LF081104-07

ORDINANCE NO. 4082

AN ORDINANCE AMENDING SECTION 8.24.010 OF CHAPTER 8.24 OF THE RAPID CITY MUNICIPLE CODE OF THE CITY OF RAPID CITY BY ADOPTING THE 2003 INERNATIONAL FIRE CODE, AND APPENDICES THERETO, AND MAKING CERTAIN AMENDMENTS THERETO.

BE IT ORDAINED by the City of Rapid City that Section 8.24.010 of Chapter 8.24 of the Rapid City Municipal Code be amended to read as follows:

Section 8.24.010 Adoption.

There is hereby adopted by the City of Rapid City, for the purpose of prescribing regulations governing conditions hazardous to life and property from fire, hazardous materials or explosion, that certain code known as the International Fire Code, including Appendix Chapters A,B, C, D, E, F, G, being particularly the 2003 Edition thereof, and the whole thereof, save and except such portions as are hereafter deleted, modified, or amended by this chapter.

1. **IFC Preface, – Amended**

   Herein after the following substitutions shall be made when referenced throughout the International Fire Code, International Electrical Code shall be replaced with "Current Electrical Code adopted by the City of Rapid City"; International Fuel Gas Code shall be replaced with "Current Gas Code adopted by the City of Rapid City"; International Mechanical Code shall be replaced with "Current Mechanical Code adopted by the City of Rapid City"; International Plumbing Code shall be replaced with "Current Plumbing Code adopted by the City of Rapid City".

2. **IFC Chapter 1, Section 101.1 Title – Amended**

   101.1 Title. These regulations shall be known as the Fire Code of the City of Rapid City, hereinafter referred to as "this code."

3. **IFC Chapter 1, Section 102.3 Change of use or occupancy. – Amended**

   102.3 Change of use or occupancy. The provisions of the *International Building Code* shall apply to all buildings undergoing a change of use or occupancy.

4. **IFC Chapter 1, Section 102.4 Application of Building Code. - Amended**

   102.4 Application of Building Code. The design and construction of new structures shall comply with the *International Building Code*. Repairs, alterations and additions to existing structures shall comply with the *International Building Code*.

5. **IFC Chapter 1, Section 102.5 Historic Buildings. – Amended**

102.5 Historic buildings. The construction, alteration, repair, enlargement, restoration, relocation or movement of existing buildings or structures that are designated as historic buildings when such buildings or structures do not constitute a distinct hazard to life or property shall be in accordance with the provisions of the *International Building Code.*
Historic buildings shall also comply with NFPA 909, Standard for the protection of Cultural Resources, Including Museums, Libraries, Places of Worship, and Historic Properties., and NFPA 914, Code for Fire Protection of Historic Structures.

6. **IFC Chapter 1, Section 105.6 Required operational permits. – Amended**

105.6 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.47.

105.6.2 Amusement buildings. An operational permit is required to operate a special amusement building.

105.6.4 Carnivals and fairs. An operational permit is required to conduct a carnival or fair.

105.6.10 Covered mall buildings. An operational permit is required for:
1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.
2. The display of liquid- or gas-fired equipment in the mall.
3. The use of open-flame or flame-producing equipment in the mall.

105.6.14 Exhibits and trade shows. An operational permit is required to operate exhibits and trade shows.

105.6.15 Explosives. An operational permit is required for the manufacture, storage, handling, sale or use of any quantity of explosive, explosive material, fireworks, or pyrotechnic special effects within the scope of Chapter 33.

105.6.16 Fire hydrants and valves. An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes which are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public.
Exception: A permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.

105.6.23 High-piled storage. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m2).

105.6.31 Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to.
Exception: Recreational fires.

105.6.35 Places of assembly. An operational permit is required to operate an indoor or outdoor public assembly function where one of the following conditions exist:

1. Multiple tents, structures, or canopies when the aggregate area exceeds the size provisions of chapter 24, section 2403.2.
2. Multiple vendors which are assembled for the display or sales of merchandise, and items for human consumption.

Two sets of plans for all indoor/outdoor public assembly functions shall be submitted to the Fire Department for review. The event layout design must be in accordance with the Rapid City Department of Fire and Emergency Services Public Assembly Guide.

