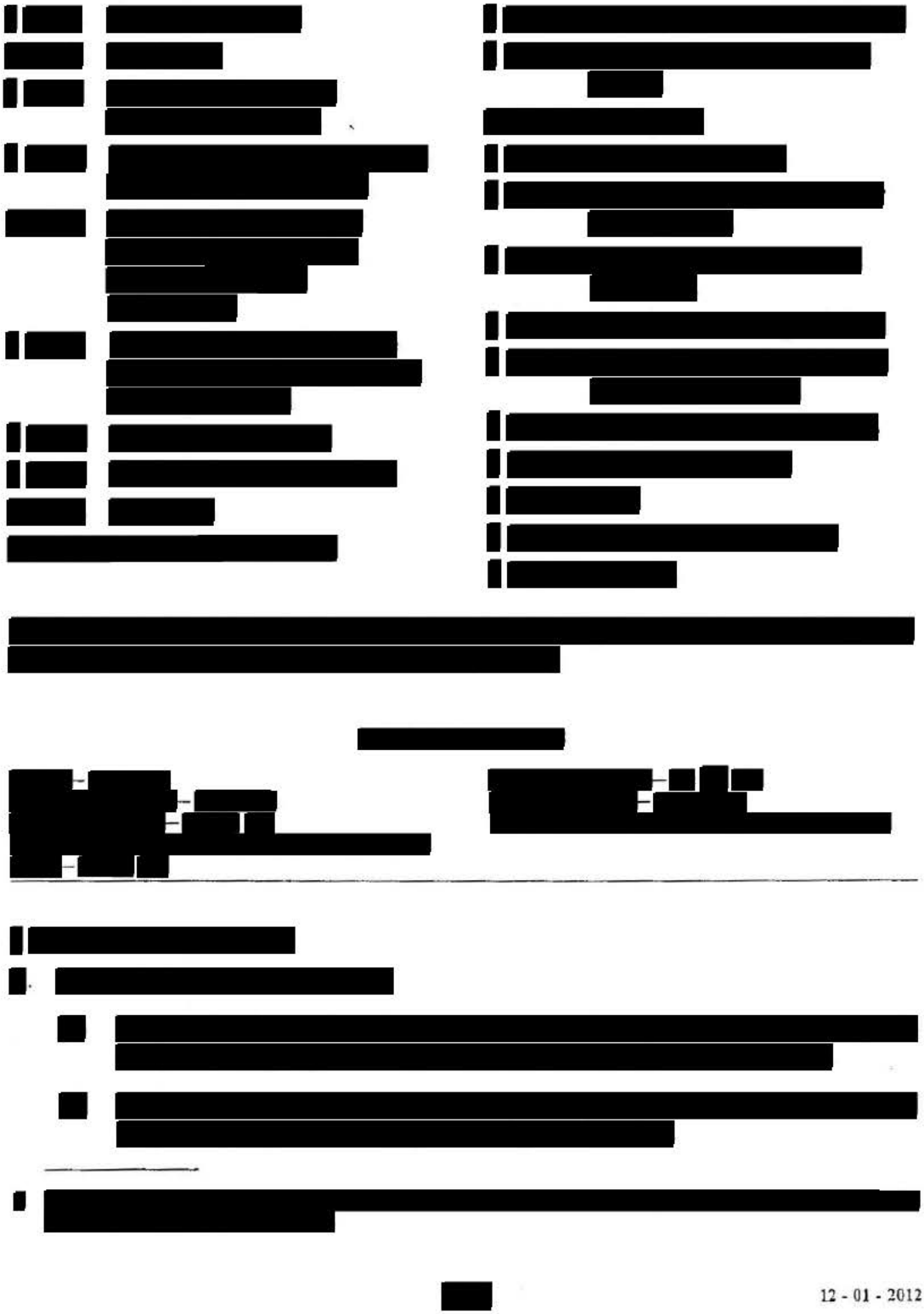
Chapter 133

FIRE PREVENTION, PROTECTION AND CONTROL CODE



B. Applicability.

(1) The provisions of this code shall apply to all public buildings and places of employment. Exceptions: The following buildings and uses are not public buildings or places of employment and are not subject to the provisions of this code:

(a) One- and two-family dwellings.

(b) Buildings used exclusively for farming as described in § 102.04(3), Wis. Stats.

(c) Nothing contained in this section shall be construed as applying to the transportation of any article or thing shipped in conformity with the regulations prescribed by the Interstate Commerce Commission, or as applying to the military forces of the United States.

