



DEPARTMENT OF LABOR AND ECONOMIC OPPORTUNITY

GENERAL INDUSTRY STANDARD

Filed with the Secretary of State on December 13, 1974 (as amended August 2, 1976)
(as amended November 27, 1978) (as amended April 2, 1979) (as amended May 11, 1981)
(as amended May 17, 1983) (as amended January 11, 1988) (as amended August 2, 1993)
(as amended January 26, 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 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 408.10001, R 408.10003, R 408.10004, R 408.10005, R 408.10011, R 408.10012, R 408.10013, R 408.10015,
R 408.10017, R 408.10026, R 408.10031, R 408.10034, and R 408.10036 of the Michigan Administrative Rules
are amended, R 408.10002 is added,
and R 408.10016, R 408.10021, R 408.10022, and R 408.10098 are rescinded, as follows:

PART 1, GENERAL PROVISIONS

Table of Contents:

R 408.10001 Scope.	1	R 408.10017 Lubrication.	2
R 408.10002 Referenced standard.....	1	R 408.10018 Color coding.....	2
R 408.10003 Definitions; E to M.	2	R 408.10026 De-railers, bumper blocks and clearance signs.	3
R 408.10004 Definitions; P.	2	R 408.10031 Machine installations.	3
R 408.10005 Definitions; S.	2	R 408.10033 Machine controls.....	3
R 408.10011 Employer responsibilities.	2	R 408.10034 Machine guards and devices.	3
R 408.10012 Employee responsibilities.....	2	R 408.10036 Air under pressure.	5
R 408.10013 Personal protective equipment.....	2	R 408.10037 Cleaning of containers.	5
R 408.10015 Housekeeping.	2		

GENERAL PROVISIONS

R 408.10001 Scope.

Rule 1. This standard sets forth general rules for the employer and the employee in, around and about a place of employment, except that where a specific rule is set forth in another standard, the general rule is preempted.

R 408.10002 Referenced standard.

Rule 2. The Michigan Occupational Safety and Health Administration (MIOSHA) General Industry Safety and Health Standard Part 27 "Woodworking Machinery," R 408.12701 to R 408.12799, is referenced in these rules. Up to 5 copies of this standard 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.

R 408.10003 Definitions; E to M.

Rule 3. (1) "Equivalent" means an alternate design or feature that provides an equal or greater degree of safety.

(2) "Flammable" means to ignite easily, burn intensely, or to have a rapid rate of flame spread.

(3) "Hazard" means an unsafe condition or procedure that could result in an injury.

(4) "Machine" means a powered instrument or device that transmits force or motion in a predetermined manner. It may be fixed in place or transportable, but is not hand-held.

R 408.10004 Definitions; P.

Rule 4. (1) "Pinch point" means a point at which it is possible to be caught between the moving parts of a machine, or between the moving and stationary parts of a machine or between material and any part of a machine.

(2) "Point of operation" means the point on a machine where work is performed.

(3) "Power failure" means the loss of power from the energy source.

R 408.10005 Definitions; S.

Rule 5. (1) "Shall" means mandatory.

(2) "Should" means recommended.

R 408.10011 Employer responsibilities.

Rule 11. An employer shall comply with all of the following:

(a) Provide training to each newly assigned employee regarding the operating procedures, hazards, and safeguards of the job.

(b) Not knowingly authorize a process, machine, or equipment to be used that does not meet applicable State Safety Standards.

(c) Provide a chain, bracket, or other device and assure its use at all times to restrain compressed gas cylinders from falling.

R 408.10012 Employee responsibilities.

Rule 12. An employee shall comply with all of the following:

(a) Not operate a machine or equipment until trained in the operating procedures, hazards, and safeguards and has been assigned to do so by the employer.

(b) Report to the supervisor any recognized hazard.

(c) Use required personal protective equipment or devices as prescribed in this standard or a MIOSHA specific standard.

(d) Not remove a guard or other safety device except for authorized servicing purposes. The guard or other safety device shall be replaced, or equivalent guarding provided before the machine or equipment is returned to normal operation.

R 408.10013 Personal protective equipment.

Rule 13. (1) The personal protective equipment shall be of safe design and construction to perform the intended function.

(2) Personal protective equipment required by applicable MIOSHA standards and employee owned equipment shall be maintained by an established program to assure the continuing adequacy, condition, and sanitation of the equipment.

