

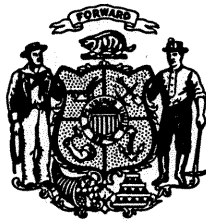
WISCONSIN LEGISLATIVE COUNCIL STAFF



SEP 07 REC'D  
SEP 07 1999

**RULES CLEARINGHOUSE**

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**CLEARINGHOUSE REPORT TO AGENCY**

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[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

**CLEARINGHOUSE RULE 99-120**

AN ORDER to repeal Comm 51.01 (60), Table 51.03-B, 51.042 (1) (d), 51.044, 51.047 (3) and (5), 51.06 (6) (a) 3. b., 51.167 (1) Note, 51.21 (1) Note and (3) (i), 51.23 (7) (d) Note and (8), Table 51.25-10 lines 59 and 60, 52.01 (1) (c) and Notes, 52.013 (6) (b) 2., 53.63 (1), 57.16 (2), 58.22 and 64.67 (6) (intro.); to renumber Comm 51.01 (56a) and (119c), 51.047 (2) and (6), 51.245 (3) (a) to (d), Table 51.25-10 lines 61 to 64 and 64.67 (6) (a) to (e); to renumber and amend Comm 51.06 (6) (a) 3. a., 51.08 (3), 51.22 (3), 51.24 (10) and 51.245 (3) (intro.); to amend Comm 51.01 (7) and (47), 51.02 (4) (c) 1. and (19) (a) (intro.), 51.03 (1) (d) and (2) (e), 51.043 (1) (a), 51.047 (5) (intro.), 51.048 (1) (a), 51.049 (5) (b) 4. (intro.), 51.22 (1), 51.23 (2) (a) and (b), (6) (a) and (b) and (7) (b), 51.24 (intro.), Table 51.25-17, 52.011 (4), 52.013 (7) (b), 55.09 (title), 57.01 (2) (a), 57.16 (1) (d), Table 59.12-1 Footnote, Table 59.12-2 Footnote, Table 64.21 Footnote 5, 64.22 (8), 64.51 (4) (a) and 64.67 (1) and (6) (e); to repeal and recreate Comm 51.047 (1), 51.048 (1) (b), 51.049 (5) (b) 4. a., 51.08 (2), Table 51.08-2, 51.20 (1), 51.21 (1) and (8), 51.23 (1) (a), 51.245 (2), 52.013 (6) (c), 62.93, 64.42 and 64.67 (5) (f); and to create Comm 51.01 (119e), 51.02 (4) (d) and Table 51.02-B, (19) (a) 3., (24) and (25), 51.047 (2), 51.048 (1) (c), 51.049 (5) (b) 4. b. and (6), 51.08 (3) (b), 51.22 (3) (b), 51.235, 51.236, 51.24 (10) (b), 51.245 (3) (f), 55.09 (4), 57.16 (1) (b) 5., 64.67 (6) (a), (b) (title), (c) (title), (d) (title), (f) (title), (g) and (h), (8) and (9), relating to fire safety requirements in the commercial building code.

Submitted by **DEPARTMENT OF COMMERCE**

07-30-99 RECEIVED BY LEGISLATIVE COUNCIL.

08-27-99 REPORT SENT TO AGENCY.

**LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT**

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached      YES       NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached      YES       NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached      YES       NO

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS  
[s. 227.15 (2) (e)]

Comment Attached      YES       NO

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached      YES       NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL  
REGULATIONS [s. 227.15 (2) (g)]

Comment Attached      YES       NO

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

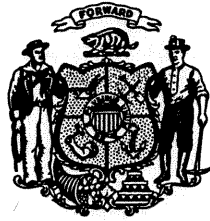
Comment Attached      YES       NO

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## CLEARINGHOUSE RULE 99-120

### Comments

**[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated September 1998.]**

#### 2. Form, Style and Placement in Administrative Code

- a. The amendment of s. Comm 51.01 (47) should show the stricken material.
- b. The rule creates Table 51.02-B. Current Table 51.02 should be renumbered as Table 51.02-A.
- c. The amendment to s. Comm 51.02 (19) (a) (intro.) should not strike through the period and then recreate it at the end of the sentence.
- d. In SECTION 20 and elsewhere in the rule, the treatment clause should show the complete citation of the renumbered provision. For example, in SECTION 20, "Comm 51.047" should be inserted before "(3)."
- e. The word "chapter" should be abbreviated to "ch." in s. Comm 51.08 (2) (i).
- f. The semicolons in the current rule in s. Comm 51.23 (2) (a) 1. to 3. should be shown with strike-throughs and underscored periods should be added.
- g. The amendment at the beginning of s. Comm 51.24 (intro.) should be redrafted as "~~Interior~~ All". Also, that sentence should end with a colon, as provided in the current rule.

h. "Maintenance" need not be shown in the renumbering and amendment of s. Comm 51.24 (10). [Also see s. Comm 51.245 (3).] [s. 1.05 (3) (c), Manual.]

i. A title should be added to s. Comm 51.245 (2).

j. The amendment at the beginning of s. Comm 51.245 (3) (a), as renumbered, should be "~~Smoke~~ All smoke". The period at the end of that sentence should be underscored and preceded by a stricken colon.

k. SECTION 70 should be preceded by a SECTION to renumber s. Comm 52.013 (6) (b) 1. to be s. Comm 52.013 (6) (b).

l. In s. Comm 64.42 (2), par. (a) should start on a separate line.

m. The period at the end of s. Comm 64.67 (1) should not be deleted and then replaced.

n. The title of s. Comm 64.67 (6) exists in the current rule. There is no need to repeat it when creating s. Comm 64.67 (6) (a).

o. The numbering of s. Comm 64.67 (9) should be corrected. Specifically, the subunits should be "(a)" and "(b)," not "1." and "2."

#### **4. Adequacy of References to Related Statutes, Rules and Forms**

a. Section Comm 51.08 (2) (b) 3. refers to "chapter 59 occupancies." A similar provision appears in s. Comm 51.08 (2) (c) 2. (intro.). A proper cross-reference should be substituted for these provisions, such as "hazardous occupancies under ch. Comm 59."

b. The last cross-reference in s. Comm 52.011 (4) should be to "Table 51.25-17."

c. In s. Comm 51.02 (24) (b) 5. a., "subpar. b and c" should be replaced by "subd. 5. b. and c." [Also see s. Comm 51.08 (2) (a) 4. a.] [s. 1.07 (2), Manual.]

#### **5. Clarity, Grammar, Punctuation and Use of Plain Language**

a. The definition of "automatic" in s. Comm 51.01 (7) is awkward. This definition could be rewritten to replace "functions" with "a function that occurs."

b. Section Comm 51.235 (1) requires department approval of alternate fire suppression systems. Will the department identify the "appropriate" national standard for the alternate system? If so, can this be stated clearly in s. Comm 51.235 (2) (intro.)?

c. To improve clarity, "systems" in s. Comm 51.235 (3) could be replaced by "alternate fire suppression systems."



d. The note to the Revisor of Statutes after SECTION 78 should indicate that the “existing note” is after s. Comm 57.16 (1) (d). Also, in the text of note 2, the second cross-reference should be to “s. 101.145 (4), Stats.”

e. The reference to “the manufacturer” in s. Comm 64.67 (9) should be clarified to indicate whether it is the manufacture of the portable fire extinguisher or the manufacturer of the automatic suppression system.

f. The first note to the Revisor of Statutes after s. Comm 64.67 (9) refers to a “previous rule change.” It would be useful to specify which rule change made the deletion.

STATE OF WISCONSIN  
DEPARTMENT OF COMMERCE

**NOTICE OF  
PUBLIC HEARING**

NOTICE IS HEREBY GIVEN that pursuant to ss. 101.02 (1) and (15), 101.14 (4), and 227.17, Stats., the Department of Commerce announces that it will hold public hearings on proposed rules relating to Fire Safety Requirements in the Commercial Building Code, chapters Comm 50-64.

The public hearings will be held as follows:

**Date and Time:**

**Location:**

**Friday, August 27, 1999  
11:00 AM**

**State Office Building, Room 105  
718 West Clairemont Avenue  
Eau Claire, WI**

**Monday, August 30, 1999  
10:00 AM**

**State Office Building, Room 120  
141 N. W. Barstow Street  
Waukesha, WI**

**Wednesday, September 1, 1999  
10:00 AM**

**WHEDA Building, Room 3B  
201 West Washington Avenue  
Madison, WI**

**Thursday, September 2, 1999  
11:00 AM**

**State Office Building, Room 152A  
200 North Jefferson Street  
Green Bay, WI**

Interested persons are invited to appear at the hearings and present comments on the proposed rules. Persons making oral presentations are requested to submit their comments in writing. Persons submitting comments will not receive individual responses. The hearing record on this proposed rulemaking will remain open until Friday, September 17, 1999, to permit submittal of written comments from persons who are unable to attend a hearing or who wish to supplement testimony offered at a hearing.

These hearings are held in accessible facilities. If you have special needs or circumstances that may make communication or accessibility difficult at the hearing, please call (608) 266-8741 or TTY at (608) 264-8777 at least 10 days prior to the hearing date. Accommodations such as interpreters, English translators, or materials in audio tape format will, to the fullest extent possible, be made available upon request by a person with a disability.

A copy of the proposed rules may be obtained without cost from Audrey Fries, Department of Commerce, Program Development Bureau, P.O. Box 2689, Madison, Wisconsin 53701, telephone (608) 266-9375 or (608) 264-8777 (TTY). Copies will also be available at the public hearings.

The Wisconsin Department of Commerce proposes an order to repeal ss. Comm 51.01 (60), Table 51.03-B, 51.042 (1) (d), 51.044, 51.047 (3), 51.047 (5), 51.06 (6) (a) 3. b., 51.167 (1) (Note), 51.21 (1) (Note), 51.21 (3) (i), 51.23 (7) (d) (Note), 51.23 (8), Table 51.25-10 lines 59 and 60, 52.01 (1) (c) and Notes, 52.013 (6) (b) 2., 53.63 (1), 57.16 (2), 58.22, 64.67 (6) (intro.);

to renumber ss. Comm 51.01 (56a), 51.01 (119c), 51.047 (2), 51.047 (6), 51.245 (3) (a) to (d), Table 51.25-10 lines 61 to 64, 64.67 (6) (a) to (e);

to renumber and amend ss. Comm 51.06 (6) (a) 3. a., 51.08 (3), 51.22 (3), 51.24 (10), 51.245 (3) (intro.);

to amend ss. Comm 51.01 (7), 51.01 (47), 51.02 (4) (c) 1., 51.02 (19) (a) (intro.), 51.03 (1) (d), 51.03 (2) (e), 51.043 (1) (a), 51.047 (5) (intro.), 51.048 (1) (a), 51.049 (5) (b) 4. (intro.), 51.22 (1), 51.23 (2) (a), 51.23 (2) (b), 51.23 (6) (a), 51.23 (6) (b), 51.23 (7) (b), 51.24 (intro.), Table 51.25-17, 52.011 (4), 52.013 (7) (b), 55.09 (title), 57.01 (2) (a), 57.16 (1) (d), Table 59.12-1 Footnote, Table 59.12-2 Footnote, Table 64.21 Footnote 5, 64.22 (8), 64.51 (4) (a), 64.67 (1), 64.67 (6) (e);

to repeal and recreate ss. Comm 51.047 (1), 51.048 (1) (b), 51.049 (5) (b) 4. a., 51.08 (2), Table 51.08-2, 51.20 (1), 51.21 (1), 51.21 (8), 51.23 (1) (a), 51.245 (2), 52.013 (6) (c), 62.93, 64.42, 64.67 (5) (f);

and to create ss. Comm 51.01 (119e), 51.02 (4) (d) and Table 51.02-B, 51.02 (19) (a) 3., 51.02 (24), 51.02 (25), 51.047 (2), 51.048 (1) (c), 51.049 (5) (b) 4. b., 51.049 (6), 51.08 (3) (b), 51.22 (3) (b), 51.235, 51.236, 51.24 (10) (b), 51.245 (3) (f), 55.09 (4), 57.16 (1) (b) 5., 64.67 (6) (a), 64.67 (6) (b) (title), 64.67 (6) (c) (title), 64.67 (6) (d) (title), 64.67 (6) (f) (title), 64.67 (6) (g) and (h), 64.67 (8) and 64.67 (9).

