ENVIRONMENTAL BEST MANAGEMENT PRACTICES (EBMP)

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Reference Number	Best Management Practice	Citation	Details
1	Containerization Compatibility	Michigan Guide to Environmental Regulations Chapter 2, Waste Management (2024), section 2.4.7.b Container and Tank Requirements, page 2- 83 Michigan Rule 304(1)(d)(i)(B) 40 CFR 265.172	Michigan Regs Chapter 2, Waste Management, page 2-83 Containers must be compatible with the type of waste being stored in them. EGLE does not maintain a list of compatible materials, but companies can look at the safety data sheets for suggestions. For VSQGs, there aren't stand-alone Michigan-specific rules, but Michigan enforces container compatibility rules found in 40 CFR 265.172. 40 CFR 265.172 Compatibility of waste with container. The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.
2	Content Labeling	Michigan Guide to Environmental Regulations Chapter 2 (2024) section 2.4.8.b page 2-87 and 2-88 Michigan Rule 614 (1)(b) 40 CFR 262.16 (b)(6)(i)(A)(B)(C)	Michigan Regs Chapter 2, Waste Management, page 2-87 and 2-88: Labeling Hazardous Waste for Accumulation On-Site - Each container in a hazardous waste accumulation area must be maintained with labels as detailed above in Chapter 2.4.8.a. Therefore, the labeling would include: The words "Hazardous Waste", the hazardous waste number(s) OR the chemical name for the contents, An accumulation date (meaning the date waste wasfirst put into the container, unless it wasfirst a satellite container - then it would be the date the volume in the container(s) in the satellite area met or exceeded the 55-gallon allowable amountfor nonacute hazardous waste or one quart of acutely orseverely toxic hazardous waste),AND An indication of the contents hazards, such as waste characteristics, hazardous statement, pictogram, or National Fire Protection Association (NFPA) chemical hazard label Michigan Rule 614. (1) Owners or operators of all hazardous waste facilities that store containers of hazardous waste shall do both of the following: (b) Ensure that each container is labeled or marked clearly with the words "Hazardous Waste" and the hazardous waste number. For VSQGs, there are no specific federal regulations, but the EPA recommends VSQGs follow EBMPs for SQGs found in 40 CFR 262.16 40 CFR 262.16 A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of parts 124, 264 through 267, and 270 of this chapter, or the notification requirements of section 3010 of RCRA for treatment, storage, and disposal facilities, provided that all the conditions for exemption listed in this section are met. (6) Labeling and marking of containers and tanks—. (i) Containers. A small quantity generator must mark or label its containers with the following: (A) The words “Hazardous Waste”; (B) An indication of the hazards of the contents(examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and (C) The date upon which each period of accumulation begins clearly visible for inspection on each container.
3	Must be equipped with lids, covers, and bungs when not in use	Michigan Guide to Environmental Regulations Chapter 2, Waste Management, (2024) Section 2.4.7.b, page 2-82 MIchigan Rule 306 (1)(d)(i)(C) 40 CFR 262.16(b)(2)(iii)(A)	Michigan Regs Chapter 2, Waste Management, page 2-82 - Containers must be kept closed except when adding or removing waste. For liquid hazardous waste, closed container means that container covers are securely affixed with a bolted ring clamp or closed snap ring, bung plugs are installed in openings, and threaded covers are screwed shut. If a funnel is routinely used, to avoid having to remove the funnel and reclose the container regularly, a threaded funnel with a one-way valve, ball valve, or funnel with a latch able, gasketed cover can be used. For solids, the container cover must have complete contact between the lid and the rim of the storage container, all around the top of the container. If the container is continuously receiving hazardous waste solids, the container must catch and retain all of the hazardous waste. Rule 306(1)(d)(i)(C) Containers holding hazardous waste must be closed at all times during accumulation, except when it is necessary to add or remove waste. 40 CFR 262.16(b)(2)(iii)(A) A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste
4	Fill-ports for aboveground storage tanks (AST's) must be equipped with caps or covers.	Michigan Guide to Environmental Regulations Chapter 2, Waste Management, (2024) Section 2.4.7.b, page 2-82 Michigan Rule 306 (1)(d)(i)(C) 40 CFR 262.16(b)(2)(iii)(A)	Michigan Regs Chapter 2, Waste Management, page 2-82 - Containers must be kept closed except when adding or removing waste. For liquid hazardous waste, closed container means that container covers are securely affixed with a bolted ring clamp or closed snap ring, bung plugs are installed in openings, and threaded covers are screwed shut. If a funnel is routinely used, to avoid having to remove the funnel and reclose the container regularly, a threaded funnel with a one-way valve, ball valve, or funnel with a latch able, gasketed cover can be used. For solids, the container cover must have complete contact between the lid and the rim of the storage container, all around the top of the container. If the container is continuously receiving hazardous waste solids, the container must catch and retain all of the hazardous waste. Rule 306(1)(d)(i)(C) Containers holding hazardous waste must be closed at all times during accumulation, except when it is necessary to add or remove waste. 40 CFR 262.16(b)(2)(iii)(A) A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste.
