

SECTION ONE – ENVIRONMENTAL REGULATIONS

CHAPTER 6: Environmental Emergencies

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Purpose and Applicability of Regulations

There are many regulations pertaining to release planning, reporting, employee training, and response. The intent is to protect public health and welfare and the environment from spills or releases of regulated materials. Each regulation targets a specific group of materials that exhibit certain characteristics. Appendix B contains definitions of the various regulated groups of materials referenced in this chapter. These defined terms appear throughout this chapter in bold lettering.



U.S. Environmental Protection Agency Time Critical Removal Action in Detroit, Michigan

In some instances, multiple agencies use the same term to describe a different regulated group. Such terms will be followed by a dash and the acronym of the defining agency or regulation. For example, the U.S. Department of Transportation (U.S. DOT) and the Michigan Fire Prevention Code, Public Act 207 of 1941, as amended (Act 207) have differing definitions for the term “hazardous material.” Therefore, the U.S. DOT and Act 207 definitions of hazardous material will appear as “**hazardous material-U.S. DOT**” and “**hazardous material-Act 207**” respectively.

Agencies and Their Laws and Rules

Due to the numerous environmental federal and state regulations that apply to this chapter, please refer to the Release Notification Requirements Table on pages 6-22 through 6-30 and the Summary of Common Environmental Release Prevention and Response Plans in Appendix 6-A. This table is a tool to identify the laws and regulations applicable to this chapter and the agencies that implement them.

6.1 Release Prevention Tips

Releases can usually be prevented by using common sense and care when storing, transferring, and transporting regulated materials. Tips include:

- Train all personnel in spill prevention techniques. Some regulations indicate who, at a minimum, must be trained for handling regulated material and waste.
- Practice safe loading and unloading procedures.
- Have inventory control procedures track material from receipt to disposal.
- Post warning and instructional signs in appropriate places.
- Adequately label all containers.
- Use pumps or funnels to transfer liquids.
- Keep lids and covers on containers to control spills and evaporation.
- Use seal-less pumps.
- Install spill basins or dikes in storage areas.
- Install splash guards and drip boards on tanks and faucets.
- Use drip buckets under liquid spigots.
- Prohibit outside draining or replacement of fluids over the ground or on pavement not designed for containment.

You might also reduce the damage caused by spills if you notice them quickly. Routinely check your material handling equipment for deterioration, leaks and spills. This will help to ensure timely repair to prevent a material release and quick response to mitigate damages and clean-up liabilities. Some of the regulations specify how often you must monitor your business. Watch for strange odors and discoloration or corrosion of walls, work surfaces, ceilings, and pipes. Also note if anyone has irritation of the eyes, nose, or throat. All of these can indicate the presence of leaks or poorly maintained equipment.

6.2 Release Prevention and Response Planning

While environmental regulations do not require all businesses to develop release prevention and response plans, having one is recommended to minimize your liability and protect human health and the environment. Depending on your activities, you may be subject to multiple planning regulations and you're encouraged to develop one plan, an Integrated Contingency Plan (ICP) as described in Chapter 6.2.8, that includes each individual plan's specific requirements as identified in the different federal or state laws.

Even if you are not required to have a written plan under the regulations described in this section, you are responsible for any release on or from your property. You may be required to report the release to different agencies (see Chapter 6.3) and will be required to clean up the release (see Chapter 6.4). Release notifications and cleanup procedures would be included in plans developed voluntarily or as required by regulation. In addition, staff must be properly trained for their role in responding to releases. Information about secondary containment and other material storage requirements discussed in Chapters 2 and 4 should also be included in emergency plans.

Besides plans discussed in this chapter, facilities may have other planning related requirements in:

- ✓ Permits issued to the facility.
- ✓ Worker safety and health related requirements including Chapter 17 “Process Safety Management” and Chapter 23 “Emergency Response/HAZWOPER.”
- ✓ Community Emergency Response Plan required by Section 302 of SARA Title III (see Chapter 5.3).

Firefighter Right-to-Know requires that you provide to your local fire department information about the hazardous materials kept on site (see Chapter 37). It is recommended that you invite your local fire department to tour your facility, so they can be adequately trained and have the necessary equipment available to respond to an emergency at your facility. Some fire departments encourage the practice of having a lock box or emergency tube available somewhere outside of the facility building(s) that protects the contents of facility emergency contacts, basic facility information, facility maps, and either MSDSs or a description of potentially harmful materials on site. Talk to your fire department about this practice. They can provide recommendations regarding what they want to have immediately available if called to the site and where they would like to have the information located. However, due to terrorism concerns, be cautious about the placement of information in case of potential sabotage.

The U.S. DOT regulations require each person in physical possession of the **hazardous material-US DOT** at the time of a reportable incident as defined in 49 CFR [171.15](#) to provide notice by telephone to the National Response Center (NRC) at 800-424-8802. The notice must be provided as soon as practical but no later than 12 hours after the reportable incident occurs, and a more detailed incident report must follow on DOT Form F 5800.1 within 30 days of discovery of the incident. For more details on incident reporting and training related to **hazardous materials-U.S. DOT**, see Chapter 4 and the Release Notification Requirements Table found in this chapter.

Consider what needs to be done in case of an emergency and prepare a response plan to protect your company, employees, and the environment. Consider the following in case emergency responders are contacted for assistance to the facility:

- The fire department’s response is based on the information you give them. Provide as much detail as possible when calling for help. Have your emergency information readily available and let them know what hazardous materials are involved, how much if known, the location of the spill, if people are inside the facility or taking some response actions, wind direction, etc.
- Have a key contact person (who is knowledgeable about the whole facility and the incident) meet the responders.
- Make sure everyone is accounted for, including both employees and visitors at the facility.
- Keep everyone upwind of the situation and, if necessary, have people move to a different location.
- Have a knowledgeable public relations person from the facility available to address media if they arrive at the scene.
- Follow the emergency responders’ directions.

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The following are common environmental release prevention and response plans that a manufacturer may be required to develop:

- Hazardous Waste Contingency Plan: Part 111 (Hazardous Waste Management) of Act 451 if you have regulated amounts of **hazardous waste** (see Chapter 6.2.1).
- Pollution Incident Prevention Plan (PIPP): Part 31 (Water Resources Protection) of Act 451 if you have regulated amounts of **oil, salt or polluting materials** that are listed in R 324.2009, Table 1 in the Part 5 Rules. (see Chapter 6.2.2)
- Spill Prevention, Control, and Countermeasures (SPCC) Plan: federal Clean Water Act if you have regulated storage capacity of **oils** and a release could potentially reach navigable waters, or you have PCB articles regulated under the Toxic Substances Control Act (TSCA) that requires a SPCC Plan. (see Chapter 6.2.3)
- Storm Water Pollution Prevention Plan (SWPPP): Part 31 (Water Resources Protection) of Act 451 if you are subject to a storm water discharge permit. (see Chapter 6.2.4)
- Risk Management Program (RMP): Section 112(r) of the 1990 Clean Air Act Amendments if you have regulated amounts of **CAA Section 112(r) Substances**. (see Chapter 6.2.5)
- Emergency Action Plan: National Fire Protection Association (NFPA) [pamphlet 30](#) if you have flammable and combustible liquids stored aboveground in containers and drums 60 gallons and larger and tanks 660 gallons and larger. (see Chapter 6.2.6)
- HAZMAT Security Plan if you are shipping **hazardous materials-U.S.DOT**, including shipments of hazardous waste requiring placards in excess of 1000 pounds (see Chapter 6.2.7)
- Integrated Contingency Plan (ICP) if you choose to prepare one plan that covers multiple regulatory requirements instead of developing an individual plan under each regulation. (see Chapter 6.2.8)
- Federal Site Security Plan if you have met the threshold amounts for the Chemicals of Interest (see Chapter 6.2.9)

Are you subject to the above planning requirements? First it is necessary to determine if there are regulated materials on site, and then determine if the facility meets other conditions that require planning. Ask yourself the following questions:

1. Are there regulated materials on site? Use your material safety data sheets [MSDS], hazardous waste manifests, waste survey information gathered as described in Chapter 2.1, and information about polluting materials and PCBs in Chapter 4 to answer the following questions.
 - Is the material on any list of regulated substances?
 - Is the material a product or raw material designated as a **polluting material**?
 - Is the material a **hazardous waste**?
 - Is any of it **salt** (sodium chloride, potassium chloride, calcium chloride, and magnesium chloride)?

- Is any material a flammable or combustible liquid (flashpoint below 200 degrees Fahrenheit)?
 - Is the material an **oil** (this includes vegetable oils, animal fats, synthetic oils, and petroleum products, and derivatives like mineral spirits, gasoline, diesel fuel, etc.)? Do you have 1,320 or more gallons total storage capacity, or do you have a single container with a capacity of more than 660 gallons?
 - Are there regulated PCB articles on site in temporary storage or stationary bulk storage tanks (see Chapter 4.5)?
2. If there are regulated materials or other regulated conditions, do you meet those conditions that would require planning? Information to consider includes:
- How much is on site?
 - How much is stored outdoors or indoors?
 - How long is it kept on site?
 - Is any material stored in regulated aboveground or underground storage tanks?
 - Can a release reach navigable waters of the state either by direct discharge or via a conveyance system such as drains, ditches, etc.?
 - What is the facility's hazardous waste generator status (see Chapter 2.4.3)?
 - Does the facility have a hazardous waste treatment, storage, and disposal facility permit?
 - Is the facility required to have a storm water discharge permit (see Chapter 3.2.3)?
 - What is the facility's Standard Industrial Classification (SIC) code (see Chapter 3.2.3)?
 - If a release occurred, is there a potential for a significant impact on the waters of the state (i.e., rivers, lakes, drains)?
 - Are hazardous materials as defined under U.S. DOT, NFPA, or Act 138 regulations being shipped off-site (see Chapter 4.4)?

Now use your answers while reviewing the planning requirements found in this chapter, reporting requirements found in Appendix 6-A, and the referenced regulations to see which requirements apply to your company. An overview of the various emergency plans and planning resources are discussed in more detail in the sections to follow within this chapter.

Where can you find additional site specific and general emergency planning resources?

- See if your facility has any existing emergency plans? If yes, determine if the facility is still subject to the same regulations that require those plans. Then look at current requirements to determine what needs to be updated. Maintain a plan even if it is not specifically required by the regulations to limit your liabilities.
- Go to the [DEQ Emergency Planning Web site \(www.michigan.gov/deqemergencyplan\)](http://www.michigan.gov/deqemergencyplan) for planning information and Web links.
- The Michigan State Police (MSP), Emergency Management and Homeland Security Division, offers HAZMAT training and has publications to help companies and communities prepare for hazardous materials incidents, including the:

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- ✓ "Emergency Management and Homeland Security Publications Web page" that details hazard mitigation planning and success stories, and the
- ✓ "Critical Incident Protocol — A Public and Private Partnership" for community and facility joint planning information.
- The Federal Emergency Management Agency has information at www.fema.gov for prevention and preparation.
- The Center for Disease Control (www.cdc.gov) (select Emergency Preparedness and Response) has public health emergency preparedness guidance for specific chemical information, including Chemical Safety Cards, along with information about anthrax or other bioterrorism threats.
- The U.S. Coast Guard National Response Center at www.nrc.uscg.mil/default.aspx provides information about transportation accidents, oil spills, chemical releases, and more.
- The National Oceanic and Atmospheric Administration's Office of Response and Restoration provides numerous links to chemical databases, MSDS databases, and chemical fact sheets developed by ATSDR highlighting toxicity, exposure information, and more at response.restoration.noaa.gov.
- The National Fire Protection Association (www.nfpa.org) has published the *Standard for Site Security Services for Fire Loss Prevention*, (NFPA – 601)
- The Agency for Toxic Substances and Disease Registry (www.atsdr.cdc.gov) provides a 10-step procedure to analyze, mitigate, and prevent public health hazards resulting from terrorism involving industrial chemicals.
- The American Society for Industrial Security (www.securitymanagement.com) develops educational programs and materials that address security concerns, including an online version of its magazine.
- The Center for Chemical Process Safety (www.aiche.org/ccps) develops engineering and management practices to prevent and mitigate consequences of catastrophic events involving chemical releases.
- The National Safety Council (www.nsc.org) provides general safety information on chemical and environmental issues.

6.2.1 Contingency Plans for Hazardous Waste Generators

The DEQ oversees the hazardous waste regulations that require Large Quantity and Small Quantity Generators to be prepared in case of a fire, explosion, or release of **hazardous waste**, and to maintain and operate their businesses in a way that minimizes these risks. Conditionally Exempt Small Quantity Generators are highly encouraged to also be prepared and to consider meeting the Small Quantity Generator planning conditions even though it is not required by the waste regulations. See Chapter 2.4.3 for an explanation of the generator status levels.

Basically, generators of **hazardous waste** are required to comply with the following:

1. Have proper emergency equipment available:
 - Communication devices (e.g., phones, radios, intercom, etc.).
 - Portable fire extinguishers.
 - Spill control equipment (e.g., absorbents, containers, kits).
 - Water for fire control in sufficient volumes.
 - Test and maintain equipment as necessary.
 - Have immediate access to an internal alarm system. This means personnel can activate an alarm within seconds, not minutes.
 - Provide and maintain sufficient aisle space in the **hazardous waste** handling areas to ensure access of emergency equipment and emergency personnel.
2. Meet applicable planning requirements as outlined below.

Small Quantity Generators Must:

a. Identify one employee who is on site or on call and has the responsibility to coordinate all emergency response activities. It is recommended that you identify alternative coordinators to cover when the primary person is on vacation or otherwise not available.

b. Post the following next to their telephones:

- Name and telephone number(s) of the emergency coordinator and alternates.
- Locations of fire extinguishers, alarms, and spill control material.
- Location of fire alarms if direct to fire department, or the telephone number of the local fire department.

- The DEQ has an optional “**Hazardous Waste Emergency Information**” (EQP3472) form you can use to post the required information next to telephones. You are not required to use this particular form; however, failure to have the information posted is a common violation found during **hazardous waste** inspections. There are other requirements outlined on the back of the self-sticking form that can be obtained by calling the Environmental Assistance Center at 800-662-9278.

See also the DEQ’s “**Small Quantity Generator Requirements**” fact sheet.

c. Send a diagram or discuss the layout of their facility, access roads, and evacuation routes with the local response agencies. Have arrangements in place with authorities that respond to the types of emergencies regarding the waste handled at your business. Invite police, fire departments, and emergency response teams to tour your business. If local or state authorities decline your arrangement, you must have written documentation of that refusal. If you use outside contractors to respond to emergencies, you must make arrangements with emergency response contractors and suppliers. Keep documentation of any visits by emergency response people, agreements, etc.

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- d. Submit to local hospitals a listing of possible injuries or illnesses that might result from the **hazardous waste** at their businesses.