(2) The provisions of this code shall apply equally to new structures, including additions to existing structures and existing conditions, except that existing conditions not in strict compliance with the terms of this subsection shall be permitted to continue where the exceptions do not constitute a distinct hazard to life or adjoining property, as determined by the authority having jurisdiction (AHJ), or have been superseded by this code.

(3) The provisions of this code apply equally to the property owner and/or occupant.

(4) Sections 133-8, 133-9, 133-10, 133-11, 133-14, 133-15C: (1), (2), (3), (5), (6), 133-17, and 133-22 apply to all individuals and/or properties within the jurisdiction of the municipality.

C. Additions to, change of use, renovated, altered or remodeled buildings.

(1) If 50% or more of the total floor area of a building is renovated, altered or remodeled and/or added to the existing building, the entire building shall be brought into compliance with the requirements of this code.

(2) If 25% to 49% of the total floor area of a building is renovated, altered or remodeled, the portion of the building that is remodeled shall be brought into compliance with the requirements of this code.

[redacted]

(4) All percentages of remodeling shall be cumulative as applied to Subsection C(1), (2) and (3) above.

[redacted]

(6) If any addition is made to an existing building and/or structure that currently has a fire sprinkler, fire suppression, fire control or fire alarm system installed, the addition shall comply completely with this code.

(7) If any addition is made to an existing building and/or structure that currently has a fire sprinkler, fire suppression, fire control or fire alarm system installed, the addition shall have a fire sprinkler, fire suppression, fire control or fire alarm system installed.

(8) If the use of and/or contents of any existing building are changed and become more hazardous as determined by the authority having jurisdiction (AHJ), the building shall be brought into compliance with this code.

(9) Those portions, elements, systems or components of existing buildings and structures to be renovated, altered, remodeled or modified on or after the effective date of the rules under this code, and where the alteration, modification or the addition affects a building element or component relating to subject matters regulated by this code, shall be designed, constructed and maintained in accordance with the applicable rules of this code as the rules exist on one of the following:

(a) The date plans for the alteration or modification are conditionally approved by the AHJ.

(b) The date the local building permit is issued.

(c) The date the replacement is initiated, where Subsection C(9)(a) and (b) do not apply.

[redacted]

[redacted]

K. Temporary use. The AHJ may allow a building or portion of a building to be used temporarily in a manner that differs from the approved use for the building or space, or may approve a temporary building to be used by the public, subject to all of the following provisions:

(1) The AHJ shall determine the time frame within which the temporary use is permitted, based on the extent hazards are created by the temporary use.

(2) The AHJ shall determine maximum occupancy load.

(3) The AHJ shall determine any fire protection and/or control devices and life safety provisions that may be needed.

[redacted]

[redacted]

§ 133-6. Automatic fire sprinkler fire control and/or fire suppression system protection.

