Industrial Storm Water Certified Operator
Training Manual

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INTRODUCTION

The federal Clean Water Act requires industries with storm water discharges to surface waters to obtain a storm water permit under the National Pollutant Discharge Elimination System (NPDES). The Michigan Department of Environmental Quality (MDEQ) has been given the authority to administer this program. In addition, Michigan law requires that anyone who discharges liquid waste to waters of the state must have their pollution control measures under the supervision of someone who has been certified by the state.

The Michigan storm water general permit requires permitted industrial facilities to:

- Obtain the services of a certified storm water operator
- Develop a Storm Water Pollution Prevention Plan (SWPPP)
- Implement all pollution prevention measures described in the SWPPP, including the inspection and maintenance programs to ensure lasting effectiveness
- Eliminate all unpermitted or illicit discharges to surface waters
- Conduct routine and comprehensive inspections to evaluate the effectiveness of pollution prevention measures
- Develop and implement an employee training program
- Update pollution prevention measures and the SWPPP as necessary
- Write an annual report summarizing inspections, problems, and changes to the plan
- Maintain documentation which demonstrates compliance with the permit requirements

This manual is organized in the following manner:

- Basic information on water quality and storm water
- An overview of the federal and state regulations that relate to storm water
- The storm water permitting framework
- What industrial facilities need to do to meet the requirements of the storm water general permit
- Components of a SWPPP
- Activity specific controls
- Review exercise
- Appendix

You can also look for information on our Web site: http://www.michigan.gov/deqstormwater. Informational videos are available at: http://www.michigan.gov/deq/0,4561,7-135-3313_3682_3716-24018--,00.html
You can also call the MDEQ’s Office of Environmental Assistance at 1-800-662-9278. http://www.michigan.gov/deq/0,4561,7-135-3306_57163---,00.html
WATER QUALITY AND STORM WATER

Let’s begin with a brief overview of water quality issues, especially where they relate to precipitation and runoff. From a raging stream during spring snowmelt, to a gentle summer rain, to the slow movement of water through the ground, water is in constant motion.

The movement and endless recycling of water between the atmosphere, the land surface, and underground aquifers is called the hydrologic cycle. This movement, driven by the energy of the sun and the force of gravity, supplies the water needed to support life. Understanding the hydrologic cycle is basic to understanding all water and is a key to the proper management of water resources. Many processes work together to keep Earth’s water moving in a cycle. There are five processes at work in the hydrologic cycle: condensation, precipitation, infiltration, runoff and evapotranspiration. These occur simultaneously, and except for precipitation, continuously.

Storm water and runoff are part of this natural hydrologic process. Under natural conditions, the majority of rainwater that falls to the ground infiltrates the ground or evaporates.

However, industrial activities can alter natural drainage patterns and add pollutants to rainwater and snowmelt. The introduction of pollutants to storm water most commonly occurs when industrial facilities allow operating procedures and industrial materials to become exposed to storm water. This potentially contaminated storm water may then enter storm sewer systems or flow over the ground and discharge to lakes, rivers, streams, and wetlands.

The best way to combat this is through pollution prevention. It is better for the environment and more cost effective to prevent the contamination of storm water at the source. This concept has led to the development of the current storm water regulations.

The goal of the storm water program is to reduce pollution entering Michigan’s waters by implementing controls designed to prevent the contamination of storm water runoff.

Preventing Pollution is the Best Solution!

Most automobile drivers are aware that roads are slickest after the first few minutes of a rainstorm. It is in those first few minutes that oil, grease, lead, and other pollutants that have accumulated on the pavement are picked up by water and transported to storm sewers or roadside ditches. This washing action by storm water is referred to as the first flush. It has been determined that this first flush of storm water runoff contains the highest percentage of pollutants.
There are a variety of pollutants commonly found in storm water that can impair water quality:

Hydrocarbons: Common sources of hydrocarbons (gasoline, oil, and grease) in industrial storm water runoff are from spills at oil storage and fueling facilities, automobiles and equipment, and improper disposal of waste oils. Hydrocarbons are known to be toxic to aquatic organisms at relatively low concentrations, and are a major concern when addressing storm water runoff controls.

Toxic Pollutants: Sources of toxic pollutants are quite varied. Pesticides, herbicides, corroded metals, wood preservatives, paints, used oils, solvents, and machinery fluids all can have toxic effects on aquatic life, and may contaminate drinking water supplies. Some toxic substances can accumulate in the food chain, resulting in fish advisories limiting the amounts and types of fish we can safely eat.

Organic Enrichment: Food processing facilities, airports with de-icing activities, septic systems, animal waste, combined sewer systems, and illicit storm sewer connections are sources of oxygen demanding substances. Storm water runoff can deposit large quantities of these substances in our lakes or streams. This will increase the levels of BOD (biological oxygen demand), COD (chemical oxygen demand), and TOC (total organic carbon), and decrease the levels of dissolved oxygen in the aquatic environment. The pulse of high oxygen demand that can occur during a storm water runoff event can totally deplete oxygen supplies in shallow, slow moving waters. Oxygen depletion is a common cause of fish kills and odor problems.

Nutrients: The addition of phosphorus and nitrogen to storm water runoff from landfills, septic fields, animal waste, illicit connections, erosion, and over fertilization can result in algal blooms, excessive plant growth, ammonia toxicity, and groundwater contamination. In freshwater systems phosphorus is the main cause of excessive plant and algal growth. Nutrients are a common component of storm water runoff.

Pathogens: The presence of pathogens in surface water inhibits recreational uses such as swimming and boating, and can cause ear and/or intestinal problems as a result of contact. Common sources of bacteria are illicit drain connections, sanitary sewer overflow, animal waste, and failing septic systems.

Sediment: Sediment is one of the most widespread pollutants in surface water. It is generated from construction activities, bare soil around a facility, landfills, and stream bank and stream bed erosion caused by changes in hydrology. Many pollutants (nutrients, hydrocarbons, and toxic substances) attach to sediment particles, particularly fine sediments such as clay. Therefore, as sediment is carried to a waterbody, it can carry other pollutants with it. Even without attached pollutants, sediment can be very destructive to aquatic systems by covering and damaging habitat.
Salts: The most common source of chlorides and other salts in storm water is urban runoff and snowmelt. Because salt is extremely soluble, almost all salt applied to roads, parking lots, and walkways ends up in surface or groundwater. High chloride concentrations can be toxic to many freshwater organisms, and there are numerous documented cases of water contamination caused by storm water runoff from inadequately protected stockpiles of salt and sand/salt mixtures.

REGULATIONS RELATED TO STORM WATER

Originally enacted in 1948, the Federal Water Pollution Control Act was the first legislation passed to protect water quality in the United States. However, the Act did little to control discharges of pollutants into the nation’s waterways. By the mid-1960’s, approximately two thirds of the nation’s rivers, lakes and coastal areas were rated as unsafe for fishing and swimming.

Highly publicized events such as the Cuyahoga River fire of 1969 and growing public concern for water quality led to the Federal Water Pollution Control Amendments of 1972. Better known as the “Clean Water Act” the primary purpose of the Act was to eliminate the pollution problems caused by municipal sewage and industrial waste water.

Point source discharges of pollutants to navigable waters required authorization under a Nation Pollutant Discharge Elimination System (NPDES) permit. As pollution control measures, such as waste water treatment plants, were implemented for these point source discharges, water quality problems were reduced, but not eliminated.

To investigate another potential source of contamination to our waterbodies, a study called the Nationwide Urban Runoff Program was conducted. In this study, storm water discharges from municipal separate storm sewer systems were analyzed from 1978 to 1983. The results indicated that storm water runoff contained many pollutants. In fact, it was shown that a large percentage of streams and lakes had impaired uses, at least partially due to the pollutants in storm water discharges.

As a result, the 1987 amendments to the Federal Clean Water Act recognized that storm water was a significant source of water pollution. The amendments redefined point source discharges to include urban and industrial storm water runoff directed to surface water through discrete conveyances such as a pipe, ditch, graded lot or constructed waterway. In addition, Congress directed the U.S. Environmental Protection Agency (USEPA) to develop regulations for storm water discharges associated with construction activities, municipal separate storm sewer systems, and industrial activities. The Final Rule and NPDES Application Requirements for Storm Water Discharges are identified in the Code of Federal Regulations at 40 CFR 122.26, as amended.
State Regulations

In 1994, the State of Michigan compiled all of its environmental laws into the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended (NREPA).

Part 31 of this Act was created to protect and conserve the water resources of the State. Part 31 prohibits the discharge of pollutants to waters of the State. This includes the prohibition of discharging pollutants to the surface waters of the state and any obstruction or occupation of floodways.

Section 3112 - NPDES Permit
A person shall not discharge any waste or waste effluent into the waters of this state unless the person is in possession of a valid permit from the MDEQ.

Section 3110 - Certified Operators
Every industrial or commercial entity that discharges liquid wastes into any surface water or groundwater other than through a public sanitary sewer shall have waste treatment or control facilities under the specific supervision and control of persons who have been certified by the MDEQ as properly qualified to operate the facilities.

Section 3115 - Penalties
Under Section 3115, a maximum fine of $25,000 per day per violation may be imposed under civil action. There are also provisions for criminal penalties.

Section 3118 (4) - Storm Water Discharge Fees
There is a fee for a permit related to industrial activities. Any person holding an industrial permit on January 1 of a given year shall be assessed an annual discharge fee.

Part 91, Soil Erosion and Sedimentation Control:

1. Construction activities may also occur at a facility. If such activities do occur, a Soil Erosion and Sedimentation Control Permit may be required. Soil Erosion and Sedimentation Control Permits must be obtained from the county or municipal enforcing agent whenever construction activities occur within 500 feet of a waterbody or whenever one or more acres of land are disturbed.

2. Mining that involves the removal of clay, gravel, sand, peat, or topsoil also requires a Soil Erosion and Sedimentation Control Permit. In addition, if water is discharged from a pit, an individual NPDES permit or the General Permit for Sand and Gravel Mining Wastewater (MIG499000) is required.

Part 201, Environmental Remediation, of Act 451: Many sites of environmental contamination and clean-up have been placed on Michigan’s list of Sites of Environmental Contamination.
The following rules were promulgated pursuant to Part 31 of NREPA by the MDEQ:

Part 21, Rule 2190 - In Michigan, permitting for construction sites one acre or larger is regulated under permit-by-rule. The permit-by-rule fulfills the federal storm water regulation for construction sites. Applicants must have a Soil Erosion and Sedimentation Control Permit from the local or county enforcing agent to apply to the MDEQ for coverage under the permit-by-rule. A storm water operator for construction sites (with certification training and exam specifically for construction operations) is also a requirement.

The rules provide automatic permit coverage for construction sites that disturb one to five acres, so long as the site has coverage under the Soil Erosion and Sedimentation Control Program. Even though there is no application requirement or permit fee for these one to five acre sites, construction site owners must comply with the permit-by-rule requirements.

Construction sites that have an earth disturbance of 5 acres or larger need to submit a Notice of Coverage to the MDEQ.

Part 10, Treatment Plant Operators, Rule 323.1251 – 323.1259: The MDEQ may revoke the certificate of a person who, after a hearing, is judged incompetent or unable to properly perform the duties of the operator in his classification, or who has practiced fraud or falsification or who has been negligent in the discharge of his duties.

STORM WATER PERMITTING FRAMEWORK

Classes of Permits

In Michigan, two classes of NPDES permits are issued to cover storm water discharges from industrial sites: either a general permit or an individual permit. The general permits contain the minimum requirements for protecting water quality. A facility with this type of permit coverage will be authorized to discharge when they receive a certificate of coverage (COC) under the general permit.

If the conditions at an industrial facility cannot be properly managed by the requirements of the general permit, an individual permit written specifically for the facility may be issued. An individual permit may contain additional requirements such as regular sampling, monitoring, end of pipe treatment, or effluent limits. If the facility has additional types of wastewater discharges, which are authorized by an individual NPDES permit, the storm water runoff can be authorized in that individual permit as well. In that case, the individual permit would include the same minimum requirements for the storm water discharge as are found in the general permit.
Who Needs a Storm Water Permit?