Large Quantity Generators Must:

- a. Have a written contingency plan. This plan describes what staff will do in case of a fire, explosion, or release of **hazardous waste**. The contingency plan must include:
- Name, telephone number, and address (both home and work) for your primary and secondary emergency coordinators. These coordinators must either be on the premises or on call and able to reach the facility within a short amount of time.
 - Written procedures to follow in the event of a **hazardous waste** release that relates to the type of wastes kept on site. It must include spill and fire response, monitoring actions, and reporting sequence to emergency response organizations.
 - A list of emergency equipment at the facility, where it is located, physical description, and brief outline of its capabilities. It is recommended that you develop a floor plan and make it available to staff. The map should show location of fire extinguishing equipment (e.g., fire extinguishers, sprinklers, hoses, fire hydrants); communication or alarm systems (e.g., alarm boxes or phones, etc.); and spill control equipment (e.g., absorbents, spill kits, shovels) using easy-to-understand symbols.
 - A written evacuation plan that includes a diagram of the layout of your business, access roads, and primary and alternative evacuation routes. The plan must also describe the signals to be used to begin evacuation. These routes can be shown on the same floor plan as the emergency response equipment. It is recommended that routes include two outside areas where employees should assemble (using the one upwind of the facility).
- b. Keep a copy of the hazardous waste contingency plan at the facility.



Do NOT submit a copy of the Hazardous Waste Contingency Plan to the DEQ or to the State Emergency Response Commission (SERC) unless requested.

- c. Provide a copy of the contingency plan to *local* police and fire departments, hospitals, emergency response teams, and any emergency response contractors and suppliers you may have hired. Have proof that the plan was distributed (e.g. keep copy of a written cover letter). In the letter briefly explain why a copy of the plan is being sent, identify a contact person who answers questions, and outline any emergency response you expect from the recipient of the letter. Michigan does not have a state emergency response team that would receive a copy. If local or state authorities decline your arrangement, you must have written documentation of that refusal. If you use outside contractors to respond to emergencies, you must make arrangements with emergency response contractors and suppliers.
- d. Submit to local hospitals a listing of possible injuries or illnesses that might result from the **hazardous waste** at their businesses.
- e. Distribute the contingency plan to your employees as part of their hazardous waste training and keep documentation of an annual review.

- f. Update the plan whenever emergency coordinators or equipment change, or when the plan fails during an emergency. In addition, updates must be made if the facility makes any changes to its design, construction, operations, etc., that increase the potential for fires, explosions, or releases of **hazardous waste**, or that change the necessary response actions.

If you are required to prepare another release prevention and response plan or are preparing an integrated contingency plan (Chapter 6.2.8), you only need to add the **hazardous waste** management provisions necessary to make your existing plan comply with these additional requirements. You do not need separate plans to meet the requirements described in the hazardous waste regulations.

Not all of the specific requirements have been outlined above. See the DEQ's "[Contingency Plan and Emergency Procedures](#)" and "[Personnel Training Requirements for Fully Regulated Generators of Hazardous Waste](#)," contact your local [DEQ District Office Hazardous Waste Program](#) (see Appendix C), or refer to the regulations for more information.

6.2.2 Part 5 Rules and Pollution Incident Prevention Plans (PIPP)

The DEQ Water Resources Division's Part 5 Rules Program oversees the Part 5 Rules (Spillage of Oil and Polluting Materials) promulgated under Part 31 (Water Resources Protection) of Act 451. A facility is regulated under the Part 5 Rules and is required to have a Pollution Incident Prevention Plan (PIPP) if it:

- Meets the definition of an on-land or oil storage facility, AND
- Does not meet any of the listed conditional exemptions, AND
- Has polluting materials that meet or exceed the associated threshold management quantities,
OR
- The DEQ determines a release from the facility could cause substantial harm to the surface or ground waters of the state.

Polluting materials include oil, salt, or any material specified in table 1 (R 324.2009) in the Part 5 Rules. Mixtures that contain one percent or more by weight of a polluting material are included.

Threshold management quantity (TMQ) means any of the following:

For **salt** used, stored, or otherwise managed on the contiguous property:

- Solid form - 5 tons
- Liquid form - 1,000 gallons

For **polluting materials** listed in table 1 of the Part 5 Rules at a discrete use or storage area:

- Outdoors - 440 pounds
- Indoors - 2,200 pounds

For oil:

- Single container or tank having a capacity of more than 660 gallons; or
- Total capacity of 1,320 gallons in above ground tanks

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The Part 5 Rules have *conditional exemptions* that exempt facilities from regulation under the Part 5 Rules. Many of these exemptions apply if the facility is meeting the requirements in certain other regulations:

- If flammable or combustible liquids (flash point less than 200 degrees Fahrenheit) are **polluting materials** that exceed the TMQ, and if the facility is subject to 1941 PA 207 (Michigan's fire prevention code), then it must be in compliance with the fire prevention code for flammable and combustible liquids. Regulation under Part 5 Rules would only be required if it also had other polluting materials that exceeded the TMQ.
- If the **polluting materials** exceed the TMQ and are contained in underground storage tanks that are subject to Parts 211 and 213 of Act 451 (underground storage tanks and leaking underground storage tanks), then the facility must be in compliance with these regulations. Regulation under the Part 5 Rules is only required if it had polluting materials that exceeded the TMQ that were not contained in underground storage tanks.
- If hazardous wastes are **polluting materials** that exceed the TMQ and if the facility is subject to Part 111 of Act 451 (hazardous waste management), then it must be in compliance with the Part 111 requirements. Regulation under the Part 5 Rules would only be required if it also had other polluting materials that exceeded the TMQ.
- If oil exceeds the TMQ and if the facility is subject to Part 615 of Act 451 (oil and gas production fields) then it must be in compliance with the Part 615 requirements. Regulation under the Part 5 Rules would only be required if the facility also had other polluting materials that exceeded the TMQ.
- A federal oil pollution prevention exemption in Rule 3 [R 324.2003(1)(b)] is no longer applicable due to revisions to federal regulations that occurred since the last revision of the Part 5 Rules. Therefore, the DEQ has developed a guidance document, [DEQ POG #2](#), which outlines Part 5 Rule responsibilities for facilities with oil storage that previously fell under this exemption.
- A facility is exempt from the Part 5 Rules if all polluting materials in excess of TMQ are stored in containers that do not individually exceed 10 gallons or 100 lbs in capacity and are located indoors at a facility that is designed, constructed, maintained, and operated to prevent any spilled polluting materials from being released directly or indirectly to the surface or ground waters of the State.

The DEQ can require that a facility be regulated under the Part 5 Rules even if the polluting materials do not exceed the TMQ. A facility that receives, uses, processes, manufactures, stores, or ships polluting materials in amounts less than the applicable TMQ could be required to comply with the Part 5 Rules if it is determined that a release could be reasonably expected to result in substantial harm to the surface or groundwaters of the state.

Both on-land and oil storage facilities, as defined by the Part 5 Rules, are subject to the following:

- Surveillance to detect releases and procedures implemented to prevent any polluting materials from reaching waters of state.
- Use and indoor storage must be designed, constructed, maintained and operated to prevent releases from reaching sewers, drains, or reaching waters of the state.
- Release reporting.

On-land facilities, as defined by the Part 5 Rules, also have other requirements that must be met, including outdoor secondary containment and the development of a PIPP. The main components of a PIPP include the following:

- Facility information including emergency contacts.
- Spill control and cleanup procedures.
- Inventory of polluting materials exceeding TMQs.
- Site plan.
- Description of outdoor secondary containment for liquid polluting materials.
- Other spill control measures.
- General facility physical security methods.
- **Emergency notification procedures** that include release reporting. See Chapter 6.3 for a description of the release reporting requirements in the Part 5 Rules.

New, or existing facilities that are changing operations, so they will be meeting threshold management quantities, should have a PIPP completed before beginning those operations. Plans must be reviewed every three years or after any release that required implementation of the plan.

Within 30 days after the completion or modification of a PIPP, the owner or operator must notify the following agencies:

- [Local emergency planning committee.](#)
- [Local health department.](#)
- [DEQ District Office Part 5 Rules Program.](#) A certification stating the facility is in compliance with all the Part 5 Rules must also be submitted to the DEQ.

When submitting the certification to the DEQ, a specific form is not required. Following is sample certification language that may be used:

“Under penalty of law, this certifies that (company name) at (site address) is in full compliance with the Part 5 administrative rules pursuant to Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). A copy of the Pollution Incident Prevention Plan (PIPP) [or Integrated Contingency Plan (ICP) if prepared] may be requested by [include who and how to contact to request a copy]. The facility has met the threshold management quantity for (indicate what polluting materials you have).” Include a signature, title, date, phone number, and mailing address if different than the site address.

Although not required by the rules, facilities are being asked to voluntarily identify the category of polluting material (i.e., salt, Table 1 material, or oil) that is on-site. That information may help the agency decide if they want to request a copy of your PIPP.

Send a letter to the local agencies explaining that you are notifying them that your company has completed a PIPP or ICP and that it is available to them upon request. You must provide a copy the plan within 30 days after receiving a request.

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PIPPs may be combined with other plans into an Integrated Contingency Plan (ICP) as long as all of the information required to be in the PIPP is included. More details and a checklist are in the “[PIPP and Part 5 Rules Informational Packet](#)” (under revision) available under the Part 5 Rules Guidance Documents on the DEQ’s Part 5 Rules Web site at www.michigan.gov/part5.

Keep a copy of the PIPP on site. Do not submit a copy to the DEQ or local authorities unless requested.

6.2.3 Spill Prevention, Control, and Countermeasure (SPCC) Plan and Facility Response Plan (FRP)

The U.S. EPA, not the DEQ, oversees the federal Spill Prevention, Control, and Countermeasure (SPCC) and Facility Response Plan (FRP) requirements for oils contained in Title 40, Part 112 of the Code of Federal Regulations (40 CFR 112).

The Oil Pollution Prevention regulation (40 CFR 112) specifies requirements for prevention of, preparedness for, and response to oil discharges. It includes requirements for Facility Response Plans. The requirements help prevent oil discharges from reaching navigable waters or adjoining shorelines. Certain facilities are required to develop SPCC plans that describe equipment, workforce, procedures, and training to prevent, control, and provide adequate countermeasures to a discharge of oil.

Oils include synthetic oils, petroleum, and refined products such as mineral spirits, gasoline, diesel fuel, kerosene, vegetable oils, animal fats, etc. Other examples of oils are at this U.S. Coast Guard web site: www.uscg.mil/vrp/faq/oil.shtml.

The SPCC rule has undergone numerous amendments and revisions since it was first implemented in 1973. The most recent amendments were effective January 14, 2010, and required compliance by November 10, 2010 (facilities located offshore or with an offshore component or an onshore facility that is required to have a FRP) and November 10, 2011 (onshore facilities not required to have a FRP). Because this rule changes so frequently, it is recommended that you review the current regulations on the U.S. EPA’s Web site.



The SPCC regulations and guidance, FRP guidance, sample SPCC plans, and more information can be accessed at www.epa.gov/emergencies/content/spcc/index.htm.

Contact U.S. EPA Region 5 at 312-886-9497 with questions regarding the SPCC. Call 312-886-0622 if you have questions regarding the FRP.

Owners or operators of non-transportation related facilities subject to this regulation must prepare and implement an SPCC plan and meet other requirements regarding storage and secondary containment. In addition to the federal release reporting requirements, the SPCC plan should also include the Part 5 Rules (Spillage of Oil and Polluting Materials) release reporting requirements as discussed in Chapter 6.2.2.

You might be subject to SPCC regulation if

1. A release from your facility could potentially reach navigable waters or adjoining shorelines. Most of Michigan meets this condition. Discuss with the U.S. EPA Region 5 if a site might be exempted. The exemption determination is based on geographical aspects of the facility such as proximity to navigable waters, land contour or topography, drainage, and soil conditions. If any **oil-EPA** could reach a sewer line, drainage ditch, intermittent stream bed, or similar structure that discharges into navigable waters, either directly or indirectly, then the facility would be subject to SPCC regulations if they have threshold amounts.

AND

2. The storage capacity for **oil-EPA** at your facility meets any of the following:
 - Aboveground storage capacity exceeds 1,320 gallons.
 - Underground storage capacity exceeds 42,000 gallons.

OR

3. The U.S. EPA determines the facility needs an SPCC based on other concerns. Note that the applicability of the SPCC regulation is based on the facility's storage capacity for **oil-EPA** and not on the actual amount stored. Containers less than 55 gallons are not included. See the U.S. EPA information about other situations where oil capacity is not required to be counted.

Compliance Dates for all Facilities

A facility starting operation...	Must...
On or before August 16, 2002	<ul style="list-style-type: none"> • Maintain its existing SPCC plan • Amend and implement the SPCC plan no later than November 10, 2011 (farms have until May 10, 2013)
After August 16, 2002 through November 10, 2010	Prepare and implement the SPCC plan no later than November 10, 2011 (farms have until May 10, 2013)
After November 10, 2010	Prepare and implement a SPCC plan before beginning operations. (Owners or operators of new oil production facilities must prepare and implement and SPCC plan six months after the start of operations.)

You must complete a review and evaluation of the SPCC plan at least once every 5 years from the date the facility became subject to the requirement. See 40 CFR 112.5(b) for more information.

Three areas that must be addressed in the Plan are:

1. Operating procedures the facility implements to prevent oil spills.
2. Control measures installed to prevent oil from entering navigable waters or adjoining shorelines.
3. Countermeasures to contain, cleanup, and mitigate the effects of an oil spill that has an impact on navigable waters or adjoining shorelines.

Some other important elements of an SPCC plan include the following:

- Professional Engineer certification (unless facility meets one of the exemptions)
- Facility diagram
- Oil spill predictions

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- Release reporting
- Facility drainage
- Facility inspections
- Site security
- Five-year Plan review
- Management approval
- Appropriate secondary containment or diversionary structures
- Loading/unloading requirements and procedures for tank car and tank trucks
- Personnel training and oil discharge prevention briefings
- Brittle fracture evaluations
- Bulk storage container compliance, inspection, and integrity testing
- Transfer procedures and equipment (including piping)

Keep a copy of the SPCC plan on site. SPCC plans are not submitted to the local health department, LEPC, DEQ or the U.S. EPA unless requested.

If you are combining a SPCC plan with other plans, be sure to include a detailed cross reference to requirements in 40 CFR 112.7 that clearly indicates where SPCC information is located. See the ICP guidance materials discussed in Chapter 6.2.8.

