

Boiler and Pressure Vessel Safety Rules Amendments [Title 41, Part 2120]

Proposed changes have been considered by the Board of Boiler and Pressure Vessel Rules which formulates and enforces rules and regulations for safe and proper construction, installation, repair, use, and operation of boilers and pressure vessels in the state. The changes would:

1. Update the reference to the current edition of National Board Inspection Code and other codes in Illinois rules.
2. Require that carbon dioxide detectors be placed inside every commercial building (e.g. restaurants, movie theaters) where any portion of a pressurized carbon dioxide vessel system is located and on any floors below that point.
 - a. Carbon dioxide, like carbon monoxide, is an odorless, tasteless gas that can kill within minutes at high concentrations.
 - b. This requirement is based on a recommendation of an associated boiler safety code.
3. For newly installed systems only, require exit points of boiler ventilation piping (both intake and exhaust) be located outside of an occupancy at least 36 inches above grade to prevent carbon monoxide buildup during times of high snowfall.
 - a. Typically, boiler exhaust systems are vented out through the roof of the building. A small percentage of buildings have the boiler exhaust vents directed out the side of the building.
 - b. National standards such as NFPA 54 now require the consideration of snowfall in determining the height of building side ventilation for boilers, using a calculation of 12 inches above grade plus snowfall. The generally agreed height is 36 inches to account for snow accumulation.
 - c. This would only affect buildings with boilers with side ventilation installed from December 2014 and forward.
4. Clarify the inspection cycle for a historical boiler in the event that one or more required inspections are not conducted by the owner or operator.
 - a. Historical boilers are older boilers that were installed before the standard

use of ASME labels and codes, some of them installed before 1900.

- b. Historical boilers are inspected every two years.
- c. The proposed change would make it so that if a historical boiler misses two inspection cycles (4 years), a full grid ultrasonic (UT) inspection by a third party would be required before a certificate of operation could be issued. This ensures that historical boilers that are not inspected under the approved schedule are comprehensively evaluated for signs of inadequate safety.