



REMEDIATION AND REDEVELOPMENT DIVISION POLICY AND PROCEDURE

Volatilization to Indoor Air Pathway and Compliance with Michigan Occupational Safety and Health Administration RRD-40

Effective Date: February 1, 2021
Distribution: All RRD Employees

PURPOSE

The following information is provided for assistance regarding the information necessary for the Department of Environment, Great Lakes, and Energy (EGLE) staff to determine if a person is in compliance with Section 20120a(18) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

Under Section 20120a(18) of Part 201, commonly referred to as the Michigan Occupational Safety and Health Administration (MIOSHA) provision, a person may demonstrate compliance with the volatilization to indoor air inhalation criteria for a hazardous substance at active¹ manufacturing facilities that meet the specified manufacturing classifications provided by Sector 31-33 -- Manufacturing - of the North American Industry Classification System, United States, 2012 (NAICS), by relying on the Department of Licensing and Regulatory Affairs' MIOSHA exposure levels to demonstrate compliance with the soil and groundwater indoor air inhalation criteria. This provision is not applicable to any facility not described in the applicable NAICS codes, or contaminated properties solely regulated under Part 213, Leaking Underground Storage Tanks, or Part 111, Hazardous Waste Management, of the NREPA.

DEFINITION

Certified Industrial Hygienist (CIH): A CIH is an individual who has met the minimum requirements for education and experience, and through examination, has demonstrated a minimum level of knowledge and skills. A CIH must meet the ongoing requirements of the certification maintenance program and adhere to a professional, enforceable Code of Ethics.

POLICY

Using the MIOSHA provision, a person demonstrates compliance with Section 20120a(18) of Part 201 by demonstrating that a set of MIOSHA conditions² are met. Please be aware that EGLE does not have expertise to determine compliance with MIOSHA and its associated rules, including the adequacy of the hazard communications program. A Response Activity Plan, No Further Action Report, or request for a Certificate of Completion submitted under Part 201 of the NREPA for EGLE approval must demonstrate that the conditions are met.

¹ Includes: an ongoing manufacturing enterprise, facilities where operations have temporarily ceased or paused, are undergoing renovation, or are in the process of a change in ownership or operator.

² Section 20120a(18)(a), (b), and (c) of Part 201 of the NREPA.

The information necessary to demonstrate compliance with the MIOSHA provision at the facility, includes:

- Identification of, and documentation to support that the facility is an establishment covered by the classifications identified as Sector 31-33 of the NAICS, United States, 2012, published by the Office of Management and Budget. A list of the facilities covered by this classification can be found at: <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=31&search=2012> and is quoted in Appendix A.
- Documentation from a CIH that the facility is in compliance with (1) the Michigan Occupational Safety and Health Act³, and the rules promulgated under that act applicable to the exposure to the hazardous substance⁴, (2) the facility's hazard communication program under Section 14a of the Michigan Occupational Safety and Health Act, and (3) the hazard communication rules. Alternatively, EGLE will accept documentation from MIOSHA indicating they have recently inspected the operating facility and the facility is in compliance.
- Documentation from a CIH or from MIOSHA that indicates those hazardous substances present in groundwater, soil, and/or vapor, but not currently being used in the processes at the facility are accounted for in the facility's hazard communication program, as identified above, and are being monitored under all applicable MIOSHA regulations and rules.
- Documentation from a CIH or from MIOSHA that indicates which employees (e.g., all employees, including non-factory/manufacturer workers such as office staff, janitorial staff, maintenance staff, etc., or factory/manufacturer workers only) and what area(s) of the structure were accounted for and included in programs to monitor, communicate, etc., as required by MIOSHA.
- Signed confirmation from the CIH, indicating the information provided is complete and true to the best of that person's knowledge and the facility is in compliance with the MIOSHA requirements. Appendix B provides example CIH confirmation language.

It is expected that the facilities that qualify to use the MIOSHA provision will be able to access a CIH that is qualified to make a determination the facility is in compliance with MIOSHA and the rules applicable to the facility. EGLE will rely upon the CIH determination. If a facility has an industrial hygienist they believe is qualified to make the determination, their qualifications may be submitted to EGLE, and MIOSHA staff will assist EGLE in evaluating the qualifications.

The evaluation of compliance must include all workers. Demonstrating compliance for the volatilization to indoor air inhalation criteria for all workers may also require the submitter to undertake additional response activities to investigate/mitigate unacceptable exposures for other personnel not directly employed by the manufacturer.