5	Liquid chemicals must be stored within an area of secondary containment. (Federal regulations apply to 55-gallon or greater; State & Local regulations may be different.)	Michigan Regs Chapter 4 Material Storage and Transportation, (2024) Paragraph 4.1 Secondary Containment , page 4-5 EGLE Secondary Containment Guidance Document (2022) 40 CFR 264.175 (a) through (d) Michigan Part 5 Rules R 324.2002, R 324.2005, and R 324.2009	40 CFR 264.175 (a) through (d) - (a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section. (b) A containment system must be designed and operated as follows: (1) A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed; (2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids; (3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination; (4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) of this section to contain any run-on which might enter the system; and (5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system. (c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by paragraph (b) of this section, except as provided by paragraph (d) of this section or provided that: (1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or (2) The containers are elevated or are otherwise protected from contact with accumulated liquid. (d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by paragraph (b) of this section: (1) FO20, FO21, FO22, FO23, FO26, and FO27. Michigan's Part 5 Rules (R 324.2002, R 324.2005, and R 324.2009) require secondary containment for outdoor storage of chemicals and salts. This includes: Oil (means any kind or any form, including petroleum, gasoline, fuel oil, grease, animal and vegetable oil, sludge, oil refuse, and oil mixed with waste) in multiple containers or aboveground tanks with a combined volume of 1320 gallons or a single tank containing more than of 660 gallons; Chemicals on the Polluting Materials Listin quantities at or greater than 440 pounds stored outdoors, or 2,200 pounds stored indoors; and Salt in liquid and solid form. The secondary containment must be constructed of materials capable of containing any spilled or leaked material so the material can be recovered and can also not escape to any public sewer system or to surface or groundwaters and must provide capacity of at least 10% of the total volume of the tanks or containers within the secondary containment

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6	Areas of secondary containment must have sufficient capacity to hold either 10% of the total liquid volume of allthe containers orto contain the volume of the largest container, whichever is greater, while accounting for the volume displaced by the containers stored within the containment area.	Michigan Regs Chapter 4 Material Storage and transportation (2024), Paragraph 4.1 Secondary Containment, page 4-5 40 CFR 264.175 (b) (3) Michigan Part 5 Rules (R 324.2005)	40 CFR 264.175 (b) (3) - The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination. R 324.2005 Secondary containment. Rule 5. (1) Except as may be authorized under subrule (5) of this rule, not later than 24months after the effective date of these rules, any on-land facility that has any outdoor storage areas used to store liquid polluting materials in excess of a threshold management quantity shall provide secondary containment structures for those outdoor storage areas as required in subrule (2) of this rule. (2) Secondary containment structures for liquids shall comply with all of the following provisions: (a) Be constructed of materials that are compatible with, and impervious to, or otherwise capable of containing, any spilled, leaked, or discharged polluting materials so that the materials can be recovered and so that polluting materials cannot escape directly or indirectly to any public sewer system or to the surface waters or groundwaters of this state. (b) Provide a capacity that is not less than 10% of the total volume of the tanks or containers within the secondary containment structure or provide a capacity of 100% of the largest single tank or container within the secondary containment structure, whichever is larger. (c) Allow surveillance of the tanks or containers, the timely detection of any leaks and recovery of any spillage, and the removal and proper disposal of any captured precipitation so that the minimum required capacity is maintained at all times. Captured precipitation may be removed by drainage through normally closed valves if all of the following conditions are met: (i) The drainage is conducted under the direct supervision of qualified facility personnel. (ii) The valves are secured closed at all times, except during precipitation removal. (iii) The drainage is performed in full compliance with all applicable local, state, and federal requirements. (3) All use areas and indoor storage areas shall be designed, constructed, maintained, and operated to prevent the release of polluting materials through