.....

### Analysis of Proposed Rules

Statutory Authority: ss. 101.02 (1) and (15), and 101.14 (4)

Statutes Interpreted: ss. 101.02 (1) and (15), 101.14 (4), and 101.145

Under ss. 101.02 and 101.14, Stats., the Department of Commerce has the responsibility to supervise every public building and place of employment, including the fire safety aspects, in order to protect the life, health, safety and welfare of every employe, frequenter, tenant and firefighter. The proposed changes in this package are intended to update code requirements and adopted national standards relating to building construction, building equipment, commodity storage and isolation, fire prevention, fire detection, and fire suppression as one part of that responsibility.

The proposed rule change updates the currently adopted National Fire Protection Association (NFPA) standards in the Building and Heating, Ventilating and Air Conditioning Code, chapters Comm 50-64. Twenty four additional NFPA standards are proposed for adoption by reference. Most of these new standards relate to alternate methods of fire suppression or to storage and isolation requirements for various hazardous commodities.

Minor wording changes have been made to the text to clarify ambiguous requirements or to promote consistency within the code as well as consistency with national standards and national model codes. Several changes are proposed that will coincide with requirements in the International Building Code (IBC). Proposed requirements for fireblocking in building construction, using listed joint assemblies in fire-resistive construction, and fire isolation and suppression in commercial cooking facilities follow requirements from the IBC.

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SECTION 1. Comm 51.01 (7) is amended to read:

Comm 51.01 (7) "Automatic" means functions without human intervention. ~~Automatic as applied to a fire protective device is one which functions without human intervention and is actuated as a result of the predetermined temperature rise, rate of rise of temperature, combustion product or smoke density, such as an automatic fire sprinkler system, automatic fire door, automatic fire shutter, or automatic fire vent.~~

SECTION 2. Comm 51.01 (47) is amended to read:

Comm 51.01 (47) FIRE-RESISTIVE CLASSIFICATION. Fire-resistive classification is the time in hours during which a material or assembly continues to exhibit fire resistance under specific conditions of tests and performance.

SECTION 3. Comm 51.01 (56a) is renumbered (56m).

SECTION 4 Comm 51.01 (60) is repealed.

SECTION 5. Comm 51.01 (119c) is renumbered (119m).

SECTION 6. Comm 51.01 (119e) is created to read:

Comm 51.01 (119e) "Smokeless propellant" means a solid propellant used in small arms ammunition, cannons, rockets or propellant - actuated devices that emits a minimal amount of smoke when ignited.

SECTION 7. Comm 51.02 (4) (c) 1. is amended to read:

Comm 51.02 (4) (c) 1. (c) 1. Except as provided in subd. 2., fenestration in-fill panels in the exterior walls of existing buildings of types 1, 2, 3, 5A and 5B construction meeting the percentage of openings requirements of ~~Table 51.03-B~~ Table 51.02-B shall be of noncombustible construction.

SECTION 8. Comm 51.02 (4) (d) and Table 51.02-B are created to read:

Table 51.02-B

Maximum Total Area Of Windows Or Other Openings In Percent Of Total Exposed Wall Surface

| Setback from Property Line or Other Walls on same property | CLASS OF CONSTRUCTION   |                                  |  |                            |                         |                           |
|--|---|----------------------------------|--|----------------------------|-------------------------|---------------------------|
|  | 1. Fire Resistive "A"<br>2. Fire Resistive "B"<br>3. Metal Frame Prot. Bearing Wall |                                  | 4. Heavy Timber<br>5A Ext. Masonry<br>5B Ext. Masonry<br>Nonbearing wall | 6. Metal Frame Unprotected | 7. Wood Frame Protected | 8. Wood Frame Unprotected |
|  | Less than 5'  | No openings                      | No openings  | No openings                | No openings             | No openings               |
| 5' to less than 10'  | 20%<br>A Fire Window is Required  | 30%<br>A Fire Window is Required | 30%  | No openings                | No openings             |                           |
| 10' to less than 30'                                       | 30%   | 40%                              | 40%  | 40%                        | 40%                     |                           |
| 30' or over  | No limit  | No limit                         | No limit   | No limit                   | No limit                |                           |

Comm 51.02 (4) (d) 1. Except as allowed under subd. 6, the maximum area of windows or other openings shall be as required by Table 51.02-B.

2. Table 51.02-B does not apply to property lines along streets.

3. The maximum percentage of openings in Table 51.02-B shall be calculated for each 100 lineal feet of wall measured in the plane of the wall. Wing walls, parapets or similar structures may not be used to increase the exposed wall area.

4. Fire windows required by Table 51.02-B shall comply with s. Comm 51.048.

5. Setbacks specified in Table 51.02-B shall be measured as specified in s. Comm 51.01 (115).

6. Where openings are permitted, and Table 51.02-B shows a numerical percentage of allowed openings, openings are allowed in excess of the given percentage, provided the excess openings are protected with automatic closing, 3-hour fire resistive door or shutter assemblies.

SECTION 9 Comm 51.02 (19) (a) (intro.) is amended to read:

Comm 51.02 (19) (a) (intro.) Except as provided in par. (b), attics of combustible construction shall be divided into areas not greater than 3,200 square feet ~~by firestopping as specified in s. ILHR 53.63 (1)(d)~~ this section.

SECTION 10. Comm 51.02 (19) (a) 3. is created to read:

Comm 51.02 (19) (a) 3. Materials used for attic compartmentalization shall be as specified in s. Comm 51.02 (24) (c).

SECTION 11. Comm 51.02 (24) is created to read:

Comm 51.02 (24) FIREBLOCKING OF CONCEALED SPACES. (a) General. 1. Fireblocking shall be installed in combustible concealed locations in accordance with this section.

2. Fireblocking shall be provided across the full width of intersections of interior and exterior walls with floors, ceilings and roof in order to cut off communication by fire through hollow concealed spaces and prevent both vertical and horizontal drafts.

3. Fireblocking shall be provided at openings around wires, vents, pipes, ducts and other penetrations in floors and ceilings at all levels to prevent vertical drafts.

4. Fireblocking shall be provided at openings around wires, vents, pipes, ducts and other penetrations in walls separating adjacent tenant spaces to prevent horizontal drafts.

5. Noncombustible fireblocking shall be provided between chimneys and wood framing at all floor levels.

6. Fireblocking shall be installed to remain securely in place when exposed to fire conditions.

7. The integrity of fireblocking shall be maintained.

(b) Specific locations. 1. Concealed spaces in stud walls or furred walls shall have fireblocking placed immediately above and below the junction of any floor construction with the walls, or shall be fireblocked the full depth of the joist.

2. Concealed spaces between vertical stud walls or partitions and the spaces created by soffits, dropped ceilings, cove ceilings and similar areas shall be fireblocked.

3. All concealed spaces between stair stringers at the top and bottom of the stair run shall be fireblocked.

4. All spaces between chimney and wood framing shall be solidly filled with noncombustible material at floor levels.

5. a. Except as provided in subpar. b and c, wood floors laid on noncombustible construction with sleepers or furring strips shall be fireblocked so that no open space under the flooring will exceed 100 square feet.

b. Fireblocking is required only at the ends of each lane in a bowling facility.

c. Fireblocking is not required for slab-on-grade floors in gymnasiums unless the floor is partitioned into separate rooms or areas by permanent stud wall or furred wall construction.

Note: Subd. 1 still requires fireblocking under permanent walls that serve to subdivide the gymnasium floor.

(c) Fireblocking materials. Where combustible material is allowed under this section, fireblocking shall consist of one of the following:

1. Lumber with a nominal thickness of at least 2 inches.
2. Two layers of lumber, each with a nominal thickness of one inch, with staggered lap joints.
3. Wood structural panel or particle board with a nominal thickness of 3/4 inch thick with joints backed.
4. Gypsum board with a minimum thickness of 1/2 inch.
5. Cement fiber board.
6. Fiberglass or mineral wool batts or blankets.
7. Caulk, putty or drywall compound.
8. Other noncombustible materials.

SECTION 12. Comm 51.02 (25) is created to read:

Comm 51.02 (25) COMBUSTIBLE STORAGE. Combustible materials covered under the scope of NFPA 230 shall be stored in accordance with the requirements of NFPA 230.

Note: NFPA 230, Standard for the Fire Protection of Storage, is intended to apply to a broad range of combustible materials stored indoors and outdoors. Examples include plastics, rubber tires, baled cotton and roll paper. Configurations include palletized, solid piled, in bin boxes, on racks or on shelves. Exemptions include high-hazard materials, such as flammable liquids and unpackaged bulk material, such as grain or coal.

SECTION 13. Comm 51.03 (1) (d) is amended to read:

Comm 51.03 (1) (d) Doors and windows may be of wood except as otherwise specified in s. Comm 51.02 (5), ~~Table 51.03-B~~, Table 51.02-B, ss. Comm 51.17, 51.18, 51.19 and 51.20, or in the occupancy chapters of this code.

SECTION 14. Comm 51.03 (2) (e) is amended to read:

Comm 51.03 (2) (e) Doors and windows may be of wood except as otherwise specified in s. Comm 51.02 (5), ~~Table 51.03-B~~, Table 51.02-B, ss. Comm 51.17, 51.18, 51.19 and 51.20, or in the occupancy chapters of this code.

SECTION 15. Comm 51.03, Table 51.03-B is repealed.

SECTION 16. Comm 51.042 (1) (d) is repealed.

SECTION 17. Comm 51.043 (1) (a) is amended to read:

Comm 51.043 (1) (a) Test by approved testing laboratories (~~see s. ILHR 51.044~~).

SECTION 18. Comm 51.044 is repealed.

