DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

STATE FIRE SAFETY BOARD

DORMITORY FIRE SAFETY FOR SCHOOLS, COLLEGES, AND UNIVERSITIES

(By authority conferred on the bureau of fire services by section 3c of 1941 PA 207, MCL 29.3c, and Executive Reorganization Order Nos. 1997-2, 1998-2, and 2003-1, MCL 29.451, 29.461, and 445.2011)

PART 1. GENERAL PROVISIONS

R 29.2001 Applicability.

Rule 1. These rules apply to the fire safety requirements for the construction, operation, or maintenance of all new and existing school, college, and university dormitories that are owned, leased, or managed by, or under the direct control of, the school authority.

History: 1998-2000 AACS; 2016 AACS.

R 29.2002 Life safety code; adoption by reference.

Rule 2. (1) The provisions of chapters 1 to 10, 11, 12, 13, 24, 28, 29 and 43 of the national fire protection association pamphlet no. 101, 2012 edition, entitled "Life Safety Code," referred to in these rules as "code," are adopted by reference as part of these rules.

(2) Copies of the adopted provisions in subrules (1) and (3) of this rule are available for inspection and distribution from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts 02269-9101, telephone number 1-800-344-3555 or as otherwise specified in subrule (3) of this rule. The cost of the adopted provisions of the "Life Safety Code" as of the time of adoption of these rules is $93.00. The cost of the adopted provisions in subrule (3) of this rule are specified in subrule (3) of this rule. Copies of the adopted provisions are available for inspection at the offices of the Department of Licensing and Regulatory Affairs, Bureau of Fire Services, 3101 Technology Boulevard, Suite H, Lansing, MI 48910, or with other state agencies as specified in this rule. Copies of the adopted provisions may be purchased from the bureau of fire services at cost from any national source identified in chapter 2 of the code as amended in subrules (1) and (3) of this rule plus $30.00 for shipping and handling as of the time of the adoption of these rules.

(3) Chapter 2 of the code is amended to read as follows:

2.1 General. The documents or portions of the documents listed in this chapter are referenced within this code and shall be considered part of the requirements of this document. The cost of each standard at the time of the adoption of these rules is indicated after the title.

2.2 NFPA Publications. www.nfpa.org

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471
NFPA 10, Standard for Portable Fire Extinguishers, 2010 edition. $44.50/each
NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam, 2010 edition. $44.50/each
NFPA 12, Standard on Carbon Dioxide Extinguishing Systems, 2011 edition. $44.50/each
NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems, 2009 edition. $44.50/each
NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 edition. $85.50/each
NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2010 edition. $44.50/each
NFPA 13R, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height, 2010 edition. $40.50/each
NFPA 14, Standard for the Installation of Standpipe and Hose Systems, 2010 edition. $40.50/each
NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection, 2012 edition. $44.50/each
NFPA 16, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2011 edition. $40.50/each
NFPA 17, Standard for Dry Chemical Extinguishing Systems, 2009 edition. $40.50/each
NFPA 17A, Standard for Wet Chemical Extinguishing Systems, 2009 edition. $35.00/each
NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2011 edition. $52.50/each
NFPA 30, Flammable and Combustible Liquids Code, 2012 edition. References to this standard mean R 29.5401 to R29. 5419, promulgated by the Michigan department of licensing and regulatory affairs, bureau of fire services.
NFPA 30B, Code for the Manufacture and Storage of Aerosol Products, 2011 edition. $44.50/each
NFPA 31, Standard for the Installation of Oil-Burning Equipment, 2011 edition. $44.50/each
NFPA 40, Standard for the Storage and Handling of Cellulose Nitrate Film, 2011 edition. $35.00/each
NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals, 2011 edition. $40.50/each
NFPA 54, National Fuel Gas Code, 2012 edition. $52.50/each
NFPA 58, Liquefied Petroleum Gas Code, 2011 edition. References to this code mean the administrative rules relating to storage and handling of liquefied petroleum gases, R 29.6001 to R 29.6097, promulgated by the Michigan department of licensing and regulatory affairs, bureau of fire services.
NFPA 70, National Electrical Code, 2011 edition. References to this code mean the Michigan electrical code, R 408.30801 to R 408.30880, promulgated by the Michigan department of licensing and regulatory affairs, bureau of construction codes.
NFPA 72, National Fire Alarm Code, 2010 edition. $85.50/each
NFPA 80, Standard for Fire Doors and Fire Windows, 2010 edition. $44.50/each
NFPA 82, Standard on Incinerators and Waste and Linen Handling Systems and Equipment, 2009 edition. $40.50/each
NFPA 88A, Standard for Parking Structures, 2011 edition. $35.00/each

NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems, 2012 edition. $40.50/each
NFPA 90B, Standard for the Installation of Warm Air Heating and Air-Conditioning Systems, 2012 edition. $35.00/each
NFPA 91, Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids, 2010 edition. $35.00/each
NFPA 92, Standard for Smoke Control Systems, 2012 edition. $40.50/each
NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2011 edition. $40.50/each
NFPA 99, Standard for Health Care Facilities, 2012 edition. $64.00/each
NFPA 101A, Guide on Alternative Approaches to Life Safety, 2010 edition. $44.50/each
NFPA 105, Standard for the Installation of Smoke Door Assemblies, 2010 edition. $35.00/each
NFPA 110, Standard for Emergency and Standby Power Systems, 2010 edition. $39.00/each
NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems, 2010 edition. $40.50/each
NFPA 160, Standard for the Use of Flame Effects Before an Audience, 2011 edition. $40.50/each
NFPA 170, Standard for Fire Safety and Emergency Symbols, 2009 edition. $44.50/each
NFPA 204, Standard for Smoke and Heat Venting, 2012 edition. $44.50/each
NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, 2010 edition. $44.50/each
NFPA 220, Standard on Types of Building Construction, 2012 edition. $35.00/each
NFPA 221, Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls, 2010 edition. $40.50/each
NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2009 edition. $40.50/each
NFPA 251, Standard Methods of Tests of Fire Resistance of Building Construction and Materials, 2006 edition. $40.50/each
NFPA 252, Standard Methods of Fire Tests of Door Assemblies, 2008 edition. $35.00/each
NFPA 253, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2011 edition. $35.00/each
NFPA 257, Standard on Fire Test for Window and Glass Block Assemblies, 2007 edition. $35.00/each
NFPA 259, Standard Test Method for Potential Heat of Building Materials, 2008 edition.$35.00/each
NFPA 260, Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture, 2009 edition. $35.00/each
NFPA 261, Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes, 2009 edition. $35.00/each
NFPA 265, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls, 2011 edition. $40.50/each

NFPA 271, Standard Method of Test for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter, 2009 edition. $40.50/each
NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth, 2011 edition. $40.50/each
NFPA 288, Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance-Rated Floor Systems, 2007 edition. $35.00/each
NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, 2009 edition. $35.00/each
NFPA 415, Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways, 2008 edition. $35.00/each
NFPA 418, Standard for Heliports, 2011 edition. $35.00/each
NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2010 edition. $35.00/each
NFPA 703, Standard for Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials, 2012 edition. $35.00/each
NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment, 2012 edition. $44.50/each
NFPA 750, Standard on Water Mist Fire Protection Systems, 2010 edition. $44.50/each
NFPA 914, Code for Fire Protection of Historic Structures, 2010 edition. $64.00/each
NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, 2006 edition. $44.50/each
NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience, 2011 edition. $35.00/each
NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems, 2012 edition. $52.50/each
2.3 Other Publications.
2.3.1 ACI Publication. www.concrete.org
American Concrete Institute, P. O. Box 9094, Farmington Hills, MI 48333
ACI 216.1/TMS 0216.1, Standard Method for Determining Fire Resistance of Concrete and Masonry Construction Assemblies, 2008. $54.50/each
2.3.2 ANSI Publications.
American National Standards Institute, Inc., 25 West 43rd Street, 4th floor, New York, NY 10036.
ANSI A14.3, Safety Requirements for Fixed Ladders, 1992. www.ansi.org $250.00/each
ICC/ANSI A117.1, American National Standard for Accessible and Usable Buildings and Facilities, 2009. www.ansi.org $63.95/each
ANSI/BHMA A156.3 Exit Devices, 2008. www.ansi.org $36.00/each
BHMA/ANSI A156.19, American National Standard for Power Assist and Low Energy Power Operated Doors, 2007. www.ansi.org $36.00/each
2.3.3 ASCE Publications. American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, VA 20191-4400. www.asce.org
ASCE/SFPE 29, Standard Calculation Methods for Structural Fire Protection, 2008. $69.00/each
2.3.4 ASME Publications. www.asme.org American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990

2.3.5 ASSE Publications. American Society of Safety Engineers, 1800 East Oakton Street, Des Plaines, IL 60018. www.asse.org

ANSI/ASSE A1264.1, Safety Requirements for Workplace Floor and Wall Openings, Stairs and Railing Systems, 2007. $69.00/each

2.3.6 ASTM Publications. www.astm.org American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959

ASTM C 1629/C 1629M, Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Pan Products and Fiber-Reinforced Cement Panels, 2006. $49.20/each

ASTM D 1929, Standard Test Method for Determining Ignition Temperatures of Plastic, (2001 e1). $49.20/each

ASTM D 2859, Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials, 2006. $43.20/each

ASTM D 2898, Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing, 2010. $36.00/each

ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, 2010. $70.80/each

ASTM E 108, Standard Test Methods for Fire Tests of Roof Coverings, 2010a. $56.40/each

ASTM E 119, Standard Test Methods for Fire Tests of Building Construction and Materials, 2010b. $70.80/each

ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C, 2009b. $56.40/each

ASTM E 648, Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2010. $56.40/each

ASTM E 814, Standard Test Method for Fire Tests of Through Penetration Fire Stops, 2010. $56.40/each

ASTM E 1352, Standard Test Method for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies, 2008a. $47.00/each

ASTM E 1353, Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture 2008a(e1). $47.00/each

ASTM E 1354, Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter, 2009. $56.40/each

ASTM E 1537, Standard Test Method for Fire Testing of Upholstered Furniture, 2007. $70.80/each

