

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES LICENSING AND REGULATORY AFFAIRS

BUREAU OF SAFETY AND REGULATION DIRECTOR'S OFFICE

OCCUPATIONAL HEALTH STANDARDS COMMISSION

**FILED WITH THE SECRETARY OF STATE ON MARCH 20, 2014**

These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a(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** ~~consumer and industry services~~ by sections **14 and 24** 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** ~~MCL 408.1024, and Executive Reorganization Order Nos. 1996-1 and 1996-2, MCL 330.3101 and 445.2004~~)

R 325.52102, R 325.52103, R 325.52104, R 325.52109, R 325.52113, R 325.52114, R 325.52116, R 325.52117, R 325.52118, R 325.52123, R 325.52124, R 325.52125, R 325.52127, R 325.52129, R 325.52130, R 325.52131, and R 325.52135 of the Michigan Administrative Code are amended, R 325.52102a is added, and R 325.52136 and R 325.52137 of Code are rescinded, as follows:

**PART 432. HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE**

R 325.52102 Application.

Rule 2. (1) These rules apply to all of the following operations when employees are exposed, or have a reasonable possibility of exposure, to safety or health hazards:

(a) Cleanup operations which are required by a governmental body, whether a federal, state, local, or other body, which involve hazardous substances, and which are conducted at uncontrolled hazardous waste sites. Such sites include any of the following:

- (i) Sites on the environmental protection agency's (EPA) national priority site list (NPL).
  - (ii) Sites on state priority site lists.
  - (iii) Sites recommended for the EPA NPL.
  - (iv) Sites which are government-identified and are undergoing initial investigation conducted before the presence or absence of hazardous substances has been determined.
- (b) Corrective actions that involve cleanup operations at sites covered by the ~~provisions of the resource conservation and recovery act of 1976 (RCRA), as amended, 42 U.S.C. §6901 et seq.~~ **“Congressional findings.”**
- (c) Voluntary cleanup operations at sites recognized by federal, state, local, or other governmental bodies as uncontrolled hazardous waste sites.
- (d) Operations which involve hazardous wastes and which are conducted at treatment, storage, and disposal (TSD) facilities regulated by ~~the provisions of 40 C.F.R. parts 264 and 265 pursuant to RCRA, by agencies under agreement with EPA to implement RCRA regulations. or by the provisions of sections 5, 11, 13, 13a, 15a, 19, 22a, 30, 30a, 32a, 32b, and 32c of Act No. 641 of the Public Acts of 1978, as amended, being §§299.405, 299.411, 299.413, 299.413a, 299.415a, 299.419, 299.422a, 299.430, 299.430a, 299.432a, 299.432b, and 299.432c. of the Michigan Compiled Laws.~~

(e) An emergency response operation that involves the release of, or a substantial threat of the release of, hazardous substances, without regard to the location of the hazard.

(2) All of the requirements of the Michigan occupational health and safety act (MIOSHA) occupational health rules and occupational safety rules for both general industry and construction apply, pursuant to their terms, to operations specified in subrule (1) of this rule, whether mentioned in these rules or not. Where there is a conflict or overlap between these and other rules, the requirement that is more protective of employee health and safety shall apply. ~~without regard to O.H. rule 4406(3)(a).~~

(3) All of these rules, except for R 325.52129 to R 325.52135, apply to hazardous substance cleanup operations covered by ~~the provisions of~~ subrule (1)(a), (b), and (c) of this rule.

(4) ~~Only the provisions of~~ R 325.52129 **applies** apply to operations at TSD facilities covered by ~~the provisions of~~ subrule (1)(d) of this rule. All of the following ~~provisions~~ apply to this subrule:

(a) ~~All of the provisions of~~ R 325.52129 **applies** apply to any TSD operation which is regulated by ~~the provisions of~~ 40 C.F.R. parts 264 and 265 or by Michigan law authorized under RCRA and which is required to have a permit or interim status from EPA pursuant to ~~the provisions of~~ 40 C.F.R. §270.1 or from a Michigan agency pursuant to ~~the provisions of~~ RCRA.

(b) Employers who are not required to have a permit or interim status because they are conditionally exempt small quantity generators under ~~the provisions of~~ 40 C.F.R. §261.5 or are generators who qualify under ~~the provisions of~~ 40 C.F.R. §262.34 for exemptions from regulation under ~~the provision of~~ 40 C.F.R. parts 264, 265, and 270 need not comply

with the provisions of subrules R 325.52129 (1) to (8). Excepted employers who are required by the EPA or a Michigan agency to have their employees engage in emergency response or who direct their employees to engage in emergency response shall comply with the provisions of R 325.52129(9). Excepted employers who are not required to have employees engage in emergency response, who direct their employees to evacuate in the case of emergencies, and who meet the requirements of R 325.52129 (9)(a) and (b) are exempt from the rest of the provisions of R 325.52129.

(c) If an area is used primarily for treatment, storage, or disposal, any emergency response operation in that area shall be in compliance with the requirements of R 325.52129(9). In other areas that are not used primarily for treatment, storage, or disposal, any emergency response operation shall be in compliance with the requirements of R 325.52130 to R 325.52135. Compliance with the requirements of R 325.52130 to R 325.52135 shall be deemed to be in compliance with the requirements of R 325.52129(9).

(5) An emergency response operation which involves the release of, or a substantial threat of a release of, hazardous substances and which is not covered by subrule (1)(a) to (d) of this rule shall be in compliance with only the requirements of R 325.52130 to R 325.52135.

#### **R 325.52102a Adopted and referenced standards.**

**Rule 2a. (1) “NIOSH Recommendations for Occupational Health Standards,” 1986 edition, is adopted by reference in these rules. This standard is available from the National Institute for Occupational Safety and Health, Publications Dissemination Division, Cincinnati, Ohio 45226, or via the internet at website: [www.cdc.gov/niosh](http://www.cdc.gov/niosh), at no cost as of the time of adoption of these rules.**

**(2) “Threshold Limit Values and Biological Exposure Indices for 1990-1991,” 1990 edition, is adopted by reference in these rules. The ACGIH publication is available from the American Conference of Governmental Industrial Hygienist, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240-4148, or via the internet at website: [www.acgih.org](http://www.acgih.org), at a cost at the time of adoption of these rules is \$25.00.**

**(3) The following regulations from the Code of Federal Regulations are adopted by reference in these rules. Copies of these regulations are available from the U.S. Government Printing Office, via the internet at website [www.gpoaccess.gov](http://www.gpoaccess.gov), at no charge as of the time of adoption of these rules.**

**(a) 40 C.F.R. §261.3, Identification and Listing of Hazardous Waste, “Definition of Hazardous Waste.”**

**(b) 42 C.F.R. Part 84 “Approval of Respiratory Protective Devices.”**

**(c) 49 C.F.R. §171.8, Definitions and Abbreviations “General Information, Regulations, and Definitions.”**

**(d) 49 C.F.R. §172.101, General Information, Regulations, and Definitions “Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans.”**

**(e) 49 C.F.R. Part 173, Shippers – General Requirements for Shipments and Packagings “Pipeline and Hazardous Materials Safety Administration, Department of Transportation.”**

**(f) 49 C.F.R. Part 178, Specifications for Packagings “Pipeline and Hazardous Materials Safety Administration, Department of Transportation.”**

