



MNOSHA Instruction **STD 5-1.3A**

January 5, 2024

SUBJECT: Enforcement of Indoor Ventilation and Temperature in Places of Employment

Purpose:

To guide the enforcement of Minn. Rule 5205.0110 Subpart 2.

Cancellation:

This instruction supersedes STD 5-1.3, Indoor Ventilation and Temperature in Places of Employment, dated August 9, 2017

References:

1. Minn. Stat. 182.655, Subpart 4, Standards for hazardous substances and harmful physical agents.
2. Minn. Rule 5205.0110, Subpart 2, Heat conditions.
3. 2023 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices.
4. 2023 ACGIH Documentation of Heat Stress and Strain TLV.

Background:

In 1997, Minn. Rule 5205.0110 Subpart 2 was updated to change from the use of effective temperature to Wet Bulb Globe Temperature (WBGT) as a means to screen for heat stress. The basis for the WBGT temperatures selected and placed into rule was the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV) screening criteria for heat stress in 1996. Since this rulemaking the ACGIH has updated the TLV screening criteria for heat stress several times. The current WBGT screening criteria set by ACGIH are higher than those listed in the Minnesota Rule. The intent of this directive is to clarify that employers that are in compliance with the most current version of the ACGIH TLV will be considered to be in compliance with the Minnesota Rule.

Action:

Effective immediately Minnesota OSHA will consider two-hour Time Weighted Average (TWA) exposures that are below the most current version of the ACGIH TLV Screening Criteria to be in compliance with Minn. Rule 5205.0110 Subpart 2. Current ACGIH TLV Screening Criteria for acclimatized workers is identified below:

75-100% Work	Light	Moderate	Heavy
5205.0110 Subpart 2	30.0° C (86.0° F)	26.7° C (80.0° F)	25.0° C (77.0° F)
2023 Screening Criteria	31.0° C (87.8° F)	28.0° C (82.4° F)	Not recommended

Cite Minn. Rule 5205.0110 Subpart 2 in situations where employees are exposed to two-hour TWA's exceeding the current TLV Screening Criteria. Instruments used by CSHO's to monitor for heat stress are accurate to within +/- 0.5° Celsius, therefore measurements must exceed 31.5° Celsius (88.7° F) for light work and 28.5° Celsius (83.3° F) for moderate work. A screening criterion is currently not provided by the ACGIH for heavy work. ACGIH recommends a detailed analysis or physiological monitoring for 75 to 100% heavy work. MNOSHA will continue to enforce the existing heavy work level specified in 5205.0110 Subpart 2. Therefore, for heavy work, citations shall be issued for measured WBGT levels exceeding 25.5° C (77.9° F).

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For the MNOSHA Management Team

Distribution: OSHA Compliance and WSC Director

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