105.6.36 Private fire hydrants. An operational permit is required for the removal from service, use or operation of private fire hydrants.
Exception: A permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.

105.6.37 Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.

105.6.42 Spraying or dipping. An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 15.

105.6.44 Temporary membrane structures, tents and canopies. An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 200 square feet (19 m2), or a canopy in excess of 400 square feet (37 m2).
Exceptions:
1. Tents used exclusively for recreational camping purposes.

7. **IFC Chapter , Section 105.7 Required construction permits – Amended**

105.7 Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.12.

105.7.1 Automatic fire-extinguishing systems. A construction permit is required for installation of or modification to an automatic fire-extinguishing system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.3 Fire alarm and detection systems and related equipment. A construction permit is required for installation of or modification to fire alarm and detection systems and related equipment. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.4 Fire pumps and related equipment. A construction permit is required for installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers, and generators. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

105.7.5 Flammable and combustible liquids. A construction permit is required:
1. To repair or modify a pipeline for the transportation of flammable or combustible liquids.
2. To install, construct or alter tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.
3. To install, alter, remove, abandon or otherwise dispose of a flammable or combustible liquid tank.

105.7.6 Hazardous materials. A construction permit is required to install, repair damage to, abandon, remove, place temporarily out of service, or close or substantially modify a storage facility or other area regulated by Chapter 27 when the hazardous materials in use or storage exceed the amounts listed in Table 105.6.21.
Exceptions:
1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

105.7.9 Private fire hydrants. A construction permit is required for the installation or modification of private fire hydrants.

105.7.10 Spraying or dipping. A construction permit is required to install or modify a spray room, dip tank or booth.

105.7.11 Standpipe systems. A construction permit is required for the installation, modification, or removal from service of a standpipe system. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

8. IFC Chapter 1, Section 109.3 Violation Penalties – Amended

109.3 Violation Penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a Class 2 misdemeanor, punishable by a fine of not more than Two Hundred Dollars ($200.00) and/or by imprisonment not exceeding thirty (30) days. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

9. IFC Chapter 1, Section 111.4 Failure to comply – Amended

111.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not more than Two Hundred Dollars ($200.00) and/or by imprisonment not exceeding thirty (30) days.

10. IFC Chapter 2, Section 202 General Definitions – Amended

Manual Fire Alarm System. A system comprised of only manually operated fire alarm initiating devices installed in accordance with the applicable code requirements.

Waste Oil. A waste liquid resulting from the use of Class II-B Combustible liquids Such as motor oil, hydraulic oil, lubricating oil, Brake fluids and transmission fluids. It does not include the products classified as Class I, II or III-A liquids or corrosives, toxics or highly toxic Material .as darned in article 79 and Article 80. (See Section 2211.2.2)

11. IFC Chapter 3, Section 308.3 Open Flame – Deleted

12. IFC Chapter 3, Section 308. 4.1 Permits – Deleted

13. IFC Chapter 3, Section 308.5 Open-flame devices– Deleted

14. IFC Chapter 3, Section 315.1 General – Amended

IFC Chapter 3, Section 315.1 General. Storage, use and handling of miscellaneous combustible materials shall be in accordance with this section.

15. IFC Chapter 4, Section 401.3.2 Alarm activations. – Amended

401.3.2.1 Fire alarm activation. No person shall silence a fire alarm until the Fire department arrives, unless the person responsible for the property or fire alarm system has thoroughly investigated the building or area of alarm and found no evidence of fire, at which time the fire alarm system maybe silenced, **but shall not be reset,** provided the fire department is notified of such action and investigation findings.

401.3.2.2 Central Stations. Central stations shall immediately notify the Emergency Services Communication Center, for dispatch of the fire department, of alarm signals initiated by any fire alarm, fire extinguishing system, or equipment. Supervisory signals shall be relayed to the Emergency Services Communication Center for dispatch of the fire department. The fire department must be notified by faxed or electronic report of all trouble signals which exist for greater than a single 8 hour time period.

