DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

STATE FIRE SAFETY BOARD

NEW AND EXISTING SCHOOL, COLLEGE, AND UNIVERSITY FIRE SAFETY

Filed with the Secretary of State on May 19, 2016

These rules become effective 30 days after filling with the Secretary of State.

(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)

R 29.1901, R 29.1902, R 29.1903, R 29.1904, R 29.1905, R 29.1906, R 29.1907, R 29.1908, R 29.1921, R 29.1922, R 29.1923, R 29.1924, R 29.1931, R 29.1932, R 29.1933, and R 29.1934 of the Michigan Administrative Code are amended; R 29.1907a is added; and, R 29.1909 is rescinded as follows:

PART 1. GENERAL PROVISIONS

R 29.1901 Applicability.

Rule 1. These rules apply to all new and existing school, college, and university facilities used for instructional purposes as defined by these rules.

R 29.1902 Life safety code; adoption by reference.

Rule 2. (1) The provisions of chapters 1 to 10, 11, 12, 13, 14, 15, 38, 39, 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 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 thereof 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-2000.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 from the Michigan government website, www.michigan.gov/orr and linking to “Michigan administrative code” and also are available from the Michigan 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 R408.30998; the Michigan building code, R 408.30401 to R 408.30499a; 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, 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”.

R 29.1903 Definitions.

Rule 3. As used in these rules:

(a) "Act" means 1941 PA 207, MCL 29.1 to 29.34

(b) "Authority having jurisdiction" means the director of the 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 authority to enforce the code under section 2b of the act.

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

(d) "College" or "university" means a junior college, community college, college, or university that is duly authorized to grant degrees by 1 of the following:

(i) Article VIII of the Michigan Constitution of 1963.

(ii) The Michigan legislature.

(iii) Action by the state board of education.

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

(f) “Instructional facility” means a building or part of a building that is used for mandatory instructional purposes, is occupied by 6 or more students and used 4 or more hours per day or more than 12 hours per week, and is owned or leased by, or under the control of a college or university as defined in these rules.

(g) "Maintenance" means repair required to keep a building and its component parts in an operative condition at all times, including the replacement of its component parts when, for any reason, the component parts are no longer dependable. "Maintenance" does not include renovation.

(h) "Open court" means a court that is open and unobstructed on at least 1 side by a minimum of 20 feet in width and 13 feet 6 inches in height. The opening shall lead to a public way.

(i) "Penthouse" means an enclosed, unoccupied structure above the roof of a building, other than a tank, tower, spire, dome cupola, or bulkhead. The aggregate area shall not exceed 1/3 of the supporting roof. A penthouse shall be considered as part of the story below.

(j) "Room" means a space or area bounded by any obstruction to egress that, at any time, encloses more than 80% of the perimeter of the space or area. An opening that is less than 3 feet clear wide and less than 6 feet 8 inches high shall not be considered in computing the unobstructed perimeter. A vestibule that is used for weather protection is not a room for the purposes of these rules.

(k) "School" means a building or part of a building that is owned or leased by, or under the control of, a public or private school or school system for the purpose of instruction as required by section 1561 of 1976 PA451, MCL 380.1561 that is occupied by 6 or more students, and is used 4 or more hours per day or more than 12 hours per week. School does not mean a college building or university building.

(l) “Stop work order” means a notice from the authority having jurisdiction to immediately cease work being done because the work being performed is contrary to the rules or is being performed in a dangerous or unsafe manner. Any person who continues to work after being served with a stop work order, except the work that the person is directed to perform to remove a violation or unsafe condition, to provide for security of the building or to provide for weather protection of the building, shall be subject to penalties described by the act.

R 29.1904 Plans and specifications.

Rule 4. (1) A school, college, university, or designated representative shall submit plans and specifications to the bureau of fire services for all projects that involve construction, remodeling, renovation, modification, reconstruction, or an addition.

(2) A school, college, or university need not submit plans and specifications to the bureau of fire services for routine maintenance functions or cosmetic remodeling; however, a school, college, or university 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. If a public works project consisting of construction, renovation, modification, reconstruction, or an addition is estimated to cost less than $15,000.00, it is not necessary to employ a registered architect or engineer, but the plans for the building shall be submitted to the bureau of fire services for approval pursuant to section 5a of 1937 PA 306, MCL 388.855a.

