

Catch Basin Cleaning Activities

GUIDANCE

INTRODUCTION

[Catch basins](#) are included in storm sewer system designs as a best management practice to remove pollutants such as gravel, sand, oils, and organic material carried by storm water runoff. Catch basins are designed to capture the pollutants in a sump, which may vary in depth depending on the design. The solids captured in the sump may have elevated concentrations of metals from street runoff or drainage from industrial, commercial, and residential properties. In order to maintain the effectiveness of the catch basin, the sump must be regularly inspected and cleaned out. The Water Resources Division (WRD) and Materials Management Division (MMD) of the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) oversee environmental regulations pertaining to this activity. The Michigan Occupational Safety and Health Administration ([MIOSHA](#)) within the Department of Labor and Economic Opportunity oversees confined space entry and other worker health and safety standards.

Waste generated from catch basin cleaning activities and discharged back into the storm sewer system is unauthorized [per Part 31, Water Resources Protection \(Part 31\)](#) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and is therefore illegal. The combined solid and liquid waste stream from cleaning storm sewers systems, including catch basin sumps, is legally defined as "liquid industrial by-product" pursuant to [Part 121, Liquid Industrial By-Products \(Part 121\) of NREPA](#). If an environmental spill were captured by a storm sewer system, the material in the storm sewer system could be a hazardous waste pursuant to the [Part 111, Hazardous Waste Management \(Part 111\) of the NREPA](#) and subject to additional management requirements.

If the storm sewer system is found to contain contaminants or abandoned waste materials, report the details to EGLE by calling the [Pollution Emergency Alert System](#) at 800-292-4706.

VISUAL INSPECTION

When cleaning out catch basin sumps, it is important to conduct a visual inspection prior to the cleaning. This is necessary to ensure the water in the sump has not been contaminated and qualifies to be managed as a liquid industrial by-product. The visual inspection is important for worker safety and to ensure proper management of the material once it is removed from the catch basin sump. If contamination is expected based on a visual inspection (visible sheen, discoloration, turbidity, obvious odor, etc.), a grab sample should be collected and analyzed

before handling the materials and generating a waste. While waiting for the sample analysis, efforts to prevent stormwater from entering the storm sewer system should be taken. For additional details on performing visual inspections, see the U.S. Environmental Protection Agency (U.S. EPA) [Storm Water Management Fact Sheet on Visual Inspections](#). For additional details on sampling and determining if a material is hazardous or not, please see the EGLE [Waste Characterization Guidance](#).

HANDLING THE LIQUID INDUSTRIAL BY-PRODUCT

The following are options for handling liquid industrial by-products generated from catch basin cleaning activities:

1. Have the liquid industrial by-product transported to drying beds to separate the solids and liquids. This is usually performed at a publicly owned treatment plant or at a privately-owned permitted facility where the liquid portion of the waste stream is separated from the solids and treated prior to discharge. Once dry, the solids should be disposed in a licensed solid waste landfill in accordance with [Part 115](#), Solid Waste Management, of the NREPA.
2. Request permission from the local wastewater treatment plant operator to discharge the combined solid/liquid waste into the sanitary system. Most treatment plants will require pre-treatment prior to the discharge. All applicable local ordinance provisions must be followed.
3. When conducting catch basin cleaning activities where the above options are not available, the following method can be used after the water in the sump is confirmed to be non-contaminated.
 - Using a sump pump, or any other pumping mechanism, remove the majority of water in the sump of the basin without disturbing the solid material below. Do not use pumps connected to the vacuum truck's holding tank.
 - The clear water may then be directly discharged to one of the following:
 - Municipal sanitary sewer system (with prior approval from local sewer authority).
 - Application to the ground adjacent to the catch basin may be allowed on a site-specific basis. To learn more about this option, contact the WRD, Groundwater Discharge Program, at 517-290-9607.
 - The remaining liquid/solid in the sump should be collected with a vacuum truck and disposed of off-site in accordance with Parts 115 or 121.