401.3.2.3 Disposition of signals. In all cases involving alarm and supervisory signals the Emergency Services Communications Center, for dispatch of the fire department, shall be contacted prior to notification of the subscriber.

16. IFC Chapter 5, Section 503.2.1 Dimensions - Amended

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Additional widths may be required when multiple responding emergency apparatus is expected to pass. The width, length, and interval will be as approved by the chief.

17. IFC Chapter 5, Section 503.3 Marking - Amended

503.3.1 Curbs. Fire apparatus access roads shall be identified with red painted curbs as deemed necessary.
EXCEPTION: Where no curb exists, a 6-inch-wide (152.4 mm) red stripe the length as deemed necessary shall be acceptable.

18. IFC Chapter 5, Section 505.1 Address numbers- Amended

505.1 Addresses Approved numbers or addresses shall be provided for all buildings in such a position as to be plainly visible and legible from the street or road fronting the property.

The following uniform method of displaying the address shall be used:

1. All addresses shall be numbers, no script.
2. The number shall be posted on the structure in such a way they will be visible at night, as well as daylight, using the following guidelines:
    a. Numbers shall be contrasting color to the background they are attached to.
    b. Numbers shall be a minimum of five (5) inches in height. Internal illuminated numbers may be four (4) inches in height.
    c. All commercial and Group R Division 1 property numbers shall be a minimum of twelve (12) inches in height, unless otherwise approved by the fire department.
    d. If the structure is not visible from the roadway because of terrain, trees or other obstruction, or if the structure is more than 400 feet from the roadway, the address numbers shall be posted on a post at the entrance of the driveway to the structure. The numbers on the post shall be a minimum of four (4) inches in height and shall be visible from both sides of the approach to the entrance. The post with the numbers shall be a minimum of four (4) feet in height above the ground in a visible location within 20 feet of the roadway.
    e. Suite numbers shall be a minimum of (4) inches in height and placed above or on the Front and Rear entrance doors.

19. IFC Chapter 5, Section 506.1 Where Required - Amended

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or firefighting purposes or where Fire and Life safety or Fire suppression Systems are provided, the fire code official is authorized to require a Key box to be installed in an approved location. The Knox (Registered Trade Mark) Key box shall be of an approved type and shall Contain Keys to gain necessary access as required by the fire code official.

20. IFC Chapter 5, Section 508.5 Fire Hydrant Systems – Amended

508.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 508.5.1 through 508.5.6.

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).

21. IFC Chapter 6, Section 601.2 Permits – Deleted

22. IFC Chapter 6, Section 603.4 Portable unvented heaters – Amended

603.4 Portable unvented heaters. Portable unvented fuel-fired heating equipment shall be prohibited in occupancies in Groups A, E, I, R-1, R-2, R-3 and R-4.
Exception: Listed and approved unvented fuel-fired heaters utilized during construction phase, and prior to normal occupancy of the structure.

23. IFC Chapter 6, Section 607.1 Required – Amended

607.1 Required All elevators intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall be provided with emergency
operation in accordance with ASME A17.3. All elevators shall be provided with phase-I emergency recall operation and Phase-II emergency in-car operation in accordance with ASME A17.1.
Exceptions:
1. For One and Two family dwellings.

24. IFC Chapter 8, Section 803.5.1 Upholstered furniture – Amended

803.5.1 Upholstered furniture. Newly introduced upholstered furniture shall be shown to resist ignition by cigarettes as determined by tests conducted in accordance with NFPA 261 and shall have a char length not exceeding 1.5 inches (38 mm)
Exceptions:
1. Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 and 903.3.1.2

25. IFC Chapter 9, Section 901.4.5 Clearances – Added

901.4.5 Clearances. Fire protection equipment shall not be obstructed, concealed or impaired. A minimum of 3 feet (914.4mm) clear and unobstructed access shall be maintained on the sides of and in-front of fire protection systems and associated equipment. Specific equipment referenced is as follows but not limited to, Fire extinguishers, fire sprinkler control valves, risers, hose stations, standpipes, and fire alarm control panels.

26. IFC Chapter 9, Section 902 Definitions- Amended

Manual Fire Alarm System. A system comprised of only manually operated fire alarm initiating devices installed in accordance with the applicable code requirements.

