

Minnesota Occupational Safety and Health Administration

MNOSHA

Minnesota Indoor Ventilation and Temperature in Places of Employment Rule

<https://www.revisor.mn.gov/rules/5205.0110/>

Minnesota's Employee Right-to-Know regulation identifies "Heat" as a "Harmful Physical Agent" and requires employee training:

5206.0500 Harmful Physical Agents

<https://www.revisor.mn.gov/rules/5206.0500/>

5206.0700 Training.

Where there is a reasonably foreseeable potential for exposure to one or more of these physical agents at a level which may be expected to approximate or exceed the permissible exposure limit or the applicable action level the employer must provide training to employees as required in part 5206.0700:

<https://www.revisor.mn.gov/rules/5206.0700/>

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Office of the Revisor of Statutes

Minnesota Administrative Rules

[Authenticate](#) **5205.0110 INDOOR VENTILATION AND TEMPERATURE IN PLACES OF EMPLOYMENT.**

Subpart 1. **Air flow and circulation.** Air shall be provided and distributed in all indoor places of employment as required in this part, unless prohibited by process requirements.

Outdoor air shall be provided to all indoor places of employment at the rate of 15 cubic feet per minute per person.

Air circulated in any indoor place of employment shall be supplied through air inlets arranged, located, and equipped so that the workers shall not be subjected to air velocities exceeding 200 feet per minute except under special circumstances specified in this part or where approved by the Department of Labor and Industry.

Subp. 2. [Repealed, 21 SR 1897]

Subp. 2. Heat conditions. The requirements of this subpart cover employee exposure to indoor environmental heat conditions.

A. The following definitions apply when assessing and controlling health hazards associated with indoor climate.

(1) "Wet bulb globe temperature index" or "WBGT" means a measure of the combined effect of air temperature, air speed, humidity, and radiation. $WBGT = 0.7 T_{nwb} + 0.3 T_g$.

(2) "Natural wet-bulb temperature" or " T_{nwb} " means temperature measured by a thermometer which has its sensor covered by a wetted cotton wick, exposed to natural air movement.

(3) "Globe temperature" or " T_g " means temperature measured by a thermometer with its sensor inside a matte black globe, exposed to radiant heat, Vernon Globe or equivalent.

(4) "Heavy work" means 350 or higher kcal/hr (kilocalories per hour), for example: heavy lifting and pushing, shovel work.

(5) "Moderate work" means 200 to 350 kcal/hr, for example: walking with moderate lifting and pushing.

(6) "Light work" means up to 200 kcal/hr, for example: sitting or standing performing light hand or arm work.

B. Employees shall not be exposed to indoor environmental heat conditions in excess of the values listed in Table 1. The values in Table 1 apply to fully clothed acclimatized workers.

TABLE 1. Two-hour time-weighted average permissible heat exposure limits.

Work Activity	WBGT, °F
Heavy work	77
Moderate work	80
Light work	86

C. Employees with exposure to heat shall be provided training according to part [5206.0700](#), subparts 1 and 3.

Subp. 3. **Cold conditions.** The requirements of this subpart cover employee exposure to indoor environmental cold conditions. The definitions in subpart 2 apply to this subpart.

A. Indoor places of employment shall maintain a minimum air temperature of 60 degrees Fahrenheit where heavy work is performed, unless prohibited by process requirements.

B. Indoor places of employment shall maintain a minimum air temperature of 65 degrees Fahrenheit where light to moderate work is performed, unless prohibited by process requirements.

Subp. 4. **Recirculated air.** Air from any exhaust system handling materials listed in Code of Federal Regulations, title 29, part 1910, subpart Z, shall not be recirculated without written permission from the Department of Labor and Industry.

Subp. 5. **Definitions.** For the purposes of this part, the following definitions apply.

A. "Indoor" means any space between a floor and a ceiling that is bound on all sides by walls. A wall includes any door, window, retractable divider, garage door, or other physical barrier that is temporary or permanent, whether open or closed.