sewers, drains, or otherwise directly or indirectly into any public sewer system or to the surface or groundwaters of this state. (4) Polluting materials in solid form shall be enclosed, covered, contained, or otherwise protected to prevent run-on and any runoff, seepage, or leakage to any public sewer system or to the surface or groundwaters of the state. Solid polluting materials shall not be stored within 50 feet of a designated wetland or the shore or bank of any lake or stream. Solid polluting material containment structures located within a100-yearfloodplain as defined by the federal flood disaster protection act of 1973, 42 U.S.C. 4001 etc., shall be designed and constructed to remain effective during a 100-yearflood. (5) Alternate secondary containment, control, or treatment systems other than those required in subrule (1) of this rule that provide adequate protection may be used upon written approval of the department. Requests for alternate secondary containment, control, or treatment systems shall be submitted in writing to the chief of the department's waste management division. The chief of the department's waste management division, or his or her authorized delegee, shall either approve, approve with specific modifications, or disapprove a request for an alternate secondary containment, control, or treatment system not more than 180 days after receipt.
7	Chemicals stored within secondary containment should not be stacked if the containers are likely to fall out of containment area.	29 CFR 1910.176 (b)	29 CFR 1910.176 (b) - Secure storage. Storage of material shall not create a hazard. Bags, containers, bundles, etc., stored in tiers shall be stacked, blocked, interlocked and limited in height so that they are stable and secure against sliding or collapse.
8	Chemicals stored outdoors must be covered by a tarp,roof, or awning to prevent exposure to precipitation events and to prevent the accumulation of water within areas of secondary containment.	Michigan Regs Chapter 4 Material Storage and transportation (2024), Paragraph 4.1 Secondary Containment, page 4-5 Michigan Rule 306 (1) (q) 40 CFR 264.175 (a) (b)(5)	[Consider secondary containment] Capacity so the containment meets the regulatory minimum holding capacity. Consider the amount of precipitation, such as snow and rainfall that may accumulate in the containment structure. Generally, areas in Michigan receive an average of 3.9 inches in a 24-hour rainfall. A record 24-hour precipitation in Michigan was nearly 10 inches. Michigan Rule 306 (1) (q) - (q) The generator ensures that the area where the waste is accumulated is protected from weather, fire, physical damage, and vandals. 40 CFR 264.175 (a)(b) - Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section. A containment system must be designed and operated as follows: (5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.
9	Housekeeping	29 CFR 1910.176 (c) Michigan Administrative Code R408.10015, Rule 15 (1) and (3)	29 CFR 1910.176 (c) - Housekeeping. Storage areas shall be kept free from accumulation of materials that constitute hazards from tripping, fire, explosion, or pest harborage. Vegetation control will be exercised when necessary. Rule 15. (1) Materials, including scrap and debris, shall be piled, stacked, or placed in a container in a manner that does not create a hazard to an employee. (3) A storage area shall be kept free from accumulations of materials that constitute a hazard from fire, explosion, or pest harborage.
10		Michigan Rule 306 (1) (o) 40 CFR 262.16 (b) (9) (iii)	For VSQGs, Michigan has no personnel training requirements but recommends meeting SQG requirements. Rule 306 (1) (o) - The small quantity generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal site operations and emergencies. For VSQGs, there are no specific federal regulations, but the EPA recommends VSQGs follow EBMPs for SQGs found in 40 CFR 262.16. 40 CFR 262.16 (b) (9) (iii) - (b) The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in paragraphs (d) and (e) of this section. The following conditions also apply: (9) The small quantity generator complies with the following conditions for those areas of the generator facility where hazardous waste is generated and accumulated: (iii) The small quantity generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

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11	Training	29 CFR 1910.1200 (h) (1) and (3) (i-iv)	1910.1200(h) Employee information and training. 1910.1200(h)(1) Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets. 1910.1200(h)(3) Training. Employee training shall include at least: 1910.1200(h)(3)(i) Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.); 1910.1200(h)(3)(ii) The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area; 1910.1200(h)(3)(iii) The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and, 1910.1200(h)(3)(iv) The details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.