See the U.S. EPA Web site for **Facility Response Plan (FRP)** requirements for "substantial harm" facilities. A "substantial harm" facility is a facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on navigable waters or adjoining shorelines. A facility may pose "substantial harm" according to the Facility Response Plan (FRP) rule if it:

1. Has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels; or
2. Has a total oil storage capacity greater than or equal to one million gallons and meets one of the following conditions:
 - Does not have sufficient secondary containment for each aboveground storage area
 - Is located at a distance such that a discharge from the facility could cause "injury" to fish, wildlife, and sensitive environments
 - Is located at a distance such that a discharge from the facility would shut down a public drinking water intake
 - Has had, within the past five years, a reportable discharge greater than or equal to 10,000 gallons

6.2.4 Storm Water Pollution Prevention Plan (SWPPP)

If your facility is required to obtain a permit for the discharge of storm water associated with industrial activity (see Chapter 3.2.3) you will be required to obtain the services of a certified storm water operator and develop a Storm Water Pollution Prevention Plan (SWPPP). The DEQ Water Resources Division has many materials to help you prepare a SWPPP. Materials include:

- Guidance documents,
- Training videos,
- Certified operator training materials, and
- Sample SWPPP and visual assessment written procedures templates.

These materials can be found at the “Industrial Program” link on the [DEQ stormwater Web site \(www.michigan.gov/deqstormwater\)](http://www.michigan.gov/deqstormwater) or from a DEQ District Office (see Appendix C).

The SWPPP must be:

- Signed by the certified storm water operator and either the permittee or an authorized agent.
- Kept on-site.
- Reviewed annually to assure that it adequately details the current personal and industrial activity.
- An [annual certification](#) report must be submitted by January 10th of each year.

Written documentation that is required to be maintained for 3 years with the SWPPP includes:

- Routine preventive maintenance inspection reports
- Routine good housekeeping inspection reports
- Comprehensive site inspection reports
- Discharge visual assessment reports
- Employee training records
- Written summaries of the annual SWPPP review, and
- Any other documents relevant to the storm water program at the facility.

After the plan is completed, send notification that the plan was completed to the DEQ District Office. Another requirement is to update the SWPPP whenever there are changes or releases at the facility that have the potential to increase the risk of material contact with storm water.

Do not submit a copy of the SWPPP to the DEQ unless requested.
Do submit an annual compliance report by January 10 of each year.

6.2.5 Risk Management Program

When Congress passed the Clean Air Act Amendments of 1990, Section 112(r) required EPA to publish regulations and guidance for chemical accident prevention at facilities using substances that posed the greatest risk of harm from accidental releases. These regulations require companies of all sizes that use certain listed regulated flammable and toxic substances to develop a Risk Management Program that includes:

- Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases scenarios;

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- Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and
- Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g., the fire department) should an accident occur.

A summary of the facility's risk management program (known as a "Risk Management Plan" or "RMP") was to be submitted to EPA by June 21, 1999, *for existing facilities*. The plans must be revised and resubmitted every five years. There are other circumstances described in the RMP regulations that might require a more frequent submission. New facilities, after June 21, 1999, must submit a completed RMP as soon as they have a covered chemical above the threshold quantity.

Owners and operators of a facility (stationary source) that manufactures, uses, stores, or otherwise handles more than a threshold quantity of a listed regulated substance in a process, must implement a risk management program and submit a single RMP for all covered processes at the facility. "Process" means any activity involving a listed regulated substance, including any use, storage, manufacturing, handling, or onsite movement of such substances, or combination of these activities. The regulations do not apply to transportation, including storage incident to transportation. However, transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source are considered part of the stationary source and are potentially covered by the regulations. See the *General Guidance on Risk Management Program for Chemical Accident Prevention (40 CFR Part 68)* at: www.epa.gov/osweroe1/content/rmp/rmp_guidance.htm#General, or one of the industry-specific guidance documents at: www.epa.gov/emergencies/guidance.htm for more information on regulatory coverage.

The regulation includes a list of 140 toxic and flammable substances, including threshold quantities (in pounds), to help assess if a process is subject to the Risk Management Program requirements **or the general duty clause**.



The U.S. EPA's "[List of Lists](#)" identifies the **Clean Air Act (CAA) 112(r) substances** and is available at www.michigan.gov/deqemergencyplan under "Quick Links" in the upper right corner.

The RMPs must be submitted to the U.S. EPA using the Web-based software RMP*eSubmit. For software or submittal questions, contact the RMP Reporting Center at 703-227-7650.

The General Duty Clause (GDC), section 112(r)(1), applies to any facility where extremely hazardous substances are present. There is no list of these substances and no minimal threshold. In this case, the term "extremely hazardous substance" means any substance "which may or may not be listed or otherwise identified by any Government agency which may as the result of short-term exposures associated with releases to the air cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility, or corrosivity." The GDC requires that owners and operators of stationary sources producing, processing, handling or storing extremely hazardous substances identify hazards associated with an accidental release, design and maintain a safe facility, and minimize consequences of accidental releases that occur.

Access the software and additional information at: www.michigan.gov/deqemergencyplan (select “Risk Management Plan”).

6.2.6 *Emergency Action Plan*

Written Emergency Action Plans are required when a facility has flammable and combustible liquids on site in aboveground containers if the following exemptions do not apply:

- Liquids are used solely for onsite consumption as fuels.
- Operations where Class II liquids (flashpoint of 100 degrees and below 140 degrees Fahrenheit) or Class III liquids (flashpoint of 140 degrees Fahrenheit or higher) are stored in atmospheric tanks or transferred at temperatures below their flash points.
- Mercantile occupancies, crude petroleum exploration, drillings and well servicing operations, and normally unoccupied facilities in remote locations. Mercantile occupations include the use of a building or structure for the wholesale or retail display, storage and merchandising of goods or wares.

Don't confuse this Emergency Action Plan with the plan required by MIOSHA discussed in Chapter 23.

This planning requirement is included in Chapter 5 of the National Fire Protection Association (NFPA) pamphlet number 30, 2000 edition, Section 5.12, which is adopted by the state Flammable and Combustible Liquid Rules. This pamphlet can be ordered from the NFPA at www.nfpa.org. The facility needs to evaluate site specific conditions and risks of fire hazards, including the emergency response capabilities of local emergency services. The plan needs to include the following:

- Procedures to follow in case of fire, such as sounding the alarm, notifying fire department, evacuating people, controlling and extinguishing the fire.
- Procedures and schedules for having drills of these procedures.
- Identifying and training employees to carry out assigned duties.
- Maintenance of fire protection equipment.
- Procedures for shutting down or isolating equipment to reduce the release of liquid.
- Identifying alternate measures for safety of employees.

See Chapter 4.3 for plan requirements for underground storage tanks and for more information on storage of flammable and combustible liquids. Contact the DLARA, Storage Tank Program at 517-241-8847 for questions or go to www.michigan.gov/storagetanks.

Keep a copy of the plan on site. Do not submit to the DEQ unless requested.

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6.2.7 HAZMAT Security Plan

The U.S. DOT transportation regulations (Subpart I Part 172 ([49 CFR 172.800](#))) require shippers of any of the following hazardous materials to develop a hazardous materials security plan:

- Highway route-controlled quantities of Class 7 (radioactive) materials as defined in 49 CFR 173.403 in a motor vehicle, rail car, or freight container
- More than 25 kg (55 lb) of Division 1.1, 1.2, or 1.3 (explosive) materials in a motor vehicle, rail car, or freight container
- More than 1 L (1.06 qt) per package of any material that is extremely toxic by inhalation, as defined by 49 CFR 171.8, that meets criteria for Hazard Zone A, as specified in 49 CFR 173.116(a), or 49 CFR 173.133(a)
- Hazardous materials in bulk packaging having a capacity of 13,248 L (3,500 gal) or more for liquids or gases, or 13.24 cubic meters (468 cubic feet) or more for solids
- Hazardous materials, not in a bulk package, of 2,268 kg (5,000 lb) gross weight or more of a class of hazardous materials for which placarding of the vehicle, rail car, or freight container is required for that class under the provisions of 49 CFR 172 subpart F
- Any quantity of hazardous material that requires placarding under 49 CFR 172 subpart F, including hazardous waste. Placards are required when the shipment is in excess of 1000 pounds.
- Select agents or toxins regulated by the Centers for Disease Control and Prevention under 42 CFR 73

A written security plan must contain the following sections:

- Personnel Security
- Unauthorized Access
- En Route Security

Go to www.fmcsa.dot.gov/safety-security/safety-security.htm for resources regarding safety and security for highway transport of hazardous materials. Many of the other emergency planning requirements cover some components required within the security plan.

The plan must be made available to the employees responsible for implementing it. Unlike other contingency plans, the security plan contents should be shared only with those employees whose responsibilities involve the shipment and handling of hazardous materials. Typically, this could include plant security, EHS representatives, maintenance, and shipping/receiving personnel. An appropriate list of personnel who require disclosure of the plan contents should be developed.

Keep the security plan as long as it remains in effect and any updates or changes must be communicated to the affected employees.

Every hazmat facility needs security training (see Chapter 4.4) and must keep training records. Even if you don't ship any of the above hazardous materials requiring a security plan, your employees must receive hazmat security awareness training if you ship any hazardous materials. This training can be combined with other required training sessions.



Call the U.S. Department of Transportation's Hazardous Materials INFO-LINE at 800-467-4922 for more information.

6.2.8 Integrated Contingency Plan (ICP)

Many facilities are required to maintain more than one emergency response plan. If you are subject to plan requirements under multiple regulations, you may combine all the required components into one plan called an Integrated Contingency Plan (ICP). The National Response Team's ICP Guidance provides a format for a comprehensive emergency response plan. This one-plan guidance is intended to be used by facilities to prepare emergency response plans for responding to releases of oil and non-radiological hazardous substances. It can be used by *any* facility, whether or not the facility is subject to specific planning requirements under federal and/or state regulations. The guidance was published in 1996 and is available on the [DEQ's Emergency Planning Web site \(www.michigan.gov/deq/emergencyplan\)](http://www.michigan.gov/deq/emergencyplan).

Use of the ICP format by facilities is supported by federal agencies (U.S. EPA, U.S. DOT, Department of the Interior, and Department of Labor) and state agencies (Michigan Citizen-Community Emergency Response Coordinating Council, State Police, DEQ, Department of Agriculture and Rural Development, and Department of Licensing and Regulatory Affairs). Michigan agencies strongly encourage facilities to use the ICP format.

There are three main sections of an ICP as described below:

Plan Introduction. This section is designed to provide facility response personnel, outside responders, and regulatory officials with basic information about the plan and the entity it covers. It includes:

- Purpose and Scope of Plan Coverage
- Table of Contents
- Current Revision Date
- General Facility Identification Information

Core Plan. This section is intended to reflect the essential steps necessary to initiate, conduct, and terminate an emergency response action. It should be concise, easy to follow, reference annexes that provide more detailed information, and fit into the glove-box of a response vehicle. It includes:

- Discovery
- Initial Response Procedures
- Sustained Actions
- Termination and Follow-Up Actions

Supporting Annexes. The annexes are designed to provide key supporting information for conducting an emergency response under the core plan as well as document compliance with regulatory requirements not addressed elsewhere in the ICP. They should augment, not duplicate, core plan information. Annexes include:

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- Facility and Locality Information
- Notification Requirements
- Response Management System
- Incident Documentation
- Training and Exercises/Drills
- Response Critique and Plan Review and Modification Process
- Prevention
- Regulatory Compliance and Cross-Reference Matrices

In addition to the ICP guidance, information on many of the plans that can be integrated into the ICP, such as SPCC, RMP, PIPP, and SWPPP, are available on the DEQ's Emergency Planning Web site. This site includes guidance specific to the inclusion of federal and state plan requirements into the ICP, contacts for help regarding requirements of specific plans, emergency planning information and workbooks for facilities that are not subject to specific planning requirements, and plan submittal guidance.

Not all plans are required to be submitted to the DEQ. *Please read about where you should submit your plan **before** you submit a copy.*

6.2.9 Federal Site Security Plan (SSP)

A regulated facility under this federal site security planning requirement is any establishment that possesses or plans to possess, at any relevant point in time, a quantity of a chemical substance determined to be potentially dangerous or that meets other risk-related criteria identified by the U.S. Department of Homeland Security (DHS). Review the Appendix A "Chemicals of Interest List" and site security planning information available at www.dhs.gov/critical-infrastructure-chemical-security. Appendix A includes approximately 300 chemicals of interest. Some of these chemicals are also listed as polluting materials under the state's Part 5 Rules as discussed in Chapter 6.2.2.

The DHS oversees the Chemical Facility Anti-Terrorism Standards (CFATS) that require facilities to prepare vulnerability assessments and develop and implement Site Security Plans if they are considered high risk. In some specified circumstances, a facility may be able to submit an alternate security program.

Owners of facilities with chemicals above the threshold quantities should have completed a preliminary online assessment to determine the level of risk associated with their facility by January 19, 2008. After this step, the DHS will determine if the facility presents a security risk and is subject to the Chemical Facility and Anti-Terrorism Standards. Submissions will be validated through audits and site inspections. The DHS will provide technical assistance to facility owners and operators as needed. Security standards will be required to achieve specific outcomes, such as securing the perimeter and critical targets, controlling access, deterring theft of potentially dangerous chemicals, and preventing internal sabotage.



If you have questions about CFATS go to csat-help.dhs.gov or call the CFATS Help Desk at 866-323-2957.

6.3 Release Notification Requirements in Michigan

While diligent efforts have been made to assure that the information provided in the table provided in this chapter is accurate and complete as of January 1, 2018, there is no guarantee that it covers all of the regulatory requirements for release notification and reporting in Michigan.

Chemical releases in Michigan are potentially reportable under one *or more* of twenty-seven different **state and federal regulations**. Determining which regulations apply to a specific release can be an overwhelming task. The “Release Notification Requirements in Michigan” table was compiled by the Michigan SARA Title III Program in the DEQ to help owners and operators of facilities in Michigan, including vehicles and farms, determine their potential notification and reporting requirements in the event of a chemical release.

Check your permits, licenses, registrations, pollution prevention plans, and local ordinances for *additional* release reporting requirements. In particular, all NPDES permits and most air permits have release reporting requirements in them that are not included on this table.

This table should be used as a tool to identify potential reporting requirements *before* a release occurs, and to identify follow-up reporting requirements based on the release. The table outlines **what** releases must be reported, **when** they must be reported, and **to whom** they must be reported.

6.3.1 What is a Chemical Release?

The term “release” means spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing. “Chemical” includes substances considered to be toxic or hazardous as well as substances as seemingly harmless as salad oil.

6.3.2 Chemical Lists

The U.S. EPA published a consolidated list of chemicals subject to SARA Title III, CERCLA, and section 112(r) of the Clean Air Act called the “List of Lists.” The List of Lists (March 2015) is available at www.epa.gov/epcra/epcracerclacaa-ss112r-consolidated-list-lists-march-2015-version and includes:

- **Hazardous substances-CERCLA** including RCRA waste streams and unlisted hazardous wastes, with reportable quantities (RQ) for releases (originally published in 40 CFR 302, Table 302.4).
- SARA Title III section 304 **Extremely Hazardous Substances** (EHS) with RQs for releases (originally published in 40 CFR 355, Appendix A).
- SARA Title III Section 313 **Toxic chemicals** (originally published in 40 CFR 372 Subpart D).