ASTM E 1590, Standard Test Method for Fire Testing of Mattresses, 2007. $70.80/each

ASTM E 1591, Standard Guide for Obtaining Data for Deterministic Fire Models, 2007. $47.00/each

ASTM E 1966, Standard Test Method for Fire-Resistive Joint Systems, 2007. $47.00/each

ASTM E 2072, Standard Specification for Photoluminescent (Phosphorescent) Safety Markings, 2010. $36.00/each

ASTM E 2074, Standard Test Method for Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies, 2000. $56.40/each

ASTM E 2307, Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-Story Test Apparatus, 2010. $47.00/each

ASTM E 2404, Standard Practice for Specimen Preparation and Mounting of Textile, Paper, or Vinyl Wall or Ceiling Coverings to Assess Surface Burning Characteristics, 2008. $43.20/each
ASTM E 2573, Standard Practice for Specimen Preparation and Mounting of Site-Fabricated Stretch Systems to Assess Surface Burning Characteristics, 2007a. $43.20/each
ASTM E 2599, Standard Practice for Specimen Preparation and Mounting of Reflective Insulation Materials and Radiant Barrier Materials for Building Applications to Assess Surface Burning Characteristics, 2009. $43.20/each
ASTM E 2652, Standard Test Method for Behavior of Materials in a Tube Furnace with a Cone-Shaped Airflow Stabilizer, at 750 Degrees C, 2009a. $56.40/each
ASTM F 851, Standard Test Method for Self-Rising Seat Mechanisms, 1987 (2005). $36.00/each
ASTM F 1577, Standard Test Methods for Detention Locks for Swinging Doors, 2005. $70.80/each
ASTM G 155, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials, 2005a. $47.00/each
2.3.7 FMGR Publication.
FM Global Research, FM Global, 1301 Atwood Avenue, P.O. Box 7500, Johnston, RI 02919.
ANSI/FM 4880, American National Standard for Evaluating Insulated Wall or Wall and Roof/Ceiling Assemblies, Plastic Interior Finish Materials, Plastic Exterior Building Panels, Wall/Ceiling Coating Systems, Interior or Exterior Finish Systems, 2007. Free
FM Approval Standard 6921, Containers for Combustible Waste, 2004. Free
UL 300, Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, 2005. $502.00/each at www.comm-200.com
2.3.8 NEMA Publications. National Electrical Manufacturers Association, 1300 North 17th Street, Ste 1847, Rosslyn, VA 22209. www.nema.org
NEMA Sb 30, Fire Service Annunciator and Interface, 2005. $69.00/each
2.3.9 UL Publications. www.UL.com; purchase UL standards at www.comm-2000.com per UL website. (All revisions included in purchase of standard) Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062
ANSI/UL 9, Standard for Fire Tests of Window Assemblies, 2009. $631.00/each
ANSI/UL 10B, Standard for Fire Tests of Door Assemblies, 2008, revised 2009. $631.00/each
ANSI/UL 10C, Standard for Positive Pressure Fire Tests of Door Assemblies, 2009. $631.00/each
ANSI/UL 263, Standard for Fire Tests of Building Construction and Materials, 2007. $631.00/each
UL 294, Standard for Access Control System Unites, 1999, revised 2010. $502.00/each
UL 300A, Extinguishing System Units for Residential Range Top Cooking Surfaces, 2006. $275.00/each
ANSI/UL 305, Standard for Safety Panic Hardware, 1997. $502.00/each
ANSI/UL 555, Standard for Fire Dampers, 2006, Revised 2002. $998.00/each
ANSI/UL 555S, Standard for Smoke Dampers, 2006, Revised 2010. $502.00/each

ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials, 2009, revised 2010. $631.00/each
ANSI/UL 790, Test Methods for Fire Tests of Roof Coverings, 2004, revised 2008. $502.00/each
ANSI/UL 924, Standard for Emergency Lighting and Power Equipment, 2006, Revised 2009. $998.00/each
ANSI/UL 1040, Standard for Fire Test of Insulated Wall Construction, 1996, revised 2007. $502.00/each
ANSI/UL 1315, Standard for Safety for Metal Waste Paper Containers, 2007. $502.00/each
ANSI/UL 1479, Standard for Fire Tests of Through-Penetration Firestops, 2003, revised 2010. $502.00/each
ANSI/UL 1715, Standard for Fire Test of Interior Finish Material, 1997, revised 2008. $897.00/each
ANSI/UL 1784, Standard for Air Leakage tests for Door Assemblies, 2001, revised 2009. $502.00/each
UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes, 2006. $998.00 each
UL 1994, Standard for Luminous Egress Path Marking Systems, 2004, revised 2010. $998.00/each
ANSI/UL 2079, Standard for Tests for Fire Resistance of Building Joint Systems, 2004, revised 2008. $502.00/each
2.3.10 U.S. Government Publication. www.access.gpo.gov
U.S. Government Printing Office, Washington, DC 20402.
Title 16, Code of Federal Regulations, Part 1500 and Part 1507. Free
Title 16, Code of Federal Regulations, Part 1632, "Standard for the Flammability of Mattresses and Mattress Pads (FF-4-72)." Free
2.3.11 Other Publication.
Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003. www.merriam-webster.com $27.95/each
2.4 References for Extracts in Mandatory Sections.
NFPA 1, Uniform Fire Code, 2012 edition. $85.50/each
NFPA 72, National Fire Alarm Code, 2010 edition. $85.50/each
NFPA 80, Standard for Fire Doors and Fire Windows, 2010 edition. $40.50/each
NFPA 88A, Standard for Parking Structures, 2011 edition. $35.00/each
NFPA 288, Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance-Rated Floor Systems, 2009 edition. $35.00/each
NFPA 301, Code for Safety to Life from Fire on Merchant Vessels, 2008 edition. $44.5.00/each
NFPA 415, Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways, 2008 edition. $35.00/each
NFPA 914, Code for Fire Protection of Historic Structures, 2010 edition. $64.00/each
NFPA 921, Guide for Fire and Explosion Investigations, 2011 edition. $85.50/each
ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, 2010. www.asce.org $165.00.

