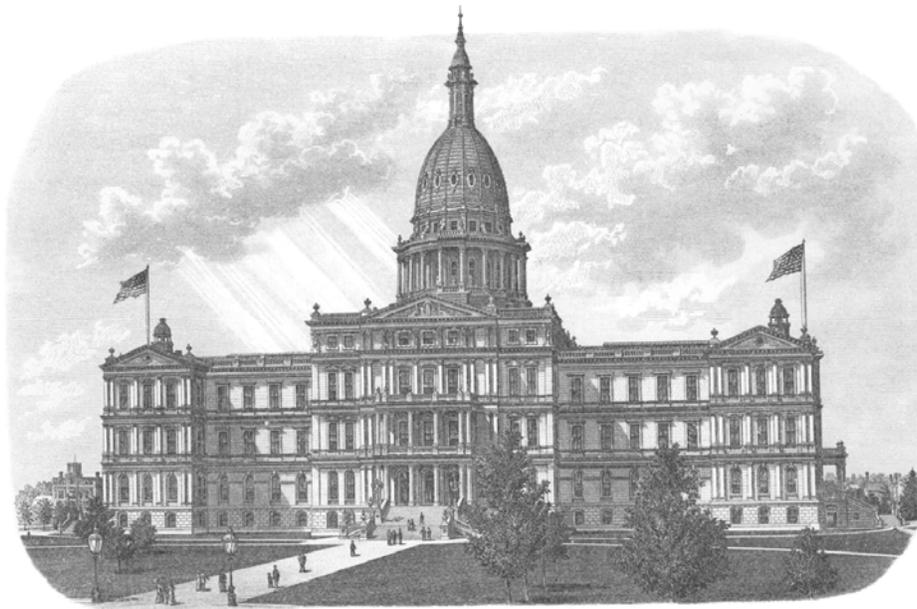


Michigan Register

Issue No. 3 – 2018 (Published March 1, 2018)



GRAPHIC IMAGES IN THE MICHIGAN REGISTER

COVER DRAWING

Michigan State Capitol:

This image, with flags flying to indicate that both chambers of the legislature are in session, may have originated as an etching based on a drawing or a photograph. The artist is unknown. The drawing predates the placement of the statue of Austin T. Blair on the capitol grounds in 1898.

(Michigan State Archives)

PAGE GRAPHICS

Capitol Dome:

The architectural rendering of the Michigan State Capitol's dome is the work of Elijah E. Myers, the building's renowned architect. Myers inked the rendering on linen in late 1871 or early 1872. Myers' fine draftsmanship, the hallmark of his work, is clearly evident.

Because of their size, few architectural renderings of the 19th century have survived. Michigan is fortunate that many of Myers' designs for the Capitol were found in the building's attic in the 1950's. As part of the state's 1987 sesquicentennial celebration, they were conserved and deposited in the Michigan State Archives.

(Michigan State Archives)

East Elevation of the Michigan State Capitol:

When Myers' drawings were discovered in the 1950's, this view of the Capitol – the one most familiar to Michigan citizens – was missing. During the building's recent restoration (1989-1992), this drawing was commissioned to recreate the architect's original rendering of the east (front) elevation.

(Michigan Capitol Committee)

Michigan Register

Published pursuant to § 24.208 of
The Michigan Compiled Laws



Issue No. 3— 2018

(This issue, published March 1, 2018, contains
documents filed from February 1, 2018 to February 15, 2018)

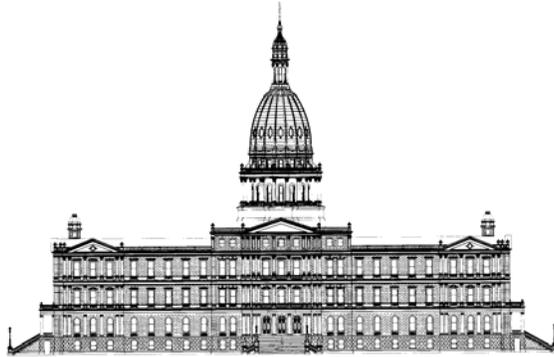
Compiled and Published by the
Office of Regulatory Reinvention

© 2018 by Office of Regulatory Reinvention, State of Michigan
All rights reserved.
Printed in the United States of America

Michigan Register (ISSN 0892-3124). Published twice per month, with a cumulative index, by the Office of Regulatory Reinvention, pursuant to §24.208 of the Michigan Compiled Laws. Subscription \$400.00 per year, postpaid to points in the U.S. First class postage paid at Lansing, Michigan. Direct all mail concerning subscriptions to Office of Regulatory Reinvention, Romney Building – Eight Floor, 111 S. Capitol, Lansing, MI 48909

Jeff Bankowski, Executive Director, Office of Performance and Transformation; **Deidre O’Berry**, Administrative Rules Specialist for Operations and Publications.

Rick Snyder, Governor



Brian Calley, Lieutenant Governor

PREFACE

PUBLICATION AND CONTENTS OF THE MICHIGAN REGISTER

The Office of Regulatory Reform publishes the *Michigan Register*.

While several statutory provisions address the publication and contents of the *Michigan Register*, two are of particular importance.

24.208 Michigan register; publication; cumulative index; contents; public subscription; fee; synopsis of proposed rule or guideline; transmitting copies to office of regulatory reform.

Sec. 8.

(1) The office of regulatory reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

(a) Executive orders and executive reorganization orders.

(b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.

(c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year.

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules.

(f) Administrative rules filed with the secretary of state.

(g) Emergency rules filed with the secretary of state.

(h) Notice of proposed and adopted agency guidelines.

(i) Other official information considered necessary or appropriate by the office of regulatory reform.

(j) Attorney general opinions.

(k) All of the items listed in section 7(m) after final approval by the certificate of need commission under section 22215 of the public health code, 1978 PA 368, MCL 333.22215.

(2) The office of regulatory reform shall publish a cumulative index for the Michigan register.

(3) The Michigan register shall be available for public subscription at a fee reasonably calculated to cover publication and distribution costs.

(4) If publication of an agency's proposed rule or guideline or an item described in subsection (1)(k) would be unreasonably expensive or lengthy, the office of regulatory reform may publish a brief synopsis of the proposed rule or guideline or item described in subsection (1)(k), including information on how to obtain a complete copy of the proposed rule or guideline or item described in subsection (1)(k) from the agency at no cost.

(5) An agency shall electronically transmit a copy of the proposed rules and notice of public hearing to the office of regulatory reform for publication in the Michigan register.

4.1203 Michigan register fund; creation; administration; expenditures; disposition of money received from sale of Michigan register and amounts paid by state agencies; use of fund; price of Michigan register; availability of text on internet; copyright or other proprietary interest; fee prohibited; definition.

Sec. 203.

- (1) The Michigan register fund is created in the state treasury and shall be administered by the office of regulatory reform. The fund shall be expended only as provided in this section.
- (2) The money received from the sale of the Michigan register, along with those amounts paid by state agencies pursuant to section 57 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.257, shall be deposited with the state treasurer and credited to the Michigan register fund.
- (3) The Michigan register fund shall be used to pay the costs of preparing, printing, and distributing the Michigan register.
- (4) The department of management and budget shall sell copies of the Michigan register at a price determined by the office of regulatory reform not to exceed the cost of preparation, printing, and distribution.
- (5) Notwithstanding section 204, beginning January 1, 2001, the office of regulatory reform shall make the text of the Michigan register available to the public on the internet.
- (6) The information described in subsection (5) that is maintained by the office of regulatory reform shall be made available in the shortest feasible time after the information is available. The information described in subsection (5) that is not maintained by the office of regulatory reform shall be made available in the shortest feasible time after it is made available to the office of regulatory reform.
- (7) Subsection (5) does not alter or relinquish any copyright or other proprietary interest or entitlement of this state relating to any of the information made available under subsection (5).
- (8) The office of regulatory reform shall not charge a fee for providing the Michigan register on the internet as provided in subsection (5).
- (9) As used in this section, "Michigan register" means that term as defined in section 5 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.205.

CITATION TO THE MICHIGAN REGISTER

The *Michigan Register* is cited by year and issue number. For example, 2001 MR 1 refers to the year of issue (2001) and the issue number (1).

CLOSING DATES AND PUBLICATION SCHEDULE

The deadlines for submitting documents to the Office of Regulatory Reinvention for publication in the *Michigan Register* are the first and fifteenth days of each calendar month, unless the submission day falls on a Saturday, Sunday, or legal holiday, in which event the deadline is extended to include the next day which is not a Saturday, Sunday, or legal holiday. Documents filed or received after 5:00 p.m. on the closing date of a filing period will appear in the succeeding issue of the *Michigan Register*.

The Office of Regulatory Reinvention is not responsible for the editing and proofreading of documents submitted for publication.

Documents submitted for publication should be delivered or mailed in an electronic format to the following address: MICHIGAN REGISTER, Office of Regulatory Reinvention, Romney Building – Eight Floor, 111 S. Capitol, Lansing, MI 48909

RELATIONSHIP TO THE MICHIGAN ADMINISTRATIVE CODE

The *Michigan Administrative Code* (1979 edition), which contains all permanent administrative rules in effect as of December 1979, was, during the period 1980-83, updated each calendar quarter with the publication of a paperback supplement. An annual supplement contained those permanent rules, which had appeared in the 4 quarterly supplements covering that year.

Quarterly supplements to the Code were discontinued in January 1984, and replaced by the monthly publication of permanent rules and emergency rules in the *Michigan Register*. Annual supplements have included the full text of those permanent rules that appear in the twelve monthly issues of the *Register* during a given calendar year. Emergency rules published in an issue of the *Register* are noted in the annual supplement to the Code.

SUBSCRIPTIONS AND DISTRIBUTION

The *Michigan Register*, a publication of the State of Michigan, is available for public subscription at a cost of \$400.00 per year. Submit subscription requests to: Office of Regulatory Reinvention, Romney Building –Eight Floor, 111 S. Capitol Avenue, Lansing, MI 48909. Checks Payable: State of Michigan. Any questions should be directed to the Office of Regulatory Reinvention (517) 335-8658.

INTERNET ACCESS

The *Michigan Register* can be viewed free of charge on the Internet web site of the Office of Regulatory Reinvention: www.michigan.gov/orr.

Issue 2000-3 and all subsequent editions of the *Michigan Register* can be viewed on the Office of Regulatory Reinvention Internet web site. The electronic version of the *Register* can be navigated using the blue highlighted links found in the Contents section. Clicking on a highlighted title will take the reader to related text, clicking on a highlighted header above the text will return the reader to the Contents section.

Jeff Bankowski, Executive Director,
Office of Performance and Transformation

2018 PUBLICATION SCHEDULE

Issue No.	Closing Date for Filing or Submission Of Documents (5 p.m.)	Publication Date
1	January 15, 2018	February 1, 2018
2	February 1, 2018	February 15, 2018
3	February 15, 2018	March 1, 2018
4	March 1, 2018	March 15, 2018
5	March 15, 2018	April 1, 2018
6	April 1, 2018	April 15, 2018
7	April 15, 2018	May 1, 2018
8	May 1, 2018	May 15, 2018
9	May 15, 2018	June 1, 2018
10	June 1, 2018	June 15, 2018
11	June 15, 2018	July 1, 2018
12	July 1, 2018	July 15, 2018
13	July 15, 2018	August 1, 2018
14	August 1, 2018	August 15, 2018
15	August 15, 2018	September 1, 2018
16	September 1, 2018	September 15, 2018
17	September 15, 2018	October 1, 2018
18	October 1, 2018	October 15, 2018
19	October 15, 2018	November 1, 2018
20	November 1, 2018	November 15, 2018
21	November 15, 2018	December 1, 2018
22	December 1, 2018	December 15, 2018
23	December 15, 2018	January 1, 2019
24	January 1, 2019	January 15, 2019

CONTENTS

ADMINISTRATIVE RULES FILED WITH SECRETARY OF STATE

Department of Licensing and Regulatory Affairs

Director's Office (2017-047)

Part 340. Beryllium GI.....2-3

Department of Licensing and Regulatory Affairs

Director's Office (2017-052)

Part 18. Overhead and Gantry Cranes GI4-18

Department of Licensing and Regulatory Affairs

Director's Office (2017-053)

Part 33. Personal Protective Equipment GI19-33

Department of Licensing and Regulatory Affairs

Director's Office (2017-054)

Part 21. Powered Industrial Trucks GI34-37

Department of Licensing and Regulatory Affairs

Director's Office (2017-055)

Part 25. Manlifts GI38-39

Department of Licensing and Regulatory Affairs

Director's Office (2017-056)

Part 50. Telecommunications GI40-42

Department of Licensing and Regulatory Affairs

Director's Office (2017-057)

Part 52. Sawmills GI.....43-53

Department of Licensing and Regulatory Affairs

Director's Office (2017-060)

Part 86. Electric Power Generation, Transmission, and Distribution GI.....54-59

Department of Licensing and Regulatory Affairs

Director's Office (2017-063)

Part 27. Woodworking Machinery GI60-72

Department of Licensing and Regulatory Affairs

Director's Office (2017-064)

Part 5. Powered Platforms for Building Maintenance GI.....73-95

Department of Licensing and Regulatory Affairs

Director's Office (2017-083)

Licensing Substance Use Disorder Programs.....96-96

**PROPOSED ADMINISTRATIVE RULES,
NOTICES OF PUBLIC HEARINGS**

Department of Environmental Quality

Air Quality Division (2017-006)

Part 9. Emission Limitation and Prohibitions - Miscellaneous98-108

Public Hearing Notice.....109-110

MICHIGAN ADMINISTRATIVE CODE TABLE

Table (2018 Session)112-113

CUMULATIVE INDEX

Cumulative Index (2018).....114-115

BILLS SIGNED INTO LAW OR VETOED

Appendix Table 1 (2018 Session) (Legislative Service Bureau Pages (1-2)).....116-116

**ADMINISTRATIVE RULES
FILED WITH THE SECRETARY OF STATE**

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(f) Administrative rules filed with the secretary of state.”

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 1, 2018

These rules take effect immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 14 and 24 of 1974 PA 154, MCL 408.1014 and 408.1024; and Executive Reorganization Orders Nos. 1996-1, 1996-2, 2003-1, 2008-4, and 2011-4, MCL 330.3101, 445.2001, 445.2011, 445.2025, and 445.2030)

R 325.34001, R 325.34005, and R 325.34010 are added to the Michigan Administrative Code, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

PART 340. BERYLLIUM

R 325.34001 Adoption of federal standard.

Rule 4001. (1) The federal Occupational Safety and Health Administration (OSHA) regulation 29 C.F.R. §1910.1024 "Beryllium," is adopted by reference in these rules.

(2) The availability information for the OSHA standard adopted in these rules is in R 325.34005 and MIOSHA standards referenced in these rules is in R 325.34010.

(3) A reference to 29 C.F.R. §1910.1020, "Access to employee exposure and medical records," means Occupational Health Standard Part 470 "Employee Medical Records and Trade Secrets."

(4) A reference to 29 C.F.R. §1910.134, "Respiratory protection," means Occupational Health Standard Part 451 "Respiratory Protection."

(5) A reference to 29 C.F.R. §1910 Subpart I, "Personal protective equipment," means General Industry Safety Standard Part 33 "Personal Protective Equipment" or Occupational Health Standard Part 433 "Personal Protective Equipment."

(6) A reference to 29 C.F.R. §1910.1200, "Hazard communication," means Occupational Health Standard Part 430 "Hazard Communication."

(7) A reference to 29 C.F.R. §1910.141, "Sanitation," means Occupational Health Standard Part 474 "Sanitation."

(8) The adopted federal regulations shall have the same force and effect as a rule promulgated under the Michigan Occupational Safety and Health Act (MIOSHA), 1974 PA 154, MCL 408.1001 to 408.1094.

R 325.34005 Availability of OSHA adopted standard.

Rule 4005. (1) The OSHA regulation adopted in these rules is available from the United States Department of Labor, Occupational Safety and Health Administration website: www.osha.gov, at no charge, as of the time of adoption of these rules.

(2) The standard adopted in these rules is available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) The standard adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

R 325.34010 Availability of MIOSHA referenced standards.

Rule 4010. The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.

(b) Occupational Health Standard Part 430 “Hazard Communication,” R 325.77001 to R 325.77004.

(c) Occupational Health Standard Part 451 “Respiratory Protection,” R 325.60051 to R 325.60052.

(d) Occupational Health Standard Part 470 “Employee Medical Records and Trade Secrets,” R 325.3451 to R 325.3476.

(e) Occupational Health Standard Part 474 “Sanitation,” R 325.47401 to R 325.47425.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 1, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.11801, R 408.11807, R 408.11808, R 408.11821, R 408.11823, R 408.11824, R 408.11835, R 408.11843, R 408.11844, R 408.11852, R 408.11854, R 408.11863, R 408.11865, R 408.11871, R 408.11872, and R 408.11873 of the Michigan Administrative Code are amended, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
PART 18. OVERHEAD AND GANTRY CRANES

R 408.11801 Scope.

Rule 1801. (1) This standard covers the equipment, installation, maintenance, and operation of top running overhead and gantry single and multiple girder cranes in, about, and around places of employment in order to safeguard employees.

(2) This standard does not apply to any of the following:

- (a) Monorails.
- (b) Railway or truck cranes.
- (c) Mine hoists.
- (d) Conveyors.
- (e) Shovels.
- (f) Drag-line excavators.
- (g) Equipment used on construction jobs.
- (h) Systems used to transport people.

R 408.11807 Adopted and referenced standards.

Rule 1807. (1) The following standards are adopted by reference in these rules and are available from HIS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at web-site: www.global.ihs.com, at a cost as of the time of adoption of these rules, as stated in this subrule:

(a) American National Standard Institute ANSI/ASME B30.2, "Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)," Standard, 1996 edition. Cost: \$60.00.

(b) ANSI/ASME B30.2.0, "Overhead and Gantry Cranes," Standard, 1967 edition. Cost: \$60.00.

(c) ANSI/ASME B30.17, "Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)," Standard, 1998 edition. Cost: \$60.00.

(2) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The following Michigan Occupational Safety and Health Administration (MIOSHA) Standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory services section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 10 "Cranes and Derricks," R 408.41001 to R 408.41099.

(b) General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," R 408.10201 to R 408.10241.

(c) General Industry Safety Standard Part 7 "Guards for Power Transmission," R 408.10701 to R 408.10765.

(d) General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," R 408.13301 to R 408.13398.

(e) General Industry Safety Standard Part 39 "Design Safety Standards for Electrical Systems," R 408.13901 to R 408.13905.

(f) General Industry Safety Standard Part 49 "Slings," R 408.14901 to R 408.14965.

(g) General Industry Safety Standard Part 85 "The Control of Hazardous Energy Sources, (Lockout/Tagout)," R 408.18501 to R 408.18599.

R 408.11808 Employer responsibilities.

Rule 1808. (1) An employer shall comply with the manufacturer's specifications and limitations applicable to the operation of cranes. If a manufacturer's specifications are not available, then the limitations assigned to the equipment shall be based on the determination of a qualified engineer who is competent in the field of equipment limitations, and the determination shall be appropriately documented and recorded. Attachments that are used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.

(2) An employer shall designate a qualified person to perform all inspections of cranes as required by this standard.

(3) An employer shall limit the use of a crane to the following entities:

(a) An employee who has been trained and qualified to operate the type of crane to which he or she is assigned.

(b) A learner who is under the direct supervision of a designated operator.

(c) Designated maintenance personnel while performing their duties.

(4) An employer shall maintain a crane and its accessories in a condition that will not endanger an operator or other employees.

(5) The original safety factor of the equipment shall not be reduced if modifications or changes are made to the equipment. Modifications or changes shall be certified by a qualified registered engineer. The capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly to reflect any modifications or changes.

(6) An employer shall comply with all other applicable requirements of this standard.

(7) The manual provided by the crane manufacturer shall be readily accessible for the crane operator's reference at the work site.

CONSTRUCTION, INSTALLATION AND EQUIPMENT

R 408.11821 Certification; modification; guards; adoption of standards by reference.

Rule 1821. (1) A top running or gantry crane consisting of a top running bridge with single or multiple girders and a top running trolley hoist, erected or modified after June 24, 1973 and before April 9, 2002, shall be certified by a crane manufacturer or an engineer knowledgeable in crane construction, that the new construction or installation, or modification conforms to the ANSI/ASME B30.2.0 "Overhead and Gantry Cranes," Standard, 1967 edition, as adopted in R 408.11807.

(2) A top running or gantry crane consisting of a top running bridge with single or multiple girders and a top running trolley hoist, erected or modified after April 9, 2002, shall be certified by a crane manufacturer or an engineer knowledgeable in crane construction, that the new construction or installation, or modification conforms to the ANSI/ASME B30.2 "Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)," Standard, 1996 edition, as adopted in R 408.11807.

(3) A top running or gantry crane consisting of a top running bridge with a single girder and an underhung hoist, erected or modified after August 31, 1971 and before April 9, 2002, shall be certified by a crane manufacturer or an engineer knowledgeable in crane construction, that the new construction, installation, or modification conforms to the ANSI/ASME B30.2.0 "Overhead and Gantry Cranes," 1967 edition, as adopted in R 408.11807.

(4) A top running or gantry crane consisting of a top running bridge with a single girder and an underhung hoist, erected or modified after April 9, 2002, shall be certified by a crane manufacturer or an engineer knowledgeable in crane construction, that the new construction, installation, or modification conforms to the ANSI/ASME B30.17 "Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)" Standard, 1998 edition, as adopted in R 408.11807.

(5) Gears, couplings and other means of power transmission, except shafts, where exposed to contact, shall be guarded as prescribed in General Industry Safety Standard Part 7 "Guards for Power Transmission," as referenced in R 408.11807.

(6) A top running or gantry crane consisting of a top running bridge with single or multiple girders and a top running trolley hoist may be modified or rerated if the modifications and the supporting structure are checked thoroughly by a qualified engineer or the equipment manufacturer and conform to the ANSI/ASME B30.2 "Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)," Standard, 1996 edition, as adopted in R 408.11807.

(7) A top running or gantry crane consisting of a top running bridge with a single girder and an underhung hoist may be modified or rerated if the modifications and the supporting structure are checked thoroughly by a qualified engineer or the equipment manufacturer and conform to the ANSI/ASME B30.17 "Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)" Standard, 1998 edition, as adopted in R 408.11807.

R 408.11823 Safety factor for hoisting cables.

Rule 1823. The designed safety factor for the hoisting cable is as follows:

- (a) A hot metal crane shall be not less than 8.
- (b) Any other crane shall be not less than 5.

R 408.11824 Wire rope.

Rule 1824. (1) A wire rope used on a crane shall be repaired or replaced in any of the following circumstances:

- (a) One third or more of the original diameter of the outside individual wires is worn.
- (b) There is kinking, crushing, bird-caging, or any other damage that results in distortion of the running portion of the wire rope structure.
- (c) The wire rope shows heat or corrosive damage.
- (d) In running ropes, there are 6 randomly distributed broken wires in 1 lay or 3 broken wires on 1 strand in 1 lay. In rotation-resistant ropes, 2 randomly distributed broken wires in 6 rope diameters or 4 randomly distributed broken wires in 30 rope diameters.
- (e) There are reductions from nominal diameter of more than the following:
 - (i) One sixty-fourth of an inch for a diameter to and including 5/16 of an inch.
 - (ii) One thirty-second of an inch for a diameter 3/8 of an inch to and including 1/2 of an inch.
 - (iii) Three sixty-fourths of an inch for a diameter 9/16 of an inch to and including 3/4 of an inch.
 - (iv) One sixteenth of an inch for a diameter 7/8 of an inch to and including 1 1/8 inches.
 - (v) Three thirty-seconds of an inch for a diameter 1 1/4 inches to and including 1 1/2 inches.
- (f) In standing ropes, there are more than 2 broken wires in 1 lay in sections beyond end connections or more than 1 broken wire at an end connection.

(2) Wire rope discarded from a crane under subrule (1) of this rule shall not be used for any other load-carrying service.

(3) Wire rope for a crane bent to form an eye shall be equipped with a metal thimble.

(4) A wire rope end fitting shall be a clamp, swage, or a zinc or equivalent poured socket. Before cutting wire rope, seizings shall be placed as follows:

- (a) One seizing on each side of the cut on preformed wire rope;
- (b) Two seizings on each side of 7/8 inch size or smaller nonpreformed wire rope.
- (c) Three seizings on each side of 1 inch or larger size nonpreformed wire rope.

(5) Wire rope that has an independent wire rope core shall be used on all molten metal applications and in an area where the environmental atmosphere will cause deterioration of a hemp center.

(6) Wire rope shall be stored in a manner to prevent damage or deterioration.

(7) The unreeling or uncoiling of wire rope shall be done as recommended by the rope manufacturer and with care to avoid kinking or inducing a twist.

(8) Rope clips attached with u-bolts shall have the u-bolts on the dead or short end of the rope. Spacing and number of all types of clips shall be in accordance with the clip manufacturer's recommendation. Clips shall be drop-forged steel in all sizes manufactured commercially. When a newly installed rope has been in operation for an hour, all nuts on the clip bolts shall be retightened. See Appendix A.

(9) Replacement rope shall meet or exceed the original specifications set forth by the crane manufacturer.

(10) If a load is supported by more than 1 part of rope, then the tension in the parts shall be equalized.

R 408.11835 Ladders; foot-walks; stairways; escape devices.

Rule 1835. (1) Access to crane. Access to the car or bridge walkway shall be by a conveniently placed fixed ladder, stairs, or platform requiring no step over any gap exceeding 12 inches (30 cm). Fixed ladders shall comply with General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.11807.

(2) A foot-walk or a cat-walk for or on a crane shall have a guardrail system as prescribed in General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.11807. A foot-walk shall be of rigid construction and designed to sustain a distributed load of not less than 50 pounds per square foot, and shall have an anti-slip surface.

(3) An employer shall ensure that a safe method of escape is provided in case of fire or other emergency situation on a cab-operated crane.

(4) A gantry crane shall have fixed ladders or stairways extending from the ground to the foot-walk or cab platform.

(5) Toeboards and handrails for foot-walks. Toeboards and handrails shall comply with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.11807.

(6) Ladders shall be permanently and securely fastened in place and constructed in compliance with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.11807.

R 408.11843 Controls.

Rule 1843. (1) A pendant, radio, cab, pulpit control station, and a controller in a cab operated crane shall be permanently identified by function and direction. Control boxes shall be constructed to prevent electrical shock.

(2) Rope controls for a floor-operated crane shall be equipped with an arrow attached to the rope showing the direction of travel when the rope is pulled.

(3) A pendant, radio, cab, or pulpit control station shall be equipped with a positive stop device, colored red, to disconnect all motors.

(4) A crane shall be equipped with a main switch which can be locked out. An employer shall establish a written lockout procedure which shall be used in connection with R 408.11872 and R 408.11875. Lockout shall conform to the requirements prescribed in General Industry Safety Standard Part 85 “The Control of Hazardous Energy Sources, (Lockout/Tagout),” as referenced in R 408.11807.

(5) A controller on a rope, pendant, or radio-controlled crane, when released from the "on" position, shall automatically return to the "off" position.

(6) A transmitter for a radio-controlled crane shall be stored in a locked cabinet or in a supervised storage area when not in use.

(7) All cranes shall have an operable over-travel limit switch in the hoisting direction. The switch shall be located so that it is tripped under all conditions to prevent contact of the hook or block with the hoist.

(8) A crane that is not equipped with spring return controllers or momentary contact push buttons shall have a device which will disconnect all motors from the line if power fails and which will not permit restarting until the controller handle is brought to the off position or a reset switch or button is operated.

(9) The control circuit voltage shall not be more than 600 volts for A.C. or D.C. current.

(10) The voltage at pendant push-buttons shall not be more than 150 volts for A.C. and 300 volts for D.C.

(11) If multiple conductor cable is used with a suspended push-button station, then the station shall be supported in a manner that will protect the electrical conductors against strain.

(12) Cab-operated cranes shall have lever-operated manual controllers and master switches that have a spring-return arrangement, off-point detent, or off-point latch. The controller operating handle shall be located within reach of the operator and, as far as practicable, the movement of each controller handle shall be in the same general directions of the resultant movements of the load.

(13) Equipment and wiring shall be as prescribed in General Industry Safety Standard Part 39 “Design Safety Standards for Electrical Systems,” as referenced in R 408.11807.

(14) The control for the bridge and trolley travel shall be located so that the operator can face the direction of travel.

(15) Push buttons in pendant stations shall return to the above position when released by the operator.

(16) Automatic cranes shall be designed so that all motions will failsafe if any malfunction of operation occurs.

(17) A remote-operated crane shall function so that if the control signal for any crane motion becomes ineffective, the crane motion shall stop.

R 408.11844 Equipment.

Rule 1844. (1) Electrical equipment shall be located or enclosed so that live parts are not exposed to accidental contact under normal operating conditions.

(2) Electric equipment shall be protected from dirt, grease, oil, and moisture.

(3) Guards for live parts shall be substantial and located so that they cannot be accidentally deformed to make contact with live parts.

(4) Enclosures for resistors shall have openings to provide adequate ventilation and shall be installed to prevent the accumulation of combustible matter too near to hot parts. Resistor units shall be supported to be free as possible from vibration.

(5) The power supply to the runway conductors shall be controlled by a switch or circuit breaker that is located on a fixed structure, is accessible from the floor, and is capable of being locked in the open position. A switch or circuit breaker that is of the enclosed type and is capable of being locked in the open position shall be provided in the leads from the runway conductors on a cab-operated crane. A means of opening the switch or circuit shall be located within reach of the operator. A switch or circuit breaker that is of the enclosed type and is capable of being locked in the open position shall be provided in the leads from the runway conductors on a floor-operated crane. The disconnect shall be mounted on the bridge or foot-walks near the runway conductors. One of the following types of floor-operated disconnects shall be provided:

(a) Nonconductive rope attached to the main switch.

(b) An under-voltage trip for the main circuit breaker operated by an emergency stop button in the pendant push button in the pendant pushbutton station.

(c) A main line contactor operated by a switch or pushbutton in the pendant pushbutton station.

(6) A crane using a lifting magnet shall have a separate magnet circuit switch that is of the enclosed type and is capable of being locked in the open position. Means for discharging the inductive load of the magnet shall be provided.

(7) Runway conductors of the open type mounted on the crane runway beams or overhead shall be located or guarded so that persons entering or leaving the cab or crane foot-walk will not come into contact with them. On the effective date of this rule, open type conductors shall not be installed on cab-operated runway beams.

(8) When a service receptacle for an extension lamp is provided in the cab or on the bridge of a cab-operated crane, it shall be a grounded 3-prong type permanent receptacle and shall not be more than 300 volts.

R 408.11852 Training.

Rule 1852. (1) An employer shall train a prospective operator before the employee's assignment as an operator of a crane. An employer shall ensure that a designated individual authorized by the employer to perform the training has the knowledge, training, and experience to train and to evaluate the competence of the prospective operator and to provide refresher training to an operator when it is required. Training shall include all of the following:

(a) Capacities of equipment and attachments.

(b) Purpose, use, and limitation of controls.

(c) How to make daily checks.

- (d) The energizing sequences, including pneumatic, hydraulic, and electrical sequences.
 - (e) Start-up and shutdown procedures.
 - (f) Emergency shutdown procedures.
 - (g) General operating procedures.
 - (h) All basic signaling procedures, including hand, radio, or telephone signals, where required.
 - (i) Knowledge of this standard and other applicable MIOSHA standards, and company rules and regulations.
 - (j) Practice in operating the assigned equipment through the mechanical functions necessary to perform the required task.
 - (k) Maximum rated capacity of the crane.
- (2) Training shall consist of a combination of formal instruction, practical training, and testing of the operator's performance, as required in R 408.11853.
- (3) Refresher training in relevant topics shall be provided to an operator under any of the following conditions:
- (a) An operator has been observed to operate the crane in an unsafe manner.
 - (b) An operator has been involved in an accident or a near-miss incident.
 - (c) An operator has received an evaluation that reveals that the operator is not operating the crane safely.
 - (d) An operator is assigned to a different type of crane.
 - (e) A condition in the workplace changes that could affect safe operation of the crane.
- (4) Maintenance personnel, crane inspectors, and all other users of the crane shall be trained as required in subrule (1) of this rule.
- (5) A rigger shall be trained in all of the following:
- (a) The requirements of this standard.
 - (b) Knowledge of General Industry Safety Standard Part 49 "Slings," as referenced in R 408.11807.
 - (c) Knowledge of General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.11807.
 - (d) Maximum capacity of the crane.
 - (e) Rigging procedures.
 - (f) Company rules and regulations.

R 408.11854 Permits.

- Rule 1854. (1) An employer shall provide an employee with a permit to operate a crane only after the employee meets the requirements prescribed in R 408.11852, and R 408.11853.
- (2) An employee being trained is exempt from the permit requirement for a period of not more than 30 calendar days if the employee is under the supervision of an individual who is authorized by the employer and who has the knowledge, training, and experience to train operators and to evaluate their competence, and if the training period does not endanger the trainee or other employees.
- (3) A permit shall be carried by an operator or be available upon request of a department representative at all times during working hours.
- (4) A permit shall indicate the type of crane or cranes an operator has been trained on and is qualified to operate, as required in R 408.11852.
- (5) A permit to operate a crane is valid only with the employer who issued the permit, and the permit shall be issued for a period of not more than 3 years.
- (6) A permit shall contain all of the following information (see sample permit):
- (a) Firm name.
 - (b) Operator's name.
 - (c) Operator I.D. number, if any.

- (d) Name of issuing authority.
 - (e) Type or types of crane authorized to operate.
 - (f) Operator restrictions, if any. The permit shall state the nature of the restriction.
 - (g) Date issued.
 - (h) Date expiring.
- (7) A sample permit is set forth as follows:

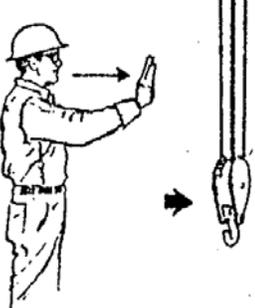
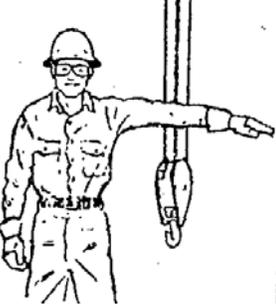
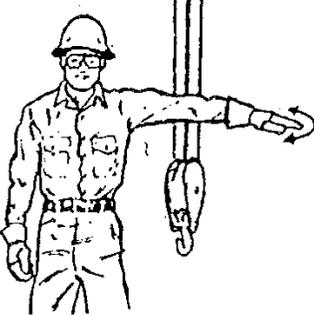
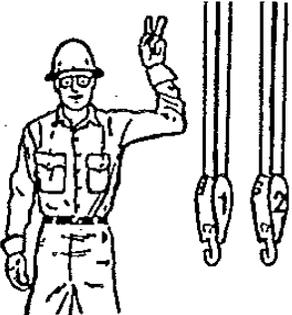
SAMPLE PERMIT
CRANE OPERATOR PERMIT <i>(Firm Name)</i>
Operator's Name
Operator's Number
Is Authorized To Operate: <i>(Insert Type of Crane(s) Authorized)</i>
Restrictions: <i>(Explanation of Restrictions)</i>
Date Issued: (Month – Day – Year)
Date Expiring: (Month – Day – Year)
By Issuing Authority: _____
Title

R 408.11863 Signals.

Rule 1863. An operator shall respond to signals only from the employee directing a lift. However, he shall obey at all times an emergency stop signal from any employee. The signals given an operator shall conform to Table 1. When 2 or more cranes are used to lift a load, a designated employee shall give all signals.

STANDARD HAND SIGNALS FOR CONTROLLING OVERHEAD AND GANTRY
CRANES

Table 1

 <p>HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circle.</p>	 <p>LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circles.</p>	 <p>BRIDGE TRAVEL. Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.</p>
 <p>TROLLEY TRAVEL. Palm up, fingers closed, thumb pointing in direction of motion, jerk hand horizontally.</p>	 <p>STOP. Arm extended, palm down, hold position rigidly.</p>	 <p>EMERGENCY STOP. Arm extended, palm down, move hand rapidly right and left.</p>
 <p>MULTIPLE TROLLEYS. Hold up one finger for block marked "1" and two fingers for block marked "2", Regular signals follow.</p>	 <p>MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)</p>	 <p>MAGNET IS DISCONNECTED. Crane operator spreads both hands apart – palms up.</p>

R 408.11865 Lifting.

Rule 1865. (1) An operator of a crane shall not carry a load over an employee.

(2) A crane shall not be used to make a side pull, except where it has been specifically established by a qualified person who has determined all of the following:

(a) Various parts of the crane will not be overstressed.

(b) The hoist rope will not bear or rub against other members of the crane, such as the girders or trolley frame, except members specifically designed for such contact.

(c) A side pull will not cause the hoist rope to be pulled out of the sheaves or across drum grooves.

(d) A side pull will not result in excessive swinging of the load block or load.

(3) Compressed gases shall be lifted only by a cradle or enclosed platform.

(4) An employee shall not ride a hoisting device, such as a magnet, hook, ball, or load, except on a work platform. The work platform shall meet all of the requirements as prescribed in Construction Safety Standard Part 10 “Cranes and Derricks,” as referenced in R 408.11807.

(5) The work platform shall be suspended from the top 4 corners and fastened to the structural floor member and shall have the point of suspension at the hook fixed so that it cannot be accidentally disengaged.

(6) When attaching or moving a load, the operator, rigger, or hooker shall make sure of all of the following:

(a) The hoisting rope or chain is free of kinks or twists and not wrapped around the load.

(b) The load is attached to the load block hook by means of a sling or other approved device.

(c) The sling and load will clear all obstacles or obstructions.

(d) The load is balanced and secured before lifting the load more than a few inches.

(e) Multiple lines are not twisted around each other.

(f) The hook is brought over the load in a manner to prevent swinging.

(g) There is no sudden acceleration or deceleration of the moving load.

R 408.11871 Initial and shift inspections.

Rule 1871. (1) New, reinstalled, altered, repaired, and modified cranes shall be inspected by a designated person before initial use to verify compliance with applicable provisions of these rules. Inspection of altered, repaired, and modified cranes may be limited to the provisions affected by the alteration, repair, or modification, as determined by a qualified person.

(2) At the beginning of each shift during which a crane is used, visual inspections shall be made in accordance with Table 2. A visual inspection shall be limited to that which can be made from a cat-walk or other safe observation point. Any defects shall be reported to a supervisor.

TABLE 2 SHIFT/OPERATOR INSPECTION CHECKS	
INSPECTION ITEM	DESCRIPTION OF INSPECTION CHECK POINTS
Tagged Crane or Hoist	Check that crane or hoist is not tagged with an out-of-order sign.
Control Devices	Test run that all motions agree with control device markings.
Brakes	Check that all motions do not have excessive drift and that stopping distances are normal.
Hook	Check for damage, cracks, nicks, gouges, deformations of the throat opening, wear on saddle or load bearing point, and twist. Refer to the manual furnished by the original manufacturer of the crane.
Hook Latch	If a hook latch is required, check for proper operation.
Wire Rope	Check for broken wires, broken strands, kinks, and any deformation or damage to the rope structure.
Reeving	Check that the wire rope is properly reeved and that rope parts are not twisted about each other.
Limit Switches	Check that the upper limit device stops lifting motion of the hoist load block before striking any part of the hoist or crane.
Oil Leakage	Check for any sign of oil leakage on the crane and on the floor area beneath the crane.
Unusual Sounds	Check for any unusual sounds from the crane or hoist mechanism while operating the crane and hoist.
Warning and Safety Labels	Check that warning and other safety labels are not missing and that they are legible.
Housekeeping and Lighting	Check area for accumulation of material, trip or slip hazards, and poor lighting.

R 408.11872 Frequent and periodic inspections.

Rule 1872. (1) Inspections shall be made as designated in this subrule and Table 3.

(a) An employer shall establish an inspection schedule based on usage and classification as described in this subrule and Appendix B.

(b) The inspection procedure for cranes in regular service is divided into 2 general classifications based upon the intervals at which inspection should be performed. The intervals in turn are dependent upon the nature of the critical components of the crane and the degree of its exposure to wear, deterioration, or

malfunction. The 2 general inspection classifications are designated as frequent and periodic, with respective intervals between inspections as specified in this rule.

(c) Each crane designed and manufactured prior to January 1, 1971 shall be inspected at least monthly. The inspection schedule may be modified based on documented inspection and repair history and a qualified person's recommendations.

(2) Frequent inspection includes examinations by a designated person who makes required records, as follows:

(a) Monthly to quarterly (class C) or at intervals of 100 hours of use, whichever comes first. Frequent inspection includes observations during operation and of items listed in Table 3.

(b) A designated person shall determine whether conditions found during the inspection constitute a hazard and whether a more detailed inspection is required.

(3) Periodic inspection includes inspection of the equipment in place by a designated person who makes records as listed in Table 3 and as follows:

(a) Annually or at intervals of 500 hours of use, whichever comes first. Periodic inspections include observations during operation and of items listed in Table 3.

(b) Conditions of extreme duty cycle, heat, and corrosive or climatic extremes indicate a need for more frequent inspections before use.

(c) Cranes with multiple service classifications shall be inspected in accordance with the highest rated duty classification.

(d) A designated person shall determine whether conditions found during an inspection constitute a hazard and whether disassembly is required for additional inspections.

(4) A crane which is used in infrequent service, that is, which has been idle for a period of 1 month or more, shall be inspected before being placed in service.

TABLE 3					
FREQUENT – PERIODIC MANDATORY INSPECTION CHECKLIST					
Frequent – F - Periodic - P					
BRIDGE STRUCTURAL			TROLLEY STRUCTURAL		
Guards & Covers	F	P	Steel Frame		P
Bumpers	F	P	Connection Hardware		P
Rail Sweeps	F	P	Load Beam		P
Cat-walk & Railings		P	Maintenance Platform		P
General Structure & Welds		P	Handrails		P
Capacity Signs	F	P	Rail Sweeps	F	P
Hand Rails		P	Bumpers	F	P
Trolley Rail & Stops	F	P	Guards & Covers	F	P
BRIDGE MECHANICAL			Alignment & Tracking		P
Motor	F	P	TROLLEY MECHANICAL		
Brake & Hydraulics	F	P	Motor	F	P
Gear Case	F	P	Brake	F	P

TABLE 3
FREQUENT – PERIODIC MANDATORY INSPECTION CHECKLIST

Frequent – F - Periodic - P					
Couplings	F	P		Gear Case	P
Line Shaft Bearings	F	P		Couplings	F P
Wheels	F	P		Wheels	F P
Wheel Gearings	F	P		TROLLEY ELECTRICAL	
Wheel Bearings	F	P		General Wiring & Conduits	F P
BRIDGE ELECTRICAL				Motor	F P
Lights	F	P		Control Panels	F P
Electric Control Brake	F	P		Control Operations	F P
Master Switches	F	P		Motor Resistors	F P
Runway Collectors	F	P		Soft Start or Inverter	F P
Trolley Conductors	F	P		Hoist/Trolley Conductors	F P
Resistors	F	P		Limit Switch(s)	F P
Soft Start or Inverter	F	P		Electric Control Brake(s)	F P
HOIST STRUCTURAL				HOIST MECHANICAL	
Steel Frame Condition		P		Motor	F P
Capacity Markings	F	P		Brake Drum	F P
Guards & Covers	F	P		Holding Brake	F P
Connection to Trolley	F	P		Mechanical Load Brake	F P
HOIST ELECTRICAL (MAIN)				Gear Case	F P
General Wiring & Conduits	F	P		Coupling(s)	F P
Motor(s)	F	P		Upper Sheave(s)	F P
Control Panel	F	P		Rope Drum	P
Motor Resistors	F	P		Wire Rope	F P
Limit Switch(s)	F	P		Bottom Block Assembly	F P
Soft Start or Inverter	F	P		Hook & Latch	F P
Electric Control Brake(s)	F	P		Equalizer Sheave	F P
Overload Guard		P		TEST RUN	
Brake Coil	F	P		Bridge	F P
Power Limit Switch	F	P		Trolley	F P

TABLE 3
FREQUENT – PERIODIC MANDATORY INSPECTION CHECKLIST

Frequent – F - Periodic - P					
Cable Reels	F	P		Main Hoist	F P
Control Cables	F	P		Auxiliary Hoist	F P
MAIN POWER SUPPLY				VERIFICATION	
Main Line Conductors	F	P		Inspection Accepted/Date	F P
Main Line Collectors	F	P		Customer Signature	F P
HOIST STRUCTURAL (AUXILIARY)				MISCELLANEOUS	
Steel Frame Condition		P		Warning Tag	F P
Capacity Markings	F	P		Capacity Markings	F P
Guards & Covers	F	P		Wind Indicators	F P
Connection to Trolley	F	P		Rail Clamps	F P
HOIST ELECTRICAL (AUXILIARY)				Hour Meter Readings	P
General Wiring & Conduits	F	P		Operator Instruction Manual	P
Motor(s)	F	P		Maintenance Manual	P
Control Panel	F	P		Runway, Rails, Clips, Bars	F P
Motor Resistors	F	P		Proper License	P
Limit Switch(s)	F	P		Warning Devices	F P
Soft Start or Inverter	F	P		Spare Batteries	F P
Electric Control Brake(s)	F	P		Recharging Unit	F P
Overload Guard		P		Transmitter Storage Location	F P
Brake Coil	F	P		HOIST ELECTRICAL (AUXILIARY)	
Power Limit Switch	F	P		Motor	F P
Cable Reels	F	P		Brake Drum	F P
Control Cables	F	P		Holding Brake	F P
RADIO CONTROL ELECTRICAL				Mechanical Load Brake	F P
Conduits & Fittings	F	P		Gear Case	F P
Wiring & Connections	F	P		Coupling(s)	F P
Control Panels	F	P		Upper Sheave(s)	F P
Radio/Manual Switch	F	P		Rope Drum	P
Receiver Antenna	F	P		Wire Rope	F P
Transmitter Functions	F	P		Bottom Block Assembly	F P
Transmitter Emergency Stop	F	P		Hook & Latch	F P
TROLLEY CONTROL PANELS				Equalizer Sheave	F P
Contactors	F	P		PENDANT CONTROL	
Arch Shields	F	P		Push Button Festoon Condition	F P

TABLE 3
FREQUENT – PERIODIC MANDATORY INSPECTION CHECKLIST

Frequent – F - Periodic - P						
Wiring	F	P		Push Button Pendant Condition	F	P
Grounds	F	P		Push Button Legend Markings	F	P
Resistors	F	P		Push Button Strain Relief	F	P
Doors Closed	F	P		Cable Reel(s)	F	P
AUXILIARY HOIST CONTROL PANELS				Pendant Balancer	F	P
Contactors	F	P		Operation of E-Stop	F	P
Arch Shields	F	P		Warning Tag on Push Button	F	P
Wiring	F	P		BRIDGE CONTROL PANELS		
Grounds	F	P		Line Contactor & Knife Switch	F	P
Resistors	F	P		Bridge Contactors	F	P
Doors Closed	F	P		Arch Shields	F	P
Overload Relays		P		Wiring	F	P
SAFETY				Grounds	F	P
Fire Extinguisher	F	P		Resistors	F	P
Clearance Crane/Obstruction		P		Doors Closed	F	P
General Condition & Housekeeping	F	P		MAIN HOIST CONTROL PANELS		
TROLLEY POWER SUPPLY				Contactors	F	P
Trolley Conductors	F			Arch Shields	F	P
Trolley Line Collectors	F			Wiring	F	P
FESTOON SYSTEM POWER SUPPLY				Grounds	F	P
Trolley Pusher Arm	F			Resistors	F	P
Festoon Span Conductors	F			Doors Closed	F	P
Festoon Trolleys	F			Overload Relays	F	P

R 408.11873 Operational tests.

Rule 1873.(1) Before a new or modified crane is put into operation or if a crane has not been used in the past 12 months, the equipment shall be tested by a designated person to ensure compliance with this standard, including all of the following functions:

- (a) Hoisting and lowering.
- (b) Trolley travel.
- (c) Bridge travel.
- (d) Travel limiting devices.
- (e) Locking, limiting, and indicating devices, if provided.

(2) The trip setting of a hoist limit switch shall be determined with an empty hook traveling in increasing speeds up to the maximum speed. The actuating mechanism of the limit switch shall be located so that it will trip the switch, under all conditions, in time to prevent contact of the hook or hook block with any part of the trolley.

(3) When a crane is given a load test, the test load shall be not more than 125% of the rated load. The test reports shall be maintained on a file within the premises where the crane is located.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 1, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.13301, R 408.13301a, R 408.13302, R 408.13303, R 408.13305, R 408.13306, R 408.13311, R 408.13325, R 408.13329, R 408.13344, R 408.13355, R 408.13367, and R 408.13387 of the Administrative Code are amended, R 408.13395a, R 408.13395b, R 408.13395c, R 408.13395d, R 408.13395e, R 408.13395f, and R 408.13395g are added, and R 408.13390 is rescinded, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
PART 33. PERSONAL PROTECTIVE EQUIPMENT

GENERAL PROVISIONS

R 408.13301. Scope.

Rule 3301. (1) This standard applies to all places of general industry employment in this state and includes requirements of the employer and use by the employee of personal protective equipment and provides reasonable and adequate means, ways, and methods for the proper selection and safe use of this equipment.

(2) This standard establishes performance, care, and use criteria for all personal fall protection systems.

(3) An employer shall ensure that each personal fall protection system used to comply with MIOSHA general industry safety and health standards meets the requirements of these rules.

(4) Hearing protection shall be in compliance with Occupational Health Standard Part 380 "Occupational Noise Exposure in General Industry," as referenced in R 408.13301a.

(5) Respiratory protection shall be in compliance with Occupational Health Standard Part 451 "Respiratory Protection," as referenced in R 408.13301a.

R 408.13301a Adopted and referenced standards.

Rule 3301a. (1) The following standards are adopted by reference in these rules and are available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179, www.global.ihs.com, at a cost as of the time of adoption of these rules, as stated in these rules.

- (a) American National Standards Institute Standard (ANSI) Z-41 "American National Standard for Personal Protection -- Protective Footwear," 1999 edition. Cost \$25.00.
 - (b) ANSI/ISEA (International Safety Equipment Association) Z-87.1 "Occupational and Educational Personal Eye and Face Protection Devices," 2010 edition. Cost \$60.00.
 - (c) ANSI Z-87.1 "Occupational and Educational Personal Eye and Face Protection Devices," 2003 edition. Cost \$68.00.
 - (d) ANSI Z-87.1 "Practice for Occupational and Educational Eye and Face Protection," 1989 edition, revised 1998. Cost: \$148.00.
 - (e) American Society of Testing Materials Standard (ASTM) D-120 "Standard Specification for Rubber Insulating Gloves," 2009 edition. Cost: \$58.00.
 - (f) ASTM D-178 "Standard Specification for Rubber Insulating Matting," 2001 edition with 2010 supplement. Cost \$47.00.
 - (g) ASTM D-178 "Standard Specification for Rubber Insulating Matting," 1993 edition. Cost \$56.00.
 - (h) ASTM D-1048 "Standard Specification for Rubber Insulating Blankets," 2012 edition. Cost \$47.00.
 - (i) ASTM D-1049 "Standard Specification for Rubber Insulating Covers," 1998 edition with 2010 supplement. Cost \$47.00.
 - (j) ASTM D-1050 "Standard Specification for Rubber Insulating Line Hose," 2005 edition with 2011 supplement. Cost \$47.00.
 - (k) ASTM D-1051 "Standard Specification for Rubber Insulating Sleeves," 2008 edition. Cost \$58.00.
 - (l) ASTM F-478 "Standard Specification for In-Service Care of Insulating Line Hose and Covers," 2009 edition. Cost \$52.00.
 - (m) ASTM F-479 "Standard Specification for In-Service Care of Insulating Blankets," 2006 edition with 2011 supplement. Cost: \$47.00.
 - (n) ASTM F-496 "Standard Specification for In-Service Care of Insulating Gloves and Sleeves," 2008 edition. Cost \$58.00.
 - (o) ASTM F-2412 "Standard Test Methods for Foot Protection," 2005 edition. Cost \$64.00.
 - (p) ASTM F-2413 "Standard Specification for Performance Requirements for Protective Footwear," 2005 edition. Cost \$56.00.
 - (q) ASTM F-819 "Standard Terminology Relating to Electrical Protective Equipment for Workers," 2010 edition. Cost \$41.00.
 - (r) ASTM F-1236 "Standard Guide for Visual Inspection of Electrical Protective Rubber Products," 1996 edition with 2012 supplement. Cost: \$47.00.
 - (s) Institute of Electrical and Electronics Engineers IEEE Standard 516 "Guide for Maintenance Methods on Energized Power Lines," 2009 edition. Cost: \$135.00.
- (2) The following standards are adopted by reference in these rules and are available from Document Center, Inc., Customer Service, 121 Industrial Road, Suite 8, Belmont, CA 94002, USA, telephone:(650) 591-7600 or via the internet at website: www.document-center.com; at a cost as of the time of adoption of these rules, as stated in these rules.
- (a) ANSI Z-89.1 "American National Standard for Industrial Head Protection," 2009 edition. Cost \$61.25.
 - (b) ANSI Z-89.1 "American National Standard for Industrial Head Protection," 2003 edition. Cost: \$20.00.
 - (c) ANSI Z-89.1 "American National Standard for Personnel Protection—Protective Headwear for Industrial Workers--Requirements," 1997 edition. Cost: \$20.00.
- (3) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(4) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOASHA Regulatory Services Section, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(5) The following Michigan Occupational Safety and Health (MIOASHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOASHA Regulatory Services section, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Occupational Health Standard Part 380 “Occupational Noise Exposure in General Industry” R 325.60101 to R 325.30128.

(b) Occupational Health Standard Part 451 “Respiratory Protection,” R 325.60051 to R 325.60052.

(c) General Industry Safety and Health Standard Part 50 “Telecommunications,” R 408.15001 to R 408.15004.

(d) General Industry Safety and Health Standard Part 86 “Electric Power Generation, Transmission, and Distribution,” R 408.18601 to R 408.18605.

(6) The appendices are informational only and are not intended to create any additional obligations or requirements not otherwise imposed or to detract from any established obligations or requirements.

R 408.13302 Definitions, A to E.

Rule 3302. (1) “Absorptive lens” means a filter lens whose physical properties are designed to attenuate the effect of glare, reflective, and stray light.

(2) “Anchorage” means a secure point of attachment for equipment such as lifelines, lanyards, or deceleration devices.

(3) “Apparatus” means electrical equipment.

(4) “Bare hand technique” means a method of working on energized conductors by isolating the employee from any ground potential and by placing the employee in continuous firm contact with the energized electric field.

(5) “Belt terminal” means an end attachment of a window cleaner’s positioning system used for securing the belt or harness to a window cleaner’s belt anchor.

(6) “Body belt” means a strap with means both for securing about the waist and for attaching to other components such as a lanyard used with positioning systems, travel restraint systems, or ladder safety systems.

(7) “Body harness” means straps that secure about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.

(8) “Bump hat or cap” means a device worn on the head to protect the wearer from bumps or blows but which does not meet the requirements of protective helmets.

(9) “Carabiner” means a connector generally comprised of a trapezoidal or oval shaped body with a closed gate or similar arrangement that may be opened to attach another object and, when released, automatically closes to retain the object.

(10) “Chin protector” means the portion of a device that offers protection to a wearer’s chin, lower face, and neck.

(11) “Competent person” means a person who is capable of identifying existing and predictable hazards in any personal fall protection system or any component of it, as well as in their application and uses with related equipment, and who has authorization to take prompt, corrective action to eliminate the identified hazards.

- (12) “Conductor” means a material, such as a bus bar, wire, or cable, suitable for carrying an electric current.
- (13) “Connector” means a device used to couple or connect parts of the fall protection system together.
- (14) “Corrective lens” means a lens ground to the wearer’s individual prescription.
- (15) “Cover lens” means a removable disc or colorless glass, plastic-coated glass, or plastic that covers a filter lens and protects it from weld spatter, pitting, or scratching when used in a goggle.
- (16) “Cover plate” means a removable pane of colorless glass, plastic-coated glass, or plastic that covers a filter plate and protects it from weld spatter, pitting, or scratching when used in a helmet, hood, or goggle.
- (17) “D-ring” means a connector used on any of the following:
- (a) In a harness as an integral attachment element or fall arrest attachment.
 - (b) In a lanyard, energy absorber, lifeline, or anchorage connector as an integral connector.
 - (c) In a positioning or travel restraint system as an attachment element.
- (18) “Deceleration device” means any mechanism that serves to dissipate energy during a fall.
- (19) “Deceleration distance” means the vertical distance a falling employee travels from the point at which the deceleration device begins to operate, excluding lifeline elongation and free fall distance, until stopping. It is measured as the distance between the location of an employee's body harness attachment point at the moment of activation, at the onset of fall arrest forces, of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.
- (20) “Energized”, also known as “live”, means to be electrically charged, or that to which voltage is being applied.
- (21) Equivalent means alternative designs, equipment, materials, or methods that the employer can demonstrate will provide an equal or greater degree of safety for employees compared to the designs, equipment, materials, or methods specified in the standard.
- (22) “Eye size” means a measurement expressed in millimeters and denoting the size of the lens-holding section of an eye frame.

R 408.13303. Definitions; F, G.

- Rule 3303. (1) “Face shield” means a device worn in front of the eyes and a portion or all of the face, whose predominant function is protection of the eyes and face.
- (2) “Filter lens” means a lens that attenuates specific wavelengths of ultraviolet, visible, and infrared radiation according to the composition and density of the lens.
- (3) “Filter plate” means a removable pane in the window of a helmet, hood, or goggle that absorbs varying proportions of the ultraviolet, visible, and infrared rays according to the composition and density of the plate.
- (4) “Foot or toe protection” means a device or equipment, such as, but not limited to, safety toe footwear, toe protectors, or foot guards, that protects an employee’s foot or toes against injury.
- (5) “Footwear” means apparel worn on the feet, such as shoes, boots, slippers, or overshoes, excluding hosiery.
- (6) “Frame” means a device which holds the lens or lenses on the wearer.
- (7) “Free fall” means the act of falling before the personal fall arrest system begins to apply force to arrest the fall.
- (8) “Free fall distance” means the vertical displacement of the fall arrest attachment point on the employee's body belt or body harness between onset of the fall and just before the system begins to apply force to arrest the fall. This distance excludes deceleration distance, lifeline and lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline and or lanyard extension before the devices operate and fall arrest forces occur.
- (9) “Front” means the part of a spectacle or goggle frame that is intended to contain the lens or lenses.

(10) “Goggle” means a device with contour-shaped eyecups or facial contact with glass or plastic lenses, worn over the eyes and held in place by a headband or other suitable means for the protection of the eyes and eye sockets.

R 408.13305. Definitions; L to R.

Rule 3305. (1) “Lanyard” means a flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

(2) “Lens” means the transparent part of a protective device through which the wearer sees, also referred to as a plate or window for some devices.

(3) “Lifeline” means a component of a personal fall protection system consisting of a flexible line for connection to an anchorage at one end so as to hang vertically, vertical lifeline, or for connection to anchorages at both ends so as to stretch horizontally, horizontal lifeline, and serves as a means for connecting other components of the system to the anchorage.

(4) “Lift-front” means a type of mounting frame for a welding helmet, hood, or goggles which is made of 2 connected parts. The front part, which may be removed from the line of vision, contains the high density filter plate with its cover plate, and the back part, which is fixed to the helmet, contains a low density or clear impact-resistant plate.

(5) “Light” means an optical radiation weighted by its ability to cause visual sensations.

(6) “Manufacturer” means a business entity that marks or directs the permanent marking of the components or complete devices as compliant with this standard, and sells them as compliant.

(7) “Metatarsal guards” means guards that are designed to protect the top of the foot from the toes to the ankle over the instep of the foot. These guards may be attached to the outside of shoes.

(8) “Non-removable lens” means a lens and holder that are homogeneous and continuous.

(9) “Personal fall arrest system” means a system used to arrest an employee in a fall from a walking-working surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these.

(10) “Personal fall protection system” means a system, including all components, an employer uses to provide protection from falling or to safely arrest an employee’s fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.

(11) “Plano lens” means a lens that does not incorporate a corrective prescription. This lens is not necessarily flat.

(12) “Positioning system”, also known as work-positioning system, means a system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and work with both hands free. Positioning systems are also known as “positioning system devices” and “work-positioning equipment.”

(13) “Prescription lens” means a lens manufactured to the wearer’s individual corrective prescription.

(14) “Protective footwear” means footwear that is designed, constructed, and classified to protect the wearer from a potential hazard or hazards.

(15) “Protective helmet,” “protective hat or cap,” or “safety hat or cap” means a rigid device, often referred to as a safety cap or hat, that is worn to provide protection for the head or portions thereof against impact, flying particles, or electric shock, or any combination thereof, and which is held in place by a suitable suspension.

(16) “Protector” means a device that provides eye or face protection against the hazards of processes encountered in employment.

(17) “Qualified” means a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

(18) “Radiant energy or radiation” means the following kinds of radiant energy that are pertinent to this standard:

- (a) Ultraviolet.
- (b) Visible light.
- (c) Infrared.

(19) “Reaching distance” means the employee’s reach as extended by a conductive material or equipment.

(20) “Rope grab” means a deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee. A rope grab usually employs the principle of inertial locking, cam/lever locking, or both.

R 408.13306. Definitions; S to W.

Rule 3306. (1) “Safety belt” means a device, usually worn around the waist that by reason of its attachment to a lanyard and lifeline or a structure, will prevent a worker from falling.

(2) “Safety factor” means the ratio of the design load and the ultimate strength of the material.

(3) “Safety harness” means a belt with a shoulder strap worn around the waist and shoulder and capable of restraining a pull or fall of an employee.

(4) “Safety strap” means a restraining line secured at both ends to a safety belt or harness to hold an employee to a fixed object.

(5) “Safety toe footwear” means footwear containing a safety toe box of steel or equivalent material capable of meeting the requirements of this part.

(6) “Sanitizing” means an act or process of destroying organisms that may cause disease.

(7) “Self-retracting lifeline or lanyard” means a deceleration device containing a drum-wound line that can be slowly extracted from, or retracted onto, the drum under slight tension during normal movement by the employee. At the onset of a fall, the device automatically locks the drum and arrests the fall.

(8) “Shield” means a device to be held in the hand, or supported without the aid of the operator, whose predominant function is protection of the eyes and face.

(9) “Shell” means the portion of welding helmet or handshield that covers the wearer’s face and is the part of a helmet which includes the outermost surface.

(10) “Side shield” means a part of, or attachment to, a spectacle that provides side impact-resistance.

(11) “Snaphook” means a connector comprised of a hook-shaped body with a normally closed gate, or similar arrangement that may be manually opened to permit the hook to receive an object. When released, the snaphook automatically closes to retain the object. Opening a snaphook requires 2 separate actions. Snaphooks are generally either of the following types:

(a) Automatic-locking type, which is permitted, with a self-closing and self-locking gate that remains closed and locked until intentionally unlocked and opened for connection or disconnection.

(b) Non-locking type, which is prohibited, with a self-closing gate that remains closed, but not locked, until intentionally opened for connection or disconnection.

(12) “Snood” means a flexible attachment to the back of a hood or helmet for protection against injury to the back of the head and neck.

(13) “Spectacles”, also known as safety glasses, means a protective device intended to shield the wearer’s eyes from certain hazards, depending on the spectacle type; also means a device patterned after conventional-type spectacle eyewear, but of more substantial construction, with or without sideshields, and with plano or corrective impact-resistant lenses of clear or absorptive filter glass or plastic.

(14) “Temple” means the part of a spectacle frame commonly attached to the front and generally extending behind the ear of the wearer.

(15) “Toe guards” means the guards that fit over the toes of regular shoes to protect the toes from impact and compression hazards. These guards may be attached to the outside of shoes.

(16) “Travel restraint,” also known as a tether line, means a rope or wire rope used to transfer forces from a body support to an anchorage or anchorage connector in a travel restraint system.

(17) “Travel restraint system” means a combination of an anchorage, anchorage connector, lanyard or other means of connection, and body support that an employer uses to eliminate the possibility of an employee going over the edge of a walking-working surface.

(18) “Welding goggle” means a goggle intended for limited welding applications.

(19) “Welding faceshield” means a faceshield intended for limited welding applications. Faceshields shall be used only in conjunction with spectacles or goggles, or both.

(20) “Welding helmet” means a protective device intended to provide protection for the eyes and face against optical radiation and weld spatter, which shall be worn only in conjunction with spectacles or goggles.

(21) “Window” means the lens portion of a face shield. Lens is defined in R 408.13305(2).

(22) “Window cleaner’s belt” means a positioning belt that consists of a waist belt, an integral terminal runner or strap, and belt terminals.

(23) “Window cleaner’s belt anchor”, also known as window anchor, means specifically designed fall-preventing attachment points permanently affixed to a window frame or to a building part immediately adjacent to the window frame, for direct attachment of the terminal portion of a window cleaner’s belt.

(24) “Window cleaner’s positioning system” means a system that consists of a window cleaner’s belt secured to window anchors.

(25) “Work-positioning system” means the same as “positioning system.”

R 408.13311. Eye and face protection; consensus standards.

Rule 3311. (1) All protective eye and face protection devices shall be in compliance with any of the following consensus standards:

(a) ANSI/ISEA Z-87.1 “Occupational and Educational Personal Eye and Face Protection Devices,” 2010 edition, as adopted in R 408.13301a.

(b) ANSI Z-87.1 “Occupational and Educational Personal Eye and Face Protection Devices,” 2003 edition, as adopted in R 408.13301a.

(c) ANSI Z-87.1 “Practice for Occupational and Educational Eye and Face Protection,” 1989 edition, revised 1998, as adopted in R 408.13301a.

(2) Protective eye and face protection devices that the employer demonstrates are at least as effective as protective eye and face protection devices that are constructed in accordance with 1 of the consensus standards adopted in subrule(1) of this rule are considered to be in compliance with this rule.

R 408.13325 Non-rigid helmets.

Rule 3325. A helmet may be made of non-rigid materials where it is to be used in confined spaces, or may be collapsible for convenience in carrying or storing. The helmet may be of the same general shape as a rigid helmet, except that a more complete covering of the top of the head is necessary in order to maintain the face, side, and windows in proper position. The requirements for the filter plates, cover plates, and lens mounting frame are the same as for a rigid helmet. A headgear may be used. The material shall be non-conducting and opaque to ultraviolet, visible, and infrared radiations. Stitched seams shall be welded. Stitching shall not be exposed.

R 408.13329 Helmet and hand shield lift fronts and chin rests.

Rule 3329. (1) The lift front of a helmet shall be fabricated from metal, plastic, or other suitable material. A snap hinge shall be provided so that the front part will stay up or down but will not remain in a partially opened position. The lift front seal against the helmet shall be light tight. The lift front shall be designed to accommodate a clear impact-resisting plate in the back or fixed part; a filter plate, impact-resisting, when specified; and a cover plate in the front part. The back or fixed part plate shall be clear heat-treated glass or plastic not more than 3/16 inch thick or less than 1/8 inch and capable of withstanding the impact test.

(2) To avoid contact of a helmet or hand shield with the face of the wearer, a chin rest or adjustable position stop shall be provided. The chin rest and adjustable position stop shall be constructed of suitable rigid material and shall be detachable from the shell of the hand shield.

R 408.13344 Windows.

Rule 3344. (1) A window shall be designed to fit the contour of the window support.

(2) A window supporting or window holding member, which shall be a band or crown protector, shall be attached to the headgear. The window support shall position the window in front of the face to provide clearance for the nose and eyeglasses of the wearer.

(3) The attachment of the window to the window support shall be secure and shall permit easy removal and replacement. The several sizes and types of windows for a face shield shall be interchangeable for attachment to the window support.

(4) A plastic or wire screen window without frame shall be not less than 9 1/2 inches wide at the top and 8 1/2 inches wide at the bottom, measured over its curved surfaces when attached and in position on the window support, and not less than 6 inches high. A window, when used in a frame, shall not be less than 4 inches wide and 2 inches high, and the frame shall conform to the dimensions specified for a window without a frame. A plastic window shall be not less than 0.040 inch nominal thickness.

(5) The exposed borders of a wire screen window shall be suitably bound or otherwise finished to eliminate sharp, rough, or unfinished edges. A wire screen window shall not be less than 20-mesh screen.

(6) A window support shall be pivotally attached to the sides of the headgear to permit easy tilting, either upward or downward, of the supporting member and of the window attached thereto. The window shall be capable of being tilted sufficiently upward so that the center of its bottom edge shall be out of the line of horizontal vision. The tension of the tilting mechanism shall be sufficient to hold the window without slippage in either the up or down position.

R 408.13355 Eyecup goggles; components.

Rule 3355. Eyecup goggles shall consist of 2 eyecups with lenses and lens retainers, connected by an adjustable bridge, and a replaceable and adjustable headband or other means for retaining the eyecups comfortably in front of the eyes. Recommended applications for the use of eyecup goggles are shown in Appendix B Table 1.

R 408.13367 Foundrymen's goggles; protection.

Rule 3367. (1) A foundryman's goggles shall provide protection against impact and hot-metal splash hazards encountered in foundry operations such as melting, pouring, chipping, babbiting, grinding, and riveting. Where required, the foundryman's goggles shall also provide protection against dusts.

(2) Applications for use of foundrymen's goggles are shown in R 408.13312a Table 1.

(3) Materials shall resist flame, corrosion, water, and sanitizing.

ELECTRICAL PROTECTIVE EQUIPMENT

R 408.13387 Design requirements for specific types of electrical protective equipment.

Rule 3387. (1) Rubber insulating blankets, rubber insulating matting, rubber insulating covers, rubber insulating line hose, rubber insulating gloves, and rubber insulating sleeves shall meet the following requirements:

- (a) Blankets, gloves, and sleeves shall be produced by a seamless process.
 - (b) Each item shall be clearly marked as follows:
 - (i) Class 00 equipment shall be marked class 00.
 - (ii) Class 0 equipment shall be marked class 0.
 - (iii) Class 1 equipment shall be marked class 1.
 - (iv) Class 2 equipment shall be marked class 2.
 - (v) Class 3 equipment shall be marked class 3.
 - (vi) Class 4 equipment shall be marked class 4.
 - (vii) Non-ozone-resistant equipment shall be marked type I.
 - (viii) Ozone-resistant equipment shall be marked type II.
 - (ix) Other relevant markings, such as the manufacturer's identification and the size of the equipment, may also be provided.
 - (c) Markings shall be non-conducting and shall be applied in such a manner as not to impair the insulating qualities of the equipment.
 - (d) Markings on gloves shall be confined to the cuff portion of the glove.
- (2) Electrical requirements shall be all of the following:
- (a) Equipment shall be capable of withstanding the alternating current proof-test voltage specified in Table A or the direct current proof-test voltage specified in Table B. All of the following apply:
 - (i) The proof test shall reliably indicate that the equipment can withstand the voltage involved.
 - (ii) The test voltage shall be applied continuously for 3 minutes for equipment other than matting and shall be applied continuously for 1 minute for matting.
 - (iii) Gloves shall be capable of separately withstanding the alternating current proof-test voltage specified in Table A after a 16-hour water soak.
 - (b) When the alternating current proof test is used on gloves, the 60-hertz proof-test current shall not exceed the values specified in Table A at any time during the test period. All of the following apply:
 - (i) If the alternating current proof test is made at a frequency other than 60 hertz, the permissible proof-test current shall be computed from the direct ratio of the frequencies.
 - (ii) For the test, gloves(right side out) shall be filled with tap water and immersed in water to a depth that is in accordance with Table C. Water shall be added to or removed from the glove, as necessary, so that the water level is the same inside and outside the glove.
 - (iii) After the 16-hour water soak specified in this subrule, the 60-hertz proof-test current shall not exceed the values given in Table A by more than 2 milliamperes.
 - (c) Equipment that has been subjected to a minimum breakdown voltage test shall not be used for electrical protection. See subrule (3) of this rule.
 - (d) Material used for Type II insulating equipment shall be capable of withstanding an ozone test, with no visible effects. The ozone test shall reliably indicate that the material will resist ozone exposure in actual use. Any visible signs of ozone deterioration of the material, such as checking, cracking, breaks, or pitting, is evidence of failure to meet the requirements for ozone-resistant material. See subrule (3) of this rule.
- (3) Workmanship and finish shall comply with both of the following:
- (a) Equipment shall be free of physical irregularities that can adversely affect the insulating properties of the equipment and that can be detected by the tests or inspections required by these rules.

(b) Surface irregularities that may be present on all rubber goods, because of imperfections on forms or molds or because of inherent difficulties in the manufacturing process, and that may appear as indentations, protuberances, or imbedded foreign material are acceptable under the following conditions:

- (i) The indentation or protuberance blends into a smooth slope when the material is stretched.
 - (ii) Foreign material remains in place when the insulating material is folded and stretches with the insulating material surrounding it.
- (4) Rubber insulating equipment meeting the national consensus standards in Table 4 is considered to be in compliance with the performance requirements of these rules.

TABLE 2 AMERICAN SOCIETY OF TESTING MATERIALS STANDARDS			
STANDARD TITLE	ASTM NUMBER	EDITION	SUPPLEMENT
Standard Specification for Rubber Insulating Gloves	D-120	2009	-
Standard Specification for Rubber Insulating Matting	D-178	2001	2010
Standard Specification for Rubber Insulating Blankets	D-1048	2012	-
Standard Specification for Rubber Insulating Covers	D-1049	1998	2010
Standard Specification for Rubber Insulating Line Hose	D-1050	2005	2011
Standard Specification for Rubber Insulating Sleeves	D-1051	2008	-
These standards contain specifications for conducting the various tests required in these rules. For example, the alternating current and direct current proof tests, the breakdown test, the water-soak procedure, and the ozone test described in this rule are described in detail in these ASTM standards.			
ASTM F-1236 “Standard Guide for Visual Inspection of Electrical Protective Rubber Products,” 1996 Edition with 2012 supplement, as adopted in R 408.13301a, presents methods and techniques for the visual inspection of electrical protective equipment made of rubber. This guide also contains descriptions and photographs of irregularities that can be found in this equipment			
ASTM F-819 “Standard Terminology Relating to Electrical Protective Equipment for Workers,” 2010 edition, as adopted in R 408.13301a, includes definitions of terms relating to the electrical protective equipment covered in these rules.			

R 408.13390. Rescinded.

PERSONAL FALL PROTECTION SYSTEMS

R 408.13395a General requirements for personal fall protection systems.

Rule 3395a. (1) An employer shall ensure that personal fall protection systems meet the requirements contained in this standard.

(2) Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials.

(3) Connectors must have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

(4) When vertical lifelines are used, each employee shall be attached to a separate lifeline.

(5) Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds (22.2 kN).

(6) Self-retracting lifelines and lanyards that automatically limit free fall distance to 2 feet (0.61 m) or less shall have components capable of sustaining a minimum tensile load of 3,000 pounds (13.3 kN) applied to the device with the lifeline or lanyard in the fully extended position.

(7) A competent person or qualified person shall inspect each knot in a lanyard or vertical lifeline to ensure that it meets the requirements of subrules (5) and (6) of this rule, before any employee uses the lanyard or lifeline.

(8) D-rings, snaphooks, and carabiners shall be capable of sustaining a minimum tensile load of 5,000 pounds (22.2 kN).

(9) D-rings, snaphooks, and carabiners shall be proof tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or incurring permanent deformation. The gate strength of snaphooks and carabiners shall be proof tested to 3,600 lbs. (16 kN) in all directions.

(10) Snaphooks and carabiners shall be the automatic locking type that require at least 2 separate, consecutive movements to open.

(11) Snaphooks and carabiners shall not be connected to any of the following unless they are designed for such connections:

(a) Directly to webbing, rope, or wire rope.

(b) To each other.

(c) To a D-ring to which another snaphook, carabiner, or connector is attached.

(d) To a horizontal life line.

(e) To any object that is incompatibly shaped or dimensioned in relation to the snaphook or carabiner such that unintentional disengagement could occur when the connected object depresses the snaphook or carabiner gate, allowing the components to separate.

(12) An employer shall ensure that each horizontal lifeline is as follows:

(a) Is designed, installed, and used under the supervision of a qualified person.

(b) Is part of a complete personal fall arrest system that maintains a safety factor of at least 2.

(13) Anchorages used to attach to personal fall protection equipment shall be independent of any anchorage used to suspend employees or platforms on which employees work. Anchorages used to attach to personal fall protection equipment on mobile work platforms on powered industrial trucks shall be attached to an overhead member of the platform, at a point located above and near the center of the platform.

(14) Anchorages, except window cleaners' belt anchors covered by R 408.13395d to R 408.13395g, shall be able to do either of the following:

(a) Capable of supporting at least 5,000 pounds (22.2 kN) for each employee attached.

(b) Designed, installed, and used, under the supervision of qualified person, as part of a complete personal fall protection system that maintains a safety factor of at least 2.

(15) Travel restraint lines shall be capable of sustaining a tensile load of at least 5,000 pounds (22.2 kN).

(16) Lifelines must not be made of natural fiber rope. Polypropylene rope must contain an ultraviolet (UV) light inhibitor.

(17) Personal fall protection systems and their components shall be used exclusively for employee fall protection and not for any other purpose, such as hoisting equipment or materials.

(18) A personal fall protection system or its components subjected to impact loading shall be removed from service immediately and not used again until a competent person inspects the system or components and determines that it is not damaged and safe for use for employee personal fall protection.

(19) Personal fall protection systems shall be inspected before initial use during each workshift for mildew, wear, damage, and other deterioration, and defective components shall be removed from service.

(20) Ropes, belts, lanyards, and harnesses used for personal fall protection shall be compatible with all connectors used.

(21) Ropes, belts, lanyards, lifelines, and harnesses used for personal fall protection shall be protected from being cut, abraded, melted, or otherwise damaged.

(22) An employer shall provide for prompt rescue of each employee in the event of a fall.

(23) Personal fall protection systems shall be worn with the attachment point of the body harness located in the center of the employee's back near shoulder level. The attachment point may be located in the pre-sternal position if the free fall distance is limited to 2 feet (0.6 m) or less.

R 408.13395b System performance criteria for personal fall arrest systems.

Rule 3395b. (1) Personal fall arrest systems shall comply with the requirements of R 408.13395a.

(2) An employer shall ensure that personal fall arrest systems comply with all of the following:

(a) Limit the maximum arresting force on the employee to 1,800 pounds (8 kN).

(b) Bring the employee to a complete stop and limit the maximum deceleration distance the employee travels to 3.5 feet (1.1 m).

(c) Have sufficient strength to withstand twice the potential impact energy of the employee free falling a distance of 6 feet (1.8 m), or the free fall distance permitted by the system.

(d) Sustain the employee within the system and strap configuration without making contact with the employee's neck and chin area.

(e) When the personal fall arrest system meets the criteria and protocols in Appendix D "Personal Fall Protection Systems," Non-Mandatory Guidelines, and is being used by an employee having a combined body and tool weight of less than 310 pounds (140 kg), the system is considered to be in compliance with the provisions of subrule (2)(a) to (c) of this rule.

(f) When the system is used by an employee having a combined body and tool weight of 310 pounds (140 kg) or more and the employer has appropriately modified the criteria and protocols in Appendix D "Personal Fall Protection Systems," Non-Mandatory Guidelines, then the system is deemed to be in compliance with the requirements of subrule (2)(a) to (c) of this rule.

R 408.13395c System use criteria for personal fall arrest systems.

Rule 3395c. (1) An employer shall ensure that any horizontal lifeline that may become a vertical lifeline, the device used to connect to the horizontal lifeline is capable of locking in both directions on the lifeline.

(2) An employer shall ensure that the personal fall arrest systems are rigged in such a manner that the employee cannot free fall more than 6 feet (1.8 m) or contact a lower level. A free fall may be more than 6 feet (1.8 m) provided the employer can demonstrate the manufacturer designed the system to allow a

free fall of more than 6 feet and tested the system to ensure a maximum arresting force of 1,800 pounds (8 kN) is not exceeded.

(3) Body belts are prohibited as part of a personal fall arrest system.

R 408.13395d Positioning systems for personal fall protection systems.

Rule 3395d. An employer shall ensure that all positioning systems, except window cleaners' positioning systems, are capable of withstanding, without failure, a drop test consisting of a 4-foot (1.2-m) drop of a 250-pound (113-kg) weight.

R 408.13395e Window cleaners' positioning systems.

Rule 3395e. (1) An employer shall ensure that all window cleaners' positioning systems are capable of withstanding, without failure, a drop test consisting of a 6-foot (1.8-m) drop of a 250-pound (113-kg) weight.

(2) An employer shall ensure that all window cleaners' positioning systems limit the initial arresting force on the falling employee to not more than 2,000 pounds (8.9 kN), with a duration not exceeding 2 milliseconds and any subsequent arresting forces to not more than 1,000 pounds (4.5 kN).

(3) An employer shall ensure positioning systems, including window cleaners' positioning systems, meet the test methods and procedures in Appendix D "Personal Fall Protection Systems," Non-Mandatory Guidelines, are considered to be in compliance R 408.13395d and R 408.13395e.

R 408.13395f Lineman's body belt and pole strap systems.

Rule 3395f. An employer shall ensure that all lineman's body belt and pole strap systems meet the following tests:

(a) A dielectric test of 819.7 volts, AC, per centimeter, 25,000 volts per foot, for 3 minutes without visible deterioration.

(b) A leakage test of 98.4 volts, AC, per centimeter, 3,000 volts per foot, with a leakage current of no more than 1 mA.

(c) A flammability test in accordance with Table F "Flammability Test."

TABLE F FLAMMABILITY TEST	
Test Method	Criteria for Passing Test
1. Vertically suspend a 19.7-inch (500-mm) length of strapping supporting a 220.5-lb (100-kg) weight.	Any flames on the position strap must self-extinguish. The positioning strap must continue to support the 220.5-lb (100-kg) mass.
2. Use a butane or propane burner with a 3-inch (76-mm) flame.	
3. Direct the flame to an edge of the strapping at a distance of 1 inch (25 mm).	
4. Remove the flame after 5 seconds.	
5. Wait for any flames on the positioning strap to stop burning.	

R 408.13395g System use criteria for window cleaners' positioning systems.

Rule 3395g. An employer shall ensure that window cleaners' positioning systems meet and are used in accordance with the following:

- (a) Window cleaners' belts are designed and constructed to comply with both of the following:
 - (i) Belt terminals will not pass through their fastenings on the belt or harness if a terminal comes loose from the window anchor.
 - (ii) The length of the runner from terminal tip to terminal tip is 8 feet (2.44 m) or less.
- (b) Window anchors to which belts are fastened are installed in the side frames or mullions of the window at a point not less than 42 inches (106.7 cm) and not more than 51 inches (129.5 cm) above the window sill.
- (c) Each window anchor is capable of supporting a minimum load of 6,000 pounds (26.5 kN).
- (d) Use of installed window anchors for any purpose other than attaching the window cleaner's belt is prohibited.
- (e) A window anchor that has damaged or deteriorated fastenings or supports is removed, or the window anchor head is detached so the anchor cannot be used.
- (f) Rope that has wear or deterioration that affects its strength is not used.
- (g) Both terminals of the window cleaner's belt are attached to separate window anchors during any cleaning operation.
- (h) No employee works on a window sill or ledge on which there is snow, ice, or any other slippery condition, or one that is weakened or rotted.
- (i) No employee works on a window sill or ledge unless he or she complies with either of the following:
 - (i) The window sill or ledge is a minimum of 4 inches (10 cm) wide and slopes no more than 15 degrees below horizontal.
 - (ii) The 4-inch minimum width of the window sill or ledge is increased 0.4 inches (1 cm) for every degree the sill or ledge slopes beyond 15 degrees, up to a maximum of 30 degrees.

(j) The employee attaches at least 1 belt terminal to a window anchor before climbing through the window opening, and keeps at least 1 terminal attached until completely back inside the window opening.

(k) Except as provided in subdivision (l) of this rule, the employee travels from 1 window to another by returning inside the window opening and repeating the belt terminal attachment procedure at each window in accordance with subdivision (j) of this rule.

(l) An employee using a window cleaner's positioning system may travel from 1 window to another while outside of the building, provided the employee complies with all of the following:

(i) At least 1 belt terminal is attached to a window anchor at all times.

(ii) The distance between window anchors does not exceed 4 feet (1.2 m) horizontally. The distance between windows may be increased up to 6 feet (1.8 m) horizontally if the window sill or ledge is at least 1 foot (0.31 m) wide and the slope is less than 5 degrees.

(iii) The sill or ledge between windows is continuous.

(iv) The width of the window sill or ledge in front of the mullions is at least 6 inches (15.2 cm) wide.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 1, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.12111, R 408.12131, R 408.12155, R 408.12164, R 408.12165, R 408.12169, R 408.12176, and R 408.12190 of the Michigan Administrative Code is amended, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

PART 21. POWERED INDUSTRIAL TRUCKS

R 408.12111 Adopted and referenced standards.

Rule 2111. (1) The following standards are adopted by reference in these rules and are available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: <http://global.ihs.com>; at a cost as of the time of adoption of these rules, as stated in these rules.

(2) A powered industrial truck manufactured after January 15, 1971, but before 1993, shall be certified by the manufacturer that the truck covered by this part has been produced according to the mandatory requirements of sections 3 and 4, except subsection 421 of section 4, of the American National Standards Institute Standard ANSI standard B56.1 "Safety Standards For Powered Industrial Trucks," 1969 edition. Cost: \$60.00.

(3) A low lift or high lift truck manufactured after April 26, 2000 shall be in compliance with the requirements of ANSI standard B56.1 "Safety Standard For Low Lift And High Lift Trucks," 1993 edition, except as noted in subrule(1) of this rule. Cost: \$61.00.

(4) A rough terrain fork lift truck manufactured after April 26, 2000 shall be in compliance with the requirements of ANSI standard B56.1 "Rough Terrain Fork Lift Trucks," 1993 edition. Cost: \$68.00.

(5) A industrial crane truck manufactured after April 26, 2000 shall be in compliance with ANSI standard B56.7 "Safety Standard For Industrial Crane Trucks," 1987 edition. Cost: \$60.00.

(6) A tow tractor manufactured after April 26, 2000 shall be in compliance with ANSI standard B56.92 "Operator Controlled Industrial Tow Tractors," 1992 edition. Cost: \$56.00.

(7) A manually propelled high lift industrial truck manufactured after April 26, 2000 shall be in compliance with ANSI standard B56.10 "Manually Propelled High Lift Industrial Trucks," 1992 edition. Cost: \$105.00.

(8) National Fire Protection Agency Standard NFPA 505 “Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations,” 1996 edition. Cost: \$27.00.

(9) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(10) The standards adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, plus \$20.00 for shipping and handling.

(11) The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P. O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 1 “General Provisions,” R 408.10001 to R 408.10098.

(b) General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(c) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment” R 408.13301 to R 408.13398.

(d) General Industry Safety Standard Part 56 “Storage and Handling of Liquefied Petroleum Gases,” R 408.15601 to R 408.15601.

(e) General Industry Safety Standard Part 75 “Flammable Liquids,” R 408.17501 to R 408.17502.

(f) General Industry Safety Standard Part 92 “Hazard Communication,” R 408.19201 to R 408.19204.

(g) Occupational Health Standard Part 433 “Personal Protective Equipment,” R 325.60001 to R 325.60013.

(h) Occupational Health Standard Part 472 “Medical Services and First Aid,” R 325.47201 to R 325.47201.

R 408.12131 Warning devices and lights.

Rule 2131. (1) A truck, except a motorized hand truck, shall be equipped with an audible device to warn of approach.

(2) A truck used in areas where general lighting is less than 2 foot-candles shall be equipped with auxiliary lights that illuminate work in process.

R 408.12155 Restriction of use.

Rule 2155. A powered industrial truck used in an environment containing the following substances shall be equipped as prescribed in NFPA standard 505 “Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations,” 1996 edition, as adopted in R 408.12111.

(a) Gases or vapors, such as, but not limited to, acetylene, hydrogen, oxygen, ether, gasoline, naphtha, or acetone, which may be present in quantities sufficient to produce an explosive or ignitable mixture.

(b) Combustible mixtures of dusts such as, but not limited to, metal dust, coal dust, coke dust, grain dust, flour dust, or organic dust.

(c) Ignitable fibres such as, but not limited to, baled waste, cocoa fibre, cotton, excelsior, kapok, or oakum.

R 408.12164 Electric trucks.

Rule 2164. (1) Where electric trucks are used, an employer shall provide a designated area for battery changing, charging, or both, which shall be performed by a trained and authorized employee.

(2) An employer shall ensure that provisions are made in a battery charging area where batteries are removed from the truck for flushing and neutralization of spillage, for fire protection, and for air movement sufficient to disperse fumes from gassing batteries.

(3) Smoking and other sources of ignition is prohibited in these areas.

(4) An employer shall assure that an employee is trained to position the truck and apply the brake before changing or charging a battery and to position and secure a reinstalled battery before releasing the truck for use.

(5) Material handling equipment, such as, but not limited to, a conveyor or overhead hoist, shall be used for removing and replacing a battery. A spreader bar or an equivalent device shall be used with any overhead battery hoist so that the lifting stresses are vertical. A chain type powered battery hoist shall have a container to accumulate the excess lifting chain. When a hand hoist is used, an uncovered battery shall be covered to prevent the hand chain from shorting on cell connectors or terminals. Tools and other metallic objects shall be kept away from the terminals.

(6) When mixing electrolyte for a battery, an employer shall ensure the use of a carboy tilter or siphon for handling electrolyte. Acid concentrate shall be poured into water. Water shall not be poured into acid concentrate.

(7) The following apply to charging a battery:

(a) The vent cap shall be kept in place and functioning.

(b) The battery or compartment covers where provided shall be kept open to dissipate heat and gases.

(8) The electrolyte level shall not be checked with an open flame.

(9) Where there is a potential for employee exposure to injurious corrosive electrolyte solutions, for example sulfuric acid, associated with battery powered industrial trucks, the employer shall provide both of the following:

(a) Personal protective equipment in accordance with General Industry Safety and Health Standard Part 33 “Personal Protective Equipment” and Occupational Health Standard Part 433 “Personal Protective Equipment,” as referenced in R 408.12111.

(b) Suitable facilities for quick drenching or flushing of eyes and body within the work area for immediate emergency use in accordance with Occupational Health Standard Part 472 “Medical Services and First Aid,” as referenced in R 408.12111.

R 408.12165 Dockboards and plates.

Rule 2165. (1) The carrying capacity shall be marked on a dockboard or plate purchased after April 17, 1979.

(2) Where a fork truck is used, fork loops, pockets, or lugs shall be provided for safe handling.

(3) A dockboard or plate shall have a slip-resistant surface, such as, but not limited to, a tread plate, designed to reduce the possibility of slipping by an employee or truck.

(4) For dockboards, see General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.12111, for additional requirements.

R 408.12169 Spinner knobs.

Rule 2169. A spinner knob shall not be attached to a steering hand-wheel of a truck unless originally equipped with such; the truck is equipped with power steering; or the truck is equipped with an anti-kickback device on the steering mechanism. The knob shall be installed within the periphery of the handwheel.

R 408.12176. Loading trucks, trailers, and railcars.

Rule 2176. (1) An employer shall ensure that a highway truck and trailer are not boarded by a powered industrial truck before the highway truck and trailer has its brakes set and not less than 2 wheels blocked or be restrained by other mechanical means installed in a manner that will hold the trailer from movement.

(2) An employer shall ensure that wheel stops, hand brakes, or other approved positive protection to prevent railroad cars from moving during loading or unloading operations are provided, and before and while dockboards or bridge-plates are in position.

(3) An employer shall ensure that provisions are made to isolate rail cars during switching operations as required by General Industry Safety and Health Standard Part 1 “General Provisions,” as referenced in R 408.12111.

(4) An employer shall ensure that the landing gear of all semi-trailers are visually inspected immediately before the trailer is uncoupled from the tractor to assure ability of the landing gear to support the imposed load.

(5) A semitrailer less than 30 feet in length, when not coupled to a tractor and being loaded or unloaded with a powered industrial truck, shall be provided a support capable of sustaining the load at the front.

(6) An employer shall ensure that the flooring of trucks, trailers, and railroad cars are checked for breaks and weakness before they are driven onto.

R 408.12190 Wet floors, dockboards, and bridge-plates.

Rule 2190. (1) An operator shall drive at a slow speed over wet or slippery floors.

(2) Before driving over a dockboard or bridge-plate, an operator shall observe that the dockboard or bridge-plate is secured.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 6, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.12501 and R 408.12510 of the Michigan Administrative Code are amended, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
PART 25. MANLIFTS

R 408.12501 Adoption of federal standard.

Rule 2501. (1) The federal Occupational Safety and Health Administration (OSHA) regulation 29 C.F.R. §1910.68, “Manlifts,” as amended November 18, 2016, is adopted by reference in these rules.

(2) The availability information for the OSHA standard adopted in these rules is in R 408.41205 and MIOSHA standards referenced in these rules is in R 408.12510.

(3) A reference to 29 C.F.R. §1910, Subpart D “Walking-Working Surfaces,” means General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces.”

(3) A reference to ANSI standard A90.1 “Manlifts,” 1969 edition, means this standard.

(4) A reference to either of the following means General Industry Safety Standard Part 7 “Guards for Power Transmission:”

(a) ANSI standard B15.1 “Safety Code for Mechanical Power Transmission Apparatus,” 1958 edition.

(b) 29 C.F.R. §1910, Subpart O, “Machinery and Machine Guarding.”

(5) A reference to 29 C.F.R. §1910, Subpart S, “Electrical,” means both of the following:

(a) General Industry Safety Standard Part 39 “Design Safety Standards for Electrical Systems.”

(b) General Industry Safety Standard Part 40 “Safety-Related Work Practices.”

(6) The adopted federal regulations shall have the same force and effect as a rule promulgated under the Michigan Occupational Safety and Health Act, 1974 PA 154, MCL 408.1001 to 408.1094.

R 408.12510 Availability of MIOSHA referenced standards.

Rule 2510. The following Michigan Occupational Safety and Health Administrative (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at

website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(b) General Industry Safety Standard Part 7 “Guards for Power Transmission,” R 408.10701 to R 408.10765.

(c) General Industry Safety Standard Part 39 “Design Safety Standards for Electrical Systems,” R 408.13901 to R 408.13905.

(d) General Industry Safety Standard Part 40 “Safety-Related Work Practices,” R 408.14001 to R 408.14009.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 6, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2003-18, 2008-4, and 2011-4, MCL 408.1016, 408.1021, 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.15001, R 408.15003, and R 408.15004 of the Michigan Administrative Code are amended, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
PART 50. TELECOMMUNICATIONS

R 408.15001 Adoption of standards by reference.

Rule 5001. (1) The federal Occupational Safety and Health Administration (OSHA) regulation 29 C.F.R. §1910.268 "Telecommunications," as amended November 18, 2016, is adopted in these rules, except as noted in this rule.

(2) The subrules 29 C.F.R. §1910.268(a)(2)(i) and (a)(3) are excepted.

(3) The words "for purposes of 29 C.F.R. 1910.34," as used in 29 C.F.R. §1910.268(b)(1)(iii), are excepted.

(4) A reference to §1910.110 "Storage and handling of liquefied petroleum gases," means General Industry Safety Standard Part 56 "Storage and Handling of Liquefied Petroleum Gases," as referenced in R 408.15004.

(5) "Assistant Secretary for Occupational Safety and Health," means director of the department of licensing and regulatory affairs.

(6) A reference to §1910.137, "Electrical protective devices," means General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.15004.

(7) A reference to "Subpart D," means General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.15004.

(8) A reference to §1910.25(c)(5), means Construction Safety Standard Part 30 "Telecommunications for Construction," R 408.43004 "Trolley and side-rolling ladders," as referenced in R 408.15004.

(9) A reference to §1910.133, or "Subpart I," means General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.15004.

(10) A reference to “Subpart Q,” means General Industry Safety Standard Part 12 “Welding and Cutting,” as referenced in R 408.15004.

(11) A reference to “Subpart W of Part 1926,” means Construction Safety Standard Part 13 “Mobile Equipment,” as referenced in R 408.15004.

(12) A reference to §1910.97, means Occupational Health Standard Part 382 “Nonionizing Radiation,” as referenced in R 408.15004.

(13) A reference to American National Standards Institute Standard ANSI A92.2, “Vehicle-Mounted Elevating and Rotating Devices,” 1969 edition, is adopted in these rules.

(14) A reference to ANSI B30.6 “Safety Code for Derricks,” 1969 edition, means American Society of Mechanical Engineers Standard ASME B30.6 “Safety Code for Derricks,” 1969 edition, is adopted in these rules.

(15) A reference to ANSI Z89.2 “Industrial Protective Helmets for Electrical Workers,” 1971 edition, is adopted in these rules.

(16) A reference to American Society for Testing and Materials Standard ASTM B117, “Standard Practice for Operating Salt Spray (Fog) Apparatus,” 1964 edition, is adopted in these rules.

(17) A reference to ANSI J6.6 - 1971 edition, means ASTM D120 “Standard Specification for Rubber Insulating Gloves,” 1977 edition, is adopted in these rules.

(18) The adopted federal regulations have the same force and effect as a rule promulgated under the Michigan occupational safety and health act, 1974 PA Act No. 154, MCL 408.1001 to 408.1094.

R 408.15003 Employer responsibility.

Rule 5003. Where personal protective equipment is required by 29 C.F.R. §1910.268 “Telecommunications,” as adopted in these rules, the personal protective equipment shall be provided as prescribed in General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.15004.

R 408.15004 Availability of documents.

Rule 5004. (1) The federal regulations 29 C.F.R. §1910.268 “Telecommunications,” as amended November 18, 2016, as adopted in these rules are available from the United States Department of Labor, Occupational Safety and Health Administration website: www.osha.gov, at no charge, as of the time of adoption of these rules.

(2) The following standards are adopted by reference in these rules and are available from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number 1-800-854-7179, website: www.global.ihs.com, at a cost as of the time of adoption of these rules, as stated in this rule:

(a) ANSI A92.2 “Vehicle-Mounted Elevating and Rotating Devices,” 1969 edition. Cost: \$20.00.

(b) ANSI B30.6 “Safety Code for Derricks,” 1969 edition. Cost: \$40.00.

(c) ANSI Z89.2 “Industrial Protective Helmets for Electrical Workers,” 1971 edition. Cost: \$25.00.

(d) ASTM B117 “Standard Practice for Operating Salt Spray (Fog) Apparatus,” 1964 edition. Cost: \$40.00.

(e) ASTM D120 “Standard Specification for Rubber Insulating Gloves,” 1977 edition. Cost: \$54.00.

(3) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(4) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(5) The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 13 “Mobile Equipment,” R 408.41301 to R 408.41301.

(b) Construction Safety Standard Part 30 “Telecommunications for Construction,” R 408.43001 to R 408.43006.

(c) General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(d) General Industry Safety Standard Part 12 “Welding and Cutting,” R 408.11201 to R 408.11299.

(e) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.

(f) General Industry Safety Standard Part 56 “Storage and Handling of Liquefied Petroleum Gases,” R 408.41301 to R 408.41301.

(g) Occupational Health Standard Part 382 “Nonionizing Radiation,” R 325.60701 to R 325.60704.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 13, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-18, 2003-1, 2008-4, and 2011-4, MCL 408.1016, 408.1021, 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.15201, R 408.15209, R 408.15211, R 408.15212a, R 408.15222, R 408.15225, R 408.15226, R 408.15229, R 408.15231, R 408.15247, R 408.15251, R 408.15254, R 408.15261, R 408.15271, R 408.15273, and R 408.15275 of the Michigan Administrative Code are amended, as follows:

PART 52. SAWMILLS

GENERAL PROVISIONS

R 408.15201 Scope.

Rule 5201. This standard provides for the safe maintenance and operation of machinery and equipment by the employer and their safe use by the employees for sawmills, including wood pallet and wood box making plants, in or about places of employment in this state.

R 408.15209 Adopted and referenced standards.

Rule 5209. (1) The following standards are adopted in these rules and are available from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, USA, 80112, telephone number: 1-800-854-7179 or via the internet at web-site: <http://global.ihs.com>; at a cost, as of the time of adoption of these rules, as stated in these rules:

(a) American National Standard Institute (ANSI) Standard ANSI A11.1 "Industrial Lighting," 1965 edition. Cost \$153.00.

(b) ANSI Z21.30 "Installation of Gas Appliances and Gas Piping," 1964 edition. Cost: \$90.00.

(2) The following standards are adopted in these rules and are available from the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts, USA, 02169-7471, telephone number: 1-617-770-3000 or via the internet at website: www.nfpa.org; at a cost, as of the time of adoption of these rules, as stated in these rules:

(a) NFPA 91 "Blower and Exhaust Systems for Dust, Stock, and Vapor Removal or Conveying," 1961 edition. Cost \$27.00.

(b) NFPA 302 “Fire Protection Standard for Pleasure and Commercial Motor Craft,” 1968 edition. Cost \$27.00.

(3) The standards adopted in these rules are available for inspection at the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(4) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(5) The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at web-site: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(b) General Industry Safety Standard Part 7 “Guards for Power Transmission,” R 408.10701 to R 408.10765.

(c) General Industry Safety and Health Standard Part 21 “Powered Industrial Trucks,” R 408.12101 to R 408.12193.

(d) General Industry Safety and Health Standard Part 27 “Woodworking Machinery,” R 408.12701 to R 408.12799.

(e) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.

(f) Occupational Health Standard Part 301 “Air Contaminants for General Industry,” R 325.51101 to R 325.51108.

(g) Occupational Health Standard Part 433 “Personal Protective Equipment,” R 325.60001 to R 325.60013.

R 408.15211 Employer responsibilities.

Rule 5211. (1) An employer shall do all of the following:

(a) Provide training to each employee as to hazards and safe operation of the assigned job.

(b) Maintain machinery, equipment, buildings, ramps, platforms, and aisles in a hazard-free condition. When a hazardous condition develops concerning floors, docks, and passageways that cannot be immediately repaired, the area shall be guarded until adequate repairs are made.

(c) Provide head protection which shall be used by all employees outside the office, including those in the dry storage area, as prescribed in General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.15209.

(d) Provide, and an employee shall use, eye protection as prescribed in General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.15209. If impact resistance is not required, the employee may wear a steel wire or nylon mesh screen, or equivalent, mounted on a protective helmet. The screen shall be of sufficient strength to protect the face to below the nose from chips or sawdust from the saw.

(e) Provide an approved life jacket to an employee working over water, at no expense to the employee.

(f) Install all gas piping and appliances as prescribed in ANSI standard Z21.30 “Installation of Gas Appliances and Gas Piping,” 1964 edition, as referenced in R 408.15209.

(2) Physical hazard color identification marking shall be in accordance with the following requirements:

(a) Red shall be the basic color for the identification of any of the following:

(i) Fire protection equipment and apparatus.

(ii) Danger, such as any of the following:

(A) Safety cans or other portable containers of flammable liquids having a flash point at or below 80° F.

(B) Table containers of flammable liquids, open cup tester, excluding shipping containers, shall be painted red with some additional clearly visible identification either in the form of a yellow band around the can or the name of the contents conspicuously stenciled or painted on the can in yellow.

(C) Red lights shall be provided at barricades and at temporary obstructions.

(D) Danger signs shall be painted red.

(iii) Stop, shall apply to both of the following:

(A) Emergency stop bars on hazardous machines such as rubber mills, wire blocks, flat work ironers, and others, shall be red.

(B) Stop buttons or electrical switches where letters or other markings appear, and are used for emergency stopping of machinery shall be red.

(b) Yellow shall be the basic color for designating caution and for marking physical hazards for as any of the following:

(i) Striking against.

(ii) Stumbling.

(iii) Falling.

(iv) Tripping.

(v) "Caught in between."

R 408.15212a Protective equipment.

Rule 5212a. The use of chemicals shall be controlled so as to protect employees from harmful exposure to toxic materials. Where necessary, employees shall be provided with and required to wear protective equipment that will afford adequate protection against harmful exposure as required by General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," and Occupational Health Part 433 "Personal Protective Equipment," as referenced in R 408.15209.

R 408.15222 Walking-working surfaces.

Rule 5222. (1) An aisle or floor work area shall be kept free of protruding objects, holes, and loose boards.

(2) A floor at the operator's station of a machine shall be maintained free of any slip or trip hazard.

(3) A floor shall be capable of sustaining the imposed load.

(4) An aisle, passageway, roadway, or dock shall be of such width as to provide for the safe passage of employees or vehicles, or both. A dock where powered industrial trucks are used shall be provided with a guard or bumper along its perimeter, except at loading or unloading points, to prevent overrun.

(5) A swinging door shall be provided with a window in each section. The window shall be of clear safety glass or equivalent material or protected against breakage.

(6) Where a doorway opens upon a railroad track or upon a tramway or dock over which vehicles travel, a barrier or other warning device shall be placed to prevent employees from stepping into moving traffic.

(7) Where elevated platforms are used routinely on a daily basis, the elevated platforms shall be equipped with stairways or fixed ladders that comply with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209.

(8) Stairways shall be constructed in accordance with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209.

(9) In dry kilns and facilities, a fixed ladder complying with the requirements General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209, or other adequate means, shall be provided to permit access to the roof. Where controls and machinery are mounted on the roof, a permanent stairway with standard handrail shall be installed in accordance with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces”.

R 408.15225 Chain, chain slings, and chain fittings.

Rule 5225. (1) A chain and its component parts, other than alloy steel chain having a minimum tensile strength of 125,000 pounds per square inch, shall have a safety factor of not less than 5. Alloy chain shall not be used in excess of the working load in straight tension for its size as prescribed in table 1.

(2) A chain used in load-carrying service shall be inspected before initial use and weekly thereafter. Chain with bent, twisted, or elongated links or hook that has been open more than 15% at the throat from the original set or twisted more than 10% from the plane of the unbent hook shall not be used until the defective part is replaced.

(3) A bolt or nail shall not be used to shorten or join links together.

(4) Installation, inspection, maintenance, repair, and testing of chains shall be done only by an employee qualified to do such work.

(5) Proper storage shall be provided for slings while not in use.

(6) If, at any time, any 3-foot length of chain is found to have stretched 1/3 the length of a link shall be discarded.

(7) Table 1 reads as follows:

Table 1 Working load – Single chain	
Nominal Size, Chain Bar, In.	Work Load, Lb. Max.
1/4	3,250
3/8	6,600
1/2	11,250
5/8	16,500
3/4	23,000
7/8	28,500
1	38,750
1 1/8	44,500
1 1/4	57,500
1 3/8	67,000
1 1/2	80,000
1 3/4	100,000

R 408.15226 Cable, wire rope, and wire rope slings.

Rule 5226. (1) Cable, wire rope, and wire rope slings shall have a designed safety factor of not less than 5.

(2) Wire rope and cable in load-carrying or hoist service and their fittings shall be visually inspected when installed and once each day thereafter when in use.

(3) Wire rope shall not be used if, within a segment of 8 diameters in length, the total number of visible broken wires exceeds 10% of the total number of wires or if the rope shows other signs of excessive wear, corrosion, or defects.

(4) Wire rope and cable removed from service due to defects shall be plainly marked or identified as being unfit for further use on a crane, hoist, or other load-carrying device.

(5) When U-type cable clips are applied, the U-type cable clips shall comply with figure 1.

(6) Cable clips shall be spaced approximately 6 rope diameters apart.

(7) Wire rope and cable shall be protected at sharp or tight bends by use of corner irons or blocks.

(8) A safety hook shall be used where there is a hazard created if the tension on the hook can be relieved by fouling or catching.

(9) Installation, inspection, maintenance, repair, and testing of ropes, cables, and slings shall be done only by persons qualified to do such work.

(10) Proper storage shall be provided for a sling while not in use.

(11) Connections, fittings, fastenings, and other parts used in connection with ropes and cables shall be of good quality and of proper size and strength and shall be installed in accordance with the manufacturer's recommendations.

(12) Hooks, shackles, rings, pad eyes, and other fittings that show excessive wear or that have been bent, twisted, or otherwise damaged shall be removed from service.

(13) Running lines of hoisting equipment located within 6 feet 6 inches of the ground or working level shall be boxed off or otherwise guarded or the operating area shall be restricted.

(14) There shall be not less than 2 full wraps of hoisting cable from slipping off.

(15) A drum shall have a flange at each end to prevent the cable from slipping off.

(16) A bottom sheave shall be protected by a close-fitting guard to prevent the cable from jumping the sheave.

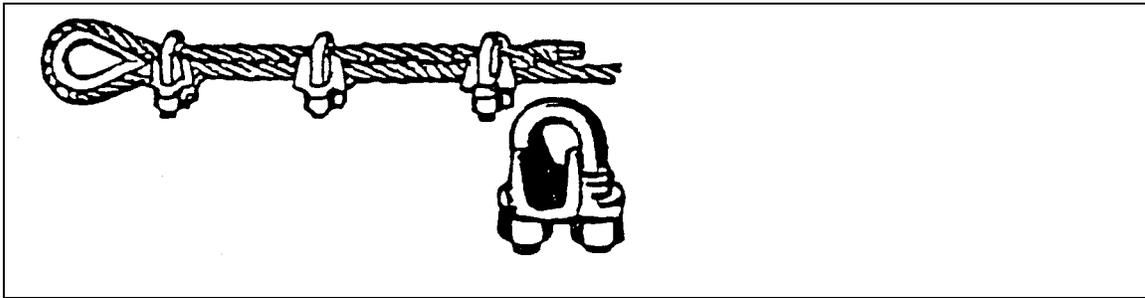
(17) The reeving of a rope shall be so arranged as to minimize the chafing or abrading while in use.

(18) Multiple-part lines shall not be twisted around each other. If there is a slack rope condition, the rope shall be properly seated on the drum and in the sheaves.

(19) Knots shall not be allowed in a wire rope.

(20) Figure 1 reads as follows:

FIGURE 1



NOTE: There is only 1 correct method of installing wire rope clips. Wire rope clips should be attached to rope ends as shown in photograph above. The base of each clip should bear against the live, or long rope end, and the U-bolt should bear against the dead or short rope end.

NUMBER AND SPACING OF CLIPS
FOR ROPES OF VARIOUS SIZES

Diameter of rope (in.)	Number of clips	Center-to-center space between clips (in.)	Length of rope turned back exclusive of eye (in.)
1/4	2	1 1/2	3
5/16	2	1 7/8	4
3/8	2	2 1/4	5
7/16	2	2 5/8	6
1/2	3	3	9
5/8	3	3 3/4	12
3/4	4	4 1/2	18
7/8	4	5 1/4	21
1	4	6	24
1 1/8	5	6 3/4	34
1 1/4	5	7 1/2	38
1 3/8	6	8 1/4	50
1 1/2	6	9	54
1 5/8	6	9 3/4	60
1 3/4	7	10 1/2	74
1 7/8	8	11 1/4	90
2	8	12	96
2 1/8	8	13	104
2 1/4	8	14	112

R 408.15229 Bins, bunkers, hoppers, and fuel houses.

Rule 5229. (1) An open bin, bunker, or hopper extending less than 36 inches above the working level shall be provided with a guardrail system as prescribed in General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209, or the opening shall be covered with a grating with openings small enough to prevent an employee from falling through.

(2) Where wheeled equipment is used to move materials to a bin, bunker or hopper, a bumper stop shall be provided where the bin, bunker or hopper is at floor level. An employee shall be protected from the open side by a guardrail system installed along each side of the wheeled equipment runway.

SPECIFIC EQUIPMENT

R 408.15231 Chippers and hogs.

Rule 5231. (1) A whole log chipper or a hog shall have the feed system arranged so that an employee does not stand in direct line with the chipper hopper.

(2) A guard shall be installed over the chipping or hog throat to prevent slab and wood particles from being discharged at an operator.

(3) To prevent an employee from falling onto a chipper or hog belt-type, feed-in conveyor, the belt-type conveyor shall be guarded for the entire length of the conveyor by an enclosure or guardrail system as prescribed in General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209.

(4) A safety belt and lanyard shall be used by an employee when feeding at or near the hopper of a drop feed chipper or drop feed hog. The lanyard shall be adjusted to prevent an employee from falling into the chipper or hog.

(5) A board chipper or hog shall have the feed spout enclosed not less than 40 inches from the blade to the opening or the operator shall wear a safety belt and lanyard. The lanyard shall be short enough to prevent any portion of the operator’s body from touching the blade.

(6) Where jam-ups cannot be cleared with a stick, the in-feed equipment shall be stopped and locked out and the employee clearing the jam shall be provided with, and use, a safety belt and lanyard, as prescribed in General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.15209, which is adjusted to prevent contact with the chipper blade before additional cleaning is done.

(7) A chipper on a head rig or edger shall be enclosed to protect the employee.

R 408.15247 Bolt, cant, or slat saw.

Rule 5247. (1) A bolt, cant, or slat saw shall have the point of operation guarded or the work stations of the tailer and operation shall be constructed to prevent the tailer or operator from working closer than 42 inches from the saw blade.

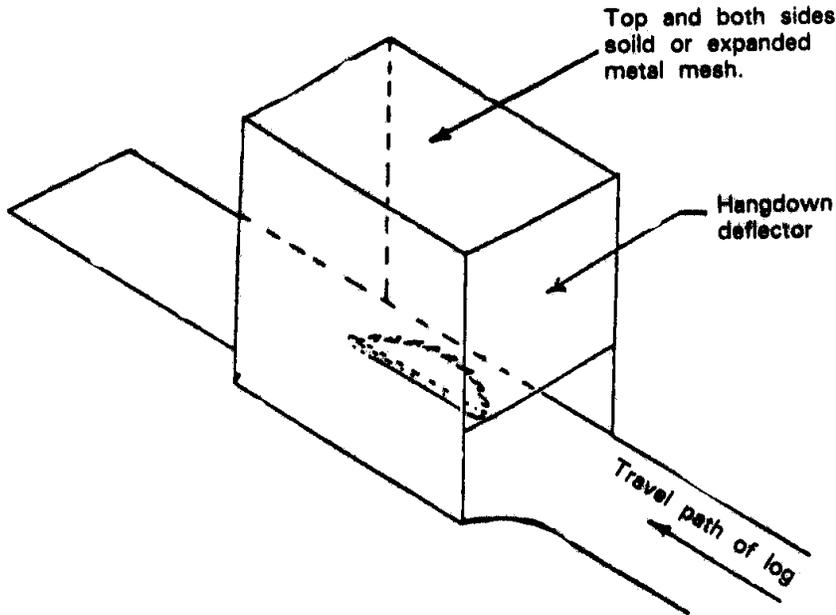
(2) A feeding mechanism, such as powered live rolls or carriage, shall be used to feed materials through a bolt, cant, or slat saw.

(3) A saw shall be equipped with a spreader wheel or a splitter when behind a bolt, cant, or slat saw blade.

(4) The blade of a bolt, cant, or slat saw shall be guarded to cover the top and both sides. Hangdown deflectors of 3/8-inch plexiglass or equivalent protection shall be installed on the in-feed end and extend to the top of the saw blade. See figure 2.

(5) Figure 2 reads as follows:

Figure 2
Blade Guard (Bolt, cant, or slat saw)



R 408.15251 Woodworking machines.

Rule 5251. An employer using machines and equipment more commonly found in a woodworking shop, including but not limited to, jointers, planers, mitre saws and swing cutoff saws, shall follow the General Industry Safety and Health Standard Part 27 “Woodworking Machinery,” as referenced in R 408.15209.

R 408.15254 Stackers and unstackers.

Rule 5254. (1) A stacker or unstacker shall be blocked whenever an employee goes beneath the hoisting platform.

(2) The lifting device on a stacker or unstacker shall be constructed or equipped with safety devices to minimize the potential of lumber falling.

(3) Guarding of a stacker hoistway openings and lower landing shall be pursuant to General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209.

(4) Where an operator has no clear view of the discharge path from a stacker, or in case of a discharge path of an automatic stacker, a barrier guard shall be provided to prevent an employee from entering the discharge path. In either case, a warning device shall be installed to alert an employee of the hazard.

PALLET EQUIPMENT

R 408.15261 Nailers.

Rule 5261. (1) A hand-held, power operated nailer or stapler shall be equipped and maintained with a safety switch at the point of operation as well as a finger control switch.

(2) An automatic nailer or stapler shall have the point of operation guarded or enclosed to within 1/4 inch of the material.

(3) Where a nailer or stapler has more than 1 operator, each operator shall be supplied with a control which shall be activated concurrently or the machine will not operate.

(4) A foot control shall be provided with a cover or guard to prevent accidental activation. The construction of the cover or guard shall be as prescribed in General Industry Safety Standard Part 23 “Hydraulic Power Presses,” as referenced in R 408.15209.

LOG AND MATERIAL HANDLING AND STORAGE

R 408.15271 Hauling trucks, egress, and pickup points.

Rule 5271. (1) A truck used to haul lumber or logs shall have a bulkhead extending to the top of the operator's compartment and capable of containing the movement of the load caused by a sudden stop.

(2) Stakes, stake pockets, binders, and tighteners shall be provided on the truck to secure the load against movement. Where rollers are provided, not less than 2 shall be equipped with locks which shall be locked during transit.

(3) An area of restricted width or height shall be posted with a warning sign.

(4) Where accurate spotting is required to load and unload packages of lumber, those points shall be marked and wheel stop provided.

R 408.15273 Log and material handling equipment.

Rule 5273. (1) Equipment used for handling logs and material shall be equipped with a braking system capable of holding the imposed load of equipment and material.

(2) A hydraulic system of log and material handling equipment shall be equipped with a valve capable of preventing uncontrolled descent of the load in case of failure of the system.

(3) Log and material handling equipment shall be equipped with a limit switch to prevent over-travel of the lift arms if the control device is not released in time.

(4) When a forklift-type handling machine is used, a means shall be used to secure a loading attachment to the forks.

(5) Where log and material handling mobile equipment lifts the load higher than the operator's head, overhead protection shall be provided not less than equivalent to that prescribed in General Industry Safety and Health Standard Part 21 “Powered Industrial Trucks,” as referenced in R 408.15209.

(6) Mobile log and material handling mobile equipment shall be equipped with head and rear running lights when used during periods of darkness.

(7) Unloading devices shall have their movements coordinated by audible or hand signals when the operator's vision is obstructed or when operating near another employee.

(8) Wood pike poles shall be straight-grained, select material. Defective or blunt poles shall not be used. A handle for a pike pole used near conductors shall be of an insulating type material.

(9) An ungrounded electrically powered hoist operated by a handheld remote control at grounded locations, such as a log dump or a mill log lift, shall be actuated by not more than 50 volts to ground.

(10) Where the operator is exposed to a hazard from backing a vehicle into objects, an approved platform guard shall be provided and so arranged as to not impede the exiting of the driver from the vehicle.

(11) All vehicles shall be equipped with audible warning signals and backup alarm and, where practicable, shall have spark arrestors.

(12) Carriers shall be designed and constructed so that the operator's field of vision is not unnecessarily restricted. Carriers shall be provided with an access ladder or equivalent.

(13) Railroad tracks and other hazardous crossings shall be plainly posted.

(14) Periodic inspection of cable or dogging lines shall be made to determine when repair or removal from service is necessary.

(15) A vehicle shall not be operated with a load exceeding its safe load capacity.

R 408.15275 Water log dumps.

Rule 5275 (1) Ungrounded electrically powered hoists using handheld remote control in grounded locations, such as log dumps or mill log lifts, shall be actuated by circuits operating at less than 50 volts to ground.

(2) Roadbeds at log dumps shall be of sufficient width and evenness to ensure safe operation of equipment.

(3) An adequate brow log or skid timbers or the equivalent shall be provided where necessary. Railroad-type dumps, when located where logs are dumped directly into water or where entire loads are lifted from a vehicle, may be exempted providing such practice does not create a hazardous exposure of personnel or equipment.

(4) Unloading lines shall be arranged so that it is not necessary for the employees to attach them from the pond or dump side of the load except when entire loads are lifted from the log-transporting vehicle.

(5) Unloading lines, crotch lines, or equally effective means shall be arranged and used in a manner to minimize the possibility of any log from swinging or rolling back.

(6) When logs are unloaded with peavys or similar manual methods, means shall be provided and used that will minimize the danger from rolling or swinging logs.

(7) Guardrails, walkways, and standard handrails shall be installed as prescribed in General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.15209.

(8) An employer shall provide approved life rings with line attached and maintained to retain buoyancy.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 13, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the Department of Licensing and Regulatory Affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-18 2003-1, 2008-4, and 2011-4, MCL 408.1016, 408.1021, 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.18601, R 408.18602, and R 408.18605 of the Michigan Administrative Code are amended, and R 408.18610 is added, as follows:

PART 86. ELECTRIC POWER GENERATION, TRANSMISSION, AND DISTRIBUTION

R 408.18601 Scope.

Rule 8601. This standard establishes the work practices to be used during the operation and maintenance of electrical power generation, transmission, and distribution facilities. These rules apply to all of the following:

- (a) Enclosed spaces.
- (b) Hazardous energy control.
- (c) Working near energized parts.
- (d) Grounding for employee protection.
- (e) Underground and overhead installations.
- (f) Line clearance tree trimming.
- (g) Substations and generating plants.
- (h) Other conditions and equipment unique to the generation, transmission, and distribution of electric energy.

R 408.18602 Adoption of a federal standard.

Rule 8602. (1) The federal Occupational Safety and Health Administration (OSHA) regulation 29 C.F.R. §1910.269, "Electric Power Generation, Transmission, and Distribution" and appendices, as amended October 5, 2015, are adopted by reference in these rules.

(2) The adopted federal regulations have the same force and effect as a rule promulgated under the Michigan Occupational Safety and Health Act, 1974 PA 154, MCL 408.1001 to 408.1094.

(3) The availability information for the OSHA standard adopted in these rules is in R 408.18605 and MIOSHA standards referenced in these rules are in R 408.18610.

(4) The OSHA standards referenced in 1910.269 are listed in Table 1 with the equivalent MIOSHA standard. See Table 1.

TABLE 1	
OSHA REFERENCED STANDARDS	MEANS THE FOLLOWING MIOSHA STANDARDS
1910.5 Applicability of standards	MIOSHA 1974 PA 154, MCL 408.1001 to 408.1094
1910.12 Construction work	MIOSHA 1974 PA 154, MCL 408.1001 to 408.1094.
1910.25 Stairways	GISH 2 Walking-Working Surfaces
1910.26 Dockboards	GISH 2 Walking-Working Surfaces
1910.97 Nonionizing radiation	OH 382 Nonionizing Radiation,
1910.132 PPE, General requirements	GISH 33 Personal Protective Equipment
1910.135 Head protection	GISH 33 Personal Protective Equipment
1910.141 Sanitation	OH 474 Sanitation
1910.145 Specifications for accident prevention signs and tags	GI 37 Accident Prevention Signs and Tags
1910.146 Permit-required confined space	GI 90 Permit-Required Confined Spaces
1910.147 Control of hazardous energy - lockout	GI 85 The Control of Hazardous Energy Sources
1910.151 Medical services and first aid	OH 472 Medical Services and First Aid
1910.243 Guarding of portable powered tools	GI 38 Hand and Portable Powered Tools
1910.266 Logging operations	GI 51 Logging

TABLE 1	
OSHA REFERENCED STANDARDS	MEANS THE FOLLOWING MIOSHA STANDARDS
1910.268 Telecommunications	GISH 50 Telecommunications for General Industry
1910.302 Electric utilization systems	GI 39 Design Safety Standards for Electrical Systems
1910.303 Electrical, General	GI 39 Design Safety Standards for Electrical Systems
1910.304 Wiring design and protection	GI 39 Design Safety Standards for Electrical Systems
1910.305 Wiring methods, components, and equipment for general use	GI 39 Design Safety Standards for Electrical Systems
1910.306 Specific purpose equipment and installations	GI 39 Design Safety Standards for Electrical Systems
1910.307 Hazardous (classified) locations	GI 39 Design Safety Standards for Electrical Systems
1910.308 Special systems	GI 39 Design Safety Standards for Electrical Systems
1910.331 Electrical, Scope	GI 40 Electrical Safety-Related Work Practices
1910.332 Electrical, Training	GI 40 Electrical Safety-Related Work Practices
1910.333 Selection and use of work practices	GI 40 Electrical Safety-Related Work Practices
1910.334 Use of equipment	GI 40 Electrical Safety-Related Work Practices
1910.335 Safeguards for personnel protection	GI 40 Electrical Safety-Related Work Practices
1910.1200 Hazard Communication	GI 92 Hazard Communication
1910 Subpart D, Walking - Working Surfaces	GISH 2 Walking-Working Surfaces

TABLE 1	
OSHA REFERENCED STANDARDS	MEANS THE FOLLOWING MIOSHA STANDARDS
1910 Subpart I, Personal Protective Equipment	GISH 33 Personal Protective Equipment
1910 Subpart G, Occupational Health and Environmental Control	OH 380 Occupational Noise Exposure in General Industry OH 382 Nonionizing Radiation OH 520 Ventilation Control
1910 Subpart N, Materials Handling and Storage means	GISH 1 General Provisions GI 13 Derricks GISH 18 Overhead and Gantry Cranes GI 19 Crawler, Locomotive and Truck Cranes GI 20 Underhung Cranes and Monorail Systems GISH 21 Powered Industrial Trucks GI 49 Slings GI 59 Helicopters GI 72 Automotive Service Operation
1910 Subpart S, Electrical	GI 39 Design Safety Standards for Electrical Systems GI 40 Electrical Safety-Related Work Practices
1910 Subpart Z Toxic and Hazardous Substances	OH 301 Air Contaminants for General Industry
1926.54 Nonionizing radiation	OH 681 Radiation of Construction: Ionizing and Nonionizing
1926.100 Head protection	CS 6 Personal Protective Equipment
1926.200 Accident prevention signs and tags	CS 22 Signals, Signs, Tags, and Barricades
1926.950 Electric Power Transmission and distribution, General	CS 16 Power Transmission and Distribution

TABLE 1	
OSHA REFERENCED STANDARDS	MEANS THE FOLLOWING MIOSHA STANDARDS
1926 Subpart P Excavations	CS 9 Excavation, Trenching, and Shoring
1926 Subpart W Rollover Protective Structures; Overhead Protection	CS 13 Mobile Equipment
GI - means General Industry Safety Standard GISH - means General Industry Safety and Health Standard CS - means Construction Safety Standard OH - means Occupational Health Standard	

R 408.18605 Availability of OSHA adopted standard.

Rule 8605. (1) The standard adopted in these rules is available from the United States Department of Labor, Occupational Safety and Health Administration website: www.osha.gov, at no charge, as of the time of adoption of these rules.

(2) The standard adopted in these rules is available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) The standard adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The appendices to these rules are informational only and are not intended to create any additional obligations or requirements not otherwise imposed by these rules or to detract from any established obligations or requirements.

R 408.18610 Availability of MIOSHA referenced standards.

Rule 8610. (1) The Michigan Occupational Safety and Health Administration (MIOSHA) standards referenced in these rules are available at up to 5 copies of these standards at no charge from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(2) The following MIOSHA Construction Safety Standards (CS) are referenced in these rules:

- (a) CS Part 6 “Personal Protective Equipment,” R 408.40601 to R 408.40641.
- (b) CS Part 9 “Excavation, Trenching, and Shoring,” R 408.40901 to R 408.40953.
- (c) CS Part 13 “Mobile Equipment,” R 408.41301.
- (d) CS Part 16 “Power Transmission and Distribution,” R 408.41601 to R 408.41658.
- (e) CS Part 22 “Signals, Signs, Tags, and Barricades,” R 408.42201 to R 408.42243.

(3) The following MIOSHA General Industry Safety Standards (GI) are referenced in these rules:

- (a) GI Part 13 “Derricks,” R 408.11301.
- (b) GI Part 19 “Crawler, Locomotive and Truck Cranes,” R 408.11901 to R 408.11972.
- (c) GI Part 20 “Underhung Cranes and Monorail Systems,” R 408.12001 to R 408.12045.
- (d) GI Part 37 “Accident Prevention Signs and Tags,” R 408.13701 to R 408.13736.
- (e) GI Part 38 “Hand and Portable Powered Tools,” R 408.13801 to R 408.13882.
- (f) GI Part 39 “Design Safety Standards for Electrical Systems,” R 408.13901 to R 408.13902.
- (g) GI Part 40 “Electrical Safety-Related Work Practices,” R 408.14001 to R 408.14009.
- (h) GI Part 49 “Slings,” R 408.14901 to R 408.14965.
- (i) GI Part 51 “Logging,” R 408.15101 to R 408.15181.
- (j) GI Part 59 “Helicopters,” R 408.15901 to R 408.15931.
- (k) GI Part 72 “Automotive Service Operations,” R 408.17201 to R 408.17253.
- (l) GI Part 85 “The Control of Hazardous Energy Sources,” R 408.18501 to R 408.18599.
- (m) GI Part 90 “Permit-Required Confined Spaces,” R 408.19001 to R 408.19002.
- (n) GI Part 92 “Hazard Communication,” R 408.19201 to R 408.19204.

(4) The following MIOSHA General Industry Safety and Health Standards (GISH) are referenced in these rules:

- (a) GISH Part 1 “General Provisions,” R 408.10001 to R 408.10098.
- (b) GISH Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.
- (c) GISH Part 18 “Overhead and Gantry Cranes,” R 408.11801 to R 408.11875.
- (d) GISH Part 21 “Powered Industrial Trucks,” R 408.12101 to R 408.12193.
- (e) GISH Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.
- (f) GISH Part 50 “Telecommunications for General Industry,” R 408.15001 to R 408.15004.

(5) The following MIOSHA Occupational Health Standards (OH) are referenced in these rules:

- (a) OH Part 301 “Air Contaminants for General Industry,” R 325.51101 to R 325.51108.
- (b) OH Part 380 “Occupational Noise Exposure in General Industry,” R 325.60101 to R 325.60128.
- (c) OH Part 382 “Nonionizing Radiation,” R 325.60701 to R 325.60704.
- (d) OH Part 472 “Medical Services and First Aid,” R 325.47201.
- (e) OH Part 474 “Sanitation,” R 325.47401 to R 325.47427.
- (f) OH Part 520 “Ventilation Control,” R 325.52001 to R 325.52012.
- (g) OH Part 681 “Radiation of Construction: Ionizing and Nonionizing,” R 325.68101 to R 325.68102.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 13, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under those sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.12701, R 408.12702, R 408.12711, R 408.12712, R 408.12714, R 408.12717, R 408.12718, R 408.12719, R 408.12724, R 408.12726, R 408.12727, R 408.12728, R 408.12730, R 408.12733, R 408.12736, R 408.12739, R 408.12741, R 408.12755, R 408.12759, R 408.12761, R 408.12767, R 408.12773, R 408.12781, R 408.12784, R 408.12791, R 408.12792, R 408.12793, and R 408.12798 of the Michigan Administrative Code are amended, as follows:

Compiler's Note: R 408.12718, R 408.12761, and R 408.12791 are not being revised. These rules are included in the proposed rule set to show the placement of proposed subparts within the rule set.

PART 27. WOODWORKING MACHINERY

GENERAL PROVISIONS

R 408.12701 Scope.

Rule 2701. This standard establishes standards for the safe installation, operation and maintenance of woodworking machinery and equipment, including the making of veneer. This standard applies to point of operation hazards on woodworking machinery.

R 408.12702. Referenced MIOSHA standards.

Rule 2702. The following Michigan Occupational Safety and Health Administrative (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," R 408.10201 to R 408.10241.

(b) General Industry Safety Standard Part 7 'Guards for Power Transmission,' R 408.10701 to R 408.10765.

PLANT LAYOUT

R 408.12711 Plant layout; machinery.

Rule 2711. (1) A machine shall be located to allow space in which to handle material without interference from or to employees or machines. A machine shall not be so placed to require the operator to stand in an aisle unless protection is provided.

(2) A machine shall be secured to a floor, foundation, bench, table or stand of sufficient strength and design to prevent overturning or unintentional movement. This subrule does not apply to portable hand tools.

(3) A machine shall be located so that light of 50 foot-candle power minimum intensity from both natural and artificial light falls on the work. Supplementary illumination at the point of operation shall be provided where necessary.

R 408.12712 Plant layout; floors and aisles.

Rule 2712. (1) An aisle for powered traffic moving in 1 direction at a time shall be not less than the width of the widest vehicle or load plus 3 feet.

(2) An aisle for powered traffic moving in 2 directions at a time shall be not less than twice the width of the widest vehicle or load plus 3 feet.

(3) Lines shall be painted on the floor, or a similar method may be used to mark an aisle.

(4) This rule applies to an aisle in a new layout after November 15, 1971.

(5) An existing aisle shall comply with this rule by January 1, 1973.

MACHINES AND EQUIPMENT

R 408.12714 Machines and equipment; construction.

Rule 2714.(1) The height of the table or working surface of a machine, auxiliary table, and supports shall be designed to provide for safety of the operator. An auxiliary table or supports shall be provided so that large or unwieldy pieces can be handled safely.

(2) The vibration of a machine shall not create a hazard to the operator.

(3) An arbor and mandrel shall have a firm and secure bearing.

(4) The frames and all exposed metal parts of electric woodworking machinery shall be grounded. A portable motor driving an electric tool shall be grounded unless it has approved double insulation.

R 408.12717 Machines and equipment; self-feed.

Rule 2717. Automatic feeding devices on a machine should be installed where the nature of the work will permit. The feed rolls or other moving parts on a feeder attachment shall be covered or guarded to protect the operator from in-running nip points.

SAWS

R 408.12718 Saws generally.

Rule 2718. (1) A cut-off saw that strokes automatically without the operator's control of each stroke shall have a guard to keep the operator's hands from coming in contact with a blade.

(2) An automatic cut-off saw that strokes continuously without the operator being able to control each stroke shall not be used.

(3) To avoid overspeed caused by mounting a saw larger than intended, lugs shall be cast on saw frame or tables or another means shall be provided to limit the saw blade size that can be mounted.

(4) A circular saw fence shall be firmly secured to the table or table assembly without changing its alignment with the saw. For a saw with a tilting table or tilting arbor, the fence shall remain in alignment with the saw, regardless of the angle of the saw with the table.

(5) To insure exact alignment with the saw for all positions of the gauge, a circular saw gauge shall slide in grooves or tracks which are accurately machined.

(6) A hinged saw table in use shall be firmly secured in position and in true alignment with the saw.
Compiler's Note: R 408.12718 is not being revised. This rule is included in the proposed rule set to show the placement of the proposed subpart "SAWS" within the rule set.

R 408.12719 Saws; speeds.

Rule 2719. (1) The operating speed as designated by the manufacturer shall be etched or otherwise permanently marked on a circular saw blade more than 20 inches in diameter. A saw blade shall not be operated at a higher speed than shown on the blade.

(2) When a marked saw blade is re-tensioned for a different speed, the marking shall be corrected to show the new speed.

R 408.12724 Non-kickback fingers or dogs.

Rule 2724. A hand fed circular rip saw shall have non-kickback fingers or dogs located to oppose the thrust or tendency of the saw to pick up the material or to throw it back at the operator. Non-kickback fingers or dogs shall be designed to provide holding power for all the thicknesses of material being cut.

R 408.12726 Circular re-saw guards.

Rule 2726. (1) A circular re-saw shall be guarded by a hood type guard or shield of metal above the saw. This guard or shield shall comply with R 408.12722.

(2) Each circular re-saw, except self-feed saws with a roller or wheel at back of the saw, shall have a spreader fastened securely behind the saw. The spreader shall be thinner than the saw kerf and slightly thicker than the saw disk.

R 408.12727 Self-fed circular saw hoods.

Rule 2727.(1) In addition to guards over blades, as specified in R 408.12722, feed rolls on a self-feed circular saw shall be protected by a hood or guard to prevent the hands of the operator from coming in contact with the in-running rolls at any point. The guard shall be constructed of not less than 14-gauge sheet metal or the equivalent, and the bottom of the guard shall come down to within 3/8-inch of the plane formed by the bottom of working surfaces or the feed rolls. This distance may be increased to 3/4-inch if the lead edge of the hood is extended to not less than 5 1/2-inches in front of the nip point between the front roll and the work.

(2) A self-feed circular rip saw shall have sectional non-kickback fingers along the full width of the feed rolls. They shall be located in front of the saw and arranged to be in continual contact with the wood being fed.

R 408.12728 Swing and sliding cut-off saws.

Rule 2728.(1) Swing and sliding cut-off saws or any other saw mounted above the table, except radial saws, shall have a hood-type guard designed so the upper half of the blade, arbor, and nut will be covered at all times. A hood-type guard or a device shall cover the lower half of the blade. It shall automatically adjust to the thickness of the stock. It shall remain in contact with the stock or table as it moves forward to cut or returns to the back of the table. It shall be constructed of not less than 14 gauge sheet metal or equivalent material and designed to protect the operator from flying splinters and broken saw teeth.

(2) Where the saw is used by employees for production-type repetitive cuts and the upper portion of the blade, including the saw arbor, is completely enclosed, in lieu of the self-adjusting lower blade guard required by subrule (1) of this rule, a swing saw shall be guarded by 1 of the following methods:

(a) A box-type guard as prescribed in Figure 1.

(b) A fixed or adjustable barrier guard which protects the operator from inadvertently coming in contact with the saw teeth of the bottom portion, from the front or sides, of the blade.

(c) A self-adjusting guard as prescribed in Figure 1A or 1B that will prevent employee exposure to the front of the saw blade by dropping onto the work piece before the blade starts the cut and remains in contact with the work piece until the saw is returned to the back of the table.

(3) A swing cut-off saw shall have an effective device to return the saw automatically to the back of the table when released at any point in its travel. The device shall not depend upon any rope, cord, or spring for its proper functioning. A device shall be installed which prevents a rebound of the saw blade. If there is a counterweight, bolts supporting the bar and counterweight shall have cotter pins and the counterweight shall be prevented from dropping by a bolt passing through both the bar and counterweight or a bolt put through the extreme end of the bar, or where the counterweight does not encircle the bar, a safety chain attached to it. If the counterweight is exposed to contact, it shall be enclosed by a guard to the floor area guard that will hold twice the weight of the counterweight.

(4) A swing cut-off saw shall have limit chains or other equally effective devices to prevent the saw from swinging beyond the front or back edges of the table, or beyond a forward position where the gullets of the lowest saw teeth will rise above the table top.

(5) A sliding cut-off saw may have the lower half of the blade guarded as prescribed in Figure 1C in a manner that will restrict employee exposure to the front of the teeth by the guard dropping onto the work piece before the teeth start the cut and remaining in contact with the work piece until the saw is returned to the back of the table or is adjusted to remain within 3/8 inch of the work piece at all times.

(6) Instead of the self-adjusting lower blade guard required by subrule (5) of this rule, the saw may be stroked by use of constant pressure controls located so that the operator cannot reach the saw blade. When the saw blade has been returned to its rearmost position, a lower enclosure or guard shall be provided to restrict inadvertent contact.

(7) Figures 1, 1A, 1B, and 1C read as follows:

FIGURES 1, 1A, 1B, 1C
SWING SAW GUARDING

FIGURE 1
FOR SWING SAW ONLY

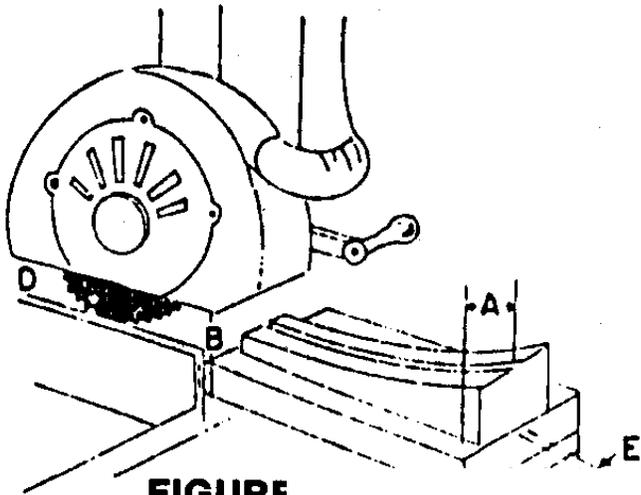


FIGURE
For Swing S

- A = Must be twice the 'C' dimensions, min. 6"
- B = 3/8" max.
- C = Open, depends on stock thickness
- D = 3/8" max.
- E = 1/4" max. on each side of black

FIGURE 1A
SWING SAW HOOD

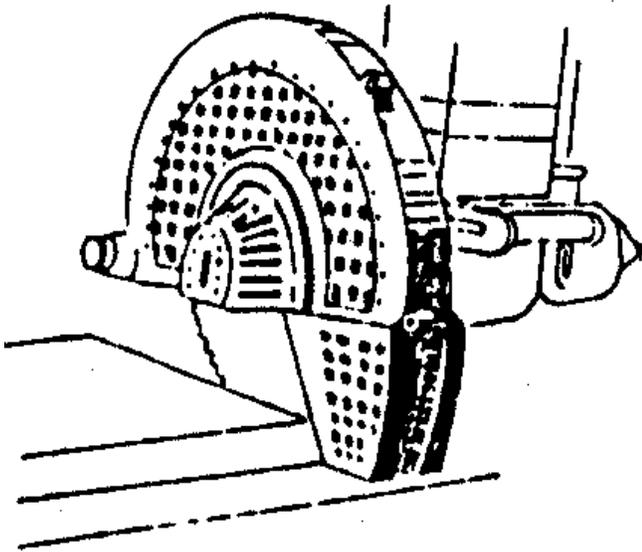


FIGURE 1B

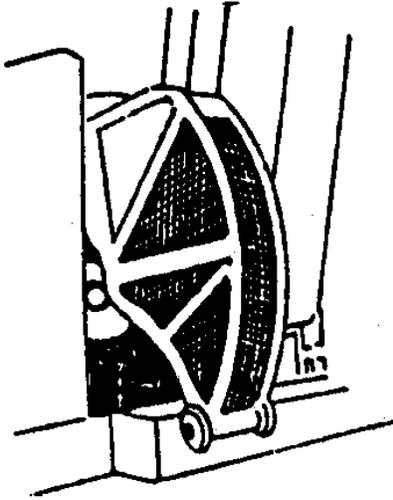


FIGURE 1C
SLIDE CUT OFF SAW GUARDING

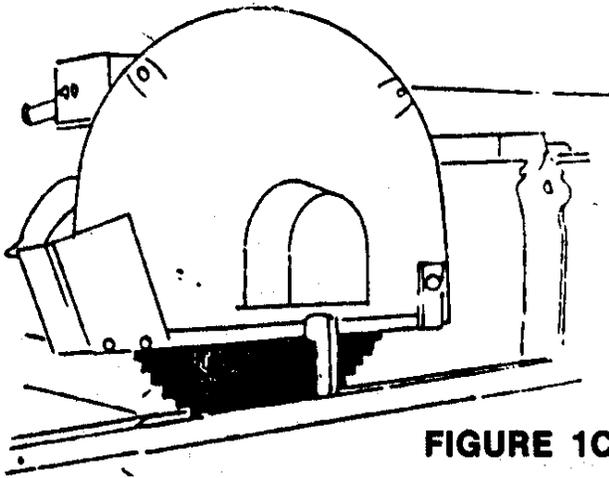


FIGURE 1C

R 408.12730 Radial saws.

Rule 2730. (1) The upper hood shall completely enclose the upper portion of the blade down to a point that will include the end of the saw arbor. The upper hood shall be constructed of not less than 14 gauge minimum sheet metal or equivalent material that will protect the operator from flying splinters and broken saw teeth and will deflect sawdust away from the operator. The teeth of the lower exposed portion of the blade shall be guarded to the full diameter of the blade by a device that will automatically adjust itself to the thickness of the stock and remain in contact with the stock being cut to give maximum protection possible for the operation being performed.

(2) In place of the requirements in subrule (1) of this rule, which require that the sides of the lower exposed portion of the blade be guarded by a device that will automatically adjust itself to the thickness of the stock being cut to give maximum protection possible for the operation being performed, both of the following apply:

(a) The employer is not required to provide an automatically adjusting guard on that side of the lower exposed portion of the blade where the distance between the stock and the upper hood guard is less than 3/8 of an inch (lower side) for angle, bevel, or compound level cuts.

(b) The employer may provide a specifically designed jig or fixture to protect the lower exposed portion of the blade in all cases where the distance between the stock and the upper hood guard exceed 3/8 of an inch (lower side) for angle, bevel, or compound bevel cuts. This specially designed jig or fixture shall provide protection for the operator which is equal to or greater than the protection required by subrule (1) of this rule.

(3) A box-type guard as prescribed in Figure 2 or a permanently mounted guard as prescribed in Figure 3 or other fixed or adjustable barrier guard that restricts employee exposure to the saw teeth may be used to protect the operator from inadvertently coming in contact with the teeth of the bottom portion, from the front or sides, of the blade in lieu of the self-adjusting lower blade guard if the upper portion of the blade, including the saw arbor, is completely enclosed.

(4) When radial saws are used for ripping, a spreader should be provided to comply with R 408.12723.

(5) Non-kickback fingers or dogs shall be located on both sides of each radial saw used for ripping to oppose the thrust or tendency of the saw to pick up the material or throw it back toward the operator. They shall be designed to provide adequate holding power for all the thickness of material being cut.

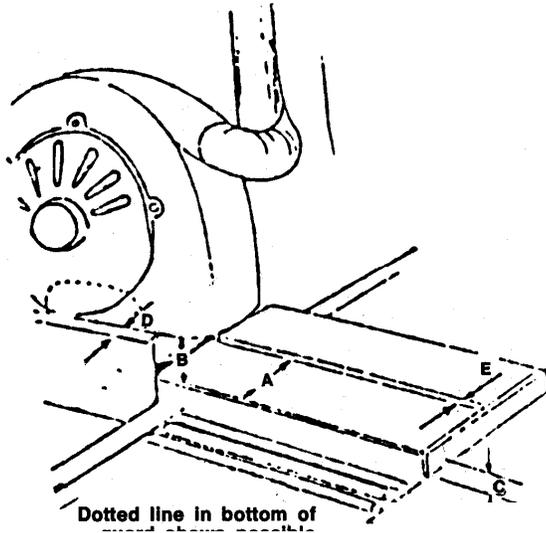
(6) An adjustable stop shall be provided to prevent the forward travel of the blade beyond the position necessary to complete the cut in repetitive operations. A limit chain or other equally effective device shall be provided to prevent the saw blade from sliding beyond the edge of the table or the table at that place shall be extended to eliminate overrun. The front end of the unit shall be slightly higher than the rear or shall meet the requirements of R 408.12728(3), so as to cause the cutting head to return gently to the starting position when released by the operator. The slope shall not be enough to cause rebound.

(7) Ripping and ploughing shall be against the direction in which the saw turns. The direction of the saw rotation shall be conspicuously marked on the hood. In addition, a permanent label colored standard danger red that is not less than 1-1/2 inches by 3/4 of an inch shall be affixed to the rear of the guard at approximately the level of the arbor. The label shall read as follows:

DANGER: Do Not Rip or Plough From This End
--

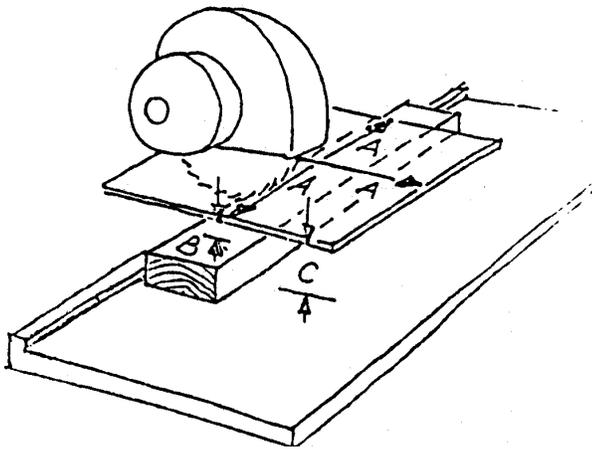
(8) Figures 2 and 3 read as follows:

FIGURE 2



Dotted line in the bottom of guard shows possible relief if teeth are not exposed.

FIGURE 3



Dim.	Description	Requirements
A	Width of guard between each side or front of blade to outside edge of guard.	6 inches or twice "C", whichever is greater. Note: This dimension should be based on the greatest anticipated "C" distance.
B	Distance between upper hood guard and box guard (Figure 2) or bottom of mounted guard and	3/8-inch maximum.

	stock (Figure 3).	
C	Distance between top of work surface and bottom of guard.	
D	Distance between upper hood guard and fence.	3/8-inch maximum.
E	Distance allowed for saw blade travel in guard.	1/4-inch maximum on each side of blade.

R 408.12733 Band re-saw; feed rolls.

Rule 2733. Feed rolls of band re-saws shall be protected with a suitable guard to prevent the hands of the operator from coming in contact with the in-running rolls at any point. The guard shall be constructed of 11 gauge sheet metal or stronger material, preferably metal. The edge of the guard shall come to within 3/8 inch of the plane formed by the inside face of the feed roll in contact with the stock being cut or the work table.

JOINTERS AND PLANERS

R 408.12736 Jointers and planers; general.

Rule 2736.(1) Each hand fed planer and jointer with a horizontal or vertical head shall have a cylindrical cutting head, the knife projection of which shall not extend more than 1/8-inch beyond the cylindrical body of the head.

(2) Square cutting heads shall not be used on jointers and planers.

(3) The opening in the jointer table shall be kept as small as possible. The clearance between the edge of the rear table and the cutter head shall be not more than 1/8- inch. The table throat opening shall be not more than 2 1/2 inches when tables are set or aligned for zero cut.

(4) A proper push block shall be used when jointing short or narrow stock.

R 408.12739 Tenoning machines and automatic edge banders.

Rule 2739. (1) A tenoning machine and an automatic edge bander shall have all cutting heads and saws covered by guards. The guards shall cover at least the unused part of the periphery of the cutting head. If a guard is constructed of sheet metal, the material used shall be not less than 14 gauge in thickness. If cast iron is used, it shall be not less than 3/16 inch in thickness. Other materials of equivalent strength may be used. If interlocked barriers are used at load and unload ends the enclosure guards specified in this subrule need not be used. It is not required that the above hoods retain a thrown or broken knife.

(2) If an exhaust system is used on a tenoner or edge bander, the guard shall form part or all of the exhaust hood. It shall be constructed of material of a thickness not less than that specified in subrule (1) of this rule.

R 408.12741 Hold downs.

Rule 2741. Hold downs shall be guarded with an enclosure to within 1/4 inch of the work piece or in accordance with Table 1.

TABLE 1	
Distance of Opening From Point of Operation Hazard	Maximum Width of Opening
1/2" to 1 1/2"	1/4"
1 1/2" to 2 1/2"	3/8"
2 1/2" to 3 1/2"	1/2"
3 1/2" to 5 1/2"	5/8"
5 1/2" to 6 1/2"	3/4"
6 1/2" to 7 1/2"	7/8"
7 1/2" to 12 1/2"	1 1/4"
12 1/2" to 15 1/2"	1 1/2"
15 1/2" to 17 1/2"	1 7/8"
17 1/2" to 31 1/2"	2 1/8"
This table shows the distances that guards shall be positioned from the danger line in accordance with the required feed openings.	

R 408.12755 Planing, molding, sticking, and matching machines.

Rule 2755. (1) Each planing, molding, sticking, and matching machine shall have all cutting heads and saws covered by a metal guard. If the guard is constructed of sheet metal, the material used shall be not less than 14 gauge in thickness or the equivalent. If cast iron is used, it shall be not less than 3/16 inch in thickness. It is not required that the hoods retain a thrown or broken knife.

(2) If an exhaust system is used, the guards shall form part or all of the exhaust hood and shall be constructed of metal of a thickness not less than that specified in subrule (1) of this rule.

R 408.12759 Lathes.

Rule 2759. (1) A profile or swing-head lathe shall have all cutting heads covered by a metal guard. If the guard is constructed of sheet metal, the material used shall be not less than 14 gauge in thickness or equivalent. If cast iron is used, it shall be not less than 3/16 inch in thickness. It is not required that the hoods retain a thrown or broken knife.

(2) Cutting heads on wood-turning lathes, whether rotating or not, shall be covered as completely as possible by hoods or shields, which should be hinged to the machines so they can be moved back for making adjustments.

(3) Shoe-last and spoke lathes, doweling machines, wood-heel turning machines, and other automatic wood-turning lathes of the rotating knife type shall be equipped with hoods enclosing the cutter blades completely, except at the contact points, while the stock is being cut.

(4) A revolving tool lathe used for turning stock held between the 2 centers shall be equipped with guards extending over the tops of the tool in order to prevent the work pieces from being thrown out of the machines if they become loose.

(5) A revolving tool lathe shall be equipped with a suction hood properly connected to an exhaust system. The hood shall be formed over the revolving tools to serve as a guard. They shall be constructed of metal of a thickness not less than that specified in subrule (1) of this rule.

SANDING MACHINES

R 408.12761 Sanding machines.

Rule 2761. Feed rolls of self-feed sanding machines shall be protected with a semi-cylindrical guard to prevent the hands of the operator from coming in contact with the in-running rolls at any point. The guard shall be constructed of not less than 18 gauge sheet metal or stronger material, preferably metal, and shall be firmly secured to the frame carrying the rolls to remain in adjustment for any thickness of stock. The bottom of the guard should come down to within 3/8 inch of a plane formed by the bottom or contact face of the feed roll where it touches the stock.

Compiler's Note: R 408.12761 is not being revised. This rule is included in the proposed rule set to show the placement of the proposed subpart "SANDING MACHINES" within the rule set.

WOODWORKING MACHINES

R 408.12767 Combination or universal woodworking machines.

Rule 2767. On combination or universal woodworking machines, each point of operation shall be guarded as specified in the rules of this standard for each separate machine. The machines shall have a separate stopping and starting device for each point of operation.

R 408.12773 Veneer steaming and soaking vats.

Rule 2773. If the size of the stock handled permits, the size of the vat sections should be 9 feet or less.

R 408.12781. Drag saws.

Rule 2781. A drag saw shall be located to allow at least a 4-foot clearance for passage where the saw is at the extreme end of the stroke. If such clearance is not obtainable, the saw and its driving mechanism shall be provided with a guardrail system as prescribed in General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.12702.

VENEER MACHINES

R 408.12784 Veneer cutters.

Rule 2784. (1) Slicer knives shall be guarded at both front and rear to prevent accidental contact with the knife edge.

(2) Veneer slicers and rotary veneer cutting lathes shall be shut off when logs are inserted or adjustments are made.

(3) Operators shall not ride the carriage of a veneer slicer.

(4) Power driven guillotine veneer cutters shall have 1 or both of the following:

(a) Starting devices that require the simultaneous action of both hands to start the cutting motion and of at least 1 hand on a control during the complete stroke of the knife.

(b) An automatic guard that will remove the hands of the operator from the danger zone at every descent of the blade, used in conjunction with 1 hand starting devices that require 2 distinct movements

of the device to start the cutting motion and designed to return positively to the non-starting position after each complete cycle of the knife.

(5) Where 2 or more employees are engaged at the same time on the same power driven guillotine veneer cutter, the veneer machine shall have 2 hand controls for each employee and the device shall be arranged so each employee is required to use both hands simultaneously on the controls to start the cutting motion and at least 1 hand of each employee on a control to complete the cut.

(6) Power driven guillotine veneer cutters, other than continuous trimmers, shall be provided with an emergency device to prevent the machine from operating in the event of failure of the brake when the starting mechanism is in the non-starting position, in addition to the brake or other stopping mechanism.

(7) Where practicable, hand and foot-power guillotine veneer cutters shall be provided with rods or plates, or other satisfactory means, so arranged on the feeding side that the hands cannot reach the cutting edge of the knife while feeding or holding the stock in place.

(8) If veneer slicers or rotary veneer-cutting machines are shut down for the purpose of inserting logs or making adjustments, operators shall ensure that the machine is clear and other workmen are not in a hazardous position before starting the machine.

OPERATING RULES

R 408.12791 Operating rules; inspection and maintenance.

Rule 2791. (1) A supervisor or employee shall not remove or make inoperable any safety device or guard specified in this standard.

(2) Dull, badly set, improperly filed, or improperly tensioned saws shall be immediately removed from service before they begin to cause the material to stick, jam, or kickback when the material is fed to the saw at a normal speed. Saws to which gum has adhered on the sides shall be immediately cleaned.

(3) Knives and cutting heads of woodworking machines shall be kept sharp, properly adjusted, and firmly secured. If 2 or more knives are used in 1 head, knives shall be properly balanced.

(4) Bearings shall be kept free of lost motion and shall be well lubricated.

(5) Arbors of circular saws shall be free from play.

(6) The sharpening or tensioning of saw blades or cutters shall be done only by persons of demonstrated skill.

(7) A saw blade, cutter head, or tool collar shall not be placed or mounted on a machine arbor unless the tool has been machined as to size and shape to fit the arbor.

Compiler's Note: R 408.12791 is not being revised. This rule is included in the proposed rule set to show the placement of the proposed subpart "OPERATING RULES" within the rule set.

R 408.12792 Operating rules; selection of machines.

Rule 2792. (1) Machines shall not be used for operations of such variety as to necessitate the removal of safeguards suitable for the usual service.

(2) The specific operations involving special hazards shall be assigned to machines suitable for such work.

R 408.12793 Operating rules; saws.

Rule 2793.(1) The practice of inserting wedges between the saw disk and the collar to form what is commonly known as a wobble saw is prohibited.

(2) Tension on a band saw and re-saw should be released from the blade when not in use.

(3) The back thrust shall be adjusted carefully to the normal position of the band saw blade.

(4) A band saw shall not be stopped quickly by thrusting a piece of wood against the cutting edge of teeth when the power is off.

(5) To detect cracks or other defects, each band saw blade shall be carefully examined as it is put on and taken off the band wheel. Cracked saws or saws that indicate the probability of breakage shall be promptly removed to avoid injury to the saw and to the operator.

R 408.12798 Clothing.

Rule 2798. (1) Anti-kickback aprons shall be provided to the employee at no expense to the employee and shall be used where material can be kicked back.

(2) Operators of machines shall not wear loose-flowing garments, sleeves, and neckties.

(3) Operators of machines should not wear gloves while operating machines.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

Filed with the Secretary of State on February 13, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

R 408.10501, R 408.10502, R 408.10503, R 408.10504, R 408.10505, R 408.10506, R 408.10507, R 408.10508, R 408.10509, R 408.10561, R 408.10564, R 408.10565, R 408.10568, R 408.10571, R 408.10573, R 408.10575a, R 408.10575b, R 408.10575c, R 408.10575e, R 408.10582, and R 408.10592 of the Michigan Administrative Code are amended, R 408.10518 and Appendix D are added, and R 408.10511, R 408.10512, R 408.10513, R 408.10521, R 408.10522, R 408.10523, R 408.10524, R 408.10525, R 408.10526, R 408.10527, R 408.10528, R 408.10529, R 408.10530, R 408.10531, R 408.10532, R 408.10533, R 408.10534, R 408.10535, R 408.10541, R 408.10542, R 408.10543, R 408.10544, R 408.10545, R 408.10546, R 408.10548, R 408.10549, and R 408.10550 are rescinded, as follows:

Compiler's Note: R 408.10561, R 408.10564, and R 408.10571 are not being revised. These rules are included in the proposed rule set to show the placement of subparts as they appear in the current rule set. These subparts are being deleted.

PART 5. POWERED PLATFORMS FOR BUILDING MAINTENANCE

R 408.10501 Scope.

Rule 501. (1) This standard covers powered platform installations permanently dedicated to interior or exterior building maintenance of a specific structure or group of structures. Building maintenance includes, but is not limited to, such tasks as window cleaning, caulking, metal polishing and re-glazing.

(2) This standard does not apply to suspended scaffolds or swinging scaffolds used to service buildings on a temporary basis and covered under General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," nor to suspended scaffolds used for construction work and covered under Construction Safety Standard Part 12 "Scaffolds and Scaffold Platforms," and Construction Safety Standard Part 32 "Aerial Work Platforms," as referenced in R 408.10509.

(3) Powered and manual mobile elevating platforms and self-propelled vehicle mounted elevating and rotating platforms are not included in these rules but are provided for in General Industry Safety and Health Standard Part 58 "Aerial Work Platforms," as referenced in R 408.10509.

(4) Scaffolds are not included in these rules but are provided for in General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.10509.

R 408.10502 Applicability for powered platforms.

Rule 502. (1) Permanent installations in existence and or completed before July 23, 1990 shall comply with R 408.10574(2), R 408.10578 to R 408.10582, R 408.10585 to R 408.10592 and Appendix C of General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.10509.

(2) These rules apply to all new permanent installations for powered platforms and modifications to existing buildings that affect the structural integrity of the building exterior, tie-in guides and attachments, and the supporting structure for the powered platforms.

(3) Employers shall ensure compliance with these rules for any powered platform that is powered by a source other than electricity except for those rules that govern the electrical power source. The alternative power source shall be outfitted with protective devices that are equivalent to the protection that is provided by rules pertaining to an electrical power source.

(4) Permanent installations shall be in compliance with the provisions of Appendix D “Existing Installations – Mandatory.”

(5) The following standards are referenced in Appendix D and adopted in R 408.40509.

(a) ANSI A120.1 "Safety Requirements for Powered Platforms for Exterior Building Maintenance" 1970 edition.

(b) General Industry Safety Standard Part 39 “Design Safety Standards for Electrical Systems.”

R 408.10503 Definitions; A to D.

Rule 503. (1) "Anemometer" means an instrument for measuring wind velocity.

(2) "Angulated roping" means a suspension method where the upper point of suspension is inboard from the attachments on the suspended unit, thus causing the suspended unit to bear against the face of the building.

(3) "Building face roller" means a rotating cylindrical member that is designed to ride on the face of the building wall to prevent the platform from abrading the face of the building and to assist in stabilizing the platform.

(4) “Building maintenance” means operations such as window cleaning, caulking, metal polishing, re-glazing, and general maintenance on building surfaces.

(5) “Cable” means a conductor, or group of conductors, enclosed in a weatherproof sheath, that may be used to supply electrical power or control current, or both, for equipment or to provide voice communication circuits.

(6) “Carriage” means a wheeled vehicle used for the horizontal movement and support of other equipment.

(7) “Certification” means a written, signed, and dated statement confirming the performance of a requirement of this standard.

(8) “Combination cable” means a cable having both steel structural members capable of supporting the platform, and copper or other electrical conductors insulated from each other and the structural members by nonconductive barriers.

(9) “Competent person” means a person who, because of training and experience, is capable of identifying hazardous or dangerous conditions in powered platform installations and of training employees to identify such conditions.

(10) “Continuous pressure” means the need for constant manual actuation for a control to function.

(11) “Control” means a mechanism used to regulate or guide the operation of the equipment.

(12) "Davit" means a device that is used singly or in pairs and that is for suspending a powered platform from work, storage, or rigging locations on the building being serviced. Unlike outriggers, a davit reacts its operating load into a single roof socket or carriage attachment.

R 408.10504 Definitions; E to L.

Rule 504. (1) "Equivalent" means alternative designs, materials, or methods that the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials, or designs specified in the standard.

(2) "Ground rigging" means a method of suspending a working platform starting from a safe surface to a point of suspension above the safe surface

(3) "Ground rigged davit" means a davit that cannot be used to raise a suspended working platform above the building face being serviced.

(4) "Guide button" means a building face anchor designed to engage a guide track mounted on a platform.

(5) "Guide roller" means a rotating cylindrical member, operating separately or as part of a guide assembly, designed to provide continuous engagement between the platform and the building guides or guideways.

(6) "Guide shoe" means a device attached to the platform designed to provide a sliding contact between the platform and the building guides.

(7) "Hoisting machine" means a device intended to raise and lower a suspended or supported unit.

(8) "Hoist rated load" means the hoist manufacturer's maximum allowable operating load.

(9) "Installation" means all the equipment and all affected parts of a building that are associated with the performance of building maintenance using powered platforms.

(10) "Interlock" means a device designed to ensure that operations or motions occur in proper sequence.

(11) "Intermittent stabilization" means a method of platform stabilization in which the angulated suspension wire rope or ropes are secured to regularly spaced building anchors.

(12) "Lanyard" means a flexible line of rope, wire rope, or strap that is used to secure the body belt or body harness to a deceleration device, lifeline, or anchorage.

(13) "Lifeline" means a component consisting of a flexible line for connection to an anchorage at 1 end to hang vertically, vertical lifeline, or for connection to anchorages at both ends to stretch horizontally, horizontal lifeline, and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

(14) "Live load" means the total static weight of workers, tools, parts, and supplies that the equipment is designed to support.

R 408.10505 Definitions; M, O.

Rule 505. (1) "Mobile elevating platform" means a type of freestanding scaffolding that can be manually moved horizontally from 1 area to another and raised or lowered manually or with power to predetermined heights.

(2) "Obstruction detector" means a control that will stop the suspended or supported unit in the direction of travel if an obstruction is encountered, and will allow the unit to move only in a direction away from the obstruction.

(3) "Operating control" means a mechanism regulating or guiding the operation of equipment that ensures a specific operating mode.

(4) "Operating device" means a device actuated manually to activate a control.

(5) "Outrigger" means a device, used singly or in pairs, for suspending a working platform from work, storage, and rigging locations on the building being serviced. Unlike davits, an outrigger reacts its

operating moment load as at least 2 opposing vertical components acting into 2 or more distinct roof points and or attachments.

R 408.10506 Definitions; P, R.

Rule 506. (1) "Platform rated load" means the combined weight of workers, tools, equipment, and other material which is permitted to be carried by the working platform at the installation, as stated on the load rating plate.

(2) "Poured socket" means the method of providing wire rope terminations in which the ends of the rope are held in a tapered socket by means of poured spelter or resins.

(3) "Powered platform" means scaffolding equipment that consists of a permanently installed, power-operated working platform and a roof car or other suspension means.

(4) "Primary brake" means a brake designed to be applied automatically whenever power to the prime mover is interrupted or discontinued.

(5) "Prime mover" means the source of mechanical power for a machine.

(6) "Rated load" means the manufacturer's recommended maximum load.

(7) "Rated strength" means the strength of wire rope, as designated by its manufacturer or vendor, based on standard testing procedures or acceptable engineering design practices.

(8) "Rated working load" means the combined static weight of persons, materials, and suspended or supported equipment.

(9) "Registered professional engineer" means a person who has been duly and currently registered and who is licensed by an authority within the United States or its territories to practice the profession of engineering.

(10) "Roof car" means a structure that is for suspending a working platform and that provides for the platform's horizontal movement to work positions.

(11) "Roof powered platform" means a working platform where the hoist or hoists used to raise or lower the platform is located on the roof.

(12) "Roof rigged davit" means a davit used to raise the suspended working platform above the building face being serviced. This type of davit can also be used to raise a suspended working platform that has been ground-rigged.

(13) "Rope" means the equipment used to suspend a component of an equipment installation, such as wire rope.

R 408.10507 Definitions; S.

Rule 507. (1) "Safe surface" means a horizontal surface intended to be occupied by personnel, which is so protected by a fall protection system that it can be reasonably assured that said occupants will be protected against falls.

(2) "Safety factor" means a ratio of the breaking strength of a piece of material or object to the maximum designed load or stress that is applied when in use.

(3) "Scaffold" means an elevated work platform that is for supporting both employees and materials and that is temporary in nature.

(4) "Secondary brake" means a brake designed to arrest the descent of the suspended or supported equipment in the event of an overspeed condition.

(5) "Self-powered platform" means a working platform where the hoist or hoists used to raise or lower the platform is mounted on the platform.

(6) "Speed reducer" means a positive type speed reducing machine.

(7) "Stability factor" means the ratio of the stabilizing moment to the overturning moment.

(8) "Stabilizer tie" means a flexible line connecting the building anchor and the suspension wire rope supporting the platform.

(9) “Supported equipment” means building maintenance equipment that is held or moved to its working position by means of attachment directly to the building or extensions of the building being maintained.

(10) “Suspended equipment” means building maintenance equipment that is suspended and raised or lowered to its working position by means of ropes or combination cables attached to some anchorage above the equipment.

(11) “Suspended scaffold”, also known as swinging scaffold, means a scaffold supported on wire or other ropes, used for work on, or for providing access to, vertical sides of structures on a temporary basis. Such scaffold is not designed for use on a specific structure or group of structures.

R 408.10508 Definitions; T to W.

Rule 508. (1) “Tail line” means the non-supporting end of the wire rope used to suspend the platform.

(2) “Tie-in guides” means the portion of a building that provides continuous positive engagement between the building and a suspended or supported unit during its vertical travel on the face of the building.

(3) “Traction hoist” means a type of hoisting machine that does not accumulate the suspension wire rope on the hoisting drum or sheave, and is designed to raise and lower a suspended load by the application of friction forces between the suspension wire rope and the drum or sheave.

(4) “Transportable outriggers” means outriggers designed to be moved from 1 work location to another.

(5) “Trolley carriage” means a carriage suspended from an overhead track structure.

(6) “Verified” means accepted by design, evaluation, or inspection by a registered professional engineer.

(7) “Weatherproof” means so constructed that exposure to adverse weather conditions will not affect or interfere with the proper use or functions of the equipment or component.

(8) “Winding drum hoist” means a type of hoisting machine that accumulates the suspension wire rope on the hoisting drum

(9) “Working platform” means suspended or supported equipment intended to provide access to the face of a building and manned by persons engaged in building maintenance.

(10) “Wrap” means 1 complete turn of the suspension wire rope around the surface of a hoist drum.

R 408.10509 Adopted and referenced standards.

Rule 509. (1) The following standard, American National Society Institute (ANSI) Standard ANSI A120.1 ‘Safety Requirement for Powered Platforms for Exterior Building Maintenance,’ 1970 edition, also known as American Society of Mechanical Engineers (ASME) Standard ASME A120.1 ‘Safety Requirements Powered Platforms and Traveling Ladders and Gantries for Building Maintenance,’ 1970 edition is adopted by reference in these rules and is available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at website: www.global.ihs.com, at a cost at the time of adoption of these rules of \$20.00.

(2) The standard adopted in these rules is available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) The standard adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the

Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(b) General Industry Safety Standard Part 7 “Guards for Power Transmission,” R 408.10701 to R 408.10765.

(c) General Industry Safety Standard Part 8 “Portable Fire Extinguishers,” R 408.10801 to R 408.10839.

(d) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.

(e) General Industry Safety Standard Part 39 “Design Safety Standards for Electrical Systems,” R 408.13901 to R 408.13902.

(f) General Industry Safety and Health Standard Part 58 “Aerial Work Platforms,” R 408.15801 to R 408.15842.

(g) Construction Safety Standard Part 12 “Scaffolds and Scaffold Platforms,” R 408.41201 to R 408.41264.

(h) Construction Safety Standard Part 32 “Aerial Work Platforms,” R 408.43201 to R 408.43220.

R 408.10518 Assurance.

Rule 518. Building owners of all installations, new and existing, shall inform the employer in writing that the installation has been inspected, tested, and maintained in compliance with the requirements of R 408.10574(2), R 408.10578 to R 408.10582, and R 408.10585 to R 408.10589, and that all anchorages meet the requirements of R 408.13395a(14) of General Industry Safety and Health Standard Part 33 “Personal Protective Equipment” as referenced in R 408.10509.

R 408.10511 Rescinded.

R 408.10512 Rescinded.

R 408.10513 Rescinded.

R 408.10521 Rescinded.

R 408.10522 Rescinded.

R 408.10523 Rescinded.

R 408.10524 Rescinded.

R 408.10525 Rescinded.

R 408.10526 Rescinded.

R 408.10527 Rescinded.

R 408.10528 Rescinded.

R 408.10529 Rescinded.

R 408.10530 Rescinded.

R 408.10531 Rescinded.

R 408.10532 Rescinded.

R 408.10533 Rescinded.

R 408.10534 Rescinded.

R 408.10535 Rescinded.

R 408.10541. Rescinded.

R 408.10542 Rescinded.

R 408.10543 Rescinded.

R 408.10544 Rescinded.

R 408.10545 Rescinded.

R 408.10546 Rescinded.

R 408.10548 Rescinded.

R 408.10549 Rescinded.

R 408.10550 Rescinded.

R 408.10561 Installations.

Rule 561. (1) A powered platform installed, or that part of a powered platform modified, after August 27, 1971, shall be in compliance with the design and manufacturing requirements prescribed in ANSI A120.1, "Safety Requirements for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.10509, and as further prescribed in the rules of this standard.

(2) The following requirements apply to affected parts of buildings that utilize working platforms for building maintenance:

(a) Structural supports, tie-downs, tie-in guides, anchoring devices, and any affected parts of the building that are included in the installation shall be designed by, or under the direction of, a registered professional engineer who is experienced in such design.

(b) Exterior installations shall be capable of withstanding prevailing climatic conditions.

(c) The building installation shall provide safe access to, and egress from, the equipment and shall provide sufficient space to conduct necessary maintenance of the equipment.

(d) The affected parts of the building shall have the capability of sustaining all of the loads imposed by the equipment.

(e) The affected parts of the building shall be designed to allow the equipment to be used without exposing employees to a hazardous condition.

(3) The exterior of each building shall be provided with tie-in guides unless the conditions specified in either of the following provisions are met:

(a) Tie-in guides required pursuant to this rule may be eliminated for not more than 75 feet (22.9 m) of the uppermost elevation of the building if angulated roping is employed, if the use of tie-in guides is not feasible due to the exterior building design, and if an angulation force of not less than 10 pounds (44.4 n) is maintained under all conditions of loading.

(b) Tie-in guides may be eliminated if 1 of the specified guide systems is provided as specified in R 408.10562 and R 408.10563.

Compiler's Note: R 408.10561 is not being revised. This rule is included in the proposed rule set to show the placement of subpart "POWERED PLATFORMS" within the current rule set. This subpart is being deleted.

R 408.10564 Design of installation; equipment.

Rule 564. (1) The requirements of this rule apply to equipment that is part of a powered platform installation, such as any of the following:

- (a) Platforms.
- (b) Stabilizing components.
- (c) Carriages.
- (d) Outriggers.
- (e) Hoisting machines.
- (f) Wire ropes.
- (g) Electrical components.

(2) Equipment installations shall be designed by, or under the direction of, a registered professional engineer who is experienced in such design.

(3) The design shall provide for a minimum live load of 250 pounds (113.6 kg) for each occupant of a suspended or supported platform.

(4) Equipment that is exposed to wind when not in service shall be designed to withstand forces generated by winds that have a velocity of at least 100 miles per hour (44.7 m/s) at 30 feet (9.2 m) above grade.

(5) Equipment that is exposed to wind when in service shall be designed to withstand forces generated by winds that have a velocity of at least 50 miles per hour (22.4 m/s) for all elevations.

(6) Bolted connections shall be self-locking or shall otherwise be secured to prevent the loss of the connections by vibration.

Compiler's Note: R 408.10564 is not being revised. This rule is included in the proposed rule set to show the placement of subpart "POWERED PLATFORM INSTALLATIONS - EQUIPMENT" within the current rule set. This subpart is being deleted.

R 408.10565 Roof cars; carriages; suspension methods.

Rule 565. (1) A roof car shall be used when it is necessary to move a working platform horizontally to a work or storage position.

(2) Movements of a roof car shall be restricted to a designated path of travel. Mechanical stops shall be provided and shall prevent the roof car from traversing outside the intended path of travel. The stops shall be capable of withstanding a force equal to 100% of the inertial effect of the roof car under power and shall be designed to prevent a crushing or shearing hazard.

(3) Elevated building maintenance equipment shall be suspended by a roof car, carriage, outrigger, davits, or an equivalent method.

- (4) Carriages or roof cars shall be in compliance with all of the following provisions:
- (a) The horizontal movement of a carriage shall be controlled to ensure its safe movement and allow accurate positioning of the platform for vertical travel or storage.
 - (b) Powered carriages shall not exceed a traversing speed of 50 feet per minute (0.3 ms).
 - (c) The initiation of a traversing movement for a manually propelled carriage on a smooth level surface shall not require a person to exert a horizontal force of more than 40 pounds (444.8 n).
 - (d) Structural stops and curbs shall be provided to prevent the traversing of the carriage beyond its designed limits of travel.
 - (e) Traversing controls for a powered carriage shall be of a continuous pressure weatherproof type. Multiple controls, when provided, shall be arranged to permit operation from only 1 control station at a time. An emergency stop device shall be provided on each end of a powered carriage for interrupting power to the carriage drive motors.
 - (f) The operating control or controls shall be connected so that, in the case of suspended equipment, traversing of a carriage is not possible until the suspended portion of the equipment is located at its uppermost designed position for traversing and is free of contact with the face of the building or building guides. All protective devices and interlocks shall be in the proper position to allow traversing of the carriage.
 - (g) Stability for underfoot supported carriages shall be obtained by gravity, by an attachment to a structural support, or by a combination of gravity and a structural support. The use of flowing counterweights to achieve stability is prohibited.
 - (h) The stability factor against overturning shall not be less than 5 for horizontal traversing of the carriage, including the effects of impact and wind.
 - (i) The carriages and their anchorages shall be capable of resisting accidental over-tensioning of the wire ropes that suspend the working platform, and this calculated value shall include the effect of 1-1/2 times the stall capacity of the hoist motor. The forces that result from the stall load of the hoist and 1/2 of the wind load shall not cause damage to any part of the installation.
 - (j) Roof carriages that rely on having tie-down devices secured to the building to develop the required stability against overturning shall be provided with an interlock that will prevent vertical platform movement unless the tie-down is engaged.
 - (k) An automatically applied braking or locking system, or an equivalent, shall be provided that will prevent the unintentional traversing of power-traversed or power-assisted carriages.
 - (l) A manual or automatic braking or locking system, or an equivalent, shall be provided that will prevent the unintentional traversing of manually propelled carriages.
 - (m) A means to lock out the power supply for the carriage shall be provided.
 - (n) Safe access to, and egress from, the carriage shall be provided from a safe surface. If the carriage traverses an elevated area, any operating area on the carriage shall be protected by a guardrail system in compliance with General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.10509. Any access gate shall be self-closing and self-latching or shall be provided with an interlock.
 - (o) Each carriage work station position shall be identified by location markings or position indicators, or both.
 - (p) A motor shall stall if the load on the hoist motor is at any time more than 3 times that necessary for lifting the working platform with its rated load.

R 408.10568 Roof guarding.

Rule 568. (1) Employees who work on roofs while performing building maintenance shall be protected by a perimeter guarding system that meets the requirements of General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.10509.

(2) The perimeter guard shall not be more than 6 inches (152 mm) inboard of the inside face of a barrier, for example, the parapet wall, or roof edge curb of the building being serviced; however, the perimeter guard location shall not be set back more than 18 inches (457 mm) from the exterior building face.

R 408.10571 Safety factors.

Rule 571. All of the parts of a powered platform that are subject to stress, except for the wire rope, shall have a design safety factor of not less than 5. Wire rope shall have a design safety factor of not less than 10.

Compiler's Note: R 408.10571 is not being revised. This rule is included in the proposed rule set to show the placement of subpart "WIRE, FIBER AND SYNTHETIC ROPE" within the current rule set. This subpart is being deleted.

R 408.10573 Inspections and tests.

Rule 573. (1) An employer that has a powered platform under the employer's control shall do all of the following:

(a) Provide operating instructions and a checklist for a visual inspection which shall be used by the operator before each daily use of the platform. The visual inspection shall include a check of the platform controls and safety interlocks.

(b) Provide for a physical inspection, and service and repair when required, of the platform by a trained and authorized employee or an outside service every 30 days or before each use cycle if the equipment is used less often than every 30 days. The inspection, service, or repair shall be logged to show the date and the signature of the authorized employee or outside service and the work done.

(c) Provide for inspections and operating tests not less than annually or after major alterations to determine that all components of the platform, including safety and operating equipment, are in compliance with the provisions of these rules. Such inspections and operating tests shall be made by a trained and authorized employee or outside service.

(2) A special inspection of platform governors and secondary brakes shall be made not less than annually by an authorized and trained employee or outside service to verify that the initiating device for the secondary brake operates at the proper overspeed. If a test cannot be made in the field, the initiating device or hoisting machine, or both, shall be removed from the building and sent to a shop that is equipped to make such a test.

(3) When the tested parts are reinstalled, the powered platform shall be reinspected before returning it to service.

R 408.10575a Suspended equipment.

Rule 575a. (1) Each suspended unit component, except for suspension ropes and guardrail systems, shall be capable of supporting not less than 4 times the maximum intended live load applied or transmitted to that component.

(2) Each suspended unit component shall be constructed of materials that will withstand anticipated weather conditions.

(3) Each suspended unit shall be provided with a load rating plate that is conspicuously located and that states the unit weight and rated load of the suspended unit.

(4) When the suspension points on a suspended unit are not at the unit ends, the unit shall be capable of remaining continuously stable under all conditions of use and position of the live load and shall maintain not less than a 1.5 to 1 stability factor against unit upset.

(5) Guide rollers, guide shoes, or building face rollers shall be provided and shall compensate for variations in building dimensions and for minor horizontal out-of-level variations of each suspended unit.

(6) Each working platform of a suspended unit shall be secured to the building facade by 1 or more of the following methods or by an equivalent method that is in compliance with the provisions of R 408.10561 and R 408.10562:

- (a) Continuous.
- (b) Intermittent.
- (c) Button guide engagement.
- (d) Angulated roping.
- (e) Building face rollers.

(7) Each working platform of a suspended unit shall be provided with a guardrail system on all sides, which shall meet the requirements of General Industry Safety and Health Standard Part 2 “Walking-Working Surfaces,” as referenced in R 408.10509. All of the following provisions apply to the guardrail system:

- (a) The system shall consist of a top guardrail, midrail, and toeboard.
- (b) The top guardrail shall be not less than 42 inches high and shall be able to withstand not less than a 200-pound force in any downward or outward direction.
- (c) The midrail shall be able to withstand not less than a 75-pound (333 n) force in any direction.
- (d) The areas between the guardrail and toeboard on the ends and outboard side, and the area between the midrail and toeboard on the inboard side, shall be closed with a material that is capable of withstanding a load of 100 pounds (45.4 kg.) applied horizontally over any area of 1 square foot (.09 m²). All openings in the material shall be small enough to prevent the passage of lifelines and potential falling objects that may be hazardous to persons below.
- (e) Toeboards shall be capable of withstanding a force of not less than 50 pounds (222 n) applied in any direction at any point along the toeboard.
- (f) Toeboards shall be not less than 4 inches in height from the top edge to the level of the platform floor.
- (g) Toeboards shall be securely fastened in place at the outermost edge of the platform and have not more than 1/4 of an inch (1.3 cm) clearance above the platform.
- (h) Toeboards shall be solid or have an opening that is not more than 1 inch (2.5 cm) in the greatest dimension.

R 408.10575b Two- and 4-point suspended working platforms.

Rule 575b. (1) The 2- and 4-point suspended working platform shall be not less than 24 inches (610 mm) wide and shall be provided with a minimum of a 12-inch (305 mm) wide passage at or past any obstruction on the platform.

(2) The flooring of the 2- and 4-point suspended working platform shall be of a slip-resistant type and shall not have an opening that would allow the passage of lifelines, cables, and other potential falling objects.

(3) The 2- and 4-point suspended working platform shall be provided with a means of suspension that will restrict the platform from tilting more than 15 degrees in any direction.

(4) Any cable that is suspended from above the 2- and 4-point suspended working platform shall be provided with a means for storage to prevent accumulation of the cable on the floor of the platform.

(5) All operating controls for the vertical travel of the 2- and 4-point suspended working platform shall be of the continuous-pressure type and shall be located on the platform.

(6) Each operating station of every 2- and 4-point suspended working platform shall be provided with a means of interrupting the power supply to all hoist motors to stop any further powered ascent or descent of the platform.

(7) The maximum rated speed of the 2- and 4-point suspended working platform shall not be more than 50 feet per minute (0.3 ms) for single-speed hoists and not more than 75 feet per minute (0.4 ms) for multispeed hoists.

(8) All tools, water tanks, and other accessories shall be secured to prevent their movement or accumulation on the floor of the 2- and 4-point suspended working platform.

(9) Portable fire extinguishers that are in compliance with the provisions of General Industry Safety Standard Part 8 "Portable Fire Extinguishers," as referenced in R 408.10509, shall be provided and securely attached on all 2- and 4-point suspended working platforms.

(10) Access to and egress from a 2- and 4-point suspended working platform, except for those that land directly on a safe surface, shall be provided by stairs, ladders, platforms, and runways that are in compliance with the provisions of General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.10509. Access gates shall be self-closing and self-latching.

(11) Means of access to or egress from a working platform that is 48 inches (1.2 m) or more above a safe surface shall be provided with a guardrail system or ladder-handrails that are in compliance with the provisions of General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.10509.

(12) The 2- and 4-point suspended working platform shall be provided with a secondary wire rope suspension system if the platform has overhead structures that restrict the emergency egress of employees. A horizontal lifeline or a direct connection anchorage shall be provided as part of a personal fall arrest system. The system shall be in compliance for each employee on such a platform with the requirements of General Industry Safety and Health Standard Part 33 "Personal Protective Equipment" as referenced in R 408.10509.

(13) A vertical lifeline shall be provided as part of a personal fall arrest system. The system shall be in compliance with the requirements of General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.10509, for each employee on a working platform that is suspended by 2 or more wire ropes, if the failure of 1 wire rope or suspension attachment will cause the platform to upset. If a secondary wire rope suspension is used, vertical lifelines are not required for the personal fall arrest system, provided that each employee is attached to a horizontal lifeline anchored to the platform.

R 408.10575c Single point suspended working platforms.

Rule 575c. (1) The requirements of R 408.10575b(1) to (11) apply to a single-point working platform.

(2) Each single-point suspended working platform shall be provided with a secondary wire rope suspension system that will prevent the working platform from falling if there is a failure of the primary means of support, or if the platform contains overhead structures that restrict the egress of the employees. A horizontal lifeline or a direct connection anchorage shall be provided, as part of a personal fall arrest system that is in compliance with the requirements of General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.10509, for each employee on the platform.

R 408.10575e Intermittently stabilized platforms.

Rule 575e. (1) The intermittently stabilized platform shall be in compliance with the requirements of R 408.10575b (1) to (13).

(2) Each stabilizer tie shall be equipped with a quick-connect and quick-disconnect device that cannot be accidentally disengaged, that is for attachment to the building anchor, and that is resistant to adverse environmental conditions.

(3) The platform shall be provided with a stopping device that will interrupt the hoist power supply if the platform contacts a stabilizer tie during its ascent.

(4) Building face rollers shall not be placed at the anchor setting if exterior anchors are used on the building face.

(5) Stabilizer ties that are used on intermittently stabilized platforms shall allow for the specific attachment length that is needed to effect the predetermined angulation of the suspended wire rope. The specific attachment length shall be maintained at all building anchor locations.

(6) The intermittently stabilized platform shall be in continuous contact with the face of the building during ascent and descent.

(7) The attachment and removal of stabilizer ties shall not require the horizontal movement of the platform.

(8) The platform-mounted equipment and its suspension wire ropes shall not be physically damaged by the loads from the stabilizer tie or its building anchor. The platform, platform-mounted equipment, and wire ropes shall be able to withstand a load that is not less than twice the ultimate strength of the stabilizer tie.

R 408.10582 Suspension wire rope maintenance; inspection and replacement.

Rule 582. (1) Any of the following conditions or combination of conditions are be cause for removal of the wire rope:

(a) In any length of 8 diameters, the total number of visible broken wires is more than 6 in 1 rope lay or 3 wires in 1 strand.

(b) The wire rope has been kinked, crushed, or bird-caged or has sustained any other damage that distorts the wire rope structure.

(c) The wire rope shows heat or corrosive damage.

(d) The wire rope contains a broken wire within 18 inches (460.8 mm) of the end attachment.

(2) Wire rope that is bent to form an eye over a bolt or rod that has a diameter that is less than 4 times the rope diameter shall be equipped with a metal thimble.

(3) End fittings should be swagged or zinc-poured sockets.

(4) Where wire clips are used, the provisions of table 8 shall be followed and the u-bolts shall be installed on the dead end or short end of the wire rope.

(5) Wire rope shall be stored in a manner to prevent damage or deterioration.

(6) Before cutting wire rope, a seizing shall be placed on each side of the cut on preformed wire rope, 2 seizings shall be placed on each side of 7/8 inch size or smaller nonpreformed wire rope, and 3 seizings shall be placed on each side of 1 inch or larger size nonpreformed wire rope.

(7) Wire rope shall be maintained in a lubricated condition over its entire length with the same type of lubricant that is used by the manufacturer.

(8) Suspension wire ropes shall be maintained and used in accordance with the procedures recommended by the wire rope manufacturer.

(9) Suspension wire rope shall be inspected by a competent person for visible defects and gross damage to the rope before every use and after each occurrence that might affect the wire rope's integrity.

(10) A thorough inspection of suspension wire ropes in service shall be made once a month. Suspension wire ropes that have been inactive for 30 days or more shall have a thorough inspection

before they are placed into service. These thorough inspections of suspension wire ropes shall be performed by a competent person.

(11) The need for replacement of suspension wire rope shall be based on its condition. A wire rope shall be removed for any of the following conditions:

(a) Evidence of core failure. A lengthening of rope lay, protrusion of the rope core, and a reduction in rope diameter suggests core failure.

(b) Outer wire wear is more than 1/3 of the original outer wire diameter.

(c) Any other condition that the competent person determines has significantly affected the integrity of the rope.

(12) The owner shall keep a certification record of each monthly inspection of a suspension wire rope which shall be verified by the employer. The record shall include the date of the inspection and a number or other identifier of the wire rope that was inspected. The record of inspection shall be made available for review by the director of the Michigan Department of Licensing and Regulatory Affairs or his or her designated representative and by the employer.

R 408.10592 Personal fall protection.

Rule 592. Employees on working platforms shall be protected by a personal fall arrest system that is in compliance with the requirements of General Industry Safety and Health Standard Part 33 "Personal Protective Equipment," as referenced in R 408.10509.

APPENDIX D – EXISTING INSTALLATIONS MANDATORY

Use of the Appendix

Appendix D sets out the mandatory building and equipment requirements for applicable permanent installations completed after August 27, 1971, and no later than July 23, 1990, which are exempt from R 408.10501, R 408.10502, R 408.10503 to R 408.10508, R 408.10518, R 408.10561 to R 408.10567, R 408.10568 to R 408.10569, and R 408.10575 to R 408.10577 of this standard.

The requirements in Appendix D are essentially the same as unrevised building and equipment provisions which previously were designated as R 408.10501, R 408.10502, R 408.10518, and R 408.10503 to R 408.10508, and which were effective on November 1, 1974.

Note: All existing installations subject to this appendix shall also comply with R 408.10574(2), R 408.10578 to R 408.10582, and R 408.10585 to R 408.10592 of this standard.

(A) "DEFINITIONS APPLICABLE TO THIS APPENDIX"

(1) "Angulated roping." A system of platform suspension in which the upper wire rope sheaves or suspension points are closer to the plane of the building face than the corresponding attachment points on the platform, thus causing the platform to press against the face of the building during its vertical travel.

(2) "ANSI" American National Standards Institute.

(3) "Babbitted fastenings." The method of providing wire rope attachments in which the ends of the wire strands are bent back and are held in a tapered socket by means of poured molten babbitt metal.

(4) "Brake" - "disc type." A brake in which the holding effect is obtained by frictional resistance between 1 or more faces of discs keyed to the rotating member to be held and fixed discs keyed to the stationary or housing member (pressure between the discs being applied axially).

(5) "Brake - self-energizing band type." An essentially unidirectional brake in which the holding effect is obtained by the snubbing action of a flexible band wrapped about a cylindrical wheel or drum affixed to the rotating member to be held, the connections and linkages being so arranged that the motion of the brake wheel or drum will act to increase the tension or holding force of the band.

(6) "Brake - shoe type." A brake in which the holding effect is obtained by applying the direct pressure of 2 or more segmental friction elements held to a stationary member against a cylindrical wheel or drum affixed to the rotating member to be held.

(7) "Building face rollers." A specialized form of guide roller designed to contact a portion of the outer face or wall structure of the building, and to assist in stabilizing the operators' platform during vertical travel.

(8) "Continuous pressure." Operation by means of buttons or switches, any 1 of which may be used to control the movement of the working platform or roof car, only as long as the button or switch is manually maintained in the actuating position.

(9) "Control." A system governing starting, stopping, direction, acceleration, speed, and retardation of moving members.

(10) "Controller." A device or group of devices, usually contained in a single enclosure, that serves to control in some predetermined manner the apparatus to which it is connected.

(11) "Electrical ground." A conducting connection between an electrical circuit or equipment and the earth, or some conducting body which serves in place of the earth.

(12) "Guide roller." A rotating, bearing-mounted, generally cylindrical member, operating separately or as part of a guide shoe assembly, attached to the platform, and providing rolling contact with building guideways, or other building contact members.

(13) "Guide shoe." An assembly of rollers, slide members, or the equivalent, attached as a unit to the operators' platform, and designed to engage with the building members provided for the vertical guidance of the operators' platform.

(14) "Interlock." A device actuated by the operation of some other device with which it is directly associated, to govern succeeding operations of the same or allied devices.

(15) "Operating device." A pushbutton, lever, or other manual device used to actuate a control.

(16) "Powered platform." Equipment to provide access to the exterior of a building for maintenance, consisting of a suspended power-operated working platform, a roof car, or other suspension means, and the requisite operating and control devices.

(17) "Rated load." The combined weight of employees, tools, equipment, and other material which the working platform is designed and installed to lift.

(18) "Relay, direction." An electrically energized contactor responsive to an initiating control circuit, which in turn causes a moving member to travel in a particular direction.

(19) "Relay, potential for vertical travel." An electrically energized contactor responsive to initiating control circuit, which in turn controls the operation of a moving member in both directions. This relay usually operates in conjunction with direction relays, as covered under the definition, "relay, direction."

(20) "Roof car." A structure for the suspension of a working platform, providing for its horizontal movement to working positions.

(21) "Roof-powered platform." A powered platform having the raising and lowering mechanism located on a roof car.

(22) "Self-powered platform." A powered platform having the raising and lowering mechanism located on the working platform.

(23) "Traveling cable." A cable made up of electrical or communication conductors or both, and providing electrical connection between the working platform and the roof car or other fixed point.

(24) "Weatherproof." Equipment so constructed or protected that exposure to the weather will not interfere with its proper operation.

(25) "Working platform." The suspended structure arranged for vertical travel that provides access to the exterior of the building or structure.

(26) "Yield point." The stress at which the material exhibits a permanent set of 0.2 percent.

(27) "Zinc fastenings." The method of providing wire rope attachments in which the splayed or fanned wire ends are held in a tapered socket by means of poured molten zinc.

(B) "GENERAL REQUIREMENTS"

(1) "Design requirements." All powered platform installations for exterior building maintenance completed as of August 27, 1971, but not later than 180 days after November 1, 1974, shall meet all of the design, construction, and installation requirements of Part II and III of ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509, and of this appendix. References shall be made to appropriate parts of ANSI A120.1 1970 edition for detail specifications for equipment and special installations.

(2) "Limitation." The requirements of this appendix apply only to electric powered platforms. It is not the intent of this appendix to prohibit the use of other types of power. Installation of powered platforms using other types of power is permitted, provided such platforms have adequate protective devices for the type of power used, and otherwise provide for reasonable safety of life and limb to users of equipment and to others who may be exposed.

(3) "Types of powered platforms."

(i) For the purpose of applying this appendix, powered platforms are divided into 2 basic types, Type F and Type T.

(ii) Powered platforms designated as Type F shall meet all the requirements in Part II of ANSI A120.1 “Safety Requirement for Powered Platforms for Exterior Building Maintenance,” 1970 edition, as adopted in R 408.40509. A basic requirement of Type F equipment is that the work platform is suspended by at least 4 wire ropes and designed so that failure of any 1 wire rope will not substantially alter the normal position of the working platform. Another basic requirement of Type F equipment is that only 1 layer of hoisting rope is permitted on winding drums. Type F powered platforms may be either roof-powered or self-powered.

(iii) Powered platforms designated as Type T shall meet all the requirements in Part III of ANSI A120.1 “Safety Requirement for Powered Platforms for Exterior Building Maintenance,” except for section 28, “Safety Belts and Life Lines,” 1970 edition, as adopted in R 408.40509. A basic requirement of Type T equipment is that the working platform is suspended by at least 2 wire ropes. Failure of 1 wire rope would not permit the working platform to fall to the ground, but would upset its normal position. Type T powered platforms may be either roof-powered or self-powered.

(iv) The requirements of this section apply to powered platforms with winding drum type hoisting machines. It is not the intent of this section to prohibit powered platforms using other types of hoisting machines such as, but not limited to, traction drum hoisting machines, air powered machines, hydraulic powered machines, and internal combustion machines. Installation of powered platforms with other types of hoisting machines is permitted, provided adequate protective devices are used, and provided reasonable safety of life and limb to users of the equipment and to others who may be exposed is assured.

(v) Both Type F and Type T powered platforms shall comply with the requirements of Appendix C of this rule.

(C) "TYPE F POWERED PLATFORMS"

(1) "Roof car, general."

(i) A roof car shall be provided whenever it is necessary to move the working platform horizontally to working or storage positions.

(ii) The maximum rated speed at which a power traversed roof car may be moved in a horizontal direction shall be 50 feet per minute.

(2) "Movement and positioning of roof car."

(i) Provision shall be made to protect against having the roof car leave the roof or enter roof areas not designed for travel.

(ii) The horizontal motion of the roof cars shall be positively controlled so as to ensure proper movement and positioning of the roof car.

(iii) Roof car positioning devices shall be provided to ensure that the working platform is placed and retained in proper position for vertical travel and during storage.

(iv) Mechanical stops shall be provided to prevent the traversing of the roof car beyond its normal limits of travel. Such stops shall be capable of withstanding a force equal to 100 percent of the inertial effect of the roof car in motion with traversing power applied.

(v)(a) The operating device of a power-operated roof car for traversing shall be located on the roof car, the working platform, or both, and shall be of the continuous pressure weatherproof electric type. If more than 1 operating device is provided, the operating device shall be so arranged that traversing is possible only from 1 operating device at a time.

(b) The operating device shall be so connected that it is not operable until both of the following:

(1) The working platform is located at its uppermost position of travel and is not in contact with the building face or fixed vertical guides in the face of the building; and

- (2) All protective devices and interlocks are in a position for traversing.
- (3) "Roof car stability." Roof car stability shall be determined by either paragraph (c)(3)(i) or (ii) of this appendix, whichever is greater.
- (i) The roof car shall be continuously stable, considering overturning moment as determined by 125 percent rated load, plus maximum dead load and the prescribed wind loading.
- (ii) The roof car and its anchorages shall be capable of resisting accidental over-tensioning of the wire ropes suspending the working platform and this calculated value shall include the effect of 1 1/2 times the value. For this calculation, the simultaneous effect of 1/2 wind load shall be included, and the design stresses shall not exceed those referred to in paragraph (b)(1) of this appendix.
- (iii) If the load on the motors is at any time in excess of 3 times that required for lifting the working platform with its rated load, the motor shall stall.
- (4) "Access to the roof car." Safe access to the roof car and from the roof car to the working platform shall be provided. If the access to the roof car at any point of its travel is not over the roof area or where otherwise necessary for safety, then self-closing, self-locking gates shall be provided. Access to and from roof cars shall comply with the requirements of General Industry Safety and Health Standard Part 2 "Walking-Working Surfaces," as referenced in R 408.10509.
- (5) "Means for maintenance, repair, and storage." Means shall be provided to run the roof car away from the roof perimeter, where necessary, and to provide a safe area for maintenance, repairs, and storage. Provisions shall be made to secure the machine in the stored position. For stored machines subject to wind forces, see special design and anchorage requirements for "wind forces" in Part II, section 10.5.1.1 of ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509.
- (6) "General requirements for working platforms." The working platform shall be of girder or truss construction and shall be adequate to support its rated load under any position of loading, and comply with the provisions set forth in section 10 of ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509,
- (7) "Load rating plate." Each working platform shall bear a manufacturer's load rating plate, conspicuously posted; stating the maximum permissible rated load. Load rating plates shall be made of noncorrosive material and shall have letters and figures stamped, etched, or cast on the surface. The minimum height of the letters and figures shall be 1/4 inch.
- (8) "Minimum size." The working platform shall have a minimum net width of 24 inches.
- (9) "Guardrails." Working platforms shall be furnished with permanent guard rails not less than 36 inches high, and not more than 42 inches high at the front of building side. At the rear, and on the sides, the rail shall not be less than 42 inches high. An intermediate guardrail shall be provided around the entire platform between the top guardrail and the toeboard.
- (10) "Toeboards." A 4-inch toeboard shall be provided along all sides of the working platform.
- (11) "Open spaces between guardrails and toeboards." The spaces between the intermediate guardrail and platform toeboard on the building side of the working platform, and between the top guardrail and the toeboard on other sides of the platform, shall be filled with metallic mesh or similar material that will reject a ball 1 inch in diameter. The installed mesh shall be capable of withstanding a load of 100 pounds applied horizontally over any area of 144 square inches. If the space between the platform and the building face does not exceed 8 inches, and the platform is restrained by guides, the mesh may be omitted on the front side.
- (12) "Flooring." The platform flooring shall be of the nonskid type, and if of open construction, shall reject a 9/16 - inch diameter ball, or be provided with a screen below the floor to reject a 9/16 - inch diameter ball.
- (13) "Access gates." Where access gates are provided, access gates shall be self-closing and self-locking.

(14) "Operating device for vertical movement of the working platform."

(i) The normal operating device for the working platform shall be located on the working platform and shall be of the continuous pressure weatherproof electric type.

(ii) The operating device shall be operable only when all electrical protective devices and interlocks on the working platform are in position for normal service, and the roof car, if provided, is at an established operating point.

(15) "Emergency electric operative device."

(i) In addition, on roof-powered platforms, an emergency electric operating device shall be provided near the hoisting machine for use in the event of failure of the normal operating device for the working platform, or failure of the traveling cable system. The emergency operating device shall be mounted in a locked compartment and shall have a legend mounted thereon reading: "for Emergency Operation Only. Establish Communication With Personnel on Working Platform Before Use."

(ii) A key for unlocking the compartment housing the emergency operating device shall be mounted in a break-glass receptacle located near the emergency operating device.

(16) "Manual cranking for emergency operation." Emergency operation of the main drive machine may be provided to allow manual cranking. This provision for manual operation shall be designed so that not more than 2 persons will be required to perform this operation. The access to this provision shall include a means to automatically make the machine inoperative electrically while under the emergency manual operation. The design shall be such that the emergency brake is operative at or below governor tripping speed during manual operation.

(17) "Arrangement and guarding of hoisting equipment."

(i) Hoisting equipment shall consist of a power-driven drum or drum contained in the roof car, also known as roof-powered platforms, or contained on the working platform, also known as self-powered platform.

(ii) The hoisting equipment shall be power-operated in both up and down directions.

(iii) Guard or other protective devices shall be installed wherever rotating shafts or other mechanisms or gears may expose personnel to a hazard.

(iv) Friction devices or clutches shall not be used for connecting the main driving mechanism to the drum or drums. Belt or chain-driven machines are prohibited.

(18) "Hoisting motors."

(i) Hoisting motors shall be electric and of weather-proof construction.

(ii) Hoisting motors shall be in conformance with applicable provisions of paragraph (c)(22) of this appendix, Electrical Wiring and Equipment.

(iii) Hoisting motors shall be directly connected to the hoisting machinery. Motor couplings, if used, shall be of steel construction.

(19) "Brakes." The hoisting machine or machines shall have 2 independent braking means, each designed to stop and hold the working platform with 125 percent of rated load.

(20) "Hoisting ropes and rope connections."

(i) Working platforms shall be suspended by wire ropes of either 6 X 19 or 6 X 37 classification, preformed or non-preformed.

(ii) [Reserved]

(iii) The minimum factor of safety is 10, and shall be calculated by the following formula:

$F = S \times N / W$		
Where:		
S	=	Manufacturer's rated breaking strength of 1 rope.
N	=	Number of ropes under load.
W	=	Maximum static load on all ropes with the platform and its rated load at any point of its travel.

(iv) Hoisting ropes shall be sized to conform with the required factor of safety, but in no case shall the size be less than 5/16 inch diameter.

(v) Winding drums shall have at least 3 turns of rope remaining when the platform has landed at the lowest possible point of its travel.

(vi) The lengthening or repairing of wire rope by the joining of 2 or more lengths is prohibited.

(vii) The non-drum ends of the hoisting ropes shall be provided with individual shackle rods which will permit individual adjustment of rope lengths, if required.

(viii) More than 2 reverse bends in each rope is prohibited.

(21) "Rope tag data."

(i) A metal data tag shall be securely attached to 1 of the wire rope fastenings. This data tag shall bear the following wire rope data:

(a) The diameter in inches.

(b) Construction classification.

(c) Whether non-preformed or preformed.

(d) The grade of material used.

(e) The manufacturer's rated breaking strength.

(f) Name of the manufacturer of the rope.

(g) The month and year the ropes were installed.

(22) "Electrical wiring and equipment."

(i) All electrical equipment and wiring shall conform to the requirements of General Industry Safety Standard Part 39 "Design Safety Standards for Electrical Systems," except as modified by ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509. For detail design specifications for electrical equipment, see Part 2 of ANSI A120.1, 1970 edition.

(ii) All motors and operation and control equipment shall be supplied from a single power source.

(iii) The power supply for the powered platform shall be an independent circuit supplied through a fused disconnect switch.

(iv) Electrical conductor parts of the power supply system shall be protected against accidental contact.

(v) Electrical grounding shall be provided.

(a) Provision for electrical grounding shall be included with the power-supply system.

(b) Controller cabinets, motor frames, hoisting machines, the working platform, roof car and roof car track system, and noncurrent carrying parts of electrical equipment, where provided, shall be grounded.

(c) The controller, where used, shall be so designed and installed that a single ground or short circuit will not prevent both the normal and final stopping device from stopping the working platform.

(d) Means shall be provided on the roof car and working platform for grounding portable electric tools.

(e) The working platform shall be grounded through a grounding connection in a traveling cable. Electrically powered tools utilized on the working platform shall be grounded.

(vi) Electrical receptacles located on the roof or other exterior location shall be of a weatherproof type and shall be located so as not to be subject to contact with water or accumulated snow. The receptacles

shall be grounded and the electric cable shall include a grounding conductor. The receptacle and plug shall be a type designed to avoid hazard to persons inserting or withdrawing the plug. Provision shall be made to prevent application of cable strain directly to the plug and receptacle.

(vii) Electric runway conductor systems shall be of the type designed for use in exterior locations and shall be located so as not to be subject to contact with water or accumulated snow. The conductors, collectors, and disconnecting means shall conform to the same requirements as those for cranes and hoists in General Industry Safety Standard Part 39 "Design Safety Standards for Electrical Systems," as referenced in R 408.40509. A grounded conductor shall parallel the power conductors and be so connected that it cannot be opened by the disconnecting means. The system shall be designed to avoid hazard to persons in the area.

(viii) Electrical protective devices and interlocks of the weatherproof type shall be provided.

(ix) Where the installation includes a roof car, electric contact or contacts shall be provided and so connected that the operating devices for the working platform shall be operative only when the roof car is located and mechanically retained at an established operating point.

(x) Where the powered platform includes a power-operated roof car, the operating device for the roof car shall be inoperative when the roof car is mechanically retained at an established operating point.

(xi) An electric contact shall be provided and so connected that it will cause the down direction relay for vertical travel to open if the tension in the traveling cable exceeds safe limits.

(xii) An automatic overload device shall be provided to cut off the electrical power to the circuit in all hoisting motors for travel in the up direction, should the load applied to the hoisting ropes at either end of the working platform exceed 125 percent of its normal tension with rated load, as shown on the manufacturer's data plate on the working platform.

(xiii) An automatic device shall be provided for each hoisting rope which will cut off the electrical power to the hoisting motor or motors in the down direction and apply the brakes if any hoisting rope becomes slack.

(xiv) Upper and lower directional limit devices shall be provided to prevent the travel of the working platform beyond the normal upper and lower limits of travel.

(xv) Operation of a directional limit device shall prevent further motion in the appropriate direction, if the normal limit of travel has been reached.

(xvi) Directional limit devices, if driven from the hoisting machine by chains, tapes, or cables, shall incorporate a device to disconnect the electric power from the hoisting machine and apply both the primary and secondary brakes in the event of failure of the driving means.

(xvii) Final terminal stopping devices of the working platform:

(a) Final terminal stopping devices for the working platform shall be provided as a secondary means of preventing the working platform from over-traveling at the terminals.

(b) The device shall be set to function as close to each terminal landing as practical, but in such a way that under normal operating conditions it will not function when the working platform is stopped by the normal terminal stopping device.

(c) Operation of the final terminal stopping device shall open the potential relay for vertical travel, thereby disconnecting the electric power from the hoisting machine, and applying both the primary and secondary brakes.

(d) The final terminal stopping device for the upper limit of travel shall be mounted so that it is operated directly by the motion of the working platform itself.

(xviii) Emergency stop switches shall be provided in or adjacent to each operating device.

(xix) Emergency stop switches shall comply with the following:

(a) Have red operating buttons or handles.

(b) Be conspicuously and permanently marked "Stop."

(c) Be the manually opened and manually closed type.

(d) Be positively opened with the opening not solely dependent on springs.

(xx) The manual operation of an emergency stop switch associated with an operating device for the working platform shall open the potential relay for vertical travel, thereby disconnecting the electric power from the hoisting machine and applying both the primary and secondary brakes.

(xxi) The manual operation of the emergency stop switch associated with the operating device for a power-driven roof car shall cause the electrical power to the traverse machine to be interrupted, and the traverse machine brake to apply.

(23) "Requirements for emergency communications."

(i) Communication equipment shall be provided for each powered platform for use in an emergency.

(ii) Two-way communication shall be established between personnel on the roof and personnel on the stalled working platform before any emergency operation of the working platform is undertaken by personnel on the roof.

(iii) The equipment shall permit 2-way voice communication between the working platform and include the following:

(a) Designated personnel continuously available while the powered platform is in use; and

(b) Designated personnel on roof-powered platforms, undertaking emergency operation of the working platform by means of the emergency operating device located near the hoisting machine.

(iv) The emergency communication equipment shall be either of the following types:

(a) Telephone connected to the central telephone exchange system.

(b) Telephones on a limited system or an approved 2-way radio system, provided designated personnel are available to receive a message during the time the powered platform is in use.

(D) "TYPE T POWERED PLATFORMS"

(1) "Roof car." The requirements of paragraphs (c)(1) to (5) of this appendix apply to Type T powered platforms.

(2) "Working platform." The requirements of paragraphs (c)(6) to (16) of this appendix apply to Type T powered platforms.

(i) The working platform shall be suspended by at least 2 wire ropes.

(ii) The maximum rated speed at which the working platform of self-powered platforms may be moved in a vertical direction shall not exceed 35 feet per minute.

(3) "Hoisting equipment." The requirements of paragraphs (c)(17) and (18) of this appendix shall apply to Type T powered platforms.

(4) "Brakes." Brakes requirements of paragraph (c)(19) of this appendix apply.

(5) "Hoisting ropes and rope connections."

(i) Paragraph (c)(20)(i) to (vi) and (viii) of this appendix apply to type T powered platforms.

(ii) Adjustable shackle rods in subparagraph (c)(20)(vii) of this appendix shall apply to Type T powered platforms if the working platform is suspended by more than 2 wire ropes.

(6) "Electrical wiring and equipment."

(i) The requirements of paragraph (c)(22)(i) to (vi) of this appendix apply to Type T powered platforms. "Circuit protection limitation," "powered platform electrical service system," all operating services and control equipment shall comply with the specifications contained in Part 2, section 26, of ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509.

(ii) For electrical protective devices the requirements of paragraph (c)(22)(i) to (viii) of this appendix apply to Type T powered platforms. Requirements for the "circuit potential limitation" shall be in accordance with the specifications contained in Part 2, section 26, of ANSI A120.1 "Safety Requirement for Powered Platforms for Exterior Building Maintenance," 1970 edition, as adopted in R 408.40509.

(7) "Emergency communications." All the requirements of paragraph (c)(23) of this appendix apply to Type T powered platforms.

ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

BUREAU OF COMMUNITY AND HEALTH SYSTEMS

SUBSTANCE USE DISORDERS SERVICE PROGRAM

Filed with the Secretary of State on February 6, 2018

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45(a)(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of licensing and regulatory affairs by section 6234 of 1978 PA 368 as amended, MCL 333.6234 and Executive Reorganization Order Nos. 1991-3, 1994-1, 1996-1, 1996-2, 1997-4, 2009-1, and 2011-4, MCL 333.26321, 333.26322, 330.3101, 445.2001, 333.26324, 333.26327, 445.2030)

R 325.14202 and R 325.14205 of the Michigan Administrative Code are amended to read as follows:

LICENSING OF SUBSTANCE USE DISORDER PROGRAMS

R 325.14202 Time of application.

Rule 202. An application for initial licensure may be made at any time. All licenses shall be renewed annually.

R 325.14205 Investigations and inspections.

Rule 205. (1) The office shall conduct an investigation of a substance use disorder services program for initial licensure within the 3-month period following receipt of the application

(2) The office may make additional visits, inspections, and investigations as it determines necessary for the purpose of enforcement of these rules and the act in accordance with the act.

(3) Investigations may include all of the following:

(a) Inspections of the program and its operation.

(b) Inspection and copying of program records, patient clinical records, and other documents maintained by the program.

(c) The acquisition of other information, including otherwise privileged or confidential information, from any other persons who may have information bearing on the applicant's or licensee's compliance, or ability to comply, with the applicable requirements for licensure.

**PROPOSED ADMINISTRATIVE RULES,
NOTICES OF PUBLIC HEARINGS**

MCL 24.242(3) states in part:

“... the agency shall submit a copy of the notice of public hearing to the Office of Regulatory Reform for publication in the Michigan register. An agency's notice shall be published in the Michigan register before the public hearing and the agency shall file a copy of the notice of public hearing with the Office of Regulatory Reform.”

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules.”

PROPOSED ADMINISTRATIVE RULES

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

Filed with the Secretary of State on

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45(a)(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of environmental quality by sections 5503 and 5512 of 1994 PA 451, MCL 324.5503 and 324.5512, ~~and Executive Reorganization Order Nos. 1995-16, 2009-31, and 2011-1, MCL 324.99903, 324.99919, and 324.99921~~)

R 336.1902, R 336.1971, and R 336.1973 of the Michigan Administrative Code are amended, and R 336.1974 is added to the Code, to read as follows:

PART 9. EMISSION LIMITATIONS AND PROHIBITIONS -
MISCELLANEOUS

R 336.1902 Adoption of standards by reference.

Rule 902. (1) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from the ~~Superintendent of Documents~~, U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401, or by accessing their online bookstore at ~~http://bookstore.gpo.gov~~ www.ecfr.gov at a cost as of the time of adoption of these rules (GPO price). The standards can also be viewed and/or printed free of charge at <http://bookstore.gpo.gov>.

(a) “National Primary and Secondary Ambient Air Quality Standards,” 40 C.F.R. Part 50 (2015~~7~~), AQD price \$61.00/\$51.00 GPO price for Part 50 through Part 51.

(b) The following sections of “Requirements for Preparation, Adoption, and Submittal of Implementation Plans,” 40 C.F.R. Part 51 (2015), AQD price \$61.00/\$51.00 GPO price for Part 50 through Part 51:

(i) “Definitions,” 40 C.F.R. §51.100.

(ii) “Legally enforceable procedures,” 40 C.F.R. §51.160.

(iii) “Permit requirements,” 40 C.F.R. §51.165.

(iv) “Prevention of significant deterioration of air quality,” 40 C.F.R. §51.166.

(v) ~~“Definitions~~ **“Protection of Visibility,”** 40 C.F.R. §51.301 **through §51.309.**

(vi) “Sources That Would Locate in a Designated Nonattainment Area,” Appendix S.

(vii) “Recommended Test Methods for State Implementation Plans,” Appendix M.

(viii) “Guideline on Air Quality Models,” Appendix W.

(ix) “Guidelines for BART Determinations under the Regional Haze Rule,” Appendix Y.

(c) “Prevention of Significant Deterioration of Air Quality,” 40 C.F.R. §52.21 (20157); AQD price \$74.00/\$64.00 GPO price for Part 52 (52.01 through 52.1018).

(d) “Quality Assurance Requirements for Prevention of Significant Deterioration Air Monitoring,” 40 C.F.R. §58, Appendix B (20157); AQD price \$46.00/\$36.00 GPO price for Part 53 through Part 59.

(e) “Standards of Performance for New Stationary Sources,” 40 C.F.R. Part 60, except 40 C.F.R. Part 60, Subpart AAA, “Standards of Performance for New Residential Wood Heaters” (20157); AQD price \$74.00/\$64.00 GPO price for Part 60 (60.1 to end).

(f) ~~“Appendices,”~~ 40 C.F.R. Part 60 **Appendices A, B, and F** (20157); AQD price \$73.00/\$63.00 GPO price for Part 60 Appendices.

(g) “National Emission Standards for Hazardous Air Pollutants,” 40 C.F.R. Part 61 (20157); AQD price \$61.00/\$51.00 GPO price for Part 61 through Part 62.

~~(h) The following sections of “Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or Before September 20, 1994,” 40 C.F.R. Part 62, Subpart FFF (2015); AQD price \$61.00/\$51.00 GPO price for Part 61 and Part 62:~~

~~(i) “Emission limits for municipal waste combustor metals, acid gases, organics, and nitrogen oxides,” §62.14103.~~

~~(ii) Tables 2 to 5 of Subpart FFF to Part 62.~~

~~(iii) 62.14102 Affected Facilities~~

(**h**) “National Emission Standards for Hazardous Air Pollutants for Source Categories,” 40 C.F.R. Part 63, Subpart A to Z (20157); AQD price \$74.00/\$64.00 GPO price.

(**j**) “National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued),” 40 C.F.R. Part 63, Subpart AA to DDD (20157); AQD price \$63.00/\$53.00 GPO price.

(**k**) “National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued),” 40 C.F.R. Part 63, Subpart EEE to PPP (20157); AQD price \$66.00/\$56.00 GPO price.

(**h**) “National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued),” 40 C.F.R. Part 63, Subpart QQQ to YYYYY (20157); AQD price \$47.00/\$37.00 GPO price.

(**m**) “National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued),” 40 C.F.R. Part 63, Subpart ZZZZ to MMMMM (20157); AQD price \$50/\$40 GPO price.

(**n**) “National Emission Standards for Hazardous Air Pollutants for Source Categories (Continued),” 40 C.F.R. Part 63, Subpart NNNNN to end (20157); AQD price \$50.00/\$40.00 GPO price.

(**o**) “Compliance Assurance Monitoring,” 40 C.F.R. Part 64 (20157); AQD price \$44.00/\$34.00 GPO price for Part 64 through Part 71.

(**p**) The following sections of “State Operating Permit Programs,” **40 C.F.R. Part 70** (20157); AQD price \$44.00/\$34.00 GPO price for Part 64 through Part 71:

(i) ~~“Applicability Definitions,”~~ 40 C.F.R. §70.32.

(ii) **“State program submittals and transition,” 40 C.F.R. §§70.4(b)(12), (14), and (15).**

(iii) **“Permit content,” 40 C.F.R. §70.6(a)(8).**

(iv) “Re-openings for cause by EPA,” 40 C.F.R. §70.7(g).

(v) “Transmission of information to the Administrator,” 40 C.F.R. §70.8(a)(1) and (2).

(vi) “EPA objection,” 40 C.F.R. §70.8(c).

(vii) “Public petitions to the Administrator,” 40 C.F.R. §70.8(d).

(**q**) “Permit Regulations,” 40 C.F.R. Part 72 (20157); AQD price \$78.00/\$68.00 GPO price for Part 72 through Part 80.

(**r**) “Sulfur Dioxide Opt-Ins,” 40 C.F.R. Part 74 (20157); AQD price \$78.00/\$68.00 GPO price for Part 72 through Part 80.

(**s**) “Continuous Emission Monitoring,” 40 C.F.R. Part 75 (20157); AQD price \$78.00/\$68.00 GPO price for Part 72 through Part 80.

(~~ts~~) “Acid Rain Nitrogen Oxides Emission Reduction Program,” 40 C.F.R. Part 76 (20157); AQD price \$78.00/\$68.00 GPO price for Part 72 through Part 80.

(t) “NO_x Budget Trading Program and CAIR NO_x and SO₂ Trading Programs for State Implementation Plans,” 40 C.F.R. Part 96 §§96.1 through §96.88 (2017); AQD price \$76.00/\$66.00 GPO price for Part 96 through Part 99.

(u) “Federal NO_x Budget Trading Program, ~~and~~ CAIR NO_x and SO₂ Trading Programs, ~~and~~ CSAPR NO_x and SO₂ Trading Programs,” 40 C.F.R. Part 97 (20157); AQD price \$76.00/\$66.00 GPO price for Part 96 through Part 99.

~~(v) “Global Warming Potentials,” 40 C.F.R. Part 98, Subpart A, Table A-1 (2015); AQD Price \$76.00/\$66.00 GPO price for Part 96 to Part 99.~~

(2) The following United States Environmental Protection Agency (U.S. EPA) documents are adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of \$20.00 each. A copy may also be obtained from the U.S. EPA, Office of the Science Advisor, 1200 Pennsylvania Avenue, NW, Washington, DC 20460 or on the U.S. EPA website, www.epa.gov, free of charge as of the time of adoption of these rules.

(a) “Advances in Inhalation Gas Dosimetry for Derivation of a Reference Concentration (RfC) and Use in Risk Assessment,” EPA/600/R-12/044, September 2012.

(b) “Alternative Control Techniques Document: NO_x Emissions from Cement Manufacturing,” EPA-453/R-94-004, 1994.

(c) “Benchmark Dose Technical Guidance,” EPA/100/R-12/001, June 2012.

(d) “Compilation of Air Pollution ~~nant~~ Emission Factors. Volume 1, Stationary Point and ~~Area~~ Sources,” EPA-450/AP-425-ED, January 1995.

(e) “Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products, Appendix B,” EPA-450/2-78-029, December 1978.

(f) “Guidelines for Carcinogen Risk Assessment,” EPA/630/P-03/001B, March 2005.

(g) “Protocol for Determining the Daily Volatile Compound Emission Rate of Automobile and Light-duty Truck Topcoat Operations,” EPA-450/3-88-018, December 1988.

(h) “Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens,” EPA/630/R-03/003F, March 2005.

(3) The following Federal Register documents are adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of \$10.00 each:

(a) U.S. EPA Emissions Trading Policy statement, 51 F.R. 43814, December 4, 1986.

(b) U.S. EPA Recommended Policy on Control of Volatile Organic Compounds, Table 1, 42 FR 35314, July 8, 1977.

(4) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at the cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from ASTM International, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959 or on the ASTM website, www.astm.org, at a cost as of the time of adoption of these rules (ASTM price):

(a) Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, ASTM method D86, 2012; AQD price \$74.00/\$64.00 ASTM price.

(b) Standard Test Method for Pour Point of Petroleum Products, ASTM D97, 2015; AQD price \$54.00/\$44.00 ASTM price.

- (c) Standard Test Method for Vapor Pressure of Petroleum Products, ASTM D323, 2015; AQD price \$60.00/\$50.00 ASTM price.
 - (d) Standard Specification for Fuel Oils, ASTM D396, 2015; AQD price \$60.00/\$50.00 ASTM price.
 - (e) Standard Test Method for Distillation of Cutback Asphaltic (Bituminous) Products, ASTM D402, 2008; AQD price \$62.80/\$52.80 ASTM price.
 - (f) Standard Specification for Aviation Gasolines, ASTM D910, 2015; AQD price \$54.00/\$44.00 ASTM price.
 - (g) Standard Specification for Diesel Fuel Oils, ASTM D975, 2015; AQD price \$74.00/\$64.00 ASTM price.
 - (h) Standard Specification for Aviation Turbine Fuels, ASTM D1655, 2015; AQD price \$60.00/\$50.00 ASTM price.
 - (i) Standard Specification for Gas Turbine Fuel Oils, ASTM D2880, 2015; AQD price \$54.00/\$44.00 ASTM price.
 - ~~(j) Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentration in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, ASTM D6522, 2005; AQD price \$62.80/\$52.80 ASTM price.~~
 - (kj) Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, ASTM D6751, 2015; AQD price \$54.00/\$44.00 ASTM price.
 - (~~h~~k) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), ASTM D6784, 2002; AQD price \$70.00/\$60.00 ASTM price.
 - (~~m~~l) Standard Test Method for Distillation of Emulsified Asphalt, ASTM D6997, 2012; AQD price \$49.00/\$39.00 ASTM price.
 - (~~n~~m) Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), ASTM D7467, 2015; AQD price \$74.00/\$64.00 ASTM price.
 - (~~o~~n) Standard Practices for General Techniques of Infrared Quantitative Analysis, ASTM E168, 2006; AQD price \$70.00/\$60.00 ASTM price.
 - (~~p~~o) Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, ASTM E169, 2014; AQD price \$54.00/\$44.00 ASTM price.
 - (~~q~~p) Standard Practice for Packed Column Gas Chromatography, ASTM E260, 2011; AQD price \$60.00/\$50.00 ASTM price.
- (5) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at the cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from the American Association of State Highway and Transportation Officials, AASHTO Publication Order Department, P.O. Box 933538, Atlanta, Georgia, 31193-3538, or from their website <http://www.techstreet.com/products>, at a cost as of the time of adoption of these rules (AASHTO price):
- (a) Standard Method of Test for Emulsified Asphalts, AASHTO T59, 2013; AQD price \$86.00/\$76.00 AASHTO price.
 - (b) Standard Method of Test for Cutback Asphalt Products, AASHTO T78, 2005; AQD price \$60.00/\$50.00 AASHTO price.
- (6) The following standards are adopted by reference in these rules. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, Michigan 48909-7760, at the cost as of the time of adoption of these rules (AQD price). Copies may also be obtained from the National Technical Information Service,**

U.S. Department of Commerce, 5301 Shawnee Road, Alexandria, Virginia, 22312 (NTIS price), or from their website <http://ntrl.ntis.gov/NTRL/> for free:

(i) PB95-196028, “Compilation of Air Pollution Emission Factors. Volume 1. Stationary Point and Area Sources,” (1995); AQD price \$290.00/NTIS price \$41.00.

(ii) PB94-183522, “Alternative Control Techniques Document: NO_x Emissions from Cement Manufacturing,” (1994); AQD price \$148.00/NTIS price \$35.00.

(iii) PB203-060, “Construction Details of Isokinetic Source Sampling Equipment,” (1971); AQD price \$46.00/NTIS price \$26.00.

(iv) PB209-022, “Maintenance, Calibration, and Operation of Isokinetic Source-Sampling Equipment,” (1972); AQD price \$52.00/NTIS price \$20.00.

(67) “TLVs and BEIs. Threshold Limit Values for Chemical Substances and Physical Agents, and Biological Exposure Indices,” 2014 is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of \$69.95. A copy may also be obtained from the American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, or on the American Conference of Governmental Industrial website, www.acgih.org, at a cost as of the time of adoption of these rules of \$49.95.

(78) “NIOSH Pocket Guide to Chemical Hazards,” 2010, is adopted by reference in these rules. A copy on CD-ROM is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, for \$20.00 as of the time of adoption of these rules. A copy on CD-ROM may also be obtained from the Centers for Disease Control website, www.cdc.gov/niosh/npg/, for free as of the time of adoption of these rules.

(89) “American Petroleum Institute Manual of Petroleum Measurement Standards Chapter 19.2,” 1997, is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of \$139.00. A copy may also be obtained from American Petroleum Institute, Techstreet, 3916 Ranchero Drive, Ann Arbor, MI 48108-2775, or at the American Petroleum Institute website at <http://www.techstreet.com/api/products>, at a cost as of the time of adoption of these rules of \$129.00.

(910) “OTC Model Rule for Consumer Products,” **except Section 8, 10, and 11(f)**, 2006 is adopted by reference in these rules. A copy is available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, Lansing, MI 48909-7760, at a cost as of the time of adoption of these rules of \$10.00. A copy may also be obtained from the Ozone Transport Commission website, www.otcair.org, for free as of the time of adoption of these rules.

R 336.1971 Best available retrofit technology or BART program.

Rule 971. (1) The department shall determine applicability of best available retrofit technology based on the provisions of 40 C.F.R. ~~Part 51, Subpart P~~ **§51.301 and Appendix Y to Part 51**, adopted by reference in R 336.1902.

(2) The owner or operator of a unit subject to BART shall perform an engineering analysis as described in the provisions of 40 C.F.R. ~~Part 51, Subpart P~~ **§51.301 and Appendix Y to Part 51** and shall provide the results of the analysis to the department within 60 days of the effective date of this rule.

(3) If an electric generating unit (EGU) subject to BART is subject to the trading programs of the Clean Air Interstate Rule under 40 C.F.R. Part 97, the owner or operator of the EGU is not required to conduct a BART analysis for sulfur dioxide and oxides of nitrogen emissions under this rule.

(4) An engineering analysis required by subrule (2) of this rule ~~shall~~ **must** be submitted to the department and ~~shall be~~ **is** subject to review and approval by the department. If the department determines additional information is required, the department shall provide to the owner or operator additional information requests and comments in writing. The owner or operator shall provide the requested information within 60 days from receipt of written requests and comments from the department. The department may determine that more than 60 days will be allowed.

(5) The department shall determine the BART level of control for each unit subject to BART based on the engineering analysis referenced in subrule (2) of this rule, the provisions of 40 C.F.R. ~~Part 51, Subpart P~~ **§51.301 and Appendix Y to Part 51**, and other information which the department determines to be relevant.

(6) The owner or operator of a unit subject to BART shall enter into a permit to install or consent order with the department to make the BART provisions legally enforceable within 90 days of the department's approval of the engineering analysis, unless the department determines that more than 90 days will be allowed. BART controls ~~shall~~ **must** be in place and operating not later than 1 year from an approved engineering analysis.

(7) An owner or operator subject to this rule shall measure oxides of nitrogen and sulfur dioxide emissions with 1 or more of the following:

- (a) A continuous emission monitoring system.
- (b) An alternate method as described in 40 C.F.R. Part 60 or 75, adopted by reference in R 336.1902, as applicable and acceptable to the department.
- (c) A method currently in use or a future method developed for use and acceptable to the department, including methods contained in existing permit conditions.

(8) An owner or operator of an emission unit that measures oxides of nitrogen or sulfur dioxide emissions by a continuous emission monitoring system shall do either of the following:

- (a) Use procedures set forth in 40 C.F.R. Part 60, Subpart A and appendix B, and comply with the quality assurance procedures in appendix F, adopted by reference in R 336.1902, as applicable and acceptable to the department.
- (b) Use procedures set forth in 40 C.F.R. Part 75, and associated appendices, adopted by reference in R 336.1902, as applicable and acceptable to the department.

(9) An owner or operator of an emission unit who uses a continuous emission monitoring system to demonstrate compliance with this rule and who has already installed a continuous emission monitoring system for oxides of nitrogen or sulfur dioxide pursuant to other applicable federal, state, or local rules shall meet the installation, testing, operation, quality assurance, and reporting requirements specified by the department.

(10) An owner or operator of an emission unit that is subject to this rule and has a permit or consent order issued under subrule (6) of this rule shall submit at a minimum semi-annual summary reports, in an acceptable format, to the department by March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30 of each calendar year. The reports ~~shall~~ **must** include all of the following information:

- (a) The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit or utility system.
- (b) If emissions or emission rates exceed the emissions or emission rates allowed by the applicable emission limit, the cause, if known, and any corrective action taken.
- (c) The total operating time of the emission unit during the time period.
- (d) For continuous emission monitoring systems, system performance information ~~shall~~ **must** include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. When the continuous

monitoring system has not been inoperative, repaired, or adjusted, the information ~~shall~~ **must** be stated in the report.

(11) Quarterly summary reports, if required by the department pursuant to R 336.1213, ~~shall~~ **must** be submitted within 30 days following the end of the calendar quarter and may be used in place of the semi-annual reports required pursuant to subrule (10) of this rule.

R 336.1973 Standards for **existing** large municipal waste combustors.

~~Rule 973 (1) Except as provided for in subrule (2) of this rule, each municipal waste combustor, defined under “Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994,” 40 C.F.R. §60.32b, adopted by reference in R 336.1902, that has a combustion capacity greater than 250 tons per day of municipal solid waste and for which construction was commenced on or before September 20, 1994 is subject to this rule.~~

~~–(2) Municipal waste combustors defined under 40 C.F.R. 62.14102(e), (e) to (j), (m), and (n) adopted by reference in R 336.1902, are exempt from this rule if the owner or operator of the combustor notifies the department that the combustor qualifies for the exemption and complies with any listed requirements.~~

~~–(3) A municipal solid waste combustor remains subject to this rule if any physical or operational changes are made primarily for the purpose of complying with this rule. Those changes cannot be considered in determining modification or reconstruction under 40 C.F.R. Part 60, subpart Ea or Eb.~~

~~–(4) Air curtain incinerators defined under 40 C.F.R. §60.32b(j), adopted by reference in R 336.1902, are exempt from all provisions of this rule except the following three sections of “Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996,” 40 C.F.R. Part 60, Subpart Eb, adopted by reference in R 336.1902:~~

~~–(a) Emission limits for opacity under “Standards for air curtain incinerators,” 40 C.F.R. §60.56b.~~

~~–(b) “Compliance and performance testing,” 40 C.F.R. §60.58b; however, combustors that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry cubic meter total mass, corrected to 7 percent oxygen, may use the alternative performance testing schedule for dioxins/furans specified in 40 C.F.R. §60.58b(g)(5)(iii).~~

~~–(c) “Reporting and recordkeeping requirements,” 40 C.F.R. §60.59b, except §§60.59b(a), (b)(5), and (d)(11).~~

~~–(5) Owners and operators of municipal solid waste combustors subject to this rule must comply with the following emission limits under 40 C.F.R. Part 60, Subpart Eb, and “Federal Plan Requirements for Large Municipal Waste Combustors Constructed on or Before September 20, 1994,” 40 C.F.R. Part 62, Subpart FFF, adopted by reference in R 336.1902:~~

~~–(a) Metal, acid gases, organics, and nitrogen oxide emission limits in 40 C.F.R. §62.14103.~~

~~–(b) Tables 2-5, Subpart FFF.~~

~~–(c) “Standards for municipal waste combustor fugitive ash emissions,” 40 C.F.R. §60.55b.~~

~~–(6) Owners and operators of municipal solid waste combustors subject to this rule must comply with the following sections of 40 CFR Part 60, Subparts Cb and Eb:~~

~~–(a) “Definitions,” 40 C.F.R. §60.31b and §60.51b.~~

~~–(b) “Standards for municipal waste combustor operating practices,” 40 C.F.R. §60.53b(b) and (c).~~

~~–(c) “Standards for municipal waste combustor operator training and certification,” 40 C.F.R. §60.54b.~~

~~–(d) “Compliance and performance testing,” 40 C.F.R. §60.58b(b) to (q); however, combustors that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry cubic meter total mass,~~

~~corrected to 7 percent oxygen, may use the alternative performance testing schedule for dioxins/furans specified in 40 C.F.R. §60.58b(g)(5)(iii).~~

~~–(e) “Reporting and recordkeeping requirements,” 40 C.F.R. §60.59b, except §§60.59b(a), (b)(5), and (d)(11).~~

~~–(7) For the purposes of this rule, the terms “administrator” and “EPA” as used in 40 C.F.R. Part 60, Subparts Cb and Eb, and in 40 C.F.R. Part 62, Subpart FFF means the department, except in the authorities retained by the U.S. EPA in 40 C.F.R. §60.30b(b).~~

(1) This rule applies to all existing large municipal waste combustors (LMWC) and air curtain incinerators that have a combustion capacity greater than 250 tons per day of municipal solid waste, commenced construction by September 20, 1994.

(2) LMWCs defined under 40 C.F.R. §60.32b(b), (d) to (i), and (l) to (n), adopted by reference in R 336.1902, are exempt from this rule if the owner or operator notifies the department that the LMWC qualifies for the exemption and any applicable requirements listed in 40 C.F.R. §60.32b are followed.

(3) A LMWC remains subject to this rule if any physical or operational changes are made primarily for the purpose of complying with this rule. Those changes cannot be considered in determining modification or reconstruction under 40 C.F.R. Part 60, subparts Ea or Eb.

(4) Owners and operators of LMWCs shall submit documentation to the department, within 90 days of state plan approval, that the unit is operating under a fully trained LMWC operator required under 40 C.F.R. §60.35b, adopted by reference in R 336.1902, and that the LMWC is in compliance with the emission and operating limits in subrules (5) and (6) of this rule.

(5) Owners and operators of LMWCs shall comply with the following emission limits in 40 C.F.R. Part 60, Subparts Cb and Eb, adopted by reference in R 336.1902:

- (a) Carbon monoxide limits in Table 3 in Subpart Cb,**
- (b) Fugitive ash emission limits in 40 C.F.R. §60.55b,**
- (c) Nitrogen oxide limits in Tables 1 and 2 in Subpart Cb,**
- (d) Other emission limits listed in table 973:**

Table 973

Pollutant	Emission Limit
Cadmium in 40 C.F.R. §60.33b(a)(2)(i)	35 µg/dscm+
Dioxin/furan in 40 C.F.R. §60.33b(c)	IF electrostatic precipitator, then 35 ng/dscm+ (total mass) IF no electrostatic precipitator, then 30 ng/dscm+ (total mass)
Hydrogen Chloride in 40 C.F.R. §60.33b(b)(3)	29 ppm per volume OR 5% of the potential hydrogen chloride emission concentration (95% reduction by weight or volume), whichever is less stringent*
Lead in 40 C.F.R. §60.33b(a)(4)	400 µg/dscm+
Mercury in 40 C.F.R. §60.33b(a)(3)	50 µg/dscm OR 15% of the potential mercury emission concentration (85% reduction by weight), whichever is less stringent+
Opacity in 40 C.F.R. §60.33b(a)(1)(iii)	10% (6 minute average)
Particulate Matter in 40 C.F.R. §60.33b(a)(1)(i)	25 mg/dscm+
Sulfur Dioxide in 40 C.F.R. §60.33b(b)(3)	29 ppm by volume OR 25% of the potential sulfur dioxide emission concentration (75% reduction by weight or volume), whichever is less stringent*°

*Corrected to 7% oxygen, dry basis

+ Corrected to 7% oxygen

° Based on 24-hour daily geometric mean

(6) To comply with the nitrogen oxide emission limit in subrule (5) of this rule, owners or operators of a LMWC may average nitrogen oxide emissions as stated in 40 CFR §60.33b(d)(1)(i) to (v), adopted by reference in R 336.1902.

(7) Owners and operators of LMWCs shall comply with the following sections of 40 CFR Part 60, Subparts Cb and Eb, adopted by reference in R 336.1902:

(a) Definitions in 40 C.F.R. §60.31b and §60.51b.

(b) Operating practices in 40 C.F.R. §60.53b(b) and (c).

(c) Compliance and performance testing in 40 C.F.R. §60.58b, except as provided in §60.24(b)(2), and LMWC with a dioxin/furan emission level less than or equal to 15 nanograms per dry cubic meter total mass, corrected to 7 percent oxygen, may use the alternative performance testing schedule for dioxins/furans specified in 40 C.F.R. §60.58b(g)(5)(iii).

(d) Compliance dates in 40 C.F.R. §60.39b(h).

(e) Recordkeeping and reporting requirements in 40 C.F.R. §60.59b, except those in §60.59b(a), (b)(5), and (d)(11).

(f) Operator training and certification requirements listed in 40 C.F.R. §60.54b, submitted within 12 months after state plan approval according to 40 C.F.R. §60.59b(j) if applicable.

(8) For the purposes of this rule, the terms “administrator” and “EPA” as used in 40 C.F.R. Part 60 and Subparts Cb and Eb, mean the department, except in the authorities retained by the U.S. EPA in 40 C.F.R. §60.30b(b).

R 336.1974 Emissions standards for existing commercial and industrial solid waste incinerators.

Rule 974. (1) This rule applies to all existing Commercial and Industrial Solid Waste Incinerator (CISWI) units, defined under 40 C.F.R. §60.2875, adopted by reference in R 336.1902.

(2) CISWI units in the incinerator subcategory that commenced construction by November 30, 1999 must achieve final compliance with this rule according to 40 C.F.R. §60.2535(a)(1) and (2), adopted by reference in R 336.1902.

(3) The following CISWI units must achieve final compliance with this rule by February 7, 2018:

(a) Units in the incinerator subcategory that commenced construction between November 30, 1999 and June 4, 2010,

(b) Units in the incinerator subcategory that commenced reconstruction or modification between June 1, 2001 and August 7, 2013,

(c) Units in the small remote incinerator, energy recovery, or waste-burning kiln subcategories that commenced construction before June 4, 2010.

(4) CISWI units that are exempt under 40 C.F.R. §60.2555(a) to (h) and §60.2555(m) to (o), adopted by reference in R 336.1902, are exempt from this rule if the applicable requirements listed in §60.2555 are followed.

(5) Owners or operators of CISWI units shall submit a notice of closure to the department by January 7, 2018 if the unit will close rather than comply with this rule.

(6) A CISWI unit is still subject to this rule, and not 40 C.F.R. Part 60, Subpart CCCC, if the owner or operator makes physical or operational changes primarily to comply with this rule. However, modification or reconstruction of a CISWI unit made after August 7, 2013 makes that unit subject to 40 C.F.R. Part 60, Subpart CCCC, and not this rule.

(7) Owners or operators of CISWI units subject to this rule shall sign and submit to the department a final control plan, waste management plan, and documentation of a current renewable operating permit by January 7, 2018.

(8) The final control plan must be signed by the owner and operator and include the description of control devices and process changes needed for compliance; the types of waste burned in the unit; the maximum design waste burning capacity; the anticipated maximum charge rate for the unit; and a notice of any petition for site-specific operating limits under 40 C.F.R. §60.2680. A copy of the final control plan must be kept on site.

(9) To be in full compliance with this rule, owners or operators of CISWI units shall complete the following and sign documentation affirming the following:

(a) The unit is operating under a fully trained CISWI operator required under 40 C.F.R. §60.2635 to §60.2665.

(b) The unit meets all required emission and operating limits required under 40 C.F.R. §60.2670 to §60.2680 and Tables 2 to 3 and 6 to 9, verified by performance tests.

(c) All changes stated in the final control plan have been completed by February 7, 2018.

(10) Owners and operators of CISWI units shall comply with the following reporting requirements of 40 C.F.R. Part 60, Subpart DDDD, “Emission Guidelines and Compliance Times

for Commercial and Industrial Solid Waste Incineration Units”, adopted by reference in R 336.1902, listed in table 974:

Table 974

Reporting Requirement	Required
Failure to meet deadlines in 40 C.F.R. §60.2590 or §60.2595	Postmarked 10 days after deadline date
Initial Test Report in 40 C.F.R. §60.2760	60 days after the initial performance test
Annual Report in 40 C.F.R. §60.2765 and §60.2770	12 months after the initial test report; every 12 months thereafter
Emission limitation and operating limit deviation report in 40 C.F.R. §60.2775 and §60.2780	August 1, for the data collected from January 1 to June 30 of that year; February 1, for data collected from July 1 to December 31 of the previous year.
Qualified Operator Deviation Notification in 40 C.F.R. §60.2785(a)(1)	Within 10 days of deviation
Qualified Operator Deviation Status Report in 40 C.F.R. §60.2785(a)(2)	Every 4 weeks following deviation
Qualified Operator Deviation Notification of Resumed Operation in 40 C.F.R. §60.2785(b)	Prior to resuming operation

(11) Owners and operators of CISWI units shall comply with the following sections of 40 C.F.R. Part 60, Subpart DDDD, adopted by reference in R 336.1902:

- (a) Closing or reopening of unit in 40 C.F.R. §60.2610 or §60.2615.
- (b) Waste management plan in 40 C.F.R. §60.2620 to 60.2630.
- (c) Operator training and qualifications in 40 C.F.R. §60.2635 to §60.2665.
- (d) Emission and operating limits in 40 C.F.R. §60.2670 to §60.2680 and Tables 2 to 3 and 6 to 9.
- (e) Performance testing in 40 C.F.R. §60.2690 to §60.2695.
- (f) Inspection of control equipment in 40 C.F.R. §60.2706 and §60.2710(k).
- (g) Initial and continuous compliance in 40 C.F.R. §60.2700 to §60.2725.
- (h) Monitoring in 40 C.F.R. §60.2730 to §60.2735.
- (i) Recordkeeping in 40 C.F.R. §60.2740 to §60.2745.
- (j) Title V Operating Permit requirements in 40 C.F.R. §60.2805.
- (k) Toxic Equivalency Factors in Table 4.
- (l) Definitions in 40 C.F.R. §60.2875.

(12) For the purposes of this rule, the terms “administrator” and “EPA” as used in 40 C.F.R. Part 60, Subpart DDDD, mean the department, except in the authorities retained by the U.S. EPA in 40 C.F.R. §60.2030(c).

NOTICE OF PUBLIC HEARING

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

**PART 9. EMISSION LIMITATIONS AND PROHIBITIONS - MISCELLANEOUS
Rule Set 2017-006 EQ**

NOTICE OF PUBLIC HEARING

Thursday, March 15, 2018

Constitution Hall

525 West Allegan Street, 2nd Floor, South Tower

Jack Faxon Conference Room, 1:00 p.m.

The Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD), will hold a public hearing on Thursday, March 15, 2018, in Constitution Hall at 1:00 p.m. The hearing will be held to receive public comments on proposed changes to R 336.1902, R 336.1971, R 336.1973, and R 336.1974. The comment period and hearing will fulfill requirements contained in the state administrative rules and result in a revision to Michigan's State Implementation Plan (SIP) under the Clean Air Act.

The proposed rule set (2017-006 EQ) will amend the current rules to update material adopted by reference, correct a reference, correct an emission limit to align with the federal emission limits, and add a new rule for existing commercial and industrial solid waste incinerators.

This notice of public hearing is given in accordance with Sections 41 and 42 of Michigan's Administrative Procedures Act, 1969 PA 306, Michigan Compiled Laws (MCL) 24.241 and 24.242 and the federal regulations for the SIP. These rules are promulgated by authority conferred on the Director of the DEQ by Section 5512 of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.5512. These rules will take immediate effect upon filing with the Secretary of State.

The rules (2017-006 EQ) are published on the Office of Regulatory Reinvention's website at www.michigan.gov/orr. Click on "Latest Rules Activity" and then "Pending Rule Changes." Under "Rules by Department," click on "Environmental Quality." Scroll to ORR 2017-006 EQ and click on "Revision Text." The rules are also published in the March 1, 2018, issue of the *Michigan Register*.

Any interested person is invited to attend and present his or her views. It is requested that all statements be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the following address by 5:00 p.m. on Thursday, March 15, 2018. Copies of the draft rules may also be obtained by mail or electronic transmission at the following address:

DEQ Air Quality Division
ATTN: Cari DeBruler
P.O. Box 30260
Lansing, Michigan 48909-7760
Phone: 517-284-6740
Fax: 517-241-7499
E-Mail: debrulerc@michigan.gov

The hearing site is accessible, including handicap parking. People with disabilities requiring additional accommodations to participate in the hearing (such as information in alternative formats) should contact the

AQD at 517-284-6740 at least 5 days prior to the hearing date. Individuals attending the meeting are requested to refrain from using heavily scented personal care products to enhance accessibility for everyone. Information at this meeting will be presented by speakers and printed handouts.

**MICHIGAN ADMINISTRATIVE CODE TABLE
(2017 SESSION)**

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

“(2) The office of regulatory reform shall publish a cumulative index for the Michigan register.”

The following table cites administrative rules promulgated during the year 2017, and indicates the effect of these rules on the Michigan Administrative Code (1979 ed.).

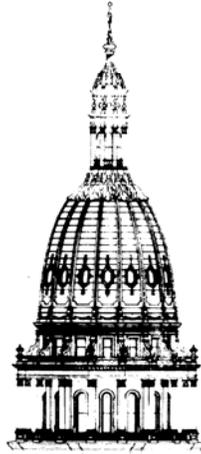
**MICHIGAN ADMINISTRATIVE CODE TABLE
(2017 RULE FILINGS)**

R Number	Action	2018 MR Issue	R Number	Action	2018 MR Issue	R Number	Action	2018 MR Issue
325.2651	*	2	408.10203	A	2	408.10331	R	2
325.2652	*	2	408.10204	A	2	408.10333	R	2
325.2653	*	2	408.10205	*	2	408.10335	R	2
325.2654	*	2	408.10206	R	2	408.10341	R	2
325.2655	*	2	408.10207	R	2	408.10342	R	2
325.2656	R	2	408.10208	R	2	408.10345	R	2
325.2657	R	2	408.10211	R	2	408.10351	R	2
338.201	A	2	408.10213	R	2	408.10352	R	2
338.202	A	2	408.10215	R	2	408.10353	R	2
338.203	A	2	408.10217	R	2	408.10354	R	2
338.204	A	2	408.10219	R	2	408.10355	R	2
340.241	*	2	408.10220	R	2	408.10357	R	2
340.242	*	2	408.10221	R	2	408.10361	R	2
340.1707	*	2	408.10223	R	2	408.10365	R	2
340.1719	R	2	408.10227	R	2	408.10371	R	2
340.1723c	*	2	408.10228	R	2	408.10372	R	2
340.1724d	*	2	408.10230	R	2	408.10401	R	2
340.1742	*	2	408.10231	R	2	408.10403	R	2
340.1799c	*	2	408.10232	R	2	408.10404	R	2
408.10001	*	2	408.10233	R	2	408.10406	R	2
408.10002	A	2	408.10235	R	2	408.10407	R	2
408.10003	*	2	408.10236	R	2	408.10408	R	2
408.10004	*	2	408.10237	R	2	408.10421	R	2
408.10005	*	2	408.10239	R	2	408.10422	R	2
408.10011	*	2	408.10240	R	2	408.10427	R	2
408.10012	*	2	408.10241	R	2	408.10428	R	2
408.10013	A	2	408.10301	R	2	408.10431	R	2
408.10015	*	2	408.10305	R	2	408.10432	R	2
408.10016	R	2	408.10306	R	2	408.10433	R	2
408.10017	*	2	408.10307	R	2	408.10441	R	2
408.10021	R	2	408.10308	R	2	408.10442	R	2
408.10022	R	2	408.10310	R	2	408.10443	R	2
408.10026	*	2	408.10311	R	2	408.10445	R	2
408.10031	*	2	408.10321	R	2	408.10446	R	2
408.10034	*	2	408.10323	R	2	408.10447	R	2
408.10036	*	2	408.10324	R	2	408.10451	R	2
408.10098	R	2	408.10325	R	2	408.10452	R	2
408.10201	*	2	408.10326	R	2	408.10454	R	2
408.10202	A	2	408.10328	R	2	408.10456	R	2

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2018 MR Issue
474.101	R	2
474.102	R	2
474.103	R	2
474.104	R	2
474.105	R	2
474.106	R	2

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)



**CUMULATIVE
INDEX**

A

**ATTORNEY GENERAL, DEPARTMENT OF
Opinions**

Application of Minimum Wage Laws to Agricultural Employees
OAG Opinion No. 7301 (2018-1)

E

Executive Order

No. 1 -2018 (2018-1)
No. 2 -2018 (2018-2)

EDUCATION, DEPARTMENT OF

Fees for Transporting Pupils to or from Nonmandatory and Noncredited Events (2018-2)
Special Education Programs and Services (2018-2)

ENVIRONMENTAL QUALITY, DEPARTMENT OF

Oil and Gas Operations (2018-2*)
Part 9. Emission Limitation and Prohibitions – Miscellaneous (2018-3*)
Supplying Water to the Public (2018-2*)

H

**HEALTH AND HUMAN SERVICES, DEPARTMENT OF
Correction:**

Birth Defect Reporting (2018-1)

L

LICENSING AND REGULATORY AFFAIRS, DEPARTMENT OF

A standing Order for Dispensing Opioid Antagonists (2018-2)
Part 1. General Provisions GI (2018-2)

Part 2. Walking Working Surfaces GI (2018-2)
Part 3. Fixed Ladders GI (2018-2)
Part 4. Portable Ladders GI (2018-2)
Part 5. Powered Platforms for Building Maintenance GI (2018-3)
Part 18. Overhead and Gantry Cranes GI (2018-3)
Part 21. Powered Industrial Trucks GI (2018-3)
Part 25. Manlifts GI (2018-3)
Part 27. Woodworking Machinery GI (2018-3)
Part 33. Personal Protective Equipment GI (2018-3)
Part 50. Telecommunications GI (2018-3)
Part 52. Sawmills GI (2018-3)
Part 86. Electric Power Generation, Transmission, and Distribution GI (2018-3)
Part 340. Beryllium GI (2018-3)
Licensing Substance Use Disorder Programs (2018-3)
Occupational Code Renewals (2018-1*)
Real Estate Appraisers - General Rules (2018-1*)
State Boundary Commission (2018-2*)

S

STATE POLICE, DEPARTMENT OF
Test for Breath Alcohol (2018-2)

T

TRANSPORTATION, DEPARTMENT OF
Motor Bus Transportation (2018-2)

**ADMINISTRATIVE RULES
ENROLLED SENATE AND HOUSE BILLS
SIGNED INTO LAW OR VETOED
(2017 SESSION)**

Mich. Const. Art. IV, §33 provides: “Every bill passed by the legislature shall be presented to the governor before it becomes law, and the governor shall have 14 days measured in hours and minutes from the time of presentation in which to consider it. If he approves, he shall within that time sign and file it with the secretary of state and it shall become law . . . If he does not approve, and the legislature has within that time finally adjourned the session at which the bill was passed, it shall not become law. If he disapproves . . . he shall return it within such 14-day period with his objections, to the house in which it originated.”

Mich. Const. Art. IV, §27, further provides: “No act shall take effect until the expiration of 90 days from the end of the session at which it was passed, but the legislature may give immediate effect to acts by a two-thirds vote of the members elected to and serving in each house.”

MCL 24.208 states in part:

“Sec. 8. (1) The Office of Regulatory Reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.

(c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year.”

2018 Michigan Public Acts Table

Legislative Service Bureau
 Legal Division, Statutory Compiling and Law Publications Unit
 124 W. Allegan, Lansing, MI 48909

January 31, 2018
 Through Act 10 of 2018

PA No.	ENROLLED		I.E.* Yes/No	Governor Approved	Filed Date	Effective Date	SUBJECT
	HB	SB					
1		0095	Yes	No	1/18	1/18/18	Use tax; collections; use tax on the difference; accelerate phase-in. **** Governor Veto of 7/25/17 overridden and approved by 2/3 vote on 1/17/18 **** (Sen. D. Robertson)
2		0094	Yes	No	1/18	1/18/18	Sales tax; collections; use tax on the difference; accelerate phase-in. **** Governor Veto of 7/25/17 overridden and approved by 2/3 vote on 1/17/18 **** (Sen. D. Hildenbrand)
3	4533		Yes	1/26	1/26	1/26/18	Natural resources; hunting; nonresident 3-day small game license; establish. (Rep. C. VanderWall)
4	4957		Yes	1/26	1/26	1/26/18	Natural resources; hunting; mentored youth hunting license; allow individual to purchase additional licenses. (Rep. G. Howell)
5		0207	Yes	1/26	1/26	4/26/18	Law enforcement; other; arrest power for state property security officers; modify. (Sen. M. Green)
6		0525	Yes	1/26	1/26	1/26/18	Courts; reorganization; reorganization of courts and number of judgeships; modify. (Sen. R. Jones)
7		0702	Yes	1/26	1/26	1/26/18	Local government; other; educational instruction access act; clarify deed restriction language. (Sen. P. Pavlov)
8	4849		Yes	1/26	1/26	4/26/18	Cemeteries and funerals; other; money held by a county for care and preservation of cemetery lots; require to be presumed abandoned under certain circumstances. (Rep. J. Alexander)

* - I.E. means Legislature voted to give the Act immediate effect.
 ** - Act takes effect on the 91st day after sine die adjournment of the Legislature.
 *** - See Act for applicable effective date.
 + - Line item veto.
 ++ - Pocket veto.
 # - Tie bar.

PA No.	ENROLLED		I.E.* Yes/No	Governor Approved	Filed Date	Effective Date	SUBJECT
	HB	SB					
9	4940		Yes	1/26	1/26	4/26/18	Agriculture; associations and commissions; dry bean act; modify apportionment of districts and create a member at large. (Rep. E. Canfield)
10	5144		Yes	1/26	1/26	1/26/18	Marihuana; facilities; requirements for the issuance of a state operating license; revise, and provide for other general amendments. (Rep. K. Kesto)

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after sine die adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto.
++ - Pocket veto.
- Tie bar.