(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 the fire-resistance rating.
(g) The type of construction as identified in national fire protection association pamphlet no. 220, entitled "Standard on 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 systems.
(m) Fire detection and alarm systems plans and specifications in compliance with the provisions of the act.
(n) Sprinkler or other suppression system plans and specifications 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 fire alarm/detection system and fire suppression system plans to the bureau of fire services pursuant to the act.
(6) Plan approval that is given before the effective date of these rules shall terminate 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 extension in a specific instance.
(7) Projects that involve construction, remodeling, or an addition, including fire alarm or fire detection systems and fire suppression systems, discovered to be in violation of the requirement of this rule shall be subject to the issuance of a stop work order by the authority having jurisdiction. Inspections shall not be conducted and approval shall not be granted by the authority having jurisdiction until the provisions of this rule are met.

R 29.1905 Inspection during construction; inspection of existing facilities; approval for occupancy.
Rule 5. (1) During construction, renovation, modification, reconstruction, addition, or remodeling, 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 person shall not occupy a newly constructed facility or a facility that is being remodeled or added to, in whole or in part, without the approval of the bureau of fire services.

(3) The bureau may approve for continuous use an existing school, college, or university instructional facility or building established prior to the effective date of these rules if it conforms to, or is made to conform to, the provisions of these rules to the extent that, in the opinion of the authority having jurisdiction, reasonable life safety against the hazards of fire, explosion, and panic is provided and maintained.

(4) While conducting project inspections pursuant to these rules or an investigation in reference to a fire hazard or life safety complaint pursuant to the act, in an existing school, college, or university instructional facility or building, the bureau of fire services may request to review documents related to the continued operation and maintenance of the following systems or items pursuant to section 4.5.8 and the applicable sections of chapter 4, 7, and 9 of the code.

(a) Fire alarm system.
(b) Sprinkler system.
(c) Hood suppression systems.
(d) Emergency lighting.
(e) Fire extinguishers.
(f) Required emergency generators.
(g) Egress signage.
(h) Door locking systems.
(i) Record of fire and emergency drills as required by the act.
(j) Emergency plans.
(k) Any other life safety system.

R 29.1906 Projects affecting outside configuration of building; site plan and specifications; bureau of fire services or local fire authority specifications; fire safety measures during construction.

Rule 6. (1) For projects involving construction, addition, renovation, modification, reconstruction, or remodeling that affect 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 owner or the owner's authorized representative shall provide the bureau of fire services and the local fire authority with a site plan and specifications that detail all of the following information, as applicable:

(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 they hydrants.
(b) The location of the hydrants.
(c) The location and dimensions of fire department vehicle access routes.

(d) The posting of fire lanes.

(3) As soon as possible during construction, the school, college, university, or designated representative shall ensure that 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.

R 29.1907 Electrical equipment; inspections; certificate.

Rule 7. (1) The school, college, university, or designated representative shall ensure that the electrical wiring and equipment, including an emergency supply if installed, complies with the applicable provisions of the Michigan electrical code, R 408.30801 to R 408.30880. Copies of the rules are available as specified in R 29.1902.

(2) An electrical inspection authority 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, college, university, or designated representative shall provide a copy of the certificate to the bureau of fire services.

R 29.1907a Fire reporting.

Rule 7a. (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, circumstances, 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, college, university, or designated representative 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.

R 29.1908 Universal amendments.

Rule 8. Sections 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 29.1902 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, 12.2.2.2.5, 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, 13.2.2.2.5, 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:

4.6.10.1. Buildings or portions of buildings shall be permitted to be occupied during construction, repair, alterations, or additions only where all means of egress and 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 wall that has a 1-hour-fire-resistance rating. The temporary 1-hour-rated wall that is used for separation may be constructed of combustible material. Instead of having all means of egress and fire protection features in place, the school,

college, university, 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 can occur in an actual emergency.
4.8.2.2. Upon request from the bureau of fire services, the school, college, university, or designated representative shall submit the required emergency plans 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 firestop 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. The following shall apply to smoke partitions:
(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 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 pursuant to 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 suspended 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 pursuant to 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 of 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 pursuant to section 9.7 and an approved emergency voice or emergency alarm communication system pursuant to NFPA 72.