SECTION 19. Comm 51.047 (1) is repealed and recreated to read:

Comm 51.047 (1) GENERAL. (a) Except as provided in pars. (b) and (c) and ss. Comm 51.048, Comm 51.049, an opening, where permitted in a fire-resistive rated assembly, shall be protected by means of a fire-resistive rated door assembly installed and maintained in accordance with NFPA 80.



(b) Where a fire-resistive wall assembly is used only as an interior bearing wall as specified in line 17 of Table 51.03-A, and is not also used for separation purposes, the opening does not require protection with a fire-resistive rated door assembly, provided all parts of the opening maintain the fire-resistive rating of the wall assembly.

(c) Openings in fire-resistive rated assemblies to accommodate conveyor systems shall be protected with one of the following: 1. A fire-resistive rated door assembly installed and maintained in accordance with NFPA 80.

2. A water spray system installed in accordance with NFPA 15 and all of the following:

a. Initiating devices shall be installed on both sides of the penetrated assembly.

b. Nozzles shall protect the entire opening on both sides of the assembly.

c. The conveyor shall be constructed such that it stops running when the spray system is activated.

d. The minimum design density of the water spray shall be 0.50 gallons per minute per square foot of protected opening.

e. The minimum water supply duration shall be 120 minutes.

SECTION 20. Comm 51.047 (3) is repealed.

SECTION 21. Comm 51.047 (2) is renumbered (3).

SECTION 22. Comm 51.047 (2) is created to read:

Comm 51.047 (2) The fire-resistive rated door assembly shall be tested in accordance with NFPA 252 or UL 10B and listed and labeled as having the fire-resistive rating required by Table 51.047.

**[NOTE TO REVISOR: Please place Table 51.047 after the created subsection (2).]**

SECTION 23. Comm 51.047 (5) is repealed.

SECTION 24. Comm 51.047 (6) is renumbered (5).

SECTION 25. Comm 51.047 (5) (intro.), as renumbered, is amended to read:

Comm 51.047 (5) (intro.) All labeled fire doors, where required, shall be equipped with an approved automatic or self-closing device as defined in s. Comm 51.01 (17). A fusible link may not be used to activate an automatic closing device.

SECTION 26. Comm 51.048 (1) (a) is amended to read:

Comm 51.048 (1) WINDOW OPENINGS. (a) Except as allowed under par. (b), window openings, where permitted in fire-resistive rated walls assemblies, shall be protected with fire window or glass block assemblies installed and maintained in accordance with NFPA 80 and rated as 3/4-hour when tested in accordance with NFPA 257 or UL 9 by an approved laboratory ~~and tested in accordance with standard method ASTM E-162.~~

SECTION 27. Comm 51.048 (1) (b) is repealed and recreated to read:

Comm 51.048 (1) (b) Where a fire-resistive wall assembly is used only as an interior bearing wall as specified in line 17 of Table 51.03-A, and is not also used for separation purposes, the opening does not require protection with a fire-resistive window assembly, provided all parts of the opening maintain the fire-resistive rating of the wall assembly.

SECTION 28. Comm 51.048 (1) (c) is created to read:

Comm 51.048 (1) (c) Windows are not permitted in fire-resistive rated assemblies required to have a fire-resistive rating greater than one hour unless specifically permitted elsewhere in this code.

SECTION 29. Comm 51.049 (5) (b) 4. (intro.) is amended to read:

Comm 51.049 (5) (b) 4. (intro.) Where boxes are located on opposite sides of a non-staggered stud wall or partition, the boxes shall be separated by a minimum horizontal distance of 24 inches, unless installed in accordance with ~~all~~ one of the following:

SECTION 30. Comm 51.049 (5) (b) 4. a. is repealed and recreated to read:

Comm 51.049 (5) (b) 4. a. The boxes shall be protected with a listed wall opening protective material installed in accordance with the listing.

SECTION 31. Comm 51.049 (5) (b) 4. b. is created to read:

Comm 51.049 (5) (b) 4. b. The boxes are separated by solid fire blocking in accordance with s. Comm 51.02 (24).

SECTION 32. Comm 51.049 (6) is created to read:

Comm 51.049 (6) CONSTRUCTION JOINTS. (a) *General*. Except as allowed under par. (b), all joints between adjacent fire-resistive rated assemblies, such as between floor and wall assemblies, shall be designed and installed to maintain the hourly rating of the assembly.

(b) *Exceptions*. Fire-resistive construction joint systems are not required for joints in the following locations:

1. Floors within a single dwelling unit.
2. Floors where the joint is protected with a fire-resistive shaft enclosure in accordance with s. Comm 51.02 (11) (a).
3. Floors within atriums where the adjacent space is included in the volume of the atrium for smoke control purposes.
4. Floors within malls.
5. Floors within open parking structures.
6. Mezzanine floors.
7. Walls that are permitted to have unprotected openings.
8. Roofs where openings are permitted.
9. Control joints tested in accordance with ASTM E 119 that have a maximum joint width of 5/8 inch.
10. Joints that were tested as an integral part of the fire-resistive rated assembly.

(c) *Classification and testing*. 1. Except as allowed under subd. 2., construction joints under par. (a) shall be classified by an independent testing laboratory based on testing in accordance with UL 2079.

2. Voids at the intersection of fire-resistive rated assemblies and exterior curtain walls shall be protected with materials tested in accordance with ASTM E 119.

SECTION 33. Comm 51.06 (6) (a) 3. a. is renumbered (6) (a) 3. and amended to read:

Comm 51.06 (6) (a) 3. Foam plastics may be used in a thickness up to 4 inches in freestanding coolers or freezers having an aggregate floor area of 400 square feet without a thermal barrier and without an automatic fire sprinkler system; ~~or~~.

SECTION 34. Comm 51.06 (6) (a) 3. b. is repealed.

SECTION 35. Comm 51.08 (2) is repealed and recreated to read:

Comm 51.08 (2) HAZARD ISOLATION. (a) *General*. 1. Fire hazards shall be stored or isolated in accordance with this section.

2. Fire-resistive rated construction specified in Table 51.08-2 and this section shall comply with ss. Comm 51.04 to 51.049.

3. Fire detection, prevention, suppression and isolation features required under an adopted NFPA standard referenced in this section shall be provided as specified in the standard.

4. a. Except as required under subpar. b., fuel-fired equipment that is solely used for processes directly related to the business and is normally in view of employees and under the control of employees while in operation is not required to be isolated.

b. If the adopted NFPA standard has isolation requirements, those requirements shall be followed.

Note: Examples of processes directly related to the business include cooking equipment at a restaurant, manufacturing process equipment, dryers at a commercial laundry, etc.

(b) *Fuel-fired heating equipment*. Fuel-fired heating equipment shall be located in accordance with Comm Table 64.21. Where Comm Table 64.21 requires a rated enclosure, the fire resistive construction shall be as follows:

1. Gas- and oil-fired boilers, furnaces and water heaters shall be provided with a one-hour fire-resistive rated enclosure.

2. Solid fuel-fired boilers, furnaces and water heaters shall be provided with a two-hour fire-resistive rated enclosure.

3. For chapter 59 occupancies only, no openings other than self-closing doors are allowed within 18 inches of the floor in a required enclosure for fuel-fired heating equipment

(c) *Clothes dryers.* 1. Except as allowed in subd. 2, all gas, oil or electric clothes dryers shall be isolated by 2-hour fire-resistive rated construction.

2. The following exceptions apply to chapter 54, 55, 56, 57, 59 and 60 occupancies:

a. The 2-hour fire-resistive rating is not required for the isolation of clothes dryers where the entire room containing the dryers is provided with automatic fire sprinkler protection and, for gas-fired dryers, each dryer is equipped with an automatic shut-off valve that stops the gas flow if there is a sudden pressure drop in the fuel supply system.

b. The 2-hour fire-resistive rating is not required for the isolation of clothes dryers where no more than two dryers with a maximum rating of 37,000 Btu each are contained in the room, and for gas-fired dryers, each is equipped with an automatic shut-off valve that stops the gas flow if there is a sudden pressure drop in the fuel supply system.

(d) *Generators.* 1. Fuel-fired generators shall be isolated with fire-resistive construction with hourly ratings in accordance with the fire enclosure requirements of Table 51.03-A, line 20.

2. Emergency generators required by ch. Comm 16, Table 16.46, shall be isolated as required in subd. 1, with no other equipment allowed in the room that is not an integral part of the emergency standby power system.

(e) *Fire pumps.* Fire pumps shall be isolated with fire resistive construction with hourly ratings in accordance with the fire enclosure requirements of line 20, Table 51.03-A.

(f) *Flammable and combustible liquids.* Flammable and combustible liquids shall be stored and isolated in accordance with NFPA 30 and 30A.

(g) *Aerosols.* Aerosols shall be stored and isolated in accordance NFPA 30B.

(h) *Smokeless propellants.* Smokeless propellants shall be stored and isolated in accordance with NFPA 495.

(i) *Fireworks, black powder and explosive materials.* Fireworks, black powder and explosive materials shall be stored and isolated in accordance with chapter Comm 7.

(j) *Flammable and combustible gases.* 1. 'Liquefied petroleum gas.' Liquefied petroleum gas shall be stored and isolated in accordance with ch. Comm 40.

2. 'Gases for welding, cutting and allied processes.' Gases for welding, cutting and allied processes shall be stored and isolated in accordance with NFPA 51.

(k) *Spray applications.* Flammable or combustible materials used in spray applications shall be isolated and protected in accordance with NFPA 33.

(L) *Coating or dipping applications.* Flammable or combustible materials used in coating or dipping applications shall be stored and isolated in accordance with NFPA 34.

(m) *Liquid and solid oxidizers.* Liquid and solid oxidizers shall be stored and isolated in accordance with NFPA 430.

(n) *Organic peroxides.* Organic peroxides shall be stored and isolated in accordance with NFPA 432.

(o) *Laboratory chemicals.* Laboratory chemicals falling under the scope of NFPA 45 shall be stored and isolated in accordance with NFPA 45.

(p) *Hazardous areas.* Hazardous areas, including trash collection rooms, recycling areas, woodworking areas, maintenance shops and similar areas determined by the department shall be isolated in accordance with Table 51.08-2.

SECTION 36. Comm 51.08-2, Table 51.08-2 is repealed and recreated to read:

**Table 51.08-2**

**HAZARD ISOLATION**

| Occupancy   | Minimum Fire -Resistive Rating<br>In Hours <sup>1</sup> |                | Exceptions   |
|---|---|----------------|--|
|   | ≤ 3 stories   | > 3 stories    |  |
| Ch 54   | 2   | 2              | 1-hour isolation permitted for 1-story bldgs <3,000 ft <sup>2</sup>  |
| Ch 55   | 3   | 3              | 2-hour isolation permitted for bldgs with a capacity of ≤ 300 people |
| Ch 56   | 4   | 4              | 2-hour isolation permitted for 1-story bldg                          |
| Ch 57   | 1   | 2              |  |
| Ch 58   | 2   | 3              |  |
| Ch 59   | 2   | 2              |  |
| Ch 60   | 1   | 2              |  |
| Ch 61   | Not Applicable  | Not Applicable |  |
| Ch 62<br>Open parking structures &<br>assembly seating facilities | 2   | 2              |  |
| Ch 62<br>Greenhouses  | 1   | Not Applicable |  |
| Ch 62<br>Mini-storage Buildings                                   | 2   | 2              | 1-hour isolation permitted for 1-story bldgs <3,000 ft <sup>2</sup>  |

<sup>1</sup>Fire-resistive ratings may be reduced in accordance with s. Comm 51.02 (22).

