

**DEPARTMENT OF LABOR AND ECONOMIC OPPORTUNITY**

**DIRECTOR'S OFFICE**

**GENERAL INDUSTRY SAFETY AND HEALTH STANDARD**

(By authority conferred on the director of the department of labor and economic opportunity by sections 14, 16, 19, 21, and 24 of the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1014, 408.1016, 408.1019, 408.1021, and 408.1024, and Executive Reorganization Order Nos. 1996-1, 1996-2, 2003-1, 2008-4, 2011-4, and 2019-3, MCL 330.3101, 445.2001, 445.2011, 445.2025, 445.2030, and 125.1998)

**GENERAL INDUSTRY SAFETY AND HEALTH STANDARD  
PART 310. LEAD IN GENERAL INDUSTRY**

**R 325.51901 Scope, application, adoption, and availability of standards.**

Rule 1. (1) These rules apply to all occupational exposures to lead, except that they do not apply to construction work or to agricultural operations.

(2) The federal Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.1025 "Lead," as amended February 18, 2020, are adopted by reference in these rules, except for the following:

- (a) Section 1910.1025(j)(2)(i)(A) to (C) has been replaced with R 325.51933.
- (b) Section 1910.1025(j)(2)(iv)(A) to (B) has been replaced with R 325.51936.
- (c) Section 1910.1025(j)(3)(i)(A) to (D) has been replaced with R 325.51937.
- (d) Section 1910.1025(j)(3)(ii)(A) to (F) has been replaced with R 325.51938.
- (e) Section 1910.1025(k)(1)(i)(A) to (B) has been replaced with R 325.51943.
- (f) Section 1910.1025(k)(1)(iii)(A) to (B) has been replaced with R 325.51945.

(3) A reference to 29 CFR 1910.133 means both of the following:

(a) General Industry Safety and Health Standard Part 33. "Personal Protective Equipment."

(b) General Industry Safety and Health Standard Part 433. "Personal Protective Equipment."

(4) A reference to 29 CFR 1910.1200 means General Industry Safety Standard Part 92. "Hazard Communication."

(5) A reference to 29 CFR 1910.141 means General Industry Safety and Health Standard Part 474. "Sanitation."

(6) A reference to 29 CFR 1910.1020 means General Industry and Construction Safety and Health Standard Part 470. "Employee Medical Records and Trade Secrets."

(7) A reference to 29 CFR 1910.134 means General Industry and Construction Safety and Health Standard Part 451. "Respiratory Protection."

(8) 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.

(9) The OSHA regulations adopted in these rules are available from the United States Department of Labor, Occupational Safety and Health Administration website, [www.osha.gov](http://www.osha.gov), at no charge, as of the time of adoption of these rules.

(10) The regulations adopted in these rules are available for inspection at the Department of Labor and Economic Opportunity, MIOSHA, Standards and FOIA Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(11) The regulations adopted in these rules may be obtained from the publisher or may be obtained from the Department of Labor and Economic Opportunity, MIOSHA, Standards and FOIA 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.

(12) 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 Labor and Economic Opportunity, MIOSHA, Standards and FOIA Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at the following website: [www.michigan.gov/mioshastandards](http://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) General Industry Safety and Health Standard Part 433. “Personal Protective Equipment,” R 325.60001 to R 325.60013.

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

(d) General Industry Safety and Health Standard Part 474. “Sanitation,” R 325.47401 to R 325.47425.

(e) General Industry and Construction Safety and Health Standard Part 470. “Employee Medical Records and Trade Secrets,” R 325.3451 to R 325.3476.

(f) General Industry and Construction Safety and Health Standard Part 451. “Respiratory Protection,” R 325.60051 to R 325.60052.

History: 1981 AACCS; 1987 AACCS; 1998-2000 AACCS; 2018 AACCS; 2021 MR 7, Eff. Apr. 13, 2021.

### **R 325.51902 Rescinded.**

History: 1981 AACCS; 1987 AACCS; 1998-2000 AACCS; 2015 AACCS; 2018 AACCS.

### **R 325.51902a Rescinded.**

History 2015 AACCS; 2018 AACCS.