(4) Rules promulgated by the department of licensing and regulatory affairs, bureau of fire services, are available for inspection and distribution at no cost from the Michigan government website, www.michigan.gov/orr and linking to “Michigan administrative code” and also are available at cost from the department of licensing and regulatory affairs, bureau of fire services by calling (517) 241-8847.

(5) Rules pertaining to the Michigan elevator code, R 408.7001 to R 408.8695; the Michigan mechanical code, R 408.30901 to R 408.30998; the Michigan building code, R 408.30401 to R 408.30499; the Michigan electrical code, R 408.30801 to R 408.30880; the Michigan plumbing code, R 408.30701 to R 408.30796; and the Michigan rehabilitation code, R 408.30551 to R 408.30577 are available for inspection and distribution at cost at the department of licensing and regulatory affairs, bureau of construction codes, 611 W. Ottawa Street, Lansing, MI 48933. Copies of these rules are available at no cost from the Michigan government website, www.michigan.gov/orr and linking to “Michigan administrative code”.

History: 1998-2000 AACS; 2016 AACS.

R 29.2003 Rescinded.

History: 1998-2000 AACS; 2016 AACS.

R 29.2004 Definitions.

Rule 4. As used in these rules:

(a) "Act" means 1941 PA 207, MCL 29.1 to 29.33.

(b) "Authority having jurisdiction" means the director of the Michigan department of licensing and regulatory affairs, an employee of the department of licensing and regulatory affairs appointed by the director to implement the act, or an employee of a city, village, or township delegated to enforce the code under the provisions of section 2b of the act.

(c) “Code" means national fire protection association pamphlet no.101, 2012 edition, entitled "Life Safety Code."

(d)"Cosmetic remodeling" means surface changes made solely to the wall, floor, ~~and~~ or ceiling that do not decrease the fire rating of the wall, floor, or ceiling, including the replacement of windows and doors.

(e)"Existing" means a building constructed and occupied as a dormitory before the effective date of these rules.

(f) "Maintenance" means repair required to keep a building and its component parts in an operative condition at all times. "Maintenance" includes the replacement of a building's components when, for any reason, the components become undependable or inoperable. "Maintenance" does not include renovation.

(g)"School authority" means the authority established pursuant to the revised school code, 1976 PA 451, MCL 380.1 to 380.1853 for school districts, intermediate school districts, community colleges, section 1 of the private, denominational, and parochial Schools, 1921 PA 302, MCL 388.551, and the colleges and universities established under sections 4, 5, 6, and 7 of Article VIII of the State Constitution of 1963.

History: 1998-2000 AACS; 2016 AACS.

R 29.2005 Plans and specifications.

Rule 5. (1) The school authority or designated representative shall submit plans and specifications to the bureau of fire services for all projects that involve construction, renovation, modification, reconstruction, or an addition.

(2) The school authority or designated representative is not required to submit plans and specifications to the bureau of fire services for routine maintenance functions however, the school authority or designated representative shall ensure that all work is in compliance with these rules.

(3) Plans and specifications for work that involves the practice of architecture or engineering, as defined by the provisions of article 20 of the occupational code, 1980 PA 299, MCL 339.2001 to 339.2014, shall bear the seal of an architect or professional engineer who is licensed pursuant to the occupational code.

(4) Plans and specifications shall contain all of the following information, as applicable:

(a) A complete floor plan and layout of the building drawn accurately to scale.

(b) The use of each room.

(c) The dimensions of each room.

(d) The size, location, direction of swing, and fire rating of each door and frame assembly.

(e) The size and location of windows.

(f) The wall construction, including fire-resistance rating.

(g) The type of construction as identified in the national fire protection association standard no. 220, entitled "Standard Types of Building Construction," as adopted in these rules.

(h) The number of stories, including basement and attic areas.

(i) The interior finish classification.

(j) The location of fuel-fired equipment.

(k) The type of furnace and water heater.

(l) Air-handling system specifications.

(m) Fire detection and alarm systems plans and specifications that are in compliance with the provisions of the act.

(n) Sprinkler or other suppression system plans and specifications that are in compliance with the provisions of the act.

(o) The type, size, and location of fire extinguishers.

(p) Other pertinent information that is required to determine compliance with these rules.