8.7.3.1. The school, college, university, or designated representative shall store and handle flammable and combustible liquids in compliance with the storage and handling of flammable and combustible liquids, R 29.5101 to R 29.5516.

9.1.1. The school, college, university, 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, college, university, or designated representative shall ensure that new elevators, escalators, dumbwaiters, and moving walks are installed pursuant to the Michigan elevator rules, R 408.7001 to R 408.8695.

9.4.2.2. The school, college, university, 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 408.8695.

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 areas:

(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.

12.2.2.2.5. Deleted.

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 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 draftstopping 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 pursuant to section 9.7.1.2.

12.7.1.3. Deleted.

12.7.6.1. In assembly use areas 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 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.

13.2.2.2.5. 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 pursuant to 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 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 draftstopping 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 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 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 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.
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.

Rescinded.

PART 2. SCHOOLS

R 29.1921 Life safety code; adoption by reference of standards for new schools.
Rule 21. The provisions of chapters 1 to 12, 14, and 43 of the code that apply to new educational occupancies are adopted by reference in R 29.1902 except as amended by these rules.

R 29.1922 Amendments.
Rule 22. Sections 14.1.2.2, 14.1.6, 14.2.6.2, 14.2.6.3, 14.2.11.1.1, 14.2.11.2, 14.3.2.1, 14.3.4.1.2, 14.3.4.2.1, and 14.7.2.1 of the code are amended, sections 14.1.2.1.1, 14.1.2.2.1, 14.2.11.1.3, 14.3.2.5.1, 14.3.4.4, 14.3.4.5, 14.7.4.2.1, and 14.7.4.4 are added to the code, and sections 14.2.2.2.3.1, 14.3.4.2.3, 14.3.4.2.3.1, 14.3.4.2.3.2, 14.7.2.2, 14.7.2.3, and 14.7.3.3 are deleted to read as follows:
14.1.2.1.1. Educational occupancies shall include child care operations established and operated by an intermediate school board, the board of a local school district, the board or governing body of a state-approved nonpublic school, or by a person or entity with whom a school contracts for services, if the child care center is located in a school that is approved by the state fire marshal.
14.1.2.2. Unless otherwise permitted by section 14.1.2.1.1 educational occupancies shall not include any of the following:
(a) A part or full-day preschool.
(b) A day care center.

(c) A kindergarten-only building.
(d) A building that houses a combination of preschool and kindergarten.
(e) A building that houses a combination of day care and kindergarten.

14.1.2.2.1. A program specifically tailored for special needs children, special needs adults, or both, who range from 17 to 26 years of age, that is located in a community in a facility such as a shopping mall or business building, where the students will gain specific job experience and learn life studies, shall not be defined as a school.

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

14.2.2.2.3.1. Deleted.

14.2.6.2. Travel distances to an exit shall not exceed 200 feet (61 meters) from any point in a building, unless otherwise permitted by section 14.2.6.3.

14.2.6.3. Travel distance shall not exceed 250 feet (76.2 meters) in educational occupancies protected throughout by an approved automatic sprinkler system pursuant to Section 9.7.

14.2.11.1.1. The school or designated representative shall ensure every room or space which is more than 250 square feet (23.2 square meters) and which is used for classroom or other educational purposes or is normally subject to student occupancy shall have not less than 1 outside window for emergency rescue or ventilation that complies with the following unless otherwise permitted by section 14.2.11.1.2:

(1) The windows shall be openable from the inside without the use of tools, only held closed by a single operation lock, and shall provide a clear opening of not less than 20 inches (50.8 centimeters) in width, 24 inches (61 centimeters) in height, and 5.7 square feet (0.5 square meters) in area. A screen on the window shall be readily removable without any special knowledge or tools.