12		Michigan Administrative Code R408.17501, Michigan Rule 7501 (1) and (3)	R 408.17501. Adoption of standards by reference. Rule 7501. (1) The federal occupational safety and health administration's regulations on flammable liquids promulgated by the United States department of labor and codified at 29 C.F.R. §1910.106, "Flammable liquids," effective March 26, 2012, are adopted by reference in these rules. (3) The provisions of 29 C.F.R. §1910.106 have the same force and effect as rules promulgated under 1974 PA 154, the Michigan Occupational Safety and Health Act (MIOSHA), MCL 408.1001 to 408.1094.
13	Storage cabinets used for the storage of flammable liquids	29 CFR 1910.106 (d) (3) (i)&(ii) (a)&(b)	1910.106 (d) (3) "Design, construction, and capacity of storage cabinets" - 1910.106 (d) (3) (i) Maximum capacity. Not more than 60 gallons of Category 1, 2, or 3 flammable liquids, not more than 120 gallons of Category 4 flammable liquids may be stored in a storage cabinet. 1910.106 (d) (3) (ii) "Fire resistance." Storage cabinets shall be designed and constructed to limit the internal temperature to not more than 325 deg. F. when subjected to a 10-minute fire test using the standard time-temperature curve as set forth in Standard Methods of Fire Tests of Building Construction and Materials, NFPA 251-1969, which is incorporated by reference as specified in Sec. 1910.6. All joints and seams shall remain tight and the doors hall remain securely closed during the fire test. Cabinets shall be labeled in conspicuous lettering, "Flammable - Keep Fire Away." 1910.106 (d) (3) (ii) (a) Metal cabinets constructed in the following manner shall be deemed to be in compliance. The bottom, top, door, and sides of cabinet shall be at least No. 18 gage sheet iron and double walled with 1 1/2 - inch air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, and the doorsill shall be raised at least 2 inches above the bottom of the cabinet. 1910.106 (d) (3) (ii) (b) Wooden cabinets constructed in the following manner shall be deemed in compliance. The bottom, sides, and top shall be constructed of an approved grade of plywood at least 1 inch in thickness, which shall not break down or delaminate under fire conditions. All joints shall be rabbeted and shall be fastened in two directions with flathead woodscrews. When more than one door is used, there shall be a rabbeted overlap of not less than 1 inch. Hinges shall be mounted in such a manner as not to lose their holding capacity due to loosening or burning out of the screws when subjected to the fire test
14	Hazardous and chemical wastes must be labeled as to their contents and date of generation	Michigan Guide to Environmental Regulations Chapter 2, Waste Management (2024), section 2.4.8.b Container and Tank Requirements, page 2- 87 Michigan Administrative Code R 299.9306 Rule 306 (1) (d) (i) (G)(I)(II) and (III) 40 CFR 262.16 (b)(6)(i)	2.4.8.b Labeling Hazardous Waste for Accumulation On-Site Each container in a hazardous waste accumulation area must be maintained with labels as detailed above in Chapter 2.4.8.a. Therefore, the labeling would include: • The words "Hazardous Waste." • the hazardous waste number(s) OR the chemical name for the contents, • An accumulation date (meaning the date waste was first put into the container, unless it was first a satellite container – then it would be the date the volume in the container(s) in the satellite area met or exceeded the 55-gallon allowable amount for nonacute hazardous waste or one quart of acutely or severely toxic hazardous waste), AND • An indication of the contents hazards, such as waste characteristics, hazardous statement, pictogram, or National Fire Protection Association (NFPA) chemical hazard label For VSQGs, there are no specific state or federal regulations, but the EPA and EGLE recommend VSQGs follow EBMPs for SQGs found in 40 CFR 262.16 and Rule 306. 40 CFR 262.16 (b) (6) (i): A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of parts 124, 264 through 267, and 270 of this chapter, or the notification requirements of section 3010 of RCRA for treatment, storage, and disposal facilities, provided that all the conditions for exemption listed in this section are met. (b) Accumulation. The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in paragraphs(c), (d), and (e) of this section. The following accumulation conditions also apply: (6) Labeling and marking of containers and tanks—. (i) Containers. A small quantity generator must mark or label its containers with the following: (A) The words "Hazardous Waste"; (B) An indication of the hazards of the contents(examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and (C) The date upon which each period of accumulation begins clearly visible for inspection on each container. Rule 306 (1) (d) (i) (G) (1) A small quantity generator may accumulate hazardous waste on site without an operating license issued under part 111 of the act, MCL 324.11101 to 324.11153, and without complying with parts 5 to 8 of these rules or the notification requirements of section 3010 of RCRA, 45 USC 6930, if all of the following conditions are met: (d) The hazardous waste is managed under 1 or more of the following methods: (i) In containers and the small quantity generator complies with the containment requirements of 40 CFR 264.175 if the quantity of waste accumulated on site exceeds 1,000 kilograms, and with all of the following: (G) Mark or label each container with all of the following: (I) The words "Hazardous Waste."

