substance, exposure to wood smoke can cause concerns. The U.S. Environmental Protection Agency (EPA) reports the smoke from burning wood contains a complex mixture of gases and fine particles (also called particle pollution, particulate matter or PM). In addition to particle pollution, wood smoke contains several harmful air pollutants, including: benzene, formaldehyde, acrolein and polycyclic aromatic hydrocarbons (PAHs). Carbon monoxide is also produced during the burning of wood.

If the smoke from a wood fire in a business or home is not properly exhausted, combustion byproducts such as gases and microscopic particles can accumulate and expose the eyes and respiratory system and can result in a variety of negative short-term and long-term health effects. The EPA states that wood smoke can affect everyone, but children, teenagers, older adults, people with lung diseases, including asthma and COPD, or people with heart disease are often the most vulnerable.

Short-term exposures to particles from wood smoke can aggravate lung disease, causing asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections. Long-term exposures have been associated with problems such as reduced lung function and the development of chronic bronchitis, and even premature death. Some studies also suggest that long-term PM 2.5 exposures may be linked to cancer and to harmful developmental and reproductive effects, such as infant mortality and low birth weight.

To identify occupational and residential environments where airborne pollutants from wood smoke or other sources may be present, CSC offers comprehensive assessments, including air testing and air monitoring services. CSC also recently sponsored an educational video about wood smoke exposure that can be seen [here](#):



To learn more about this or other occupational, environmental, indoor air quality, health and safety testing services, please visit [www.csceng.com](http://www.csceng.com) , email [csc@csceng.com](mailto:csc@csceng.com) or call (800) 807-1118.

**About Clark Seif Clark:** CSC was established in 1989 to help clients in both the public and private sectors address environmental issues. CSC is a leading provider of these services with multiple offices along the western seaboard and southwest. The company believes in science-based protocols and has a strong background in engineering making them the preferred environmental consultants to healthcare facilities, architects, schools, builders, contractors, developers and real estate professionals.