SECTION 37. Comm 51.08 (3) is renumbered (3) (a) and amended to read:

Comm 51.08 (3) (a) Openings in occupancy separations ~~or hazard enclosures~~ shall be protected by fire-door assemblies as specified in s. Comm 51.047 or by fire-window assemblies as specified in s. Comm 51.048 or as specified in s. Comm 51.049.

SECTION 38. Comm 51.08 (3) (b) is created to read:

Comm 51.08 (3) (b) Openings in hazard enclosures shall be protected with self-closing fire door assemblies as specified in s. Comm 51.047 or by fire-window assemblies as specified in s. Comm 51.048 or as specified in s. Comm 51.049.

SECTION 39. Comm 51.167 (1) Note is repealed.

SECTION 40. Comm 51.20 (1) is repealed and recreated to read:

Comm 51.20 (1) GENERAL. (a) Location. Fire escapes shall lead directly to a street, alley or open court connected with a street.

(b) Adjacent openings. All openings within 6 feet horizontally of any tread, landing or platform of the fire escape shall be protected with a fire-resistive rated door assembly complying with s. Comm 51.047 or a fire window assembly complying with s. Comm 51.048 as follows:

1. For buildings of 3 stories or less, either a door or window assembly having a minimum rating of 3/4 hour.
2. For buildings of more than 3 stories, a door having a minimum rating of 90 minutes.

SECTION 41. Comm 51.21 (1) Note is repealed.

SECTION 42. Comm 51.21(1) is repealed and recreated to read:

Comm 51.21 (1) All standpipe and hose systems shall meet the requirements of NFPA 14 and the requirements of this section.

SECTION 43. Comm 51.21 (3) (i) is repealed.

SECTION 44. Comm 51.21 (8) is repealed and recreated to read:

Comm 51.21 (8) MAINTENANCE. (a) All standpipe and hose systems shall be inspected, tested and maintained in accordance with NFPA 25.

(b) The requirements of par. (a) shall also apply to all systems in existence on the effective date of this section.

SECTION 45. Comm 51.22 (1) is amended to read:

Comm 51.22 (1) GENERAL. All ~~required~~ fire extinguishers shall comply with the provisions of NFPA ~~No.~~ 10.



SECTION 46. Comm 51.22 (3) is renumbered (3) (a) and amended to read:

Comm 51.22 (3) (title) MAINTENANCE AND REPLACEMENT. (a) 1. All portable fire extinguishers, whether required by chs. Comm 54 to 62 or not, shall be inspected, tested and maintained in operable condition as specified in NFPA No. 10.

2. When a fire extinguisher is replaced, the new extinguisher shall comply with NFPA 10.

Note: NFPA 10 requires portable fire extinguishers that serve commercial cooking equipment, such as deep fat fryers, to be classified as Type K.

SECTION 47. Comm 51.22 (3) (b) is created to read:

Comm 51.22 (3) (b) The requirements of par. (a) shall also apply to all buildings in existence on the effective date of this section.

SECTION 48. Comm 51.23 (1) (a) is repealed and recreated to read:

Comm 51.23 (1) (a) 1. Unless otherwise specifically permitted in this code, where a sprinkler as defined in NFPA 13 is installed to provide fire protection, the system that all sprinklers are connected to shall comply with NFPA 13 or NFPA 13R as applicable, in accordance with the scope of the standard or rule.

2. The water supply for all systems that supply sprinklers shall comply with either sub. (2) or s. Comm 51.236 as applicable.

SECTION 49. Comm 51.23 (2) (a) is amended to read:

Comm 51.23 (2) (a) An approved water supply shall be provided for all automatic fire sprinkler systems. Approved ~~automatic~~ water supplies as recognized by the department are listed below:

1. ~~City water main.~~ Municipal water system.
2. Gravity or pressure tank.
3. Ground storage reservoir. ~~or~~
4. Natural bodies of water approved by the department (~~lakes, rivers, streams, etc.~~).
5. Indoor swimming pools as approved by the department.

SECTION 50. Comm 51.23 (2) (b) is amended to read:

Comm 51.23 (2) (b) ~~If the water supply has inadequate pressure, an approved fire pump or tank shall be provided.~~ The design and installation of water supply facilities for gravity tanks, fire pumps, reservoirs or pressure tanks, and underground piping shall conform to NFPA No. 22, NFPA No. 20, and NFPA No. 24.

SECTION 51. Comm 51.23 (6) (a) is amended to read:

Comm 51.23 (6) (a) *Maintenance.* All installed automatic sprinkler systems, ~~whether required by this code or not,~~ shall be properly inspected, tested and maintained for efficient service pursuant to in accordance with NFPA 25. Owners or operators shall be responsible for the condition of their sprinkler system and shall ~~use due diligence in keeping~~ maintain the system in good operating condition. Records of inspections, tests, and maintenance as specified in NFPA 25 shall be kept and shall be made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the automatic fire sprinkler system is shut down or impaired and when it is placed back in service. The owner shall arrange for immediate and continual servicing or repair of the automatic fire sprinkler system until it is placed back in operation.

SECTION 52. Comm 51.23 (6) (b) is amended to read:

Comm 51.23 (6) (b) The requirements of par. (a) shall also apply to all buildings systems in existence on the effective date of this section ~~and to those buildings constructed thereafter.~~

SECTION 53. Comm 51.23 (7) (b) is amended to read:

Comm 51.23 (7) (b) The connection is equipped with an approved indicating valve with a monitor or an approved locking device ~~and a check valve;~~

SECTION 54. Comm 51.23 (7) (d) Note is repealed.

SECTION 55. Comm 51.23 (8) is repealed.

SECTION 56. Comm 51.235 is created to read:

**Comm 51.235 Alternate fire suppression systems.** (1) Where approved by the department, alternate fire suppression systems may be used in lieu of an automatic fire sprinkler system in areas where the use of water would have limited effect, could create a hazard or could cause unusual damage to property.

(2) Where an alternate fire suppression system is installed, it shall comply with the appropriate national standard as follows:

(a) NFPA 11, Standard for Low-Expansion Foam.

(b) NFPA 11A, Standard for Medium- and High-Expansion Foam Systems.

(c) NFPA 12, Standard on Carbon Dioxide Extinguishing Systems.

(d) NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems.

(e) NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection.

(f) NFPA 16, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems.

(g) NFPA 17, Standard for Dry Chemical Extinguishing Systems.

(h) NFPA 17A, Standard for Wet Chemical Extinguishing Systems.

(i) NFPA 750, Standard on Water Mist Fire Protection Systems.

(j) NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems.

(3) Inspection, testing and maintenance requirements in the standards listed in sub. (2) apply to all new systems and to all systems in existence on the effective date of this section.

SECTION 57. Comm 51.236 is created to read:

**Comm 51.236 Manual-wet sprinkler system.** (1) WHERE ALLOWED. A manual-wet sprinkler system may not be installed in a building unless all of the following conditions are met:

(a) There is no municipal water system available to serve the property.

(b) There is no provision under this code that requires the building to have an automatic fire sprinkler system.

(c) The municipality where the building is to be located has an adopted ordinance that requires the installation of manual-wet sprinkler systems and requires these systems to meet the provisions of this subsection.

(2) GENERAL REQUIREMENTS. (a) A building protected with a manual-wet sprinkler system shall be considered unsprinklered regarding all other code provisions.

(b) Each manual-wet sprinkler system shall be provided with a fire department connection. The fire department connection shall be installed in an accessible location acceptable to the fire chief.

(c) All above ground system piping throughout the building shall be labeled as a "manual-wet sprinkler system". Labels shall be placed at all of the following locations:

1. On the piping at intervals of not more than 25 feet and at each side where the piping passes through a wall, floor or roof.
2. At the fire department connection.
3. At all valves and hose outlets.

(d) The manual-wet sprinkler system design and installation shall comply with the automatic fire sprinkler system requirements of the adopted edition of NFPA 13, or NFPA 13R as applicable, except that the system comprised of the pilot line, fire department connection and fire department apparatus is considered as the approved water supply for the system.

(e) A manual-wet sprinkler system shall be supplied with water through the fire department connection using fire department apparatus.

(f) The plumbing well, water service and pressure tank shall be of a size and capacity to supply the hydraulically most remote sprinkler with the required waterflow and pressure for a minimum of 10 minutes.

(g) A pilot line shall be connected from the manual-wet sprinkler system to the plumbing water supply system at the well pressure tank. The pilot line shall be of a size that is adequate to supply the hydraulically most remote sprinkler in the system.

(h) The connection of a manual-wet sprinkler system to a plumbing water supply system shall be protected against backflow conditions in accordance with s. Comm 82.41.

(i) The actuation of any sprinkler in the system shall operate the waterflow indicating device, which shall initiate a fire alarm within the building.

(j) Upon actuation of the building fire alarm, a fire alarm signal shall be sent automatically to the fire department providing fire protection to the building.

(3) **INSTALLER QUALIFICATIONS.** The installation of a manual-wet sprinkler system shall be performed by a licensed individual as specified for the installation of an automatic fire sprinkler system in Ch. Comm 5, Subchapter V.

(4) **INSPECTION, TESTING AND MAINTENANCE.** All manual-wet sprinkler systems shall be inspected, tested and maintained as specified for an automatic fire sprinkler system in NFPA 25, except the quarterly main drain test is not required.

**Note:** This section does not limit the owners options for providing other means of fire protection. See s. Comm 50.02 for additional information.

SECTION 58. Comm 51.24 (intro.) is amended to read:

Comm 51.24 (intro.) All interior fire alarm systems required under ss. 54.17, 56.19, and 57.17 shall be designed and constructed in conformity accordance with NFPA 72 and the following requirements.

SECTION 59. Comm 51.24 (10) is renumbered (10) (a) and amended to read:

Comm 51.24 (10) Maintenance. (a) All fire alarm systems shall be inspected, tested and maintained in accordance with NFPA 72.

SECTION 60. Comm 51.24 (10) (b) is created to read:

Comm 51.24 (10) (b) The requirements of par. (a) shall also apply to all systems in existence on the effective date of this section.

SECTION 61. Comm 51.245 (2) is repealed and recreated to read:

Comm 51.245 (2) (a) Unless otherwise specified in this code, all smoke detectors and smoke alarms shall be installed in accordance with NFPA 72.

(b) Smoke detectors installed in ducts shall follow the provisions of NFPA 72 and NFPA 90A.

SECTION 62. Comm 51.245 (3) (a) to (d) are renumbered (3) (b) to (e).

SECTION 63. Comm 51.245 (3) (intro.) is renumbered (3) (a) and amended to read:

Comm 51.245 (3) MAINTENANCE. (a) All smoke detectors and system components shall be inspected, tested and maintained in accordance with NFPA 72 and all of the following requirements.