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15	Containerization	Michigan Guide to Environmental, Health and Safety Regulations Chapter 2, Waste Management (2024), page 2-82 Michigan Rule 306 (1) (d) (i) (C) and (D) 40 CFR 262.16 (b) (2) (iii) (a) (b)	Mich Regulations Chapter 2, Waste Management (2024) p 2-82 Basic Container Storage Requirements - See Chapter 2.4.8.a for satellite container operating requirements. General requirements for all other hazardous waste storage containers include: • Containers must be kept closed except when adding or removing waste. For liquid hazardous waste, closed container means that container covers are securely affixed with a bolted ring clamp or closed snap ring, bung plugs are installed in openings, and threaded covers are screwed shut. If a funnel is routinely used, to avoid having to remove the funnel and reclose the container regularly, a threaded funnel with a one-way valve, ball valve, orfunnel with a latchable, gasketed cover can be used. Forsolids, the container cover must have complete contact between the lid and the rimof the storage container, all around the top of the container. If the containeris continuously receiving hazardous waste solids, the containermust catch and retain all of the hazardous waste. For VSQGs, there are no specific federal or state regulations, but the EPA and EGLE recommend VSQGs follow EBMPs for SQGs found in 40 CFR 262.16 and Michigan Rule 306. Michigan Rule 306 (1) A small quantity generator may accumulate hazardous waste on site without an operating license issued under part 111 of the act, MCL 324.11101 to 324.11153, and without complying with parts 5 to 8 of these rules orthe notification requirements ofsection 3010 of RCRA, 45 USC 6930, if all of the following conditions are met: (d) The hazardous waste is managed under 1 or more of the following methods: (i) In containers and the small quantity generator complies with the containment requirements of 40 CFR 264.175 if the quantity of waste accumulated on site exceeds 1,000 kilograms, and with all of the following: (C) Containers holding hazardous waste must be closed at all times during accumulation, except when it is necessary to add or remove waste. (D) Containers holding hazardous waste must not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak. 40 CFR 262.16 A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of parts 124, 264 through 267, and 270 of this chapter, orthe notification requirements ofsection 3010 of RCRA for treatment,storage, and disposal facilities, provided that allthe conditionsfor exemption listed in this section are met: (b) Accumulation: The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in paragraphs (c), (d), and (e) of thissection. The following accumulation conditions also apply: (2) Accumulation of hazardous waste in containers - (iii) Management of containers. (A) A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste. (B) A container holding hazardous waste must not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak.