**(g) 42 U.S.C. §9601, “Comprehensive Environmental Response Compensation and Liability Act (CERCLA).”**

**(4) The standards adopted in subrules (1) to (3) of this rule are also 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.**

**(5) Copies of the standards adopted in subrules (1) to (3) of this rule may be obtained from the publisher or may also 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.**

**(6) The following Michigan occupational safety and health standards 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 Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at 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) Construction Safety Standard Part 18 “Fire Protection and Prevention,” R 408.41801 to R 408.41884.**

**(b) General Industry Safety Standard Part 6 “Fire Exits,” R 408.10601 to R 408.10697.**

**(c) General Industry Safety Standard Part 73 “Fire Brigades,” R 408.17301 to R 408.17320.**

**(d) Occupational Health Standard Part 301 “Air Contaminants,” R 325.51101 to 325.51108.**

**(e) Occupational Health Standard Part 380 “Occupational Noise Exposure,” R 325.60101 to 325.60131.**

**(f) Occupational Health Standard Part 381 “Ionizing Radiation,” R 325.60601a to 325.60618.**

**(g) Occupational Health Standard Part 430 “Hazard Communication,” R 325.77001 to 325.77003.**

**(h) Occupational Health Standard Part 451 “Respiratory Protection,” R 325.60051 to 325.60052.**

**(i) Occupational Health Standard Part 470 “Employee Medical Records and Trade Secrets,” R 325.3451 to R 325.3476.**

**(j) Occupational Health Standard Part 474 “Sanitation,” R 325.47401 to R 325.47427.**

**(k) Occupational Health Standard Part 490 “Permit-Required Confined Spaces,” R 325.63001 to R 325.63049.**

**(l) Occupational Health Standard Part 529 “Welding, Cutting and Brazing,” R 325.52901 to R 325.52908.**

**(7) Appendices A, B, C, and D to these rules are informational only and are not intended to create any additional obligations or requirements not otherwise imposed or to detract from any established obligations or requirements.**

R 325.52103 Definitions.

Rule 3.~~(4)~~ As used in these rules:

**(1)~~(a)~~** “Buddy system” means a system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by a least 1 other employee in the work group. The purpose of the buddy system is to provide rapid assistance to employees in the event of an emergency.

**(2)~~(b)~~** “Cleanup operation” means an operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared up, or in any other manner processed or handled with the ultimate goal of making the site safer for people and the environment.

**(3)~~(c)~~** “Decontamination” means the removal of hazardous substances from employees and their equipment to the extent necessary to prevent the occurrence of foreseeable adverse health effects.

**(4)~~(d)~~** “Emergency response” or “responding to emergencies” means a response effort by employees from outside the immediate release area or by other designated responders, for example, mutual-aid groups or local fire departments, to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered to be emergency responses within the scope of these rules. Responses to releases of hazardous substances where there is no potential safety or health hazards, such as, fire, explosion, or chemical exposure, are not considered to be emergency responses.

**(5)~~(e)~~** “Facility” means any of the following:

**(a)~~(i)~~** A building.

**(b)~~(ii)~~** A structure.

**(c)~~(iii)~~** An installation.

**(d)~~(iv)~~** Equipment.

**(e)~~(v)~~** A pipe or pipeline, including a pipe into a sewer or publicly owned treatment works.

**(f)~~(vi)~~** A well.

**(g)~~(vii)~~** A pit.

**(h)~~(viii)~~** A pond.

**(i)~~(ix)~~** A lagoon.

**(j)~~(x)~~** An impoundment.

**(k)~~(xi)~~** A ditch.

**(l)~~(xii)~~** A storage container.

**(m)~~(xiii)~~** A motor vehicle.

**(n)~~(xiv)~~** Rolling stock.

**(o)~~(xv)~~** Aircraft.

**(p)~~(xvi)~~** A site or area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise caused to be located.

**(q)~~(xvii)~~** Facility does not mean any consumer product in consumer use or any waterborne vessel.

**(6)~~(f)~~** “Hazardous material response (HAZMAT) team” means an organized group of employees which is designated by the employer and which is expected to perform work to handle and control actual or potential leaks or spills of hazardous substances that may require coming into close proximity to the substance. The team members perform responses to releases or potential releases of hazardous substances to control or stabilize a release or potential release. A HAZMAT team is not a fire brigade nor is a typical fire brigade a HAZMAT team. A HAZMAT team, however, may be a separate component of a fire brigade or fire department.

**(7)~~(g)~~** “Hazardous substance” means any of the following substances, exposure to which results or may result in adverse effects on the health and safety of employees:

**(a)~~(i)~~** Any substance defined under section **103(14) 401(14)** of the Comprehensive Environmental Response Compensation and Liability Act (**CERCLA**) 42 U.S.C. §9601, ~~(44)~~ **which is adopted in R 325.52102a.**

**(b)~~(ii)~~** Any biological agent and other disease-causing agent which, after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will, or may reasonably be anticipated to, cause any of the following in such persons or their offspring:

**(i)~~(A)~~** Death.

**(ii)~~(B)~~** Disease.

**(iii)~~(C)~~** Behavioral abnormalities.

**(iv)~~(D)~~** Cancer.

**(v)~~(E)~~** Genetic mutation.

**(vi)~~(F)~~** Physiological malfunctions, including malfunctions in reproduction.

**(vii)~~(G)~~** Physical deformations in such persons or their offspring.

~~(c)(iii)~~ Any substance that is listed by the United States Department of Transportation as a hazardous material under the provisions of 49 C.F.R. §172.101 **“Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans,”** and appendices, which are adopted herein by reference in **R 325.52102a**. The provisions of 49 C.F.R. §172.101 and appendices are available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, at a cost at the time of adoption of these rules of \$27.00, or from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at a cost at the time of adoption of these rules of \$10.00.

~~(d)(iv)~~ Hazardous waste.

~~(8)(h)~~ “Hazardous waste” means either of the following:

~~(a)(i)~~ A waste or combination of wastes as defined in the provisions of 40 C.F.R. §261.3 **“Definition of Hazardous Waste,”** which are adopted herein by reference in **R 325.52102a**. The provisions of 40 C.F.R. 261.3 are available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, at a cost at the time of adoption of these rules of \$22.00, or from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at a cost at the time of adoption of these rules of \$2.00.

~~(b)(ii)~~ Those substances defined as hazardous waste in the provisions of 49 C.F.R. §171.8 **“General Information, Regulations, and Definitions.”** which are adopted herein by reference in **R 325.52102a**. The provisions of 49 C.F.R. §171.8 are available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, at a cost at the time of adoption of these rules of \$27.00, or from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at a cost at the time of adoption of these rules of \$1.00.

~~(9)(j)~~ “Hazardous waste operation” means any operation to which these rules apply according with the provisions of R 325.52102.

~~(10)(j)~~ “Hazardous waste site” or “site” means any facility or location at which hazardous waste operations take place and to which these rules apply.

~~(11)(k)~~ “Health hazard” means a **chemical or a pathogen where acute or chronic health effects may occur in exposed employees. It also includes stress due to temperature extremes. The term health hazards includes chemicals that are classified in accordance with the Occupational Health Standard Part 430 “Hazard Communication,”** which is referenced in R 325.52102a, as posing one of the following hazardous effects:

~~(a)~~ Acute toxicity, any route of exposure.