### **R 325.51903 Rescinded.**

History: 1981 AACCS; 1987 AACCS; 1998-2000 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51904 Rescinded.**

History: 1981 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51905 Rescinded.**

History: 1981 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51906 Rescinded.**

History: 1981 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51907 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51908 Rescinded.**

History: 1981 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51909 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51910 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51911 Rescinded.**

History: 1981 AACS; 2018 AACS.

**R 325.51912 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51913 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51914 Rescinded.**

History: 1981 AACS; 1984 AACS; 1987 AACS; 1998 AACS; 2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51915 Rescinded.**

History: 1981 AACS; 1984 AACS; 2015 AACS; 2018 AACS.

**R 325.51916 Rescinded.**

History: 1981 AACS; 1984 AACS; 1998 AACS.

**R 325.51916a Rescinded.**

History: 1984 AACS; 2015 AACS; 2018 AACS.

**R 325.51916b Rescinded.**

History: 1984 AACS; 2015 AACS; 2018 AACS.

**R 325.51917 Rescinded.**

History: 1981 AACS; 1988 AACS; 1990 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51918 Rescinded.**

History: 1981 AACS; 1988 AACS; 1990 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51919 Rescinded.**

History: 1981 AACS; 1988 AACS; 1998-2000 AACS.

**R 325.51920 Rescinded.**

History: 1981 AACS; 1987 AACS; 1988 AACS; 1998-2000 AACS.

**R 325.51921 Rescinded.**

History: 1981 AACS; 2000 AACS; 2015 AACS.

**R 325.51922 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51923 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51924 Rescinded.**

History: 1981 AACS; 1988 AACS; 2015 AACS; 2018 AACS.

**R 325.51924a Rescinded.**

History: 2015 AACS; 2018 AACS.

**R 325.51925 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51926 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51927 Rescinded.**

History: 1981 AACS; 1984 AACS.

**R 325.51928 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51929 Rescinded.**

History: 1981 AACS; 1984 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51930 Rescinded.**

History: 1981 AACS; 1984 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51931 Rescinded.**

History: 1981 AACS; 1984 AACS; 1987 AACS; 1988 AACS; 2015 AACS; 2018 AACS.

**R 325.51931a Rescinded.**

History: 1984 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51932 Rescinded.**

History: 1984 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51933. Biological monitoring.**

Rule 33. An employer shall make available biological monitoring in the form of blood sampling and analysis for lead levels to each employee who or may be exposed to concentrations of lead greater than the action level for more than 30 days a year in accordance with the following schedule:

(a) At least once every 6 months for each employee.

(b) At least once every 2 months for each employee whose blood sample and analysis indicated a blood lead level at or above 15 micrograms ( $\mu\text{g}$ ) per deciliter (dL). The 2-month frequency shall continue until 2 consecutive blood samples and analyses indicate a blood level below 15  $\mu\text{g}/\text{dL}$  of whole blood.

(c) At least monthly during the period of time an employee is removed from exposure to lead due to an elevated blood lead level.

History: 1981 AACS; 1984 AACS; 1988 AACS; 2015 AACS; 2018 AACS.

**R 325.51934 Rescinded.**

History: 1981 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51935 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51936 Employee notifications.**

Rule 36. Within 5 working days after the receipt of biological monitoring results, an employer shall notify each employee, in writing, whose blood lead level is at or above 15 µg/dL of whole blood of both of the following:

(a) The employee's blood lead level.

(b) That these rules require temporary medical removal with Medical Removal Protection benefits when an employee's blood lead level is at or above the numerical criterion for medical removal pursuant to R 325.51943.

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51937 Medical examinations and consultations.**

Rule 37. An employer shall make available medical examinations and consultations to each employee who is or may be exposed to concentrations of lead greater than the action level for more than 30 days a year according to the following schedule:

(a) At least annually for each employee for whom a blood sampling test conducted at any time during the previous 12 months indicated a blood lead level at or above 15 µg/dL of whole blood.

(b) Prior to an employee's being assigned for the first time to an area in which airborne concentrations of lead are at or above the action level.

(c) As soon as possible after notification by an employee that the employee has developed signs or symptoms commonly associated with lead intoxication, that the employee desires medical advice concerning the effects of current or past exposure to lead on the employee's ability to procreate a healthy child, or that the employee has demonstrated difficulty in breathing either during a respirator fitting test or during use of a respirator.