The Part 5 Rules, Spillage of Oil and Polluting Materials, were promulgated pursuant to Part 31 of Act 451. These rules include a list of “**polluting materials**” with threshold reporting quantities for releases.

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NOx Exemption in CERCLA and SARA Title III

The U.S. EPA finalized an exemption for certain releases of emissions of NO and NO₂ (collectively NOx) to air from CERCLA and SARA Title III reporting requirements (71 FR 58525). The exemption was effective November 3, 2006, and applies to releases to the air of less than 1,000 pounds of NOx in 24 hours that are the result of combustion. The exemption also applies to emissions from combustion-related activities such as detonation or processes that include both combustion and non-combustion operations, such as nitric acid production.

Petroleum Exclusion in CERCLA

Petroleum, including crude oil or any fraction thereof is excluded from the definitions of "hazardous substance," and "pollutant or contaminant" under CERCLA. Petroleum releases, accordingly, must generally be addressed under the authority of other law such as the underground storage tank (UST) provisions of RCRA, or the Clean Water Act (CWA). This exception, which has become known as the "**petroleum exclusion**," plays a significant role in CERCLA because many sites contain petroleum contamination. Petroleum frequently contains specific listed hazardous substances, the most common of which are benzene, toluene and xylenes. In general, such substances are not treated as CERCLA hazardous substances as long as they are found in refined petroleum fractions and are not present at levels that exceed those normally found in such fractions. Substances present in petroleum as a result of contamination during use or from mixing or combining are not within the petroleum exclusion and in such cases the substances are considered **hazardous substances-CERCLA**.

Part 201 of Act 451, Environmental Remediation, section 20114(1)(b) states that the requirements to report a release under this regulation apply to "reportable quantities of hazardous substances established pursuant to 40 CFR 302.4 and 302.6 (2012)..." This regulation references the listed hazardous substances published in the Code of Federal Regulations. It does not adopt the petroleum exclusion that applies to federal regulation of releases of **hazardous substances-CERCLA**. As a result, petroleum constituents, including component substances such as benzene, toluene, and xylenes, plus any additives (e.g., MTBE, lead) are all reportable under Part 201 based on the reportable quantities in the 2012 version of the CERCLA list of hazardous substances published in 40 CFR 302.4 and 302.6. (See the release calculation example in Chapter 6.3.1.)

Initial Notification: There is NO PENALTY for over-reporting!

When there is a release, determining if, when, and to whom it should be reported can be a daunting task even if you are familiar with the table. It is therefore recommended that **if there is a release, immediately call** the following three numbers even if the content or quantity of the released material has not yet been determined:



Post These Numbers by Every Phone

1. **911** to notify Local authorities
2. **800-292-4706** (PEAS) to notify State authorities
3. **800-424-8802** (NRC) to notify Federal authorities

You can then respond to the release, reassess the situation, and make additional notifications as required (e.g. as specified in the table or in your permits). Your follow-up report will provide details that explain why a release was *or was not* reportable.

SARA Title III section 304 requires that the LEPC be notified immediately of a release. Many LEPCs accept the call to 911 as notification. Others require direct notification. Contact your LEPC in advance to find out their requirements.

Written Follow-up Report

Written follow-up report forms that are specified in the table are required by regulation. The DEQ has developed a generic written report form called “Spill or Release Report” (EQP 3465) that can be used to report releases of:

- **Hazardous substances-CERCLA and extremely hazardous substances** under SARA Title III.
- **Hazardous waste** under Part 111 of Act 451.
- **Liquid industrial by-products** under Part 121 of Act 451.
- **Hazardous substances** under Part 201 of Act 451.
- **Polluting materials** under Part 31 of Act 451, Part 5 Rules.

Hot Tip!

Use the generic Spill or Release Report form to record *initial* notifications.

Links to the release reporting forms and chemical lists referenced in the table are available on the [DEQ's Release Reporting Web site](http://www.michigan.gov/chemrelease) at www.michigan.gov/chemrelease. Visit this site for updated versions of this table, as well as updated DEQ and LEPC contact information.

NOTE: Executive Order 2012-14 transferred the DEQ storage tank program to the Bureau of Fire Services in LARA effective December 2, 2012. Phone numbers and email addresses associated with the storage tank program and staff have not changed.

For information regarding a specific regulation, contact the agency specified in the “notes” column of the table. If this is a DEQ division, contact the *district* division office.

General questions or comments regarding this table should be directed to the Michigan SARA Title III Program at 517-284-SARA (284-7272) or deq-sara@michigan.gov.



DEQ Release Reporting Web site:
www.michigan.gov/chemrelease

Acronyms are defined at the end of the table.

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Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
SARA Title III Section 304 40 CFR 355.40 (EHS & Hazardous Substances)	<p>Release of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or Extremely Hazardous Substance (EHS) (40 CFR 355, Appendix A) from a facility (all buildings, equipment, etc. located on a single site or adjacent sites owned or operated by the same person) at which a hazardous chemical (as defined under 29 CFR 1910.1200(c)) is used, produced or stored (including motor vehicles, rolling stock, and aircraft) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hr period that migrates beyond the facility boundaries.</p> <p>Includes continuous release reportable under CERCLA Section 103.</p> <p>Excludes release that is federally permitted or that results in exposure to persons solely within the boundaries of the facility. See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p> <p>Excludes release < 1000 lbs of NOx released to the air from combustion or combustion-related activities.</p>	<p>Immediate (within 15 minutes after discovery) to: LEPC(s) of any area(s) potentially affected, and SERC (<i>DEQ PEAS line accepts notification on behalf of SERC</i>) by owner or operator.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08): Only CAFOs are required to report continuous releases to the air from animal waste.</p> <p>Transportation related releases can be reported to 911.</p>	<p>As soon as practicable (within 30 days) after release: to LEPC(s) and SERC.</p> <p>Not required for releases that occur during transportation or from storage incident to transportation.</p> <p>For continuous releases: Initial written within 30 days after initial telephone notification: to LEPC(s) and SERC.</p> <p>Michigan SARA Title III Program accepts reports on behalf of the SERC.</p>	<p>PEAS: 800-292-4706</p> <p>Contact your LEPC for a phone number to report releases.</p> <p>Call 911 if your LEPC is not active.</p> <p>For further information & LEPC contact information, contact Michigan SARA Title III Program 517-284-7272</p>
CERCLA Section 103 40 CFR 302 (Hazardous Substances)	<p>Release into the environment of a CERCLA hazardous substance (40 CFR 302, Table 302.4) or hazardous constituent in a mixture or solution (including hazardous waste streams) from a vessel or facility (any building, structure, etc. including motor vehicles, rolling stock, aircraft, pipe, pipeline, well, pond, lagoon, impoundment, ditch, landfill, or site where a hazardous substance has come to be located) in a quantity equal to or greater than its corresponding reportable quantity in any 24-hour period.</p> <p>Excludes petroleum, including oil, or any fraction thereof.</p> <p>See 40 CFR 302.6 for notification requirements for radionuclide releases.</p> <p>Includes continuous release: occurs without interruption or abatement or that is routine, anticipated, and intermittent and incidental to normal operations or treatment processes.</p> <p>See 67 FR 18899 (4/17/02) for guidance on the CERCLA federally permitted release definition for certain air emissions. See 71 FR 58525 (10/4/06) re Exemption for NOx releases to the air of < 1000 lbs from combustion or combustion-related activities.</p> <p>Does not apply to the application, handling, and storage by an agricultural producer of a pesticide product registered under FIFRA.</p>	<p>Immediate (within 15 minutes after discovery) to: NRC by person in charge of vessel or offshore or onshore facility.</p> <p>Continuous releases must be identified as such and are reported initially and when there is a significant change in the release.</p> <p>See 73 FR 76948 (12/18/08) re Exemption from reporting continuous releases to the air from animal waste.</p>	<p>For continuous releases only: Initial written within 30 days after initial telephone notification & Follow-up within 30 days of first anniversary of initial written notification to: U.S. EPA Region 5.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact Michigan SARA Title III Program 517-284-7272 or U.S. EPA's Superfund, TRI, EPCRA, RMP, and Oil Information Center 800-424-9346</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan as of January 2016. **Releases may be reportable under multiple regulations. Additional reporting requirements** might be found in **permits, licenses, registrations, contingency and pollution prevention plans**, and local ordinances.

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 201, Environmental Remediation</p>	<p>(i) Unpermitted release into the environment over a 24-hour period of a hazardous substance (<i>July 1, 2012, edition</i> of the CERCLA list, 40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity.</p>	<p>Within 24 hours after discovery: to DEQ-RRD district office (PEAS after hours) by owner or operator or person holding easement interest.</p>		
	<p>Does not include release solely from UST systems regulated under Part 213, and release solely from disposal area licensed under Part 115 and discovered through disposal area's hydrogeological monitoring plan.</p>	<p>Report agricultural release to MDARD.</p>		<p>PEAS: 800-292-4706</p>
	<p>Release of substance regulated by Michigan Department of Agriculture & Rural Development (MDARD) (fertilizer, soil conditioner, or pesticide) excluding normal agricultural practices: <i>also</i> report to MDARD.</p>	<p>Within 30 days after discovery: to DEQ-RRD district office and owners of property to which hazardous substances migrated or owner of surface property by owner or operator of property where release occurred.</p>	<p>Upon request: Provide a response activity plan to DEQ-RRD district supervisor.</p>	<p>MDARD Agriculture Pollution Emergency Hotline: 800-405-0101</p>
	<p>(ii) The owner or operator has reason to believe that one or more hazardous substances are migrating or have migrated from his or her property and are present beyond the property boundary at a concentration in excess of cleanup criteria for unrestricted residential use.</p>	<p>(iii) The release is a result of an activity that is subject to permitting under NREPA Part 615 and the owner or operator is not the owner of the surface property and the release results in hazardous substance concentrations in excess of cleanup criteria for unrestricted residential use.</p>		<p>For further information contact DEQ-RRD</p>
<p>Hazardous substance means a hazardous substance defined in CERCLA (40 CFR 302), hazardous waste as defined in NREPA part 111, petroleum as defined in NREPA part 213, or any substance demonstrated to pose an unacceptable risk to public health, safety, welfare, or the environment.</p>	<p>Specific form required for: "Notice of Migration of Contamination" (Form EQP4482).</p>			
<p>Cleanup criteria for unrestricted residential use means criteria that satisfy the requirements in section 20120a(1)(a) or (16); or as defined under NREPA part 213.</p>				

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan as of January 2016. **Releases may be reportable under multiple regulations. Additional reporting requirements** might be found in **permits, licenses, registrations, contingency and pollution prevention plans**, and local ordinances.

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Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (Agricultural)	Release to the environment of a commercial pesticide >5 gallons or 100 pounds. Reportable agrichemical spills as defined in the provisions of SARA Title III section 304 and CERCLA section 103 shall be immediately reported to PEAS and the NRC. The term "release" excludes normal agricultural practices.	Immediate: to PEAS* Also notify NRC for spills reportable under SARA Title III & CERCLA. *MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.	Within 90 days: to MDARD Pesticide and Plant Pest Management Division a revised site plan.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 PEAS: 800-292-4706 NRC: 800-424-8802 or online at www.nrc.uscg.mil For further information contact MDARD: 517-284-5644
NREPA 1994 PA 451 Part 83, Pesticide Control Regulation 640, Commercial Pesticide Bulk Storage (Agricultural)	Release to the environment of a commercial pesticide >5 gallons or 100 pounds. Reportable agrichemical spills as defined in the provisions of SARA Title III section 304 and CERCLA section 103 shall be immediately reported to PEAS and the NRC. The term "release" excludes normal agricultural practices.	Immediate: to PEAS* Also notify NRC for spills reportable under SARA Title III & CERCLA. *MDARD prefers direct notification to their hotline. PEAS forwards all agriculture calls to MDARD.	Within 90 days: to MDARD Pesticide and Plant Pest Management Div. a revised site plan.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 PEAS: 800-292-4706 NRC: 800-424-8802 or online at www.nrc.uscg.mil For further information contact MDARD: 517-284-5644
NREPA 1994 PA 451 Part 85, Fertilizers Regulation 641 Commercial Fertilizer Bulk Storage Regulation 642, On Farm Fertilizer Bulk Storage (Agricultural)	Release to the environment of a commercial fertilizer >55 gallons liquid or 650 pounds dry, or tank overfills; or an on farm fertilizer > 55 gallons liquid. For storage tank with bladder system instead of diking: also report all overfills and internal spills. The term "release" excludes normal agricultural practices. The term "liquid fertilizer" excludes anhydrous ammonia.	Immediate: to MDARD by commercial bulk storage facility personnel (For farms, the regulation does not specify who makes the report.)	Not required.	MDARD Agriculture Pollution Emergency Hotline: 800-405-0101 For further information contact MDARD 517-284-5644

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan as of January 2016. **Releases may be reportable under multiple regulations. Additional reporting requirements** might be found in **permits, licenses, registrations, contingency and pollution prevention plans**, and local ordinances.