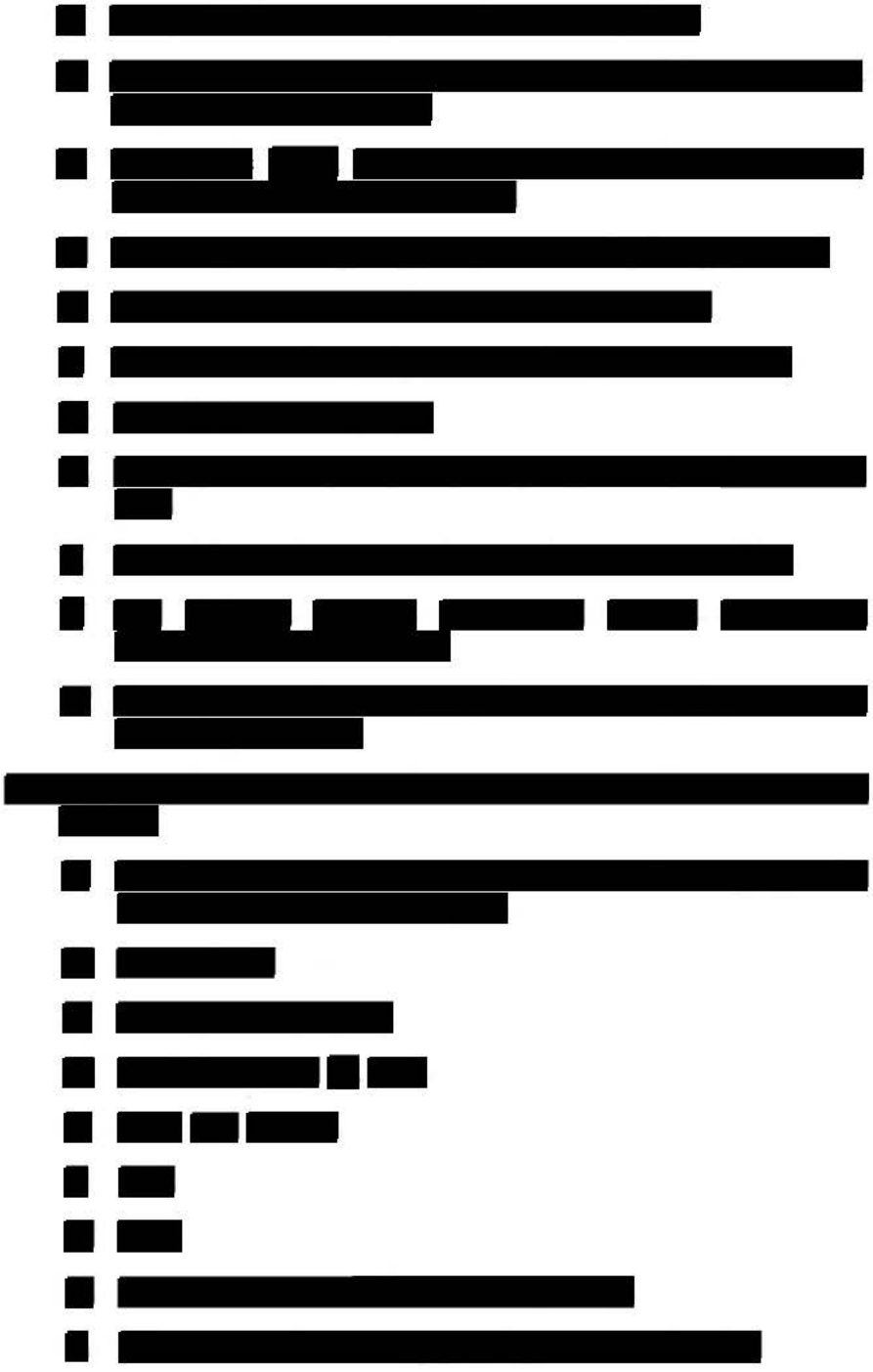
[redacted]

B. Code Compliance. All automatic fire sprinkler fire control and/or fire suppression systems installed, modified, altered and/or repaired shall comply with this code and the applicable NFPA codes and/or standards.

C. Code conflicts. If any conflicts exist between this code and any NFPA code and/or standard, the most restrictive, as determined by the AHJ, shall be enforced by the AHJ.

[redacted]

[redacted]



F. Installation required. Automatic fire sprinkler systems shall be installed in all structures where the floor area exceeds the thresholds established in Table 133-6F of the specific occupancy type and construction type involved. For the purpose of determining square footage as it relates to the required installation of fire sprinklers in a building, firewalls

shall not be considered area dividers unless the firewall is rated at four hours without penetrations and extends a minimum of three feet above the roof.

Table 133-6F

OCCUPANCY TYPE	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
E*	All	All	All	All	All
F-2	5,000 SF	5,000 SF	3,000 SF	3,000 SF	3,000 SF
I-2	All	All	All	All	All
I-3	All	All	All	All	All
I-4	All	All	All	All	All
R-4	All	All	All	All	All
U	5,000 SF	5,000 SF	3,000 SF	3,000 SF	3,000 SF

Note: *excludes single-family-home day cares

G. Additional automatic fire sprinkler system installations required. An automatic sprinkler system shall be installed in all:

(1) Parking structures above and below ground with ceilings.

(2) CBRFs (community-based residential facilities).

(3) Adult family homes.

(4) Throughout all dormitories, fraternities and sorority houses.

(5) Throughout every building, new or existing, which by reason of its construction or combustible occupancy involves a life hazard to its occupants or in the judgment of the AHJ constitutes a fire menace.

(6) Throughout all miniwarehouses and unattached multifamily parking garages that exceed any of the following:

(a) Five thousand square feet or more in area on any floor.

(b) Two stories in height.

(c) Any portion of the structure is below grade level.

[redacted]

I. Basements and garages are to be designed to protect, as a minimum, for ordinary hazard occupancy.

J. When an automatic fire sprinkler system is required to be installed by this code but not the Wisconsin Department of Commerce, in a structure that is not currently serviced by a municipal water source:

(1) All fire sprinkler systems shall be installed in complete compliance with the appropriate NFPA code(s) and/or standard(s). Exception: An automatic water supply for any fire sprinkler system(s) required to be installed by this code but not required by the Wisconsin Department of Commerce Code, if acceptable to the AHJ the automatic water supply shall be allowed to comply with the following:

(a) The automatic water supply for the automatic fire sprinkler system(s) shall be conditionally approved by the AHJ.