16	Universal Waste - Batteries	Michigan Rule 228(4)(a) 40 CFR 273.13(a) (2) (i)	40 CFR 273.13 Waste management. (a) Universal waste batteries. A small quantity handler of universal waste must manage universal waste batteriesin a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows: (2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal): (i) Sorting batteries by type;
17	Universal Waste - Mercury-containing materials	Michigan Rule 228(4)(a) 40 CFR 273.13 (c)	Michigan Rule 228 (4) (a) - (4) A universal waste small quantity handler shall comply with all of the following requirements: (a) The requirements of 40 C.F.R. part 273, subpart B, except §§273.10 and 273.18(b). 40 CFR 273.13 (c) Waste management. (c) Mercury-containing equipment. A small quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows: (1) A small quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to preventthe escape ofmercury into the environment by volatilization or any othermeans. (2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler: (i) Removed and managesthe ampules in a manner designed to prevent breakage of the ampules; (ii) Removes the ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage); (iii) Ensuresthat a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272; (iv) Immediately transfers any mercury resulting from spills or leaksfrom broken ampules from the containment device to a container that is subject to all applicable requirements of 40 CFR parts 260 through 272; (v) Ensuresthat the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levelsfor mercury; (vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers; (vii) Stores removed ampules in closed, non-leaking containersthat are in good condition; (viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; (3) A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler: (i) Immediately seals the original housing holding the mercury with an air-tightsealto prevent the release of any mercury to the environment; and (ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (c)(2) of this section; and (4) (i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing must determinewhetherthe following exhibit a characteristic of hazardous waste identified in 40 CFR part 261,subpart C: (A) Mercury or clean-up residuesresulting from spills or leaks and/or (B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings(e.g., the remaining mercury-containing device). (ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage itin compliance with 40 CFR part 262. (iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid
18	Universal Waste - Lamps	Michigan Rule 228(4)(a) 40 CFR 273.13(d)	Michigan Rule 228 (4) (a) - (4) A universal waste small quantity handler shall comply with all of the following requirements: (a) The requirements of 40 C.F.R. part 273, subpart B, except §§273.10 and 273.18(b). 40 CFR 273.13 (d) Waste management. (d) Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, asfollows: (1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and mustlack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions. (2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage,spillage or damage that could cause leakage orreleases of mercury or other hazardous constituentsto the environment under reasonably foreseeable conditions.
19	Prohibition of Discharge into State Waters	Michigan Law Part 31 (Water Resources Protection), Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Section 324.3109	Section 324.3109 Discharge into state waters; prohibitions; exception; violation; penalties; abatement; "on-site wastewater treatment system" defined. Sec. 3109. (1) A person shall not directly or indirectly discharge into the waters of the state a substance that is or may become injuriousto any of the following: (a) To the public health, safety, or welfare. (b) To domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of such waters. (c) To the value or utility of riparian lands. (d) To livestock, wild animals, birds, fish, aquatic life, or plants or to their growth or propagation. (e) To the value of fish and game.

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20	Land Disposal Restrictions	Michigan Administrative Code R. 299-9343 - Michigan Rule 313 (1) 40 CFR 268.7 (a)(1)	Michigan Rule 313 (1) Generators of hazardous waste shall comply with the applicable requirements and restrictions of 40 C.F.R. part 268. 40 CFR 268.7 (a)(1) (a)Requirementsfor generators and reverse distributors: (1) A generator of hazardous waste must determine if the waste hasto be treated before it can be land disposed. Thisis done by determining if the hazardous waste meetsthe treatment standards in § 268.40, 268.45, or § 268.49. This determination can be made concurrently with the hazardous waste determination required in § 262.11 of this chapter, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods of Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, (incorporated by reference, see § 260.11 of this chapter), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. (Alternatively, the generator must send the waste to a RCRA permitted hazardous waste treatment facility, where the waste treatment facility must complywith the requirements of § 264.13 of this chapter and paragraph (b) of this section.) In addition,some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in § 268.40, and are described in detail in § 268.42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of § 268.9 of this partin addition to any applicable requirementsin this section.
21	SDS	MIOSHA Act 154 of 1974 Section 408.1014h 29 CFR 1910.1200 (g)(8)	MIOSHA Act 154 of 1974 - 408.1014h Employer engaged in construction operations. Sec. 14h. An employer engaged in construction operations may satisfy the requirements of the standard incorporated in section 14a and sections 14b to 14l that a safety data sheet be maintained for each hazardous chemical in the workplace by maintaining safety data sheetsin 1 or more central locations at a jobsite. 29 CFR 1910.1200(g)(8) The employer shall maintain in the workplace copies of the required safety data sheetsfor each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access and other alternativestomaintaining paper copies of the safety data sheets are permitted aslong as no barriersto immediate employee accessin each workplace are created by such options.)