There are three criteria to consider when determining if coverage is needed under the NPDES industrial storm water permit.

First, determine if the industry is identified in the federal storm water regulations at 40 CFR, Section 122.26(b)(14). Many regulated industries are identified by Standard Industrial Classification (SIC) code, while others are included by narrative description.

There is another industrial classification system termed North American Industrial Classification System (NAICS). This classification system can be converted to the SIC code system at the following website: http://www.census.gov/eos/www/naics/concordances/concordances.html

In general, the following industrial categories are regulated:

- Manufacturing
- Warehousing
- Transportation
- Mining
- Landfills
- Power Plants
- Recycling Facilities
- Waste Water Treatment plants and
- Hazardous Waste Treatment Storage and Disposal facilities

A complete list of regulated industries may be found in Appendix C

Once it is confirmed that the facility is a regulated industry, the next step is determining if there is a point source discharge of storm water to surface waters of the State. Surface Waters of the State include rivers, lakes, streams, and wetlands. The surface water that receives the point source discharge is called the receiving waters.

A point source is any discernible, confined, and discrete conveyance that discharges storm water into surface waters. Examples of point source discharges include, but are not limited to, pipes, ditches, channels, tunnels, conduits, or anything that conveys storm water into surface waters. In most cases, land graded to convey storm water runoff across a piece of property would create a point source discharge of storm water.
At many facilities, storm water is discharged from the facility into a municipal storm sewer system. It is important to understand whether the municipal sewers are separate or combined. In a separated sewer system, storm water is kept separate from sanitary sewage and discharges directly into a surface water body. The sanitary sewage, which also may contain industrial waste water, is directed to the local waste water treatment plant where it is treated and then discharged. Permit coverage is needed when storm water is discharged to a separated storm sewer system.
In a combined sewer system, storm water is combined with sanitary sewage, and is directed to the local waste water treatment plant. If all storm water from the facility is discharged to a combined sewer system, storm water permit coverage is not needed.

The final step in the determination process is evaluating the potential for exposure of industrial materials or activities to storm water. Industrial materials or activities include, but are not limited to, material handling equipment, industrial machinery, raw materials, intermediate products, by-products, waste materials and final products. However, final products that are designed for outdoor use are not considered exposure.

Facilities without exposure may apply for an exemption from the storm water permit requirements by submitting a No Exposure Certification form. Additional information on the No Exposure Certification can be found in Appendix. To remain exempt from the storm water permit requirements, the condition of No Exposure must be maintained at all times and the form submitted to the MDEQ every five years.
If there is exposure of any industrial materials or activities to storm water runoff that discharges to surface waters of the state, storm water permit coverage is required.

**In summary, facilities must obtain storm water permit coverage if all of the criteria apply:**

- The facility’s SIC code is regulated
- Storm water from the property discharges to surface waters of the state, and
- There is exposure of industrial materials

Contact your district office if you have questions regarding permit coverage. District contact information can be found on the MDEQ website [www.michigan.gov/deqstormwater](http://www.michigan.gov/deqstormwater) or in Appendix A.

**Applying for Storm Water Permit Coverage**

1. New facility that has not started industrial activity

In order for a new facility to be issued permit coverage, the facility must be able to certify the following:

- A Storm Water Pollution Prevention Plan (SWPPP) has been developed for the facility.
- The facility has a certified industrial storm water operator.
- There are no unauthorized discharges from the facility.
- Non-structural storm water pollution preventive measures and source controls identified in the SWPPP will be implemented when industrial activity begins.
- Structural storm water pollution prevention controls identified in the SWPPP will be installed and operational when industrial activity begins.

Once these requirements are completed, the permittee may apply for permit coverage by submitting a completed Notice of Intent (NOI) form to the MDEQ, Water Resources Division Permits Section. The NOI asks for general location information including facility address, township, range, ¼ - ¼, section, latitude, longitude, and county. You will also need to know the body of water (receiving water) to which your storm water is discharged (either directly or via a storm sewer or drain). You will need to provide mailing address (es), contact information, standard industrial classification code, and name and certification number of the storm water operator.

Please note that the application must be signed by the principal executive officer of the company (such as the company owner, president or vice president). A designee may also sign the application if that person is responsible for the overall operation of the facility and has full authority on behalf of the legal owner to submit the application. Written documentation of this designation is required. The signature on the NOI certifies that the NOI requirements have been completed.
An NOI is available in Appendix E. If the facility has additional waste water discharges, other than storm water, contact your MDEQ, Water Resources Division District Office (see Appendix A).

2. Existing facility without storm water permit coverage

If the facility is an existing facility (already in operation) without prior storm water coverage, they are in violation of state and federal regulations. In order to resolve the violations the facility must enter into a general administrative consent order (ACO). The ACO is a written agreement that resolves the violation of operating without permit coverage and describes the actions to be taken to achieve compliance with the storm water regulations. The fines associated with the ACO are much lower that the maximum fines in the regulations. The following steps must be taken for an existing facility to obtain storm water permit coverage:

- Submit a notarized Certificate of Entry form that states agreement with the ACO.
- Submit a fee of $260 and a monetary penalty equal to two times the applicable permit fee.
- Once the MDEQ receives the Certificate of Entry the facility must submit a Notice of Intent (NOI) within a 60-day period.

The signature on the NOI certifies that the following permit requirements have been completed:

- A Storm Water Pollution Prevention Plan (SWPPP) has been developed for the facility.
- The facility has a certified industrial storm water operator.
- There are no unauthorized discharges from the facility.
- Non-structural storm water pollution prevention measures identified in the SWPPP are being implemented.
- Structural storm water pollution prevention controls described in the SWPPP are installed and operational.


3. Storm water permit reissuance

If the facility is an existing facility already covered under a storm water general permit and is applying for reissuance under a new general permit, the NOI has to be submitted six months prior to the expiration of the Certificate of Coverage (COC). The expiration date may be found near the bottom of the COC. A signed NOI certifies that the facility is in compliance with the general permit.
4. Portable industrial facilities

Portable industrial facilities also need to submit a Notice of Intent for permit coverage. Examples of these facilities include portable concrete batch plants, rock or concrete crushers and asphalt plants. A separate Notice of Intent must be submitted for EACH portable facility.

If the portable facility is to be moved to a satellite location, the permittee must notify the MDEQ of the relocation in writing, at least 10 days prior to start up at the new location.

Types of General Storm Water Permits

There are two types of industrial storm water general permits in Michigan:

1. Storm Water from Industrial Activity
2. Storm Water with Required Monitoring

Typically, the Storm Water from Industrial Activity general permit does not require storm water discharge sampling.

The Storm Water with Required Monitoring general permit requires a short-term characterization study of storm water discharges from certain areas.

Facilities meeting one of the following conditions must be covered under the “Storm Water with Required Monitoring” general permit:

1. The facility has secondary containment structure(s) mandated by state or federal regulations, from which storm water is periodically discharged to waters of the state.

2. The site has been classified pursuant to Part 201 of Act 451 as a site of environmental contamination or clean-up where known or potential impacts on surface waters exist that cannot be adequately guarded against under the requirements of the Storm Water from Industrial Activity general permit.

3. The operation has been designated a "significant contributor to pollution" by the MDEQ.

Because of the water quality concerns, a short-term characterization study of the discharges from these areas of concern is required. The plan must be submitted to the MDEQ Water Resources Division (WRD) district supervisor for approval six months after the COC is issued. See Appendix F for guidance on how to conduct a short-term storm water characterization study.
**Permit Fee**

An annual fee of $260 will be assessed to all facilities that have a permitted storm water discharge. All facilities that have authorization to discharge storm water on January 1 will be responsible for the annual fee. Storm water invoices are required to be issued by the MDEQ, WRD before February 1. In response to the MDEQ, WRD’s annual notice, the permittee shall remit the fee to the address on the notice, postmarked no later than March 15 of each year.

**INDUSTRIAL STORM WATER DISCHARGE PERMIT REQUIREMENTS**

The pollution prevention components of the Michigan general storm water permits and the individual NPDES permits with storm water discharges require permitted industrial facilities to:

- Obtain the services of an industrial certified storm water operator
- Develop a SWPPP
- Implement all pollution prevention measures described in the plan, including the inspection and maintenance programs to ensure lasting effectiveness
- Eliminate all unpermitted or illicit discharges to surface waters
- Conduct comprehensive inspections to evaluate the effectiveness of pollution prevention measures
- Conduct routine inspections as part of the preventative maintenance program
- Update pollution prevention measures and the SWPPP as necessary
- Write an annual report summarizing inspections, problems, and changes to the plan
- Maintain documentation which demonstrates compliance with the permit requirements

If applicable, a Short-Term Characterization Study Plan is required to be submitted within six months to the WRD district supervisor for approval.

**Storm Water Operator**

The applicant and/or permittee shall have an industrial storm water operator certified by the MDEQ, as required by Section 3110 of Part 31 of Act 451.

The following are the responsibility of the certified storm water operator:

- The certified operator shall have supervision over the facility’s storm water treatment and control measures included in the SWPPP.
- The certified operator shall conduct comprehensive storm water inspections per the frequency in the general permit
- The certified operator shall review and sign the SWPPP
The storm water operator may be someone who works at the facility, a regional corporate environmental manager, a consultant, or anyone else the permittee designates to receive certification and perform these duties. However, the certified operator should be someone who is at the facility on a regular basis.

The certified storm water operator at the facility shall review and sign the facility's SWPPP, along with the permittee or his or her designee. If the facility’s storm water operator leaves the facility, or no longer has operator responsibilities, the permittee must immediately obtain another storm water operator. The new operator must review and sign the SWPPP. The permittee shall provide written notification including the name and certification number of the new operator to the District Supervisor.

It is recommended that a facility have multiple certified storm water operators to effectively manage the facility’s storm water program. If there are multiple certified operators at the facility their names should be listed in the appendices to the SWPPP.

A team of people should be selected to help develop, implement, maintain, evaluate, and revise the SWPPP. This team should be made up of people who represent all facets of a facility's operations, including management. At some facilities, the certified operator may be the only member of the team.

The industrial storm water certification is valid for five years from the year it was issued. Certificates are issued and renewed by the Operator Training Unit. It is important that the MDEQ has your current home address so that renewal information can be sent to you. Renewal information is sent in January of the year that the certification will expire.

The MDEQ may revoke the certificate of a person who has practiced fraud or falsification or who has been negligent in the discharge of his/her duties. In addition, under Part 31 of NREPA, Section 3115, there is a $2,500 - $25,000 fine for negligence or falsification of records or reports. Upon conviction, in addition to a fine, the court in its discretion may sentence the defendant to imprisonment.

**Storm Water Pollution Prevention Plan (SWPPP) Development**

The SWPPP is a written procedure to reduce the exposure of significant materials to storm water runoff and to reduce the amount of significant materials in the storm water discharge. The storm water discharge from the facility must meet the Water Quality Standards.

This plan must be designed to work at your facility. Make it user friendly, readable, and to the point. Do not include information that is not relevant or procedures that are not feasible for your situation. A lengthy plan is not necessarily an effective plan.
If your facility has other environmental protection plans, such as a Pollution Incident Prevention Plan or a Spill Prevention Countermeasures and Control Plan, you may want to consider combining your SWPPP with one or more of these documents. There will be overlap in many of the components of these plans. If multiple plans are combined make sure the table of contents is detailed enough to allow information to be easily accessible.

The MDEQ can provide you a SWPPP template (contact the MDEQ, Water Resources Divison District Office, or download from our Web site: http://www.michigan.gov/documents/deq/WRD-stormwater-SWPPP-samplan_232869_7.doc to aid in the development of a plan for your facility. Remember that these are guides and they will need to be customized to address the industrial operations at your facility.

The SWPPP shall identify potential sources of contamination and describe the controls necessary to reduce their impacts. The following objectives will aid in achieving the goal of the SWPPP:

- Identify sources of significant materials that could mix with storm water and be discharged from the facility. An evaluation of the reasonable potential for contribution of significant materials to the storm water runoff from different areas of the facility is required.
- Identify nonstructural controls to be used at the source to prevent significant materials from entering storm water.
- Provide structural controls, if needed, to prevent significant materials from entering storm water and to give additional control or treatment for storm water that has become contaminated by significant materials.
- Ensure that the SWPPP is regularly evaluated and updated.