~~(b)~~ Skin corrosion or irritation.

~~(c)~~ Serious eye damage or eye irritation.

~~(d)~~ Respiratory or skin sensitization.

~~(e)~~ Germ cell mutagenicity.

~~(f)~~ Carcinogenicity.

~~(g)~~ Reproductive toxicity.

~~(h)~~ Specific target organ toxicity, single or repeated exposure.

~~(i)~~ Aspiration toxicity or simple asphyxiant.

**Note: See Occupational Health Standard Part 430 “Hazard Communication,”** which is referenced in R 325.52102a, Appendix A **“Health Hazard Criteria, Mandatory,”** for the criteria for determining if a chemical is classified as a health hazard. ~~stress due to a physical condition, chemical exposure, or a pathogen for which there is statistically significant evidence, based on at least 1 study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. The term “health hazard” includes all of the following:~~

~~(i)~~ Chemicals which are carcinogens.

~~(ii)~~ Toxic or highly toxic agents.

~~(iii)~~ Reproductive toxins.

~~(iv)~~ Irritants.

~~(v)~~ Corrosives.

~~(vi)~~ Sensitizers.

~~(vii)~~ Hepatotoxins.

~~(viii)~~ Nephrotoxins.

~~(ix)~~ Neurotoxins.

~~(x)~~ Agents which act on the hematopoietic system.

~~(xi)~~ Agents which damage the lungs, skin, eyes, or mucous membranes.

~~(xii)~~ High or low body temperatures.

~~(xiii)~~ High noise levels.

~~(xiv)~~ Ionizing or nonionizing radiation.

Further definition of terms used in this subdivision can be found in appendix A to 29 C.F.R. §1910.1200, which was incorporated by reference in section 14a of Act No. 154 of the Public Acts of 1974, as amended, being §408.1014a of the Michigan Compiled Laws.

~~(12)(f)~~ "IDLH" or "immediately dangerous to life or health" means an atmospheric concentration of any toxic, corrosive, or asphyxiant substance that poses an immediate threat to life, would cause irreversible or delayed adverse health effects, or would interfere with an person's ability to escape from a dangerous atmosphere.

~~(13)(m)~~ "Oxygen deficiency" means that concentration of oxygen, by volume, in the atmosphere below which air supplying respiratory protection shall be provided. An oxygen deficiency exists in atmospheres where the percentage of oxygen, by volume, is less than 19.5%.

~~(14)(n)~~ "Permissible exposure limit" or "PEL" means the inhalation or dermal permissible exposure limits of chemical substances specified or referenced in the air contaminants standard tables ~~G-1-A, G-2, and G-3~~ of **Occupational Health Standard Part 301 "Air Contaminants for General Industry" which is referenced in R 325.52102a.** ~~R 325.51108.~~

~~(15)(e)~~ "Postemergency response" means that portion of an emergency response which is performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the site has begun. If postemergency response is performed by an employer's own employees as a continuation of initial emergency response, it is considered to be part of the initial response and not postemergency response. However, if a group of an employer's own employees that is separate from the group that provides the initial response performs the cleanup operation, the separate group of employees is considered to be performing postemergency response and is subject to ~~the provisions of R 325.52135.~~

~~(16)(p)~~ "Published exposure level" means the exposure limits specified in the publication entitled "NIOSH Recommendations for Occupational Health Standards," 1986 **edition**, which are adopted in **R 325.52102a**, ~~these rules by reference~~, or, if no limit is specified, the threshold limit values published by the American Conference of Governmental Industrial Hygienist (ACGIH) in the publication entitled "Threshold Limit Values and Biological Exposure Indices for 1990-1991," 1990 **edition**, which are adopted in **R 325.52102a**. ~~these rules by reference. These 2 documents may be inspected at the Lansing office of the department. The NIOSH publication may be obtained from the National Institute for Occupational Safety and Health, Publications Dissemination Division, Cincinnati, Ohio 45226, or from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at no cost. The ACGIH publication is available from the American Conference of Governmental Industrial Hygienist, 6500 Glenway Avenue, Bldg. D-7, Cincinnati, Ohio 45211-4438, or from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909. The cost at the time of adoption of these rules is \$6.00.~~

~~(17)(q)~~ "Qualified person" means a person who has specific training, knowledge, and experience in the area for which the person has responsibility and the authority to control operations.

~~(18)(r)~~ "Site safety and health supervisor" or "official" means an individual who is located on a hazardous waste site, who is responsible to the employer, and who has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements.

~~(19)(s)~~ "Small quantity generator" means a generator of hazardous waste who, in any calendar month, generates not more than 1,000 kilograms (2,205 pounds) of hazardous waste.

~~(20)(t)~~ "Uncontrolled hazardous waste site" means an area where an accumulation of hazardous wastes creates a threat to the health and safety of individuals or the environment, or both. Such sites can be on public lands or on privately owned property. Normal operations at TSD sites are not included in this definition.

#### R 325.52104 Safety and health program.

Rule 4. (1) An employer shall develop and implement a written safety and health program for its employees who are involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards and provide for emergency responses for hazardous waste operations.

(2) A safety and health program that is developed and implemented to meet other federal, state, or local regulations is acceptable to meet the requirements of subrule (1) of this rule if the program includes, or is modified to include, the topics required by this rule.

(3) The written safety and health program shall include all of the following topics:

- (a) An organizational structure.
- (b) A comprehensive work plan.
- (c) A site-specific safety and health plan which need not repeat the standard operating procedures required by subdivision (f) of this subrule.
- (d) The safety and health training program.
- (e) The medical surveillance program.
- (f) The employer's standard operating procedures for safety and health.
- (g) Any necessary interface between the general program and site-specific activities.

(4) All of the following provisions apply to the organizational structure section of the program:

(a) The organizational structure section shall establish the specific chain of command and specify the overall responsibilities of supervisors and employees. It shall provide for all of the following:

- (i) A general supervisor who has the responsibility and authority to direct all hazardous waste operations.
- (ii) A site safety and health supervisor who has the responsibility and authority to develop and implement the site safety and health plan and verify compliance.
- (iii) All other personnel needed for hazardous waste site operations and emergency response and their general functions and responsibilities.

