



Iowa Department of Public Health

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Fuel-Fired Pool Heaters and Carbon Monoxide Detectors

In 2012, USA Today published an [article](#) on the carbon monoxide risk faced by hotel guests. Their investigation noted that 8 people died and at least 170 others were treated for carbon monoxide poisoning in the previous 3 years at hotels.

In 2013, 3 people died of carbon monoxide exposures in a hotel room in 2 separate incidents at a hotel in North Carolina. The source of the carbon monoxide was determined to be from a pool heater directly below the guest room. An [article](#) noted that the family of one of the victims received a \$12 million dollar wrongful death settlement in relation to the incident.

Unfortunately, even after these type of articles and incidents, each year additional carbon monoxide incidents continue to claim lives of hotels guests around the country.

Often the noted source of the carbon monoxide is linked to pool heaters. All gas-fired equipment can create carbon monoxide as a product of combustion. Normally, the products of combustion such as carbon monoxide are safely vented out the exterior of the building. Pool heaters are more vulnerable as they are often located in an environment that is more humid than other areas of the building. The humidity, coupled with the chemical fumes, present from the storage and use of the pool chemicals can quickly corrode the gas-fired pool heaters and/or their flue vents allowing the products of combustion including carbon monoxide to escape into the equipment room, chase, and adjacent spaces.

In hotels, often the equipment rooms containing the gas-fired equipment or the chases routing the flue vents to the exterior are immediately adjacent to the guest rooms. As hotel guests spend extended periods in their rooms, much of it sleeping, they are at greater risk if any carbon monoxide leaks from flue vents into their guest rooms.

The added risks associated with gas-fired pool heaters are recognized in the national model code, the [Model Aquatic Health Code \(MAHC\)](#), which under section 4.6.4.4 requires carbon monoxide detectors with local alarming in all new equipment rooms with gas-fired pool heaters and in all rooms that are immediately adjacent to the equipment room or the vents carrying the products of combustion.

In February of 2018, new rules were implemented by the Iowa Department of Public Safety requiring carbon monoxide detectors in the immediate vicinity of each sleeping unit under [661 IAC 211.12](#) for new construction and existing single family and multiple unit residential buildings served by a fuel fired heater.

Given the carbon monoxide risks specifically associated with gas fired pool heaters, in addition to meeting the minimum requirements of 661 IAC 211.12 associated with sleeping rooms, the Iowa Department of Public Health would recommend carbon monoxide detectors with local alarming in all equipment rooms with gas-fired pool heaters and in all rooms that are immediately adjacent to the equipment room or the vents carrying the products of combustion.

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