The goal of the SWPPP is to prevent storm water from contacting contaminants before being discharged into the receiving waters.

A. Source Identification

The first step in developing a SWPPP is source identification. A site map must be completed to adequately assess the facility. The storm water permit requires the following 13 items to be identified on the site map:

1. Buildings and other permanent structures (including outbuildings)
2. Storage or disposal area for significant materials (include inside and outside areas)
3. Secondary containment structures and descriptions of what is contained in the primary containment structures
4. Storm water discharge outfalls (numbered or otherwise labeled for reference)
5. Location of storm water and non-storm water inlets (catch basins, roof drains, conduits, drain tiles, detention pond riser pipes, and sump pumps)(numbered or otherwise labeled for reference) contributing to each outfall
6. Location of NPDES permitted discharges other than storm water (this would include non contact cooling water, vehicle wash water, etc.)
7. Outlines of the drainage areas contributing to each outfall (use arrows to indicate the storm water flow and shading, dashed lines, etc. to detail the storm water drainage patterns of the property)
8. Structural runoff controls or storm water treatment facilities (this includes oil water separators, detention ponds, catch basin inserts, etc.)
9. Areas of vegetation (this includes areas of grass, field, wetland, etc.)
10. Areas of exposed and/or erodible soils (this includes gravel lots, sparsely vegetated areas, bare earth, etc.)
11. Impervious surfaces (this includes roof tops, concrete, asphalt, etc.)
12. Name and location of receiving waters and (ex. Rush Creek via municipal storm sewer system, County Drain #31, unnamed ditch to Grand River)
13. Areas of known or suspected impacts on surface waters as designated under Part 201 of the Michigan Act (areas that have known soil or ground water contamination)

The bottom line is that the map should show everything that is relevant to storm water at the facility. Sample site maps can be found in Appendix G.

Once the site map has been completed, the written portion of the SWPPP can be developed. In order to identify sources of significant materials at a facility, one has to know what a significant material is. A significant material is any material that can degrade or impair water quality. Examples include but are not limited to:

- Soils
- Salt piles
- Raw materials
- Fuels and lubricants
- Solvents and detergents
- Wood and metal chips
- Plastic pellets
- Fertilizers and pesticides
- Food products
- Waste products (including litter)
- Foundry sand, ash, and slag
- Polluting materials
- Wastewater
- Building Materials

While developing the SWPPP, all sources of potential storm water contamination need to be identified. Remember the outside and inside of the facility must be evaluated to determine the significant materials and practices that could be sources of contamination to storm water runoff. Often significant materials get tracked outside and exposed to storm water runoff by vehicles or employees.
The storm water permit requires that the SWPPP include a list of all significant materials that have the reasonable potential to contaminate storm water runoff.

Using a table is an efficient way to detail all of the information required. For each material identified the SWPPP shall describe the ways in which the significant material is or has the reasonable potential to become exposed to storm water runoff. In addition, the inlet and outfall through which the material may be discharged if released shall also be identified. A sample table is available in Appendix H.

To further describe the pollutant sources, the SWPPP shall include an evaluation and written description of the reasonable potential for the contribution of significant materials from the following 12 areas or activities:

1. Loading, unloading, and other material handling operations
2. Outdoor storage including secondary containment structures
3. Outdoor manufacturing or processing activities
4. Significant dust or particulate generating processes
5. Discharge from vents, stacks, and air emission controls
6. On-site waste disposal practices
7. Maintenance and cleaning of vehicles, machines, and equipment
8. Areas of exposed and/or erodible soils
9. Sites of Environmental Contamination listed under Part 201 of the Michigan Act
10. Areas of significant material residues
11. Areas where wild or domestic animals congregate and deposit wastes and
12. Other areas where storm water may contact significant materials

**A Listing of Significant Spills**

The SWPPP must include a listing of spills that have occurred at the facility in the last three years.

The spill report shall include the date, volume, exact location of release, the actions taken to clean up the material and the actions to prevent exposure of the spilled material to storm water runoff.

If a release occurs it shall be managed in accordance with the SWPPP. The SWPPP shall be updated to include a description of the release within 14 calendar days.
Summary of Existing Storm Water Sampling Data

During the source identification phase, any available sampling data should be evaluated and included in the SWPPP. Historical data may be useful in locating potential problem areas and in identifying polluting materials. Be sure to take into account the sampling and testing methods used. It is essential that the first flush be sampled, since the storm water has the highest concentrations of most pollutants during the first 30 minutes of the discharge. Monitoring the discharge throughout the life of the permit, although not required by the general permit, may be a practical method of evaluating the effectiveness of the SWPPP.

If the Certificate of Coverage (COC) or permit authorizes a storm water discharge from Sites of Environmental Contamination or secondary containment structure a short-term storm water characterization study plan must be submitted to the district supervisor for approval. Once the study is complete, the results must be submitted to the district supervisor for evaluation and approval. The monitoring data needs to be included in the SWPPP.

B. Nonstructural Controls

Nonstructural controls are practices that are relatively simple, fairly inexpensive, and applicable to a wide variety of industries or activities. These are typically everyday types of activities undertaken by employees at the facility. Many facilities may already have nonstructural controls in place for other reasons. The following are the eight nonstructural controls to be included in the SWPPP to prevent significant materials from coming into contact with storm water:

1. Preventive Maintenance

Preventive maintenance involves the regular inspection, testing, and cleaning of facility equipment, vehicles, and operational systems.

All systems and equipment in which a breakdown could result in significant materials getting into storm water runoff should be included in the preventive maintenance program.

Once the equipment and areas to inspect are identified, the next step is to set up schedules for routine inspections. There should also be a list of tasks to be done during each of the inspections. Routine Inspections are an integral component of the preventative maintenance program and are the responsibility of the Certified Operator. At most facilities, it is recommended that they be performed and documented at least once every two weeks. Routine inspections should focus on areas that have a greater potential to contaminate storm water. Routine inspections should include housekeeping activity areas, preventative maintenance items, material handling areas, fueling areas, etc. A sample routine inspection form can be found in the MDEQ SWPPP template.
Promptly repair or replace any defective equipment found during the inspections. It is advisable to keep the most commonly needed spare parts on hand for equipment repair to minimize down time.

Include a method for record keeping in the preventive maintenance program. Include by whom, when, and where the inspections were done, what was found, and any actions that were taken as a result of the inspections. These records should either be kept with the SWPPP or the location of the records should be referenced in the SWPPP.

2. Good Housekeeping

Good housekeeping practices are designed to maintain a clean and orderly work environment. Often the most effective first step in preventing pollution from getting into storm water is using common sense to improve housekeeping practices at the facility. Routine inspections should be performed to ensure these good housekeeping practices are carried out. A clean and orderly work area will reduce the potential for pollutants to come in contact with storm water. If special equipment is utilized at the facility to aid in housekeeping activities they should be described in the SWPPP.

The following practices should be included as part of the good housekeeping procedures:

a. Operation and Maintenance

These practices ensure that the processes and equipment are working properly:

- Maintain clean, dry surfaces
- Regularly pick up waste materials
- Perform preventive maintenance on equipment
- Routinely inspect for leaks and spills
- Ensure spill clean-up procedures are understood by all employees

b. Material Storage Practices

Proper storage can minimize the potential for the accidental release of materials and chemicals that can cause contamination of storm water runoff. It will also reduce damage and loss of materials on site. The following storage practices should be considered if applicable:

- Provide adequate aisle space
- Avoid storing acids and bases near each other
- Avoid storing flammable materials near heat sources
- Store critical materials in secondary containment
- Store materials away from direct traffic routes
- Store materials away from drip edges, down spouts, and storm water inlets whenever possible.
- Stack containers according to manufacturer’s suggestions
• Store containers on pallets to minimize corrosion due to ground moisture
• Limit the number of persons handling hazardous materials, and properly train those that will be handling such materials

c. Material Inventory Procedures

Keeping an up-to-date inventory of all materials present on site will help to keep costs down, track material storage and handling, and identify which materials and activities pose the greatest risk to the environment. It will also help to limit the amount of any given material on-site at any one time. The following items should be included in the material inventory:

• Identify all chemical substances present in the work place
• Check to make sure all containers are labeled properly
• Check to make sure all labeling includes storage, handling and disposal instructions

d. Employee Participation

Frequent and proper training of employees in good housekeeping techniques and proper safety methods reduce the potential that materials or equipment will be mishandled. It also reduces the chance of injury, loss of materials, and release of contaminants. Motivational programs may further increase the effectiveness of the training. The following are suggestions to promote employee participation and good housekeeping:

• Incorporate information sessions on good housekeeping practices into employee training programs
• Discuss good housekeeping at employee meetings
• Promote pollution prevention concepts through posters, brochures, newsletters, etc.
• Post bulletin boards with updated good housekeeping procedure tips and reminders

3. Comprehensive Site Inspections

Comprehensive site inspections are required by the storm water permit and must occur quarterly, semi-annually, or an approved alternate schedule depending on your permit. The inspection is required to be conducted by the certified operator.
The whole facility should be evaluated during the comprehensive inspection. In contrast to the routine inspections should focus on areas that have a reasonable potential for significant materials to contaminate storm water runoff. This inspection should determine the overall adequacy of the SWPPP and should be coordinated with your annual plan review. A report detailing the results of the comprehensive site inspection and the corrective actions must be kept with the facility’s storm water files. The comprehensive site inspection report shall contain a certification that the facility is in compliance with the storm water permit. A sample comprehensive site inspection form is available in the MDEQ SWPP template.

The comprehensive site inspection shall include a review of the routine inspection reports, good housekeeping inspection reports, and any other paperwork associated with the storm water program.

An approximate schedule of the dates for the comprehensive site inspection must be included in the SWPPP. To ensure these inspections are performed, put it on a calendar or computerized scheduling system with other routine maintenance.

4. Material Handling Procedures

Proper material handling and storage procedures can minimize the potential for the accidental release of materials that can cause contamination of storm water runoff. These procedures need to address both inside and outside material handling activities. Materials spilled inside are frequently tracked outside by vehicles and foot traffic.

If your facility manages bulk liquids or other materials that have a potential to be spilled during loading and unloading activities, procedures that will minimize the possibility of spills should be developed.

Extra care should be taken when handling materials around doorways, drains and water bodies. Having material handling and storage procedures in place at a facility will decrease the potential for spills. The following are examples of ways you can prevent un-wanted spills or releases of materials:

- Avoid storing liquids near drains. If liquids have to be stored near drains, provide adequate containment.
- Avoid storing items that have the potential to leak near drains, or water bodies.
- Avoid storing flammable materials near heat sources.
- Avoid storing acids and bases near each other.
- Avoid stacking materials too high.
- Provide adequate aisle space for vehicle traffic.
- In high-risk areas, where vehicle traffic is present, installation of barrier posts will reduce the potential for accidents.
• Proper labeling of material containers is necessary
• Barrels and drums stored outside should be kept off the ground
• Critical materials must be in secondary containment. A critical materials list can be found on the MDEQ website.

Good Material handling and storage procedures will reduce the potential for a spill. Spills and leaks together are one of the largest industrial sources of storm water pollution, and in many cases are avoidable. Developing spill response procedures is a very important part of the material handling component of the SWPPP. Establishing such procedures along with proper employee training can reduce accidental releases. Avoiding spills and leaks is environmentally and economically preferable to cleaning them up.

A spill prevention and response procedure should include:

• Identification of Potential Spill Areas
• Specification of Material Handling and Storage Procedures
• Detailed clean-up procedures, which include the location of spill kits, clean up equipment, identification of clean-up personnel, and phone numbers of appropriate personnel. A table may be used to indicate the location of spill kits, the contents, and where the detailed response plan is located.

In general, if there is a spill or release to the waters of the state, contact the MDEQ Pollution Emergency Alert System (PEAS) at 1-800-292-4706 during non-business hours. During regular business hours contact your local district office (see Appendix A). It is important that you speak with someone at the district office, don’t just leave a message on an answering machine.

