



School Building Carbon Monoxide Law Silent Killer in Schools Act

WHY DO WE NEED A SCHOOL CARBON MONOXIDE (CO) LAW?

In December of last year, 43 students and 10 adults were overcome from carbon monoxide poisoning at the Finch elementary school in Atlanta, GA. According to the [Atlanta Journal-Constitution and other news media reports](#), the Atlanta Fire Department said they've never seen such high CO readings in a building. There was no reason for anyone to have detected it because CO is a stealthy poison, colorless, odorless, tasteless, invisible, and non-irritating; children, pregnant mothers and senior citizens are especially vulnerable to it. The Finch school did not have a carbon monoxide detection system and neither Georgia nor Atlanta has a law requiring a school to have such a system. But that is not unusual.

At this time, only two states have such a law on the books, Connecticut and Maryland. The Maryland law was passed with Safe Kids' strong support. Since then the issue of carbon monoxide detection in schools has become a significant issue and legislation has been introduced in at least eight states: [Georgia](#), [California](#), [Florida](#), [Mississippi](#), [New Jersey](#), [New York](#), [South Carolina](#) and [Virginia](#), and a Pennsylvania legislator is planning a bill. Safe Kids actively supports such legislation and we are providing the following model which you can adapt to the fire-related laws in your state. We are providing a model law which we propose as the "Silent Killer in Schools Law."

FACTS.

- All of us are at-risk to the poisonous gas, but the three most vulnerable groups are small children—like the students at Finch—pregnant women and our senior citizens. [Source.](#)
- Because of their high metabolic rates and high tissue oxygen demands, children are biologically at increased risk of CO poisoning when exposed to CO. [Source.](#)
- According to the National Fire Protection Association (NFPA), in 2005 there were 260 carbon monoxide incidents reported nationwide in educational facilities. [See chart.](#)
- Of these, 150 incidents occurred in facilities for preschool through grade 12.
- Annually, there are over 20,000 CO-related emergency department visits reported in the U.S. [Source.](#)
- In 2009, poison control centers had 1,674 exposure cases of CO exposure among children ages 5 and under and 1,069 exposure cases among children ages 6 to 12. [Source.](#)

Key Provisions Assuming State Has Existing Statutory Law on Carbon Monoxide in Homes and Other Buildings

- The bill is connected with building and fire codes which those who would implement it are comfortable with.
- The law recognizes that there needs to be a connection between the technology which would detect the poison and how the appropriate officials will be alerted. (In other words, a simple CO alarm from a hardware store will be insufficient in most cases. In most cases it should be a detector connected with the central fire alarm system or communications system that sends the alarm signal to a constantly attended onsite location.)
- It exempts buildings that do not have risks of carbon monoxide poisoning because of their reliance on systems that do not emit any carbon monoxide.

Contact:

Safe Kids Worldwide

Anthony Green

Director, Public Policy

Office: 202.662.0606 / Cell: 202.615.4300 / www.safekids.org

1301 Pennsylvania Ave. NW, Suite 1000, Washington, D.C. 20004

Follow us on: [Twitter](#) / [Facebook](#) / [Flickr](#) / [YouTube](#)

Carbon Monoxide Incidents in Schools by State

STATE	CITY	DATE	TYPE	DESCRIPTION OF INCIDENT	CAUSE (IF KNOWN)
AR	Bentonville	2/10/2005	Junior high	1,000+ students evacuated due to CO leak, 51 taken to the hospital for evaluation and treatment	Boiler
CO	Aurora	10/12/2009	High school	Students were sent home for the day after elevated CO levels discovered	Boiler
CO	Rifle	9/1/2011	Elementary	School evacuate, nearly 2 dozens student and teachers sick due to an "odor"	
CT	Hartford	4/25/2011	High school	CO detected in school as students arriving for classes; no injuries reported	Malfunctioning boiler
CT	Waterbury	1/4/2011	Elementary	20 children (between ages of 8-11) hospitalized after falling ill to CO leak	Water heater access door broken
CT	Waterford	3/28/2012	Elementary	High CO levels	
FL	Miami	10/4/2010	Elementary	11 people sent to hospital due to CO leak in cafeteria	
FL	Weston	6/10/2009	Elementary	5 school employees and 2 firefighters hospitalized due to CO exposure	Propane-powered machine used for stripping wax floors
GA	Atlanta	12/3/2012	Elementary	43 students, 10 adults sent to hospital after exposure to CO – mild-to-moderate symptoms of CO poisoning; CO reading of 1,700 parts per million	Suspected faulty furnace
GA	Gainesville	3/9/2006	Elementary	School was evacuated due to elevated CO levels	Heating and air unit?
IL	Chicago	11/5/2012	Elementary	25 people taken to area hospitals after a CO leak caused by faulty boiler – CO measured at 43 parts per million in certain areas	Faulty boiler
IN	Ft. Branch	2/21/2006	Dance school	CO levels measures 523 ppm on ground floor, 613 ppm in basement; two girls passed out	Furnace?

IA	Iowa City	9/23/2010	Head start	Unsafe levels of CO detected at Head Start facility, classes canceled for day	Cleaning crew using unauthorized equipment in area not properly ventilated
KS	Dodge City	11/30/2005	Elementary	Annex classroom evacuated when teacher and students noticed smell	Cracked heat exchanger
KY	Louisville	2/22/2010	Elementary	CO spread through ventilation system due to gas-powered tools – students evacuated, with 13 children and 1 teacher transported to area hospitals and 30 others evaluated at school	Gas-powered concrete saw used in boiler room
LA	Lake Charles	10/2/2010	Elementary	Building closed up due to smoke outside and low-lying fog – air quality was checked, and trace CO found. School was evacuated but students stayed on grounds. 20 individuals evaluated at local hospitals	Building closed b/c of smoke, fog
ME	Bangor	11/2/2010	Beauty school	Nearly 100 people evacuated after CO leak reported – 6 people transported to hospital for further evaluation	Faulty propane heater on roof
MA	Chelmsford	12/29/2005		Test results from 3 patients revealed traces of CO	Delivery vehicles idling outside school
MA	Finchburg	1/11/2007	Middle school	7 individuals were evaluated/hospitalized after elevated levels of CO detected	Boiler under repair
MA	Lexington	2/17/2005	High school	School was evacuated twice for CO before source(s) discovered	Hole in intake pipe, unlined chimney; also intake and exhaust pipes too close

MA	Marshfield	3/1/2012	High school	CO/other fumes drawn back into loading docks by wind – high levels of CO outside building, lower levels inside; no reported injuries	Water heater malfunction
MA	Northboro	10/2/2008	Elementary	Evacuation of school due to elevated CO in cafeteria area – no injuries	Boiler malfunction
MD -	Baltimore	2/8/2011 2/15/2011	Elementary/Middle	School experienced two separate incidents a week apart – on 2/8, five adults and a child were briefly hospitalized; on 2/15, 6 students complained of illness and 40 other people possibly exposed to CO	2/8: Malfunctioning steam table 2/15: Convention and steam oven used to prepare food;
MD	Fredericksburg	2/3/2012	Elementary	CO fumes from running vehicle circulated via HVAC; several teachers taken to hospital and diagnosed with CO poisoning	Diesel vehicle stuck in vicinity of individual room's HVAC system
MI	Portage	2/24/2010	High school	School undergoing renovation, parents complain that children have higher than normal levels of CO and suspect school construction	
MI	Royal Oak	3/5/2005	High school	High levels of CO were detected at the pool during swim lessons	Furnace
MI	Thompsonville	5/4/2007	Elementary	School closed after students fell ill – no CO source found. Incident potentially caused by sewer gases existing a rooftop vent that were sucked back into building by fresh air exchange	Sewer gas?
MN	St. Paul	10/5/2010	Elementary	School evacuated for about 1 hour due to elevated CO levels	Boilers

MS	Marshall County	9/8/2010		5 cafeteria workers sent to hospital w/CO ingestion	Ventilation system in kitchen
MO	Ballwin	3/6/2009	Elementary	School evacuated, no reported illnesses	Open air handler door on HVAC system
MO	Cape Girardeau	4/30/2012	Elementary	School was evacuated for the second time in a week due to buildup of CO in gym and cafeteria	Dirt-dobbers (insects) clogged up an air intake system
NH	Derry	2/18/2010	Elementary	Dozens of students reported illness, school and adjacent church checked for CO levels (30 students and teachers taken to hospital, but no one admitted)	Ventilation system (3 rd floor)
NH	Lisbon	12/20/2005		School evacuated twice before school and FD determined CO and other exhaust gases were being drawn into school through air intake system on roof (emissions from boiler's exhaust stack being pushed down to the roof by low-pressure weather systems)	Short exhaust?
NH	Litchfield	11/9/2006	High school	Students sent home after elevated CO levels were detected	Boiler smokestack and proximity to air intake unit
NH	Meredith	3/16/2012	High school	Exhaust drawn back into building; staff/ students evacuated, a small # had slightly elevated CO levels (no one taken to hospital)	Misfiring boiler
NH	Unity	1/29/1994	Elementary	CO leak in school building sickened 25 children and several teachers	Furnace leak
NY	Bronx	4/7/2010		Building that houses 4 public schools and 1,500 students evacuated after elevated levels of CO were detected	

NC	Columbus	10/21/2008	High school	Faulty air flow created CO leak in an early college school – 32 people (27 students, 5 staff) were sent to the hospital	Insufficient air in boiler room
NC	Matthews	5/13/2010	Middle	Firefighters discovered high level of CO, school was cancelled due to suspected gas leak	No gas leak, but propane buffer to clean floors
NC	Raleigh	11/7/2006	Elementary	4 teachers and 1 student taken to hospital after complaining of headaches, nausea; 500 students moved to gym in separate building	Debris in heating system block air intake system
OH	Newark	3/2/2004	K-8 (Private)	15 students and 3 staff members were sickened due to CO, some taken to hospital	Boiler/heating unit (?)
OK	Madill	3/28/2012	Elementary	School evacuated, 25 people transported to hospitals for evaluation	Gas leak
OK	Tulsa	5/4/2009	Middle	Construction worker began experiencing CO poisoning symptoms – firefighters responded	Gas power washer in construction area without adequate ventilation
PA	Derry Township	11/3/2011	High school	1 teacher taken to hospital after becoming sick from construction fume	Propane heater in unsealed construction area
PA	Glen Rock	9/5/2012	Elementary	Nearly 40 students were sent home due to CO exposure	Diesel machine digging a trench – fumes seeped into building
PA	Philadelphia	10/9/2012	Elementary	Many of 577 students were evacuated, and 50 children and 5 adults were taken to local hospitals after CO fumes spread through school	Malfunctioning backup generator (after power outage)
RI	Peace Dale	1/28/2005	Elementary	520 students/teachers evacuated due to CO	Snow clogged heating exhaust vent

TN	Cleveland	11/6/2006	Elementary	All students evacuated when high levels of CO were detected in some classrooms	
TX	Dallas	1/6/2012	High school	School evacuated – nearly a dozen people complaining of CO symptoms; no one sent to hospital	Improperly ventilated boiler
TX	Houston	11/4/2011	High school	22 students taken to hospital with mysterious illness – at least one was diagnosed/treated for CO poisoning	Possible exposure from standing by buses or generators?
TX	Pampa	10/7/2009	High school	CO leak forced evaluation of students	Furnace
UT	Heber	3/27/2012	Elementary	Evacuation of school – 1 teacher, 17 students treated/released at local hospital	Construction crew using machinery by open door
VT	Burlington	2/5/2010		Elevated CO levels in boiler room	New boiler
VT	Putney	1/6/2011	Elementary/Middle	11 students, 1 adult treated for CO poisoning	Gas leak caused by furnace problem
WI	Milwaukee	1/7/2009	Elementary	Students evacuated due to CO – no students/staff members affected by fumes	Malfunctioning boiler