R 408.10015 Housekeeping.

Rule 15. (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) Where vegetation is a hazard, an employee shall be protected by vegetation control or other means of protection, such as, but not limited to, a barrier, personal protective equipment, or medication.

(3) A storage area shall be kept free from accumulations of materials that constitute a hazard from fire, explosion, or pest harborage.

R 408.10016 Rescinded.

R 408.10017 Lubrication.

Rule 17. (1) Lubrication shall be accomplished by 1 of the following:

(a) Manually, when the machine can be shut off and locked out.

(b) Automatic pressure or gravity feed system.

(c) Extension pipe or tube leading to an area outside of guards or away from any hazard.

(d) A means of lubrication that would provide equal or greater protection than subdivision (a), (b), or (c) of this rule, for the employee.

(2) Where access through a guard is provided, and the opening exceeds the Table 2 specifications, the opening shall be provided with a hinged or sliding self-closing cover.

R 408.10018 Color coding.

Rule 18. (1) A safety can shall be red in color.

(2) A stop bar, stop button, electrical switch, or other mechanical device for the emergency stopping of machinery, excluding cables, shall be red in color.

(3) Yellow shall be the basic color for designating caution and for marking physical hazards. Solid yellow, yellow and black stripes, or yellow with a suitable contrasting background may be used interchangeably.

R 408.10021 Rescinded.

R 408.10022 Rescinded.

R 408.10026 De-railers, bumper blocks and clearance signs.

Rule 26. (1) Where rolling railroad cars on a spur track could make contact with a railcar being loaded or unloaded, repaired or serviced, or enter a building, work or traffic area, de-railers, bumper blocks, a blue flag or blue light, or other equivalent protection shall be used.

(2) A visible "Close Clearance" sign shall be used to indicate close clearance between a railcar and an adjacent fixed object if the fixed object is located less than 8 1/2 feet from the center of a straight track and 9 feet from the center of a curved track.

R 408.10031 Machine installations.

Rule 31. (1) A machine installed on a bench, table, or stand shall be designed or secured to prevent unintentional movement or tipping.

(2) A stationary machine shall be anchored or provided with anti-slip pads to prevent unintentional movement.

R 408.10033 Machine controls.

Rule 33. (1) Powered electrical equipment shall have an on-off switch.

(2) When unexpected motion would cause injury, an actuating machine control, except for an emergency device for a powered fixed or transportable machine, shall be guarded or located to prevent accidental actuation.

(3) Unless its function is self-evident, each operating control device shall be identified as to its function.

(4) A powered machine that is attended by more than 1 employee shall be equipped with an actuation device for each employee who is exposed to a point of operation hazard. The machine shall activate only after concurrent use of all actuation devices.

(5) When unexpected motion would cause injury, precautions shall be taken to prevent a machine from automatically restarting upon the restoration of power after a power failure.

(6) Where a machine work station is remotely located from the machine controls, either a red emergency stop device shall be provided at the machine work station if a hazard exists that could cause an injury, or the actuation of the controls shall require continuous depression during the hazardous portion of the machine cycle.

(7) Equipment that is operated in series so that one piece of equipment automatically supplies another shall be interlocked so that when any equipment in the series is stopped for any reason, the initial stopping causes the upstream equipment to stop if continued operation would create a hazard.

Reactivation shall require a separate positive action by the employee who initiated the stop.

R 408.10034 Machine guards and devices.

Rule 34. (1) Two hand-control devices shall be the anti-tie down type and located in a manner to prevent bridging. Operation shall require manual activation of both controls until a point is reached in the cycle where the operator cannot remove his or her hands and place them within a pinch point. If repeating would cause an injury, an anti-repeat device shall be incorporated into the control system.

(2) Guards shall be secured to the machine, if possible, or to other fixed objects. The guard shall not create a hazard in itself.

(3) A point of operation guard or device shall be as prescribed in a specific standard, or, in the absence of a specific standard, shall be designed and constructed, when required, to prevent the machine operator exposed to the hazard from having any part of his or her body in the hazardous area during the operating cycle. A guard or device for the point of operation of a non-production arbor press or straightening press is not required if the machine is equipped with a hand control that is designed to stop the ram action or return the ram to the up position when released.