SECTION 64. Comm 51.245 (3) (f) is created to read:

Comm 51.245 (3) (f) The requirements of pars. (a) to (e) also apply to all buildings in existence on the effective date of this section.

SECTION 65. Comm 51.25, Table 51.25-10, lines 59. and 60. are repealed.

SECTION 66. Comm 51.25, Table 51.25-10, lines 61. to 64. are renumbered 59. to 62.

SECTION 67. Comm 51.25, Table 51.25-17 is amended to read:

Table 51.25-17

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NFPA      National Fire Protection Association  
            One Batterymarch Park  
            P.O. Box 9101  
            Quincy Massachusetts 02269 - 9101

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Standard Reference Number

Title

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- |                                    |   |
|------------------------------------|---|
| 1. 10 - 1998                       | Standard for Portable Fire Extinguishers.   |
| 2. 11 - 1998                       | <u>Standard for Low-Expansion Foam.</u>   |
| 3. 11A - 1999                      | <u>Standard for Medium- and High-Expansion Foam Systems.</u>  |
| 4. 12 - 1998                       | <u>Standard on Carbon Dioxide Extinguishing Systems.</u>  |
| 5. 12A - 1997                      | <u>Standard on Halon 1301 Fire Extinguishing Systems.</u>   |
| <del>2.</del> <u>6.</u> 13 - 1996  | Standard for the Installation of Sprinkler Systems.   |
| <del>3.</del> <u>7.</u> 13R - 1996 | Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height. |
| 8. 14 - 1996                       | <u>Standard for the Installation of Standpipe and Hose Systems.</u>   |
| <del>4.</del> <u>9.</u> 15 - 1996  | Standard for Water Spray Fixed Systems for Fire Protection.   |

|   |  |
|---|--|
| <del>10.</del> <u>16</u> - 1999             | <u>Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems.</u>                             |
| <del>11.</del> <u>17</u> - 1998             | <u>Standard for Dry Chemical Extinguishing Systems.</u>  |
| <del>12.</del> <u>17A</u> - 1998            | <u>Standard for Wet Chemical Extinguishing Systems.</u>  |
| <del>5.</del> <u>13.</u> <u>20</u> - 1996   | Standard for the Installation of Centrifugal Fire Pumps.   |
| <del>6.</del> <u>14.</u> <u>22</u> - 1998   | Standard for Water Tanks for Private Fire Protection.  |
| <del>7.</del> <u>15.</u> <u>24</u> - 1995   | Standard for the Installation of Private Fire Service Mains and Their Appurtenances.                                   |
| <del>8.</del> <u>16.</u> <u>25</u> - 1998   | Standard for the Inspection, Testing, and Maintenance of Water Based Fire Protection Systems.                          |
| <del>17.</del> <u>30</u> - 1996             | <u>Flammable and Combustible Liquids Code.</u>   |
| <del>18.</del> <u>30A</u> - 1996            | <u>Automotive and Marine Service Station Code.</u>   |
| <del>19.</del> <u>30B</u> - 1998            | <u>Manufacture and Storage of Aerosol Products.</u>  |
| <del>9.</del> <u>20.</u> <u>31</u> - 1997   | Standard for the Installation of Oil-Burning Equipment.  |
| <del>21.</del> <u>33</u> - 1995             | <u>Standard for Spray Application Using Flammable or Combustible Materials.</u>  |
| <del>22.</del> <u>34</u> - 1995             | <u>Standard for Dipping and Coating Processes Using Flammable or Combustible Liquids.</u>                              |
| <del>23.</del> <u>45</u> - 1996             | <u>Fire Protection for Laboratories Using Chemicals.</u>   |
| <del>24.</del> <u>51</u> - 1997             | <u>Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes.</u> |
| <del>10.</del> <u>25.</u> <u>54</u> - 1996  | National Fuel Gas Code.  |
| <del>11.</del> <u>26.</u> <u>72</u> - 1996  | National Fire Alarm Code.  |
| <del>27.</del> <u>80</u> - 1999             | <u>Standard for Fire Doors and Fire Windows.</u>   |
| <del>12.</del> <u>28.</u> <u>90A</u> - 1996 | Standard for the Installation of Air Conditioning and Ventilating Systems  |

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|---------------------------------------|--|
| <del>13.</del> <u>29.</u> 96 – 1998   | Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment. |
| <del>14.</del> <u>30.</u> 211 – 1996  | Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances.   |
| <u>31.</u> 230 - 1999                 | <u>Standard for the Fire Protection of Storage.</u>  |
| <del>15.</del> <u>32.</u> 231 – 1998  | Standard for General Storage.  |
| <del>16.</del> <u>33.</u> 231C – 1998 | Standard for Rack Storage of Materials.  |
| <u>34.</u> 231D - 1998                | <u>Standard for Storage of Rubber Tires.</u>   |
| <u>35.</u> 231F - 1996                | <u>Standard for the Storage of Roll Paper.</u>   |
| <u>36.</u> 430 - 1995                 | <u>Code for the Storage of Liquid and Solid Oxidizers.</u>   |
| <u>37.</u> 432 - 1997                 | <u>Code for the Storage of Organic Peroxide Formulations.</u>  |
| <u>38.</u> 495 - 1996                 | <u>Explosive Materials Code.</u>   |
| <u>39.</u> 750 - 1996                 | <u>Standard on Water Mist Fire Protection Systems.</u>   |
| <u>40.</u> 2001 - 1996                | <u>Standard on Clean Agent Fire Extinguishing Systems.</u>   |
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SECTION 68. Comm 52.01 (1) (c) and Notes are repealed.

SECTION 69. Comm 52.011 (4) is amended to read:

Comm 52.011 (4) SYSTEM DEFINITION AND STANDARD. The automatic fire sprinkler systems specified in this subchapter shall conform to the definition specified in s. Comm 51.01 (7a) and shall comply with the requirements specified in the applicable standards listed in s. Comm ~~51.27 (7) (b), (c), (cm), (d), (e), (f), (r) and (s)~~ 51.25-17.

SECTION 70. Comm 52.013 (6) (b) 2. is repealed.



SECTION 71. Comm 52.013 (6) (c) is repealed and recreated to read:

Comm 52.013 (6) (c) The automatic fire sprinkler system protection required under this subsection shall be in accordance with the following standards, applicable to the storage: NFPA 13, NFPA 230, NFPA 231, NFPA 231C, NFPA 231D or NFPA 231F.

SECTION 72. Comm 52.013 (7) (b) is amended to read:

Comm 52.013 (7) (b) When approved by the department, alternate ~~types of fire protection~~ or suppression systems ~~as may be~~ appropriate for the particular hazard may be provided.

SECTION 73. Comm 53.63 (1) is repealed.

SECTION 74. Comm 55.09 (title) is amended to read:

**Comm 55.09 (title) Stairways and shafts.**

SECTION 75. Comm 55.09 (4) is created to read:

Comm 55.09 (4) Except as provided in sub. (1), stairways, shafts and other vertical openings shall be enclosed as specified in s. Comm 51.02 (11).

SECTION 76. Comm 57.01 (2) (a) is amended to read:

Comm 57.01 (2) (a) Each living unit, except rowhouse units as specified in s. Comm ~~51.01 (114a)~~ 57.19, shall be separated from other living units, common use areas and from the exit access by construction protected with at least the equivalent of one layer of 5/8-inch Type X gypsum wallboard with taped joints.

SECTION 77. Comm 57.16 (1) (b) 5. is created to read:

Comm 57.16 (1) (b) 5. Inside each individual bedroom or sleeping room.

SECTION 78. Comm 57.16 (1) (d) is amended to read:

Comm 57.16 (1) (d) Smoke detectors shall be installed and maintained in accordance with ~~s. 101.145 (2), Stats.~~ this section and s. Comm 51.245.

**[NOTE TO REVISOR: Please number the existing note as Note 1. Please add Note 2 as follows:]** Note 2: Section 101.145, Stats., addresses retroactivity requirements for buildings constructed prior to the effective date of this section. Section 101.145 states: *"The owner of a residential building the initial construction of which is commenced before, on or after May 23, 1978, shall install and maintain a functional smoke detector in the basement and at the head of any stairway on each floor level of the building and shall install a functional smoke detector either in each sleeping room of each unit or elsewhere in the unit within 6 feet of each sleeping area and not in a kitchen."*

SECTION 79. Comm 57.16 (2) is repealed.

SECTION 80. Comm 58.22 is repealed.

SECTION 81. Comm 59.12, Table 59.12-1 Footnote is amended to read:

Comm 59.12, Table 59.12-1 Footnote \* Streets shall be within 50 feet of the adjacent building side with no obstructions between the street and the building that will impede fire fighting efforts. A 4-hour fire division wall may be considered as a street for the purpose of computing the area limitations for this table provided that no subdivided portion of the building has more streets than the entire building has.

SECTION 82. Comm 59.12, Table 59.12-2 Footnote is amended to read:

Comm 59.12, Table 59.12-2 Footnote \* Streets shall be within 50 feet of the adjacent building side with no obstructions between the street and the building that will impede fire fighting efforts. A 4-hour fire division wall may be considered as a street for the purpose of computing the area limitations for this table provided that no subdivided portion of the building has more streets than the entire building has.

SECTION 83. Comm 62.93 is repealed and recreated to read:

**Comm 62.93 Hazard enclosures and separations.** (1) HAZARD ENCLOSURES. Hazards shall be enclosed in accordance with s. Comm 51.08.

(2) NONCOMBUSTIBLE CONSTRUCTION. Greenhouses of noncombustible construction do not require separation from any other occupancy or from any building of a different class of construction

(3) COMBUSTIBLE CONSTRUCTION. (a) Greenhouses of combustible construction shall be separated from any other occupancy or from all buildings of a different class of construction by at least 2-hour fire resistive construction in accordance with ss. Comm 51.04 to 51.049.

(b) All openings in the fire-resistive construction shall be protected by self-closing fire-resistive doors in accordance with s. Comm 51.047.

SECTION 84. Comm 64.21 Table 64.21, Footnote 5 is amended to read:

Comm 64.21 Table 64.21, Footnote 5 ~~Boiler~~ Boilers and water heaters up to 200,000 Btu input, gas and liquid fuel-fired space heaters, suspended furnaces, vented and unvented unit heaters may be used without an enclosure where approved by the department. Exception: Suspended units in factories shall have no size limitation. All such units shall be located in an occupied space and suspended at least 7 feet above the floor. The blow-off pipe for suspended boilers and water heaters shall be extended down to within 6 inches of the floor. Infrared equipment shall be located at least 8 feet above the floor. Suspension of solid-fuel fired equipment is not permitted. See ss. Comm ~~54.14 (3)~~ 51.08 and 64.22 (3) for additional requirements.

SECTION 85. Comm 64.22 (8) is amended to read:

Comm 64.22 (8) FLOOR-STANDING VENTED OR UNVENTED EQUIPMENT. Floor-standing, vented or unvented unit heaters, furnaces and boilers in metal fabricating plants, foundries and machine shops are exempt from the requirements of s. Comm ~~54.14~~ 51.08.