27. IFC Chapter 9, Section 903.2 Where Required – Amended

903.2 Where required. Approved automatic sprinkler systems in buildings and structures shall be provided in the locations described in this section.
Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by a wall with a fire-resistance rating of not less than 1 hour and a floor/ceiling assembly with a fire-resistance rating of not less than 2 hours.

903.2.1 Group A. An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section. For Group A-1, A-2, A-3, and A-4 occupancies, the automatic sprinkler system shall be provided throughout the floor area where the Group A-1, A-2, A-3 or A-4 occupancy is located, and in all floors between the Group A occupancy and the level of exit discharge. For group A-5 occupancies, the automatic sprinkler system shall be provided in the spaces indicated in Section 903.2.1.5.

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:
1. The fire area exceeds 8,000 square feet (1115m2);
2. The fire area has an occupant load of 300 or more;
3. The fire area is located on a floor other than the level of exit discharge; or
4. The fire area contains a multitheater complex.

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:
1. The fire area exceeds 3,000 square feet (464.5m2);
2. The fire area has an occupant load of 300 or more;
3. The fire area is located on a floor other than the level of exit discharge.
or
4. The fire area is used by the occupants for the consumption of alcoholic beverages.
Exception: 1. Religious sanctuaries

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:
1. The fire area exceeds 8,000 square feet (1115m2);
2. The fire area has an occupant load of 300 or more;
or
3. The fire area is located on a floor other than the level of exit discharge.
Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:
1. The fire area exceeds 8,000 square feet (1115m2);
2. The fire area has an occupant load of 300 or more;
or
3. The fire area is located on a floor other than the level of exit discharge.
Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

903.2.1.5 Group A-5. An automatic sprinkler system shall be provided in concession stands, retail areas, press boxes, and other accessory use areas in excess of 1,000 square feet (93 m2).

903.2.2 Group E. An automatic sprinkler system shall be provided throughout buildings with a Group E fire area.

Exception: An automatic sprinkler system is not required in any fire area or area below the level of exit discharge where every classroom throughout the building has at least one exterior exit door at ground level.

903.2.3 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exist:
1. Where a Group F-1 fire area exceeds 8,000 square feet;
2. Where a Group F-1 fire area, is located more than three stories above grade; or
3. Where the combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 16000 square feet.

903.2.3.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet in area (232 m2) which generate finely divided combustible waste or which use finely divided combustible materials.

903.2.4 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.4.1 through 903.2.4.3.

903.2.4.1 General. An automatic sprinkler system shall be installed in Group H occupancies.

903.2.4.2 Group H-5 occupancies. An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall not be less than that required under the *International Building Code* for the occupancy hazard classifications in accordance with Table 903.2.4.2. Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

903.2.4.3 Pyroxylin plastics. An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

903.2.5 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.
Exception: An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities.

903.2.6 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:
1. Where a Group M fire area exceeds 8,000 square feet;
2. Where a Group M fire area is located more than three stories above grade; or
3. Where the combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 16000 square feet.

903.2.6.1 High-piled storage. An automatic sprinkler system shall be provided as required in Chapter 23 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.7 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.
Exception: One and two family dwellings as per the International Residential Code.

903.2.8 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exist:
1. Where a Group S-1 fire area exceeds 8,000 square feet;
2. Where a Group S-1 fire area is located more than three stories above grade; or
3. Where the combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 16,000 square feet.

903.2.8.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with the *International Building Code,* as follows:
1. Buildings two or more stories in height, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m2).
2. One-story buildings with a fire area containing a repair garage exceeding 8,000 square feet.
3. Buildings with a repair garage servicing vehicles parked in the basement.

903.2.8.2 Bulk storage of tires. Buildings and structures where the area for the storage of tires exceeds 20,000 cubic feet (566 m3) shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

903.2.9 Group S-2. An automatic sprinkler system shall be provided throughout buildings classified as an enclosed parking garage in accordance with the *International Building Code* or where located beneath other groups.
Exception: Enclosed parking garages located beneath Group R-3 occupancies.

903.2.9.1 Commercial parking garages. An automatic sprinkler system shall be provided throughout buildings used for storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m2).