(2) The bottom of the opening shall be not more than 44 inches (112 centimeters) above the floor, and any latching device shall be capable of being operated from not more than 54 inches (1370 mm) above the finished floor.

(3) The clear opening shall allow a rectangular solid, with a width and height that provides not less than the required 5.7 square feet (0.5 square meters) opening and a depth of not less than 20 inches (510 millimeters), to pass fully through the opening.

(4) The windows shall be accessible by the fire department and shall open into an area that has access to a public way. Windows opening onto an open court, as defined in the code, are acceptable.

(5) The windows shall be identified by a permanent durable and legible sign having letters that are not less than 5/8 of an inch high and 1/8 of an inch wide. The sign shall read “rescue window.”

14.2.11.1.3. Windowless student occupied rooms in additions to existing buildings or renovated buildings shall be permitted where it is impractical to comply with section 14.2.11.1.1 where all of the following:

(1) A minimum of 50% of the required exits pass into a separate atmosphere created by a minimum 2-hour fire rated barrier with labeled 90-minute fire rated door assemblies in all openings. Glazing, other than permitted in the door by NFPA 80, shall be permitted only if the glazing has been tested for a 2-hour rating as well. The fire barrier shall completely separate the building from exterior wall to exterior wall.

(2) Each separate area shall have approved exiting pursuant to the code.

(3) A maximum of 25% of the total area of the student occupied rooms in the building shall be permitted to be windowless.

14.2.11.2. Lockups. Locking devices for designated “quiet rooms” shall meet all of the following criteria:

(1) The locking mechanism shall be a spring operated latch, which shall be manually depressed to keep it in the latched position. Upon manual release, the latch shall automatically return to the unlatched position.

(2) A viewing window shall be required for observation of the student.

(3) There shall be constant supervision by a teacher or responsible adult at all times a student is in the room.

14.3.2.1. Rooms or spaces for the storage, processing, or use of materials specified in section 14.3.2.1(1) to (4) shall be protected pursuant to the following:

(1) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistive rating or protected by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Boiler and furnace rooms, unless the rooms enclose only air-handling equipment.

(b) Rooms or spaces greater than 100 square feet used for 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.

(d) Janitor closets [see also 14.3.2.1(4)].

(2) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protected by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Laundries.

(b) Maintenance shops, including wood working and painting areas.

(c) Rooms or spaces used for the processing or use of combustible supplies deemed hazardous by recognized standards.

(d) Industrial arts and crafts rooms.

(3) Where automatic extinguishing is used to meet the requirements of section 14.3.2(1) or (2), the protection shall be permitted pursuant to section9.7.1.2.

(4) Where janitor closets addressed in section 14.3.2.1(1)(d) are protected pursuant to the sprinkler option of section 14.3.2.1(1), the janitor closet doors shall be permitted to have ventilating louvers.

14.3.2.5.1. The school or designated representative shall ensure that any room that is used for instruction and has 3 or more gas outlets be provided with a master gas valve which shall be conveniently located outside the door of the room and be clearly marked so that the valve may be closed without having to enter the room. This section shall not apply to life skills rooms in which gas outlets supply stoves for cooking.

14.3.4.1.2. The requirement of section 14.3.4.1.1 shall not apply to a building meeting all of the following criteria:

(1) Has an area not exceeding 1,000 square feet.

(2) Contains a single classroom.

(3) Is located not less than 10 feet from another building.

14.3.4.2.1. Initiation of the required fire alarm system shall be by manual means pursuant to section 9.6.2.1(1). Manual fire alarm pull stations shall be provided pursuant to

sections 9.6.2.2 to 9.6.2.5 of the code and at all exterior doors in the natural path of escape whether or not the path of escape is designated a required exit by these rules.
14.3.4.2.3. Deleted.
14.3.4.2.3.1. Deleted.
14.3.4.2.3.2. Deleted.
14.3.4.4. The school fire alarm system shall be provided with zone annunciation pursuant to the requirements of section 9.6.7 of the code.
14.3.4.5. In buildings provided with automatic extinguishing protective systems, all extinguishing system control valves shall be electronically supervised through the fire alarm system to cause an audible and visual supervisory signal at a location in the building where the signal will alert responsible personnel.