A form for reporting spills and releases is available on the MDEQ web site. Be aware, there may be additional state and local requirements regarding spills and reporting.

5. Erosion and Sedimentation Control

The SWPPP must identify areas prone to erosion and sedimentation. In addition the SWPPP must identify controls designed to reduce or eliminate sediment in the storm water runoff.

Some common areas that are prone to soil erosion and sedimentation are:

• Outlet pipes to ditches and streams
• Culverts and stream crossings
• Areas with exposed soil
• Gravel and dirt lots
For more information regarding soil erosion and sedimentation control contact your MDEQ district office. If you would like a copy of the MDEQ Construction Site Storm Water Certified Operator Training Manual or the Guidebook of Best Management Practices for Michigan Watersheds visit the MDEQ website (see Appendix E).

6. Employee Training

Employee training is a major component of any SWPPP. Employee training is also an integral part of other control measures. In order for the SWPPP to be effective, the employee should be informed about storm water treatment and control measures at the facility. They should understand their role in storm water pollution prevention at the facility. Employee training for storm water issues may be done in conjunction with other training programs.

The purpose of a training program is to teach personnel at all levels of responsibility the components of the SWPPP. When properly trained, personnel are more capable of preventing spills, responding safely and effectively to spills, and recognizing situations that could lead to spills. Employee training as a control measure is an ongoing process, which may take some time to implement. All new employees should be trained as soon as possible. The complexity of the BMPs and the employee turn over will affect how often training sessions will need to be scheduled. The SWPPP shall include a schedule of these periodic training sessions; it is recommended that training be conducted at least on an annual basis.

At a minimum, training should include:

- Preventative maintenance and good housekeeping practices
- Material Handling including spill prevention and response
- Internal spill and response procedures should be a component of the spill prevention and response plan

All employee training must be documented. Training documentation should be kept with all other required storm water program records or the SWPPP should reference the alternate file location.

7. Total Maximum Daily Load (TMDL) Requirements

The Total Maximum Daily Load is the process used to determine how much pollutant load a lake or stream can handle from point and non-point sources. If a receiving water body does not meet the water quality standards for a specific pollutant, the MDEQ will establish the appropriate daily maximum load for that pollutant to allow the water body to again meet water quality standards.
Water quality standards are state rules established to protect surface waters of the state. In general, the rules establish goals in three areas. The first goal is to protect the uses of lakes and streams, such as for swimming and fishing. The second goal is to maintain safe levels to protect the uses, such as minimum oxygen levels needed for fish to live. The third goal is to protect high quality waters.

Once a TMDL is approved by the Environmental Protection Agency, the MDEQ is required to implement the TMDL through existing programs such as industrial storm water permits.

If a permitted facility is expected to discharge that specific pollutant in its storm water to that waterbody, this nonstructural control requires the facility to list actions it will take to meet that TMDL requirement.

For example, if the TMDL calls for storm water dischargers to reduce their phosphorus inputs by 50%, the permittee would need to identify phosphorus sources at their facility and estimate their current annual load. The permittee must list actions to reduce storm water phosphorus discharges from their facility by 50%.

Contact your local district office to determine if TMDL requirements apply to your facility. A list of waterbodies with TMDL requirements can be found at: http://www.michigan.gov/deq/0,1607,7-135-3313_3686_3728-12464--,00.html

8. List of Significant Materials Present

A list of significant materials expected to be present in storm water discharges after implementation of non-structural controls must be included in the SWPPP. The non-structural controls already discussed are used to reduce pollutants at the source before they can get into the storm water runoff. These types of non-structural controls will not always be enough. If significant materials are still present in the storm water discharge from the facility, structural control measures will have to be implemented.

For example a facility has sediment present in the storm water discharge from the property. The SWPPP should state that it is expected that sediment will be in the storm water discharge, therefore catch basin inserts are used to remove sediment from the storm water discharges.

C. Structural Controls

Structural controls are necessary when nonstructural controls are not adequate to prevent contamination of storm water. Structural controls are physical features that control and prevent storm water pollution, which range from preventive measures to treatment systems.
1. Preventive Measures

There are many preventive measures that may be utilized at industrial sites to limit or prevent the exposure of storm water runoff to contaminants.

a. Signs and Labels

Signs and labels are a good way to identify problem areas, identify hazardous materials, and suggest caution in certain areas. They may also be used to provide instruction on the use of materials and equipment.

Accurate labeling of containers is essential so that personnel can identify the type of material released and respond appropriately.

Signs and labels should be used anywhere that information might prevent significant materials from being released to storm water. They should be visible and easy to read. Signs and labels may provide the following information: names and telephone numbers of people to call in an emergency, direction of drainage lines or ditches and their destination, or information on a specific material. Consult the MIOSHA standards for labeling of hazardous materials.

Signs and labels should be inspected during the comprehensive site inspection so that they can be repaired or replaced when it is necessary.

b. Safeguards

Installing safety posts, barriers, or fences around high risk areas will help to eliminate accidental spills due to human error. Many of these types of structures may already be required under other regulations.

c. Security

A good security system could help prevent an accidental or intentional release of materials as a result of theft, vandalism, or sabotage. A security system could include lighting, routine patrols, and access control. Security personnel should be trained to search for leaks, spills, or discharges, as well as responding to intruders or disturbances. Routine patrolling and the training of the security personnel should be part of the SWPPP.

d. Coverings

Covering is the partial or total enclosure of an area to prevent rain and snow from coming into contact with potential pollutants. Coverings may include tarpaulins, plastic sheeting, roofs, buildings, or dumpster lids.
Coverings are appropriate for outdoor storage and areas where liquids and solids are stored in barrels or other containers. It may not be cost-effective to cover all industrial activities, therefore it is recommended that areas with a greater potential to contaminate storm water runoff be under protective cover. These areas may include but are not limited to:

- Chemical preparation or storage areas
- Vehicle maintenance areas
- Waste storage and handling areas
- Recyclable material storage areas
- Salt/sand piles
- Coal piles

Things to consider when designing an enclosure or covering for an area are:

- Durability of the covering
- Compatibility to the material or activity being enclosed
- Access to materials
- Ease of handling and transferring materials
- Environmental or safety dangers that may be caused by enclosing the area
- Theft and vandalism
- Prevailing winds
- Proximity to drip edges and downspouts
- MIOSHA guidelines

Additional control measures may be used in conjunction with coverings to prevent contact of materials with storm water. These may include curbing, grading, or elevating materials. Impermeable surfaces under a storage area may also be necessary. Routine inspections of temporary coverings are necessary. Inspect coverings frequently for signs of wear and to make sure tarpaulins and plastic sheeting are properly anchored.

2. Diversions

Diversions are structures that are used to divert storm water away from areas that have a greater potential to contaminate storm water runoff or to channel contaminated storm water runoff to a treatment facility or containment area.

   a. Storm Water Conveyances

Channels, gutters, drains, ditches, and sewers collect storm water runoff and direct its flow. Conveyances can be used to collect storm water from industrial areas and keep it separate from storm water that has not come into contact with these areas.

Note: If a pollutant is spilled, it should not be allowed to enter a storm water conveyance. Contaminated storm water should be directed to a treatment facility.
There are several things to consider when planning storm water conveyances, such as:

- Volume of storm water runoff
- Velocity of storm water runoff
- Drainage patterns of the site

Storm water conveyances can be constructed or lined with many different types of materials, depending upon the use of the conveyance. Conveyances are most easily installed during the construction of a facility.

To ensure that storm water conveyances do not become clogged or damaged they should be inspected routinely

b. Diversion Dikes

Diversion dikes or berms are structures that are used to prevent the flow of storm water runoff onto industrial areas. Dikes are built on slopes just uphill from an industrial area together with some sort of a conveyance, such as a grass lined swale. A storm water conveyance directs the water away from the dike so that water will not pool and seep through the dike.

Earthen dikes should be vegetated to prevent erosion of the dike.

When planning the installation of dikes, the following should be considered:

- Slope of drainage area
- Height of dike
- Volume of runoff it will need to divert
- Type of conveyance that will be used with the dike

c. Grading

This control measure is often used in conjunction with other practices to reduce runoff velocity, divert runoff away from industrial activities, and provide infiltration of storm water. It may also be used to direct contaminated runoff to treatment facilities or containment areas.

3. Containment

Containing spills is a method to minimize exposure of contaminants to storm water runoff. There are many different spill containment methods that include a wide range of complexities and costs.
a. Secondary Containment

Some secondary containment structures are required by state or federal regulations for certain materials (see Appendix I for Part 5 Rules and SPCC Rules). The minimum volume of the containment structure will be dictated by the regulation requiring it. It is recommended that structures be large enough to hold at least 100% of the total volume plus sufficient space for accumulated storm water. It is also recommended that all piping and valves are located within the containment.

Diking is a common form of secondary containment for above ground tanks and material storage areas. Containment dikes are earthen or concrete berms or retaining walls that are designed to hold spills. It is one of the best methods of preventing contamination of storm water as it holds and keeps the spill from contacting storm water outside of the diked area. Diking is most commonly used for controlling large spills or accidental releases from liquid storage tanks.

The material that the secondary containment structure is made of may vary according to the type of fluid the tanks contain. The secondary containment structure may need to be covered with a special liner for some chemicals. The secondary containment structure must be impervious so that it does not leak.

To prevent uncontrolled overflows, containment areas should have a pumping system or vacuum trucks available to remove the spilled materials. If the containment is required by state or federal regulations, the discharge of storm water trapped in the containment area to surface water is permitted only if authorized by the permit. A short term storm water characterization study will be required if the storm water will be discharged to the surface waters of the state (See Appendix F).

If the containment structure is a voluntary pollution prevention measure, then the storm water may be discharged according to the procedures in the SWPPP. If the storm water in the containment area has become contaminated it can not be discharged.

Regularly scheduled inspections of secondary containment structures should be a part of the pollution prevention plan at the facility. Visual inspections of water trapped in the containment area should always be conducted prior to discharge. Visible sheens or unnatural turbidity indicate that the storm water in the containment area is contaminated and it should not be discharged to surface waters or to the ground. For materials that are not visibly apparent, chemical analysis may be required to detect contamination. Inspection of containment structures should be conducted soon after storm events to check for cracks in the structure, washouts, and overflows.
b. Curbing

Curbing is a barrier that surrounds an area of concern. Curbing functions in a similar way to diking except it is usually on a smaller scale. It is often used around tanks along with conveyances that would funnel a spill to a larger tank. It is useful in areas where liquid materials are handled and transferred.

Since a curbed area has a much smaller capacity to hold a spill than a diked area, spills should be removed immediately. Curbed areas need to be inspected on a regular basis, especially before forecasted storm events and after a storm. Prompt clean-up maximizes the holding capacity and helps to reduce contamination of storm water. Storm water within the curbed area may be discharged per the procedures listed in the SWPPP.

The maintenance of curbing systems is important. All cracks or breaks should be patched or the curb system should be replaced. Areas of the curb that handle vehicle traffic should be reinforced and sloped for vehicles.

Tracking of spilled material out of the curbed area can be a problem. Therefore, the area inside the curbing should be graded so that the spill will flow away from the traffic area. This helps keep the material away from equipment and personnel, facilitating an easier clean-up.

c. Drip Pans

Drip pans are used to contain small leaks that may occur at a facility. They should be made of a material that is impermeable and that will not react with the chemicals.

They can be useful in containing drips from leaky valves, pipes, etc. until the leak is repaired. Drip pans can also be an added safeguard when positioned under areas where leaks and drips may occur. This precaution may be very effective in reducing the contamination of storm water that collects in a secondary containment area. By catching the small drips or leaks, the drip pan prevents the larger volume of storm water from becoming contaminated, and makes disposal of the storm water much easier, less costly, and safer for the environment.

Drip pans should be placed where they can be easily removed and cleaned after they are inspected. They should be placed in a stable position so they will not be a safety or environmental hazard.