- (iv) The lines of authority, responsibility, and communication.
- (b) The organizational structure section shall be reviewed and updated as necessary to reflect the current status of waste site operations.
- (c) The original organizational structure section and any changes shall be made available to all affected employees.
- (5) The comprehensive work plan section of the program shall address the tasks and objectives of site operations and the logistics and resources required to accomplish those tasks and objectives and shall provide for all of the following:
  - (a) Address anticipated cleanup activities, as well as normal operating procedures.
  - (b) Define work tasks and objectives and identify the methods for accomplishing those tasks and objectives.
  - (c) Establish personnel requirements for implementing the plan.
  - (d) Provide for the implementation of the training required in ~~the provisions of R 325.52109 to R 325.52112.~~
  - (e) Provide for the implementation of the required informational programs required in ~~the provisions of R 325.52120.~~
  - (f) Provide for the implementation of the medical surveillance program described in ~~the provisions of R 325.52113 to R 325.52116.~~
- (6) The site-specific safety and health plan section of the safety and health program shall be available on the site for inspection by employees, their designated representatives, and Michigan occupational safety and health program (MIOSHA) personnel. The plan section shall address the safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection. The site-specific safety and health plan shall provide for all of the following:
  - ~~(a) The names of key personnel and alternates who are responsible for site safety and health, including a site safety and health supervisor.~~
  - ~~(a)(b)~~ A safety and health risk or hazard analysis for each site task and operation found in the work plan.
  - ~~(b)(c)~~ Employee training assignments to assure compliance with ~~the provisions of R 325.52109 to R 325.52112.~~
  - ~~(c)(d)~~ Personal protective equipment to be used by employees for each of the site tasks and operations being conducted as required by the personal protective equipment program in ~~the provisions of R 325.52118.~~
  - ~~(d)(e)~~ Medical surveillance requirements in accordance with the program in ~~the provisions of R 325.52113 to R 325.52116.~~
  - ~~(e)(f)~~ The frequency and types of air monitoring and personal monitoring and the environmental sampling techniques and instrumentation to be used, including the methods and schedule of maintenance and calibration of monitoring and sampling equipment.
  - ~~(f)(g)~~ Site control procedures in accordance with the site control program required in ~~the provisions of R 325.52108.~~
  - ~~(g)(h)~~ Decontamination procedures in accordance with ~~the provisions of R 325.52124.~~
  - ~~(h)(i)~~ An emergency response plan that meets the requirements of R 325.52125 for safe and effective response to emergencies, including the necessary personal protective equipment and other equipment.
  - ~~(i)(j)~~ Confined space entry procedures.
  - ~~(j)(k)~~ A spill containment program which meets the requirements of R 325.52121(2)(g) shall be included where appropriate.
  - ~~(k)(l)~~ Preentry briefings to be held before initiating any site activity and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The information and data from site characterization and analysis work required pursuant to ~~the provisions of R 325.52107~~ shall be used to prepare and update the site safety and health plan and preentry briefings.
  - ~~(l)(m)~~ Inspections conducted by the site safety and health supervisor, or designee, as necessary to determine the effectiveness of the site safety and health plan. Any deficiencies in the effectiveness of the site safety and health plan shall be corrected by the employer.
- (7) The written safety and health program required by this rule shall be made available to employees and their representatives, to contractors and subcontractors involved in the hazardous waste operation, and to Michigan occupational safety and health program (MIOSHA) personnel.

#### R 325.52109 Training generally.

- Rule 9. (1) All employees, supervisors, and management personnel who work at a hazardous waste site where cleanup operations are underway shall be trained and have supervised on-the-job field experience as required by this rule, R 325.52110, and R 325.52111 before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances or safety or health hazards. All personnel shall also receive refresher training as required pursuant to ~~the provisions of R 325.52112.~~
- (2) Employees and supervisors shall not be permitted to participate in field activities until they have been trained at the level required by their job functions and responsibilities.
- (3) Training shall cover all of the following topics:
- (a) The names of personnel and alternates who are responsible for site safety and health.
  - (b) Safety, health, and other hazards present on the site.
  - (c) Use of personal protective equipment.
  - (d) Work practices which will minimize the risks of hazards.
  - (e) The safe use of engineering controls and equipment on the site.

(f) Medical surveillance requirements, including the recognition of symptoms and signs which might indicate overexposure to hazards.

(g) The contents of the site-specific safety and health plan required pursuant to ~~the provisions of R 325.52104(6)(g) to (j).~~ ~~(h) to (k).~~

(4) Employees who may respond to emergency situations at hazardous waste sites shall be trained in the proper response procedures for, and protection from, hazardous exposures.

#### R 325.52113 Medical surveillance.

Rule 13. (1) Employers that are engaged in the operations described in R 325.52102(1)(a) to (c) and employers with a hazardous material response (HAZMAT) team shall establish a medical surveillance program, in accordance with ~~the provisions of this rule~~, for all of the following employees:

(a) All employees who are or may be exposed, for 30 days or more a year, to hazardous substances or health hazards at or above permissible exposure limits (PEL) or, if there is no PEL, above the published exposure levels for these substances without regard to the use of respirators.

(b) All employees who wear a respirator for 30 or more days a year or as required by **Occupational Health Standard Part 451 "Respiratory Protection," which is referenced in R 325.52102a.** ~~the respiratory protection standard, R 325.60054 et seq. of the Michigan Administrative Code.~~

(c) All employees who are injured, become ill, or develop signs or symptoms due to the possible overexposure to hazardous substances or health hazards from an emergency response or hazardous waste operation.

(d) All employees on a HAZMAT team.

(2) Medical examinations and consultations shall be made available by the employer at no cost to the employee, without a loss of pay, and at a reasonable time and place for each employee covered by ~~the provisions of~~ subrule (1) of this rule **under pursuant to** the following, ~~provisions~~, as applicable:

(a) For employees who are covered under ~~the provisions of~~ subrule (1)(a),(b), and (d) of this rule, the following schedule applies:

(i) Before assignment to hazardous waste or emergency response operations.

(ii) At least once every 12 months for each covered employee, unless the responsible physician believes a longer interval is appropriate. The interval shall not be more than 2 years.

(iii) At termination of employment or reassignment to an area where the employee will not be covered, unless the employee has had an examination within the last 6 months.

(iv) As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards or that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency situation.

(v) At more frequent times if the examining physician determines that an increased frequency of examination is medically necessary.

(b) For employees who are covered under ~~the provisions of~~ subrule (1)(c) of this rule and for all employees, including those of employees who are covered by ~~the provisions of~~ R 325.52102(1)(e), who may have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances resulting from an emergency incident, or been exposed during an emergency incident to hazardous substances at concentrations above the permissible exposure limits or the published exposure levels without the necessary personal protective equipment being used, the following schedule applies:

(i) As soon as possible after the emergency incident or development of signs or symptoms.

(ii) At additional times if the examining physician determines that follow-up examinations or consultations are medically necessary.

#### R 325.52114 Medical examinations, consultations, and procedures to be performed by or under supervision of physician; content of examinations and consultations; copies of rules and information to be provided by employer.

Rule 14 (1) All medical examinations, consultations, and procedures shall be performed by or under the supervision of a licensed physician, preferably a physician who is knowledgeable in occupational medicine.

(2) Medical examinations required by ~~the provisions of~~ R 325.52113(2) shall include a medical and work history or updated history if one is in the employee's file, with a special emphasis on the symptoms related to the handling of hazardous substances and health hazards and on fitness for duty, including the ability to wear any required personal protective equipment (PPE) under conditions that may be expected at the work site.

(3) The content of medical examinations or consultations pursuant to ~~the provisions of~~ R 325.52113(2) shall be determined by the attending physician. (See R 325.52137 for availability of appendix D, reference no. 10)

(4) An employer shall provide a copy of these rules and appendices to the attending physician and all of the following information for each employee who is to be examined:

(a) A description of an employee's duties as they relate to the employee's exposures.

(b) The employee's exposure levels or anticipated exposure levels.

(c) A description of any personal protective equipment used or to be used.

(d) Information from previous medical examinations of the employee which is not readily available to the examining physician.