22	Refrigerant Removal	40 CFR 82.155	40 CFR 82.155 Safe disposal of appliances. Until January 1, 2018, this section applies only to disposal of appliances containing class I and class II refrigerants. Starting on January 1, 2018, this section appliesto disposal of appliances containing any class I or classII refrigerant or any non-exempt substitute refrigerant. (a) Persons recovering refrigerant from a small appliance, MVAC, or MVAC-like appliance for purposes of disposal of these appliances must evacuate refrigerant to the levels in § 82.156(b) through (d) using recovery equipment that meets the standards in § 82.158(e) through (g), or 40 CFR part 82 subpart B, as applicable
23	Universal Waste - Consumer Electronics	Michigan Administrative Code R.299.9228 Rule 228 (4) (e) (i) through (iii)	Michigan Rule 228 (4) (e) (i) through (iii) (4) A universal waste small quantity handler shall comply with all of the following requirements: (e) If the universal waste small quantity handler manages consumer electronics, then all of the following additional requirements apply: (i) The consumer electronics must be managed in a manner that prevents breakage or the release of any universal waste or components of universal waste by containing the consumer electronicsin packaging that will prevent breakage during normal handling conditions. (ii) Label the outer packaging or container with the words "universal waste consumer electronics" or "universal waste electronics." (iii) Properly contain, classify, and dispose of releases and potential releases of consumer electronics and residues.
24	Diesel Trucks	40 CFR 86.099-11 Emission Standards for 1999 and later model year diesel heavy-duty engines and vehicles	86.099-11 Emission standards for 1999 and later model year diesel heavy-duty engines and vehicles. (a) Exhaust emissionsfrom new 1999 and later model year diesel heavy-duty enginesshall not exceed the following: vehicles (1) (i) Hydrocarbons(for diesel enginesfueled with either petroleum-fuel or liquefied petroleum gas). 1.3 grams per brake horsepower-hour (0.48 gram per megajoule), as measured under transient operating conditions. (ii) Total Hydrocarbon Equivalent (for methanol-fueled diesel engines). 1.3 grams per brake horsepower-hour (0.48 gram per megajoule), as measured under transient operating conditions. (iii) Nonmethane hydrocarbons(for natural gas-fueled diesel engines). 1.2 grams per brake horsepower-hour (0.45 gram per megajoule), as measured under transient operating conditions. (2) Carbon monoxide. (i) 15.5 grams per brake horsepower-hour (5.77 grams per megajoule), as measured under transient operating conditions. (ii) 0.50 percent of exhaust gasflow at curb idle (methanol-, natural gas-, and liquefied petroleum gas-fueled diesel only). (3) Oxides of Nitrogen. (i) 4.0 grams per brake horsepower-hour (1.49 grams per megajoule), as measured under transient operating conditions. (ii) A manufacturer may elect to include any or all of its diesel HDE families in any or all of theNOX or NOX plusNMHC ABT programs for HDEs, within the restrictions described in § 86.098-15 as applicable. If the manufacturer elects to include engine familiesin any of these programs, the NOX FELs may not exceed 5.0 grams per brake horsepower-hour (1.9 grams per megajoule). This ceiling value applies whether credits for the family are derived from averaging, trading or banking programs. (4) Particulate. (i) For diesel enginesto be used in urban buses, 0.05 gram per brake horsepower-hour (0.019 gram per megajoule) for certification testing and selective enforcement audit testing, and 0.07 gram per brake horsepower-hour (0.026 gram per megajoule) for in-use testing, as measured under transient operating conditions. (ii) For all other diesel engines only, 0.10 gram per brake horsepower-hour (0.037 gram per megajoule), as measured under transient operating conditions. (iii) A manufacturer may elect to include any or all of its diesel HDE familiesin any or all of the particulate ABT programsfor HDEs, within the restrictions described in § 86.098-15 as applicable. If the manufacturer electsto include engine familiesin any of these programs, the particulate FEL may not exceed: (A) For engine familiesintended for use in urban buses, 0.25 gram per brake horsepower-hour (0.093 gram per megajoule); (B) For engine families not intended for use in urban buses, 0.60 gram per brake horsepower-hour (0.22 gram per megajoule). This ceiling value applies whether credits for the family are derived from averaging, trading or banking programs. (b) (1) The opacity ofsmoke emission from new 1999 and later model year diesel heavy-duty engine shall not exceed: (i) 20 percent during the engine acceleration mode. (ii) 15 percent during the engine lugging mode. (iii) 50 percent during the peaksin either mode. (2) The standards setforth in paragraph (b)(1) of thissection refer to exhaust smoke emissions generated under the conditionsset forth in subpart I of this part and measured and calculated in accordance with those procedures.

