## **CODES AND REGULATORY AGENCIES**

#### Introduction

The University of Michigan is a State of Michigan constitutional corporation, governed by a Board of Regents elected by the People of the State of Michigan and has a great deal of regulatory autonomy (refer to Michigan Legislature Article VIII section 5). It is exempt from local building and zoning ordinances and subject to State of Michigan laws and regulations that are clearly intended to apply to universities. In lieu of local building ordinances and State of Michigan laws and regulations that do not apply at the University, the University chooses to require that new construction adhere to a number of well-established building codes and standards, as listed in this Section.

Regardless of origin or enforcing agency, all of the applicable building codes and standards listed and codes and standards referenced within the codes listed below are to be followed. Note, for instance, that compliance with the State of Michigan Bureau of Fire Safety rules for schools and/or dormitories does not eliminate the need to also comply with the Michigan Building Code, and that compliance with the 2010 Americans with Disabilities Act does not eliminate the need to comply with the barrier free provisions of the Michigan Building Code. Additional codes may apply for particular situations, such as for Medical Center construction; these are to be considered on the case-to-case basis. Many times adherence to narrow scope codes and/or standards is required by the general codes listed below.

New editions of building codes are published from time to time. For each project, the edition of building codes cited in this section form which the University of Michigan is listed as the "Enforcing Agency" is to be as follows:

The edition of building codes is to be as listed in this section as of the beginning of the design development phase of a project unless construction documents are submitted to the University for final review more than a year after adoption of the new version of the code. If more than one year has transpired between adoption of the new code and submission of construction documents to the University for final review, the edition of the building codes listed in this section as of submission of construction documents applies.

The University employs building inspectors, who are the authority having jurisdiction on all University property. Refer to each code diction for authority having jurisdiction contact information.

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The State of Michigan Department of Environment, Great Lakes, and Energy (EGLE) has rules that
require permitting where the land and water interface. Please see the link below for Parts of the 18
Natural Resources and Environmental Protection Act, 1994 PA 451, as amended and Rules that are
administered by the EGLE Water Resource Division and permitted through obtaining an
approved EGLE/USACE Joint Permit Application.
State of Michigan Issued NPDES Permit
State of Michigan Contaminated Soil and Groundwater
State of Michigan Leaking Underground Storage Tanks
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Emergency Generators 21
Boilers
Chemical Storage
Installation of Non-Potable Wells (including geothermal wells)
The installation of non-potable wells (including geothermal wells) within Washtenaw County requires
the submittal of an Application for Non-Potable Well Project with the Washtenaw County Health
Department - Environmental Health Division. The application is typically prepared by the driller or
consultant, but is reviewed by the University of Michigan – Environmental Health & Environm
Department prior to submittal. The application and list of required components can be here at the
website referenced below: The U-M EHS Department can provide information regarding known 23
wells and sources of environmental contamination at a site for inclusion in the application 23
Installation of any wells within Washtenaw County shall follow the Washtenaw County Rules & 23

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# **Building Codes for University of Michigan**

Michigan Building Code 2015 (adopted April 20, 2017) promulgated by the State of Michigan Department of Licensing and Regulatory Affairs Bureau of Construction Codes. Including rule 408.30401 Rule 401 as printed on the interior cover of the Michigan Building Code. By local rule, the following exceptions/modifications are applied to the Michigan Building Code 2015 section 202, section 428, article 717.5.3, article 907.5.2.3.3, article 1010.1.9.11, Chapter 11, Chapter 13, Chapter 32 and Chapter 34:

Section 202 (adopted April 1, 2020): Add definition for Higher Educational Laboratories as follows:

HIGHER EDUCATION LABORATORY. Laboratories in Group B occupancies used for educational purposes above the 12th grade. Storage, use and handling of chemicals in such laboratories shall be limited to purposes related to testing, analysis, teaching, research or developmental activities on a nonproduction basis.

Section 428 (adopted April 1, 2020): Add section 428 Higher Educational Laboratories as follows:

## Section 428 Higher Educational Laboratories

- 428.1 Scope. Higher education laboratories complying with the requirements of Sections 428.1 through 428.4 shall be permitted to exceed the maximum allowable quantities of hazardous materials in control areas set forth in Tables 307.1(1) and 307.1(2) without requiring classification as a Group H occupancy. Except as specified in Section 428, such laboratories shall comply with all applicable provisions of this code and the *International Fire Code*.
- 428.2 Application. The provisions of Section 428 shall be applied as exceptions or additions to applicable requirements of this code. Unless specifically modified by Section 428, the storage, use and handling of hazardous materials shall comply with all other provisions in Chapters 38 and 50 through 67 of the *International Fire Code* and this code for quantities not exceeding the maximum allowable quantity.
- 428.3 Laboratory suite construction. Where laboratory suites are provided, they shall be constructed in accordance with this section and Chapter 38 of the *International Fire Code*. The number of laboratory suites and percentage of maximum allowable quantities of hazardous materials in laboratory suites shall be in accordance with Table 428.3.
- 428.3.1 Separation from other non-laboratory areas. Laboratory suites shall be separated from other portions of the building in accordance with the most restrictive of the following:
- 1. Fire barriers and horizontal assemblies as required in Table 428.3. Fire barriers shall be constructed in accordance with Section 707 and horizontal assemblies constructed in accordance with Section 711.

Exception: Where an individual laboratory suite occupies more than one story, the fire resistance rating of intermediate floors contained within the laboratory suite shall comply with the requirements of this code.

2. Separations as required by Section 508.

- 428.3.2 Separation from other laboratory suites. Laboratory suites shall be separated from other laboratory suites in accordance with Table 428.3.
- 428.3.3 Floor assembly fire resistance. The floor assembly supporting laboratory suites and the construction supporting the floor of laboratory suites shall have a fire resistance rating of not less than 2 hours.

Exception: The floor assembly of the laboratory suites and the construction supporting the floor of the laboratory suites are allowed to be 1-hour fire resistance rated in buildings of Types IIA, IIIA and VA construction, provided that the building is three or fewer stories.

- 428.3.4 Maximum number. The maximum number of laboratory suites shall be in accordance with Table 428.3. Where a building contains both laboratory suites and control areas, the total number of laboratory suites and control areas within a building shall not exceed the maximum number of laboratory suites in accordance with Table 428.3.
- 428.3.5 Means of egress. Means of egress shall be in accordance with Chapter 10.
- 428.3.6 Standby or emergency power. Standby or emergency power shall be provided in accordance with Section 414.5.2 where laboratory suites are located above the sixth story above grade plane or located in a story below grade plane.
- 428.3.7 Ventilation. Ventilation shall be in accordance with Chapter 7 of NFPA 45, and the Michigan Mechanical Code.
- 428.3.8 Liquid tight floor. Portions of laboratory suites where hazardous materials are present shall be provided with a liquid-tight floor.
- 428.3.9 Automatic fire-extinguishing systems. Buildings containing laboratory suites shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.
- 428.4 Percentage of maximum allowable quantity in each laboratory suite. The percentage of maximum allowable quantities of hazardous materials in each laboratory suite shall be in accordance with Table 428.3.

TABLE 428.3 Design and Number of Laboratory Suites Per Floor

Floor Level		Percentage of the Maximum Allowa ble Quantity Per Lab Suite <sup>a</sup>	Number of L l ab Suites Per Flo or	Fire- Resistance Rating for Fire Barriers in H ours <sup>b</sup>
	21+	Not allowed	Not Permitte d	Not Permitted
	16–20	25	1	2°
	11-15	50	1	2°
Above Grade Pla	7–10	50	2	2°
ne	4-6	75	4	1
	3	100	4	1

	1-2	100	6	1
	1	75	4	1
Below Grade Pla	2 Lower than	50 Not Allowed	2 Not Allowed	1 Not Allowed
	2			

a. Percentages shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the footnotes to those tables.

- b. Fire barriers shall include walls, floors and ceilings necessary to provide separation from other portions of the building.
- c. Vertical fire barriers separating laboratory suites from other spaces on the same floor shall be permitted to be 1-hour fire-resistance rated.

## Article 509.1 General add the following Exception 2:

Exception 2: Incidental use for non-hazardous storage between 100 and 250 square feet in fully suppressed existing ambulatory care facilities and existing 1-2 occupancies, converted to non-hazardous storage rooms: with partitions capable of resisting the passage of smoke with a solid door which self-closes, and automatic sprinkler system.