B. "Place of employment" has the meaning given in Minnesota Statutes, section [182.651, subdivision 10](#).

Statutory Authority: *MS s* [182.655](#); [182.657](#)

History: *12 SR 634; 21 SR 1897; 39 SR 418*

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Minnesota Administrative Rules

[Authenticate](#)  PDF**5206.0500 HARMFUL PHYSICAL AGENTS.**

Subpart 1. **In general.** The commissioner has determined that the list of harmful physical agents in subpart 3 shall be covered by the provisions of this chapter. The harmful physical agents list includes the majority of physical agents that may be encountered in Minnesota. Where there is a reasonably foreseeable potential for exposure to one or more of these physical agents at a level which may be expected to approximate or exceed the permissible exposure limit or the applicable action level **the employer must provide training to employees as required in part 5206.0700.**

Subp. 2. **Updating list.** The list of harmful physical agents shall be updated by the commissioner at least every two years.

§ Subp. 3. Harmful physical agents list.

A. Heat.

B. Noise.

C. Ionizing radiation. Any employer who possesses or uses by-product material, source material, or special nuclear material, as defined in the Atomic Energy Act of 1954 as amended, under a license issued by the Nuclear Regulatory Commission shall be deemed to be in compliance with the harmful physical agent provisions of the Employee Right-to-Know Act of 1983.

D. Nonionizing radiation.

Statutory Authority: *MS s* [182.655](#)

History: 8 SR 1949

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[Authenticate](#)  PDF**5206.0700 TRAINING.**

Subpart 1. **In general.** The requirements in items A to J apply to training programs provided to employees concerning hazardous substances, harmful physical agents, and infectious agents.

A. Training shall be made available by, and at the cost of, the employer.

B. The employer shall develop and implement a written Employee Right-to-Know program which, at a minimum, describes how the training, availability of information, and labeling provisions of this chapter will be met for hazardous substances, harmful physical agents, and infectious agents. The written program shall also include:

(1) A list of the hazardous substances known to be present using an identity that is referenced on the appropriate material safety data sheet. The list may be compiled for the workplace as a whole or for individual work areas.

(2) The methods the employer will use to inform employees of the hazards of infrequent tasks that involve exposure to hazardous substances, harmful physical agents, or infectious agents and the hazards associated with hazardous substances contained in unlabeled pipes in their work areas.

(3) Employers shall make the written Employee Right-to-Know program available, upon request, to employees, their designated representatives, and representatives of the Occupational Safety and Health Division.

(4) For infectious agents, a written exposure control plan that meets the requirements of Code of Federal Regulations, title 29, section 1910.1030, and covers all infectious agents to which employees may be exposed in the workplace meets the requirements of this chapter.

C. In multiemployer workplaces, employers who produce, use, or store hazardous substances in such a way that the employees of other employers may be exposed shall additionally ensure that the Employee Right-to-Know program developed and implemented under item B includes the following:

(1) the methods the employer will use to provide the other employers with a copy of the material safety data sheet, or to make it available at a central location in the workplace, for each hazardous substance the other employers' employees may be exposed to while working;

(2) the methods the employer will use to inform the other employers of any precautionary measures that need to be taken to protect employees during normal operating conditions and in foreseeable emergencies; and

(3) the methods the employer will use to inform the other employers of the labeling system used in the workplace.

D. Records of training provided under the requirements of this chapter must be maintained by the employer, retained for three years, and made available, upon request, for review by employees and representatives of the Occupational Safety and Health Division. At a minimum, training records must include:

(1) the dates training was conducted;

(2) the name, title, and qualifications of the person who conducted the training;

(3) the names and job titles of employees who completed the training; and

(4) a brief summary or outline of the information that was included in the training session.

E. Information and training programs may relate to specific exposure hazards; the common hazards of a broad class of hazardous substances, harmful physical agents, and infectious agents; or to the hazards of a complete production operation, whichever is more effective. Specific information on individual hazardous substances or mixtures, harmful physical agents, and infectious agents must be available in writing for employees' use.

F. Access to a display device shall constitute compliance with the requirement for a written copy of required information which shall be readily accessible in the area or areas in which the hazardous substance, harmful physical agent, or infectious agent is used or handled, provided that a hard copy printout is available to the employee requesting it within 24 hours excluding nonworkdays.

G. Frequency of training:

(1) Training must be provided to an employee before initial assignment to a workplace where the employee may be routinely exposed to a hazardous substance, harmful physical agent, or infectious agent.

(2) Additional training must be provided to an employee before the time the employee may be routinely exposed to any additional hazardous substances, harmful physical agents, or infectious agents.

(3) All employees who have been routinely exposed to a hazardous substance, harmful physical agent, or infectious agent before January 1, 1984, and who will continue to be routinely exposed to those substances or agents, must be provided with training with respect to those substances and agents by July 1, 1984.