ENVIRONMENTAL BEST MANAGEMENT PRACTICES (EBMP)

CITATION REFERENCE LIST

Reference Number	Best Management Practice	Citation	Details
			(iii) (A) For vehicles with a Gross Vehicle Weight Rating of up to 26,000 lbs, the standardsset forth in paragraph (b)(3) of thissection refer to a composite sample of evaporative emissions collected under the conditions and measured in accordance with the proceduresset forth in subpart M of this part. For certification vehicles only, manufacturers may conduct testing to quantify a level of nonfuel background emissions for an individual test vehicle. Such a demonstration must include a description of the source(s) of emissions and an estimated decay rate. The demonstrated level of nonfuel background emissions may be subtracted from emission test resultsfrom certification vehiclesif approved in advance by the Administrator. (B) For vehicles with a Gross Vehicle Weight Rating of greater than 26,000 lbs., the standardsset forth in paragraph (b)(3)(ii) of this section refer to the manufacturer's engineering design evaluation using good engineering practice (a statement of which is required in § 86.091-23(b)(4)(ii)). (iv) All fuel vapor generated during in-use operationsshall be routed exclusively to the evaporative control system (e.g., either canister or engine purge). The only exception to thisrequirement shall be for emergencies. (4) Evaporative emissions from 1999 and later model year heavy-duty vehicles equipped with natural gas-fueled or liquefied petroleum gas-fueled heavy-duty enginesshall not exceed the following standards. The standards apply equally to certification and in-use vehicles. (i) For vehicles with a Gross Vehicle Weight Rating of up to 14,000 pounds for the full three-diurnal testsequence described in § 86.1230-96, diurnal plus hotsoak measurements: 3.0 grams per test. (ii) For vehicles with a Gross Vehicle Weight Rating of greater than 14,000 poundsfor the full three-diurnal test sequence described in § 86.1230-96, diurnal plus hot soak measurements: 4.0 grams per test. (iii) (A) For vehicles with a Gross Vehicle Weight Rating of up to 26,000 pounds, the standards set forth in paragraph (b)(4) of thissection refer to a composite sample of evaporative emissions collected under the conditionsset forth in subpart M of this part and measured in accordance with those procedures. (B) For vehicles with a Gross Vehicle Weight Rating greater than 26,000 pounds, the standardsset forth in paragraphs (b)(3)(ii) and (b)(4)(ii) of thissection refer to the manufacturer's engineering design evaluation using good engineering practice (a statement of which isrequired in § 86.091-23(b)(4)(ii)). (c) No crankcase emissions shall be discharged into the ambient atmosphere from any new 1999 or later model year methanol-, natural gas-, or liquefied petroleum gas-fueled diesel, or any naturally-aspirated diesel heavy-duty engine. For petroleum-fueled engines only, this provision does not apply to engines using turbochargers, pumps, blowers, or superchargers for air induction. (d) Every manufacturer of new motor vehicle engines subject to the standards prescribed in this section shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motor vehicle enginesin accordance with applicable proceduresin subpart I or N of this part to ascertain that such test engines meet the requirements of paragraphs(a), (b), (c), and (d) of this section.
25	Janitorial Products	29 CFR 1910.1200(b)(1) 29 CFR 1910.1200(b)(2)	29 CFR 1910.1200(b)(1) This section requires chemical manufacturers or importers to classify the hazards of chemicals which they produce or import, and all employersto provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and otherforms of warning, safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers.) 29 CFR 1910.1200(b)(2) This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency
26	Tire Disposal	Michigan Act 451Part 115 Solid Waste Management, section 324.11514 (1) (c)	Michigan Act 451 of 1994 Section 11514 (1) (c) (1) A person shall not knowingly deliver to a landfill for disposal, or, if the person is an owner or operator of a landfill, knowingly permit disposal in the landfill of, any of the following: (c) More than a de minimis number of whole motor vehicle tires.
27	Spill Prevention and Counter-Control Measures	40 CFR 112	Please refer to 40 CFR 112. Textistoo long for cell input.
28	Noise	MIOSHA General Industry Occupational Health Standards – Part 380, Occupational Noise Exposure (R 325.60101) Section 1910.95 (a) through (o)	Please refer to MIOSHA General Industry Standard Part 380, Occupational Noise Exposure in General Industry. Text istoo long for cell input