903.2.10 All occupancies except Groups R-3 and U. An automatic sprinkler system shall be installed in the locations set forth in Sections 903.2.10.1 through 903.2.10.1.3.
Exception: Group R-3 and Group U.

903.2.10.1 Stories and basements without openings. An automatic sprinkler system shall be installed in every story or basement of all buildings where the floor area exceeds 1,500 square feet (139.4m2) and where there is not provided at least one of the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1009 or an outside ramp complying with Section 1010. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m2) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

903.2.10.1.1 Opening dimensions and access. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that fire fighting or rescue cannot be accomplished from the exterior.

903.2.10.1.2 Openings on one side only. Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22860 mm) from such openings, the story shall be equipped throughout with an approved automatic sprinkler system or openings as specified above shall be provided on at least two sides the story.

903.2.10.1.3 Basements. Where any portion of a basement is located more than 75 feet (22 860 mm) from openings required by Section 903.2.10.1, the basement shall be equipped throughout with an approved automatic sprinkler system.

903.2.10.2 Rubbish and linen chutes. An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Chute sprinklers shall be accessible for servicing.

903.2.10.3 Buildings more than 51 feet in height. An automatic sprinkler system shall be installed throughout buildings four (4) or more stories in height, or with a floor level having an occupant load of 30 or more that is located 51 feet (16 764mm)or more in height as measured from any point around the perimeter of the building.
Exceptions:
1. Airport control towers.
2. Open parking structures.
3. Occupancies in Group F-2.

903.2.11 During construction. Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with Section 1413.

903.2.12 Other hazards. Automatic sprinkler protection shall be provided for the hazards indicated in Sections 903.2.12.1 and 903.2.12.2.

903.2.12.1 Ducts conveying hazardous exhausts. Where required by the *International Mechanical Code*, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, flammable or combustible materials.
Exception: Ducts where the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

903.2.12.2 Commercial cooking operations. An automatic sprinkler system shall be installed in a commercial kitchen exhaust hood and duct system where an automatic sprinkler system is used to comply with Section 904.

903.2.13 Other required suppression systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.13 also require the installation of a suppression system for certain buildings and areas.

903.2.14 Group B. An automatic sprinkler system shall be installed throughout buildings containing a Group B occupancy where one of the following conditions exists:
1. Where a Group B fire area exceeds 8,000 square feet.
2. Where a Group B occupancy is located more than three stories above grade; or
3. Where the combined area of all Group B fire areas on all floors, including any mezzanines, exceeds 16000 square feet.

28. IFC Chapter 9, Section 903.3.1.2 NFPA 13R sprinkler systems – Amended

903.3.1.2.1 Balconies. Sprinkler protection shall be provided for exterior balconies and ground floor patios of dwelling units where the building is of Type V construction. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members, and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies that are constructed of open wood joist construction.

903.3.1.2.2 Bathrooms, laundry, and utility closets. Sprinkler protection must be provided for all bathrooms, laundry and utility closets located within each dwelling unit.

903.3.1.2.3 Heat Detectors. Heat detectors shall be provided in attic areas, crawl spaces, and similar areas not protected by a 13-R automatic fire sprinkler system.

903.3.1.3 NFPA 13D sprinkler systems. Where allowed, automatic sprinkler systems installed in one- and two-family dwellings shall be installed throughout in accordance with NFPA 13D.

903.3.1.3.1 Garages. Sprinkler protection shall be provided within all attached garages.

903.3.1.3.2 Bathrooms, laundry, and utility closets. Sprinkler protection must be provided for all bathrooms, laundry and utility closets located within each dwelling unit.

29. IFC Chapter 9, Section 903.4 Sprinkler system monitoring and alarms – Amended

903.4 Sprinkler system monitoring and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, And water-flow switches on all sprinkler systems shall be electrically supervised.
Exceptions:
1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Systems serving fewer than 100 sprinklers.
3. Automatic sprinkler systems installed in accordance with NFPA13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, pre-action and deluge sprinkler systems that are sealed or locked in the open position.