14.7.2.1. Emergency egress drills shall be conducted pursuant to the act.
14.7.2.2. Deleted.
14.7.2.3. Deleted.
14.7.3.3. Deleted.
14.7.4.2.1. Items permitted to be located in required egress corridors, provided the required clear width of the corridor is not obstructed, are limited to include fixed benches or hardwood or non-combustible material, trophy cases which are not used for excessive amounts of combustible materials, drinking fountains, telephones, vending machines, and other fixtures or items as approved by the authority having jurisdiction.
14.7.4.4. Desks and other instructional equipment shall be prohibited in required egress corridors.

R 29.1923 Life safety code; adoption by reference of standards for existing schools.
Rule 23. The provisions of chapters 1 to 11, 13, 15, and 43 of the code that apply to existing educational occupancies are adopted by reference in R 29.1902, except as amended by these rules.

R 29.1924 Amendments.
Rule 24. Sections 15.1.2.2, 15.1.6, 15.2.6.2, 15.2.6.3, 15.2.11.1.1, 15.2.11.1.2, 15.2.11.2, 15.3.2.1, 15.3.4.1.2, 15.3.4.2.1, 15.3.6, 15.3.7.2, and 15.7.2.1 are amended, sections 15.1.2.1.1, 15.1.2.2.1, 15.2.11.1.3, 15.3.4.3.1.7, 15.7.4.2.1, and 15.7.4.4 are added and sections 15.2.2.2.3.1, 15.3.4.2.3, 15.3.4.2.3.1, 15.3.4.2.3.2, 15.7.2.2, 15.7.2.3, and 15.7.3.3 are deleted, to read as follows:
15.1.2.1.1. Educational occupancies shall include child care operations established and operated by an intermediate school board, the board of a local school district, the board or governing body of a state-approved nonpublic school, or by a person or entity with whom a school contracts for services, if the child care center in located in a school that is approved by the state fire marshal.
15.1.2.2. Unless otherwise permitted by section 15.1.4.1.1; educational occupancies shall not include any of the following:
(a) A part or full-day preschool.

(b) A day care center.
(c) A kindergarten-only building.
(d) A building that houses a combination of preschool and kindergarten.
(e) A building that houses a combination of day care and kindergarten.

15.1.2.2.1. A program specifically tailored for special needs children, special needs adults, or both, who range from 17 to 26 years of age, that is located in a community in a facility such as a shopping mall or business building, where the students will gain specific job experience and learn life studies, shall not be defined as a school.

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

15.2.2.2.3.1. Deleted.

15.2.6.2. Travel distances to an exit shall not exceed 200 feet (61 meters) from any point in the building unless otherwise permitted by section 15.2.6.3 or 15.2.6.4 (see also section 7.6).

15.2.6.3. Travel distance shall not exceed 250 feet (76.2 meters) in educational occupancies protected throughout with an approved automatic sprinkler system pursuant to section 9.7.

15.2.11.1.1. The school or designated representative shall ensure every room or space that is more than 250 square feet (23.2 square meters) and is used for classroom or other educational purposes or is normally subject to student occupancy shall have not less than 1 outside window for emergency rescue or ventilation that complies with the following unless otherwise permitted by section 15.2.11.1.2:

(1) The windows shall be openable from the inside without the use of tools, only held closed by a single operation lock, and provides a clear opening of not less than 20 inches (50.8 centimeters) in width, 24 inches (61 centimeters) in height, and 5.7 square feet (0.5 square meters) in area. A screen on the window shall be readily removable without any special knowledge or tools.

(2) The bottom of the opening shall be not more than 44 inches (112 centimeters) above the floor and any latching device shall be capable of being operated from not more than 54 inches (137 centimeters) above the finished floor.

(3) The clear opening shall allow a rectangular solid with a width and height that provides not less than the required 5.7 square foot opening and a depth of 20 inches to pass fully through the opening.

(4) The windows shall be accessible by the fire department and shall open into an area that has access to a public way. Windows opening onto an open court, as defined in the code, are acceptable.