(4) Hand tools shall not be substituted for the required guarding or point of operation devices, except that a hand tool may be used as prescribed in subrule (5) of this rule for a press brake operation. Where hand tools are used for placing into, and removing material from, a point of operation, they shall be designed so that the operator is not required to place a hand within the point of operation.

(5) A bending operation on a press brake involving less than 25 pieces of 1 specific bend, if not guarded, shall require the use of a hand tool when the operator must hold the work piece within 4 inches of the point of operation, and a conspicuous sign shall be posted on the machine stating "Hand tools shall be used to hold stock."

(6) A revolving barrel, container, or drum exposed to contact shall be guarded by a standard barrier, an enclosure, or equivalent protection where a hazard exists. Access through a standard barrier or enclosure shall be by a gate equipped with an interlock, which shall disconnect the power when the gate is opened and require manual re-actuation of a start button. A constant pressure jog control that by-passes the interlock may be used to aid loading and unloading.

(7) Blades of a fan, located within 7 feet of a floor or working level and used for ventilation or cooling of an employee, shall be guarded with a firmly affixed or secured guard. Any opening in the guard shall have not more than 1 of its dimensions more than 1 inch and the distance to the blade shall not be less than that prescribed in Table 1.

(8) A fan used in process cooling whose blade is less than 7 feet above the floor or working level shall meet the distance requirements of Table 2. Where the openings are larger than those shown in Table 2, the distance from the guard to the blade shall prevent any part of the employee's body from making contact with the blade.

(9) When an employee is exposed to a hazard created by a pinch point other than point of operation, the hazard shall be guarded, or the employee otherwise protected.

(10) A band or circular saw shall be guarded as prescribed in General Industry Safety and Health Standard Part 27 "Woodworking Machinery," as referenced in R 408.10002.

(11) An extractor, parts washer, or tumbler, manually controlled and equipped with an inside revolving cylinder, shall be equipped with a cover or door interlocked in such a manner as to prevent opening the door when the inside cylinder is in motion, and to prevent power operation of the inside cylinder when the cover or door is open. An inch control or constant pressure control which bypasses the interlock may be used to aid loading and unloading.

(12) An employee shall not place his or her body beneath equipment, such as vehicles, machines, or materials, supported only by a jack, overhead hoist, chain fall, or any other temporary single supporting means, unless safety stands, blocks or other support system capable of supporting the total imposed weight is used to protect the employee in case of failure of the supporting system.

TABLE 1	
Smallest dimension in guard (inches):	Minimum distance from guard to blade:
Greater than 0 up to 1/4 inclusive	1/2 inch
Greater than 1/4 up to 3/8 inclusive	1-1/2 inches
Greater than 3/8 up to 1/2 inclusive	2-1/2 inches
Greater than 1/2 up to 3/4 inclusive	4 inches
Greater than 3/4 up to 1 inclusive	6 times the smallest dimension

TABLE 2	
Distance of opening from point of operation hazard (inches)	Maximum width opening (inches)
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

R 408.10036 Air under pressure.

Rule 36. (1) Air pressure at the discharge end of a portable air blow gun or portable air hose shall be less than 30 pounds per square inch gauge when dead-ended.

(2) When air under pressure is used to remove chips and dust, a chip guard, such as a fixed or removable shield, safely located, shall be provided to protect an employee in an adjacent area.

(3) Air under pressure, used in a manner which could cause injury, shall not be used for cleaning clothes while being worn or directly applied to any part of the body.

(4) Air under pressure shall not be used to move flammable dust in an area containing open flames or spark producing equipment.

(5) Air under pressure shall not be used to remove toxic dusts in an employee environment.

(6) An employee shall be protected by guards or location when pressure tests are being performed on materials or equipment where rupture or failure would create a hazard.

R 408.10037 Cleaning of containers.

Rule 37. An employer shall not distribute, make available, furnish, or supply a container that is known to have contained a hazardous substance unless the container has been thoroughly cleaned to remove all traces of any hazardous substance, except where the container is refilled with the same substance.

R 408.10098 Rescinded.



Michigan Occupational Safety and Health Administration
PO Box 30643
Lansing, Michigan 48909-8143
For technical questions of this standard – Ph: 517-284-7750 (GISHD) or 517-284-7720 (CETD)
To order copies of this standard – Ph: 517-284-7740

The Department of Labor and Economic Opportunity will not discriminate against any individual or group because of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.