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>Fire Prevention Code 1941 PA 207 Section 29.5g</p>	<p>A fire, explosion, spill, leak, accident, or related occurrence that involves the transportation, storage, handling, sale, use, or processing of hazardous material by a firm, person, or vehicle.</p> <p>Hazardous material = explosives, pyrotechnics, flammable gas, flammable compressed gas, flammable liquid, nonflammable compressed gas, combustible liquid, oxidizing material, poisonous gas or liquid, LPG, or irritating, etiologic, radioactive, or corrosive material.</p> <p>Act 207 amended 6/19/2006. The State Fire Marshall is in LARA, Bureau of Fire Services.</p>	<p>Immediately following incident, report known details regarding incident to: LARA Bureau of Fire Services <i>and</i> organized local fire department By owner of firm or vehicle or the person <i>and</i> the chief of first police or organized fire department upon scene of incident.</p>	<p>Not required.</p>	<p>Contact LARA Bureau of Fire Services by calling the MSP HazMat hotline: 800-525-5555</p> <p>For further information: contact local fire department</p>
<p>Fire Prevention Code 1941 PA 207 Part 2 of Storage and Handling of Flammable and Combustible Liquids rules (FL/CL code)</p>	<p>A release from an AST system of > 55 gal of any flammable or combustible liquid (flash point < 200°F) to the ground or within a secondary containment area during any 24 hour period.</p> <p>Note: Many liquid pesticides are combustible (flash point between 100 and 200°F).</p>	<p>As soon as practicable after detection of release: to PEAS by owner or operator.</p>	<p>Within 10 days after release: to LARA Bureau of Fire Services, Storage Tank Division, outlining cause, discovery, response to prevent recurrence.</p>	<p>PEAS: 800-292-4706</p> <p>For further information: contact LARA Bureau of Fire Services, Storage Tank Division 517-335-7211</p>
<p>49 CFR 171 (Transportation of Hazardous Materials)</p>	<p>Initial verbal notice: Incident during transportation (including loading, unloading, temporary storage) involving (1) hazardous material and resulting in death, injury requiring hospitalization, public evacuation ≥ 1 hour, major transportation artery or facility closure ≥ 1 hour, or flight pattern alteration; (2) fire, breakage, spillage, or suspected radioactive contamination occurs involving a radioactive material; (3) fire, breakage, spillage or suspected contamination involving an infectious substance other than a regulated medical waste; (4) marine pollutant release exceeding 450 L (119 gal) liquid or 400 kg (882 lbs) solid; (5) other per judgment of person in possession of the hazardous material (e.g., continuing danger to life exists at scene of incident); (6) during transportation by aircraft, a fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a battery or battery-powered device.</p> <p>Hazardous material = CERCLA hazardous substance (40 CFR 302, Table 302.4), hazardous waste (40 CFR 262), marine pollutant (49 CFR 172.101 Appendix B), elevated temperature material, listed on Hazardous Materials Table (49 CFR 172.101), or meets criteria for hazard class/division in 49 CFR 173.</p> <p>Written follow-up report: Required for all of above, plus any unintentional release of hazardous material from a package (including tank); or any quantity of hazardous waste discharged during transportation; or structural damage to lading retention system, even if no release, on specification cargo tank with ≥ 1000 gal capacity containing hazardous material; or undeclared hazardous material discovered.</p>	<p>As soon as practical but no later than 12 hours after occurrence of the incident: to NRC by each person in physical possession of the hazardous material.</p> <p>(A reportable incident <i>must</i> be reported by telephone, not online.)</p> <p>For infectious substances, notice may be given to the Director, Centers for Disease Control and Prevention, U.S. Public Health Service instead of NRC.</p>	<p>Within 30 days after discovery: to US DOT on DOT Form F 5800.1 (01-2004) "Hazardous Materials Incident Report."</p> <p>Report online at https://hazmatonline.phmsa.dot.gov/incident/</p> <p>Report must be updated within 1 year of incident if: Death results from injury; hazardous material or package info on prior report misidentified; damage, loss or cost not known on prior report becomes known or changes by \$25,000 or 10%.</p> <p>See regulation for exceptions to written report.</p>	<p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>U.S. Public Health Service 800-232-0124</p> <p>For further information contact US DOT Hazardous Materials Information Center at 800-467-4922 or online at www.phmsa.dot.gov/hazmat</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

*This table covers only those reporting requirements found in rules and regulations that apply in Michigan as of January 2016. **Releases may be reportable under multiple regulations. Additional reporting requirements** might be found in **permits, licenses, registrations, contingency and pollution prevention plans, and local ordinances.**

SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 31, Water Resources Protection (Release to surface of ground, surface water, groundwater or public sewer system)	Unpermitted release directly or indirectly to public sewer system, surface of ground, surface water or groundwater from an oil storage facility or on-land facility of a "polluting material" (oil, salt , or any material specified in table 1 in R 324.2009) in excess of its threshold reporting quantity during any 24-hour period. See Part 5 rules, effective 8/31/01, for details and exemptions. HB 5586 effective 6/15/04 amended the reporting requirements. <i>Rule revisions pending.</i>	As soon as practicable after detection: to PEAS <i>and</i> 911 by owner, operator or manager. State agencies call 911 if release reported to them by another state or Canada.	Within 10 days after release: to DEQ-WRD district supervisor <i>and</i> to the local health department where the release occurred, outlining cause, discovery, response & prevention of recurrence.	PEAS: 800-292-4706 For further information contact DEQ-WRD
CWA Section 311 33 CFR 153 (Navigable waters – Coast Guard/DOT) Control of Pollution by Oil and Hazardous Substances , Discharge Removal	Discharge of a harmful quantity of oil or a hazardous substance from a vessel or onshore or offshore facility into or upon navigable waters of the United States or adjoining shorelines . Harmful quantity = oil discharge that violates applicable water quality standards, or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; or a CERCLA hazardous substance (40 CFR 302, Table 302.4) in a quantity equal to or greater than its corresponding reportable quantity. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility. If direct reporting to NRC not practicable, may report to district Coast Guard or EPA predesignated OSC.	Not required.	NRC: 800-424-8802 or online at www.nrc.uscg.mil District 9 Coast Guard 216-902-6117 U.S. EPA Region 5 for predesignated OSC 312-353-2318 For further information contact U.S. EPA Region 5 at 312-353-8200 or District 9 Coast Guard at 216-902-6045
CWA Section 311 40 CFR 110 (Discharge of Oil)	Discharges of oil that violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines , or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. Oil = oil of any kind or in any form including petroleum, crude oil, petroleum refined products, sludge, oil refuse, oil mixed with wastes, etc., as well as vegetable and animal oils.	Immediate: to NRC by person in charge of vessel or facility.	Not required.	NRC: 800-424-8802 or online at www.nrc.uscg.mil For further information contact DEQ-WRD
NREPA 1994 PA 451 Part 31, Water Resources Protection (Sewer Systems)	Discharge of untreated sewage or partially treated sewage from a sewer system onto land or into the waters of the state. "Sewer system" means a sewer system designed and used to convey sanitary sewage or storm water, or both.	Immediate (within 24 hours): to DEQ-WRD district office (PEAS after hours); Local health departments; Daily newspaper circulated in source & affected counties; & Affected municipalities.	At end of discharge: to same parties notified initially on Form EQP 5857 (Rev. 12/2011) "Report of Discharges of Untreated or Partially Treated Sewage." Includes results of E. coli testing.	PEAS: 800-292-4706 For further information contact DEQ-WRD

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

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Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 41, Sewerage Systems</p>	<p>Discharges of pollutants from sewerage systems (which can include combined sewers) in excess of those authorized by a discharge permit issued by the DEQ to surface water or groundwater as a result of a facility breakdown or emergency.</p> <p>Sewerage systems handle sanitary sewage or other industrial liquid wastes.</p>	<p>Promptly: to DEQ-WRD district office (PEAS after hours) by owner.</p>	<p>Within 72 hours: to DEQ-WRD district supervisor, outlining cause, discovery, corrective actions taken to minimize impact, restore operations, and eliminate future unpermitted discharges.</p>	<p>PEAS: 800-292-4706</p> <p>For further information contact DEQ-WRD</p>
<p>NREPA 1994 PA 451 Part 211, Underground Storage Tanks Part 213, Leaking Underground Storage Tanks</p>	<p>Releases of a regulated substance of any amount from underground storage tank (UST) systems (includes the emergency shutoff valve on down) subject to registration; overflow from UST fillpipe or vent onto ground; release from aboveground pipe attached to UST system.</p> <p>Regulated substance = petroleum or CERCLA hazardous substance (40 CFR 302, Table 302.4) or substance listed in CAA title 1 part A sect 112. Petroleum includes, but is not limited to, crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, and petroleum solvents.</p>	<p>(Part 211) Within 24 hours after discovery: to LARA Bureau of Fire Services, Storage Tank Division by email or fax on Form EQP 3826 (Rev. 4/12) If free product, Form EQP 3800 (Rev 02/2003) required by UST owner or operator, or employee of owner or operator. Includes releases discovered years after UST system removed</p>	<p>(Part 213) At 180 days: Initial Assessment Report on Form EQP3841 (Rev. 02/2003) if not closed; at 365 days: Final Assessment Report on Form EQP3842 (Rev. 11/2006) if still not closed; at closure: Closure Report on Form EQP3843 (Rev. 02/2003) to DEQ-RRD district project manager.</p>	<p>Email: deq-std-tanks@michigan.gov</p> <p>Fax: 517-335-2245</p> <p>For further information contact DEQ-RRD or phone 800-MICHUST</p>
<p>NREPA 1994 PA 451 Part 111, Hazardous Waste Management (Generators; Treatment, Storage & Disposal Facilities (TSDF); Transporters)</p>	<p>Any amount of characteristic hazardous waste or listed hazardous waste (as defined in R 299.9203 "Hazardous Waste Rule 203") reaches the surface water or groundwater, or A fire, explosion, or other release of hazardous waste or hazardous waste constituent occurs that could threaten human health or the environment. or A release of >1lb (or ≤1lb if not immediately cleaned up) hazardous waste to the environment from a tank system or associated secondary containment system.</p> <p>Additional hazardous waste reporting requirements under NREPA Part 201 and CERCLA.</p> <p>NREPA Part 111 requires transporters to comply with 49 CFR 171 and 33 CFR 153.</p>	<p>Immediate: to PEAS (or for Tank systems/secondary containment, within 24 hours of discovery to DEQ-OWMRP)</p> <p>and to NRC if threat to human health or environment outside facility by generator, or owner or operator of TSDF, or transporter.</p>	<p>For large quantity generators and TSDF: Within 15 days after incident IF the contingency plan had to be implemented to: DEQ-OWMRP.</p> <p>For tank/secondary containment systems: Within 30 days of discovery to: DEQ-OWMRP.</p> <p>For transporters: to US DOT if required per 49 CFR 171.</p>	<p>PEAS: 800-292-4706</p> <p>NRC 800-424-8802 or online at www.nrc.uscg.mil</p> <p>For further information contact DEQ-OWMRP</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

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SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
NREPA 1994 PA 451 Part 121, Liquid Industrial By-Product	The liquid industrial by-product spill could threaten public health, safety, welfare, or the environment, or has reached surface water or groundwater. Liquid industrial by-product includes nonhazardous brine, by-product, industrial wastewater, leachate, off-spec commercial chemical product, sludge, sanitary or storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid by-product not regulated by other laws.	Immediate: to PEAS and local authorities by generator, transporter, or owner or operator of facility. Refer to MCL 324.12111(1) for required report elements	Prepare within 30 days after incident. Submit upon request to: DEQ-OWMRP district supervisor. Refer to MCL 324.12111(1) for required report elements	PEAS: 800-292-4706 For further information contact DEQ-OWMRP
NREPA 1994 PA 451 Part 55, Air Pollution Control	Abnormal condition, start-up, shutdown, or malfunction that results in emissions exceeding permissible (in rule, permit or order) levels of hazardous air pollutants (HAPs) (CAA Sect. 112(b)) or toxic air contaminants (as specified in permit) for > 1 hour, or any air contaminant for > 2 hours. Written follow-up report only required for emission exceedences lasting > 2 hours.	As soon as possible, but not later than 2 business days after discovery to: DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 10 days after start-up, shutdown, or abnormal condition, malfunction corrected. Or within 30 days of abnormal condition, malfunction discovery- whichever first: to DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD
NREPA 1994 PA 451 Part 55, Air Pollution Control (Permit to Install Exemptions)	Emergency venting of natural gas from transmission and distributions systems or field gas from gathering lines in amounts > 1,000,000 standard cubic feet per event. Emergency = unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property or the environment if not controlled immediately. See R 336.1285(mm), effective 6/20/2008, for details.	Within 24 hours of the event: to PEAS by owner or operator.	Not required.	PEAS: 800-292-4706 For further information contact DEQ-AQD
Public Health Code 1978 PA 368 Part 133, Dry Cleaning	Condition or incident presents a threat or hazard to public health or safety.	Immediate to: DEQ-AQD district office (PEAS after hours) by owner or operator.	Within 30 days after incident: To DEQ-AQD district supervisor.	PEAS: 800-292-4706 For further information contact DEQ-AQD

NOTE: If the release is a **THREAT TO HUMAN HEALTH** or **SAFETY**, call 911 or your local fire department.

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Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>NREPA 1994 PA 451 Part 615, Supervisor of Wells (oil and gas production fields)</p>	<p>A loss, spill or release of (1) any amount of brine, crude oil, or oil or gas field waste unless it is less than 42 gallons and occurs while an authorized representative is on site and is completely contained and cleaned up within 1 hour, or (2) any unpermitted amount of natural gas, or (3) chemicals used in association with oil and gas activities.</p>	<p>Within 8 hours after discovery of: 42 gallons or more of brine, crude oil, or oil or gas field waste, or any amount of chemical or natural gas, or; less than 42 gallons if the spill contacts surface water, groundwater, or other environmentally sensitive resources, or is not completely contained and cleaned up within 48 hours to: DEQ-OGMD district office (PEAS after hours) by permittee.</p>	<p>Within 10 days after discovery of loss or spill to: DEQ-OGMD district supervisor on Form EQP-7233 (Rev 1/2012) "Report of Loss or Spill" by permittee Written report only for less than 42 gallons of brine, crude oil, or oil and gas field waste if spill does not contact surface water, groundwater, or other environmentally sensitive resources, and is completely contained and cleaned up within 48 hours.</p>	<p>PEAS: 800-292-4706 For further information contact DEQ-OGMD</p>
<p>49 CFR 191 Transportation of Natural and Other Gas by Pipeline</p>	<p>An incident, meaning: 1. Event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility that results in: Death or hospitalization; or Property damage ≥ \$50,000; or estimated gas loss of ≥ three million cubic feet. 2. Event that results in emergency shutdown of LNG facility. 3. Significant event per operator. Written Incident reports not required for LNG facilities. Applies to pipeline systems and the transportation of gas through those systems in or affecting interstate or foreign commerce. (See 49 CFR 191.3 for details.)</p>	<p>Earliest practicable moment following discovery to: NRC by operator. Notification must electronic unless there is a safety-related condition to report.</p>	<p>As soon as practicable, and within 30 days after discovery to: US DOT on DOT Form PHMSA F 7100.1 "Incident Report – Gas Distribution System." or PHMSA F 7100.2 "Incident Report – Gas Transmission and Gathering Systems" or PHMSA F 7100.3 "Incident Report – Liquefied Natural Gas (LNG) Facilities" Supplemental report filed as necessary as soon as practicable.</p>	<p>NRC: 800-424-8802 www.nrc.uscg.mil For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov</p>
<p>49 CFR 195 Transportation of Hazardous Liquids by Pipeline</p>	<p>Release of hazardous liquid (petroleum, petroleum products, or anhydrous ammonia) or carbon dioxide from a pipeline system that results in any of the following: (a) Explosion or fire; (b) Release of ≥ 5 gallons (except if < 5 barrels released due to maintenance and release not otherwise reportable, confined to property, does not pollute water, and cleaned up promptly); (c) Death of any person; (d) Injury requiring hospitalization; or (e) Property damage > \$50,000. (See 49 CFR 195.50, revised 1/8/02, for details) Applies to pipeline facilities and the transportation of hazardous liquids associated with those facilities in or affecting interstate or foreign commerce. (See 49 CFR 195.1 for details.)</p>	<p>Earliest practicable moment following discovery: to NRC by operator if Release caused: Death or hospitalization; Fire or explosion; Property damage; Water pollution; or was Significant per the operator.</p>	<p>As soon as practicable, and within 30 days after discovery to: U.S. DOT on DOT Form PHMSA F 7000-1 "Accident Report – Hazardous Liquid Pipeline Systems" Supplemental report must be filed within 30 days after operator receives changes or additions to original report.</p>	<p>NRC: 800-424-8802 www.nrc.uscg.mil For further information contact US DOT Pipeline Safety Information Center at 202-366-4595 or online at http://ops.dot.gov</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