SECTION 86. Comm 64.42 is repealed and recreated to read:

**Comm 64.42 Fire dampers, smoke dampers and ceiling dampers.** (1) Except as provided under sub. (2), ducts that terminate at or pierce a code-required, fire-resistive rated assembly shall be protected with a listed fire damper, smoke damper or ceiling damper installed and maintained in accordance with the requirements of NFPA 90A.

(2) Kitchen exhaust ducts serving a hood may not have a damper installed, except under one of the following conditions: (a) The damper is listed for such use or is part of a listed device or system.

(b) A carbon dioxide extinguishing system is installed.

Note 1: See s. Comm 64.67 (6) (g) for requirements on carbon dioxide extinguishing systems, in addition to the requirements of NFPA 12.

Note 2: See s. Comm 64.67 (5) (f) for duct enclosure requirements.

SECTION 87. Comm 64.51 (4) (a) is amended to read:

Comm 64.51 (4) FIRE PROTECTION. (a) ~~1.~~ Heat-producing appliances and their chimney or vent connectors shall be installed with clearances to combustible material as specified in NFPA ~~Manual No. 211~~ unless listed for installation at other clearances.

~~2. Clearance to combustible materials shall be as specified in NFPA Standard No. 211 or as specified by a nationally recommended testing laboratory, whichever is greater.~~

SECTION 88. Comm 64.67 (1) is amended to read:

Comm 64.67 (1) SCOPE. This section applies to all areas where food is prepared, except in domestic science educational facilities from grades kindergarten through 12, and ~~single unit apartments in hotels, motels and apartment buildings.~~ within individual dwelling units of buildings under the scope of chs. Comm 57 and Comm 66.

SECTION 89. Comm 64.67 (5) (f) is repealed and recreated to read:

Comm 64.67 (5) (f) *Duct enclosure*. 1. A grease duct that penetrates or passes through any ceiling, wall or floor shall be completely enclosed from the point of penetration to the outlet terminal.

2. The duct enclosure shall meet one of the following requirements:

- a. The duct shall be enclosed in a noncombustible 2-hour rated fire-resistive enclosure.
- b. The duct shall be completely covered on all sides with a material classified and labeled for such purpose and the penetration shall be protected with a classified through-penetration firestop system with F and T ratings at least equal to the rating of the assembly being penetrated.

SECTION 90. Comm 64.67 (6) (intro.) is repealed.

SECTION 91. Comm 64.67 (6) (a) to (e) are renumbered (b) to (f).

SECTION 92. Comm 64.67 (6) (a) is created to read:

Comm 64.67 (6) AUTOMATIC SUPPRESSION SYSTEMS. (a) *General*. 1. Exhaust hood and duct systems in commercial kitchen applications shall be protected with an automatic fire suppression system.

2. The type of automatic fire suppression system used shall be recognized by a national standard as being appropriate for use in commercial kitchen applications.

3. Manufactured fire suppression systems shall be listed and labeled for use in commercial kitchen applications or shall comply with one of the applicable standards listed in s. Comm 51.235.

4. Alternate suppression systems shall comply with the applicable standard listed in s. Comm 51.235.

5. Automatic fire sprinkler systems shall comply with s. Comm 51.23.

SECTION 93. Comm 64.67 (6) (b), as renumbered, (title) is created to read:

Comm 64.67 (6) (b) (title) *System interconnection*.

SECTION 94. Comm 64.67 (6) (c), as renumbered, (title) is created to read:

Comm 64.67 (6) (c) (title) *Actuation*.

SECTION 95. Comm 64.67 (6) (d), as renumbered, (title) is created to read:

Comm 64.67 (6) (d) (title) *Manual actuator location*.

SECTION 96. Comm 64.67 (6) (e), as renumbered, is amended to read:

Comm 64.67 (6) (e) *Maintenance*. The automatic fire suppression system shall be maintained at full operating capacity by the owner and shall be serviced every 6 months; and in accordance with its listing, the manufacturer's instructions and the maintenance requirements of ss. Comm 51.23 or 51.235.

SECTION 97. Comm 64.67 (6) (f), as renumbered, (title) is created to read:

Comm 64.67 (6) (f) (title) *Service accessibility*.

SECTION 98. Comm 64.67 (6) (g) and (h) are created to read:

Comm 64.67 (6) (g) *Carbon dioxide systems*. Carbon dioxide systems protecting commercial cooking equipment shall be installed in accordance with NFPA 12 and the following provisions:

1. A nozzle shall be provided at the top of the duct.
2. Where ducts exceed 20 feet of vertical distance or 50 feet of horizontal distance, additional nozzles shall be installed within the duct in a symmetrical pattern to give uniform distribution of carbon dioxide.
3. a. Dampers shall be installed at either the top or the bottom of the duct and shall operate automatically upon activation of the carbon dioxide system.  
b. Where the damper is located at the top of the duct, the top nozzle shall be immediately below the damper.
4. The carbon dioxide system shall be sized to protect all hazards venting through a common duct simultaneously.

(h) *Automatic fire sprinkler systems*. Automatic fire sprinkler systems protecting commercial cooking equipment shall be installed in accordance with NFPA 13 and the following provisions:

1. Automatic sprinkler systems protecting commercial cooking equipment shall be provided with a separate, readily-accessible indicating-type control valve that is clearly identified.
2. Sprinklers used to protect fryers shall be listed for such use and shall be installed in accordance with the listing.

SECTION 99. Comm 64.67 (8) is created to read:

Comm 64.67 (8) MAINTENANCE OF DUCT AND HOOD SYSTEMS. Duct and hood systems shall be maintained in accordance with NFPA 96.

SECTION 100. Comm 64.67 (9) is created to read:

Comm 64.67 (9) PORTABLE FIRE EXTINGUISHERS. 1. Portable fire extinguishers shall be provided in accordance with s. Comm 51.22.

2. The extinguishing agent in the portable fire extinguisher shall be compatible with the extinguishing agent in the automatic suppression system as determined by the manufacturer.

**[NOTE TO REVISOR: Please delete ss. Comm 66.32 (4) (c) 3. and 4. (These sections were deleted in a previous rule change but they have reappeared here.)]**

**[NOTE TO REVISOR: Please insert the following note after s. Comm 66.47 (3) (b). "Note: See s. Comm 66.32 (4) (c) for an isolation exemption relating to gasoline-fired equipment stored in garages."]**

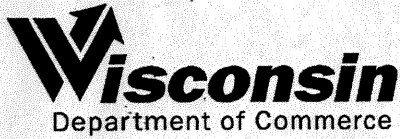
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EFFECTIVE DATE

Pursuant to s. 227.22 (2) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

.....



NOV 11 1999

P.O. Box 7970  
Madison, Wisconsin 53707  
(608) 266-1018  
TDD#: (608) 264-8777  
www.commerce.state.wi.us

Tommy G. Thompson, Governor  
Brenda J. Blanchard, Secretary

November 11, 1999

Senate Chief Clerk  
Room 402  
1 East Main Street  
Madison, Wisconsin 53703

Assembly Chief Clerk  
Room 402  
1 East Main Street  
Madison, Wisconsin 53703

Dear Chief Clerks:

**TRANSMITTAL IN FINAL DRAFT FORM OF ADMINISTRATIVE  
RULES AND REPORT**

CLEARINGHOUSE RULE NO.: 99-120

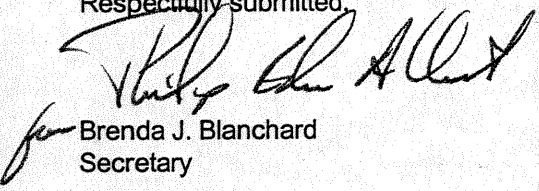
RULE NO.: Chapters Comm 50-64

RELATING TO: Fire Safety Requirements in the Commercial Building Code

Pursuant to section 227.19, Stats., agencies are required to submit, in triplicate, copies of the proposed administrative rules in final draft form together with a rule report and an analysis. The recommendations received from the Legislative Council are also to be submitted.

At this time, this material, together with cover letters to the President of the Senate and the Speaker of the Assembly, is being transmitted for referral to the standing committees for legislative review.

Respectfully submitted,

  
Brenda J. Blanchard  
Secretary





P.O. Box 7970  
Madison, Wisconsin 53707  
(608) 266-1018  
TDD#: (608) 264-8777  
www.commerce.state.wi.us

Tommy G. Thompson, Governor  
Brenda J. Blanchard, Secretary

November 11, 1999

Senator Fred Risser  
President of the Senate  
Room 220 South, State Capitol  
Madison, Wisconsin 53702

Representative Scott Jensen  
Speaker of the Assembly  
Room 211 West, State Capitol  
Madison, Wisconsin 53702

Dear Senator Risser and Representative Jensen:

### NOTICE OF ADMINISTRATIVE RULES IN FINAL DRAFT FORM

CLEARINGHOUSE RULE NO.: 99-120

RULE NO.: Chapters Comm 50-64

RELATING TO: Fire Safety Requirements in the Commercial Building Code

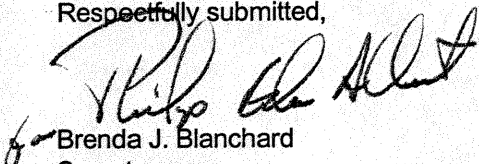
Section 227.19, Stats., requires agencies to submit proposed rules in final draft form to the presiding officer of each house for referral to the appropriate legislative standing committees.

The following information, as required by law, is being submitted to you.

1. Rules in final draft form (in triplicate).
2. Report consisting of:
  - a) Rule Report.
  - b) Public Hearing Attendance Record.
  - c) Public Hearing Comment and Agency Response Form.
  - d) Legislative Council Rules Clearinghouse Report.
  - e) Response to Legislative Council Rules Clearinghouse Report.
  - f) Fiscal Estimate.
  - g) Final Regulatory Flexibility Analysis.

If you have any questions regarding this matter, please do not hesitate to contact us.

Respectfully submitted,

  
Brenda J. Blanchard  
Secretary

# FINAL REGULATORY FLEXIBILITY ANALYSIS

## Department of Commerce

CLEARINGHOUSE RULE NO.: 99-120

RULE NO.: Chapters Comm 50-64

RELATING TO: Fire Safety Requirements in the Commercial Building Code

1. **Reason for including or failing to include the following methods for reducing impact of the rule on small businesses: Less stringent compliance or reporting requirements; less stringent schedules or deadlines for compliance or reporting requirements; simplification of compliance or reporting requirements; establishment of performance standards to replace design or operational standards; exemption from any or all requirements.**

National Fire Protection Association (NFPA) standards have been established through a national consensus process. These newer editions of the NFPA standards and rule changes based on NFPA standards and International Fire Code requirements lead to more consistent and rational design, inspection and maintenance requirements. Exempting a particular size or type of business from these standards and rules would pose safety and economic disruption threats to the entire community. It is essential to public health, safety and welfare that fire safety standards and administrative rules be enforced consistently and uniformly in all public buildings, regardless of the economic size of the business.