## Article 717.5.3 add exception number 6:

Exception 6. In other than I or H occupancies or Michigan Medicine owned and/or occupied facilities, when equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, smoke dampers are not required at shaft enclosures unless specifically required by other sections of the code. Instead, provide smoke dampers at locations and to function as prescribed in the 2012 edition of NFPA 90A - 'Standard for the Installation of Air-Conditioning and Ventilating Systems'.

Article 907.5.2.3.3 Group R-2 reference the following interpretation of the use of the word "capability": In the sentence "all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances...". Capability of the fire alarm system shall be addressed by the spare capacity already required in all U of M fire alarm circuits and fire alarm panels. This spare capacity in the circuits (raceways, and installed conduit), shall be available immediately after the fire alarm system is commissioned. The spare capacity at the panel, may be in the form of power supplies sized for the expansion, and/or in the form of sufficient (spare) mounting space in the panel for the additionally needed power supplies. Refer to U of M Design Guideline and master specifications for spare capacity requirements.

# Section 907.5.2.3 Visual Alarms.

Add Exception 4. In all occupancies visual alarms are not required in the following:

- a) Offices less than 200 square feet.
- b) Closets and coat rooms.
- c) Electrical closets.
- d) Mechanical pipe chases.
- e) Crawl Spaces.
- f) Small restrooms with access inside classrooms.
- g) Custodial closets.
- h) Storage rooms less than 200 square feet.
- i) Unoccupied spaces.

1009 Accessible Means of Egress Exception 1. Accessible means of egress are not required to be provided in existing buildings. (Buildings built prior to 2010 per US Access board are considered existing) Use of this exception must be approved by the University project team and University Building code Committee. As required to use accessibility exception for structural infeasibility must be approved by the University project team and the Building Code Committee. Coordinate use of this exemption with the project design manager prior to use. (Adopted June 1, 2024)

#### Article 1010.1.9.11 add the following:

Exception 6. In existing buildings, doors on stair enclosures shall be permitted to be equipped with hardware that prevents reentry into the interior of the building, provided that egress is maintained and the doors are in compliance with the requirements of NFPA 101 - 2012, article 7.2.1.5.8

# Chapter 11 Section 1105 article 1105.1. add the following:

Accessible Public Exterior Entrances. All public exterior entrances provided in accordance with code must have at least one entrance door complying with Section 404.3 (Automatic and Power-Assisted Doors and Gates) of the ABAAS. Where an accessible public entrance has a vestibule with exterior and interior entrance doors, at least one exterior door and one interior door must comply with Section 404.3

Chapter 1109.2.1.2 Exception replace with the following: (Adopted June 1, 2024)

Exception: The following additional plumbing fixtures shall be permitted in the family or assisted-use toilet room:

- 1. A urinal.
- 2. A child-height water closet.
- 3. A child-height lavatory
- 4. An adult changing station also used for bathing

Chapter 11 add Section 1109.3A between section 1109.3 and 1109.4 and corresponding articles up to 1109.3A.4.4. (Adopted June 1, 2024)

1109.3A Adult changing stations: Where provided, adult changing stations shall be accessible. Where required, adult changing stations shall be accessible and shall comply with Sections 1112.4.1 through 1109.3A.1 Where Required.

Not fewer than on adult changing station shall be provided in the following locations:

- 1. In Assembly and mercantile occupancies, where family or assisted- use toilet or bathing rooms are required to comply with Section 1109.2.1.
- 2. In Group B occupancies providing educational facilities for students above the 12<sup>th</sup> grade, where an aggregate of 12 or more water closets are required to serve the classrooms and lecture halls.
- 3. In Group E occupancies, where a room or space used for assembly purposes requires and aggregate of six or more water closets for the room or space.
- 4. In highway rest stops and highway service plazas.

1109.3A.2 Adult changing stations shall be located in toilet rooms that include only one water closet and only one lavatory. Fixtures located in such rooms shall be included in determine the number of fixtures provided in an occupancy. The occupants shall have access to the required adult changing station at all times that the associated occupancy is occupied.

Exception: Adult changing stations shall be permitted to be located in family or assisted toilet rooms required in Section 1109.2.1

1109.3A.3 Prohibited location

The accessible route from the separate-sex toilet or bathing rooms to an accessible adult changing station shall not require travel through security checkpoints.

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#### 1109.3A.4 Travel Distance

The adult changing station shall be located on an accessible route such that a person is not more than two stories above or below the story with the adult changing station and the path of travel to such facility shall not exceed 2000, fee (609.6 m).

1109.3A.5 Adult changing table surround walls and partitions within 2 feet (610 mm) measured horizontally from each end of the adult changing table and to a height of not less than 72 inches (1829 mm) above the floor shall have a smooth, hard, nonabsorbent surface, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

Chapter 13 Energy Efficiency - Michigan Energy Code Part 10a rules incorporating the ASHRAE 90.1 2013 – Effective October 25, 2017

Chapter 32 Encroachments into the Public Right of Way: Within the public right of way adhere to City of Ann Arbor standards and specifications refer to the following web site for requirements:

http://www.a2gov.org/departments/engineering/Pages/Right-Of-Way-and-Lane-Closure-Permits.aspx

Chapter 35 Referenced Standards ICC Standard Reference Number ICC A117.1 – 2017 Standard for Accessible and Usable Buildings and Facilities – Effective March 1, 2020 adopted 2017 version in lieu of 2009.

# The following regulations take precedence over conflicting requirements in the Michigan Building Code:

Chapter 13 State of Michigan Part 10a Energy Code Efficiency incorporating ASHRAE Standard 90.1 2013 – Effective October 25, 2017. Refer to University Design Guidelines for additional requirements and items listed above.

State of Michigan Elevator Code.

State of Michigan Mechanical Code 2021 and Michigan Plumbing Code 2021.

State of Michigan Electrical Code incorporating "NFPA 70 -- National Electrical Code", 2023 edition with University of Michigan modifications.

"NFPA 13 2013 -- Sprinkler Systems".

"NFPA 45 2011-- Fire Protection for Laboratories Using Chemicals". Unless project is complying with the MBC 428 section on research laboratory.

"NFPA 72 -- National Fire Alarm Code", 2013 edition with University of Michigan modifications.

"Guide for Care and Use of Laboratory Animals" promulgated by US Department of Health & Human Services".

#### Enforcing Agency —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

Michigan Residential Code 2015 (adopted February 8, 2016) promulgated by the State of Michigan Department of Licensing and Regulatory Affairs Bureau of Construction Codes. Including rule 408.30500 Rule 500 as printed on the interior cover of the Michigan Building Code which includes ASHRAE 2013.

## **Enforcing Agency** —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

By local rule, the following exceptions/modifications are applied to the Michigan Residential Code Chapter 44:

Chapter 44 Referenced Standards ICC Standard Reference Number ICC/ANSI A117.1 – 2017 Standard for Accessible and Usable Buildings and Facilities – Effective March 1, 2020 adopted 2017 version in lieu of 2009.

ADA Standards for Accessible Design 2010 (adopted March 9, 2011) As required to comply with Section 504 of US Rehabilitation Act of 1973 Title II of Americans with Disabilities Act of 1990 and updated September 15, 2010. Also note that the University maintains a space-by-space database of non-compliance. Contact Architecture, Engineering and Construction for database information. Notice of corrections are to be reported to Architecture, Engineering and Construction for the purpose of updating the database.

State and local government facilities must follow the requirements of the 2010 Standards, including both the Title II regulations at 28 CFR 35.151; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D. In the few places where requirements between the two differ, the requirements of 28 CFR 35.151 prevail.

## **Enforcing Agency** —

All federal agencies (on complaint basis) for U.S. Rehabilitation Act of 1973, U.S. Department of Justice and Architectural and Transportation Barriers Compliance Board (on complaint basis) for Americans with Disabilities Act.

Web site for 2010 ADA: <a href="http://www.ADA.gov">http://www.ADA.gov</a>

State of Michigan Health Care Safety Rules, Bureau of Fire Services (BFS) ((Filed December 23, 2014) Effective February 3, 2015) promulgated by the State of Michigan Bureau of Fire Services (incorporating by reference NFPA 101 – Life Safety Code 2012) and all other codes and standards currently enforced there in. Note this requires by reference compliance with NFPA 99 Health Care Facilities Code 2012.