(5) The windows shall be identified by a permanent, durable, and legible sign having letters not less than 5/8 of an inch high and 1/8 of an inch wide.

15.2.11.1.2. The requirements of section 15.2.11.1.1 shall not apply to any of the following:

(1) Buildings protected throughout by an approved automatic sprinkler system in compliance with section 9.7.

(2) Where the room or space has a door leading directly to the outside of the building.

(3) Rooms located 4 or more stories above the finished ground level.

(4) Where awning type or hopper-type windows that are hinged or subdivided to provide a clear opening of not less than 4 square feet (0.38 square meters) or any dimension of not less than 22 inches (560 millimeters) meet the following criteria:

(a) The windows shall be permitted to continue in use.

(b) Screen walls or devices located in front of required windows shall not interfere with rescue requirements.

(5) Where a room or space complies with the following:

(a) Doors shall exist that allow travel between adjacent classrooms.

(b) Doors used to travel from classroom to classroom shall provide either of the following:

(i) Direct access to exits in both directions.

(ii) Direct access to an exit in 1 direction and to a separate smoke compartment that provides access to another exit in the other direction.

(c) The corridor shall be separated from the classrooms by a wall that restricts the passage of smoke, and all doors between the classrooms and corridor shall be self-closing or automatic-closing pursuant to section 7.2.1.8.

(d) The length of travel to exits along such paths shall not exceed 150 feet (46 meters).

(e) Each communicating door shall be marked in accordance with section 7.10.

(f) No locking device shall be permitted on the communicating doors.

(6) If a window retrofit project is undertaken, then compliance with the window clear opening dimensions is not required. Unless the existing sill construction is being modified, the existing sill height can be maintained. All other requirements of section 15.2.11.1.1 shall apply.

(7) A school building constructed before August 1, 1989, that is in compliance with both of the following provisions:

(a) The windowless section of the story is not more than 25% of the total area of the story, excluding corridors.

(b) All windowless rooms, spaces, and public assembly places have 50% of their required exits visible directly to the exterior of the building and within 20 feet from the door of the occupied room.

15.2.11.1.3. Windowless student occupied rooms in additions to existing buildings or renovated buildings shall be permitted where it is impractical to comply with section 15.2.11.1.1 where all of the following:

(1) A minimum of 50% of the required exits pass into a separate atmosphere created by a minimum 2-hour fire rated barrier with labeled 90-minute fire rated door assemblies in all openings. Glazing, other than permitted in the door by NFPA 80, shall be permitted only if the glazing has been tested for a 2-hour rating as well. Such construction shall completely separate the building from exterior wall to exterior wall.

(2) Each separate area shall have approved exiting pursuant to the code.

(3) A maximum of 25% of the total area of the student occupied rooms in the building shall be permitted to be windowless.

15.2.11.2. Lockups. Locking devices for designated “quiet rooms” shall meet all of the following criteria:

(1) The locking mechanism shall be a spring operated latch, which is manually depressed to keep it in the latched position. Upon manual release, the latch shall automatically return to the unlatched position.

(2) A viewing window shall be required for observation of the student.
(3) There shall be constant supervision by a teacher or responsible adult at all times a student is in the room.

15.3.2.1. Rooms or spaces for the storage, processing, or use of materials specified in section 15.3.2.1(1) to (4) shall be protected pursuant to the following:
(1) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistive rating or protected by automatic extinguishing systems as specified in section 8.7 in the following areas:
(a) Boiler and furnace rooms, unless such rooms enclose only air-handling equipment.
(b) Rooms or spaces greater than 100 square feet used for 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.
(d) Janitor closets [see also 15.3.2.1(4)].
(2) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protected by automatic extinguishing systems as specified in section 8.7 in the following areas:
(a) Laundries.
(b) Maintenance shops, including wood working and painting areas.
(c) Rooms or spaces used for the processing or use of combustible supplies deemed hazardous by recognized standards.
(d) Industrial arts and crafts rooms.
(3) Where automatic extinguishing is used to meet the requirements of section 15.3.2(1) or (2), the protection shall be permitted pursuant to section 9.7.1.2.
(4) Where janitor closets addressed in section 15.3.2.1(1)(d) are protected pursuant to the sprinkler option of section 15.3.2.1(1), the janitor closet doors shall be permitted to have ventilating louvers.