(e) Information required pursuant to ~~the provisions of~~ **Occupational Health Standard Part 451 “Respiratory Protection,” which is referenced in R 325.52102a.** ~~the respiratory protection standard, R 325.60051 et seq. of the Michigan Administrative Code.~~

R 325.52116 Medical surveillance recordkeeping.

Rule 16. (1) An accurate record of the medical surveillance required pursuant to ~~the provisions of~~ R 325.52113 shall be retained and provided to others in accordance with ~~the provisions of~~ **Occupational Health Standard Part 470 “Employee Medical Records and Trade Secrets,” which is referenced in R 325.52102a** ~~R 325.3451 et seq. of the Michigan Administrative Code.~~

(2) The medical records required pursuant to ~~the provisions of~~ R 325.52115 and this rule shall include all of the following information:

- (a) The name and social security number of the employee.
- (b) A physician’s written opinions, recommended limitations, and results of examinations and tests.
- (c) Any employee medical complaints related to exposure to hazardous substances.
- (d) A copy of the information provided to the examining physician by the employer, except for the copy of these rules and appendices.

R 325.52117 Control of hazards.

Rule 17. (1) Engineering controls, work practices, personal protective equipment, or a combination of these shall be implemented in accordance with ~~the provisions of~~ this rule to protect employees from exposure to hazardous substances and safety and health hazards.

(2) Engineering controls, such as pressurized control cabs on mobile equipment or remotely operated material handling equipment, and work practices, such as removing nonessential personnel from areas of high risk, shall be used to reduce and maintain employee exposures to or below permissible exposure limits, except to the extent that such controls and practices are not feasible.

(3) If engineering controls and work practices are not feasible or not required, any reasonable and appropriate combination of controls, practices, and personal protective equipment (PPE) shall be used to reduce and maintain employee exposures to or below the permissible exposure limits or dose limits for substances with a permissible exposure limit.

(4) An employer shall not use a schedule of employee rotation as a means to comply with permissible exposure limits or dose limits, except when there is no other feasible way of complying with the airborne or dermal dose limits for ionizing radiation.

(5) An employer shall comply with ~~all of the applicable provisions of~~ **Occupational Health Standard Part 380 “Occupational Noise Exposure,” Occupational Health Standard Part 381 “Ionizing Radiation,” and Occupational Health Standard Part 529 “Welding, Cutting and Brazing,” which are referenced in R 325.52102a** ~~O.H. rules 2410 to 3240 and R 325.60101 et seq. of the Michigan Administrative Code.~~

(6) Any reasonable and appropriate combination of engineering controls, work practices, and PPE shall be used to reduce and maintain employee exposure to or below published exposure levels for hazardous substances and health hazards without exposure or dose-regulating rules. The employer shall use material safety data sheets (MSDS) and other published literature as a guide in making a determination as to the level of appropriate protection.

R 325.52118 Personal protective equipment (PPE).

Rule 18. (1) Personal protective equipment (PPE) shall be selected and used to protect employees from the hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis.

(2) Personal protective equipment selection shall be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

(3) Positive-pressure, self-contained breathing apparatus or positive-pressure, air line respirators that are equipped with an escape air supply shall be used when chemical exposure levels will create a substantial possibility of immediate death or immediate serious illness or injury or will impair the ability to escape.

(4) Totally-encapsulating chemical protective suits (protection equivalent to level A protection as recommended in appendix B) shall be used in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate death or immediate serious illness or injury or may impair the ability to escape.

(5) The level of protection provided by PPE selection shall be increased when additional information on site conditions indicates that increased protection is necessary to reduce employee exposures below permissible exposure limits and published exposure levels for hazardous substances and health hazards. (See R 325.52137 for availability of appendix B pertaining to selecting PPE ensembles.) The level of employee protection provided may be decreased when additional information or site conditions show that decreased protection will not result in hazardous exposures to employees.

~~(6) Personal protective equipment shall be selected, provided at no cost to the employee, and used in accordance with the requirements of the personal protective equipment standard, R 325.60001 et seq.; the respiratory protection standard, R 325.60051 et seq.; general industry safety standard Part 33, personal protective equipment, R 408.13301 et seq.; and~~

~~construction safety standard Part 6, personal protective equipment, R 408.40601 et seq. of the Michigan Administrative Code.~~

**(6)** ~~(7)~~ All of the following provisions pertain to the use of totally-encapsulating chemical protective suits.

(a) Totally-encapsulating suits shall be selected to protect employees from the particular hazards which are identified during site characterization and analysis.

(b) Totally-encapsulating suits shall be capable of maintaining a positive air pressure. Appendix A, "**Personal Protective Equipment Test Methods,**" ~~referenced in R 325.53137,~~ shall be consulted for a test method to evaluate this air pressure requirement.

(c) Totally-encapsulating suits shall be capable of preventing inward test gas leakage of more than 0.5%. See appendix A for a test method.

**(7)** ~~(8)~~ An employer shall establish a written personal protective equipment (PPE) program which is part of the safety and health program required by ~~the provisions of~~ R 325.52104 or R 325.52129. This program is also a part of the site-specific safety and health plan specified in R 325.52104. The personal protective equipment program shall address all of the following elements if applicable:

(a) PPE selection based on site hazards.

(b) PPE use and limitations.

(c) Work duration.

(d) PPE maintenance and storage.

(e) PPE decontamination and disposal.

(f) PPE training and proper fitting.

(g) PPE donning and doffing procedures.

(h) PPE inspection before and after use.

(i) PPE proper use.

(j) Evaluation of the effectiveness of the PPE program.

(k) Limitations during temperature extremes and other appropriate medical considerations.

Manufacturer instructions relating to the subjects specified in ~~subrules subdivisions~~ (d) to (h) of this subrule may be incorporated into the PPE program.

R 325.52123 Tank and vault operations.

Rule 23. (1) Tanks and vaults that contain a hazardous substance shall be handled in a manner similar to that for drums and containers by following ~~the applicable provisions of~~ R 325.52121.

(2) Appropriate tank or vault entry (confined space entry) procedures ~~which are in compliance with the provisions of~~ **Occupational Health Standard Part 490 "Permit-Required Confined Spaces" and Occupational Health Standard Part 451 "Respiratory Protection,"** ~~which are referenced in R 325.52102a, O.H. rules 3301 and 3302 and which are addressed in the site safety and health plan covered by the provisions of R 325.52104(6)~~ shall be followed in all cases where employees enter tanks, vaults, or other confined spaces.

R 325.52124 Decontamination.

Rule 24. (1) Procedures for all phases of decontamination shall be developed and implemented in accordance with this rule.

(2) All of the following provisions apply to decontamination procedures:

(a) A decontamination procedure shall be developed, communicated to employees, and implemented before any employees or equipment may enter areas on site where the potential for exposure to hazardous substances exists.

(b) Standard operating procedures shall be developed to minimize employee contact with hazardous substances or with equipment that has contacted hazardous substances.

(c) All employees who leave a contaminated area shall be appropriately decontaminated and all contaminated clothing and equipment that leaves a contaminated area shall be appropriately disposed of or decontaminated.

(d) Decontamination procedures shall be monitored by the site safety and health supervisor to determine their effectiveness. When such procedures are found to be ineffective, appropriate steps shall be taken to correct any deficiencies.

(e) Decontamination shall be performed in geographical areas that will minimize the exposure of uncontaminated employees or equipment to contaminated employees or equipment.