Drip pans should be inspected regularly so that they can be emptied before they overflow. A clear and easily specified practice of disposal, reuse, or recycling should be in place. Inspections should take place before forecasted storm events, immediately following storm events, and on a regularly scheduled basis so that drip pans do not overflow or develop a leak.
d. Basins

Basins are structural controls used to collect storm water at a facility. The three types of basins that are commonly constructed at industrial facilities are detention basins, retention basins and collection basins.

1. Detention basins are designed to detain storm water and release it at a controlled rate for flood control. If there is a manually controlled discharge, an accidental release of contaminating material could be contained here thus reducing the potential cleanup costs.

2. Retention basins are designed to retain storm water and allow it to evaporate or infiltrate to ground water. Precautions must be taken to keep contaminated storm water out of the retention basin. If contaminated storm water enters the retention basin it may contaminate the ground water. If all storm water from the property enters a retention basin and there is no surface water discharge, a storm water permit is not required.

3. Collection basins (storage basins) are structures where large spills or contaminated storm water are contained before clean-up or treatment. They are designed to receive and contain materials from many locations across a facility such as a containment area. Collection basins are not designed to treat contaminated storm water, but to store it until it can be transferred to a treatment facility. They are very useful in areas with high spill potential.

- Collection basins are designed to contain spills of a specified volume, or a specified size storm event or both. The collection system and basin should be designed to be compatible to the materials that may be transported through and into them. The basin should be impermeable so that contamination of groundwater does not occur.
- If the collection basin will handle combustible or flammable materials, explosion-proof pumping equipment and controls should be used to prevent explosions or fires. Local safety codes and MIOSHA requirements should be followed.
- Collection basins/systems must be inspected and maintained regularly. The contents of the basin should be removed after every storm event.

Additional Controls

1. Sumps

Sumps are located in the lowest area within a containment area or collection basin. They are placed so that the rest of the area drains into them, and often contain pumps to remove the liquids. The sump should be made of impermeable materials with a smooth surface so liquids funnel easily to the pump.
Sump pumps should be selected based on the maximum expected discharge rate, the viscosity (thickness) of material, and the distance the material will be pumped. Submersible pumps may be required if they will be in the sump area.

If the sump is located in a truck well, the sump pump should have a manually operated switch. This will prevent releases to the receiving waters if a spill has occurred.

2. Oil/Water Separators

Oil/water separators are devices that skim the oil off of the surface of storm water runoff. These devices need to be maintained regularly and properly to prevent flushing the captured oil into the receiving waters during a rain event. If not properly maintained, they are a source of pollutants. For additional information see the section regarding activity specific controls.

3. Catch Basin Inserts

Catch basin inserts are used to trap contaminants that are transported by storm water runoff. They are designed to fit under the catch basin lid. Some are filter devices used to trap nonsoluble particles, such as sediments, others have specialized media to remove dissolved contaminants in the storm water.

Consult design specifications of the catch basin insert to determine if it can effectively remove contaminants from the storm water runoff. The frequency of the maintenance will vary depending on the levels of contamination and the design specifications. For additional information see the section regarding activity specific controls.

4. Oil Pads/Skimmers

In areas with significant oil spillage, pads can be constructed to collect the contaminated storm water runoff. The storm water runoff can be directed to a collection basin. An oil skimmer can be used to remove oils from the surface of the water in the collection basin.

Discharges from most collection basins are not authorized by the general storm water permit.

5. Impervious Work Areas

Impervious work areas are used to prevent soil contamination and allow for easier spill clean-up. An example is a concrete pad used for dismantling automobiles at a salvage yard. Concrete paving is generally preferred to asphalt in areas where hazardous materials are stored or where the potential for a spill exists. Asphalt absorbs organic pollutants and it can be slowly dissolved by some fluids. Paving should be inspected regularly for cracks that could allow contaminants to contact the soil or enter the groundwater.
ACTIVITY SPECIFIC CONTROLS

This section covers several common nonstructural and structural industrial controls that may prevent storm water contamination.

1. Controls for Fueling Stations

   - Reduce exposure of the fuel area to storm water by installing covers over tanks and fuel islands
   - Install barrier protection posts
   - Train employees in proper fueling procedures
     o Not topping off fuel tanks
     o Not leaving pumps unattended while fueling
     o Proper spill cleanup and notification procedures (use dry cleanup methods and never wash spills into storm drains)
   - Have a spill clean-up kit available near the fueling station
   - Install spill and overflow protection
   - If oil/water separators are used, regular maintenance is required. Checking fluid levels should be part of the routine inspections

2. Controls for Vehicle and Equipment Maintenance

   - Checking for leaking oil and fluids should be part of the routine inspections
   - Use nontoxic or low toxicity materials
   - Drain oil filters before disposal or recycling
   - Do not pour liquid wastes down drains
   - Recycle engine fluids and batteries
   - Batteries and fluid containers should be contained and covered or stored inside
   - Segregate and label wastes -- maximize recycling
   - Perform vehicle maintenance inside or under cover
   - If vehicle maintenance must be performed outside do it on an impermeable surface or on a tarp
   - Have absorbent material readily available to clean up spills and leaks
   - Make sure used absorbent material is cleaned up after use

3. Controls for Painting Operations

   - Contain sandblasting and mechanical sanding waste
   - If painting outdoors, use tarps to prevent spills and drips from coming into contact with pavement or earth
   - Provide proper interim storage of waste paint, solvents, etc.
   - It is preferable to store painting materials and wastes out of the weather and off the ground or floor
• Properly maintain equipment
• Recycle paint, paint thinners, and solvents
• Properly contain and dispose of painting waste in a timely manner

4. Controls for Vehicle, Boat, and Equipment Washing

The general storm water permits do not authorize the discharge of equipment and vehicle wash water. In order to prevent an unauthorized discharge establish designated cleaning areas and collect wash water for proper treatment and disposal.

The options for discharging vehicle wash water include:

• Obtain approval from the Waste Water Treatment Plant and discharge the wash water to the sanitary sewer system.
• Contain the wash water and arrange to have it pumped and hauled by a licensed industrial waste hauler to the Waste Water Treatment Plant or an approved disposal facility.
• Obtain a National Pollutant Discharge Elimination System permit from the MDEQ to discharge the wash water to surface waters or storm sewers.
• Obtain authorization from the MDEQ to discharge wash water to ground water.
  ∙ The type of ground water permit that will be required is based on: the volume of the discharge, materials that are washed off the vehicles or equipment, and the type of cleaners used. Some types of wash water cannot be authorized for ground water discharge. Contact district ground water staff for additional information.
  ∙ A guidance document describing the options for the discharge of vehicle wash water is available on the MDEQ website.
• Another option for handling wash water is to install a recirculating wash water system. The benefits of this type of system include infrequent disposal of the waste water and reduced water costs. In addition, no permits are required from the MDEQ if there is no discharge to surface waters, storm sewers or ground waters of the State

Using a high pressure wash system may eliminate the need for detergents and can reduce the volume of water used. In addition, if detergents are not used, an oil/water separator may be used to remove insoluble oils and sediment. However, this water will still need to be handled using the options previously described.

5. Controls for Loading and Unloading Materials

• If possible, load and unload materials inside
• Look for and contain leaks during transfer
• Check equipment regularly for leaks
• Limit exposure of material to storm water
• Prevent storm water “run-on”
• Cover loading dock drains during loading and unloading or place absorbent material around the inlet
• If the trench drain in the loading dock is equipped with a shut off valve, close the shut off valve prior to loading and unloading
• Keep spill containment and clean-up kits easily accessible
• Keep the loading dock area clean
• Do not sweep loading dock debris into the storm water collection system

6. Controls for Liquid Storage in Above Ground Tanks (See Appendix I)

• Routinely inspect tanks and equipment
• Install safeguards to prevent accidental releases
• Locate tanks away from surface water, storm sewer inlets and other sensitive areas
• Install secondary containment
• Use compatible materials for secondary containment structures. Coat the containment if the materials are incompatible.
• The regular inspection of secondary containment structures is an important part of the facility’s SWPPP. Inspect containment for spillage.
• Look to see if there is any vegetative growth in the containment. Roots from the vegetation can crack joints and expand small cracks.
• Inspect the containment for structural integrity. Look for cracks in the walls and floors of the containment structure.
• Inspect piping and valves of the above ground storage tank. Ideally, valves and connections should be located within the containment structure.
• Following storm events inspect the containment structure for captured storm water. If there is no accumulated storm water, a leak is present in the containment structure.
• If there is a drain in the containment structure make sure the drain is plugged or that the valve is closed. Consider installing a lock on the valve to prevent the unauthorized discharge of any captured storm water or spilled materials.
• If storm water must be discharged from the containment structure, follow the procedures listed in the SWPPP. Procedures for discharging captured storm water may include: visual observation, odor detection, online analyzers, pH testing, sampling and chemical specific analysis.
• Contaminated storm water cannot be discharged to the surface waters of the state.

Options for discharging accumulated storm water in secondary containment

There are several options for discharging accumulated storm water in required secondary containment.

• Discharge to surface water if authorized by the Permit. The permittee must verify the water is not contaminated according to the procedures in the SWPPP.
• Discharge to surface waters if authorized by an individual NPDES permit with effluent limits. The discharge must meet the effluent limits.
• Pump and haul to a WWTP or a liquid industrial waste facility by a licensed industrial waste hauler
• Discharge to an onsite sanitary sewer with prior permission from the WWTP
• If the water is not contaminated it may be discharged to the ground. Ensure that the water does not flow into a storm water conveyance.

Often secondary containment is provided for tanks when it is not required by state or federal regulations. This is a voluntary preventative measure that is usually more cost effective than cleaning up spills. The accumulated storm water in the secondary containment may be discharged in the same manner as previously described. In addition, if the SWPPP procedures for testing the storm water have been followed and the water is not contaminated, the accumulated storm water may be discharged directly to surface waters.

7. Controls for Outside Waste Disposal Areas

• Keep waste receptacles under a storm resistant shelter
• Use temporary covers if permanent covering is not feasible
• Clean up routinely around waste disposal areas
• Locate waste receptacles away from surface water and storm sewer inlets
• If there is unavoidable leakage, enclose the area. Enclosing the area consist of storing the waste receptacles under a roof and curbing the area to trap the leakage. The fluid that has leaked from the dumpster is usually classified as a liquid industrial waste and the storm water general permit does not authorize this discharge.

8. Controls for Outside Storage of Raw Materials, By-Products, or Finished Products

• Put materials, by-products, and finished products not designated for outdoor use under a roof
• Use temporary covers if permanent covering is not feasible
• Enclose or berm the transfer or storage area
• Ensure that containers are clean and properly closed
• Store materials away from surface waters and catch basins

9. Controls for Dewatering

Dewatering is the removal of ground or surface water from an excavated area. Dewatering typically occurs at construction sites, landfills, or areas where mining occurs. Proper dewatering techniques will reduce levels of sediment and other pollutants in the water being discharged.
Discharges must meet water quality standards in the receiving waters, including suspended solids. For construction activities at existing industrial facilities or other areas where the potential for contamination exists, the water should be analyzed before it is discharged. In order to meet water quality standards, structural controls must be used.

Mine dewatering water discharges and contaminated water discharges require authorization under a different NPDES permit.

Use the following dewatering techniques that are applicable to your operation:

- Suspend the pump intake above the bottom of the area to be dewatered. This will help reduce suspension of sediment particles by the pump.
- Surround the pump intake or outlet pipe with material that will filter sediment suspended in the water. Material such as pea stone will filter larger particles.
- Dewatering must be done so that the velocity of the discharged water does not cause scouring (erosion) of the receiving area or waterway.
- If the discharge is more turbid than the receiving waters, cease the discharge. The water will need to be filtered to remove the suspended solids.
- Stone filter berms can be used to filter out larger sized particles such as sand and debris. Use clean stone to construct filter berms.
- Sedimentation basins can be used as long as adequate detention time is provided to settle out the sediment particles. The rule of thumb is the smaller the size of the sediment particles the longer the detention time.
- Filter bags or geotubes can be used to filter out smaller sized sediment particles such as fine sands and silt.
- For very small sized sediment particles, such as fine silts and clay, polyacrylamides (PAMs) must be used in conjunction with other sedimentation controls such as filter berms, filter bags, sedimentation basins, geotubes, and geojute. PAMs bind with the sediment particles forming a flock that settles out of the water column.
- PAMs must be correctly matched to the type of sediment particles, applied at correct concentrations, and may require the water to be agitated to be effective. To determine the appropriate treatment, a bench test must be performed to match the PAM with the sediment in the water.
- Any additive, including PAMs, placed into the dewatering water requires approval from MDEQ, Water Resources Division. For more information on the approval process, see Appendix J.
- If the dewatering water is discharged to a county drain, permission may need to be obtained from the drain commissioner.