For assistance in determining which projects are subject to plan review and inspection, and BFS fire alarm and fire suppression shop drawing review and inspection, MM FPD has developed a flowchart available at <a href="https://example.com/BFS Flowchart">BFS Flowchart</a>. This flowchart has been reviewed by BFS, however it is not intended to replace professional judgment. Jurisdiction should be verified with BFS directly when it is not clear. Affirm decisions with MM Design Manager.

**Enforcing Agency** —

State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Fire Safety Plan Review Division 525 W Allegan 4th Floor Lansing, MI. 48913-0001 (517) 241-8847

Administrative rules web site:

https://www.michigan.gov/documents/lara/PR Webpage - HC Facilities Rev. 8-3-15 498345 7 659844 7.pdf

State of Michigan Dormitory Fire Safety Rules for Schools, Colleges and Universities (Effective January 5, 2017) promulgated by the State of Michigan Bureau of Fire Services (incorporating by reference NFPA 101 – Life Safety Code 2012). Note that this standard applies only to fire compartments of buildings which contain dormitories. A listing of Ann Arbor campus buildings that contain dormitory space is included at the end of this section.

#### **Enforcing Agency** —

State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Fire Safety Plan Review Division 525 W Allegan 4th Floor Lansing, MI. 48913-0001 (517) 241-8847

Administrative rules web site:

https://www.michigan.gov/documents/lara/4-SCHOOL Main Page Web 662718 7.pdf

State of Michigan Fire Safety Rules for Schools, Colleges and Universities ((Filed May 19, 2016) Effective June 20, 2016) promulgated by the State of Michigan Bureau of Fire Services (incorporating by reference NFPA 101 – Life Safety Code 2012). Note that this standard applies only to fire compartments of buildings which contain instructional space (classrooms and/or instructional laboratories). A listing of Ann Arbor campus buildings that contain instructional space is included at the end of this section.

#### Enforcing Agency —

State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Fire Safety Plan Review Division 525 W Allegan 4th Floor Lansing, MI. 48913-0001 (517) 241-8847

Administrative rules web site:

https://www.michigan.gov/documents/lara/4-SCHOOL Main Page Web 662718 7.pdf

**State of Michigan Human Services for Child Care in a Child Care Center** Promulgated by the State of Michigan Human Services. Note that this standard applies only to fire compartments of buildings which contain child care centers. A listing of Ann Arbor campus buildings that contain Child Care Centers is included at the end of this section.

#### **Enforcing Agency** —

State of Michigan Department of Human Services PO Box 30759 Lansing, MI. 48909-8150 (517) 241-2488

#### Administrative rules:

https://www.michigan.gov/lara/0,4601,7-154-89334\_63294\_5529\_49572\_49581-337881--,00.html

State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Child Care Section PO Box 30700 Lansing, MI. 48909

Application form for Child Care Plan Review:

https://www.michigan.gov/documents/lara/BCHS-FS-

13 10 15 fillable Child Section Application 509689 7.pdf

Michigan Rehabilitation Code for Existing Buildings 2015 (adopted April 20, 2017) promulgated by the State of Michigan Department of Licensing and Regulatory Affairs Bureau of Construction Codes. Including Rule R408.30551 Rule 551 and R408.30552 Rule 552 as printed on the interior cover of the Michigan Rehabilitation Code for Existing Buildings. By local rule, the following exceptions/modifications are applied to the Michigan Rehabilitation Code Chapter 7:

Chapter 3 add Section 306 Accessibility for Existing Buildings 306.7.15 Adult Changing Stations.

Where additional toilet facilities are being added, in occupancies where adult changing stations are required by 1109.3A of the Michigan Building Code, not fewer than one accessible family or assisted toilet room with an adult changing station shall be provided in accordance with Section 1109.3A of the Michigan Building Code. The adult changing station shall be permitted to be located in a single use family or assisted-use toilet room or bathing room.

#### Chapter 7 Section 705 Article 705.2, add the following:

When exterior accessible entrances are altered by level 1 or higher alterations/renovations where not already existing provide at that public entrance at least one entrance door complying with Section 404.3 (Automatic and Power-Assisted Doors and Gates) of the ABAAS. Where an accessible public entrance has a vestibule with exterior and interior entrance doors, at least one exterior door and one interior door must comply with Section 404.3

#### **Enforcing Agency** —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

**International Fire Code 2015 (adopted April 20, 2017)** promulgated by the International Code Council as referenced in the Michigan Building Code.

## **Enforcing Agency** —

University of Michigan EHS Fire Marshal.

1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 615-2718

State of Michigan Occupational Safety and Health Standards (MIOSHA) (Filed many different dates) Contact U of M Department of Environment, Health, and Safety for projects involving toxic and/or hazardous materials.

Contact UM Department of Environment, Health, and Safety (EHS) for projects affecting worker safety issues, such as work conditions resulting in exposure conditions to air contaminants, noise, ergonomic hazards, blood borne pathogens, ionizing, or nonionizing radiation, and potential for exposure to worker falls, electrical hazards, excavations.

Additional information is at web site: <a href="http://ehs.umich.edu/plans-guidelines/">http://ehs.umich.edu/plans-guidelines/</a>

### Enforcing Agency —

Michigan Department of Licensing and Regulatory Affairs Michigan Occupational Safety & Health Administration (MIOSHA) 530 W. Allegan Street P.O. Box 30643 Lansing, MI 48909-8143 (800) 866-4674

Web Site: <a href="https://www.michigan.gov/leo/bureaus-agencies/miosha">https://www.michigan.gov/leo/bureaus-agencies/miosha</a>

## **Transmitting or Broadcasting Antenna**

Transmitting antenna installations operating on any frequency between 300 kHz to 100 GHz must meet FCC radiofrequency (RF) occupational and general public emission limits. 47 CFR 1.1301 - 1.1320. The emission limits are specified in 47 CFR 1.1310. FCC licensees must be prepared to demonstrate compliance with those emission limits or will be required to submit environmental assessments for review and approval by the FCC. In addition, MIOSHA regulates worker exposure to RF radiation both with a specific standard and under its general duty clause. Michigan Administrative Code R325.60701 et seq and MCL 408.1011 of the Michigan Occupational Safety and Health Act 154 of 197.

https://www.fcc.gov/general/fcc-policy-human-exposure

## State of Michigan Elevator Code (2016 and 2017 Editions) (Effective June 27, 2023)

(Incorporating by reference the Michigan rules and exceptions for the adoption of ASME A17.1 2016 Safety Code for Elevators and Escalators, the ASME A17.2 2017 Guide for Inspection of Elevators, Escalators, and Moving walks, the ASME 17.3-2017 safety code for existing elevators and escalators, the ASME A17.6-2017 Standard for Elevator Suspension, Compensation and Governor Systems, the ASME A18.1-2017 Safety Code Standard for Platform Lifts, and Stairway Chairlifts, ASME A90.1-2009 Safety Standard for Belt Manlifts, and ANSI A10.4-2016 safety requirements for personnel hoist and employee elevators for construction and demolition and operations.)

**Enforcing Agency** —

State of Michigan Department of Licensing and Regulatory Affairs

Bureau of Construction Codes Elevator Safety Division PO Box 30254 Lansing, MI. 48909 (517) 241-9337

Refer to Design Guidelines for additional requirements on Elevators.

Web site for State of Michigan Elevator codes: <a href="http://www.michigan.gov/lara/0,4601,7-154-35299">http://www.michigan.gov/lara/0,4601,7-154-35299</a> 10575 17394 17420---,00.html

State of Michigan Mechanical Code 2021 Part 9a Mechanical Code Rules (Adopted March 12, 2024) (incorporating International Mechanical Code 2021 and Michigan amendments) promulgated by State of Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes.

Add to Table 403.3.11 Minimum Ventilation Rates: Occupancy classification- Room with adult changing station. Exhaust Airflow Rate CFM/square foot a - 50/70 e.

- 1. Table 403.3.1.1 Footnote a: Based on net occupiable floor area
- 2. Table 403.3.1.1 Footnote e: Rates are per water closet, urinal or adult changing station. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted only where the exhaust system is designed to operate continuously while occupied.