(f) All equipment and solvents that are used for decontamination shall be decontaminated or disposed of properly.

(g) Protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained, or replaced as needed to maintain the effectiveness of the clothing and equipment.

(h) Employees whose non-impermeable clothing becomes wetted with hazardous substances shall immediately remove that clothing and proceed to a shower. The clothing shall be disposed of or decontaminated before it is removed from the work zone.

(i) Unauthorized employees shall not remove protective clothing or equipment from change rooms.

(j) Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment shall be informed of the potentially harmful effects of exposure to hazardous substances.

(3) Where the decontamination procedure indicates a need for regular showers and change rooms outside of a contaminated area, such showers and change rooms shall be provided and shall be in compliance with the requirements of **Occupational Health Standard Part 474 "Sanitation," which is referenced in R 325.52102a** ~~O.H. rule 4204.~~

(4). If temperature conditions prevent the effective use of water, other effective means for cleansing shall be provided and used.

#### R 325.52125 Emergency operations at hazardous waste sites.

Rule 25. (1) An emergency response plan shall be developed and implemented by all **employers** ~~employees~~ within the scope of R 325.52102(1)(a) and (b) to handle anticipated emergencies before start-up of hazardous waste operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, Michigan occupational safety and health program personnel, and other federal and state government personnel with relevant responsibilities. An employer who will evacuate its employees from the danger area when an emergency occurs and who does not permit any of its employees to respond to assist in handling the emergency is exempt from the requirements of this rule if the employer provides an emergency action plan that is in compliance with the provisions of General Industry Safety Standard Part 6 "Fire Exits," ~~R 408.10601 et seq.~~ and Construction Safety Standard Part 18 "Fire Protection and Prevention," **which are referenced in R 325.52102a.** ~~R 408.41801 et seq. of the Michigan Administrative Code. The provisions of these standards may be inspected and copies obtained at the Lansing office of the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at no cost.~~

(2) The emergency response plan shall address all of the following topics:

- (a) Pre-emergency planning.
- (b) Personnel roles, lines of authority, training, and communication.
- (c) Emergency recognition and prevention.
- (d) Safe distances and places of refuge.
- (e) Site security and control.
- (f) Evacuation routes and procedures.
- (g) Decontamination.
- (h) Emergency medical treatment and first aid.
- (i) Emergency alerting and response procedures.
- (j) A critique of response and follow-up.
- (k) PPE and emergency equipment.

(3) In addition to the topics for the emergency response plan specified in subrule (2) of this rule, both of the following elements shall be included in an emergency response plan for a hazardous waste cleanup site:

- (a) Site topography, layout, and prevailing weather conditions.
- (b) Procedures for reporting incidents to local, state, and federal governmental agencies.

(4) The emergency response plan shall be a separate section of the site-specific safety and health plan and shall be compatible and integrated with disaster, fire, or emergency response plans of local, state, and federal agencies.

(5) The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations and shall be reviewed periodically and amended, as necessary, to keep it current with new or changing site conditions or information.

(6) An employee alarm system shall be installed in accordance with the provisions of General Industry Safety Standard Part 6 "Fire Exits," **which is referenced in R 325.52102a,** ~~R 408.10601 et seq. of the Michigan Administrative Code,~~ to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to enhance communication, and to begin emergency procedures. ~~The provisions of this standard may be inspected and copies obtained at the Lansing office of the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909, at no cost.~~

(7) Based upon the information available at time of an emergency, an employer shall evaluate the incident and site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

#### R 325.52127 Sanitation.

Rule 27.(1) All of the following provisions apply to potable water:

- (a) An adequate supply of potable water shall be provided on the site.
- (b) Portable containers that are used to dispense drinking water shall be capable of being tightly closed and shall be equipped with a tap. Water shall not be dipped from containers.
- (c) Any container that is used to distribute drinking water shall be clearly marked as to its contents and shall not be used for any other purpose.
- (d) Where single-service cups are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

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

- (a) Outlets for nonpotable water, such as water for industrial or fire fighting purposes, shall be identified to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.

(b) There shall not be a cross-connection, open or potential, between a potable water system and a nonpotable water system.

(3) All of the following provisions apply to toilet facilities.

(a) Toilets shall be provided for employees according to the provisions of the following table:

Table 2  
Toilet Facilities

| Number of employees         | Minimum number of facilities                   |
|-----------------------------|--|
| 20 or less                  | One  |
| More than 20, less than 200 | One toilet seat and 1 urinal per 40 employees. |
| 200 or more                 | One toilet seat and 1 urinal per 50 employees. |

(b) Under temporary field conditions, at least 1 toilet facility shall be available.

(c) Hazardous waste sites that are not provided with a sanitary sewer shall be provided with any of the following toilet facilities, unless prohibited by local codes:

- (i) Chemical toilets.
- (ii) Recirculating toilets.
- (iii) Combustion toilets.
- (iv) Flush toilets.

(d) The requirements of this subrule shall not apply to mobile crews that have transportation readily available to nearby toilet facilities.

(e) Doors to toilet facilities shall be provided with locks that are controlled from inside.

(4) All employee food service facilities and operations shall meet the applicable laws, ordinances, and regulations of the jurisdictions in which they are located.

(5) When temporary sleeping quarters are provided, they shall be heated, ventilated, and lighted.

(6) An employer shall provide adequate washing facilities for employees who are engaged in operations where hazardous substances may be harmful to employees. Such facilities shall be near the worksite, in areas which are under the control of the employer, and where exposures are below permissible exposure limits. Such facilities shall be equipped to enable employees to remove hazardous substances from themselves.

(7) When hazardous waste cleanup or removal operations commence on a site and the duration of the work will require 6 or more months, an employer shall provide showers and change rooms for employees who are exposed to hazardous substances and health hazards involved in hazardous waste cleanup or removal operations. Showers shall be provided and shall meet the requirements of **Occupational Health Standard Part 474 "Sanitation," which is referenced in R 325.52102a. O.H. rule 4201(4)(c).** Change rooms shall be provided and shall meet the requirements of **Occupational Health Standard Part 474 "Sanitation," which is referenced in R 325.52102a. O.H. rule 4201(5).** Change rooms shall consist of 2 separate change areas separated by the shower area required by the provisions of this subrule. One change area, with an exit leading off the worksite, shall provide employees with a clean area where they can remove, store, and put on street clothing. The second area, with an exit to the worksite, shall provide employees with an area where they can put on, remove, and store work clothing and personal protective equipment. Showers and change rooms shall be located in areas where exposures are below the permissible exposure limits. If this cannot be accomplished, then a ventilation system shall be provided that will supply air that is below the permissible exposure limits. Employers shall assure that employees shower at the end of their workshifts and when leaving the hazardous waste site.

R 325.52129 Operations at treatment, storage, and disposal (TSD) facilities; establishment of written safety and health program, hazard communication program, medical surveillance program, decontamination procedures, procedures for introduction of new and innovative equipment, procedures for handling drums or containers, training program, and emergency response program

Rule 29. (1) ~~All provisions of this~~ **This rule applies** apply to employers who conduct operations at treatment, storage, and disposal (TSD) facilities specified in R 325.52102(1)(d), except for employers that may be exempted in accordance with ~~the provisions of~~ R 325.52102(4)(a) to (c).