(d) As medically appropriate for an employee who is either removed from exposure to lead due to a risk of sustaining material impairment to health or who is otherwise limited pursuant to a final medical determination.

History: 1981 AACCS; 2015 AACCS; 2018 AACCS; 2021 MR 7, Eff. Apr. 13, 2021.

**R 325.51938. Content.**

Rule 38. (1) A medical examination made available pursuant to R 325.51937(a) and (b) shall include all of the following elements:

(a) A detailed work history and a medical history, with particular attention to past occupational and non-occupational lead exposure in all of the following:

(i) Personal habits, such as smoking and hygiene.

(ii) Past gastrointestinal.

(iii) Personal hematological.

(iv) Renal.

(v) Cardiovascular.

(vi) Reproductive.

- (vii) Neurological problems.
- (b) A thorough physical examination, with particular attention to all of the following:
  - (i) Teeth.
  - (ii) Gums.
  - (iii) Hematological status.
  - (iv) Gastrointestinal status.
  - (v) Renal status.
  - (vi) Cardiovascular status.
  - (vii) Neurological status.
  - (viii) Pulmonary status shall be evaluated if respiratory protection is to be used.
- (c) A blood pressure measurement.
- (d) A blood sample and an analysis which determines all of the following:
  - (i) Blood lead level.
  - (ii) Hemoglobin and hematocrit determinations, red cell indices, and examination of peripheral and smear morphology.
    - (iii) Blood urea nitrogen.
    - (iv) Serum creatinine.
  - (e) A routine urinalysis with microscopic examination.
  - (f) A laboratory or other test which an examining physician deems necessary by sound medical practice.
- (2) The contents of a medical examination made available pursuant to R 325.51937(c) and (d) shall be determined by an examining physician and, if requested by an employee, shall include pregnancy testing or laboratory evaluation of male fertility, as the case may be.

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51938a Rescinded.**

History: 1984 AACCS; 1988 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51939 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51940 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51941 Rescinded.**

History: 1981 AACCS; 1984 AACCS; 2015 AACCS; 2018 AACCS.



**R 325.51942 Rescinded.**

History: 1981 AACCS; 2018 AACCS.

**R 325.51943 Temporary medical removal due to elevated blood lead levels.**

Rule 43. (1) An employer shall remove an employee from work who has an exposure to lead at or above the action level on each occasion that a periodic blood sampling test and a follow-up blood sampling test conducted under these rules indicate that the employee's blood lead level is at or above 30 µg/dL of whole blood.

(2) An employer shall remove an employee from work if the employee has an exposure to lead at or above the action level on each occasion that the average of the last 3 blood sampling tests conducted under these rules, or the average of all blood sampling tests conducted over the previous 6 months, whichever is longer, indicates that the employee's blood lead level is at or above 20 µg/dL of whole blood. However, an employee shall not be removed if the last blood sampling test indicates a blood lead level below 15 µg/dL of whole blood.

History: 1981 AACCS; 1987 AACCS; 1998-2000 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51944 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51945 Return of employee to former job status.**

Rule 45. (1) An employer shall return an employee to his or her former job status under any of the following circumstances:

(a) For an employee removed due to a blood lead level at or above 30 µg/dL of whole blood or due to an average blood lead level at or above 20 µg/dL of blood, when 2 consecutive blood sampling tests indicate that the employee's blood lead level is below 15 µg/dL of whole blood.

(b) For an employee removed due to a final medical determination, when a subsequent final medical determination results in a medical finding, determination or opinion that the employee no longer has a detected medical condition which places the employee at an increased risk of material impairment to health from exposure to lead.

(2) For purposes of this rule, the requirement that an employer return an employee to his or her former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51946 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51947 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51948 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51949 Rescinded.**

History: 1981 AACS; 1987 AACS; 1998-2000 AACS; 2015 AACS; 2018 AACS.

**R 325.51950 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51950a Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51950b Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51951 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51952 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51953 Rescinded.**

History: 1981 AACS; 2015 AACS; 2018 AACS.

**R 325.51954 Rescinded.**

History: 1981 AACCS; 2018 AACCS.

**R 325.51955 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51956 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51957 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.

**R 325.51958 Rescinded.**

History: 1981 AACCS; 2015 AACCS; 2018 AACCS.