(4) Training updates must be repeated at intervals of not greater than one year. Training updates may be brief summaries of information included in previous training sessions.

H. The commissioner may, upon request of an employer or an employer's representative, certify an existing training program as complying with this chapter.

I. The employer shall maintain current information for training or information requests by employees.

J. Technically qualified individuals shall be notified of and may elect to participate in any training or update programs required to be provided under this part to employees who are not technically qualified individuals. The employer shall make a reasonable attempt to allow technically qualified individuals to attend training or update programs which may be held during the employee's scheduled work day.

Subp. 2. Training program for hazardous substances. Training for employees who may be routinely exposed to hazardous substances shall be provided in a manner which can be reasonably understood by the employees and must include the following:

- A. the name or names of the substance including any generic or chemical name, trade name, and commonly used name;
- B. the level, if any and if known, at which exposure to the substance has been restricted according to standards adopted by the commissioner, or, if no standard has been adopted, according to guidelines established by competent professional groups which have conducted research to determine the hazardous properties of potentially hazardous substances;
- C. the primary routes of entry and the known acute and chronic effects of exposure at hazardous levels;
- D. the known symptoms of the effects;
- E. any potential for flammability, explosion, or reactivity of the substance;
- F. appropriate emergency treatment;
- G. the known proper conditions for use of and exposure to the substance;
- H. procedures for cleanup of leaks and spills;
- I. the name, phone number, and address of a manufacturer of the hazardous substance; and
- J. a written copy of all of the above information which shall be readily accessible in the area or areas in which the hazardous substance is used or handled.

Subp. 3. Training program for harmful physical agents. The training program for employees who may be routinely exposed to harmful physical agents at a level which may be expected to approximate or exceed the permissible exposure limit or applicable action levels shall be provided in a manner which can be reasonably understood by the employees and shall include the information required by the standard for that physical agent as determined by the commissioner including the following:

- A. the name or names of the physical agent including any commonly used synonym;
- B. the level, if any and if known, at which exposure to the physical agent has been restricted according to standards adopted by the commissioner, or, if no standard has been adopted, according to guidelines established by competent professional groups which have conducted research to determine the hazardous properties of potentially harmful physical agents;
- C. the known acute and chronic effects of exposure at hazardous levels;
- D. the known symptoms of the effects;
- E. appropriate emergency treatment;
- F. the known proper conditions for use of and/or exposure to the physical agent;
- G. the name, phone number, and address, if appropriate, of a manufacturer of the equipment which generates the harmful physical agent; and
- H. a written copy of all of the above information which shall be readily accessible in the area or areas in which the harmful physical agent is present and where the employees may be exposed to the agent through use, handling, or otherwise.

Subp. 4. Training program for infectious agents. Training for employees who are routinely exposed to infectious agents shall be provided in a manner which can be reasonably understood by the employees and must include the following:

- A. a general explanation of the epidemiology and symptoms of infectious diseases including hazards to special at-risk employee groups;
- B. an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to infectious agents including blood and other infectious materials;
- C. an explanation of the chain of infection, or infectious disease process, including agents, reservoirs, modes of escape from reservoir, modes of transmission, modes of entry into host, and host susceptibility;
- D. an explanation of the employer's exposure control program;
- E. an explanation of the use and limitations of methods of control that will prevent or reduce exposure including universal precautions, appropriate engineering controls and work practices, personal protective equipment, and housekeeping;
- F. an explanation of the basis for selection of personal protective equipment, including information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment;
- G. an explanation of the proper procedures for cleanup of blood or body fluids;
- H. an explanation of the recommended immunization practices, including, but not limited to, the HBV vaccine and the employer's methodology for determining which employees will be offered the HBV vaccine, and the efficacy, safety, and benefits of being vaccinated;
- I. procedures to follow if an exposure incident occurs, method of reporting the incident, and information on the postexposure evaluation and medical follow-up that will be available;

- J. information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- K. an explanation of the signs, labels, tags, or color coding used to denote biohazards;
- L. an opportunity for interactive questions and answers with the person conducting the training session;
- M. an accessible copy of the regulatory text of this standard and an explanation of its contents; and
- N. how to gain access to further information and reference materials that must be made available in the workplace including the location, contents, and availability of pertinent materials that explain symptoms and effects of each infectious agent.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

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