2. **Issues raised by small businesses during hearings, changes in proposed rules as a result of comments by small businesses and reasons for rejecting any alternatives suggested by small businesses.**

There were no issues raised by small businesses during the development of these rules or during hearings.

3. **Nature and estimated cost of preparation of any reports by small businesses.**

There are no reporting requirements in these rules.

4. **Nature and estimated cost of other measures and investments required of small businesses.**

There should be very few, if any, additional measures or additional costs in order for small businesses to comply with these rules. These are simply updating standards and rules, many of which are currently adopted in the building code. Newly adopted standards and rule provisions would only apply to the construction of new buildings. They would not apply to currently existing buildings. Updated standards generally allow for cost and procedural efficiencies when compared with the older standards that are currently adopted.

*(Continued on next page)*

## FINAL REGULATORY FLEXIBILITY ANALYSIS (cont.)

**5. Additional cost to agency of administering or enforcing a rule which includes any of the methods in 1. for reducing impact on small businesses.**

There would be no additional costs to the agency.

**6. Impact on public health, safety and welfare caused by including any of the methods in 1. for reducing impact on small businesses.**

State statutes require the department to enforce fire safety requirements in all public buildings and places of employment. This is to ensure the safety of building owners, employees, frequenters, and all other occupants, including, in the extreme case, firefighters. The economic loss due to fire at a small business can be even more devastating than the loss at a large business because the small business is unlikely to have the resources to shift production or sales elsewhere. Therefore, it is essential to public health, safety and welfare that these standards and administrative rules be enforced consistently and uniformly in all public buildings.



State of Wisconsin \ Department of Commerce

# **RULES in FINAL DRAFT FORM**

**Rule No.:** Chapters Comm 50-64

**Relating to:** Fire Safety Requirements

**Clearinghouse Rule No.:** 99-120

The Wisconsin Department of Commerce proposes an order to repeal ss. Comm 51.01 (60), Table 51.03-B, 51.042 (1) (d), 51.044, 51.047 (3), 51.047 (5), 51.06 (6) (a) 3. b., 51.167 (1) (Note), 51.21 (1) (Note), 51.21 (3) (i), 51.23 (7) (d) (Note), 51.23 (8), Table 51.25-10 lines 59 and 60, 52.01 (1) (c) and Notes, 52.013 (6) (b) 2., 53.63 (1), 54.01 (2) (c), 57.16 (2), 58.22, and 64.67 (6) (intro.);

to renumber ss. Comm 51.01 (56a), 51.01 (119c), Table 51.02, 51.047 (2), 51.047 (6), 51.245 (3) (a) to (d), Table 51.25-10 lines 61 to 64, 52.013 (6) (b) 1., and 64.67 (6) (a) to (e);

to renumber and amend ss. Comm 51.06 (6) (a) 3. a., 51.08 (3), 51.22 (3), 51.24 (10), and 51.245 (3) (intro.);

to amend ss. Comm 51.01 (7), 51.01 (47), 51.02 (4) (c) 1., 51.02 95) (a) 1., 51.02 (15), 51.02 (19) (a) (intro.), 51.03 (1) (d), 51.03 (2) (e), 51.043 (1) (a), 51.047 (5) (intro.), 51.048 (1) (a), 51.049 (2) (Note), 51.049 (5) (b) 4. (intro.), 51.22 (1), 51.23 (2) (a), 51.23 (2) (b), 51.23 (6) (a), 51.23 (6) (b), 51.23 (7) (b), 51.24 (intro.), Table 51.25-17, 52.011 (4), 52.013 (7) (b), 55.09 (title), 57.01 (2) (a), 57.16 (1) (d), Table 59.12-1 Footnote, Table 59.12-2 Footnote, 64.22 (8), 64.51 (4) (a), 64.67 (1), 64.67 (6) (e), and 66.32 (5) (c) 1.;

to repeal and recreate ss. Comm 51.047 (1), 51.048 (1) (b), 51.049 (5) (b) 4. a., 51.08 (2), Table 51.08-2, 51.20 (1), 51.21 (1), 51.21 (8), 51.23 (1) (a), 51.245 (2), 52.013 (6) (c), 62.93, Table 64.21, 64.42, and 64.67 (5) (f);

and to create ss. Comm 51.01 (119e), 51.02 (4) (d) and Table 51.02-B, 51.02 (19) (a) 3., 51.02 (24), 51.02 (25), 51.047 (2), 51.048 (1) (c), 51.0485, 51.049 (5) (b) 4. b., 51.049 (6), 51.08 (3) (b), 51.22 (3) (a) 2. and Note, 51.22 (3) (b), 51.235, 51.236, 51.24 (10) (b), 51.245 (3) (f), 55.09 (4), 57.16 (1) (b) 5., 64.67 (6) (a), 64.67 (6) (b) (title), 64.67 (6) (c) (title), 64.67 (6) (d) (title), 64.67 (6) (f) (title), 64.67 (6) (g) and (h), 64.67 (8) and 64.67 (9).

.....

### Analysis of Proposed Rules

Statutory Authority: ss. 101.02 (1) and (15), and 101.14 (4)

Statutes Interpreted: ss. 101.02 (1) and (15), 101.14 (4), and 101.145

Under ss. 101.02 and 101.14, Stats., the Department of Commerce has the responsibility to supervise every public building and place of employment, including the fire safety aspects, in order to protect the life, health, safety and welfare of every employe, frequenter, tenant and firefighter. The proposed changes in this package are intended to update code requirements and adopted national standards relating to building construction, building equipment, commodity

storage and isolation, fire prevention, fire detection, and fire suppression as one part of that responsibility.

The proposed rule change updates the currently adopted National Fire Protection Association (NFPA) standards in the Building and Heating, Ventilating and Air Conditioning Code, chapters Comm 50-64. Twenty-two additional NFPA standards are proposed for adoption by reference. Most of these new standards relate to alternate methods of fire suppression or to storage and isolation requirements for various hazardous commodities.

Minor wording changes have been made to the text to clarify ambiguous requirements or to promote consistency within the code as well as consistency with national standards and national model codes. Several changes are proposed that will coincide with requirements in the International Building Code (IBC). Proposed requirements for fireblocking in building construction, using listed joint assemblies in fire-resistive construction, and fire isolation and suppression in commercial cooking facilities follow requirements from the IBC.

.....

SECTION 1. Comm 51.01 (7) is amended to read:

Comm 51.01 (7) "Automatic" means ~~functions~~ a function that occurs without human intervention. ~~Automatic as applied to a fire protective device is one which functions without human intervention and is actuated as a result of the predetermined temperature rise, rate of rise of temperature, combustion product or smoke density, such as an automatic fire sprinkler system, automatic fire door, automatic fire shutter, or automatic fire vent.~~

SECTION 2. Comm 51.01 (47) is amended to read:

Comm 51.01 (47) FIRE-RESISTIVE CLASSIFICATION. Fire-resistive classification is the time in hours during which a material or assembly continues to exhibit fire resistance under specific conditions of tests and performance ~~as specified in ASTM E 119, ASTM E 152, and ASTM E 163.~~

SECTION 3. Comm 51.01 (56a) is renumbered (56m).

SECTION 4 Comm 51.01 (60) is repealed.

SECTION 5. Comm 51.01 (119c) is renumbered (119m).

SECTION 6. Comm 51.01 (119e) is created to read:

Comm 51.01 (119e) "Smokeless propellant" means a solid propellant used in small arms ammunition, cannons, rockets or propellant - actuated devices that emits a minimal amount of smoke when ignited.

SECTION 7. Comm 51.02 (4) (c) 1. is amended to read:

Comm 51.02 (4) (c) 1. Except as provided in subd. 2., fenestration in-fill panels in the exterior walls of existing buildings of types 1, 2, 3, 5A and 5B construction meeting the percentage of openings requirements of ~~Table 51.03-B~~ Table 51.02-B shall be of noncombustible construction.

SECTION 8. Comm 51.02 (4) (d) and Table 51.02-B are created to read:

Table 51.02-B

Maximum Total Area Of Windows Or Other Openings In Percent Of Total Exposed Wall Surface

| Setback from Property Line or Other Walls on same property | CLASS OF CONSTRUCTION   |                                  |  |                            |                         |                           |
|--|---|----------------------------------|--|----------------------------|-------------------------|---------------------------|
|  | 1. Fire Resistive "A"<br>2. Fire Resistive "B"<br>3. Metal Frame Prot. Bearing Wall |                                  | 4. Heavy Timber<br>5A Ext. Masonry<br>5B Ext. Masonry<br>Nonbearing wall | 6. Metal Frame Unprotected | 7. Wood Frame Protected | 8. Wood Frame Unprotected |
|  |   |                                  |  |                            |                         |                           |
| Less than 5'   | No openings   | No openings                      | No openings  | No openings                | No openings             |                           |
| 5' to less than 10'  | 20%<br>A Fire Window is Required  | 30%<br>A Fire Window is Required | 30%  | No openings                | No openings             |                           |
| 10' to less than 30'                                       | 30%   | 40%                              | 40%  | 40%                        | 40%                     |                           |
| 30' or over  | No limit  | No limit                         | No limit   | No limit                   | No limit                |                           |

Comm 51.02 (4) (d) 1. Except as allowed under subd. 6, the maximum area of windows or other openings shall be as required by Table 51.02-B.

2. Table 51.02-B does not apply to property lines along streets.

3. The maximum percentage of openings in Table 51.02-B shall be calculated for each 100 lineal feet of wall measured in the plane of the wall. Wing walls, parapets or similar structures may not be used to increase the exposed wall area.

4. Fire windows required by Table 51.02-B shall comply with s. Comm 51.048.

5. Setbacks specified in Table 51.02-B shall be measured as specified in s. Comm 51.01 (115).



6. Where openings are permitted, and Table 51.02-B shows a numerical percentage of allowed openings, openings are allowed in excess of the given percentage, provided the excess openings are protected with automatic closing, 3-hour fire resistive door or shutter assemblies.

SECTION 9. Comm 51.02 (5) (a) 1. is amended to read:

Comm 51.02 (5) (a) 1. Openings shall be protected by approved fire door or fire window assemblies as specified in ss. Comm 51.047 and 51.048, or fire damper or fire curtain door assemblies as specified in s. Comm ~~64.42~~ 51.0485.

SECTION 10. Comm 51.02 (15) is amended to read:

Comm 51.02 (15) DECORATIVE COMBUSTIBLE MATERIALS. Any combustible materials applied to a required noncombustible exterior surface of "0" hourly rated construction or better shall not exceed the surface area percentage specified in ~~Table 51.02~~ Table 51.02-A within any 100 lineal feet of the building.

SECTION 11. Comm 51.02, Table 51.02 is renumbered Table 51.02-A.

SECTION 12 Comm 51.02 (19) (a) (intro.) is amended to read:

Comm 51.02 (19) (a) (intro.) Except as provided in par. (b), attics of combustible construction shall be divided into areas not greater than 3,200 square feet ~~by firestopping as specified in s. ILHR 53.63 (1)(d)~~ this section.