#### **Enforcing Agency** —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

#### Web site for Part 9a:

https://ars.apps.lara.state.mi.us/AdminCode/DeptBureauAdminCode?Department=Licensing%20and%20Regulatory%20Affairs&Bureau%20of%20Construction%20Codes

State of Michigan Plumbing Code 2021 Part 7 Plumbing Code Rules (Adopted March 12, 2024) (Incorporating International Plumbing Code 2021 and Michigan amendments) promulgated by State of Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes. By local rule the following modifications are applied to the Michigan Plumbing Code articles:

403.1.2 Single-user toilet and bathing room fixtures. The plumbing fixtures located in single-user toilet and bathing rooms, including family or assisted-use toilet and bathing rooms that are required by Section 1109.2.1 of the Michigan Building Code, shall contribute toward the total number of required plumbing fixtures for a building or tenant space. Single-user toilet and bathing rooms, and family or assisted-use toilet rooms and bathing rooms shall be identified as being available for use by all persons regardless of their sex. The total number of fixtures shall be permitted to be based on the required number of separate facilities or based on the aggregate of any combination of single-user or separate facilities.

## 403.2 Separate facilities.

Where plumbing fixtures are required, separate facilities shall be provided for each sex. Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.

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- 2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.
- 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
- 4. Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.
- 5. Separate facilities shall not be required to be designated by sex where single-user toilet rooms are provided in accordance with Section 403.1.2. If more than one are required by plumbing calculations provide distribution of men, women and gender inclusive so restrooms are available within 500 feet of travel and traversing no more than one floor.
- 6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for the use by both sexes and privacy for water closets is provided in accordance with Section 405.3.4. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided is located in a stall. Provide distribution of men, women, and gender inclusive so separate restrooms are available within 500 feet of travel and traversing no more than one floor.
- 607.1 (2) (h): A 1070 mixing valve is permitted to control up to 5 accessible plumbing fixtures within the same room, The 1070 mixing valve shall be certified for a minimum flow rate of 1/2 GPM or less.
- 312.2 Drainage and vent water test. A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but no section shall be tested with less than a 10-foot (3048 mm) head of water. In testing successive sections, at least the upper 10 feet (3048 mm) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 10 feet (3048 mm) of the system, shall have been submitted to a test of less than a 10-foot (3048 mm) head of water. This pressure shall be held for not less than 15 minutes. The system shall then be tight at all points "

#### **Enforcing Agency** —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

#### Web site for Part 7:

 $\frac{https://ars.apps.lara.state.mi.us/AdminCode/DeptBureauAdminCode?Department=Licensing\%20 and \\ \%20 Regulatory\%20 Affairs\&Bureau\#Bureau\%20 of\%20 Construction\%20 Codes$ 

#### NFPA 13 –Sprinkler Systems (2013 Edition)

The 2010 edition of NFPA 13 is incorporated by reference in the edition of NFPA 101 incorporated by the current State of Michigan Bureau of Fire Services rules for Schools, Colleges, Hospitals, and Universities. The Bureau of Construction Codes and Fire Safety permits use of more current versions of NFPA 13 with some limitations. Contact the Bureau of Fire Services for specifics.

# **Enforcing Agency** —

Project jurisdiction NFPA 101: State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Plan Review/Fire Safety 300 N. Washington Square Lansing, MI. 48913 (517) 241-8847

Project jurisdiction MBC: University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

State of Michigan Electrical Code 2023 Part 8 Electrical Code Rules (Adopted March 12, 2024) (Incorporating NFPA 70 – National Electrical Code (2023 Edition) and Michigan Amendments) promulgated by State of Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes.

By local rule the following exceptions/modifications are applied to the Michigan Electrical Code:

Michigan Electrical Code Article 80: Article 80 of the Michigan Electrical Code applies with the following exceptions/modifications:

80.15 Electrical Board: Modify "electrical board" to "UM Building Code Committee".

80.25 Connection to Electrical Supply: Modify language to read as follows: "80.25. Connection to electricity supply. Connections to the electric supply shall conform to the following: It is unlawful for any person, firm, or corporation to make connection to a supply of electricity or to supply electricity to any electrical equipment installation for which permission from UM Electrical Utilities Engineering Group is required or that has been disconnected or ordered to be disconnected."

NEC 2023 Sections 700.32 and 701.32: The University may deviate from full selectivity (overcurrent protective device coordination within the emergency generator distribution system) in order to lower arc-flash energy levels for worker safety. All such deviations from full selectivity will be designed by, and reviewed by, registered professional engineers. Deviation shall be presented to the U-M project team and may require approval from U-M AHJ.

#### **Enforcing Agency** —

University of Michigan Environment, Health & Safety Department (EHS) and Architecture, Engineering and Construction (AEC)

#### Web site for Part 8:

https://ars.apps.lara.state.mi.us/AdminCode/DeptBureauAdminCode?Department=Licensing%20and%20Regulatory%20Affairs&Bureau\*Bureau%20of%20Construction%20Codes

# NFPA 72 – National Fire Alarm Code (2013 edition)

The 2010 edition of NFPA 72 is incorporated by reference in the edition of NFPA 101 incorporated by the current State of Michigan Bureau of Fire Services Administrative Rules for New and Existing School, College, and University Fire Safety and Dormitory Fire Safety. The Bureau of Fire Services allows the use of new versions of NFPA 72 with some limitations. Contact the Bureau of Fire Services for specifics

## Enforcing Agency —

Project jurisdiction NFPA 101:

State of Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services, Plan Review/Fire Safety 300 N. Washington Square

Lansing, MI. 48913 (517) 241-8847

By local rule, smoke and heat detectors are not required above suspended ceilings.

## Enforcing Agency —

Project jurisdiction MBC: University of Michigan Architecture, Engineering and Construction

Guide for the Care and Use of Laboratory Animals 8th Edition 2011 (effective January 1, 2012) promulgated by United States Department of Health and Human Services. Regulations of the Federal Animal Welfare Act 9, CFR Parts 1, 2 and 3.

## Enforcing Agency —

University of Michigan Unit for Laboratory Animal Medicine. University of Michigan Environment, Health & Safety.

Web site for the Guide for the Care and Use of Laboratory Animals 8th edition 2011: http://grants.nih.gov/grants/olaw/Guide-for-the-Care-and-Use-of-Laboratory-Animals.pdf

Web site for Federal Animal Welfare Act 9 CFR:

Parts 1, 2, and 3: https://www.nal.usda.gov/awic/final-rules-animal-welfare-9-cfr-parts-1-2-and-3

Refer to "Animal Facilities Design Criteria and Special Requirements" contained in The University of Michigan Design Guidelines.

State of Michigan Rules for Soil Erosion & Sedimentation Control Promulgated by the State of Michigan Department of Environment, Great Lakes, and Energy (EGLE) Soil Erosion and Sedimentation Control Part 91 of Public Acts 451 of 1994 as amended. The University of Michigan Environment, Health, and Safety (EHS) department is approved by the EGLE as an 'Authorized Public Agency' to enforce the soil erosion and sedimentation control on University of Michigan property. Refer to University of Michigan Design Guidelines Section 31 - Soil Erosion and Sedimentation Control for additional requirements.

# **Enforcing Agency** —

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

# Corresponding web site—

Soil Erosion and Sedimentation Control: https://ehs.umich.edu/constructionprojects/environmental-considerations/erosion-management/

# State of Michigan Working in and around Regulated Waters, such as Floodways and Floodplains, Streams, Rivers, Ponds, and Wetlands

The State of Michigan Department of Environment, Great Lakes, and Energy (EGLE) has rules that require permitting where the land and water interface. Please see the link below for Parts of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended and Rules that are administered by the EGLE Water Resource Division and permitted through obtaining an approved EGLE/USACE Joint Permit Application.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

## **Enforcing Agency**—

Federal Emergency Management Agency (FEMA) and/or Michigan's Department of Environment, Great Lakes, and Energy (EGLE) Water Resources Division 301 E. Louis Glick Highway Jackson, MI 49201-1556

#### Corresponding Guideline —

Applicable Regulations: https://www.michigan.gov/egle/about/organization/water-resources/joint-permit-application/applicable-regulations

# State of Michigan Issued NPDES Permit

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18, The University of Michigan (U-M) is authorized to discharge storm water from the municipal separate storm sewer system (MS4) operated by the U-M in various locations in Michigan, and is designated as an MS4 in accordance with the conditions set forth in U-M's National Pollutant Discharge Elimination System (NPDES) permit with the State of Michigan's, Department of Environment, Great Lakes, and Energy (EGLE). Per the NPDES permit, projects that disturb greater than one acre of land must meet certain post-construction storm water management requirements. Contact EHS EP3 as soon as possible, at the beginning of a project, to discuss this requirement.