(5) A firm certified in compliance with section 26 of 1941 PA 207, MCL 29.26, shall submit plans for a fire alarm or detection system and a fire suppression system to the bureau of fire services in compliance with the act.

(6) Plan approval that is given before the effective date of these rules terminates 6 months after the effective date of these rules if construction has not started. However, upon written request, the bureau of fire services may grant an approval for an extension in a specific instance.

History: 1998-2000 AACS; 2016 AACS.

R 29.2006 Inspection during construction; approval for occupancy.

Rule 6. (1) During construction, renovation, modification, reconstruction, or addition, the architect, professional engineer, or owner's representative shall notify the bureau of fire services, when the building is ready for inspection under both of the following conditions:

(a) When the building is framed and mechanical systems are substantially complete, but before concealment.

(b) Upon completion of construction.

(2) A newly constructed facility or a facility that is being remodeled or added to shall not be occupied, in whole or in part, without approval of the bureau of fire service.

History: 1998-2000 AACS; 2016 AACS.

R 29.2007 Projects affecting outside configuration of building; site plan and specifications; bureau of fire services or local fire department specifications; fire safety measures during construction.

Rule 7. (1) For projects involving construction, addition, renovation, modification, reconstruction, or remodeling that affects the outside configuration of a building, and as part of the building plans and specifications otherwise required by these rules, before the construction begins, the school authority or the designated representative shall provide the bureau of fire services and the local fire department with a site plan and specifications that detail all of the following:

(a) The available water supply.

(b) Hydrant locations.

(c) Vehicle access routes.

(d) Fire lanes.

(2) The authority having jurisdiction or the local fire authority may specify any of the following:

(a) The size of the water mains that supply the hydrants.

(b) The location of hydrants.

(c) The locations and dimensions of fire department vehicle access routes.

(d) The posting of fire lanes.

(3) As soon as possible during construction, the school authority or designated representative shall ensure appropriate fire safety measures are taken, including the provision of fire extinguishers and fire suppression systems and the establishment of access routes to the building that can be traveled by fire department vehicles.

History: 1998-2000 AACS; 2016 AACS.

R 29.2008 Electrical equipment; inspections; certificate.

Rule 8. (1) The school authority or designated representative shall ensure that the electrical wiring and equipment, including an emergency electrical supply if installed, complies with the applicable provisions of the electrical code, R 408.30801 to R 408.30880. Copies of the rules are available as specified in R 29.2002.

(2) An electrical inspection authority that is acceptable to the bureau of fire services shall perform the electrical inspection. The electrical inspection authority shall issue a final

certificate of compliance covering the installation. The school authority or designated representative shall provide a copy of the certificate to the bureau of fire services.

History: 1998-2000 AACS; 2016 AACS.

R 29.2009 Universal amendments.

Rule 9. Sections 3.3.64, 4.6.10.1, 4.7.4, 4.8.2.2, 6.2.1.2, 7.2.1.12, 8.3.5, 8.3.5.5.1, 8.3.6.1, 8.4.2, 8.4.5.1, 8.5.7.1, 8.6.10.2.1, 8.7.3.1, 9.1.1, 9.4.2.1, 9.4.2.2, 9.6.3.5.5, 12.3.2.1.2, 12.7.6.1, 13.3.2.1.2, 13.7.6.1 and 43.1.2.1 of the code adopted by reference in R 29.2002 are amended, section 8.6.10.2.1.1 is added, and sections 7.2.1.12.1, 7.2.1.12.2, 7.3.3.2, 9.1.2, 9.4.3.1, 9.4.3.2, 12.2.10.3, 12.2.11.2, 12.7.1.3, 12.7.6.2, 12.7.7.2, 12.7.9.3.1, 12.7.9.3.2, 12.7.9.3.3, 13.2.10.3, 13.2.11.2, 13.7.1.3, 13.7.6.2, 13.7.7.2, 13.7.9.3.1, 13.7.9.3.2, 13.7.9.3.3, and 43.1.4.5 of the code are deleted, as follows:

3.3.64 Dormitory. A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in 1 room, or a series of closely associated rooms, under the control of the school authority, with or without meals, but without individual cooking facilities.

4.6.10.1. Buildings or portions of buildings shall be permitted to be occupied during construction, repair, alterations, or additions only where all required means of egress and ~~all~~ required fire protection features in the building and on-site are in place and continuously maintained for the portion occupied and if the occupied portion is separated from the part under construction by a fire barrier that has a 1-hour-fire-resistance rating. The temporary 1-hour-rated fire barrier that is used for separation may be constructed of combustible material. Instead of having all required means of egress and fire protection features in place, the school authority or designated representative may take other measures that would provide equivalent safety if approved by the bureau of fire services.

4.7.4. Drills shall be held at various times under varying conditions to simulate the unusual conditions that may occur in an actual emergency.

4.8.2.2. The school authority or designated representative shall submit the required emergency plans to the bureau of fire services upon request for review.

6.2.1.2. Hazard of contents shall be classified by the registered design professional (rdp) or owner and upon request shall be submitted to the authority having jurisdiction for review and approval on the basis of character of the contents and the processes of operations conducted in the building or structure.