10. Controls for Storm Water Catch Basins

Catch basins are inlets to the storm sewer system which may contain a sump to capture solids. At many industrial facilities catch basin controls are used to remove contaminants from storm water runoff.
• It may be beneficial to label catch basin inlets to remind employees and visitors that the storm water is discharged to a local waterbody.
• Catch basins that contain sumps must be inspected regularly and cleaned.
• Dense growths of vegetation such as grass around catch basin inlets can remove larger sediment particles.
• Stone filter berms or a pad of stone around catch basin inlets can also be used for sediment removal. Make sure that clean stone is used.
• Straw bales are not effective for keeping sediment or other materials out of the catch basins.
• Catch basin inserts are used to capture contaminants that are transported by storm water runoff. Some are filter devices used to trap particulates, such as sediment, while others have specialized media to chemically remove dissolved contaminants in the storm water runoff.
• If the area will be plowed for snow removal, a catch basin insert that fits below the catch basin lid is beneficial.
• Catch basin inserts made from geotextile fabrics are effective in removing larger sediment particles such as sand and silt from storm water runoff. These inserts may not be effective in removing smaller sediments such as fine silts and clays.
• Catch basin inserts designed for removal of woody debris, plastic pellets and litter may have a geotextile fabric with larger openings in the mesh. Therefore, they may not be effective in removing sediment.
• There are also catch basin inserts made for the removal of insoluble oil and dissolved metals. Soluble oils are oils that are suspended in water. They are frequently used to lubricate equipment and for cutting oils. They are not removed by oil water separators and most catch basin inserts. Water soluble oils are generally only removed through chemical treatment which is not authorized by the general storm water permits. Therefore, precaution must be taken to keep soluble oils from mixing with and contaminating storm water runoff. Materials that have the potential to expose soluble oils to storm water runoff must be protected.
• Absorbent booms can also be used to remove insoluble oils in catch basins. Be sure to attach the boom so it cannot plug the outlet pipe.
• For manufactured products, follow the manufacturer’s specifications. The catch basin insert should only be used for removal of materials for which it is designed. They should be installed according to the manufacturer’s specifications. Follow the recommended maintenance frequency.
• Remember that products don’t always measure up to the manufacture’s claims so it is advisable to check with others with experience using catch basin inserts.

11. Controls for Auto Salvage Operations

Auto salvage operations are important recyclers of our valuable resources. However, if not properly managed, auto salvage operations can cause significant contamination of storm water runoff. The following activity specific controls are designed to prevent contamination of storm water runoff.
• When possible, dismantle vehicles in a building or under a roof on an impervious pad. If dismantling must be done outdoors, do it on an impervious pad.
• Store old batteries inside buildings or in a covered container if stored outside.
• Store vehicles upright after removing parts. Vehicles stored on their sides often leak fluids which can contaminate the storm water runoff.
• Store oily parts in a building, under cover or in a temporary structure such as a trailer or a bus. Inspect parts storage areas for leakage during the routine inspections.
• If possible drain fluids before storing vehicles in the yard. If fluids are not drained from vehicles and auto parts before they are stored in the yard, routinely inspect the vehicles and part storage areas for leakage.
• Fluids should be removed before vehicles are crushed. Contain residual vehicle fluids when crushing vehicles.
• Recycle the vehicle fluids.
• Properly label all fluid storage containers.
• Store fluids inside, under a cover, or in containment. Do not store automotive fluids outside without the proper controls.
• Inspect fluid storage areas for leakage. Leakage may occur through block joints, under walls, and from temporary storage areas.
• If fluids are spilled, soak up the fluids and clean up the contaminated soils.
• Use petroleum absorbent products to soak up spilled petroleum.
• Absorbent pads, blankets and booms can be used in puddles, catch basins or ditches to remove small amounts of petroleum products from the surface of the water.
• Solid wastes such as absorbent products and petroleum contaminated soils can be put in a garbage bag and placed in a dumpster for disposal at a licensed landfill.
• Remove the mercury switches from the vehicle before crushing. This can help reduce the mercury contamination in the storm water at your facility.
• End of Life Vehicle Solutions (ELVS), a not for profit corporation formed by the automobile manufacturers, will provide educational materials, as well as the collection and recycling of automotive switches. For additional information on the ELVS Program, please contact ELVS at, 877-225-ELVS (3587), or visit ELVS’ Web site at www.elvsolutions.org

PERMITTEE RESPONSIBILITIES

The permit describes several permittee responsibilities, so it is important to read the permit language carefully. The following section discusses scenarios that are most common.
Prohibition of Non-Storm Water Discharges

Often, facilities have discharges of water other than storm water. Operators are often unaware that they even exist. Discharges that are not listed in the general storm water permit, are not authorized under this permit. These types of discharges are common and contribute to significant pollution of surface water and groundwater. You must determine if you have any of these types of discharges. By signing the Notice of Intent, the applicant is certifying that the facility has no unauthorized discharges.

You may currently have discharges that can be covered under another NPDES permit, be rerouted to a sanitary sewer system (with the approval of the treatment plant operator), or eliminated. In many older facilities, floor drains, drinking fountains, cooling water systems, vehicle wash water, and other wastewater systems were deliberately connected to storm sewer systems. In newer facilities, the same sorts of things happen accidentally. These sorts of discharges are referred to as illicit connections and must be eliminated.

Examples of unauthorized discharges that may be covered by another NPDES permit include; cooling water, hydrostatic pressure test water, vehicle wash water, treated groundwater, and process wastewater. The discharges from many sand and gravel mining operations, where a pit is dewatered, can be covered by the Sand and Gravel Mining General Permit (MIG490000).

The general storm water permit does not authorize the discharge of water additives without approval from the MDEQ. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, the permittee shall submit a request to the MDEQ for approval.

It is the responsibility of the permittee to ensure that only authorized storm water is being discharged. However, the permittee may rely on the certified operator for guidance. The proper development, implementation, and evaluation of the SWPPP will ensure that only authorized discharges occur.

1. Test for Non-Storm Water Discharges

To check for non-storm water discharges, one or more of the following dry weather tests may be used:

a. Visual Inspection

Inspect each outlet during dry conditions to see if there is a discharge. If there is a discharge during a dry period, it may indicate an illicit connection. Inspect the outlets on several occasions.
b. Sewer Map

A review of a plant schematic is another simple method used to determine if there are any illicit connections into the storm water system. A common problem with this method is that facilities often do not have an accurate, up-to-date map. Be sure to confirm the discharge point of all floor drains.

c. Dye Testing

Dye testing is done to determine where floor drains and other plumbing fixtures discharge. All projects involving the application of tracer dyes to waters of the state must obtain a Rule 97 Certification of Approval by submitting a written request to MDEQ Water Resources Division Surface Water Assessment Section.

Appendix J contains the minimum information requirements that must submitted to obtain a Rule 97 Certification of Approval.

d. Smoke Testing

Smoke testing is done to determine where a discharge pipe is coming from. Smoke is pumped up the pipe and the tester observes where the smoke is coming from. Notify all building personnel, neighboring building personnel, and the fire department before smoke testing.

2. Authorized Non-Storm Water Discharges

There are several non-storm water discharges that can be covered under the general permit. They include fire hydrant flushing, potable water sources including water line flushing, fire system test water, irrigation drainage, lawn watering, routine building wash down that does not use detergents or other compounds, pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, and foundation or footing drains where flows are not contaminated with process materials such as solvents. These types of discharges and the methods to be used to control them must be identified in the SWPPP. Discharges from fire fighting activities are authorized by this permit, but are exempted from the requirement to be identified in the SWPPP.

Plan Updates and Annual Reports

Once the SWPPP has been implemented, it must be updated regularly. The review must be done annually from the date the SWPPP is completed.
Revisions must be made to the SWPPP if it is determined that the information in the SWPPP is no longer current or if the implemented controls are inadequate. This includes any addition of new sources of significant materials, changes in the processes at the facility, or changes in the controls to be used to minimize exposure of such materials to storm water runoff. These changes should be included in the annual report.

The annual report is the written summary of the industrial storm water activities that have occurred in the last year. Be sure to include any spills that may have occurred since the time of the last review, how they were cleaned up, and the changes made to prevent a recurrence of the spill.

The MDEQ or authorized representative may notify the permittee at any time that the SWPPP does not meet minimum requirements. Such notification shall identify why the SWPPP does not meet minimum requirements. The permittee shall make the required changes to the SWPPP within 30 days after such notification from the MDEQ or authorized representative and shall submit to the MDEQ a written certification that the requested changes have been made.

**Record Keeping and Reporting**

Keeping records and reporting events that occur on-site is an effective way of tracking the progress of the pollution prevention efforts. Reviewing these records can provide some useful information for developing improved controls for problem areas. Record keeping and reporting represent good operating practices because they can increase the efficiency of the facility and the effectiveness of the controls.

| All storm water program records must be retained for at least three years |

The SWPPP and associated records shall be retained on-site at the facility which generates the storm water discharge. These records should include inspection reports, maintenance activities, employee training dates, annual reports, and a description of incidents such as spills that can affect the quality of storm water runoff.

In addition to retaining records at the facility, the storm water permits require reporting for some circumstances. If there is noncompliance with the permit or other water quality regulations, the noncompliance must be reported to the MDEQ, Water Resources Division, District Supervisor.

When storm water is discharged to the surface waters of the state, there shall be no violation of the Water Quality Standards in the receiving waters as a result of this discharge. This requirement includes, but is not limited to, the following conditions:

- The receiving waters shall not have any of the following unnatural physical properties in quantities which are or may become injurious to any designated use: unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge.
In any instance of noncompliance with the requirements of federal or state water quality regulations, the written reporting shall include: a description of the discharge and the cause of noncompliance, the period of noncompliance (dates and times), the steps taken to minimize the impact, and the steps taken to prevent recurrence of the unauthorized discharge. All instances of noncompliance shall be reported as follows:

- Any noncompliance which may endanger health or the environment shall be reported verbally within 24 hours from the time the permittee becomes aware of the circumstances. In addition, a written submission shall also be provided within five days.
- All other instances of noncompliance shall be reported within five days from the time the permittee becomes aware of the noncompliance.

Spill Notification

The permittee shall immediately report any spill or loss of any polluting material which occurs to the surface waters or ground waters of the state unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of Michigan Administrative Code) by calling the Department at the number indicated on the COC or individual permit, or if notice is provided after regular working hours call the MDEQ’s 24-hour Pollution Emergency Alerting System (1-800-292-4706). Within ten days of the release, the permittee shall submit to the MDEQ, Water Resources Division District Supervisor a full written explanation of the cause, discovery, clean-up, and recovery measures taken, preventive measures to be taken, and schedule of implementation. The SWPPP must also be modified to reflect any changes that have occurred at the facility.

Please note that a spill may be considered to be noncompliance with the permit even though it may not be in excess of the threshold reporting quantities specified in the Part 5 Rules.

Short Term Characterization Study of Storm Water Discharges

Storm water discharges from mandated secondary containment areas, sites of environmental contamination (Part 201 of the Michigan Act), or operations that have been designated “significant contributors to pollution” have the potential to cause violation(s) of water quality standards. For this reason, the MDEQ may determine that a Short Term Storm Water Characterization Study to evaluate the quality of these discharges is necessary.
• Monitoring Plan Submittal

If required by the permit, within six months after the effective date of the COC, the permittee must submit an approvable Short Term Storm Water Characterization Study Plan for monitoring and analysis of the storm water discharges to the MDEQ, Water Resources Division District Supervisor.