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SECTION ONE: Environmental Regulations

Release Notification Requirements in Michigan*

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
<p>1978 PA 368 Part 135, Radiation Control</p>	<p>For any emergency. Or for incident involving naturally occurring or accelerator produced radioactive material-</p> <p><i>Immediate notice if:</i> Incident may have caused or threatens to cause: dose to body 25 rems, to skin 150 rems, to extremities 375 rems (per rule 247); 24 hour concentration exceeds 5000 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 week, or property damage >\$100,000.</p> <p><i>Notice within 24 hours if:</i> Incident may have caused or threatens to cause: dose to body 5 rems, to skin 30 rems, to extremities 75 rems (per rule 247); 24 hour concentration exceeds 500 times limits specified in table II of rules 261 to 269; contamination causes operation shut down for 1 day, or property damage >\$1000.</p>	<p>Immediate or within 24 hours (see reporting criteria): to DEQ Radiological Program (PEAS after hours) or MSP Operations Division for all Power Plant related incidents (day or night). By licensee or registrant.</p>	<p>Within 30 days after release: to DEQ Radiological Program by licensee or registrant.</p> <p>Written report also required if level of radiation or concentration of radioactive material in unrestricted area >10 times any applicable limit.</p> <p>See Rule 250 (R 325.5250) for required report content.</p>	<p>DEQ Radiological Program 517-284-5185</p> <p>MSP Operations Div 517-241-8000</p> <p>PEAS: 800-292-4706</p> <p>For further information contact DEQ Radiological Program</p>
<p>10 CFR 20 (Standards for Protection Against Radiation)</p>	<p>For incident involving source, by-product, or special nuclear radioactive material-</p> <p><i>Immediate notice if:</i> Event that may have caused or threatens to cause: effective dose equivalent to individual 25 rems, lens dose equivalent 75 rems, shallow-dose equivalent to skin or extremities 250 rads; individual could receive 5 times annual limit on intake in 24 hours. OR Any lost, stolen, or missing licensed material in an aggregate quantity equal to or greater than 1000 times the quantity specified in appendix C to part 20 under such circumstances that it appears to the licensee that an exposure could result to persons in unrestricted areas.</p> <p><i>Notice within 24 hours if:</i> Event that may have caused or threatens to cause: an individual in 24 hours to receive effective dose equivalent >5 rems, lens dose equivalent >15 rems, shallow-dose equivalent to skin or extremities >50 rems; individual could receive >1 times annual limit on intake in 24 hours.</p>	<p>Immediate or within 24 hours (see reporting criteria): to USNRC by USNRC Licensee responsible for the incident.</p>	<p>Within 30 days of incident: to USNRC by licensee.</p> <p>Report content specified in 10 CFR 20.2003</p> <p>Written report also required for occurrences as specified in 10 CFR 20 Section 20.2203 and after the occurrence of any lost, stolen, or missing licensed material becomes known to the licensee, and if at the time the report is filed all licensed material in a quantity greater than 10 times the quantity specified in appendix C to part 20 is still missing.</p>	<p>US Nuclear Regulatory Commission (USNRC) 301-816-5100</p> <p>For further information contact DEQ Radiological Program 517-284-5185</p>
<p>MIOSHA 1974 PA 154 Section 61, Records & Reports; Notice of Fatalities or Hospitalization</p>	<p>A release that results in a fatality within 30 days of the incident or in-patient hospitalization within 24 hours of the incident.</p> <p>Note: the OSHA amendment to require employers to report all work-related hospitalizations within 24 hours becomes effective Jan 1, 2015. Michigan intends to adopt the new rules by reference within 6 months of the Sept 18, 2014 FR publication.</p>	<p>Within 8 hours for a fatality or Within 24 hours for hospitalization to: MIOSHA Hotline by Employer.</p>	<p>Not required.</p>	<p>MIOSHA Fatality or Catastrophe Hotline 800-858-0397</p> <p>For further information contact LARA-MIOSHA 517-322-1831</p>

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

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Additional reporting requirements might be found in **permits**, licenses, registrations, **contingency and pollution prevention plans**, and local ordinances.

Act & Regulation	Reporting Criteria	Initial Notification	Written Follow-up Report	Notes
TSCA 40 CFR 761.125 (PCBs)	Spills of PCBs at concentrations of 50 ppm or more and subject to decontamination requirements under TSCA that: contaminate surface water, sewers, drinking water supplies, grazing lands or vegetable gardens, or exceed 10 pounds. (TSCA specifies that these requirements are in addition to any under CWA or CERCLA. e.g. CERCLA requires spills of 1 pound or more to be reported to NRC.)	As soon as possible after discovery, and within 24 hours: to EPA Region 5.	Not required to be submitted. Records of cleanup and certification of decontamination shall be documented.	EPA Region 5 Corrective Action Section 312-886-7890 For further information contact EPA Region 5 Corrective Action Section
SARA Title III Section 313 40 CFR 372 (Toxic chemical release reporting)	Covered facilities as defined in 40 CFR 372 subpart B are subject to toxic chemical release reporting for toxic chemicals and chemical categories listed in 40 CFR 372 subpart D.	Not applicable.	Annually by July 1: to EPA & SERC on EPA's Form R "Toxic Chemical Release Inventory Reporting Form" (EPA Form 9350-1, Rev.10/2011) Report aggregate releases (permitted & unpermitted)	Michigan SARA Title III Program accepts reports on behalf of SERC For further information contact Michigan SARA Title III Program 517-284-7272

Acronyms used in table:

AQD = Air Quality Division
 HazMat = Hazardous Materials
 PA = Public Act (Michigan)
 AST = Above Ground Storage Tank
 HB = House Bill
 PCB = Polychlorinated biphenyl
 CAA = Clean Air Act
 LARA = Michigan Department of Licensing & Regulatory
 Affairs
 PEAS = Pollution Emergency Alerting System
 CAFO = Concentrated Animal Feeding Operation
 LEPC = Local Emergency Planning Committee
 PHMSA = Pipeline & Hazardous Materials Safety
 Administration
 CERCLA = Comprehensive Environmental Response,
 Compensation
 LNG = Liquefied Natural Gas
 RMP = Risk Management Program and Liability Act of
 1980
 LPG = Liquefied Petroleum Gas

RRD = Remediation and Redevelopment Division
 CFR = Code of Federal Regulations
 MCL = Michigan Compiled Laws
 SARA = Superfund Amendments and Reauthorization Act
 of 1986
 CWA = Clean Water Act
 MDARD = Michigan Dept of Agriculture & Rural
 Development
 SERC = State Emergency Response Commission
 DEQ = Michigan Department of Environmental Quality
 MIOSHA = Michigan Occupational Safety and Health
 Administration
 TRI = Toxic Chemical Release Inventory
 DOT = Department of Transportation
 MSP = Michigan Department of State Police
 TSCA = Toxic Substance Control Act
 EHS = Extremely Hazardous Substance
 NRC = National Response Center (U.S. Coast Guard)
 TSDF = Treatment, Storage & Disposal Facility
 EPA = U. S. Environmental Protection Agency

NREPA = Natural Resources & Environmental Protection
 Act
 US DOT = U.S. Department of Transportation
 EPCRA = Emergency Planning & Community Right-to-
 Know Act
 ODWMA = Office of Drinking Water & Municipal
 Assistance
 USNRC = U. S. Nuclear Regulatory Commission
 FIFRA = Federal Insecticide, Fungicide, & Rodenticide Act
 OGMD = Oil, Gas, and Minerals Division
 UST = Underground Storage Tank
 FL/CL = Flammable and combustible liquids
 OPS = Office of Pipeline Safety (US DOT)
 WRD = Water Resources Division
 FR = Federal Register
 OSC = On Scene Coordinator
 HAP = Hazardous Air Pollutant
 WMRPD = Waste Management & Radiological Protection
 Division

NOTE: If the release is a **THREAT TO HUMAN HEALTH or SAFETY**, call 911 or your local fire department.

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SECTION ONE: Environmental Regulations

6.3.1 Release Calculations

How to determine the reportable quantity of a product based on the reportable quantity of an ingredient.

Example Calculation: When is a release of gasoline reportable?

Under Part 201 of Act 451, releases of **hazardous substances-CERCLA** published in the 2012 version of 40 CFR 302, Table 302.4 must be reported. Gasoline is not a **hazardous substance-CERCLA**. However, some of the ingredients in gasoline are **hazardous substances-CERCLA** and are reportable under this regulation.

This example shows you how to determine when a release of gasoline *in gallons* is reportable under Part 201 of Act 451 based on reportable quantities *in pounds* of the ingredients.

1. Identify the hazardous ingredients, reportable quantities, and weight percents.

Look at a Safety Data Sheet (SDS) for gasoline to find the hazardous ingredients and the weight percents of those ingredients. This is from Section 3 in an SDS for “Gasoline, Unleaded.”

CAS #	Component	Weight %
8006-61-9	Gasoline, natural	10-30
108-88-3	Toluene	10-30
106-97-8	Butane	1-20
1330-20-7	Xylenes (o-, m-, p- isomers)	10-30
64-17-5	Ethanol; Ethyl alcohol	0-8.2
100-41-4	Ethylbenzene	1-5
71-43-2	Benzene	<5
110-54-3	N-Hexane	0.5-0.75

Look at the “[List of Lists](#)” to find the reportable quantity of an ingredient that is a **hazardous substance-CERCLA**.

Benzene (CAS number 71-43-2) is a **hazardous substance-CERCLA** listed in the “List of Lists.” The reportable quantity (RQ) for benzene under CERCLA is 10 pounds. That means that a release of 10 pounds or more of benzene to the environment must be reported to the DEQ Remediation and Redevelopment Division district office (or PEAS after hours). The weight percent of benzene in the example gasoline is 0.4 to 5%. When calculating a reportable release, use the higher, weight percent.

2. Calculate the weight of the gasoline.

Because the gasoline is a liquid measured in gallons, and the reportable quantity of benzene is in pounds, we must calculate the weight of a gallon of gasoline. The formula is as follows:

$$\text{Specific gravity of the product} \times 8.34 \text{ lb/gal (weight of water)} = \text{weight of the product in lb/gal}$$

The specific gravity, also called the relative density, can be found in the “Physical & Chemical Properties” section of the SDS. It is a unit-less number that tells how much the substance weighs relative to the weight of water. If the specific gravity is 1, the substance weighs the same as water. If it is less than 1, then the substance weighs less than water. If you think about this logically, you know that gasoline floats on water (thus the sheen you see on water at boat launches), so you can conclude that gasoline must weigh less than water. The specific gravity is often reported as a range. In this example, the specific gravity is reported on the SDS as a range of 0.72 to 0.75. If you plug these values into the calculation, this gasoline can weigh anywhere from 6.0 lb/gal to 6.3 lb/gal. When calculating a reportable release, use the higher, more conservative, value. The weight we will use for our example gasoline is 6.3 lb/gal.

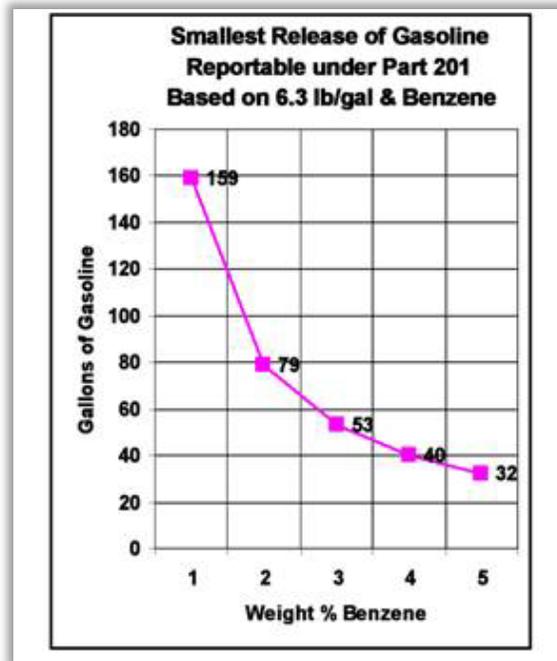
3. Calculate the smallest reportable release of gasoline under Part 201 of Act 451 based on the ingredient benzene. Here is the formula:

$$\text{RQ of ingredient (lbs)} \div \text{weight of product (lb/gal)} \div \text{weight \% of ingredient} = \text{reportable gallons of product}$$

Using the numbers we determined above, we get:

10 lb (RQ benzene) ÷ 6.3 lb/gal gasoline ÷ 0.05 (wt. % benzene) = 32 gal of gasoline (reportable if released to the environment).

The graph below shows how the reportable quantity of gasoline varies with the weight percent of benzene.



There would be a smaller reportable quantity (the line would shift down) for “heavier” gasoline. Look at all hazardous ingredients to determine which one would “control” the reportable quantity. The controlling ingredient is the one that results in the smallest reportable quantity. For gasoline, the controlling ingredient is benzene.

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In real life, this is not an exact science. Use this as a way to come up with educated guesstimates for when to report. For gasoline, report any release that looks like it is approaching 30 gallons or more.

Keep in mind that smaller releases of gasoline are potentially reportable under other regulations (e.g. if the release reaches surface or groundwater). Also remember that **all releases must be cleaned up** to the extent specified in the regulations. This includes releases that are not reportable under any regulation.

In summary: When determining reportable releases, it is important to realize that it is sometimes the ingredients in a given product that make the release of the product reportable. There are three main steps in the process for determining when a release of a product is subject to reporting based on the reportable quantities of the ingredients:

1. Identify the hazardous ingredients, corresponding reportable quantities, and weight percents. This depends on the regulation!
2. If the product is a liquid and the reportable quantity of the ingredient is given in pounds, calculate the weight of the product in pounds per gallon. If the product is a solid, skip this step.
3. Calculate the smallest reportable release using the formula above. If the product is a solid, the formula is simply:

$$\text{RQ of ingredient (lbs)} \div \text{weight \% of ingredient in solid product} = \text{reportable pounds of solid product.}$$

6.4 Release Response and Cleanup

Response and cleanup of a spill or release of hazardous and/or toxic substance can be very costly and detrimental to the health of your employees and environment. To become more efficient and effective in release response and cleanup, make it a priority to integrate pollution prevention planning activities into all aspects of your operations, including the prevention of spills and reduction or minimization of waste during response and cleanup.