7.2.1.12. Where permanently mounted folding or movable partitions divide a room into smaller spaces, a swinging door leaf or open doorway shall be provided as an exit access from each space.

7.2.1.12.1. Deleted.

7.2.1.12.2. Deleted.

7.3.3.2. Deleted.

8.3.5. The provisions of section 8.3.5 shall govern the materials and methods of construction used to protect through-penetration and membrane penetrations in fire walls, fire barrier walls, and fire resistance-rated horizontal assemblies. The provisions of section 8.3.5 shall not apply to existing material and methods of construction used to protect existing through-penetrations and existing membrane penetrations in fire walls, fire barrier

walls, or fire resistance-rated horizontal assemblies, unless otherwise required by chapters 11 to 43.

8.3.5.5.1. Where piping penetrates a fire resistance-rated wall or floor assembly, combustible piping shall not connect to noncombustible piping within 35 inches (915 millimeters) of the fire stop system or device with the demonstration that the transition will not reduce the fire resistance rating, except in the case of existing installations.

8.3.6.1. The provisions of section 8.3.6 shall govern the materials and methods of construction used to protect joints in between and at the perimeter of fire barriers or, where fire barriers meet other fire barriers, the floor or roof deck above, or the outside walls. The provisions of section 8.3.6 shall not apply to existing materials and methods of construction used to protect existing joints in fire barriers, unless otherwise required by chapters 11 to 43.

8.4.2. Smoke partitions shall comply with the following:

(1) They shall extend from the floor to the underside of the floor or roof deck above, through any concealed spaces, such as those above suspended ceilings, and through interstitial structural and mechanical spaces.

(2) They shall be permitted to extend from the floor to the underside of a monolithic or suspended ceiling where all of the following conditions are met:

(a) The ceiling system forms a continuous membrane.

(b) A smoke-tight joint is provided between the top of the smoke partition and the bottom of the suspended ceiling.

(c) Where the space above the ceiling is used as a plenum, air transfer openings in smoke partitions into the plenum shall be provided with approved smoke dampers designed and tested in accordance with the requirements of ANSI/UL 555S, standard for smoke dampers, to limit the transfer of smoke.

(3) Smoke partitions enclosing hazardous areas shall be permitted to terminate at the underside of a monolithic or suspend ceiling where the following conditions are met:

(a) The ceiling system forms a continuous membrane.

(b) A smoke-tight joint is provided between the top of the smoke partition and the bottom of the suspended ceiling.

(c) Where the space above the ceiling is used as a plenum, air transfer openings in smoke partitions into the plenum shall be provided with approved smoke dampers designed and tested in accordance with the requirements of ANSI/UL 555S, standard for smoke dampers, to limit the transfer of smoke.

8.4.5.1. The provisions of section 8.4.5 shall govern the materials and methods of construction used to protect joints in between and at the perimeter of smoke partitions or, where smoke partitions meet other smoke partitions, the floor or roof deck above or, the outside walls. The provisions of section 8.4.5 shall not apply to existing materials and methods of construction used to protect existing joints in smoke partitions, unless otherwise required by chapters 11 to 43.

8.5.7.1. The provisions of section 8.5.7 shall govern the materials and methods of construction used to protect joints in between and at the perimeter of smoke barriers, or where barriers meet other smoke barriers, the floor or roof deck above, or the outside walls.

8.6.10.2.1. Unless otherwise provided in section 8.6.10.2.1.1, the aggregate area of a mezzanine located within a room, other than those located in a special-purpose industrial occupancies, shall not exceed one-third the open area of the room in which the mezzanines

are located. Enclosed spaces shall not be included in a determination of the size of the room in which the mezzanine is located.
8.6.10.2.1.1. The aggregate area of mezzanines in buildings and structures of type I or type II construction shall not exceed one-half of the floor area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with section 9.7 and an approved emergency voice or emergency alarm communication system pursuant to NFPA 72.
8.7.3.1. The school authority or designated representative shall store and handle flammable and combustible liquids in compliance with R 29.5101 to R 29.5516 promulgated by the Michigan department of licensing and regulatory affairs, bureau of fire services under the provisions of the act.
9.1.1. The school authority or designated representative shall ensure the equipment which utilizes gas and related gas piping is installed in compliance with the provisions of NFPA 54, national fuel gas code, NFPA 58, liquefied petroleum gas code, or rules promulgated under the act, as applicable.
9.1.2. Deleted.
9.4.2.1. The school authority or designated representative shall ensure that new elevators, escalators, dumbwaiters, and moving walks are installed in compliance with the elevator rules, R 408.7001 to R 408.7103.
9.4.2.2. The school authority or designated representative shall ensure that existing elevators, escalators, dumbwaiters, and moving walks are in compliance with the Michigan elevator rules, R 408.7001 to R 408.7103.
9.4.3.1. Deleted.
9.4.3.2. Deleted.
9.6.3.5.5. Visible signals shall not be required in any of the following:
(1) Exit stair enclosures.
(2) Offices less than 200 square feet.
(3) Closets and coat rooms.
(4) Electrical closets.
(5) Mechanical pipe chases.
(6) Crawl spaces.
(7) Small bathrooms in classrooms.
(8) Janitor closets.
(9) Storage rooms less than 200 square feet.
(10) Unoccupied spaces.
12.2.10.3. Deleted.
12.2.11.2. Deleted.
12.3.2.1.2. Rooms or spaces for the storage, processing, or use of materials specified in section 12.3.2.1.2(1) to (3) shall be protected pursuant to all of the following:
(1) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating or protection of such rooms by automatic extinguishing systems as specified in section 8.7 in the following areas:
(a) Boiler and furnace rooms, unless otherwise permitted by either of the following:
(i) The requirement of section 12.3.2.1.2(1)(a) shall not apply to rooms enclosing furnaces, heating and air-handling equipment, or compressor equipment with a total