(b) The fire sprinkler system(s) shall be installed and connected to a conditionally approved automatic water supply.

[redacted]

(d) The required automatic water supply must be capable of delivering the required quantity of water at the required pressure as determined by hydraulically calculating the system demand in accordance with NFPA 13 for the most hydraulically demanding area.

[redacted]

(2) Within 90 days after a municipal water system becomes available, the sprinkler system shall be connected to the municipal water supply.

(3) For the purpose of this code, an available municipal water supply shall be any of the following:

(a) A municipal water main located at or near the streets adjacent to the property on which the structure that is required to be sprinklered is located.

(b) A municipal water main located in a utility easement on or near the property on which the structure that is required to be sprinklered is located.

(c) A municipal water main located at or near the streets within 1,500 lineal feet of any part of the property on which the structure that is required to be sprinklered is located.

(d) A municipal water main located in a utility easement within 1,500 lineal feet of any part of the property on which the structure that is required to be sprinklered is located.

K. All automatic fire sprinkler, fire control and/or fire suppression systems shall comply with the following:

(1) Be designed in accordance with the appropriate NFPA standards and/or codes.

[redacted]

(3) Be designed to protect the highest hazard present at any time in the protected area.

(4) Be monitored by a central station or an alternate monitoring service that is acceptable to the AHJ.

(5) Have sprinkler control rooms located with adequate access for Fire Department, sprinkler maintenance and inspection personnel and shall not be located within private dwellings, with the exception of NFPA 13D systems.

(6) Have direct access from the exterior to the sprinkler control valve acceptable to the AHJ.

(7) Have a bell (minimum ten-inch) and strobe installed, located above the Fire Department connection (FDC).

(8) The FDC must be located at least 40 feet from all gas meters, electrical meters and transformers.

(9) The FDC must be installed in a location acceptable to the AHJ.

(10) Be designed for the hazard being protected or as specifically specified in this code and/or as acceptable to the AHJ.

(11) All automatic fire sprinkler systems hydraulic designs are to be based on a maximum of 90% of the available water supply (a minimum of a ten-percent safety margin shall be maintained).

(12) All sprinkler systems designed shall be based on the most current water flow test conducted in accordance with NFPA 291 that is acceptable to the AHJ.

[redacted]

(19) Sprinkler protection for exposed expanded plastics must comply with all FM Global testing and standards.

[redacted]

[redacted]

M. Application to existing buildings.

(1) Adult family homes and community-based residential facilities (CBRF), regardless of number of occupants or class, must be retrofitted with fire sprinkler protection acceptable to the AHJ.

(2) Where the AHJ finds that an existing building, because of current occupancy or a change in occupancy, constitutes a hazard to its occupants or adjoining property, the AHJ may order compliance with the provisions of this section. A hazard shall be determined by the existence of one or more of the following conditions:

(a) Any building which by reason of its construction or highly combustible occupancy involves a hazard to its occupants or, in the judgment of the AHJ, constitutes a fire menace, e.g., paint shop and other occupancies involving processing, mixing, storing, and dispensing of volatile liquids or solids.

(b) Non-fire-resistive characteristics of a structure.

(c) Accumulation of flammable or combustible materials.

(d) Lack of accessibility to the premises for fire-fighting equipment.

(e) Substantial number of fire calls or complaints on the premises.

(f) Traffic patterns for pedestrian ingress and egress which require protection under this section.