In addition to the release reporting requirements described in Chapter 6.3, you must be ready to immediately respond whenever a release occurs. Whether you are legally required to prepare an environmental release prevention and response plan (described in Chapter 6.2) or voluntarily decide to prepare one, it needs to be in effect with personnel who are adequately trained to implement it. This helps to ensure that when a release occurs, appropriate response is taken without delay. At least one person trained in release control and cleanup procedures, equipment use, and disposal methods of recovered materials should be on duty or on call at all times. It is important to remember that you are obligated to respond and clean up all contamination, and failure to do so may result in escalated enforcement, including but not limited to the imposition of civil penalties. If your release involves a regulated underground storage tank, see Chapter 4 for information on how to respond and clean up the release. Some excellent Internet resource links for environmental emergency operations and response are the [Computer Aided Management of Emergency Operations \(CAMEO\) Web site](#) at response.restoration.noaa.gov and the National Institute for Occupational Safety and Health (NIOSH) pocket guide Web site at www.cdc.gov/niosh/npg.



Post DEQ's Pollution Emergency Alerting System number and use it: **800-292-4706**

All hazardous and/or toxic chemical release responders need to consider the following actions:

- ✓ Immediately **assess** the nature of the release; chemicals and exposure pathways of concern; toxicity; safety; type of personal protection equipment (PPE) needed; and take appropriate response and cleanup actions to protect the health and safety of those in the affected area, when and where possible. See Chapter 6.3 “Release Notification Requirements in Michigan.”
- ✓ If possible, quickly work to **contain** the release to prevent the spread of contamination. For example, cover floor drains to prevent the release from reaching the sewer, and dike the release with absorbents such as spill pillows or cat litter and dirt as necessary to prevent it from spreading. Staff responding to the release must be trained in wearing the appropriate PPE. Most facilities managing hazardous and/or toxic chemicals are required to have an environmental release prevention and response plan in the event of a release. These plans need to be practical, efficient, and provide useful instructions to trained facility personnel that can be easily followed to clean up a release.
- ✓ **Clean up** contamination quickly to prevent impacts to human health and the environment. Release prevention planning (i.e., rapid containment, response, and cleanup) may minimize the environmental impacts as well as decrease the overall cost of cleanup. This can be as simple as quickly positioning an absorbent to contain a release to protect a natural resource, or as complex as purging and treating groundwater for years under an approved state remedial action plan or state/federal enforcement order. Waste generated from a cleanup must be properly characterized, managed, and disposed in accordance with applicable state and federal regulations. Most importantly, communicate with the environmental regulatory agencies in your area during the planning phase or in advance of any release. Your DEQ District Office (see Appendix C) can provide additional guidance to help assure your response is appropriate and cost-effective.

Some released hazardous or toxic substances and cleanup wastes may pose a serious health threat to personnel. Have appropriate PPE available and personnel trained in its proper use. Depending on the hazardous and/or toxic nature of the release, PPE may include the appropriate chemical resistant suits, gloves, boots, respirators, self-contained breathing apparatus, and eye protection such as goggles or face shields. Safety Data Sheets (SDSs) or the NIOSH Pocket Guide to Chemical Hazards contain valuable information for selecting the appropriate PPE. These resources can be accessed at the following Web sites:

- www.cdc.gov/niosh/homepage.html
- www.cdc.gov/niosh/npptl
- <http://phmsa.dot.gov/hazmat/training/publications> (look under “Other Publications” for the [Hazmat Emergency Response Guidebook](#)).

Persons responding to hazardous releases must be *trained* in accordance with the Hazardous Waste Operations and Emergency Response (HAZWOPER) procedures (see Chapter 23 for more information). Another option is to have previously procured professional assistance. Look under the headings “Environmental and Ecological Services,” “Spill Control Service,” or “Waste Reduction, Disposal, and Recycling Service” in the yellow pages of your telephone directory for companies offering environmental cleanup services in your area.

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Release planning will help to identify environmental response equipment (e.g., spill cleanup kits, PPE, etc.) specific to a company's needs to quickly contain and cleanup releases. Many products are used to contain and clean up released chemicals and waste. Absorbent pads, booms, or portable dikes are often used to control, contain, and cleanup large liquid releases. Commercially available absorbent powders and granular clay (like cat litter) are examples of items used to absorb and contain free-phase liquids during release response and cleanup.

If a release cannot be cleaned up by trained personnel, hiring an experienced environmental cleanup contractor is recommended. Depending on the severity of a release, a contractor may provide more efficient and cost-effective response and cleanup solutions. Environmental contractors who work on leaking underground storage tank facilities regulated by the DEQ must be knowledgeable in Part 213 (Leaking Underground Storage Tanks) of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended (Act 451). Environmental contractors performing work at leaking or underground storage tank sites must be qualified per Part 215 (Michigan Underground Storage Tank Financial Assurance Act) of Act 451 (Section 324.21542). Your DEQ District Office can verify that your state notification and reporting obligations have been satisfied and that your response and cleanup is being conducted properly. If you need further information or assistance about response and cleanup procedures, please contact your District Office (see Appendix C).

6.4.1 Environmental Investigation Requirements

Under Part 201 (Environmental Remediation) of Act 451, Section 324.20126, the property is considered a "Facility" or site of environmental contamination if environmental data shows hazardous and/or toxic substances are present on the property at levels that exceed the Part 201 generic residential criteria. A person who owns or operates a "Facility" and who is liable under Part 201 of Act 451, shall do all of the following:

- a) Immediately stop or prevent the release at the source.
- b) Immediately implement source control or removal measures to remove or contain hazardous substances.
- c) Immediately identify and eliminate any threat of fire or explosion or any direct contact hazards;
- d) Report the release to the department within 24 hours.
- e) Immediately initiate removal of a hazardous substance that is in a liquid phase that is not dissolved in water.
- f) Determine the nature and extent of the release at the facility.
- g) Diligently pursue response activities to achieve the cleanup criteria.

If the owner or operator of an environmentally contaminated property is not liable, then he or she may still have certain **Due Care** obligations to address as specified under R 299.51001, et. seq. Due Care protects persons on the contaminated property from exposure to hazardous and toxic substances.

In cases where the release is large or where there have been documented adverse environmental effects (i.e., fish kills, other resource impacts, etc.), a **Natural Resources Damage Assessment (NRDA)** to evaluate and assess natural resource damage(s) and cost(s) may be required. A NRDA is usually difficult and expensive to do. A request from the DEQ for a NRDA

may be avoided by either good pollution prevention planning and by responding to releases soon after they occur on a property. If the activity that resulted in a release is regulated under Part 213 (Leaking Underground Storage Tanks), Part 111 (Hazardous Waste Management), or other specific authority, those laws may require other specific requirements for environmental investigations, cleanups, etc. For activities regulated under the regulations, contact the DEQ for assistance in determining the correct environmental investigation requirements.

An environmental investigation may need to be conducted to define the horizontal and vertical extent of environmental contamination so that appropriate remedial action or cleanup measures can be planned and implemented. This kind of environmental investigation, often referred to as a “**remedial investigation**” or “RI,” may include testing of soil, sediment, groundwater, surface water, and air quality. The key to conducting an effective RI is to gather enough environmental information to make the necessary decisions about further cleanup needs. You will need the services of an experienced environmental professional to carry out an RI.

An RI is a different process than a **Baseline Environmental Assessment** (BEA), which is described in Chapter 7.3.2. A BEA is a state “liability” protection tool and is not designed to identify cleanup needs. Federal environmental investigation guidance documents may be obtained from the U.S. EPA Web site at clu-in.org and the American Society for Testing and Materials (ASTM) Web site at www.astm.org. The ASTM guidance includes information about Phase I and II Environmental Assessments (EAs). EAs are commonly performed on parcels of industrial or commercial properties to determine the extent of existing environmental contamination. The ASTM Phase I and II EA processes are often used to determine the environmental condition of a property to be purchased, but much of the ASTM guidance is useful for other site characterization purposes as well.

Information about cleanup requirements, applicable cleanup criteria, establishing “background” concentrations, and other technical issues is available at www.michigan.gov/remediation look under Operational Memoranda for Part 201 and Part 213).

6.4.2 Documenting Plans for Cleanup

If you are conducting a cleanup under Part 201 of Act 451, there may be other state/federal regulations to address. A **Remedial Action Plan** (RAP) is used to document how environmental contamination will be cleaned up. If cleanup actions will be conducted in phases, each phase is generally referred to as an **Interim Response** (IR). A series of IRs may go together to become a remedial action. A RAP is intended to comprehensively address all contamination problems at a “Facility,” while IRs can be used to address individual releases of hazardous and/or toxic substances or aspects of those releases.

A RAP is generally prepared after a site IR is complete and a course of action can be developed to remediate or cleanup the site as a whole. In many instances, it is appropriate to conduct RAP activities in a phased approach. IR activities allow for time-critical actions to be planned and implemented addressing high-risk contamination areas first, with subsequent IRs to tackle more widespread contamination. Examples of IR activities include removing soil contamination “hot spots,” or point sources and abandoned containers containing hazardous substances.

DEQ guidance regarding RAPs and IR activities are available at www.michigan.gov/remediation (select “Site Investigation and Cleanup” and “Cleanup Program Information”).

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6.4.3 Cleanup Criteria

The DEQ has adopted a risk-based or generic criteria approach to environmental cleanups. Risk-based cleanup criteria are based on the designated or allowable land-use, because land-use determines what type of site-specific activity and exposure will occur at each property. Cleanup criteria are integral in determining the scope and adequacy of remedial activities.

The DEQ has calculated “generic” cleanup criteria for soil and water media that apply to the following types of land use categories: residential, commercial, and industrial. Occasionally, the environmental consultant may find that it is more appropriate to use site specific cleanup criteria to address the contamination. The consultant can develop the site-specific variables with oversight from the DEQ. If the cleanup is based on site specific variables, then the property deed would have to be restricted. The deed restriction will inform the future property owners about land uses that are prohibited, and about the remaining contamination. DEQ approval is required for a cleanup that depends on land use restrictions. Please contact your District Office (see Appendix C) for assistance in determining which cleanup criteria to apply at your site.

The Cleanup Criteria Requirements for Response Activity are available on the DEQ’s Web site at www.michigan.gov/remediation under the “Other Useful Information.” Select “Cleanup Criteria Requirements for Response Activity.” If you need further information or assistance, please contact your District Office to determine what cleanup criteria can be used at your site of environmental contamination or call 800-662-9278 for assistance.

6.4.3.a Ground Cleanup

Even if a release is not large enough to require reporting, it still must be cleaned up, regardless of the release volume or whether it occurred on a paved outdoor surface or dirt surface. Quick response to a release is important since contamination from the release can spread further, making the cleanup more difficult and expensive. Use an inert absorbent material, such as clay-based adsorbents (like cat litter), or specially formulated pads or powders, to soak up the liquid. Collect any released solid materials so they do not spread or get blown around. **THE RELEASED MATERIAL SHOULD NEVER BE FLUSHED DOWN THE DRAIN OR ONTO THE GROUND.** The act of flushing the release will spread the contamination into previously uncontaminated areas, increase the scope of the investigation, the time needed to clean up the contamination and exponentially increase the cost of the cleanup.

During the initial response to the spill and the cleanup, be very careful not to mix incompatible or reactive chemicals or wastes together (see Safety Data Sheets, or NIOSH at www.siri.org/msds/index.php and phmsa.dot.gov/hazmat for help). The containers used to store spent cleanup materials must be compatible with the released liquid and correctly capped and labeled. Once contained, the used cleanup materials must be disposed of properly based on the hazardous and/or toxic nature of the waste. If the used materials are going to a sanitary landfill, there can be no free-phase liquid present with the containerized materials. If the materials are characterized as hazardous and/or toxic waste, handle the waste in accordance with Chapter 2. For information about hazardous or solid waste characterization, please contact the DEQ, Hazardous Waste Program at 517-284-6562 or go to www.michigan.gov/deqwaste. For information about transporting requirements for hazardous materials including oils, gas, etc., please refer to the Michigan State Police, Commercial Vehicle Enforcement Division Web site at www.michigan.gov/motorcarrier and Chapter 4.4.

If a hazardous and/or toxic substance is released to the ground, you must determine if the affected soil is hazardous or solid waste. In either case, it must be properly characterized, removed, transported, treated, stored, or disposed of at the appropriate licensed landfill. If the soil is hazardous waste, you will need to meet the generator requirements discussed in Chapter 2.4. For small volumes of contaminated soil or waste, the easiest cleanup method is to excavate the soil and place it on polyethylene or put it into an acceptable container. The soil, either in the pile or container, must be covered to prevent precipitation from leaching through the soil and spreading contamination into the ground. Once contaminated soils are properly characterized and approved for disposal by the proper waste facility, it can be disposed of off-site. For larger volumes of contaminated soil, it may be cheaper to either treat the soil in place or dig it up for treatment on-site. There are regulatory restrictions on the movement of contaminated soils on or off property and persons dealing with such materials during cleanup activities at sites of environmental contamination. If you need further information or assistance, please contact your nearest DEQ District Office (see Appendix C).

The DEQ developed a guidance document entitled, “*Statistics – Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria* (S3TM)” to help verify that soils containing hazardous and/or toxic substances are clean, or below the Part 201 of Act 451 generic residential cleanup criteria. The S3TM guidance has been:

- Applied to excavations to determine the number of samples needed to show that the remaining unexcavated soils are clean.
- Applied to waste piles that have undergone remediation technology.
- Used to characterize and verify that the waste soils have been remediated prior to placing the soils back into the excavation area(s) or landfilling.

If you need further information or assistance, please contact the DEQ Project Manager involved with your cleanup to determine whether S3TM can be applied to your environmental cleanup. The S3TM document is available from the DEQ’s Web site at www.michigan.gov/remediation (select “Site Investigation and Cleanup” and “Cleanup Program Information”).

6.4.3.b Groundwater Cleanup

If the groundwater becomes contaminated by a release, overfill, leaking underground storage tank, etc., you are required to clean up the contamination. You may need to hire a qualified environmental professional to complete a hydro geological investigation to determine the specific groundwater remedy needed to clean up your site. You should discuss all available treatment options and the timeframe for the cleanup with the environmental consultant to ensure that the most appropriate cleanup method is chosen.

Whenever environmental treatment systems are proposed to clean up contamination, the Best Available Technology (BAT) is required for remediation where treated groundwater will be discharged to groundwater or surface water. Best Available Control Technology for Toxics (T-BACT) is required to control the emission of toxic air contaminants. After the application of T-BACT, the emissions of any toxic air contaminants cannot result in maximum ambient concentrations which exceed the applicable health-based screening levels. For more information about T-BACT, see Chapter 1.2.4 “Air Toxics Regulations.”

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The DEQ encourages the use of innovative environmental treatment technologies or remedies that minimize waste; i.e., electrical power consumption, secondary waste material generation, etc. For pollution prevention information, go to www.michigan.gov/deqp2.