SECTION 13. Comm 51.02 (19) (a) 3. is created to read:

Comm 51.02 (19) (a) 3. Materials used for attic compartmentalization shall be as specified in s. Comm 51.02 (24) (c).

SECTION 14. Comm 51.02 (24) is created to read:

Comm 51.02 (24) FIREBLOCKING OF CONCEALED SPACES. (a) General. 1. Fireblocking shall be installed in combustible concealed locations in accordance with this section.

2. Fireblocking shall be provided across the full width of intersections of interior and exterior walls with floors, ceilings and roof in order to cut off communication by fire through hollow concealed spaces and prevent both vertical and horizontal drafts.



3. Fireblocking shall be provided at openings around wires, vents, pipes, ducts and other penetrations in floors and ceilings at all levels to prevent vertical drafts.

4. Fireblocking shall be provided at openings around wires, vents, pipes, ducts and other penetrations in walls separating adjacent tenant spaces to prevent horizontal drafts.

5. Noncombustible fireblocking shall be provided between chimneys and wood framing at all floor levels.

6. Fireblocking shall be installed to remain securely in place when exposed to fire conditions.

7. The integrity of fireblocking shall be maintained.

(b) Specific locations. 1. Concealed spaces in stud walls or furred walls shall have fireblocking placed immediately above and below the junction of any floor construction with the walls, or shall be fireblocked the full depth of the joist.

2. Concealed spaces between vertical stud walls or partitions and the spaces created by soffits, dropped ceilings, cove ceilings and similar areas shall be fireblocked.

3. All concealed spaces between stair stringers at the top and bottom of the stair run shall be fireblocked.

4. All spaces between chimney and wood framing shall be solidly filled with noncombustible material at floor levels.

5. a. Except as provided in subd. 5. b. and c., wood floors laid on noncombustible construction with sleepers or furring strips shall be fireblocked so that no open space under the flooring will exceed 100 square feet.

b. Fireblocking is required only at the ends of each lane in a bowling facility.

c. Fireblocking is not required for slab-on-grade floors in gymnasiums unless the floor is partitioned into separate rooms or areas by permanent stud wall or furred wall construction.

Note: Subd. 1 still requires fireblocking under permanent walls that serve to subdivide the gymnasium floor.

(c) Fireblocking materials. Where combustible material is allowed under this section, fireblocking shall consist of one of the following:

1. Lumber with a nominal thickness of at least 2 inches.

2. Two layers of lumber, each with a nominal thickness of one inch, with staggered lap joints.

3. Wood structural panel or particle board with a nominal thickness of 3/4 inch thick with joints backed.

4. Gypsum board with a minimum thickness of 1/2 inch.

5. Cement fiber board.

6. Fiberglass or mineral wool batts or blankets.

7. Caulk, putty or drywall compound.

8. Other noncombustible materials.

SECTION 15. Comm 51.02 (25) is created to read:

Comm 51.02 (25) COMBUSTIBLE STORAGE. Combustible materials covered under the scope of NFPA 230 shall be stored in accordance with the requirements of NFPA 230.

Note: NFPA 230, Standard for the Fire Protection of Storage, is intended to apply to a broad range of combustible materials stored indoors and outdoors. Examples include plastics, rubber tires, baled cotton and roll paper. Configurations include palletized, solid piled, in bin boxes, on racks or on shelves. Exemptions include high-hazard materials, such as flammable liquids and unpackaged bulk material, such as grain or coal.

SECTION 16. Comm 51.03 (1) (d) is amended to read:

Comm 51.03 (1) (d) Doors and windows may be of wood except as otherwise specified in s. Comm 51.02 (5), ~~Table 51.03-B~~, Table 51.02-B, ss. Comm 51.17, 51.18, 51.19 and 51.20, or in the occupancy chapters of this code.

SECTION 17. Comm 51.03 (2) (e) is amended to read:

Comm 51.03 (2) (e) Doors and windows may be of wood except as otherwise specified in s. Comm 51.02 (5), ~~Table 51.03-B~~, Table 51.02-B, ss. Comm 51.17, 51.18, 51.19 and 51.20, or in the occupancy chapters of this code.

SECTION 18. Comm 51.03, Table 51.03-B is repealed.

SECTION 19. Comm 51.042 (1) (d) is repealed.

SECTION 20. Comm 51.043 (1) (a) is amended to read:

Comm 51.043 (1) (a) Test by approved testing laboratories (~~see s. ILHR 51.044~~).

SECTION 21. Comm 51.044 is repealed.

SECTION 22. Comm 51.047 (1) is repealed and recreated to read:

Comm 51.047 (1) GENERAL. (a) Except as provided in pars. (b) and (c) and ss. Comm 51.048, Comm 51.049, an opening, where permitted in a fire-resistive rated assembly, shall be protected by means of a fire-resistive rated door assembly installed and maintained in accordance with NFPA 80.

(b) Where a fire-resistive wall assembly is used only as an interior bearing wall as specified in line 17 of Table 51.03-A, and is not also used for separation purposes, the opening does not require protection with a fire-resistive rated door assembly, provided all parts of the opening maintain the fire-resistive rating of the wall assembly.

(c) Openings in fire-resistive rated assemblies to accommodate conveyor systems shall be protected with one of the following: 1. A fire-resistive rated door assembly installed and maintained in accordance with NFPA 80.

2. A water spray system installed in accordance with NFPA 15 and all of the following:

a. Initiating devices shall be installed on both sides of the penetrated assembly.

b. Nozzles shall protect the entire opening on both sides of the assembly.

c. The conveyor shall be constructed such that it stops running when the spray system is activated.

d. The minimum design density of the water spray shall be 0.50 gallons per minute per square foot of protected opening.

e. The minimum water supply duration shall be 120 minutes.

SECTION 23. Comm 51.047 (3) is repealed.

SECTION 24. Comm 51.047 (2) is renumbered (3).

SECTION 25. Comm 51.047 (2) is created to read:

Comm 51.047 (2) The fire-resistive rated door assembly shall be tested in accordance with NFPA 252 or UL 10B and listed and labeled as having the fire-resistive rating required by Table 51.047.

**[NOTE TO REVISOR: Please place Table 51.047 after the created subsection (2).]**

SECTION 26. Comm 51.047 (5) is repealed.

SECTION 27. Comm 51.047 (6) is renumbered (5).

SECTION 28. Comm 51.047 (5) (intro.), as renumbered, is amended to read:

Comm 51.047 (5) (intro.) All labeled fire doors, where required, shall be equipped with an approved automatic or self-closing device as defined in s. Comm 51.01 (17). A fusible link may not be used to activate an automatic closing device.

SECTION 29. Comm 51.048 (1) (a) is amended to read:

Comm 51.048 (1) WINDOW OPENINGS. (a) Except as allowed under par. (b), window openings, where permitted in fire-resistive rated ~~walls assemblies~~, shall be protected with fire window or glass block assemblies installed and maintained in accordance with NFPA 80 and rated as 3/4-hour when tested in accordance with NFPA 257 or UL 9 by an approved laboratory and tested in accordance with standard method ASTM E 162.

SECTION 30. Comm 51.048 (1) (b) is repealed and recreated to read:

Comm 51.048 (1) (b) Where a fire-resistive wall assembly is used only as an interior bearing wall as specified in line 17 of Table 51.03-A, and is not also used for separation purposes, the opening does not require protection with a fire-resistive window assembly, provided all parts of the opening maintain the fire-resistive rating of the wall assembly.

SECTION 31. Comm 51.048 (1) (c) is created to read:

Comm 51.048 (1) (c) Windows are not permitted in fire-resistive rated assemblies required to have a fire-resistive rating greater than one hour unless specifically permitted elsewhere in this code.

SECTION 32. Comm 51.0485 is created to read:

**Comm 51.0485 Fire dampers, smoke dampers and ceiling dampers.** (1) Except as provided under sub. (2), ducts that terminate at or pierce a code-required, fire-resistive rated assembly shall be protected with a listed fire damper, smoke damper or ceiling damper installed and maintained in accordance with the requirements of NFPA 90A.

(2) Kitchen exhaust ducts serving a hood may not have a damper installed, except under one of the following conditions:

- (a) The damper is listed for such use or is part of a listed device or system.
- (b) A carbon dioxide extinguishing system is installed.

Note 1: See s. Comm 64.67 (6) (g) for requirements on carbon dioxide extinguishing systems, in addition to the requirements of NFPA 12.

Note 2: See s. Comm 64.67 (5) (f) for duct enclosure requirements.

SECTION 33. Comm 51.049 (2) Note is amended to read:

Comm 51.049(2) Note: See s. Comm ~~64.42~~ 51.0485 for fire damper and fire curtain door requirements.

SECTION 34. Comm 51.049 (5) (b) 4. (intro.) is amended to read:

Comm 51.049 (5) (b) 4. (intro.) Where boxes are located on opposite sides of a non-staggered stud wall or partition, the boxes shall be separated by a minimum horizontal distance of 24 inches, unless installed in accordance with ~~all~~ one of the following:

SECTION 35. Comm 51.049 (5) (b) 4. a. is repealed and recreated to read:

Comm 51.049 (5) (b) 4. a. The boxes shall be protected with a listed wall opening protective material installed in accordance with the listing.

SECTION 36. Comm 51.049 (5) (b) 4. b. is repealed and recreated to read:

Comm 51.049 (5) (b) 4. b. The boxes shall be separated by solid fire blocking in accordance with s. Comm 51.02 (24).

SECTION 37. Comm 51.049 (6) is created to read:

Comm 51.049 (6) CONSTRUCTION JOINTS. (a) *General*. Except as allowed under par. (b), all joints between adjacent fire-resistive rated assemblies, such as between floor and wall assemblies, shall be designed and installed to maintain the hourly rating of the assembly.

(b) *Exceptions*. Fire-resistive construction joint systems are not required for joints in the following locations:

1. Floors within a single dwelling unit.
2. Floors where the joint is protected with a fire-resistive shaft enclosure in accordance with s. Comm 51.02 (11) (a).
3. Floors within atriums where the adjacent space is included in the volume of the atrium for smoke control purposes.
4. Floors within malls.
5. Floors within open parking structures.
6. Mezzanine floors.
7. Walls that are permitted to have unprotected openings.
8. Roofs where openings are permitted.
9. Control joints tested in accordance with ASTM E 119 that have a maximum joint width of 5/8 inch.
10. Joints that were tested as an integral part of the fire-resistive rated assembly.

(c) *Classification and testing*. 1. Except as allowed under subd. 2., construction joints under par. (a) shall be classified by an independent testing laboratory based on testing in accordance with UL 2079.

2. Voids at the intersection of fire-resistive rated assemblies and exterior curtain walls shall be protected with materials tested in accordance with ASTM E 119.

SECTION 38. Comm 51.06 (6) (a) 3. a. is renumbered (6) (a) 3. and amended to read:

Comm 51.06 (6) (a) 3. Foam plastics may be used in a thickness up to 4 inches in freestanding coolers or freezers having an aggregate floor area of 400 square feet without a thermal barrier and without an automatic fire sprinkler system; ~~or~~.