Please note that the City of Ann Arbor may also require post-construction storm water management, above what is required by the U-M's NPDES permit, including areas disturbing less than 1 acre. This will be between the City and the Project, with input and coordination from EHS and the U-M Planner.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

# Corresponding Guideline —

Storm water Management – Post-Construction Requirements: <a href="http://ehs.umich.edu/construction-projects/environmental-considerations/storm-water-management/">http://ehs.umich.edu/construction-projects/environmental-considerations/storm-water-management/</a>

#### **Enforcing Agency**—

Michigan Department of Environment, Great Lakes, and Energy (EGLE) Jackson State Office Building 301 E. Louis Glick Highway 4th Floor, Jackson, MI 49201 517-780-7929

EGLE Web Site: https://www.michigan.gov/egle/about/organization/water-resources/municipal-storm-water

## State of Michigan Contaminated Soil and Groundwater

In compliance with Michigan Public Act 451, Part 201 (Environmental Remediation) owners/operators of properties where soil or groundwater is present above Part 201 Generic Residential Criteria have due care requirements. Due Care requirements include undertaking measures, as necessary, to prevent exacerbation of existing contamination, undertaking response activities to mitigate unacceptable exposures to contamination, taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party, complying with any land use or resource use restrictions, and not impeding with the effectiveness or integrity of such restrictions.

Contact EHS EP3 as soon as possible, at the beginning of a project, to discuss any known contamination, recommended assessments, scheduling, compliance requirements, and budget development to evaluate possible contamination or manage known contamination.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

#### Enforcing Agency—

Michigan Department of Environment, Great Lakes, and Energy Remediation and Redevelopment Division P.O. Box 30426 Lansing, MI 48909-7926 517-335-6843

EGLE Web Site: https://www.michigan.gov/egle/about/organization/remediation-and-redevelopment

# State of Michigan Leaking Underground Storage Tanks

In compliance with Michigan Public Act 451, Part 213 (Leaking Underground Storage Tanks) owners/operators of underground storage tanks have requirements during the removal of underground storage tank systems to evaluate if a release to the environment has occurred. Tank removal contractors are typically obtained and managed by U-M EHS.

Contact EHS EP3 as soon as possible at the beginning of a project to discuss any tank removals, recommended assessments, scheduling, compliance requirements, and budget development.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

# **Enforcing Agency**—

Michigan Department of Environment, Great Lakes, and Energy Remediation and Redevelopment Division P.O. Box 30033 Lansing, MI 48909 (517) 332-1428

EGLE Web Site: http://www.michigan.gov/deq/0,1607,7-135-3311 4109 4215---,00.html

#### **State of Michigan Underground Storage Tanks (UST)**

(Permitting only, commissioning by AEC) In compliance with Michigan Public Act 451, Part 211 (Underground Storage Tank Rules), Michigan Underground Storage Tank Rules, and/or Storage and Handling of Flammable and Combustible Liquids Rules the owners/operators of underground storage tanks have requirements for the design, construction, installation, maintenance, and removal of tank systems.

Contact EHS EP3 as soon as possible at the beginning of a project to discuss tank plans, scheduling, compliance requirements, and budget development.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

#### **Enforcing Agency**—

Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services Storage Tank Division P.O. Box 30033 Lansing, MI 48909 (517) 332-1428

EGLE Web Site: http://www.michigan.gov/lara/0,4601,7-154-35299 42271 4115 4238---,00.html

# State of Michigan Aboveground Storage Tanks (AST)

(Permitting only, commissioning by AEC) In compliance with Michigan Public Act 207, Parts 2 through 5 of the rules the Aboveground Storage Tank (AST) Program regulates the following:

- storage and handling of flammable and combustible liquids with flash point less than 200 degrees Fahrenheit.
- storage and handling of liquefied petroleum gases
- compressed natural gas vehicular systems

The regulatory authority is from the Fire Prevention Code, 1941 PA 207, as amended. Contact EHS EP3 as soon as possible at the beginning of a project to discuss tank plans, scheduling, compliance requirements, and budget development.

## Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

#### **Enforcing Agency**—

Michigan Department of Licensing and Regulatory Affairs Bureau of Fire Services Storage Tank Division P.O. Box 30033 Lansing, MI 48909 (517) 332-1428

Michigan AST Web Site <a href="http://www.michigan.gov/lara/0,4601,7-154-35299\_42271\_4115\_4237----">http://www.michigan.gov/lara/0,4601,7-154-35299\_42271\_4115\_4237----</a>,00.html

## **Emergency Generators**

(Permitting only, commissioning by AEC) Pending on size, fuel usage, status, reciprocating internal combustion engines are regulated per the Environmental Protection Agency and EGLE. There are design requirements, potential permit requirements, maintenance/recordkeeping requirements and initial notification that need to be met and submitted within 120 days of startup.

Contact EHS EP3 as soon as possible at the beginning of a project to discuss plans, scheduling, compliance requirements, and budget development.

# Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

#### **Enforcing Agencies**—

Michigan Department of Environment, Great Lakes, and Energy 525 West Allegan Street Lansing, MI 48909 Environmental Protection Agency Air and Radiation Division Chicago, IL

EGLE Website (RICE):

https://www.michigan.gov/egle/about/organization/air-quality/air-Compliance



#### **Boilers**

(Air permitting only, commissioning by AEC) Pending on size, fuel usage, status, boilers are regulated per the Environmental Protection Agency and EGLE. There are design requirements, potential permit requirements, maintenance/recordkeeping requirements and initial notifications that need to be met and submitted within 15 days of startup. Contact EHS EP3 as soon as possible at the beginning of the project to discuss plans, schedules, and compliance requirements.

## Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

# **Enforcing Agencies**—

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division 525 West Allegan Street Lansing, MI 48909

EGLE Website: https://www.egle.state.mi.us/BoilerTool/

Environmental Protection Agency Air and Radiation Division Chicago, IL

EPA Boiler Q & A Website: <a href="https://www.epa.gov/sites/default/files/2016-09/documents/boilermactganda.pdf">https://www.epa.gov/sites/default/files/2016-09/documents/boilermactganda.pdf</a>

## **Chemical Storage**

Per the MI Part 5 Rules, Spillage of Oil and Polluting Materials, 1994 PA 451, R 324.2001 to R 324.2009, requires secondary containment and Pollution Incident Prevention Plan if bulk salt, chemical, or oil storage exceeds the threshold management quantity. Contact EHS EP3 as soon as possible at the beginning of a project to discuss plans, scheduling, compliance requirements, and budget development.

# Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

## **Enforcing Agencies**—

Michigan Department of Environment, Great Lakes, and Energy Water Bureau Jackson District Office 301 E. Louis Glick Highway Jackson, MI 49201

EGLE Website:

 $\underline{https://www.michigan.gov/egle/-media/Project/Websites/egle/Documents/Programs/draft/deq-ead-tas-pipp5summary.pdf}$ 

#### **Installation of Non-Potable Wells (including geothermal wells)**

The installation of non-potable wells (including geothermal wells) within Washtenaw County requires the submittal of an Application for Non-Potable Well Project with the Washtenaw County Health Department - Environmental Health Division. The application is typically prepared by the driller or consultant, but is reviewed by the University of Michigan – Environmental Health & Department prior to submittal. The application and list of required components can be here at the website referenced below: The U-M EHS Department can provide information regarding known wells and sources of environmental contamination at a site for inclusion in the application. Installation of any wells within Washtenaw County shall follow the Washtenaw County Rules & Regulations For The Protection Of Groundwater, 2004, as amended.

#### Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting Program (EP3) 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1143

#### **Enforcing Agencies**—

Washtenaw County Health Department Environmental Health Division 705 Zeeb Road Ann Arbor Mi 48103

## Corresponding web sites:

https://www.washtenaw.org/3004/Installing-a-Well-in-Washtenaw-County

https://www.washtenaw.org/DocumentCenter/View/12023/Washtenaw-County-Rules-and-Regulations-for-the-Protection-of-Groundwater-PDF

https://www.washtenaw.org/DocumentCenter/View/4445/Application-for-Non-Potable-Well-Project-PDF

# Building Standards for University of Michigan construction that are required for subsequent licensing of the facility

# State of Michigan Department of Licensing and Regulatory Affairs, Division of Heath Facilities and Services

The Health Facilities Engineering Section (HFES) Facility Guidelines Institute (FGI) 2018 edition of Guidelines for Design & Construction of Hospitals; Outpatient Facilities; and Residential Health Care and Support Facilities in Michigan. Including all the included referenced codes and standards as listed within these rules, including but not limited to NFPA 99, NFPA 101, and other NFPA and ASHRAE standards. This document for administrative rules are posted at:

https://dtmb.state.mi.us/ARS\_Public/AdminCode/DeptBureauAdminCode?Department=Licensing%2 0and%20Regulatory%20Affairs&Bureau=Bureau%20of%20Community%20and%20Health%20Systems

State of Michigan HFES website:

https://www.michigan.gov/lara/0,4601,7-154-89334 63294 79842 80018---,00.html

All areas used by inpatients, and all areas within state jurisdiction, are to be designed to comply with HFES regulations. In general, all areas used by outpatients that fall outside HFES jurisdiction are to be designed to comply with HFES regulations. Any areas of noncompliance should be reviewed and approved by the Michigan Medicine (MM) Design Manager.

HFES is the AHJ over all Inpatient Health Care Occupancies (defined as "Health Care Facilities" by NFPA and "I-2" by MBC. Further they are the AHJ over some "Ambulatory Health Care" Occupancies, including Outpatient Surgery and Outpatient Dialysis. The occupancy classification of "Ambulatory Health Care" needs to be carefully reviewed with the MM Design Manager. Not all AHC occupancies are subject state and federal regulatory authorities.

For assistance in determining which projects are subject to HFES plan review and inspection, MM has developed a series of spreadsheets available on the MM FPD website at MBFS HFES Pan Review Guideline. This has been reviewed by HFES, however it is not intended to replace professional judgment. Jurisdiction should be verified with HFES directly when it is not clear. Affirm decisions with the MM Design Manager.

## **Enforcing Agency**—

Michigan Department of Licensing and Regulatory Affairs Health Facilities Division, Health Facilities Engineering Section Ottawa Building – 1<sup>st</sup> Floor 611 W. Ottawa Street Lansing, MI 48933 Office #: 517-241-3408

HFES Website: <a href="http://www.michigan.gov/hfes">http://www.michigan.gov/hfes</a>

#### Biosafety in Microbiological and Biomedical Laboratories (BMBL)

An advisory document recommending best practices for the safe conduct of work in biomedical and clinical laboratories from a biosafety perspective. It is used for building design standards, grant, and contract requirements for laboratories that handle infectious microorganisms and hazardous biological materials or animals. Each biosafety laboratory must, at a minimum, meet the requirements for laboratory facilities as stated in the BMBL.

#### Coordinating Agency—

University of Michigan EHS Biosafety 1239 Kipke Dr. Ann Arbor, MI 48109-1010 (734) 647-3133

## Coordinating Agency—

Center for Disease Control and Prevention

1600 Clifton Road Atlanta, GA 30329-4027 (800)232-4636

Web Site: https://www.cdc.gov/biosafety/publications/bmbl5/BMBL.pdf

## **Center for Medicare and Medicaid Services (CMS)**

As defined at <a href="http://www.cms.gov/">http://www.cms.gov/</a>. Compliance with NFPA 101, Life Safety Code, currently enforced version (2012 as of July 5, 2016) is required.

CMS is a federal agency that administers Medicare, works with states on Medicaid. It surveys and certifies Health Care facilities and labs for reimbursement, including Outpatient Surgery and Outpatient Dialysis. CMS also issues Survey and Certification memos and clarifications, including "Categorical Waivers" that the facility may choose to adopt. CMS requires facilities built before 2016 to comply with "Existing Health Care" and "Existing Ambulatory Health Care" chapters of NFPA 101. Facilities built after 2016 and all renovations are to comply with "New Health Care" and "New Ambulatory Health Care."

## The Joint Commission Requirements for Accreditation of Health Care Facilities

As defined at <a href="http://www.jointcommission.org/">http://www.jointcommission.org/</a>. The Joint Commission (TJC) is the largest and most recognized accreditation organization that the state and CMS recognize for licensure and reimbursement. TJC surveys to the codes adopted by CMS and has established requirements based on CMS standards. MM Accreditation staff may participate in design reviews of MM clinical projects to ensure compliance with TJC and CMS requirements.

State of Michigan, MIOSHA--Radiation Safety Section / United States Nuclear Regulatory Commission All projects which include ionizing radiation-producing equipment or devices used for clinical or research use. All electronic equipment producing ionizing radiation must be registered with the MIOSHA through EHS/Radiation Safety Service prior to initial use. Irradiators or other similar devices using or producing radioactive materials for clinical or research use will require licensing by the U.S. Nuclear Regulatory Commission in advance. Approvals for registration or licensing may also require submitting shielding construction plans for prior approval by MIOSHA-Radiation Safety Section or the U.S. Nuclear Regulatory Commission depending on the type of equipment used and nature of the facility. Contact UM EHS / Radiation Safety Service for assessment.

**Enforcing Agency**—

Radiation Safety Section
Michigan Occupational Safety and Health Administration (MIOSHA)

525 W. Allegan Street P.O. Box 30643 Lansing, Michigan 48933 Phone: (517) 284-7820

Website: http://www.michigan.gov/lara/0,4601,7-154-11407 35791---,00.html



# **University of Michigan Leased Health Care Facilities**

MM leases many facilities which are subject to local municipal jurisdiction, in addition to MM Design Guidelines and Preferred Manufacturer's List (PML). For more information on ownership status and physical addresses for all buildings, please consult with the MM Design Manager.

Website: http://www.med.umich.edu/facilities/plan/vn/index.html

# Toxic and/or Hazardous Materials at University of Michigan Health Care Facilities

Contact MM Safety Management Services for projects involving toxic and / or hazardous materials.

## Coordinating Agency —

Michigan House 2301 Commonwealth Blvd Floor 2 SPC 2945 Ann Arbor, MI 48105 (734) 764-4427

Email: safetymgmt-safety@med.umich.edu

# Aviation, Pharmacy, Psychology, and Pathology, etc.

Consult corresponding clinical department for information on additional regulatory agencies including but not limited to the list above.

### State of Michigan Rules for Construction or Renovation of Food Service Facilities

Promulgated by the State of Michigan Department of Agriculture and Rural Development (Food and Dairy Division). Act 92, Food Law which incorporates by reference chapters 1 through 8 of the 2009 Michigan Modified Food and Drug Administration Food Code. Visit the University of Michigan Department of Environment, Health & Safety website <a href="http://ehs.umich.edu/construction-projects/food-service-facilities/">http://ehs.umich.edu/construction-projects/food-service-facilities/</a> for instruction sheet information and a copy of the Plan Review Packet and Worksheet that must be completed prior to starting a project. The University of Michigan Environment, Health & Safety (EHS) Department is the enforcing agency with authorization provided by the Washtenaw County Environmental Health Department.

## **Enforcing Agency**—

University of Michigan EHS Operational Health and Safety 1239 Kipke Dr. Ann Arbor, MI. 48109-1010

(734) 647-1142

#### State of Michigan Rules for Construction or Renovation of Swimming Pools

Promulgated by the State of Michigan Department of Environmental, Great Lakes and Energy. Michigan's Public Health Code, <u>Public Act 368 of 1978</u>, <u>Part 125</u> which is supplemented with the Administrate rules for <u>Public Swimming Pools</u>. Contact University of Michigan Department of Environment, Health & Safety for information. The University of Michigan Environment, Health & Safety (EHS) Department is the enforcing agency with authorization provided by the Washtenaw County Environmental Health Department.

**Enforcing Agency**—

University of Michigan EHS Operational Health and Safety 1239 Kipke Dr. Ann Arbor, MI. 48109-1010 (734) 647-1142

Also see 15010 "Basic Mechanical Requirements" for additional codes and standards applicable to mechanical work on University projects.

State of Michigan Department of Environment, Great Lakes, and Energy (EGLE) (Filed many different dates) Contact U of M Department of Environment, Health & Safety for information on environmental regulatory requirements. All project specific communication with the enforcing agency must be through or coordinated with the U of M Environment, Health & Safety Department.