• Sampling

Upon approval of the Short Term Storm Water Characterization Study Plan, the permittee shall begin monitoring the authorized discharge as specified in the Short Term Storm Water Characterization Study Plan. If the MDEQ, Water Resources Division District Supervisor does not take action to approve or comment on the Short Term Storm Water Characterization Study Plan within 90 days after submittal, and the SWPPP has been fully implemented, the permittee shall begin storm water monitoring in accordance with the Short Term Storm Water Characterization Study Plan as submitted.

If the Short Term Storm Water Characterization Study Plan was approved previously it may not need to be resubmitted for approval. However if industrial operations have changed the Short Term Storm Water Characterization Study Plan shall be resubmitted for approval. If the Short Term Storm Water Characterization Study Plan is not resubmitted for approval, the monitoring data must be submitted by the date specified in the COC.

A guidance document describing how to prepare a Short Term Storm Water Characterization Study Plan is available in Appendix F.

Expiration and Reissuance

An NPDES permit is valid for a maximum of five years. The Certificate of Coverage (COC) or individual permit will state the expiration date. The COC expiration date is listed near the bottom of the COC and on an individual permit it is listed on the first page. Typically the permit expiration date is April 1.

If the permittee wishes to continue a discharge authorized under this permit beyond the permit expiration date, the permittee shall submit an application to the MDEQ, WRD, Permits Section. The application must be submitted six months prior to the expiration date (typically October 1). This gives the Water Resources Division an opportunity to reevaluate operational and monitoring requirements and effluent limits. A person holding a valid COC or individual permit under an expired permit shall continue to be subject to the terms and conditions of the expired permit until the permit is terminated, revoked, or reissued.
Michigan has developed a strategy for scheduling permit reissuance known as the "5-Year Basin Plan." This is a timetable for reissuance of permits based on receiving water-bodies. A receiving water is the river, stream or lake that "receives" a particular discharge. It is ideal to simultaneously evaluate all permits allowing discharge to a particular receiving water or watershed. A complete cycle of reissuance occurs every 5 years, with approximately 20% of the permits being reissued each year. The "5-Year Basin Plan" was established with the objective of establishing the most efficient plan for water quality monitoring and permit reissuance.

A map of the Watershed Basins can be found in Appendix K.

**Permit Modifications**

- **Transfer of Ownership or Control**
  - If there is any change in control or ownership of operations at a facility, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter. A copy shall be forwarded to the District Supervisor of the Water Resources Division thirty days prior to the actual transfer of ownership or control.
  - A Transfer of Coverage form must be completed by the new owner. The Transfer of Coverage form is available in Appendix L at the MDEQ district office and on the MDEQ storm water website.

- **Name Change**
  - Submit a Transfer of Coverage form, but disregard the Seller portion of the form

- **Change in discharge**
  - Submit a written request to the MDEQ WRD district supervisor

**Termination of General Permit Coverage**

When all storm water discharges associated with industrial activity that are authorized by this permit are eliminated or industrial activity has ceased, the permittee may submit a request to the MDEQ, Water Resources Division District Supervisor to end authorization to discharge under this general permit. All significant materials that are exposed or likely to be exposed to storm water runoff need to be eliminated from the property before the permit is terminated.
Active industrial facilities that have eliminated exposure of all significant materials may request COC termination by submitting a No Exposure Certification. Information detailing the No Exposure Certification is available in Appendix D. The no exposure exclusion is conditional. Therefore, if there is a change in circumstances that causes exposure of industrial activities or materials to storm water, the operator is required to comply immediately with all requirements of the storm water program, including obtaining a permit.

Any person holding an industrial permit on January 1 of a given year shall be assessed an annual discharge fee. It is strongly recommended that permit termination requests be submitted to the MDEQ by December 1 in order to process the termination before January 1.

**Individual Permit Required by the MDEQ**

The MDEQ may require an individual permit if:

- Unlawful pollution cannot be adequately guarded against with the requirements of the general permit.
- The discharger is not complying or has not complied with the conditions of the permit or schedules in the COC.
- A change has occurred in the availability of demonstrated technology or practices for the control or abatement of waste applicable to the point source discharge.
- Categorical effluent standards or limitations are promulgated for point source discharges of storm water.
- The MDEQ determines that the criteria under which the general permit was issued no longer apply.

**Management Requirements**

1. **Duty to Comply**

   It is the duty of the permittee to comply with all the terms and conditions of the general permit. Any noncompliance with the terms and conditions of the general permit constitutes a violation of Act 451 and is subject to enforcement, termination of coverage, coverage under an individual permit, and fines and penalties under Act 451.

2. **Operator Certification**

   The permittee shall have the waste treatment facilities under the direct supervision of an operator certified at the appropriate level (industrial storm water certified operator) for the facility certification by the Department, as required by Section 3110 and 4104 of the Michigan Act.
3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or ground waters of the state resulting from noncompliance with any conditions specified in this permit including, but not limited to, such monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

5. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of oil or other "polluting materials" in accordance with the relevant statute(s).

6. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. Such disposal shall not result in any unlawful pollution of the air, surface waters or ground waters of the state.

7. Right of Entry

The permittee shall allow the MDEQ, or any agent of the MDEQ, upon the presentation of credentials, to conduct inspections at the facility, access records required to be kept as a condition of this permit, and to sample any discharge.
STORM WATER DISCHARGES NOT AUTHORIZED BY THE INDUSTRIAL STORM WATER GENERAL PERMITS

1. Storm water discharges associated with industrial activities that are permitted by an existing NPDES individual permit or a different general permit.

2. Storm water discharges associated with construction activities as identified under 40 CFR, Section 122.26(b)(14)(x) (such activities require permit-by-rule coverage).

3. Storm water discharges that have been determined by the MDEQ to be contributing to unlawful pollution that cannot be adequately guarded against under the requirements of this permit.

4. Storm water discharges associated with industrial activity from inactive mining, inactive landfill, or inactive oil and gas operations occurring on federal lands where an operator cannot be identified.

5. Storm water discharges for which federal effluent limitation guidelines exist.

The following list of industrial categories have storm water effluent limitation guidelines in the CFR:

- Cement manufacturing (40 CFR, Part 411)
- Feedlots (40 CFR, Part 412)
- Fertilizer manufacturing (40 CFR, Part 418)
- Petroleum refining (40 CFR, Part 419)
- Phosphate manufacturing (40 CFR, Part 422)
- Steam electric (40 CFR, Part 423)
- Coal mining (40 CFR, Part 434)
- Mineral mining and processing (40 CFR, Part 436)
- Mine dewatering water (40 CFR, Part 436)
- Ore mining and processing (40 CFR, Part 440)
- Asphalt emulsion (40 CFR, Part 443, Subpart A)

6. Storm water discharge to ground waters.

7. Storm water from a new facility discharging to wild or wilderness rivers or waterbodies within the boundaries of national lakeshores or national parks that are designated “outstanding state resource waters” pursuant to Michigan water quality standards.
POLLUTION PREVENTION

1. Reduce

Reducing the amount of materials used is an obvious dollar saver and will decrease the potential of pollutants being discharged into storm water runoff. Reduction of hazardous material use can be achieved by substituting them with less toxic products.

2. Reuse

Reusing materials is also cost-effective, and once implemented can greatly reduce the amount of waste generated from industrial facilities. Reusing solvents, packaging materials, and even paper can have a positive impact on our environment. For further information, call the MDEQ, Waste and Hazardous Materials Division.

3. Recycling

When properly set up, recycling of materials will become a habit that will help reduce the amount of polluting materials from entering storm water runoff. Recycling areas may be as simple as covered containers to selectively hold wastes, or they may include liquid waste drums, waste oil tanks, or large covered dumpsters that can be transported to a transfer station or recycling facility.

Retired professionals are available through the Retired Engineer Technical Assistance Program (RETAP) to assist businesses and institutions in Michigan with pollution prevention. Each assessor has thirty to forty years of experience with Michigan industries. Businesses of 500 employees or fewer in the state and institutions of any size are eligible.

- This program provides confidential and nonregulatory on-site pollution prevention assessments for Michigan businesses and institutions, free of charge.
- Teams of RETAP professionals review operations for potential waste reduction strategies and opportunities; including source reduction, reuse, recycling, and energy efficiency.
- Written, confidential reports identify pollution prevention options and contain specific recommendations to save money, increase efficiency, reduce need for costly waste disposal and treatment, reduce liability, and promote a positive public image.
• All reports are sent directly to the company by the Retired Engineer Technical Assistance Program (RETAP), a nonprofit corporation providing the technical services for the program. It is staffed by dedicated retired engineers and scientists with extensive industrial experience in waste reduction and on-site assistance.
• There is no obligation to implement the recommendations however significant cost savings can be achieved from employing pollution prevention techniques. Follow-up with companies assisted through RETAP has shown thousands of dollars of annual cost savings.

WHAT TO EXPECT DURING A MDEQ STORM WATER INSPECTION

The MDEQ is required by the EPA to conduct routine inspections of permitted facilities. Usually these inspections are unannounced. The inspection consists of two parts, a tour of the facility and a review of the Storm Water Pollution Prevention Plan and the associated records. In addition, the MDEQ inspector will be evaluating other non storm water discharges.

During the indoor and outdoor tour the MDEQ inspector will focus on areas that impact the storm water discharge from the property. It is important to understand during this training that not all industrial facilities are the same, so in a sense, each inspection is unique. In general, the MDEQ inspector will evaluate the following areas:

• Loading, unloading, and other material handling areas
• Outdoor and indoor industrial storage areas, including secondary containment structures, pallets, drums, etc.
• Outdoor manufacturing or processing areas, including areas where significant dust or particulates would be generated
• Discharge areas for vents, stacks, and other air emission controls
• On-site waste disposal areas
• Maintenance and cleaning areas for vehicles, machines, and equipment
• Areas of exposed and or erodible soils
• Point source discharges
• Structural controls designed to treat, divert, or isolate storm water
• Internal floor drains will be inspected to ensure that they are not connected to the storm sewer system or surface waters.

In addition, the inspector will evaluate any other areas of the facility where storm water may contact significant materials.

Once the indoor and outdoor inspection is completed the SWPPP will be audited against the language in the general storm water permit. The SWPPP must be onsite and records should be well organized and kept in an area that is easily accessible.
All inspection reports, preventative maintenance reports, annual SWPPP reviews, employee training reports, and any other applicable documents will be reviewed at this time. Remember, the storm water permit requires that the facility keep all documentation for at least three years.

Once the inspection is complete, the MDEQ inspector will conduct a closing meeting in which compliant and non-compliant items noted during the inspection will be discussed. Typically, a letter will be sent by the MDEQ inspector to the facility describing the items discussed during the closing meeting. In most cases the facility will be required to submit a written response to the MDEQ describing what has or will be done to comply with the inspection letter.

**SUMMARY**

As a certified operator, you are an important link between industrial activities and the protection of our state’s water resources. Your responsibilities include identifying conditions at the site which could contribute pollutants to storm water runoff, implementing structural and non-structural controls to correct these conditions, inspecting and maintaining these controls to provide compliance with the storm water permit, verifying appropriate records are kept, and properly responding to spills that may occur at the facility. Your concerted efforts in these areas will ultimately prevent negative impacts on storm water runoff and protect the invaluable surface waters of our state.
This is a review exercise to help you determine how well you learned the information in this manual. It is a “fill in the blank” format. If you need some help with a question, the number to the right of the question tells you on which page in the manual you will find the necessary information.

Once you have completed the exercise, check your answers against the key that has been provided.

INDUSTRIAL STORM WATER CERTIFIED OPERATOR REVIEW QUESTIONS

Answer located on

Page 7-9  1) What are the three criteria to consider when determining if storm water discharge coverage is needed under the National Pollutant Discharge Elimination System (NPDES) industrial storm water permits?

Page 14  2) The industrial storm water certified operator should be someone who is at the facility ______________________.

Page 14  3) The industrial storm water operator certification is valid for ____.

Page 2  4) Under natural conditions the majority of rain water that falls to the ground ______________________.

Page 2  5) The introduction of pollutants to storm water most commonly occurs when industrial facilities allow operating procedures and industrial materials to______________________________.
6) The best way to prevent contamination of storm water is___________________.