aggregate input rating less than 200,000 BTU (211MJ), provided that such rooms are not used for storage.

(ii) The requirement of section 12.3.2.1.2(1)(a) shall not apply to attic locations of the rooms addressed in section 12.3.2.1.2(1)(a)(i), provided that such rooms comply with the draft stopping requirements of section 8.6.10.

(b) Rooms or spaces larger than 100 square feet (4.6 square meters) and used for the storage of combustible supplies.

(c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.

(2) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protection of such rooms by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Laundries.

(b) Maintenance shops, including woodworking and painting areas.

(c) Rooms or spaces used for the processing or use of combustible supplies deemed hazardous by the authority having jurisdiction.

(d) Rooms or spaces used for processing or use of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.

(3) Where automatic extinguishing is used to meet the requirements of section 12.3.2.1.2(1) or (2), the protection shall be permitted in accordance with section 9.7.1.2.

12.7.1.3. Deleted.

12.7.6.1. In assembly use areas having occupant loads greater than 1000, there shall be crowd managers or crowd manager supervisors at a ratio of 1 crowd manager/supervisor for every 250 occupants unless otherwise permitted by any of the following:

(1) This requirement shall not apply to assembly use areas being utilized for instructional classroom space.

(2) This requirement shall not apply to assembly occupancies used exclusively for religious worship with occupant load not more than 2,000.

(3) The ratio of trained crowd managers to occupants shall be permitted to be reduced where, in the opinion of the authority having jurisdiction, the existence of an approved, supervised automatic sprinkler system and the nature of the event warrant.

12.7.6.2. Deleted.

12.7.7.2. Deleted.

12.7.9.3.1. Deleted.

12.7.9.3.2. Deleted.

12.7.9.3.3. Deleted.

13.2.10.3. Deleted.

13.2.11.2. Deleted.

13.3.2.1.2. Rooms or spaces for the storage, processing, or use of materials specified in section 13.3.2.1.2(1) to (3) shall be protected in accordance with the following:

(1) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating or protection of such rooms by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Boiler and furnace rooms, unless otherwise permitted by the following:

(i) The requirement of section 13.3.2.1.2(1)(a) shall not apply to rooms enclosing furnaces, heating and air handling equipment, or compressor equipment with a total aggregate input rating less than 200,000 Btu (211 MJ), provided that such rooms are not used for storage.

(ii) The requirement of section 13.3.2.1.2(1)(a) shall not apply to attic locations of the rooms addressed in section 13.3.2.1.2(1)(a)(i), provided that such rooms comply with the draft stopping requirements of section 8.6.10.

(b) Rooms or spaces larger than 100 square feet (4.6 square meters) and used for the storage of combustible supplies.

(c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.

(2) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protection of such rooms by automatic extinguishing systems as specified in Section 8.7 in the following areas:

(a) Laundries.

(b) Maintenance shops, including woodworking and painting areas.

(c) Rooms or spaces used for processing or use hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.

(3) Where automatic extinguishing is used to meet the requirements of section 13.3.2.1.2(1) or (2), the protection shall be permitted pursuant to section 9.7.1.2.

13.7.1.3. Deleted.

13.7.6.1. In assembly occupancies having occupant loads greater than 1,000, there shall be crowd managers or crowd manager supervisors at a ratio of 1 crowd manager/supervisor for every 250 occupants unless otherwise permitted by either of the following:

(1) This requirement shall not apply to assembly occupancies used exclusively for religious worship with occupant load not more than 2,000.

(2) The ratio of trained crowd managers to occupants shall be permitted to be reduced where, in the opinion of the authority having jurisdiction, the existence of an approved, supervised automatic sprinkler system and the nature of the event warrant.

13.7.6.2. Deleted.

13.7.7.2. Deleted.

13.7.9.3.1. Deleted.

13.7.9.3.2. Deleted.

13.7.9.3.3. Deleted.

43.1.2.1. The portion or portions of a building undergoing repair, renovation, modification, or reconstruction shall comply with both of the following:

(1) Requirements of the applicable existing occupancy chapters.

(2) Requirements of the applicable section of this chapter.

43.1.4.5. Deleted.

History: 1998-2000 AACS; 2016 AACS.

R 29.2010 Fire reporting.

Rule 10. (1) Upon discovery of any unwanted fire, regardless of magnitude, the person in control of the building shall immediately notify the local fire department.