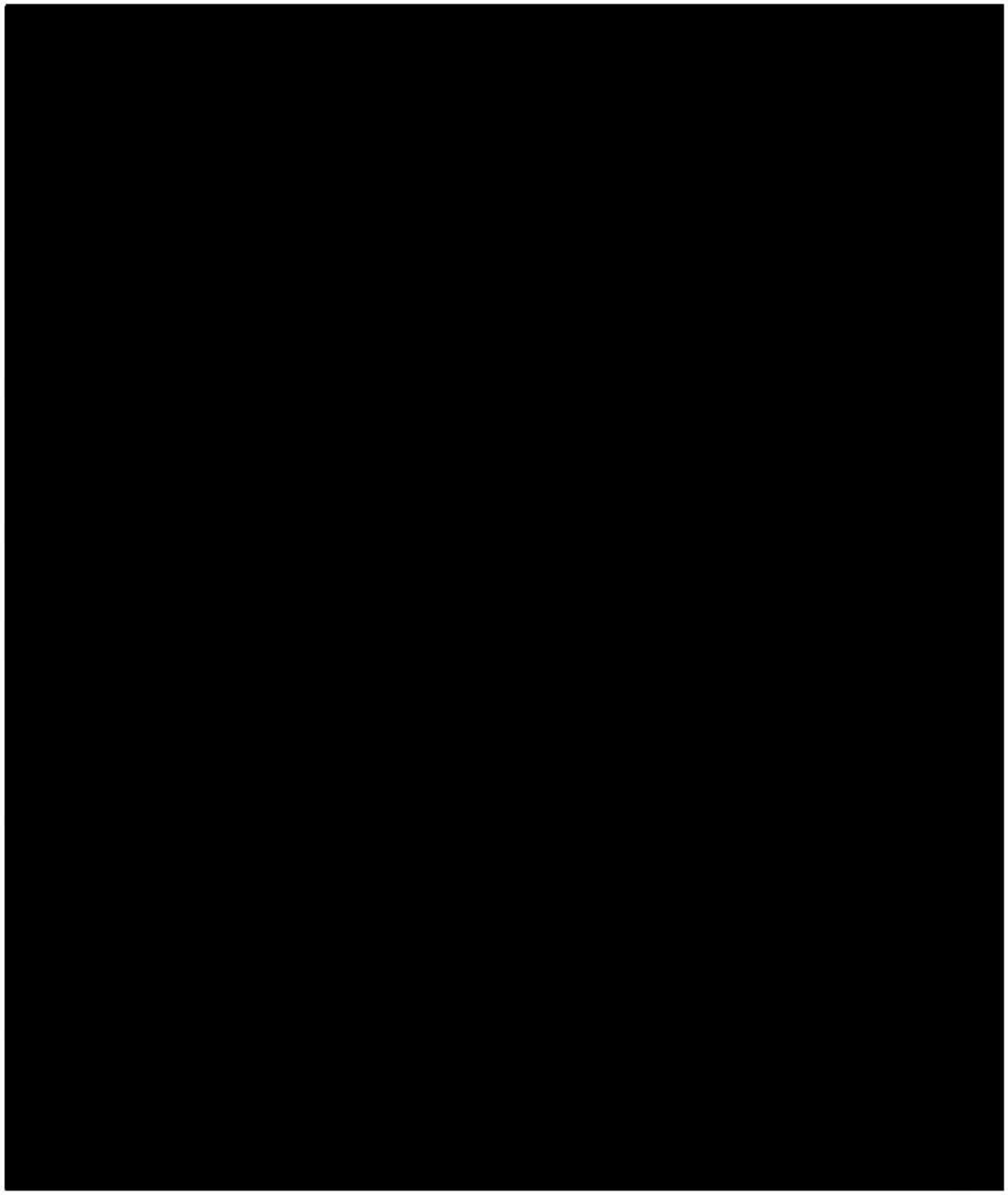
(g) Insufficient ventilation system.

(h) Where there is a lack of an internal communication system, or due to the size or type of building making regular Fire Department radio communication inoperable, the building owner is required to install a repeater system or something comparable to assist radio communications. If any inspection reveals a need for a new, replacement or modified repeater or other comparable system, the inspection report shall order such correction within 180 days of the inspection. **[Amended 7-24-2012 by Ord. No. 2012-2086]**

(i) Number, characteristics and movement of employees which require protection under this section.

(3) Installation of an automatic sprinkler system must be started within one year from the service of such orders and shall be completed within 180 days after construction has started.

N. Exemptions. In any location where the installation of sprinklers may cause or increase an occupational hazard, as determined by any governmental authority having jurisdiction over such location or occupation, the AHJ may waive any requirement to install an automatic fire sprinkler system or any portion thereof.



§ 133-13. Standpipes.

B. Where required.

(1) Fire Department standpipe systems shall be installed in the following structures:

(a) Any structure required by the State of Wisconsin codes.

(b) In all new structures over two stories in height.

[redacted]

(d) In any structure in which the AHJ deems standpipes are necessary for fire-fighting purposes.

(2) Temporary standpipes must be installed in an approved location for all of the following structures:

(a) All combustible structures exceeding two stories in height.

(b) All noncombustible structures exceeding three stories in height.

C. Installation requirements. Fire Department standpipes shall be designed and installed in accordance with this section. Where any requirement in this section is more restrictive than any NFPA standard and/or code and/or state code, the requirements in this section must be complied with.

(1) The installation of standpipes shall be in accordance with this section and NFPA 14.

[redacted]

(3) All standpipe systems hydraulic designs are to be based on a maximum of 90% of the available water supply (a minimum of a ten-percent safety margin shall be maintained). Pumping pressure at the FDC will not exceed 200 pounds and the system shall maintain 100 pounds of pressure at its most remote location. **[Amended 7-24-2012 by Ord. No. 2012-2086]**

[redacted]

(6) The location of standpipe hose connections shall be accessible and shall be located so that all portions of the building are within 100 feet of hose attached to a hose

valve. This distance must be measured using the normal aisles or the path a hose would be laid as determined by the AHJ.

(7) The locations of all hose valves shall be acceptable to the AHJ.

(8) The AHJ may require additional standpipes and/or hose valves to be installed.

[redacted]

(10) When required by the AHJ, an approved standpipe shall be installed as construction progresses to make them available for Fire Department use in the topmost floors constructed. Temporary standpipes shall be provided in place of permanent standpipes when required, during the period of construction on buildings required by this code.

(11) The location of all Fire Department connections for standpipes shall be approved by the AHJ.

(12) The Fire Department connections shall be located at least 40 feet from all electrical transformers, gas meters, or propane storage.

(13) Temporary standpipes are required on buildings over two stories in height.

(14) All standpipes are to be automatic standpipes unless a manual or dry standpipe is allowed by the AHJ.

[redacted]

§ 133-14. Fire alarm systems.

[redacted]

B. Installation required. A fire alarm system shall be installed in all structures where the floor area exceeds the thresholds established in Table 133-14B of the specific occupancy type and construction type involved. All fire alarm system plans shall be designed and submitted by a person holding NICET Level II Certification or higher. **[Amended 7-24-2012 by Ord. No. 2012-2086]**

Table 133-14B

OCCUPANCY TYPE	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V

Table 133-14B

OCCUPANCY TYPE	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
E*	All	All	All	All	All
I-2	All	All	All	All	All
I-3	All	All	All	All	All
I-4	All	All	All	All	All
R-3	State statutes apply				
R-4	All	All	All	All	All
S-1	3,000 SF	3,000 SF	3,000 SF	3,000 SF	3,000 SF
S-2	5,000 SF	5,000 SF	3,000 SF	3,000 SF	3,000 SF
U	5,000 SF	5,000 SF	3,000 SF	3,000 SF	3,000 SF

Note: *Excludes single-family-home day cares; state statutes apply.

C. Minimum system requirements. The following minimum system requirements shall be met when any occupancy type exceeds the limits in Table 133-14B. Minimum system requirements shall include:

(1) Audible notification appliances shall be installed throughout protected premises.

(2) Visible notification appliances shall be installed throughout protected premises. Exceptions:

(a) Closets and/or other similar small storage rooms that do not exceed 50 square feet in floor area and are not normally occupied.

(b) Normally unoccupied crawl spaces.

(c) Normally unoccupied attic spaces.

(d) Any nonaccessible area.

(e) Any area for which the AHJ deems Visible Notification Appliances are not required.

[redacted]

(4) Manual initiating devices (pull stations) shall be located at all points of egress, including all exit doors on every floor and/or building level.

[redacted]

(6) Water flow detection devices shall be connected to the fire alarm system to specifically activate the notification appliances upon water flow.

(7) Fire suppression system activation alarms shall be connected to the protected premises' fire alarm system to specifically activate the notification appliances upon system activation. This includes but is not limited to wet chemical, CO2, clean agent, water mist and dry chemical systems.

(8) Fire control and/or suppression systems' supervisory condition indicators shall be connected to and monitored by the fire alarm system. This specifically includes but is not limited to: valve supervisory switches (tamper switches), low-air switches, low-water switches, low-temperature switches, fire pump condition indicators and/or any other situation or condition deemed necessary by the AHJ.

(9) Fire alarm systems shall be addressable and capable of indicating the status of all specific components connected to the system.

(10) All fire alarm systems shall be monitored by a service acceptable to the AHJ.

(11) Fire alarm annunciators shall be installed in all protected premises. The number and locations of the fire alarm annunciators installed shall be acceptable to the AHJ.

(12) As determined by the AHJ, any additional notification and/or initiation appliances/devices may be required due to size, occupancy hazards, building construction, and/or occupancy use.

[redacted]

F. Special requirements. On all buildings over four stories in height a fire command center for Fire Department operations shall be provided. The fire command center shall comply with NFPA 72 and shall contain the features required in the International Fire Code and NFPA 1, 13.7.2.5.2.2.

(1) Two-way telephone communication service shall be provided for Fire Department use. This system shall be in accordance with NFPA 72. The communications system shall operate between the central control station and every elevator car, every elevator lobby, and each floor level of exit stairs.

(2) The requirements of NFPA 1, 13.7.2.5.2.2(A) shall not apply where the Fire Department radio system is approved as an equivalent system. (NFPA 101, 11.8.3.2.)

(3) If the building components interfere with Fire Department radio operations, and if it is found within the first six months of the completion of the building, the owner is responsible for the cost of providing upgrades to ensure adequate radio communications throughout the building. The final system upgrade and operation must be approved by the Fire Chief or his designee.

[redacted]

I. Fire alarm control panels shall display the status of the system components and be installed in a location acceptable to the AHJ. Adequate access for Fire Department, alarm maintenance, and inspection personnel shall be maintained. Fire alarm control panels

shall not be located within private dwellings with the exception of one- and two-family dwellings.

§ 133-15. Automatic fire protection for cooking areas.

[redacted]

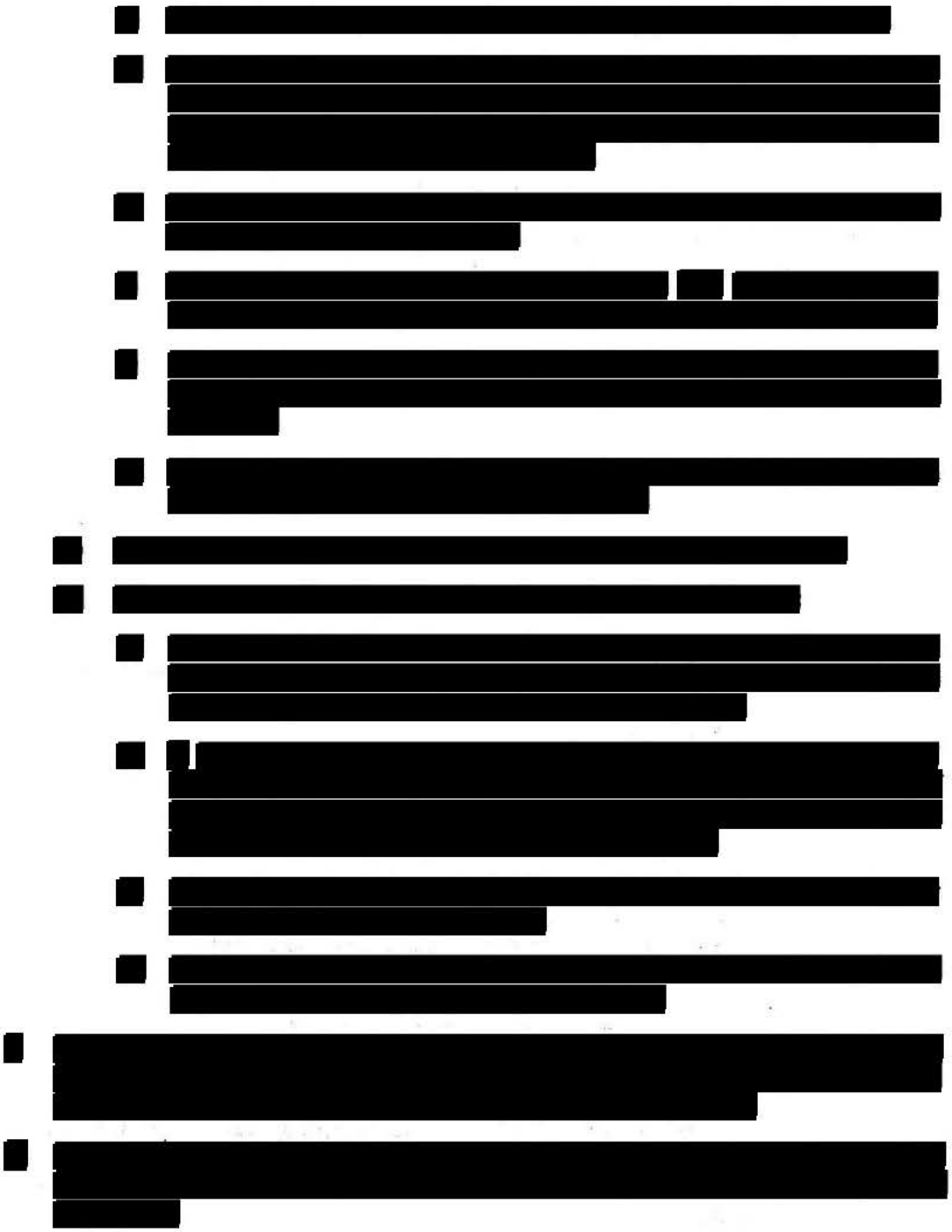
B. Where required. Automatic fire extinguishing systems shall be installed in any cooking area required by the State of Wisconsin codes and any area in which the AHJ has determined a potential fire risk exists.

[redacted]

H. Roof spaces.

(1) All combustible roof spaces shall be subdivided every 3,000 square feet by one-hour rated partitions unless protected by a complete approved automatic fire sprinkler system.

(2) Any openings in the required one-hour rated partition must have a minimum of a one-hour rated self-closing door.



L. Fire sprinkler control valve access. All structures that have automatic sprinkler systems shall comply with the following:

(1) Have sprinkler control rooms located with adequate access for Fire Department, sprinkler maintenance and inspection personnel.

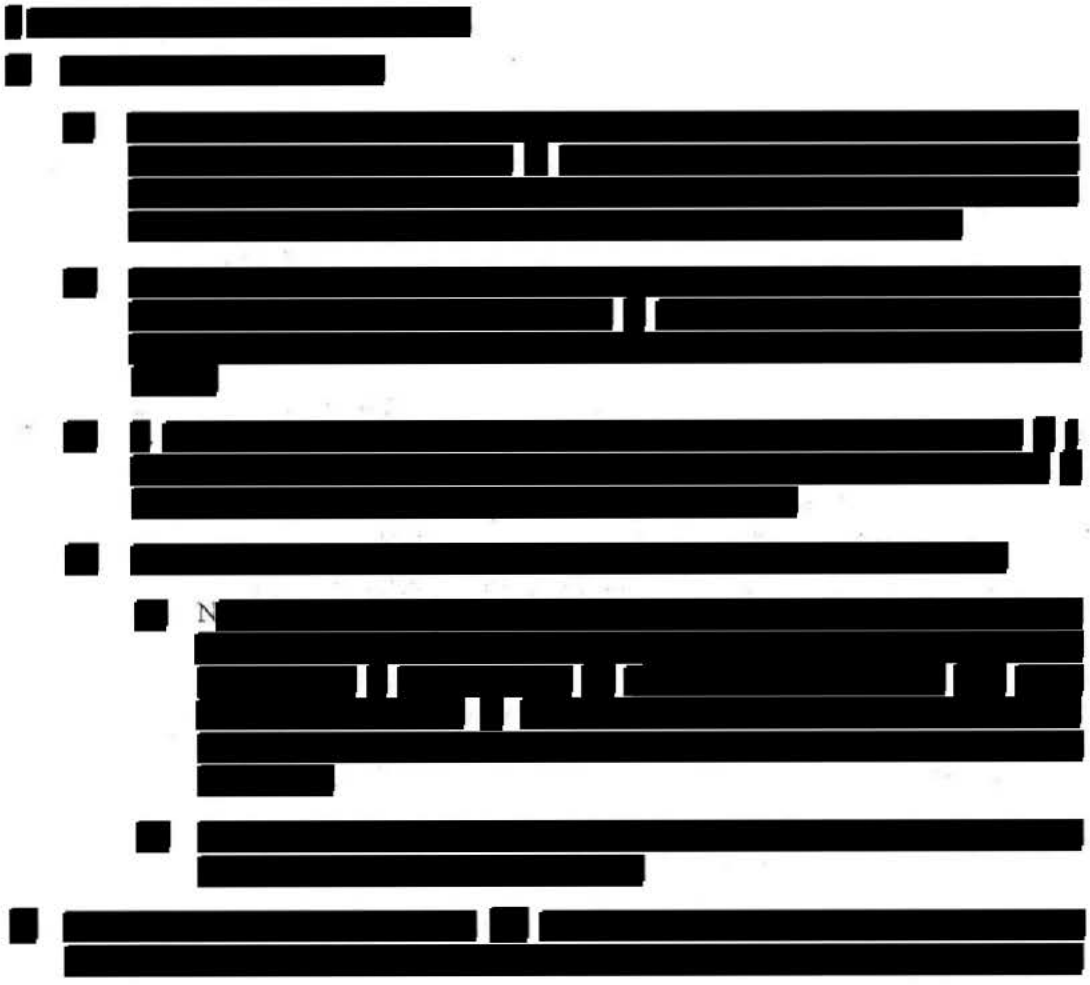
(2) Shall not be located within private dwellings with the exception of NFPA 13D systems.

(3) Have direct access from the exterior to the sprinkler control valve(s) that is acceptable to the AHJ.

M. Fire pump rooms. **[Added 7-24-2012 by Ord. No. 2012-2086]**

(1) All fire pump rooms at grade level shall have a minimum of one single door access and egress directly to the outside of the structure.

(2) All egress doors shall swing out from the fire pump.

(3) A clear aisle of a minimum of 48 inches in width shall be provided for access to the fire pump which shall be totally accessible and have clearly labeled valves and controls capable of manipulation by a firefighter in full PPE including SCBA.

(4) Keys for all doors to the fire pump room must be labeled and in the access box.