As allowed by statute, the MIOSHA provision does not exclude coverage for any hazardous substances present in the groundwater, soil, or vapor at the facility that is not used in the current manufacturing process. Therefore, if a person chooses to rely upon the MIOSHA provision, the demonstration must include the historical substances as well as those used in the current manufacturing process.

If the MIOSHA provision is approved for use to demonstrate compliance with the volatilization to indoor air inhalation criteria, it is important to understand that once the facility no longer meets the specified manufacturing classification (i.e., the facility is no longer subject to an applicable NAICS classification code) the MIOSHA compliance provision is no longer applicable.

Pursuant to Section 20114c(2) of Part 201, upon completion of remedial actions at a facility for a category of cleanup that does not satisfy the cleanup criteria for unrestricted residential use, the person

³ 1974 PA 154, as amended, MCL 408.1001 to 408.1094.

⁴ Including, but not limited to, the occupational health standards for air contaminants, R 325.51101 to R 325.51108 of the Michigan Administrative Code.

conducting the remedial actions shall prepare and implement a postclosure plan for that facility. The postclosure plan shall include land use or resource use restrictions as provided in Section 20121 of Part 201. Section 20121 of Part 201 provides options to impose land or resource use restrictions, including a restrictive covenant. If a restrictive covenant is chosen for a remedy that relies on the MIOSHA alternative to compliance to address the volatilization to indoor air inhalation criteria, Appendix C provides language suggested to be inserted.

LINKS TO ADDITIONAL INFORMATION

- [Part 201, Environmental Remediation, of the NREPA](#)
- [1974 PA 154, as amended, Michigan Occupational Safety and Health Act](#)
- [Part 301, Air Contaminants for General Industry](#)

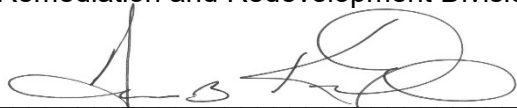
APPENDICES

Appendix A – Sector 31-33 -- Manufacturing, 2012 NAICS Definition
Appendix B – Model Language for CIH Confirmation of Compliance with MIOSHA
Appendix C – Model Language for the Part 201 Restrictive Covenant

APPROVING AUTHORITY



Mike Neller, Director
Remediation and Redevelopment Division



Aaron B. Keatley, Chief Deputy Director

HISTORY

Policy No.	Action	Date	Title
RRD-40	Original	02/01/2021	Volatilization to Indoor Air Pathway and Compliance with Michigan Occupational Safety and Health Administration

CONTACT/UPDATE RESPONSIBILITY

Any questions or concerns regarding this policy and procedure should be directed to EGLE-RRD@Michigan.gov.

An EGLE policy and procedure cannot establish regulatory requirements for parties outside of EGLE. This document provides direction to EGLE staff regarding the implementation of rules and laws administered by EGLE. It is merely explanatory, does not affect the rights of or procedures and practices available to the public, and does not have the force and effect of law. EGLE staff shall follow the directions contained in this document.

APPENDIX A

Sector 31-33 -- Manufacturing, 2012 NAICS Definition

Appendix A is a quote from the following Website:

<https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=31&search=2012>

2012 NAICS Definition

T = Canadian, Mexican, and United States industries are comparable.

Sector 31-33 -- Manufacturing

The Sector as a Whole

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.

Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership.

The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant; and aluminum wire is the input for a fabricated wire product manufacturing establishment.

The subsectors in the Manufacturing sector generally reflect distinct production processes related to material inputs, production equipment, and employee skills. In the machinery area, where assembling is a key activity, parts and accessories for manufactured products are classified in the industry of the finished manufactured item when they are made for separate sale. For example, a replacement refrigerator door would be classified with refrigerators and an attachment for a piece of metal working machinery would be classified with metal working machinery. However, components, input from other manufacturing establishments, are classified based on the production function of the component manufacturer. For example,

electronic components are classified in Subsector 334, Computer and Electronic Product Manufacturing and stampings are classified in Subsector 332, Fabricated Metal Product Manufacturing.

Manufacturing establishments often perform one or more activities that are classified outside the Manufacturing sector of NAICS. For instance, almost all manufacturing has some captive research and development or administrative operations, such as accounting, payroll, or management. These captive services are treated the same as captive manufacturing activities. When the services are provided by separate establishments, they are classified to the NAICS sector where such services are primary, not in manufacturing.