30. IFC Chapter 9, Section 903.4.2 Alarms – Amended

903.4.2 Alarms. Approved audible, and visible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location near the Fire Department Connection. Approved audible / visual alarm devices to alert the occupants must be provided in a normally occupied location within the interior of the building. The alarm devices must be installed as per NFPA 72, and may require more than one device to be installed. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

31. IFC Chapter 9, Section 907.2.2 Group B. – Amended

A manual and automatic fire alarm system shall be installed in Group B occupancies having an occupant load of 50 or more persons. Smoke detection must be installed in the following locations, Corridors, lobbies, reception areas open to the corridor, and other similar common use spaces.

32. IFC Chapter 9, Section 907.2.3 Group E. – Amended

907.2.3 Group E. A manual and automatic fire alarm system shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. Smoke detectors shall be provided throughout all corridors, rooms open to the corridors, and similar common use spaces.
Exceptions:
1. Group E occupancies with an occupant load of less than 50.
2. Manual fire alarm boxes are not required in Group E occupancies where all the following apply:
2.1. Interior corridors are protected by smoke detectors with alarm verification.
2.2. Auditoriums, cafeterias, gymnasiums and the like are protected by heat detectors or other approved detection devices.
2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
2.4. Off-premises monitoring is provided.
2.5. The capability to activate the evacuation signal from a central point is provided.
2.6. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.

33. IFC Chapter 9, Section 907.2.6 Group I. – Amended

907.2.6 Group I. A manual fire alarm system and an automatic fire and smoke detection system shall be installed in Group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in resident rooms, corridors and areas that are open to corridors.

Exception: Manual fire alarm boxes in patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.1 are not exceeded.

34. IFC Chapter 9, Section 907.2.6.1 Group I. – Amended

907.2.6.1 Group I-2. Corridors in Group I-2 occupancies, and spaces open to the corridors shall be equipped with an automatic fire and smoke detection system.

System smoke detectors shall be provided in patient sleeping rooms of hospitals and nursing homes. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual display at the respective nurse's station.

35. IFC Chapter 9, Section 907.2.7 Group M. – Amended

907.2.7 Group M. A manual fire alarm system shall be installed in Group M occupancies, other than covered mall buildings complying with Section 402 of the *International Building Code*, having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge. Manual fire alarm box locations must be approved prior to installation.

907.2.7.1 Occupant notification. Activation of the manual fire alarm box, or other initiation device shall automatically activate the building fire alarm notification appliances.

36. IFC Chapter 9, Section 907.2.9.1 Group R-2. – Added

907.2.9.1 Automatic fire alarm system. An automatic fire alarm system shall be installed throughout all interior corridors serving resident, and guest rooms.

Exception: An automatic fire detection system is not required in buildings that do not have interior corridors serving guestrooms and each guestroom has a means of egress door opening directly to an exterior exit access that leads directly to an exit.

37. IFC Chapter 9, Section 907.2.12 High-rise Buildings. – Amended

907.2.12 High-rise buildings. Buildings having floors used for human occupancy located more than 51 feet (22 860 mm) above the lowest level of fire department vehicle access shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.2.12.2.

38. IFC Chapter 9, Section 907.9.2 High-rise Buildings. – Amended

907.9.2 High-rise buildings. In buildings that have floors located more than 51 feet (22 860 mm) above the lowest level of fire department vehicle access that are occupied for human occupancy, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:
1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes.
3. Other approved types of automatic fire detection devices or suppression systems.

39. IFC Chapter 9, Section 907.10.2 Audible Alarms. – Amended

907.10.2Audible alarms. Audible alarm notification appliances shall be provided and sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm.
The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupied space within the building. The minimum sound pressure levels shall be: 70 dBA in occupancies in Groups R and I-1; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 120 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required. **Exception:** Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of Group I-2 occupancies. In new construction, alteration and remodeling of hotels/motels, dormitories, and apartment units, that require a fire alarm system, a notification device shall be installed in all apartment units, dormitory rooms, and in hotel/motel sleeping rooms.

40. IFC Chapter 9, Section 907.10.1 Visual Alarms. – Amended

907.10.1 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.10.1.1 through 907.10.1.4.
Exceptions:
1. Visible alarm notification appliances shall not be required in exits as defined in Section 1002.1.

