

Reducing Environmental Exposures in Child Care Facilities: A Review of State Policy

Environmental Law Institute
Children's Environmental Health Network

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Executive Summary

The child care environment is vitally important to the healthy development of millions of young children who receive care outside their homes. Along with creating a safe, nurturing, and stimulating child care program, protecting children from exposure to indoor environmental contaminants is critical to advancing the core goals of early care and education. A new report by the Environmental Law Institute and the Children's Environmental Health Network, *Reducing Environmental Exposures in Child Care Facilities: A Review of State Policy*, provides an overview of how states across the U.S. address several key environmental health issues through their child care licensing and other laws and regulations. This Executive Summary presents selected findings from the report on current state policy approaches on each of these environmental health issues. For more detailed information about state policies and programs, including references for the background information and citations to the policies summarized below, see the full report at: <http://www.eli.org/buildings/reducing-environmental-exposures-child-care-facilities>.

ENVIRONMENTAL TOBACCO SMOKE

Background

- ✚ The health effects of Environmental Tobacco Smoke (ETS), or secondhand smoke, can include more frequent and severe asthma attacks, respiratory symptoms such as coughing, sneezing, and shortness of breath, respiratory infections, and ear infections.
- ✚ Measures such as ventilating buildings, separating smokers from nonsmokers, and using air cleaners generally do not eliminate exposure to ETS.
- ✚ Nonsmokers may also be exposed to "thirdhand smoke" – residual contamination from smoking that persists on furnishings, carpets, hair, and clothing even after tobacco products have been extinguished.

Overview of State Policy in the U.S.

- ✚ All states prohibit or restrict smoking at child care facilities in some way, through their no-smoking and/or child care laws and regulations.
- ✚ Several states prohibit smoking at all times for all types of licensed child care. For home-based child care facilities, many states prohibit smoking only during hours of operation.
- ✚ Virtually all states restrict smoking in child care vehicles, including some states that prohibit smoking in the vehicles even when children are not present.
- ✚ An increasing number of states are including electronic cigarettes (e-cigarettes) in their smoking prohibition.

RADON

Background

- ✚ Radon is a radioactive gas found in rock and soil that can enter buildings through the foundation.
- ✚ Indoor radon exposure is responsible for over 20,000 lung cancer deaths in the U.S. every year.
- ✚ The only way to know the radon level in a home or other child care facility is to test the building.
- ✚ There are well-established methods for carrying out radon testing and mitigation.

Overview of State Policy in the U.S.

- ✚ Several states have adopted laws or regulations that require radon testing and mitigation in child care facilities. Most of these states have established technical guidance to govern required testing and/or mitigation activities.
- ✚ Many other states in the U.S. have considerable areas of high or moderate radon potential.

CARBON MONOXIDE

Background

- ✚ Carbon monoxide (CO) is an odorless, colorless gas produced from the incomplete burning of fuels such as gas, oil, kerosene, wood, and charcoal.
- ✚ In child care facilities, sources of CO may include malfunctioning fuel-burning appliances (e.g., furnaces, water heaters, unvented space heaters, gas/wood stoves), portable generators, and automobile exhaust.
- ✚ Early symptoms of CO poisoning may mimic the flu. Long-term breathing of CO can affect memory, brain function, and behavior, while exposure to high concentrations can cause loss of consciousness and death.
- ✚ In addition to regular inspection of fuel-burning equipment, a key measure for preventing CO poisoning is the use of indoor CO alarms, which alert occupants to elevated CO levels within a building.

Overview of State Policy in the U.S.

- ✚ A majority of states require installation of CO alarms in some or all types of existing licensed child care facilities – typically through child care licensing regulations and/or a fire or public safety code.
- ✚ Around one third of these states apply the requirements exclusively to home-based child care facilities or to certain types of residential structures. Most CO alarm requirements exempt facilities that have neither fuel burning equipment nor attached garages.

MOLD AND DAMPNES

Background

- ✚ Mold growth inside a building can result from problems such as flooding from heavy rains or plumbing failures, ongoing roof or plumbing leaks, uncontrolled humidity, or condensation.
- ✚ Known health risks from indoor exposure to mold and dampness include: development of asthma, allergies, and respiratory infections; triggering of asthma attacks; and increased wheeze, cough, and other symptoms.
- ✚ Controlling water/moisture is the key to controlling mold indoors. Public health agencies recommend taking action to address visible mold, mold odor, and dampness by correcting the water/moisture source and immediately drying and cleaning or removing damp or moldy materials.

Overview of State Policy in the U.S.

- ✚ Almost half of all states have child care regulations that address mold or dampness directly. Most of these provisions require providers generally to maintain facilities free from dampness, mold, and/or related conditions.
- ✚ State child care regulations generally do not establish affirmative measures such as requiring providers to promptly identify and fix the source of water intrusion/dampness and to promptly clean and dry or remove moldy materials.

BUILDING VENTILATION AND TEMPERATURE

Background

- ✚ Building ventilation supplies or removes air from a space through mechanical or natural means and is important for comfort and for diluting/removing indoor pollutants. State and local codes typically establish ventilation system requirements for *new or renovated* buildings, including minimum outside air requirements.
- ✚ Temperature and humidity control are important for occupant comfort and health. Humidity control is also important for indoor air quality, as it affects the potential for moisture problems and mold growth.

Overview of State Policy in the U.S.

- ✚ Nearly all states have child care regulations that direct facilities to be ventilated naturally or mechanically, typically establishing a general requirement for “adequate” or “proper” ventilation. A small number of states include more specific requirements – e.g., ventilation in certain areas (such as bathrooms) or in connection with specific activities (such as cleaning), or preventive maintenance and inspection of equipment and filters.
- ✚ Nearly all states have adopted indoor temperature standards as part of their child care regulations for some or all types of licensed facilities, though few child care regulations address humidity.

PESTICIDES

Background

- ✚ The use of pesticides may help eliminate pests in child care facilities, but the pesticides themselves can impact the health of children and staff if they are exposed to the chemicals through inhalation or skin/eye contact.
- ✚ The potential health effects vary depending on the type of pesticide used, and may include skin and eye irritation, endocrine and nervous system damage, and cancer.

Overview of State Policy in the U.S.

- ✚ A handful of states have laws or regulations that require certain types of child care facilities to implement a formal integrated pest management (IPM) plan or program.
- ✚ More than one third of all states restrict the use of pesticides while children are present, and several states restrict the types of pesticides that may be used in certain child care facilities.
- ✚ Many states require providers to give parents some type of advance notice of pesticide applications.

LEAD-BASED PAINT

Background

- ✚ Although the sale of lead-based paint was banned in the U.S. in 1978, there are millions of homes that still have lead-based paint in the building. For pre-1978 buildings, lead-based paint abatement and/or adequate maintenance of interior and exterior painted surfaces are critical to preventing lead poisoning before it occurs.
- ✚ Ingestion or inhalation of even very small amounts of lead by young children can result in stunted growth, lower IQ, behavior and learning problems, anemia, and hearing problems.

Overview of State Policy in the U.S.

- ✚ A majority of states have child care or lead laws/regulations that prohibit lead hazards in child care facilities.
- ✚ Several states have regulations that explicitly require license applicants to document lead paint conditions in some manner. Routine licensing inspections are also an opportunity to identify and address lead hazards.
- ✚ Around half of all states authorize or require lead agencies to inspect or issue orders to child care facilities in response to suspected or known lead hazards.
- ✚ At least a dozen states have laws or regulations that spell out steps providers must take to address known or suspected lead hazards.

ASBESTOS

Background

- ✚ The U.S. has banned many uses of asbestos, but asbestos-containing materials and products are still present in many older buildings, in insulation and fireproofing materials, ceiling and floor tiles, roofing, pipes, and siding.
- ✚ When asbestos-containing material is disturbed or damaged — for example, during building maintenance, demolition, renovation, or repair — asbestos fibers and particles are released into the air.
- ✚ Asbestos exposure has been linked to serious health problems, including lung disease.

Overview of State Policy in the U.S.

- ✚ At least one third of all states address asbestos directly in the child care setting.
- ✚ The most common regulatory provisions are general standards prohibiting asbestos hazards.
- ✚ Some states have adopted more comprehensive provisions, including requirements for inspections/documentation in connection with licensing, actions to address asbestos hazards, and notice to parents/guardians and staff.

OTHER CHEMICAL EXPOSURES

Background

- ✚ Chemicals are used in a wide array of common consumer products and children's products.
- ✚ Children are particularly susceptible to potentially harmful chemical exposures because their bodies are developing and they breathe more air relative to their size than do adults.

Overview of State Policy in the U.S.

- ✚ Many state child care regulations aim to reduce exposure to chemicals in **cleaning products** by prohibiting cleaning in children's presence and requiring that cleaning products be used in a way that will not contaminate surfaces accessible to children. **Building renovation and repair activities** are subject to similar provisions in some states.
- ✚ A number of states have adopted child care regulations that restrict the use of certain **other types of products**. The most common of these provisions is a general prohibition on toys and other equipment containing toxic components or finishes, and a few states require nontoxic art supplies. Several states restrict the use of hand sanitizers on young children, while a small number of states prohibit products such as mercury thermometers, air fresheners, and baby bottles. Vermont is notable for a prohibition on devices that diffuse airborne chemicals.

SITE/LOCATION

Background

- ✚ Child care facilities may be affected by environmental contamination caused by a prior use of the facility site, or by a prior or current use of a nearby site.

Overview of State Policy in the U.S.

- ✚ Several state child care licensing or sanitation regulations prohibit the location of facilities near health and safety hazards generally, and a few prohibit locating a facility near specific hazardous activities.
- ✚ The state of New Jersey has detailed regulatory requirements relating to environmental conditions at the site/location of child care facilities. Most child care centers must obtain an environmental site assessment, and an indoor environmental assessment may also be required depending on the facility's prior uses or current location.
- ✚ In New York, child daycare center regulations require applicants to submit written self-certification that the surrounding area is free from environmental hazards and to take follow up action if potential hazards exist.