(2) An employer shall develop and implement a written safety and health program for employees who are involved in hazardous waste operations. This written program shall be available for inspection by employees, employees' representatives, and Michigan occupational safety and health program (MIOSHA) personnel. The program shall be designed to identify, evaluate, and control safety and health hazards in the employer's facilities for the purpose of employee protection and shall provide for emergency response that is in compliance with ~~the requirements of~~ this rule. The program shall address, as appropriate, all of the following areas:

- (a) Site analysis.
- (b) Engineering controls.

- (c) Maximum exposure limits.
- (d) Hazardous waste handling procedures.
- (e) Uses of new technologies.

(3) An employer shall implement a hazard communication program that is in compliance with the requirements of **Occupational Health Standard Part 430 "Hazard Communication," which is referenced in R 325.52102a.** ~~sections 14a to 14k of Act No. 154 of the Public Acts of 1974, as amended, being §§408.1014a to 408.1014k of the Michigan Compiled Laws.~~

(4) An employer shall develop and implement a medical surveillance program in accordance with ~~the provisions of~~ R 325.52113 to R 325.52116.

(5) An employer shall develop and implement decontamination procedures in accordance with ~~the provisions of~~ R 325.52124.

(6) An employer shall develop and implement procedures for the introduction of new and innovative equipment into the workplace in accordance with ~~the provisions of~~ R 325.52128.

(7) An employer shall develop and implement procedures for handling drums or containers in accordance with ~~the provisions of~~ R 325.52121 (2)(a) to (g) and R 325.52122 before starting work that involves the handling of drums or containers.

(8) An employer shall develop and implement, in accordance with all of the following provisions, a training program, which is part of the employers health and safety program, for employees who are exposed to health hazards or hazardous substances of TSD operations to enable the employees to perform their assigned duties and functions in a safe and healthy manner so as not to endanger themselves or other employees:

(a) The initial training program of new employees shall be a program of 24 hours of training. A certificate of such training shall be issued to each employee who successfully completes this training.

(b) Initial training need not be provided for current employees for whom it can be shown that their previous work experience or training is equivalent to the training requirement of subdivision (a) of this subrule.

(c) All employees shall be given 8 hours of refresher training annually.

(d) Trainers who provide the initial training specified in subdivision (a) of this subrule shall have satisfactorily completed a program for teaching the subjects they teach or shall have academic credentials and instruction experience to demonstrate a satisfactory degree of competency in the subjects they teach.

(9) An employer shall develop and implement an emergency response program in accordance with all of the following provisions:

(a) An emergency response plan shall be developed and implemented. The emergency response plan need not duplicate any of the subjects fully addressed in the employer's contingency planning required by permits, such as those issued by the United States environmental protection agency, if the contingency plan is made part of the emergency response plan. The emergency response plan shall be a written portion of the safety and health program required by subrule (2) of this rule.

(b) An employer who will evacuate its employees from the worksite when an emergency occurs and who does not permit any of its employees to assist in handling the emergency is exempt from the requirements of this subrule if the employer provides an emergency action plan in accordance with ~~the provisions of~~ General Industry Safety Standard Part 6 "Fire Exits," ~~R 408.10601 et seq.~~ and Construction Safety Standard Part 18 "Fire Protection and Prevention," **which are referenced in R 325.52102a.** ~~R 408.41801 et seq. of the Michigan Administrative Code as required in R 325.52125(1).~~

(c) The emergency response plan shall address all of the following topics to the extent that they are not addressed in any specific program required in this rule:

- (i) Pre-emergency planning and coordination with outside parties.
- (ii) Personnel roles, lines of authority, and communication.
- (iii) Emergency recognition and prevention.
- (iv) Safe distances and places of refuge.
- (v) Site security and control.
- (vi) Evacuation routes and procedures.
- (vii) Decontamination procedures.
- (viii) Emergency medical treatment and first aid.
- (ix) Emergency alerting and response procedures.
- (x) Critique of response and follow-up.
- (xi) PPE and emergency equipment.

(d) An employer shall provide and complete training for emergency response employees before they become involved in actual emergency operations. Such training shall include all of the following:

- (i) Elements of the emergency response plan.
- (ii) Standard operating procedures for emergency response operations.
- (iii) Personal protective equipment available and use and limitations of each.
- (iv) Procedures for handling emergency incidents.
- (v) Both exceptions to the training requirements of this subdivision are as follows:

(A) An employer need not train all employees to the degree specified if the employer divides the work force so that a sufficient number of employees who are responsible for controlling emergencies have the training specified and so that all

other employees who might initially respond to an emergency incident have sufficient awareness training to recognize that an emergency response situation exists and that they are instructed in that case to summon the fully trained employees and not attempt control activities for which they are not trained.

(B) An employer need not train all employees to the degree specified if arrangements have been made in advance for an outside, fully trained emergency response team to respond in a reasonable period and all employees who might initially respond to the incident have sufficient awareness training to recognize that an emergency response situation exists and they have been instructed to call the designated outside, fully trained emergency response team for assistance.

(vi) Employee members of TSD facility emergency response organizations shall be trained to a level of competence in the recognition of health and safety hazards to protect themselves and other employees. This includes training in all of the following areas:

- (A) The methods used to minimize the risk from safety and health hazards.
- (B) The safe use of control equipment.
- (C) Selection and use of appropriate PPE.
- (D) Safe operating procedures to be used at the incident scene.
- (E) Techniques of coordination with other employees to minimize risks.
- (F) Appropriate response to overexposure to health hazards or injury to themselves or others.
- (G) Recognition of subsequent symptoms which may result from overexposure.

(vii) An employer shall certify that each covered employee has attended and successfully completed the training required in this subdivision or shall certify the employee's competency at least yearly. The method used to demonstrate competency for certification of training shall be recorded and maintained by the employer.

(e) All of the following provisions pertain to the procedures for handling emergency incidents:

(i) In addition to the elements for the emergency response plan required by ~~subrule subdivision (c)~~ of this subrule, the following elements shall be included in emergency response plans to the extent that they do not repeat any information already contained in the emergency response plan:

- (A) Site topography, layout, and prevailing weather conditions.
- (B) Procedures for reporting incidents to local, state, and federal governmental agencies.

(ii) The emergency response plan shall be compatible and integrated with the disaster, fire, and emergency response plans of local, state, and federal agencies.

(iii) The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

(iv) The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

(v) An employee alarm system shall be installed in accordance with ~~the provisions of General Industry Safety Standard Part 6 "Fire Exits," R 408.10601 et seq. of the Michigan Administrative Code,~~ to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise to aid communication, and to begin emergency procedures.

(vi) Based upon the information available at the time of the emergency, an employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

R 325.52130 Emergency response to hazardous substances releases; emergency response plan.

Rule 30. (1) This rule and R 325.52131 to R 325.52135 apply to employers whose employees are engaged in emergency response wherever it occurs, except in operations specified in ~~the provisions of R 325.52102(1)(a) to (d).~~

(2) Emergency response organizations that have developed and implemented programs equivalent to the requirements of this rule and R 325.52131 to R 325.52135 for handling releases of hazardous substances pursuant to ~~the provisions of~~ section 303 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. §11003,

**"Comprehensive emergency response plans,"** shall be deemed to have met the requirements of this rule and R 325.52131 to R 325.52135.

