

# CARBON MONOXIDE ALARMS IN SCHOOLS

## OVERVIEW OF STATE LAWS

Environmental Law Institute

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*Topics in School  
Environmental Health:  
Overview of State Laws*

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### **Why is this Issue Important for School Environmental Health?**

Carbon monoxide (CO) is an odorless, colorless gas produced from the incomplete oxidation of carbon in combustion processes. In school facilities, sources of carbon monoxide may include worn or poorly maintained combustion devices (e.g., boilers, furnaces), or a malfunctioning flue. Vehicle exhaust from nearby idling vehicles can also be sources. If carbon monoxide builds up in the air inside a school facility, students and staff can be harmed by breathing in the gas. Early symptoms of CO poisoning may mimic the flu and include headache, dizziness, weakness, nausea, vomiting, chest pain and confusion. At high concentrations, CO exposure can cause loss of consciousness and death.

Key measures for preventing the accumulation of CO indoors include proper design and maintenance of fuel-burning equipment and limitations on vehicle idling. The use of carbon monoxide alarms, which alert occupants to elevated CO levels within a building, can be an important complement to these preventive measures. The U.S. Consumer Product Safety Commission (CPSC) has worked with Underwriters Laboratories (UL) to help develop a safety standard (UL 2034) for CO alarms.

For more information on carbon monoxide from the U.S. EPA, the Centers for Disease Control and Prevention and the CPSC, see

<http://www.epa.gov/iaq/schools/tfs/guidee.html>,

<http://www.cdc.gov/co/default.htm> and

<http://www.cpsc.gov/en/Safety-Education/Safety-Education-Centers/Carbon-Monoxide-Information-Center/Carbon-Monoxide-Questions-and-Answers/>

### **What Types of State Policies are Included in this Overview?**

This Overview includes state laws and regulations that require or promote the use of carbon monoxide alarms in schools, though it may not necessarily include all such policies. State agency guidance documents and other materials are not covered in the absence of a related law or regulation addressing CO alarms directly. While many states and localities have enacted laws and regulations requiring CO alarms in certain types of residential buildings, to date only a small number of states have adopted laws or regulations addressing CO alarms in schools.

States included in the summary chart below: **CA, CO, CT, MD, UT, WV**

STATE & CITATION	CARBON MONOXIDE ALARMS SUMMARY OF LAW/REGULATION	LAW REQUIRES CO ALARM?
<b>CALIFORNIA</b> Ca. Educ. Code § 32081	California law requires the state fire marshal to propose for adoption in the state building code a standard for installation of CO devices in school buildings. The standard must require that CO devices be installed in a public or private K-12 school built pursuant to the 2016 state building code (and later versions) if a fossil-fuel burning furnace is located inside the school. The law encourages existing schools with fossil-fuel burning furnaces to install CO devices.	YES (New schools)
<b>COLORADO</b> Co. Rev. Stat. § 25-1.5-101; 6 Co. Code Regs. § 1010-6.9.3	Colorado health law authorizes the Department of Public Health and Environment to establish and enforce sanitary standards for the operation and maintenance of schools. Department regulations require schools to install operational CO alarms in areas where fossil fuel-fired heaters and appliances are used. Alarms must be tested at least annually, with devices that rely only on battery power to be tested monthly and batteries replaced at least annually. Documentation of testing is to be made available upon request.	
<b>CONNECTICUT</b> Ct. Gen. Statutes § 29-292	Connecticut law requires state fire code regulations to include provision for carbon monoxide detection and warning equipment in all public and nonpublic school buildings. The fire code regulations must include requirements and specifications for installation, use, testing, inspection, and maintenance of CO detection and warning equipment. Equipment must meet or exceed specified UL standards and be installed in compliance with NFPA standards. Regulations must prohibit battery-operated CO warning equipment or equipment using batteries for backup power in schools issued an occupancy permit on or after January 1, 2012; after that date, a certificate of occupancy may not be issued unless the local official has certified compliance with these requirements.	YES
<b>MARYLAND</b> Md. Educ. Code § 4-117	Maryland law requires newly constructed or substantially remodeled school buildings to include installation of carbon monoxide alarms in areas of new and existing educational occupancies where fuel-fired equipment is present. The law requires schools to install CO alarms in compliance with NFPA standards and to ensure that a signal from the CO alarm will be automatically transmitted to an approved supervising station or to a constantly attended on-site location.	YES (New and Remodeled Schools)
<b>UTAH</b> Ut. Stat. § 15A-5-204	Utah law establishes carbon monoxide detection system requirements as part of the state fire code. The law requires installation of CO detection systems in new and existing Group E occupancies (including K-12 schools) where a fuel-burning appliance, fire place, or forced air furnace is present. CO detection systems must be installed in accordance with the International Fire Code.	YES
<b>WEST VIRGINIA</b> W.V. Stat. §18-5-10; W.V. Code of State Rules § 126-172-2	West Virginia regulations incorporate the state's Handbook on Planning School Facilities, which establishes requirements and considerations for planning and constructing new school facilities, additions and major renovations. The Handbook requires installation of an electric-powered carbon monoxide	YES (New and Remodeled Schools)

	monitor/alarm in each area that produces combustion gases. The device must be tied into the building control system and alarm when activated.	
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