15.3.4.1.2. The requirements of section 15.3.4.1.1 shall not apply to buildings meeting all of the following criteria:
(1) Buildings having an area not exceeding 1,000 square feet.
(2) Buildings containing a single classroom.
(3) Building located not less than 10 feet from another building.

15.3.4.2.1. Initiation of the required fire alarm system shall be by manual means in accordance with section 9.6.2.1(1). Manual fire alarm pull stations shall be provided pursuant to sections 9.6.2.2 to 9.6.2.5 of the code and at all exterior doors in the natural path of escape whether or not the path of escape is designated a required exit by these rules.

15.3.4.2.3. Deleted.

15.3.4.2.3.1. Deleted.

15.3.4.2.3.2. Deleted.

15.3.4.3.1.7. A presignal system pursuant to section 9.6.3.3 shall be permitted.

15.3.6. Corridors shall be separated from other parts of the story by walls having a minimum 1-hour-fire-resistance rating pursuant to section 8.3 unless otherwise permitted by the following:

(1) Corridor protection shall not be required where all spaces normally subject to student occupancy have at least 1 door opening directly to the outside or to an exterior exit access balcony or corridor pursuant to section 7.5.3.

(2) The following shall apply to buildings protected throughout by an approved automatic sprinkler system with valve supervision pursuant to section 9.7:

(a) Corridor walls shall not be required to be rated, provided that the walls form smoke partitions pursuant to section 8.4.

(b) The provisions of section 8.4.3.5 shall not apply to normally occupied classrooms.

(3) Where the corridor ceiling is an assembly having a 1-hour-fire-resistance rating where tested as a wall, the corridor wall shall terminate at the corridor ceiling.

(4) Lavatories shall not be required to be separated from corridors, provided they are separated from all other spaces by walls having a 1-hour-fire-resistance rating pursuant to section 8.3.

(5) Lavatories shall not be required to be separated from corridors, provided that the building is protected throughout by an approved, supervised automatic sprinkler system pursuant to section 9.7.

(6) In school buildings constructed before August 1, 1989, every interior corridor, including corridors in flexible plan buildings, shall be constructed to be reasonably smoke-tight.

(7) In a school building constructed before August 1, 1989, and which is protected throughout by an approved automatic sprinkler system installed pursuant to section 9.7 of the code, corridor walls are not required.

15.3.7.2. The requirements of section 15.3.7.1 shall not apply to any of the following:

(1) Where all classrooms have exterior exit access pursuant to section 7.5.3.

(2) Buildings protected throughout by an approved automatic sprinkler system pursuant to section 9.7.

15.7.2.1. Emergency egress drills shall be conducted pursuant to the act.

15.7.2.2. Deleted.

15.7.2.3. Deleted.

15.7.3.3. Deleted.

15.7.4.2.1. Items permitted to be located in exit corridors, provided the required clear width of the corridor is not obstructed, shall be limited to include fixed benches or hardwood or non-combustible material, trophy cases which are not used for excessive amounts of combustible materials, drinking fountains, telephones, vending machines, and other fixtures or items as approved by the authority having jurisdiction.

15.7.4.4. Desks and other instructional equipment shall be prohibited in required egress corridors.

PART 3. COLLEGES AND UNIVERSITIES

R 29.1931 Life safety code; adoption by reference for new colleges and universities.

Rule 31. The provisions of chapters 1 to 12, 38, and 43 of the code that apply to new business occupancies, are adopted by reference in R 29.1902, except as amended by these rules.

R 29.1932 Amendments.

Rule 32. Sections 38.1.6, 38.3.2.1, 38.3.4.2, and 38.7.2 are amended, sections 38.1.1.1.1, 38.1.3.1.1.1, and 38.3.2.4 are added, as follows:

38.1.1.1.1. A change of use from a business occupancy to a college or university instructional facility shall be reviewed and inspected pursuant to section 43.7.2 for a change of occupancy.