(2) Whenever an unwanted fire occurs~~,~~ or upon discovery of an unwanted fire, even though it has been extinguished, the person in control of the building shall immediately

notify the local fire department of the existence of the fire, the circumstances of the fire, and the location of the fire. This subrule does not prohibit the facility from using all diligence necessary to extinguish the fire prior to the arrival of the fire department.

(3) The school authority or designee shall notify the bureau of fire services of all details of the fire not later than the end of the next business day following the incident.

History: 1998-2000 AACS; 2016 AACS.

PART 2. NEW SCHOOL, COLLEGE, AND UNIVERSITY DORMITORY FACILITIES

R 29.2021 Life safety code; adoption by reference for new school, college, and university dormitories owned, leased, or managed by, or under direct supervision of, school authority.

Rule 21. (1) The provisions of chapters 1 to 12, 24, 28, and 43 of the code that apply to new school, college, and university dormitories are adopted by reference in R29.2002, except as amended by these rules.

(2) Sections 28.1.1.2, 28.1.6, 28.3.4.2, 28.3.6.2.3, 28.7.3 and 28.7.4.1 of the code are amended, section 28.2.11.2 is deleted and section 28.3.6.2.4 is added to the code, to read as follows:

28.1.1.2 Any dormitory divided into suites of rooms, with 1 or more bedrooms opening into a living room or study that has a door opening into a corridor serving a number of suites, shall be classified as a dormitory building.

28.1.6 For minimum construction requirements refer to the Michigan building code, R 408.30401 to R 408.30499.

28.2.11.2 Deleted.

28.3.4.2 Initiation. The required fire alarm system shall be initiated by each of the following:

(1) Manual means in accordance with section 9.6.2.

(2) Required automatic sprinkler system.

(3) Required automatic detection system other than sleeping room smoke detectors.

28.3.6.2.3 Doors that open onto exit access corridors shall be self-closing and self-latching unless otherwise permitted by section 28.3.6.2.4.

28.3.6.2.4 In buildings protected throughout with an automatic sprinkler system in accordance with Section 28.3.5 and where the exit access corridors are protected by a corridor smoke detection system in accordance with Section 9.6, guest room and guest suite doors opening onto exit access corridors are not required to be self-closing.

28.7.3. Fire drills shall be held pursuant to the act.

28.7.4.1 A floor diagram reflecting the actual floor arrangement, exit locations, and room identification, or a sign with written emergency instructions shall be posted in a location and manner acceptable to the authority having jurisdiction, in every resident room in dormitories.

History: 1998-2000 AACS; 2016 AACS.

R 29.2022 Rescinded.

History: 1998-2000 AACS; 2016 AACS.

PART 3. EXISTING SCHOOL, COLLEGE, AND UNIVERSITY DORMITORY FACILITIES

R 29.2031 Life safety code; adoption by reference for existing school, college, and university dormitories owned, leased, or managed by, or under direct supervision of, school authority.

Rule 31. (1) The provisions of chapters 1 to 11, 13, 24, 29, and 43 of the code that apply to existing school, college and university dormitories are adopted by reference in R 29.2002 except as amended by these rules.

(2) Sections 29.1.1.2, 29.1.6, 29.3.4.2, 29.3.5.1, 29.3.6.2.3, 29.7.3 and 29.7.4.1 of the code are amended, section 29.2.11.2 is deleted and sections 29.1.1.1.1 and 29.3.7.5 are added to the code, to read as follows:

29.1.1.1.1 An existing building housing a dormitory with its occupancy established prior to the effective date of these rules shall be permitted to be approved for continued use if it conforms to, or is made to conform to, the provisions of this code to the extent that, in the opinion of the authority having jurisdiction, reasonable life safety against hazards of fire, explosion, and panic is provided and maintained.

29.1.1.2 Any dormitory divided into suites of rooms, with 1 or more bedrooms opening into a living room or study that has a door opening into a common corridor serving a number of suites, shall be classified as a dormitory building.

29.1.6 For minimum construction requirements, refer to the Michigan rehabilitation code, R 408.30551 to R 408.30577.

29.2.11.2 Deleted.

29.3.4.2 Initiation. The required fire alarm system shall be initiated by each of the following methods:

(1) Manual means pursuant to section 9.6.2.

(2) Required automatic sprinkler system.

(3) Required automatic detection system other than sleeping room smoke detectors.

29.3.5.1 All high-rise dormitory buildings shall be protected throughout by an approved, supervised automatic sprinkler system pursuant to section 29.3.5.3. The school authority or designated representative shall comply with this requirement within 10 years of the effective date of these rules.

29.3.6.2.3 Doors that open onto exit access corridors shall be self-closing and self-latching unless previously approved in writing by the authority having jurisdiction.

29.3.7.5 A cross-corridor door in a smoke partition shall be permitted to swing in either direction when the existing corridor width is 7 feet or less.

29.7.3 Fire drills shall be held pursuant to the act.

29.7.4.1 A floor diagram reflecting the actual floor arrangement, exit locations and room identification, or a sign with written emergency instructions shall be posted in a location

and manner acceptable to the authority having jurisdiction, in every resident room in dormitories.

History: 1998-2000 AACS; 2016 AACS.

R 29.2032 Rescinded.

History: 1998-2000 AACS; 2016 AACS.