The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. The establishments in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are considered manufacturing in NAICS:

Milk bottling and pasteurizing;	Grinding of lenses to prescription;
Water bottling and processing;	Wood preserving;
Fresh fish packaging (oyster shucking, fish filleting);	Electroplating, plating, metal heat treating, and polishing for the trade;
Apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations) as well as contracting on materials owned by others;	Lapidary work for the trade;
Printing and related activities;	Fabricating signs and advertising displays;
Ready-mixed concrete production;	Rebuilding or remanufacturing machinery (i.e., automotive parts)
Leather converting;	Ship repair and renovation;
	Machine shops; and
	Tire retreading.

Conversely, there are activities that are sometimes considered manufacturing, but which for NAICS are classified in another sector (i.e., not classified as manufacturing). They include:

1. Logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting, is considered a harvesting operation;
2. The beneficiating of ores and other minerals, classified in Sector 21, Mining, Quarrying, and Oil and Gas Extraction, is considered part of the activity of mining;
3. The construction of structures and fabricating operations performed at the site of construction by contractors, is classified in Sector 23, Construction;
4. Establishments engaged in breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals; the customized assembly of computers; sorting of scrap; mixing paints to customer order; and cutting metals to customer order, classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade, produce a modified version of the same product, not a new product; and
5. Publishing and the combined activity of publishing and printing, classified in Sector 51, Information, perform the transformation of information into a product whereas the value of the product to the consumer lies in the information content, not in the format in which it is distributed (i.e., the book or software diskette).

APPENDIX B

MODEL LANGUAGE FOR CIH CONFIRMATION OF COMPLIANCE WITH MIOSHA

CIH Signatory Language

I am a Certified Industrial Hygienist [***employed OR contracted***] by [**company name**] for the facility referred to as [**property's common name**] (the "Facility") located at [**insert property address**].

The Facility is an establishment covered by the classifications provided by Sector 31-33 -- Manufacturing, of the North American Industry Classification System, United States, 2012, published by the Office of Management and Budget. Supporting documentation is included in the report.

My signature below indicates I have performed an inspection of the operating Facility and find the Facility complies with the Michigan Occupational Safety and Health Act, 1974 PA 154, as amended, MCL 408.1001 to 408.1094, and the rules promulgated under that act applicable to the exposure to the hazardous substance, including, but not limited to, the occupational health standards for air contaminants, R 325.51101 to R 325.51108 of the Michigan Administrative Code. A copy of my inspection documentation is included in the report. I have also reviewed the Facility's hazard communication program and confirm that the hazardous substances identified in soil, groundwater, or soil gas are included as required under Section 14a of the Michigan Occupational Safety and Health Act, 1974 PA 154, as amended, MCL 408.1014a, and the hazard communication rules, R 325.77001 to R 325.77004 of the Michigan Administrative Code, except that unless the hazardous substance is in use in the Facility, the requirement to have a material safety data sheet in the workplace requires only a generic material safety data sheet for the hazardous substance and the labeling requirements do not apply.

Certified Industrial Hygienist

Date

APPENDIX C

MODEL LANGUAGE FOR THE PART 201 RESTRICTIVE COVENANT

Summary of Response Activities

The following hazardous substances are present in the soil, groundwater, and/or vapor at the property at concentrations that have the potential to volatilize into indoor air above levels that are considered protective of human health, safety, and welfare.

[insert list of hazardous substances]

b. Prohibited Activities to Eliminate Unacceptable Exposure to Hazardous Substances.

The Owner shall prohibit activities at the Property that may result in exposures to hazardous substances at the Property. These prohibited activities include:

- (i) The construction and/or use of any buildings or structures on the Property unless the Owner complies with one of the following:
 - (a) The building or structure is an establishment used and classified for manufacturing use consistent with Sector 31-33 -- Manufacturing, of the North American Industry Classification System, United States, 2012, and the Owner complies with all of the provisions of Section 20120a(18) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).
 - (b) The Owner performs an evaluation of the potential for hazardous substances to volatilize into indoor air that demonstrates the protection of persons who may be present within any building or structure and complies with Section 20107a of the NREPA.
 - (c) The Owner installs appropriate engineering controls on any building or structure designed to eliminate the potential for subsurface vapor phase hazardous substances to migrate into the building or structure at concentrations greater than applicable criteria.