38.1.3.1.1.1. If other business occupancies or uses occur in the same building that houses a college or university instructional facility, the provisions of section 6.1.14 for multiple occupancies shall apply. A college or university instructional facility that is separated from the remainder of a business occupancy by 2-hour fire resistance rated assemblies pursuant to section 6-1.14.4 shall be considered separate occupancies. Where the building is protected throughout by an approved automatic sprinkler system pursuant to section 9.7.1.1(1) and supervised pursuant to section 9.7.2, the fire resistance rated separations shall be permitted to be reduced to a 1-hour fire resistance-rated assemblies pursuant to section 6.1.14.4.3.

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

38.3.2.1. Rooms or spaces for the storage, processing, or use of materials specified in section 38.3.2.1(1) to (3) shall be protected pursuant to the following:

(1) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistive rating or protected by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Boiler and furnace rooms, unless such rooms enclose only air-handling equipment.

(b) Rooms or spaces greater than 100 square feet used for 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) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protected by automatic extinguishing systems as specified in section 8.7 in the following areas:

(a) Laundries.

(b) Maintenance shops, including wood working and painting areas.

(c) Rooms or spaces used for the processing or use of combustible supplies deemed hazardous by recognized standards.

(d) Industrial arts and crafts rooms.

(3) Where automatic extinguishing is used to meet the requirements of section 38.3.2(1) or (2), the protection shall be permitted pursuant to section 9.7.1.2.

38.3.2.4. Laboratories that use chemicals shall comply with NFPA 45. The college, university, or designated representative shall ensure that laboratory units used for instructional purposes shall be separated from non-laboratory areas by 1-hour fire rated construction regardless of the presence of fire protection. Any room which has 3 or more

gas outlets shall be provided with a master gas valve which is conveniently located outside the door of the room and is clearly marked so that the valve may be closed without having to enter the room.
38.3.4.2. Initiation of the required fire alarm system shall be by all of the following means where provided:
(1) Manual means pursuant to section 9.6.2.1(1).
(2) Means of an approved automatic fire detection system that complies with section 9.6.2.1(2) and provides protection throughout the building.
(3) Means of an approved automatic sprinkler system that complies with section 9.6.2.1(3) and provides protection throughout the building.
38.7.2. Fire drills shall be held pursuant to the act.

R 29.1933 Life safety code; adoption by reference of standards for ~~new~~ existing colleges and universities.

Rule 33. The provisions of chapters 1 to 11, 13, 39 and 43 of the code that apply to existing business occupancies, are adopted by reference in R 29.1902, except as amended by these rules.

R 29.1934 Amendments.

Rule 34. Sections 39.1.6, 39.3.2.1, 39.3.4.2, and 39.7.2 are amended as follows:
39.1.6. For minimum construction requirements, refer to the Michigan rehabilitation code, R 408.30551 to R 408.30577.
39.3.2.1. Rooms or spaces for the storage, processing, or use of materials specified in section 39.3.2.1(1) to (3) shall be protected pursuant to the following:
(1) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistive rating or protected by automatic extinguishing systems as specified in section 8.7 in the following areas:
(a) Boiler and furnace rooms, unless such rooms enclose only air-handling equipment.
(b) Rooms or spaces greater than 100 square feet used for 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) The rooms or spaces shall be separated from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating and protected by automatic extinguishing systems as specified in section 8.7 in the following areas:
(a) Laundries.
(b) Maintenance shops, including wood working and painting areas.
(c) Rooms or spaces used for the processing or use of combustible supplies deemed hazardous by recognized standards.
(d) Industrial arts and crafts rooms.
(3) Where automatic extinguishing is used to meet the requirements of section 39.3.2(1) or (2), the protection shall be permitted pursuant to section 9.7.1.2.
39.3.4.2. Initiation of the required fire alarm system shall be by all of the following means where provided:

(1) Manual means pursuant to section 9.6.2.1(1).

(2) Means of an approved automatic fire detection system that complies with section 9.6.2.1(2) and provides protection throughout the building.

(3) Means of an approved automatic sprinkler system that complies with section 9.6.2.1(3) and provides protection throughout the building.

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