



Yakima County Fire Marshal's Office

Public Information Handout FP-3

Carbon Dioxide (CO₂) Used in Beverage Dispensing



Carbon Dioxide is a colorless, odorless asphyxiate gas that cannot be detected without the use of specialized equipment. Even a small leak can quickly accumulate and become dangerous for employees, customers and first responders alike. In 2011, a leak in a CO₂ system at a Georgia's McDonald's exposed a woman to lethal levels of Carbon Dioxide that had built up in the walls and ceiling and leaked into a bathroom. Installing an alarm will ensure that you, your employees, and your customers remain safe!

The International Fire Code section 5307 Carbon Dioxide (CO₂) Systems Used in Beverage Dispensing Applications requires storage and safety measures for the safe use of carbon dioxide systems¹ in your business.

What does this mean to you?

An emergency alarm system is required if CO₂ can accumulate indoors and if any tanks, cylinders, piping, or equipment are used.²

What should you do?

You will need to have an emergency alarm system compliant to recognized standards installed in your business as part of the permitting process for CO₂ usage. The alarm shall:

1. Be placed in a location where CO₂ may accumulate.³
2. Continuously function.³
3. Have a threshold of activation no greater than 5,000 parts per million (9,000 mg/m³).³
4. Initiate a local alarm in the room or immediate area.³
5. Be accompanied by a warning sign at the entrance of the room or area stating the following: "Carbon Dioxide Alarm. Do Not Enter. Call 911."

When a Yakima County Fire Inspector comes for the annual inspection of your business, this alarm will be required!

1. For systems with more than 100 pounds (45.5 kg) of Carbon Dioxide.

2. A mechanical ventilation system in accordance with the International Building Code is permitted in lieu of an emergency alarm system (IFC Section 5307.5.1)

3. 2018 International Fire Code 5307.5.2

If you have any questions or need further clarification, please contact Yakima County Building and Fire Safety at (509) 574-2300.