41. IFC Chapter 10, Section 1004.3 Posting of occupant load. – Amended

1004.3 Posting of occupant load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design, with a minimum 3 inch high numbers in contrasting colors, and shall be maintained by the owner or authorized agent.

42. IFC Chapter 10, Section 1019.1.8 Smokeproof Enclosures. – Amended

1019.1.8 Smokeproof enclosures. In buildings required to comply with Section 403 or 405, each of the exits of a building that serves stories where the floor surface is located more than 51 feet (22 860 mm) above the lowest level of fire department vehicle access or more than 30 feet (9144 mm) below the level of exit discharge serving such floor levels shall be a smokeproof enclosure or pressurized stairway in accordance with Section 909.20 of the *International Building Code*.

43. IFC Chapter 10, Section 1025.2 Minimum size. – Amended

1025.2 Minimum size. Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m2).

44. IFC Chapter 10, Section 1025.3 Maximum height from floor. – Amended

1025.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 48 inches (1118 mm) measured from the floor.

45. IFC Chapter 10, Section 1026.16.6 Termination. – Amended

1026.16.6 Termination. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escape stairs shall extend to the ground or be provided with counterbalanced stairs reaching the ground.

46. IFC Chapter 15, Section 1501.2 Permits. – Deleted

47. IFC Chapter 16, Section 1601.2 Permits – Deleted

48. IFC Chapter 17, Section 1701.2 Permits – Deleted

49. IFC Chapter 18, Section 1801.2 Permits – Deleted

50. IFC Chapter 22, Section 2211.2.2 Waste oil, motor oil and other Class IIIB liquids - Amended

2211.2.2 Waste oil, motor oil and other Class IIIB liquids. Waste oil, motor oil and other Class IIIB liquids shall be stored in approved tanks or containers, which are allowed to be stored and dispensed from inside repair garages.

Tanks storing Class IIIB liquids in repair garages are allowed to be located at, below or above grade, provided that adequate drainage or containment is provided.

Crankcase drainings shall be classified as Class IIIB liquids unless otherwise determined by testing.

2211.2.2.1 Waste Oil General. Waste oil tanks shall be only for the storage of waste oil in above ground tanks, not to exceed six hundred sixty (660) gallons (2498 L) capacity at service stations, small engine repair shops, aircraft repair facilities, machine shops and other facilities where waste oil is generated and is incidental to the business.

2211.2.2.2 Design. Design and construction of tanks, support foundations and anchorage, fill and drain connections, venting, containment, piping, valves and fittings, and electrical equipment shall be in accordance with Chapter 34.

2211.2.2.3 Location. The location of waste oil tanks shall be in accordance with section 3404.2.9.5.1.5. Waste oil tanks shall not be located more than one hundred fifty (150) feet (30480mm) from fire apparatus access roads. Parking of motor vehicles is prohibited within fifteen (15) feet (4572 mm) of the tank and shall not obstruct fire department access.

51. IFC Chapter 24, Section 2403.2 Approval Required – Amended

2403.2 Approval required. Tents and membrane structures having an area in excess of 200 square feet (19 m2) and canopies in excess of 400 square feet (37 m2) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the fire code official.

Exceptions:

1. Tents used exclusively for recreational camping purposes.

52. IFC Chapter 24, Section 2404.11 Clearance. – Deleted

53. IFC Chapter 45, Referenced Standards – Amended

CHAPTER 45, REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The most current edition of the National Fire Protection Association (NFPA) National Fire Codes shall be utilized for the listed references. In addition to the NFPA standards specifically referenced in this chapter, the remaining NFPA standards and recommended practices maybe referenced as well. The application of the referenced standards shall be as specified in Section 102.6.

54. IFC Appendix D, Fire Apparatus Access Roads, Figure D103.1– Amended

Delete the 70 foot diameter Cul-De-Sac from the figure identifying the Dead-End Fire Apparatus Access Road Turnaround.

CITY OF RAPID CITY

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Mayor

ATTEST:

_____

Finance Officer

(SEAL)

First Reading:
Second Reading:
Published:
Effective: