

**DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS**

**DIRECTOR'S OFFICE**

**CONSTRUCTION SAFETY STANDARDS**

By authority conferred on the director of the department of licensing and regulatory affairs by sections 19 and 21 of 1974 PA 154, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

**PART 1. GENERAL RULES**

**R 408.40101 Scope.**

Rule 101. (1) This standard sets forth general rules for the safe use, operation, and maintenance of equipment, and for safe work practices pertaining to all employers and employees performing construction operations, except that where a specific rule is set forth in another part, the general rule is preempted.

(2) For confined space, see Construction Safety Standard Part 35 “Confined Space in Construction,” as referenced in R 408.40105.

History: 1979 AC; 1983 AACS; 2015 AACS.

**R 408.40102. Definitions.**

Rule 102. (1) “Accident prevention program” means the program by which an employer provides instruction and safety training to an employee in the recognition and avoidance of hazards.

(2) “Aisle” means a designated path of travel for equipment and employees.

(3) “Approved” means approval by the director of the department of licensing and regulatory affairs or by the director’s duly designated representative.

(4) “Equivalent” means an alternate design or feature that provides at least as effective degree of safety or a greater degree of safety.

(5) “Hazard” means a condition or procedure that is causing or is likely to cause serious physical harm or death to an employee.

(6) “Potable water” means water that is in compliance with the provisions of 1976 PA 399, MCL 325.1001 to 325.1023.

(7) “Qualified employee” means an employee who, by knowledge, training, and experience, has successfully demonstrated to the employer his or her ability to solve or resolve problems relating to the subject matter, the work, or the project.

History: 1979 AC; 1983 AACS; 1995 AACS; 1998-2000 AACS; 2013 AACS; 2015 AACS.

**R 408.40105. Adopted and referenced standards.**

Rule 105. (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: [www.global.ihs.com](http://www.global.ihs.com); at a cost as of the time of adoption of these rules, as stated in this subrule.

(a) American National Standards Institute Standard ANSI A11.1 “Industrial lighting,” 1965 edition. Cost: \$156.00.

(b) American Society of Mechanical Engineers Standard ASME “Boiler and pressure vessel code,” Section viii on “Unfired pressure vessels,” 1989 edition. Cost: \$514.00.

(2) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, 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 Standards Section, 7150 Harris Drive, 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 standards (MIOSHA) 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, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: [www.michigan.gov/mioshastandards](http://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 16 “Power Transmission and Distribution,” R 408.41601 to R 408.41658.

(b) Construction Safety Standard Part 17 “Electrical Installations,” R 408.41701 to R 408.41734.

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

(d) Construction Safety Standard Part 35 “Confined Space in Construction,” R 408.43501 to R 408.43510.

(e) Construction Safety Standard Part 45 “Fall Protection,” R 408.44501 to R 408.44502.

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

History 2015 MR 4, Eff. March 3, 2015; 2015 AACCS.

#### **R 408.40114. Employer responsibilities; accident prevention program.**

Rule 114. (1) An employer shall develop, maintain, and coordinate with employees an accident prevention program, a copy of which shall be available at the worksite.

(2) An accident prevention program shall, at a minimum, provide for all of the following:

(a) Instruction to each employee regarding the operating procedures, hazards, and safeguards of tools and equipment when necessary to perform the job.

(b) Inspections of the construction site, tools, materials, and equipment to assure that unsafe conditions which could create a hazard are eliminated.

(c) Instruction to each employee in the recognition and avoidance of hazards and the regulations applicable to his or her work environment to control or eliminate any hazards or other exposure to illness or injury.

(d) Instruction to each employee who is required to handle or use known poisons, toxic materials, caustics, and other harmful substances regarding all of the following:

(i) The potential hazards.

(ii) Safe handling.

(iii) Use.

(iv) Personal hygiene.

(v) Protective measures.

(vi) Applicable first aid procedures to be used in the event of injury.

(e) Instruction to each employee if known harmful plants, reptiles, animals, or insects are present regarding all of the following:

(i) The potential hazards.

(ii) How to avoid injury.

(iii) Applicable first aid procedures to be used in the event of injury.

(3) An employee required to handle or use flammable liquids, gases, or toxic materials shall be instructed in the safe handling and use of these materials and made aware of the specific requirements contained in the applicable MIOSHA standards.

History: 1979 AC; 1983 AACS; 1995 AACS; 2002 AACS; 2013 AACS; 2015 AACS.

#### **R 408.40115 Employer responsibilities generally.**

Rule 115. (1) An employer shall identify as unsafe a machine, powered tool, or piece of equipment that is damaged or defective. The machine, tool, or equipment shall be locked out, made inoperable, or be physically removed from the jobsite.

(2) An employer shall not permit any of the following:

(a) The use of damaged or defective machinery, tools, materials, or equipment that could create a hazard.

(b) The operation of machinery, equipment, and special tools, except by a qualified employee.

(c) An employee other than the operator to ride any piece of moving equipment not covered by a specific standard, unless there is a seat or other safety feature provided for use by the employee. Acceptable safety features may include a guardrail, enclosure, or a seat belt.

(3) An employer shall not knowingly permit an employee to work while under the influence of intoxicating beverages or substances which could impair the employee's ability to perform a task in a safe manner.

(4) Employees not specifically covered by Construction Safety Standard Part 16 "Power Transmission and Distribution," Construction Safety Standard Part 17 "Electrical Installations," or Construction Safety Standard Part 30 "Telecommunications," as referenced in R 408.40105, shall not be allowed by the employer to work or be closer to energized electrical line, gear, or equipment exposed to contact than the minimum clearance prescribed in table 1.

(5) Table 1 reads as follows:

TABLE 1	
VOLTAGE	MINIMUM EMPLOYEE CLEARANCE
To 50 kv	10 ft.
Over 50	10 ft. + .4 inch per kv

(6) An employer shall comply with all the rules of this part.

History: 1983 AACs; 1995 AACs; 2015 AACs.

**R 408.40116. Employee responsibilities.**

Rule 116. An employee shall immediately report hazardous conditions or equipment to the employer.

History: 1983 AACs; 2013 AACs.

**R 408.40118 Rescinded.**

History: 1983 AACs; 2013 AACs.

**R 408.40119. Housekeeping and disposal of waste materials.**

Rule 119. (1) Materials, including scrap and debris, shall be piled, stacked, or placed in a container in a manner that does not create a hazard to an employee.

(2) Garbage capable of rotting or becoming putrid shall be placed in a covered container. Container contents shall be disposed of at frequent and regular intervals.

(3) Combustible scrap and debris shall be removed in a safe manner from the work area at reasonable intervals during the course of construction. A safe means shall be provided to facilitate this removal.

(4) Material which may be dislodged by wind and that could create a hazard when left in an open area shall be secured.

History: 1983 AACs; 2013 AACs.

**R 408.40120 Work in hazardous spaces.**

Rule 120. When an employee enters a hazardous space, such as a bin, silo, hopper, or tank, that contains bulk or loose material which could engulf the employee, the employee shall wear a safety belt or a safety harness and a lanyard affixed by a rope grab to a lifeline, all components of which shall be in compliance with Construction Safety Standard Part 45 "Fall Protection," as referenced in R 408.40105. The uppermost

elevation of the stored material shall not be higher than the shoulder height of the employee.

History: 1983 AACS; 1996 AACS; 2015 AACS.

**R 408.40121 Rescinded.**

History: 1983 AACS; 2013 AACS; 2015 MR 4, Eff. March 3, 2015; 2015 AACS.

**R 408.40122. Boilers and pressure vessels.**

Rule 122. (1) The installation, inspection, testing, marking, and certification of a pressure vessel shall be as prescribed in ASME “Boiler and pressure vessel code,” Section viii on “Unfired pressure vessels,” 1989 edition, as adopted in R 408.40105.

(2) An employer shall not use a boiler to perform construction operations unless the employer has a valid certification issued by the boiler division of the Michigan department of licensing and regulatory affairs.

History: 1983 AACS; 1995 AACS; 1998-2000 AACS; 2013 AACS; 2015 AACS.

**R 408.40123 Guarding, belts, gears, pulleys, sprockets, and moving parts.**

Rule 123. Means of power transmission, such as, but not limited to, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment, shall be guarded as prescribed in General Industry Safety Standard Part 7 “Guards for Power Transmission,” as referenced in R 408.40105, if the part is exposed to contact by an employee or otherwise constitutes a hazard.

History: 1983 AACS; 2015 AACS.

**R 408.40125 Rescinded.**

History: 1983 AACS; 2013 AACS.

**R 408.40126 Rescinded.**

History: 1983 AACS; 2013 AACS.

**R 408.40127. Machine installations and guarding.**

Rule 127. (1) The power source of any machine that is to be repaired, serviced, or set up, where unexpected motion or an electrical or other energy source would cause injury, shall be locked out by each employee doing the work, except when motion is necessary during setup, adjustment, or troubleshooting. Any residual pressure shall be relieved

before and during the work. A machine connected by a cord and plug to an electric power source shall be considered in compliance if the plug is disconnected and tagged and the disconnection is within view of the operation.

(2) An employee shall not place his or her body beneath equipment such as a vehicle, a machine, or materials, that is supported only by a jack, overhead hoist, chain fall, or any other temporary single supporting means, unless safety stands, blocks, or another support system that is capable of supporting the total imposed weight is used to protect the employee if the temporary single supporting means fails.

History: 1983 AACCS; 1995 AACCS; 2013 AACCS.

#### **R 408.40128. Sanitation.**

Rule 128. (1) All of the following provisions apply to potable water:

(a) A supply of potable water shall be available to employees in all places of employment.

(b) A container used to distribute drinking water shall be constructed of impervious nontoxic materials, shall be clearly marked as to its contents, and shall not be used for any other purpose. Containers shall be serviced so that sanitary conditions are maintained.

(c) A portable container used to dispense drinking water shall be closed and equipped with a tap.

(d) Dipping water from a container or drinking from a common cup is prohibited.

(e) Where single-service cups, cups to be used once, are supplied, a sanitary container for the unused cups shall be provided. A receptacle for disposing of used cups shall be provided and emptied as often as is necessary.

(2) Both of the following provisions apply to nonpotable water:

(a) An outlet for nonpotable water, such as water for industrial or fire fighting purposes only, shall be identified by signs that are in compliance with the requirements of Construction Safety Standard Part 22 "Signals, Signs, Tags, and Barricades," as referenced in R 408.40105, to indicate clearly that the water is not to be used for drinking, washing, or cooking purposes.

(b) There shall be no connection between a system furnishing potable water and a system furnishing nonpotable water.

History: 1995 AACCS; 2013 AACCS; 2015 AACCS.

#### **R 408.40129 Toilets at construction sites.**

Rule 129. (1) Toilets at construction sites shall be provided for employees as follows:

(a) 1 to 20 employees - 1 toilet.

(b) 21 to 40 employees - 2 toilets.

(c) 41 or more employees - 1 additional toilet for each additional 40 or less employees.

(2) A jobsite that is not provided with a sanitary sewer shall be provided with 1 of the following toilet facilities, unless prohibited by local codes:

(a) A privy, if use of the privy will not contaminate groundwater or surface water.

(b) A chemical toilet.

(c) A recirculating toilet.

(d) A combustion toilet.

(3) The requirements of this rule for sanitation facilities shall not apply to a mobile crew that has transportation readily available to nearby toilet facilities.

(4) To assure sanitation, a toilet shall be serviced and maintained on a regular basis.

(5) A toilet shall be supplied with toilet paper.

History: 1995 AACCS.

### **R 408.40130. General sanitation.**

Rule 130. (1) The employer shall provide adequate washing facilities for employees engaged in the application of paints, coating, herbicides, or insecticides, or in other operations where contaminants may be harmful to the employees. Such facilities shall be in near proximity to the worksite and shall be so equipped as to enable employees to remove such substances.

(2) Washing facilities shall be maintained in a sanitary condition.

(3) All of the following apply to lavatories.

(a) Lavatories shall be made available in all places of employment. The requirements of this subdivision do not apply to mobile crews or to normally unattended work locations if employees working at these locations have transportation readily available to nearby washing facilities that meet the other requirements of this paragraph.

(b) Each lavatory shall be provided with hot and cold running water, or tepid running water.

(c) Hand soap or similar cleansing agents shall be provided.

(d) Individual hand towels or sections thereof, of cloth or paper, air blowers or clean individual sections of continuous cloth toweling, convenient to the lavatories, shall be provided.

(4) All of the following apply to showers.

(a) Whenever showers are required by a particular standard, the showers shall be provided in accordance with subdivisions (b) to (d) of this subrule.

(b) One shower shall be provided for each 10 employees of each sex, or numerical fraction thereof, who are required to shower during the same shift.

(c) Body soap or other appropriate cleansing agents convenient to the showers shall be provided as specified in subrule (3)(c) of this rule.

(d) Showers shall be provided with hot and cold water feeding a common discharge line.

(e) Employees who use showers shall be provided with individual clean towels.

(5) Eating and drinking areas. An employee shall not be allowed to consume food or beverages in a toilet room nor in any area exposed to a toxic material.

(6) Every enclosed workplace shall be so constructed, equipped, and maintained, so far as reasonably practicable, as to prevent the entrance or harborage of rodents, insects,

and other vermin. An employer shall institute a continuing and effective extermination program where their presence is detected.

(7) Whenever employees are required by a particular standard to wear protective clothing because of the possibility of contamination with toxic materials, the employer shall provide change rooms equipped with storage facilities for street clothes and separate storage facilities for the protective clothing.

History: 1995 AACCS; 2013 AACCS; 2015 AACCS.

**R 408.40131. Food handling.**

Rule 131. All employee food service facilities and operations shall be carried out in accordance with sound hygienic principles. In all places of employment where the employer provides all or part of the food service is provided, the food dispensed shall be wholesome, free from spoilage, and shall be processed, prepared, handled, and stored in such a manner as to be protected against contamination.

History: 1995 AACCS; 2013 AACCS; 2015 AACCS.

**R 408.40132. Medical services and first aid.**

Rule 132. (1) An employer shall ensure the availability of medical personnel for advice and consultation on matters of occupational health.

(2) Before beginning a project, provision shall be made for prompt medical attention in case of serious injury.

(3) A person who has a valid certificate in first aid training shall be present at the worksite to render first aid. A certificate is valid if the requirements necessary to obtain the certificate for first aid training meet or exceed the requirements of the United States bureau of mines, the American red cross, the guidelines for basic first aid training programs, or equivalent training.

(4) Where a remote location or a single employee worksite exists, an employer shall provide a written plan that includes alternate methods of assuring available treatment for employees at a remote location or single-employee worksite. The plan shall be communicated to all affected employees.

(5) An employer shall assure that there are first aid supplies at each jobsite and that the supplies are readily accessible.

(6) The contents of a first aid kit shall be sealed in individual packages, stored in a weatherproof container, and checked by an employer or designated person before being sent out on each job and at least weekly on each job to ensure that expended items are replaced.

(7) An employer shall provide proper equipment for the prompt transportation of an injured person to a physician or hospital and a communication system for contacting the necessary emergency service. In areas where 911 is not available, the telephone numbers of a physician, hospital, or emergency service shall be conspicuously posted at the jobsite.



(8) Where the eyes or body of any person may be exposed to injurious corrosive materials, the employer shall provide suitable facilities for quick drenching or flushing of the eyes and body within the work area for immediate emergency use.

History: 1995 AACS; 2013 AACS; 2015 AACS.

**R 408.40133. Illumination.**

Rule 133. (1) The employer shall provide a minimum illumination intensity of 10 footcandles on a jobsite where construction work is being performed.

(2) The employer shall provide a minimum illumination intensity of 5 footcandles to areas on a jobsite where work is not being immediately performed but where workers may pass through.

(3) The employer shall provide a minimum illumination intensity of 50 footcandles for first aid stations and infirmaries.

(4) For areas or operations not covered by subrules (1) to (3) of this rule, refer to ANSI A11.1 "Industrial lighting," 1965 edition, as adopted in R 408.40105.

History: 1995 AACS; 2013 AACS; 2015 AACS.

**R 408.40134 Temporary sleeping quarters.**

Rule 134. When temporary sleeping quarters are provided, they shall be heated, ventilated, and lighted.

History: 2002 AACS; 2012 MR 6, Eff. March 21, 2013.