

Environmental, Health, and Safety Requirements for a New Metallic Mining Operation in Michigan



Michigan laws and regulations require numerous environmental protection permits and approvals prior to start up of a metallic mineral mining operation in Michigan. Some are specific to mining, and while most apply to any industrial facility. All work in concert to provide comprehensive protection of human health and environmental resources (air, water, land, wildlife, plants, and more).

Obtaining each permit and approval requires that the project proponent submit an application package. This information is reviewed by the agency responsible for administering that program, and the process includes many opportunities for public input. Following the review, the agency would approve, approve with conditions, or deny the application.

Depending on the types of on-site facilities proposed for a mining operation, the following list includes the most significant potentially applicable requirements. Federal permits and approvals would apply if facilities are proposed to be located on federal land.

**Partial List of Permits and Requirements for a New Metallic Mine
(depending on types and location of proposed facilities)**

Permit or Approval	Purpose	Regulatory Agency	Regulatory Citation
Air Emissions (Permit Program)	Reduce the toxicity and quantity of air pollutants that directly or indirectly enter the atmosphere.	U.S. EPA MDEQ – Air Quality Division	Clean Air Act Amendments of 1990, 40 CFR Parts 50 - 99 Part 55 (Air Pollution Control) of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended (Act 451)
Solid Waste (Permit Program)	Ensures proper disposal of solid waste, including certain thermal treatment by-product waste.	MDEQ – Waste and Hazardous Materials Division	Part 115 (Solid Waste Management) of Act 451
Liquid Industrial Waste (No Permit Program)	Ensures proper management of liquid industrial waste, such as Used Oil.	MDEQ – Waste and Hazardous Materials Division	Part 121 (Liquid Industrial Waste) of Act 451
Hazardous Waste (Permit Program)	Ensures proper management of hazardous waste from “cradle to grave,” including solvents and toxic metals.	MDEQ – Waste and Hazardous Materials Division U.S. EPA	Part 111 (Hazardous Waste Management) of Act 451 RCRA

Storm Water from Industrial Facilities (Permit Program)	Regulates storm water discharge to surface waters associated with certain industrial activities	MDEQ – Water Division U.S. EPA	Part 31 (Water Resources Protection) of Act 451 NPDES
Storm Water from Construction Activities (Permit Program)	Regulates storm water discharge to surface waters associated with construction activities that disturb soil.	MDEQ – Water Division U.S. EPA	Part 31 (Water Resources Protection) Act 451 NPDES
Wastewater Discharges to Surface Waters (Permit Program)	Regulates industrial wastewater discharges to municipal wastewater treatment plants and directly to surface waters.	MDEQ – Water Division U.S. EPA Local Municipal Wastewater Treatment Plant	Part 31 (Water Resources Protection) and Part 41 (Sewerage Systems) of Act 451; Clean Water Act – NPDES 40 CFR 403 – General Pretreatment Regulations for Existing and New Sources Local Ordinance Discharge Limits
Wastewater Discharges to Groundwater (Permit Program)	Regulates the activities associated with discharging wastewater that can reach groundwater.	MDEQ – Water Division	Part 31 (Water Resources Protection) and Part 41 (Sewerage Systems) of Act 451
Discharges of Water to County Drain (Permit Program)	Required for discharges of water to a County Drain, including installation of new discharge piping.	Local County Drain Commission	Michigan Drain Code, PA 40 of 1956
Fire Prevention (No Permit Program)	Inspection program to ensure that industrial facilities meet certain fire prevention criteria, including hazardous material storage Adopts and enforces the International Building Code, with Michigan amendments	Local Fire Department and Department of Consumers and Industry Services Local Units of Government	Michigan Fire Prevention Code, Act 207 of 1941, as amended (Act 207) State Construction Code Act, Act 230 of 1972, as amended (Act 230)
Open Burning (Permit Program)	Required for open burning of certain materials	Local Fire Department; MDNR-Forest, Mineral, and Fire Management Division	Part 515 (Forest Fire Prevention) of Act 451

Wetlands, Streams, and Floodplains (Permit Program)	Required for activities that may disturb wetlands, including depositing fill material and draining of surface water, streams, and floodplains	MDEQ - Geological and Land Management Division U.S. Army Corp of Engineers, Detroit Office	Part 303 (Wetlands Protection), Part 301 (Inland Lakes and Streams), and Part 31 (Floodplains) of Act 451 Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403); Section 404 of the Clean Water Act (33 U.S.C. 1344)
Soil Erosion and Sediment Control (Permit Program)	Required for construction projects that could pollute waters of the state	County Unit of Government (e.g. Public Health Department)	Part 91 (Soil Erosion and Sediment Control) of Act 451
Metallic Mining and Reclamation (Permit Program)	Required for surface mining of metallic minerals	MDEQ- Geological and Land Management Division	Part 631 (Reclamation of Mining Lands) Act 451
Mineral Well Exploration (Permit Program)	Required for exploration well installations.	MDEQ – Geological and Land Management Division	Part 625 (Mineral Wells) of Act 451
Metallic Minerals Mining Lease on State Owned Land (Permit Program)	Required for mining metallic minerals on state owned land under a lease; also requires approval of a mining and reclamation plan	MDNR – Forest, Mineral, and Fire Management Division	Part 5 (Metallic Minerals Leasing Program) of Act 451
Surface Use of State Owned Land (Permit Program)	Required for surface use of state owned land	MDNR – Forest, Mineral, and Fire Management Division	Part 5 (Metallic Minerals Leasing Program) of Act 451
Environmental Remediation (Approvals)	Cleanup and remediation of contamination, and prevention of migration	MDEQ-Remediation and Redevelopment Division	Part 201 (Environmental Response) of Act 451
Storage Tanks (Approvals)	Required for design, construction, installation, and maintenance of underground and aboveground tanks	MDEQ-Waste and Hazardous Materials Division State Fire Marshall	Part 211 (Underground Storage Tanks) of Act 451 Michigan Fire Protection Code, 1941 (Act 207)

Explosives Use (Permit Program)	Required for handling, storage, use, and transportation of explosives	Michigan State Police	Explosives Act, 1970 (Act 202)
Endangered Species Protection (Approvals)	Required for protection of state or federally listed endangered plants or wildlife, if present	MDNR-Wildlife Division U.S. Fish and Wildlife Service	Part 365 (Endangered Species Protection) of Act 451 Endangered Species Act, 1973 (Federal)
Worker Safety and Health	Required to protect mine worker safety and health	Mine Safety and Health Administration, U.S. Department of Labor	Mine Safety and Health Act, 1977 (Federal)
Contingency Plans (Approvals)	<ul style="list-style-type: none"> ▪Pollution Incident Prevention Plan, ▪Spill Prevention, Control, and Countermeasure Plan ▪Storm water Pollution Prevention Plan ▪Risk Management Plan ▪Integrated Contingency Plan 	MDEQ and U.S. EPA	Various State and Federal Laws
Local Zoning	Regulates land uses and buildings	County, Township, or Municipal Governments	County, Township, or Municipal Ordinances
Local Ordinances	Regulates protection of public safety, health, and welfare	County, Township, or Municipal Governments	County, Township, or Municipal Ordinances
Emergency Planning and Right to Know	Requires planning with local state and local emergency responders, and public disclosure of hazardous chemical inventories and toxic releases	MDEQ-Environmental Science and Service Division Michigan State Police U.S. EPA	Emergency Planning and Right to Know Act (SARA Title III), 1986

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