The owner of the storm sewer system is responsible for meeting the liquid industrial by-products generator requirements under Part 121, even if the catch basins are cleaned out by a private contractor. See the [Liquid Industrial By-Products Generator Requirements](#) guidance for more details on the generator requirements for handling liquid industrial by-products.

Transporters of catch basin clean-out materials must be permitted and registered to transport liquid industrial by-products. Only local, state, and federal government agencies are exempt from this and only when using their own vehicles and staff to do the work. Transporters needing a permit and registration must notify MMD of their transport activity and obtain a Site Identification Number using the [EQP5150 Form](#). There is a \$50 fee for a new Site Identification Number that can be paid for [on-line](#). For more details on transporter requirements, see the [Hazardous Materials Transportation Act, 1998 PA 138, as amended](#) and [Transporters Web page](#).

When the liquid by-product is transported over public roadways by local government officials or by contractors, a [shipping document](#) is required. The shipping document can be a bill of lading, non-hazardous waste manifest, uniform hazardous waste manifest, consolidated shipping document, etc. The shipping records must be kept by both the generator and the transporter for at least three years from the date of shipment. The portion of the vehicle that contains the liquid industrial by-product and/or containers used to transport the liquid industrial by-products must be kept closed except when adding or removing the waste, and the exteriors must be kept free of any liquid industrial by-products and residue. Containers must also be labeled with words describing their contents. For more details on shipping documents, including details on consolidated shipping documents, please see the [Liquid Industrial By-Products Frequently Asked Questions](#).

Facilities accepting liquid industrial by-products must meet the following operating requirements:

- They must notify MMD using the [EQP 5150 Form](#) that they are operating a liquid industrial by-product designated facility, obtain a Site Identification Number, and meet the operating requirements under [Part 121](#). This includes implementing practices to prevent unauthorized discharge of the liquid industrial by-products; keeping shipping, training, and other records; having emergency response plans; annually reporting the amount and types of liquid industrial by-products received; and reporting unauthorized release to the environment. If managing containers of liquid industrial by-product, they must be kept closed, labeled, and protected from the weather, fire, physical damage, and vandals.
- The discharge of the liquids into the treatment plant that is permitted by the WRD must meet the wastewater treatment plant requirements. Any other discharge of the liquids would require a separate EGLE discharge permit.
- Any resulting solid waste from processing must be managed as specified under [Part 115](#) and disposed in a licensed solid waste landfill. Contact the landfill for the specific testing and disposal requirements needed to verify the waste is solid and not a hazardous waste. They will likely require specific tests or only accept data from specific laboratories. Ask the disposal company for a list of required tests, the purpose for the tests, approved testing methods, and acceptable laboratories. The solids cannot be used as fill on public or private property, or for any other use, unless they meet the conditions in Section 11504 of [Part 115](#) and can be demonstrated to be an inert material. EGLE relies upon the methods in the [Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria](#) for collecting representative samples.

See [Part 121](#) for more details on the operating requirements for liquid industrial by-products designated facilities.

Street sweeping activities are also subject to the above solid waste requirements. Street sweeping involves the use of specialized equipment to remove litter, loose gravel, soil, pet waste, vehicle debris and pollutants, dust, de-icing chemicals, and industrial debris from road surfaces. See the best management practices for [Street Sweeping](#).

WHERE TO GO FOR HELP

- **Using the solids as fill or other use under Part 115:** [Solid Waste Program Staff Map](#)
- **Part 121 and Hazardous Materials Transportation Act requirements:** [Hazardous Waste and Liquid Industrial By-products Staff Map](#)
- **Managing waste under Part 31, or general questions regarding this guidance:** [Municipal Separate Stormwater Sewer System Program Staff Map](#)
- **Groundwater permitting requirements:** [Groundwater Discharge Program Staff Map](#)
Sherry Thelen: 517-290-9607 | ThelenS5@Michigan.gov
- **Confined space entry requirements:** [MIOSHA Consultative Services](#): 517-284-7720

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