# Coordinating Agency—

University of Michigan EHS

Environmental Protection and Permitting Program (EP3)

1239 Kipke Dr.

Ann Arbor, MI 48109-1010

(734) 647-1143

EHS Web Site: <a href="http://ehs.umich.edu/">http://ehs.umich.edu/</a>

- Environmental Protection: <a href="http://ehs.umich.edu/construction-projects/environmental-considerations/">http://ehs.umich.edu/construction-projects/environmental-considerations/</a>
- Air permitting (generators, boilers, refrigeration units):

http://ehs.umich.edu/environmental/air/

• Power washing and discharge to ground:

http://ehs.umich.edu/environmental/water/powerwashing/

- Remediation: <a href="http://ehs.umich.edu/construction-projects/environmental-considerations/remediation/">http://ehs.umich.edu/construction-projects/environmental-considerations/remediation/</a>
- Storage Tanks: <a href="http://ehs.umich.edu/construction-projects/environmental-considerations/storage-tanks/">http://ehs.umich.edu/construction-projects/environmental-considerations/storage-tanks/</a>
- Threatened and Endangered Species: <a href="http://ehs.umich.edu/construction-projects/environmental-considerations/endangered-species/">http://ehs.umich.edu/construction-projects/environmental-considerations/endangered-species/</a>
- Wetlands: <a href="http://ehs.umich.edu/environmental/wetlands/">http://ehs.umich.edu/environmental/wetlands/</a>

#### Enforcing Agency—

Michigan Department of Environment, Great Lakes, and Energy 525 West Allegan Street P.O. Box 30473
Lansing, MI 48909-7973
(800) 662-9278

EGLE Web Site: <a href="http://www.michigan.gov/deq">http://www.michigan.gov/deq</a>

# **United States Environmental Protection Agency (USEPA)**

(Filed many different dates), which is Title 40 of the Code Federal Regulations. Contact U-M Department of Environment, Health & Safety for information on environmental regulatory requirements. All project specific communication with the enforcing agency must be through or coordinated with the U of M Environment, Health & Safety department.

# Coordinating Agency—

University of Michigan EHS Environmental Protection and Permitting (EP)

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1239 Kipke Dr. Ann Arbor, MI 48109-1010 (734) 647-1143

EHS Web Site: http://ehs.umich.edu/

## **Enforcing Agency**—

United States Environmental Protection Agency Region 5 (IL, IN, MI, MN, OH, WI) 77 West Jackson Boulevard Chicago, IL 60604-3507 (312) 353-2000

USEPA Web Site: <a href="http://www.epa.gov/">http://www.epa.gov/</a>

#### Federal Aviation Administration (FAA)

Any construction or alteration projects must provide notice to FAA if they meet certain criteria. All projects that meet the criteria noted in FAA Title 14: Aeronautics and Space, Part 77- Safe, Efficient Use, and Preservation of the Navigable Airspace must file notice with FAA at least 45 days prior to start date of proposed construction or alteration.

## **Enforcing Agency—**

U.S. Department of Transportation Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591 (866) 835-5322

FAA Web Site: http://www.faa.gov/

OE/AAA Filing Web Site: https://oeaaa.faa.gov/oeaaa/external/portal.jsp

# **University of Michigan Buildings That Contain Instructional Space**

(Based on M-Pathways GQL database for rooms with type code 110 or 210)

()\* Indicates compartment of jurisdiction. Note egress from compartment; fire alarm & fire suppression for entire bldg are BFS.

#### BLDG NO BLDG NAME

5179 202 SOUTH THAYER 0333 400 NORTH INGALLS BUILDING

0879 555 SOUTH FOREST BUILDING

0188 1100 NORTH UNIVERSITY BUILDING 5037 A. A. TAUBMAN BIOMEDICAL SCIENCE RESEARCH

BUILDING (Auditorium)\*

0421 AERO ENG - WIND TUNNEL LAB (FA/FS only) 0425 AERO ENG - PLASMA RESEARCH (FA/FS only)

#### BLDG NO BLDG NAME

1077 DEARBORN SOCIAL SCIENCES BUILDING 0162 DENTAL AND W K KELLOGG INSTITUTE\*

0447 DOW, HERBERT H BUILDING

0396 DUDERSTADT JAMES AND ANNE CENTER (2 & 3)\*

0166 EAST HALL

0054 EAST QUADRANGLE

0221 EDUCATION, SCHOOL OF

0448 ELECTRICAL ENG & COMPUTER SCI BLDG

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0422 AERO ENG - PROPULSION LAB (FA/FS only) 0423 AERO ENG – PUMPING STATION (FA/FS only) 0168 ANIMAL RESEARCH FACILITY 0206 ANGELL HALL ADDITION-AUDITORIUMS 0175 ANGELL HALL ADDITION-HAVEN HALL 0197 ANGELL HALL ADDITION-MASON HALL 0152 ANGELL JAMES B HALL & TISCH HALL 0831 ARGUS II 0432 ART & ARCHITECTURE BUILDING 0395 BAGNOUD, FRANCOIS-XAVIER BUILDING 5092 BESTER, BOB & BETTY BUILDING 5169 BIOLOGICAL SCIENCE BUILIDNG\* 4016 BIOLOGICAL ST BLANCHARD 4010 BIOLOGICAL ST CORT LABORATORY 4018 BIOLOGICAL ST CREASER LABORATORY 4005 BIOLOGICAL ST FOREST LABORATORY 4011 BIOLOGICAL ST HOUGHTON LAB 4013 BIOLOGICAL ST HUNGERFORD LAB 4037 BIOLOGICAL ST LECTURE HALL 4019 BIOLOGICAL ST NEWCOMBE LAB 4015 BIOLOGICAL ST PETTINGILL LAB 4017 BIOLOGICAL ST REIGHARD LAB 4039 BIOLOGICAL ST SPARROW LABORATORY 4096 BIOLOGICAL ST STOCKARD LABORATORY 4012 BIOLOGICAL ST WELCH LABORATORY 4171 BIOLOGICAL ST RESIDENCE HALL 5370 BLAU, JEFF T. HALL (B, 1, 2, 3, & 5 Flrs)\* 0407 BROWN, G G LABORATORY 0210 BUHL RES CEN FOR HUMAN GENETICS 0155 BURTON MEMORIAL TOWER 5451 CENTRAL CAMPUS CLASSROOM BUILDING 0226 CENTRAL CAMPUS REC BLD&BELL POOL 0158 CHEMISTRY & DOW W H LAB 0443 CHRYSLER CNTR CONT ENGINEER ED 0441 CLIMATE AND SPACE RESEARCH BUILDING 0403 COOLEY, MORTIMER E MEMORIAL 0189 DANA, SAMUEL TRASK BUILDING 5439 DANCE BUILDING 0198 DETROIT OBSERVATORY ADDITION\* 1012 DB ADMIN & STUDENT ACTIVITIES BLDG 1020 DEARBORN CASL ANNEX & FAIRLANE APT 1080 DEARBORN COL ARTS SCIENCE & LETTERS 8049 DEARBORN COMMERCE PARK 1011 DEARBORN COMPUTER & INFOR SCIENCE 1013 DEARBORN ENGINEERING LAB BLDG 1076 DB ENVIRONMENTAL INTERPRET CTR 5459 DB FAIRLANE CENTER - NORTH 5128 DEARBORN FAIRLANE CENTER - SOUTH 1017 DB FIELD HOUSE AND WELLNESS CENTER 1065 DEARBORN MARDIGIAN LIBRARY 1078 DB PROFESSIONAL EDUCATION CENTER 1079 DEARBORN SCI BLDG-COMPUTING WING 1009 DB SCIENCE, CLASSROOM & ADMIN.