Permits may be required for air, groundwater, and surface water discharges from a cleanup site. Each permit has requirements for operation, maintenance, monitoring, testing and reporting on the discharge of the treatment system:

- If you use air stripping, you are subject to air quality regulations and may need to obtain a Permit to Install from the Air Quality Division (AQD) to meet T-BACT requirements prior to discharge. For further information or assistance, contact your AQD District Office (see Appendix C).
- If treated groundwater is discharged to surface water, you need to obtain a National Pollutant Discharge Elimination System (NPDES) Permit from the DEQ that meets BAT requirements prior to discharge (see Chapter 3.2.3).
- If treated groundwater will be discharged back to the groundwater, you may need to obtain a state groundwater discharge permit, or an exemption prior to discharge (see Chapter 3.2.4) from the DEQ. In some areas, the water will not infiltrate or seep back into the ground fast enough to make groundwater discharge a feasible option.

When contaminated groundwater is venting or discharging (i.e., flowing naturally) into surface water, the Part 201 of Act 451 groundwater/surface water interface (GSI) cleanup criteria or screening levels must be met. If the GSI criteria are exceeded, further investigation and possibly remediation of the surface water will likely be required. If groundwater contamination concentrations will exceed the GSI generic cleanup criteria at the point where contaminated groundwater vents to surface water, a more detailed site-specific evaluation will be required to determine if a “mixing zone” can be allowed or whether contaminated groundwater can be allowed to legally discharge into “waters of the state” (i.e., lakes, rivers, creeks, wetlands, drains, etc.) and still ensure protection of human health and the environment. Information about the “mixing zone” [evaluation process](#) can be found at www.michigan.gov/remediation (select [Operational Memoranda, Cleanup Requirements, Forms, and Cleanup Program Information](#) under “Other Useful Information.”) The GSI cleanup criteria apply to groundwater sampled from a GSI monitor well, and not to surface water. To view the Part 201 GSI cleanup criteria, go to the Web site above.

6.4.3.c Surface Water Cleanup

Cleanup procedures for releases to state waters may be difficult and may vary depending on the uses being made of the receiving waters. A discharge to water that causes impairment to any of the following is a violation of Section 3109 of Part 31 (Water Resources Protection) of Act 451:

1. Public health, safety, or welfare.
2. Domestic, commercial, industrial, agricultural, recreational, or other uses being made of the water.
3. The value of the riparian land.
4. Livestock, wild animals, birds, fish aquatic life, or plants and the value of fish and game.

Of these water uses, major public health concerns exist if the discharge could impact downstream recreational beaches or surface water drinking water supply intake systems.

The DEQ requires that all appropriate and reasonable steps be taken to clean up and prevent further pollution in consideration of existing conditions of state waters. Remember, in the event of a release to state waters, including releases to public storm sewers and drains, immediately contact:

- Your [DEQ District Office](#) (see Appendix C) or the Pollution Emergency Alerting System (PEAS) hotline at 800-292-4706 (in state) or 517-373-7660 (out-of-state).
- Your primary public answering service, or 911.

Release response is chemical-, location-, and action-specific. Some hazardous substances are water-soluble and mix immediately with the surface water. When water-soluble substances are released, a reasonable course of action may require large quantities of contaminated water to be captured, removed, contained, and properly treated and/or disposed. Large releases requiring the use of floating booms, skimmers, storm sewer plugs, etc. will likely require a release response contractor, whereas small releases may travel downstream before any response can contain them. The longer the released substance remains in the water, even if contained by booms, the more contamination diffuses or mixes with the surface water, which may result in increased environmental harm and liability. Therefore, release prevention instead of cleanup can yield tremendous cost savings.

Release prevention includes having a response plan in place, with trained responders and equipment easily available, for immediate containment of any release. Some generic release response equipment to keep on-site may include: absorbent booms and pads, thick plastic bags, sand bags, cat litter, portable emergency pumping and containment equipment, protective clothing, and safety gear suitable for on-site materials and hazardous chemical exposure conditions. It is also recommended that you know the route of your storm sewer system and appropriate areas (such as the last storm water catch basin on your site) to catch and contain releases. Consider how to respond if a spill should occur during either dry or wet weather, and how to divert storm water from a spill that occurs during wet weather. Talk with an environmental response consultant or the DEQ about which containment and cleanup methods may be best for your business. To research environmental innovative treatment technology options, go to [EPA Clu-In](#) at <http://clu-in.org/>.

When contaminated groundwater is venting or discharging (i.e., flowing naturally) into surface waters, the Part 201 of Act 451 GSI Cleanup Criteria must be applied (see Chapter 6.4.3.b - Groundwater Cleanup).

6.4.3.d PCB Clean Up

Polychlorinated biphenyls (PCBs) are **hazardous substances- Part 201** that must be addressed under the federal and/or state corrective or remedial action process and, in some cases, in coordination with the U.S. EPA Region 5. Part 201 of Act 451 Cleanup Criteria have been developed for PCBs on the basis of media (i.e., air, soil or water) exposure pathway, land-use-specific, and must be applied for corrective action, pursuant to R 299.9629 of Part 111 (Hazardous Waste Management) of Act 451. However, to address exposures via the soil direct-contact pathway, the applicability of the Toxic Substances Control Act (TSCA), at 40 CFR 761

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must be determined and applied appropriately (see Part 201 of Act 451 Cleanup Criteria tables, footnote [T]). The Part 201 of Act 451 Cleanup Criteria can be found at www.michigan.gov/remediation under the “Other Useful Information” heading, select “Cleanup Criteria Requirements for Response Activity”. If TSCA is determined to apply to an area with PCB contamination, all TSCA obligations must be addressed in coordination with the U.S. EPA Region 5. A state Remedial Action Plan cannot be considered complete without a demonstration of compliance with all TSCA obligations. If you need further information or assistance, please contact the Remediation Division in your District Office (Appendix C). See Chapter 4.5 for specific details on TSCA obligation related to remediation waste

WHERE TO GO FOR HELP

SUBJECT: SARA Title III requirements for Hazardous Chemical Release Reporting, Toxic Chemical Release Inventory, and Emergency Planning Notification

CONTACT: DEQ, Michigan SARA Title III Program
517-284-SARA (284-7272) | deq-sara@michigan.gov
www.michigan.gov/sara
www.michigan.gov/chemrelease
www.michigan.gov/deqemergencyplan

PUBLICATIONS: 1. Michigan Facilities' Guide to SARA Title III, Emergency Planning and Release Reporting
2. Release Notification Requirements in Michigan - Table

SUBJECT: Emergency response planning and training

CONTACT: Michigan State Police, Emergency Management and Homeland Security Division
517-284-3727 | HartnerB@michigan.gov
www.michigan.gov/emhsd-training

PUBLICATIONS: 1. [Critical Incident Protocol — A Public and Private Partnership](#)

SUBJECT: Pollution Incident Prevention Plans (PIPP)

CONTACT: DEQ, Part 5 Rules Program, District Staff
www.michigan.gov/part5

PUBLICATIONS: 1. [PIPP and Part 5 Rules Informational Packet](#)
2. [PIPP Completion Checklist](#)
3. Part 5 Rules Operational Guidance (POG) clarifying oil requirements
4. Salt and Brine Storage Guidance

SUBJECT: Oil Pollution Prevention: Facility Response Plans (FRP) and Spill Prevention, Control, and Countermeasures (SPCC) Plans

CONTACT: **FRP:** U.S. EPA Region 5, Oil Planning & Response Section
312-886-0622 | www.epa.gov/oilspill
SPCC: U.S. EPA Region 5, Chemical Emergency Preparedness & Prevention Section
312-886-9497 | www.epa.gov/emergencies/content/spcc

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SUBJECT: Risk Management Plans

CONTACT: U.S. EPA Region 5, Chemical Emergency Preparedness and Prevention Section
312-886-0181 | 800-424-9346 (Superfund, TRI, EPCRA, RMP and Oil Information Center)
www.epa.gov/emergencies/content/rmp

SUBJECT: Storm water pollution prevention plans (SWPPP) and surface water cleanup

CONTACT: DEQ, Storm Water Program
517-284-5567
www.michigan.gov/deqemergencyplan

PUBLICATIONS: SWPPP Sample Plans

SUBJECT: Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements

CONTACT: Department of Licensing and Regulatory Affairs, Michigan Occupational Safety and Health Administration (MIOSHA)
517-322-1608
www.michigan.gov/miosha (See Chapter 23 for more information)

SUBJECT: Hazardous/non-hazardous waste characterization and disposal information

CONTACT: DEQ, Hazardous Waste Program
800-662-9278
DEQ, District Office (See Appendix C)
www.michigan.gov/deqwaste and select “Introduction to Hazardous Waste Webinars” or to view guidance documents and other resources select “Hazardous Waste” then “Hazardous Waste and Liquid Industrial By-products Management”

PUBLICATIONS:

1. [Hazardous Waste Emergency Information \(EQP 3472\) poster for Small Quantity Generators](#)
2. [Contingency Plan and Emergency Procedures for Large Quantity Generators](#)
3. [Personnel Training Requirements for Fully Regulated Generators of Hazardous Waste](#)

SUBJECT: Release of hazardous materials during transportation

CONTACT: U.S. Department of Transportation (US DOT)
800-467-4922
phmsa.dot.gov/hazmat

- PUBLICATIONS:**
1. USDOT Hazardous Materials Incident Report (DOT F5800.1)
 2. Incident Report - Gas Distribution System (RSPA F 7100.1)
 3. Incident Report - Gas Transmission and Gathering Systems (RSPA F 7100.2)
 4. Accident Report - Hazardous Liquid Pipeline Systems (DOT Form 7000-1)
-

SUBJECT: Releases from oil and gas production fields

CONTACT: DEQ, Oil, Gas, and Minerals Division
517-284-6823
www.michigan.gov/deqoilgasminerals

- PUBLICATIONS:**
1. Report of Loss or Spill (EQP 7233)
-

SUBJECT: Report of discharge of untreated sewage

CONTACT: DEQ, District Office (See Appendix C)
www.michigan.gov/chemrelease

- PUBLICATIONS:**
1. Report of Discharges of Untreated or Partially Treated Sewage (EQP 5857)
-

SUBJECT: Releases from leaking underground storage tanks

CONTACT: Storage Tank Program
517-241-8847
www.deq.state.mi.us/sid-web

PUBLICATIONS: All the forms listed in Chapter 6.4 can be found in the above Web site by selecting the 'Forms and Documents' tab.

SUBJECT: Environmental investigation guidance, Remedial Action Plans (RAP), site cleanup requirements, and release reporting

CONTACT: DEQ
517-284-5099
www.michigan.gov/remediation

- PUBLICATIONS:**
1. RRD Operational Memorandum #17
 2. Notice of Migration of Contamination (EQP 4482)
 3. Notice Regarding Discarded or Abandoned Containers (EQP 4476)
 4. Spill or Release Report (EQP 3465)
-

SUBJECT: Federal environmental investigation guidance including information about Phase I and II environmental site assessments (ESAs)

CONTACT: U.S. Environmental Protection Agency | <http://clu-in.org>
CONTACT: American Society for Testing and Materials (ASTM) | www.astm.org

APPENDIX 6-A: SUMMARY OF COMMON ENVIRONMENTAL RELEASE PREVENTION AND RESPONSE PLANS

DETAIL	Hazardous Waste Contingency Plan For Generators See Chapter 6.2.1	PIPP ¹ See Chapter 6.2.2	SPCC ² See Chapter 6.2.3	SWPPP ³ See Chapter 6.2.4	EAP ⁴ See Chapter 6.2.6	RMP ⁵ See Chapter 6.2.5
Regulated Substance or Activity	Hazardous waste	Salt and Polluting Materials listed in R 324.2009 See SPCC for oils	Oil-EPA (PCBs see 6.2.3)	Companies with a storm water discharge permit	Flammable and combustible liquids	Substances listed in Section 112(r) of CAA ⁵
Regulation	<ul style="list-style-type: none"> ◆ 40 CFR 265.50-.56 ◆ Part 111 of Act 451⁶ ◆ R 299.9306 (generators) 	<ul style="list-style-type: none"> ◆ Part 31 of Act 451 ◆ R 324.2001- 2009 	<ul style="list-style-type: none"> ◆ 40 CFR 112 	<ul style="list-style-type: none"> ◆ 40 CFR 122-124 ◆ Part 31 of Act 451 ◆ R 323.2161 	<ul style="list-style-type: none"> ◆ FL/CL Rules R 29.5201 - 29.5255 and adopted NFPA pamphlet number 30 2000 edition Chapter 5, Section 5.12 	<ul style="list-style-type: none"> ◆ Section 112(r) of CAA ◆ 40 CFR 68 (requirements vary depending on the program the company is subject to).
Administering Agency	◆ DEQ, HWP ⁷	◆ DEQ, WB ⁸	◆ U.S. EPA, Chemical Emergency Preparedness & Prevention Section	◆ DEQ, WB	DEQ	◆ U.S. EPA
Who Must Prepare	<p>Large quantity generators (LQG) of hazardous waste must submit a written plan.</p> <p>Small Quantity generators (SQG) are to post information (see 6.2.1).</p> <p>Hazardous waste transporters and treatment, storage, & disposal facilities have other planning requirements.</p>	<ul style="list-style-type: none"> ◆ Companies with salt or other polluting materials that meet or exceed threshold planning quantities & don't meet listed exemptions. ◆ When DEQ deems necessary (see 6.2.2). 	<p>If a release could potentially reach navigable waters or shorelines <i>and</i> facility has capacity storage of oil that:</p> <ul style="list-style-type: none"> ◆ exceeds 1,320 gal. for all above ground storage, or ◆ exceeds 42,000 gal. for UST.⁹ 	<p>If your company is required to have a storm water discharge permit (see Chapter 3.2.3.d).</p>	<p>Companies that have flammable and combustible liquids that are not exempted</p>	<p>If your facility has a substance identified in Section 112(r) of the CAA at or above a specific threshold quantity. Listed substances are located on the "List of Lists" (see Chapter 6.2.5).</p>

¹PIPP – Pollution Incident Prevention Plan

²SPCC – Spill Prevention, Control, and Countermeasures Plan

³SWPPP – Storm Water Pollution Prevention Plan

⁴EAP – Emergency Action Plan

⁵RMP – Risk Management Plan

⁶CAA – The Clean Air Act

⁶Act 451 – Public Act 451 of 1994, as amended

⁷HWP – Hazardous Waste Program

⁸WB – Water Bureau

⁹UST – underground storage tank

¹⁰LQG – Large Quantity Generator

¹¹SQG – Small Quantity Generator

MIOSHA also has regulations. See Chapters 17 and 23 which summarize the HAZWOPER and Process Safety Management of Highly Hazardous Chemicals requirements, respectively.