(3) An emergency response plan shall be developed and implemented to handle anticipated emergencies before the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, and Michigan occupational safety and health program (MIOSHA) personnel. An employer who will evacuate its employees from the danger area when an emergency occurs and who does not permit any of its employees to assist in handling the emergency is exempt from the requirements of this subrule and subrule (4) of this rule if the employer provides an emergency action plan in accordance with ~~the provisions of General Industry Safety Standard Part 6 "Fire Exits," R 408.10601 et seq. and Construction Safety Standard Part 18 "Fire Protection and Prevention," R 408.41801 et seq. of the Michigan Administrative Code.~~

(4) An employer shall develop an emergency response plan which shall address all of the following to the extent that they are not addressed elsewhere:

- (a) Pre-emergency planning and coordination with outside parties.
- (b) Personnel roles, lines of authority, training, and communication.
- (c) Emergency recognition and prevention.
- (d) Safe distances and places of refuge.
- (e) Site security and control.
- (f) Evacuation routes and procedures.

- (g) Decontamination.
- (h) Emergency medical treatment and first aid.
- (i) Emergency alerting and response procedures.
- (j) Critique of response and follow-up.
- (k) PPE and emergency equipment.

(5) Emergency response organizations may use the local emergency response plan or the state emergency response plan, or both, as part of their emergency response plan to avoid duplication. Those items of the emergency response plan that are properly addressed by the local and state emergency plans may be substituted into an employer's emergency plan or otherwise kept together for use by employers and employees, use.

#### R 325.52131 Emergency response procedures.

Rule 31. (1) The senior emergency response official who responds to an emergency shall become the individual in charge of a site-specific incident command system (ICS). All emergency responders and their communications shall be coordinated and controlled through the individual in charge of the ICS, and shall be assisted by the senior official present for each employer.

(2) The senior official at an emergency response is the most senior official on the site who is responsible for controlling the operation at the site. Initially, it is the senior officer on the first piece of responding emergency apparatus to arrive on the incident scene who is the senior official. As more senior officers arrive, such as the battalion chief, fire chief, state law enforcement official, or site coordinator, the position of senior official is passed up the line of authority which has been previously established.

(3) The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions present and shall address, as appropriate, all of the following:

- (a) Site analysis.
- (b) Use of engineering controls.
- (c) Maximum exposure limits.
- (d) Hazardous substance handling procedures.
- (e) The use of any new technologies.

(4) Based on the hazardous substances or conditions present, the individual in charge of the ICS shall implement appropriate emergency operations and assure that the personal protective equipment worn is appropriate for the hazards to be encountered. However, personal protective equipment shall meet the criteria contained in ~~the occupational safety standards for General Industry~~ **Safety Standard Part 73 "Fire Brigades," which is referenced in R 325.52102a, being R 408.17301 et seq., of the Michigan Administrative Code,** when worn while performing fire fighting operations beyond the incipient stage for any incident.

(5) Employees who are engaged in emergency response and who are exposed to hazardous substances that present an inhalation hazard or potential inhalation hazard shall wear positive-pressure, self-contained breathing apparatus while engaged in emergency response and until such time that the individual in charge of the ICS determines, through the use of air monitoring, that a decreased level of respiratory protection will not result in hazardous exposures to employees.

(6) The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site in those areas of potential or actual exposure to incident or site hazards to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the buddy system in groups of 2 or more.

(7) Back-up personnel shall stand by with equipment ready to provide assistance or rescue. Qualified emergency medical service personnel shall also stand by with medical equipment and transportation capability.

(8) The individual in charge of the ICS shall designate a safety official, who is knowledgeable in the operations being implemented at the emergency response site, with specific responsibility for identifying and evaluating hazards and for providing direction with respect to the safety of operations for the emergency.

(9) When activities are judged by the safety official to be an IDLH or imminent danger condition, the safety official shall have the authority to alter, suspend, or terminate those activities. The safety official shall immediately inform the individual in charge of the ICS of any actions taken to correct these hazards at an emergency scene.

(10) After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.

(11) Approved self-contained, compressed air breathing apparatus may, if necessary, be used with approved cylinders from other approved self-contained, compressed air breathing apparatus if such cylinders are of the same capacity and pressure rating. All compressed air cylinders that are used with self-contained breathing apparatus shall meet the criteria of the United States Department of Transportation and National Institute for Occupational Safety and The Department of Public Health adopted federal standards by reference January 1, 1975 which are adopted in these rules by reference. The criteria are set forth in ~~the provisions of~~ 42 C.F.R. Part 84 **"Approval of Respiratory Protective Devices,"** and 49 C.F.R. Parts 173 **"Pipeline and Hazardous Materials Safety Administration, Department of Transportation,"** and 178 **"Pipeline and Hazardous Materials Safety Administration, Department of Transportation,"** as adopted in **R 325.52102a.** ~~which may be inspected at the Lansing office of the department of consumer and industry services and may be purchased from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, or from the Michigan Department of Consumer and Industry Services, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan~~

~~48909, at a cost at the time of adoption of these rules of \$20.00 for copies of 30 C.F.R. part 84 and at a cost at the time of adoption of these rules of \$24.00 for copies of 49 C.F.R. parts 173 and 178.~~

R 325.52135 Post-emergency response operations.

Rule 35. (1) Upon completion of the emergency response, ~~if it is determined that it is necessary to remove the~~ hazardous substances, health hazards, and materials contaminated with them, such as contaminated soil or other elements of the natural environment, **are removed** from the site of the incident, the employer who conducts the cleanup shall comply with either of the following provisions:

(a) Meet all of the requirements of R 325.52104 to R 325.52128.

(b) Where the cleanup is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of all of the following:

(i) The provisions of General Industry Safety Standard Part 6 "Fire Exits," ~~R 408.10601 et seq.~~ and Construction Safety Standard Part 18 "Fire Protection and Prevention," **which are referenced in R 325.52102a.** ~~R 408.41801 et seq. of the Michigan Administrative Code as required in R 325.52125(1).~~

(ii) The provisions of ~~29 C.F.R. §1910.1200(h),~~ **Occupational Health Standard Part 430 "Hazard Communication," which is referenced in R 325.52102a.**

(iii) The provisions of **Occupational Health Standard Part 451 "Respiratory Protection," which is referenced in R 325.52102a** the respiratory protection standard, ~~R 325.60051 et seq. of the Michigan Administrative Code.~~

(iv) Other appropriate safety and health training appropriate to the tasks.

(2) All equipment that is to be used in the cleanup of the site of an incident shall be in serviceable condition and shall have been inspected before use.

R 325.52136 **Rescinded.** ~~Appendices.~~

~~Rule 36. Appendices A, B, C, and D to these rules are informational only and are not intended to create any additional obligations or requirements not otherwise imposed or to detract from any established obligations or requirements. They are identical to appendices A, B, C, and D to 29 C.F.R. §1910.120 from which these rules were derived.~~

R 325.52137 **Rescinded.** ~~Availability of rules and appendices; permission to copy~~

~~Rule 37. (1) Copies of these rules and related appendices are available, at no cost, from the Michigan Department of Consumer and Industry Services, Standards Division, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan 48909.~~

~~(2) Permission to copy any of these documents in full is granted by the director of the department of consumer and industry services.~~