0435 ENGINEERING RES BLDG I (FA only)\* 0436 ENGINEERING RESEARCH BUILIDNG II 0414 ENVIRONMENTAL & WATER RES ENG BL 5418 FORD MOTOR COMPANY ROBOTICS BUILDING 0733 FISHER RAY BASEBALL STADIUM (1100, 1120, 1140, 1651 FLINT HARRISON PARKING RAMP\* 1650 FLINT DAVID FRENCH HALL 1649 FLINT FRANCES WILLSON TOMPSON LIBRARY 5017 FLINT NORTHBANK CENTER 1664 FLINT UNIV PAVILION ANNEX 1630 FLINT WM R MURCHIE SCIENCE BLDG 1694 FLINT WILLIAM S WHITE BUILDING 0234 FRANCIS, THOMAS JR PUBLIC HEALTH 0437 GERSTACKER, CARL A BLDG (FA only)\* 0424 GORGUZE FAMILY LABORATORY 0897 HEALTH MANAGEMENT RESEARCH 0179 HUTCHINS HALL (All areas except Aikens Commons & Café Room 150)\* 0429 INDUSTRIAL & OPERATIONS ENGIN BLDG 5235 JEFFRIES HALL 0324 KELLOGG, W K EYE CENTER 0851 KINESIOLOGY BUILDING (Stair S01, Rooms 1100, 2100, 0211 KRAUS, EDWARD HENRY BUILDING 0137 KRESGE BUSINESS ADMIN LIBRARY (B, 1, & 2 Flrs)\* 0400 LAY, WALTER E AUTOMOTIVE LAB 0150 LITERATURE SCIENCE AND THE ARTS (3rd & 4th Flrs)\* 0188 LITTLE, CLARENCE COOK SCIENCE BLD 0059 LLOYD, ALICE C HALL 0154 LORCH HALL 8049 LP BUSINESS ADMIN 15041 COMMERCE 0406 LURIE, ANN AND ROBERT H BIOMEDICAL ENG 0982 MATTHAEI BOT GDNS RESEARCH-ADMIN 0190 MEDICAL SCIENCE UNIT I (A & B wings)\* 0200 MEDICAL SCIENCE UNIT II 0207 MODERN LANGUAGES BUILDING 0440 MOORE, EARL V BLDG 0061 MOSHER-JORDAN HALL\* 0151 MUSEUM OF ART (Auditorium & Stair S5)\* 0415 NAVAL ARCH & MARINE ENGINEERING 5266 NORTH CAMPUS RESEARCH COMPLEX BLDG 32 (Auditorium & Lobby)\* 5177 NORTH QUAD COMPLEX (Level 1 throughout & Level 2 North Tower )\* 5047 PALMER DRIVE COMMONS (SW end of 2nd floor)\* 0890 PERRY BUILDING (G300)\* 0442 PIERPONT COMMONS (Partial basement level)\* 0180 POWER CENTER FOR PERFORMING ARTS

# University of Michigan Buildings That Contain Instructional Space (Continued)

(Based on M-Pathways GQL database for rooms with type code 110 or 210)

BLDG BLDG NO NAME

0416 RADIATION SCIENCES LAB 1 (FA/FS only) 0417 RADIATION SCIENCES LAB 2 (FA/FS only) 5188 ROSS SCHOOL OF BUSINESS (B, 1, 2, & 3 Flrs)\* BLDG BLDG NO NAME

0897 PUBLIC POLICY ANNEX

0208 RANDALL, HARRISON M LABORATORY

0209 TAUBMAN, A A. HEALTH SCIENCES LIBRARY 5413 TROTTER WILIAM MONROE MULTICULTURAL CENTER\*

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5120 ROSS, STEPHEN M ACADEMIC CENTER (Rm 2150)\* 0193 RUTHVEN, ALEXANDER G MUSEUMS BLDG (FA/FS only)

0219 SCHOOL OF SOCIAL WORK BUILDING 5347 SCHOOL OF NURSING NEW BUILDING

5224 STAMPS AUDITORIUM

0445 STEARNS, FREDERICK BUILDING

0216 TAPPAN HALL

5046 UNDERGRADUATE SCIENCE BLDG

0204 VAUGHAN, H F PUBLIC HLTH BL(1, 2& part of 3 Flrs)\*

5059 WALGREEN, CHARLES RJ DRAMA CENTER

5101 WEILL HALL, JOAN & SANFORD (1st & 2nd Flrs)\*

0167 WEST HALL

0135 WYLY, SAM HALL

0165 WEISER HALL

# **University of Michigan Buildings** That Contain Instructional Space and Are Rental Properties

# **BLDG BLDG**

NAME NO

5403 FLINT BEECHER NEFF CENTER

5343 FLINT RIVERFRONT CENTER

5360 FLINT URBAN ALTERNATIVES HOUSE

5382 WOODWARD GARDENS

# **University of Michigan Buildings That Contain Dormitory Space**

(Based M-Pathways GQL database for rooms with type code 910, 919, 920, and 935)

#### **BLDG BLDG** NO NAME

0510 BAITS, VERA I EATON HOUSE

0511 BAITS, VERA I LEE HOUSE 0512 BAITS, VERA I PARKER HOUSE

0513 BAITS, VERA I SMITH HOUSE 0514 BAITS, VERA I STANLEY HOUSE

0515 BAITS, VERA II COMAN HOUSE

0516 BAITS, VERA II CONGER HOUSE

0517 BAITS, VERA II CROSS HOUSE

0518 BAITS, VERA II THIEME HOUSE

0519 BAITS, VERA II ZIWET HOUSE 0051 BARBOUR, BETSY HOUSE

4171 BIOLOGICAL ST RESIDENCE HALL

0555 BURSLEY HALL

0120 CAMBRIDGE HOUSE (Compartment w/in MICHIGAN

0109 COOK, JOHN P LAW QUADRANGLE

0052 COOK, MARTHA RESIDENCE

0053 COUZENS HALL

0054 EAST QUADRANGLE

0055 FLETCHER HALL

#### **BLDG BLDG**

NO NAME

0057 HENDERSON, MARY B HOUSE

0108 LAWYERS CLUB\*

0059 LLOYD ALICE C HALL

0060 MARKLEY, MARY B HALL 0061 MOSHER-JORDAN HALL\*

0062 NEWBERRY RESIDENCE

5177 NORTH QUAD COMPLEX (North Tower levels 3 - 10)\*

0040 OH GODDARD HALL

0042 OH ADELIA CHEEVER RESIDENCE

0043 OH GEDDES RESIDENCE

0044 OH JULIA E EMANUEL RESIDENCE

0046 OH L H SEELEY HALL

0045 OH PAMELA NOBLE RESIDENCE 0041 OH VANDENBERG HALL

0063 SOUTH QUADRANGLE

0064 STOCKWELL HALL

0066 WEST QUADRANGLE

()\* Indicates compartment of jurisdiction. Note egress from compartment; fire alarm & fire suppression for entire bldg are under

# **University of Michigan Buildings** That Contain Child Care Space

(Based M-Pathways GQL database for rooms with type code 640, and 645)

#### **BLDG BLDG**

NO NAME

5244 DEARBORN CHILD DEVELOPMENT CENTER

1047 DEARBORN KINDERGARDEN MODULE

5018 NCRC (N Campus Research Complex) B075 CHILDREN'S CENTER

0600 NORTHWOOD COMMUNITY CENTER

5240 TOWSLEY CHILDREN'S HOUSE

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0390 UNIVERSITY HOSPITALS CHILD CARE CENTER

# **University of Michigan Buildings That Contain Inpatient Health Care Facilities**

# BLDG BLDG

NO NAME

5109 SAMUEL AND JEAN FRANKEL CARDIOVASCULAR CENTER (CVC)\*

0313 CONNECTOR between UH and MOTT adjacent to TOWSLEY\*

0312 UNIVERSITY HOSPITAL SOUTH UNIT 2 (old Mott)\*

0314 UNIVERSITY HOSPITAL SOUTH UNIT 3 (old Holden)\*

0318 UNIVERSITY HOSPITAL SOUTH UNIT 4 (old MCHC)\*

5173 C.S. MOTT CHILDREN'S AND VON VOIGTLANDER WOMEN'S HOSPITAL \*

0316 UNIVERSITY HOSPITAL (UH) \*

For more detailed boundaries for inpatient facilities and firewall keyplans in all buildings, please consult with MM Design Manager or Michigan Medicine building website.

# University of Michigan Buildings That Contain Hospital Outpatient Surgery Departments

#### BLDG BLDG NO NAME

5102 BREHM TOWER (BRM) (Eye Center Expansion) (Fourth Floor)\* 5038 EAST ANN ARBOR AMBULATORY SURGERY CENTER 5239 BRIGHTON CENTER FOR SPECIALTY CENTER

# University of Michigan Buildings That Contain Outpatient Dialysis

BLDG BLDG NO NAME 8072 EISENHOWER PARK WEST

()\* Indicates compartment of jurisdiction. Note egress from compartment; fire alarm & fire suppression for entire bldg are under RFS