7) The highest percentage of pollutants in storm water runoff occur in the first few minutes that storm water runs off. This is called the___________________.

8) Organic enrichment of storm water runoff from sources such as food processing, airport deicing, antifreezes, and sewage can provide a food source for bacteria in lakes and streams. This can lead to ____________________________, which is a common cause of fish kills.

9) The addition of _________________________ to storm water runoff can result in algal blooms and excessive growth of aquatic plants in fresh water systems such as lakes and streams.

10) Sediment is one of the most widespread pollutants in surface water. Many ______________________________ attach to finer sediment particles. Sediment can also be destructive to aquatic systems by covering and damaging habitat.

11) If there is a construction activity at an industrial facility that disturbs one or more acres of land or the soil disturbance is within 500 feet of a water body, the owner of the property will need to apply for a __________________________. In addition if the soil disturbance will become five or more acres in size the property owner will need to submit the Notice of Coverage application to the MDEQ, Water Resources Division.

12) The______________________________ is a document that authorizes the discharge of storm water under a general storm water permit.

13) __________________________ permits are site specific and contain requirements such as regular sampling, monitoring, end of pipe treatment or effluent limits.

14)__________________________ permits are not site specific and contain the minimum requirements for protecting water quality.
15) Industrial facilities are identified in the federal storm water regulations by _______________ and narrative description.

16) A _______________ is any discernible, confined, and discrete conveyance that discharges storm water into surface waters. Examples include, but are not limited to, pipes, ditches, channels, tunnels, conduits, or anything that conveys storm water into surface waters.

17) The surface water that receives the point source discharge is called the _______________. This information must be included on the Notice of Intent (NOI) application when applying for the storm water discharge coverage.

18) Surface waters of the state include _______________.

19) A sewer system in which the sanitary sewage and the storm water are directed to a wastewater treatment plant is called a _______________.

20) A sewer system in which the storm water is kept separate from sanitary sewage and discharges directly into a surface water body is called a _______________.

21) For industrial facilities that are regulated by the federal regulations and there is a point source discharge, but there is no exposure of industrial materials, the no exposure certification must be submitted every__________.

22) A signed NOI certifies that the facility is in _______________ with the general permit.

23) The 5 permit requirements that must be completed at an existing facility before the applications is submitted are:

24) The application for storm water permit coverage must be signed by the _______________.

25) Portable industrial facilities also need to submit the _____________________ (NOI) for permit coverage.

26) If the portable industrial facility is to be moved to another satellite location the permittee must notify the MDEQ of the relocation in writing, at least ______ prior to start up at the new location.

27) Michigan law requires that anyone who discharges liquid wastes to surface waters of the state must have their pollution control measures under the supervision of a ____________________.

28) The industrial storm water certified operator at the facility shall ______________________________ and have __________________________ over the facility’s storm water treatment and control measures.

29) The MDEQ may revoke the certificate of a person who has practiced fraud or ______________________ or been negligent in discharge of his/her duties.

30) The Storm Water Pollution Prevention Plan (SWPPP) is a written plan intended to maximize the control of significant materials and to ________________________________.

31) The SWPPP must be designed _________________________________. It should be user friendly, readable and to the point.
32) The storm water permit requires that 13 categories of items be identified on the site map. List the 13 items that must be included on the site map.

33) Significant materials are ________________________________________________.

34) The SWPPP shall describe the ways in which the significant materials is or has ________________________________________________________________.

35) Another method of evaluating sources of contamination is to sample storm water discharges. Monitoring storm water discharges may be a practical method of evaluating the effectiveness of the SWPPP, but _______________________________. 
36) If the Certificate of Coverage (COC) or permit authorizes a storm water discharge from Sites of Environmental Contamination or secondary containment structure a ________________________________
________________________ must be submitted to the district supervisor for approval.

37) Routine inspections are an integral component of the preventative maintenance program and are the responsibility of the industrial storm water certified operator. At most facilities, it is recommended that the routine inspections be performed and documented at least once every

__________________________________________________________.

38) Routine inspections should focus on

__________________________________________________________.

39) Depending on the storm water general permit, the comprehensive inspection must be performed quarterly or semiannually. The comprehensive inspection should focus on ________________.

40) What should be included in the in the good housekeeping practices of the SWPPP?

41) Proper material handling and storage procedures in place at a facility can ______________ the potential for the accidental release of materials that can cause contamination of storm water runoff.

42) Avoid storing liquids near______________.

43) Developing ____________________ procedures is a very important part of the material handling and storage procedures. Establishing such procedures along with proper employee training can reduce accidental releases.
Page 22  44) Detailed cleanup procedures should include the location of__________________, clean up equipment, identification of cleanup personnel, and phone numbers of appropriate personnel.

Page 22  45) During regular business hours if there is a spill or a release to waters of the state, someone at the facility must_____________________________________________________

Page 22  46) During non-business hours if there is a spill or a release to waters of the state, someone at the facility must_____________________________________________ at 1-800-292-4706.

Page 23  47) The more informed employees are about what is expected of them, the more effective the storm water program. At a minimum the employee training program should include: Internal spill and response procedures, _________________________________.

Page 23  48) The ________________________________ is the process used to determine how much pollutant load a lake or stream can handle from point and nonpoint sources.

Page 24  49) The list of ________________________________ expected to be present in the storm water discharges after implementation of non-structural controls must be included in the SWPPP.

Page 24  50) ________________________________ are physical features that control or prevent storm water pollution.

Page 28  51) To prevent uncontrolled overflows, containment areas should have a pumping system or vacuum trucks available to remove the spilled materials. If the containment is required by state or federal regulations, the discharge of storm water trapped in the containment area to surface water is permitted ________________________________.
52) ________________ basins are designed to retain storm water and allow it to evaporate or infiltrate.

53) ______ are lower areas within a containment structure from which liquid is collected.

54) Oil water separators are controls that remove oils that are ______________________________from storm water runoff.

55) Regular maintenance of oil/water separators is necessary. During the routine inspections, the inspector should ________________________________.

56) Whenever possible vehicle maintenance should be performed inside. At many facilities some maintenance will be performed outside. During the routine inspection, the inspector should ________________________________.

57) Proper storage for paints and solvents includes storing materials ________________________________, in a neat and orderly manner. It is preferable to store materials out of the weather.

58) The general storm water permits do not authorize the discharge of ______________________________wash water.

59) If the loading and unloading operations are in close proximity to a catch basin inlet, the inlet must be protected. List three options for protecting the inlet.

60) Locate tanks ________________surface waters, storm sewer inlets, and other sensitive areas.

61) After a rain event, the inspector should check for ________________________________in the secondary containment. This is one method of checking the structural integrity of the secondary containment.
Page 35  62) Waste products and scrap materials have a high potential to contaminate storm water runoff. Therefore, controls for outside waste disposal areas must be developed and implemented. Keep waste receptacle and scrap bins under a _______________________________ or use a temporary cover.

Page 36  63) Best management practices or controls must be used, if dewatering occurs at the facility. The dewatering discharges must meet water quality standards in the receiving waters. If the discharge is _______________________________ than the receiving waters, cease the discharge.

Page 36  64) _________________ bind with sediment forming a larger sized particle called a flock. The flock can then be removed from the water.

Page 37  65) Straw bales are _________________ for keeping sediment or other particulate materials out of catch basins.

Page 37  66) _________________ oils are not removed by oil water separators and most catch basin inserts.

Page 38  67) Dismantle vehicles on an _________________ pad or in a building.

Page 38  68) At an auto salvage facility or vehicle maintenance facility, old batteries should be stored _________________ if stored outside.

Page 38  69) Vehicular fluids such as used oil, gasoline, antifreeze etc…should not be stored outside without the proper controls. Fluid storage areas must be _________________________________.

Page 40-41  70) The storm water permits require the SWPPP to be reviewed _________________ after it is developed and maintain a written summary of the review. In addition the SWPPP needs to be modified when there are changes at the facility.

Page 41  71) All storm water program records must be retained for _____________________.
72) Receiving waters shall not have any of the following unnatural physical properties in quantities which are or may become injurious to any designated use: unnatural________________________, ______________________, ______________________, floating solids, foams, settleable solids, suspended solids, or deposits as a result of the discharge.

73) Any noncompliance which may endanger health or the environment shall be reported verbally within ______________from the time the permittee becomes aware of the circumstances.

74) ___________________________ must be removed from the facility before the authorization to discharge is terminated. If the authorization to discharge is terminated prior to this the facility will be in violation of the storm water regulations.

75) The MDEQ, Water Resources Division is required to conduct facility inspection as part of the National Pollutant Discharge Elimination System program. Inspections are usually ______________________.

76) The inspection consists of two parts, a tour of the facility (both inside and outside) and a storm water program file audit. During the file audit the MDEQ, Water Resources Division staff will review the ______________________, ______________________, and employee storm water training records.

77) During the inspection, internal floor drains will be inspected to ensure they are not connected to the ______________________.

78) Once the inspection is complete, the MDEQ, Water Resources Division staff will conduct a closing meeting in which the compliant and non-compliant items will be discussed. After the inspection, a letter will be sent describing _______________________________________________________________________.


1. The industry is identified in the federal storm water regulations by SIC code or narrative description; There is a point source discharge of storm water to surface waters of the state; There is a potential for exposure of industrial materials or activities to storm water runoff.

2. On a regular basis

3. 5 years

4. Infiltrates the ground or evaporates

5. Become exposed to storm water

6. Through pollution prevention

7. First flush

8. Oxygen depletion

9. Phosphorus

10. Pollutants

11. Soil Erosion and Sedimentation Control

12. Certificate of Coverage

13. Individual

14. General

15. Standard Industrial Classification (SIC) Code

16. Point source

17. Receiving waters

18. Streams, Lakes and Wetlands

19. Combined storm sewers

20. Separate storm sewers

21. 5 years

22. Compliance

23. Storm Water Pollution Prevention Plan (SWPPP) has been developed; The facility has a industrial storm water certified operator; There are no unauthorized discharges from the facility; The non-structural storm water pollution prevention measures or controls have been fully implemented; That structural controls described in the SWPPP are installed and operational.

24. Principal executive officer

25. Notice of intent

26. 10 days

27. Certified operator

28. Review and sign the Storm Water Pollution Prevention Plan; Supervision

29. Falsification

30. Reduce exposure of significant materials to storm water runoff

31. To work at your facility
32. Buildings and other permanent structures; Storage or disposal areas for significant materials; Secondary containment structures and description of what they contain; Storm water discharge outfalls; The location of the storm water and non-storm water inlets contributing to each outfall; Location of NPDES permitted discharges other than storm water; Outlines of drainage areas contributing to each outfall Structural runoff controls or storm water treatment facilities; Areas of vegetation; Areas of exposed and/or erodible soils; Impervious surfaces Name and location of receiving waters; Areas of known or suspected impacts on surface waters as designated under Part 201 of the Michigan Act

33. Any material that can degrade or impair water quality

34. Reasonable potential to become exposed to storm water runoff

35. It is not required

36. Short term storm water characterization study plan

37. 2 weeks

38. Areas in which there is a greater potential for the storm water to become contaminated

39. The whole facility

40. Operation and maintenance procedures; Material storage and inventory procedures; Employee participation

41. Minimize

42. Drains

43. Spill response

44. Spill kits

45. Contact a MDEQ, Water Resources Division staff person at the district office

46. Contact the MDEQ Pollution Emergency Alert System (PEAS)

47. Preventative maintenance and good housekeeping practices

48. Total maximum daily load

49. Significant materials

50. Structural controls

51. only if authorized by the permit

52. Retention

53. Sumps

54. Skim the oil off of the surface of the water

55. Check the fluid levels in the oil water separator

56. Check for leaking oil and fluids

57. Off the floor or ground

58. Equipment and vehicle
59. Cover the catch basin inlet; Place absorbent materials around the catch basin inlet; Close the shutoff valve if the drain is equipped with a shutoff valve

78. The items discussed during the closing meeting

60. Away from

61. Accumulated storm water

62. Rain proof shelter

63. More turbid (more cloudy)

64. Polyacrylamides

65. Not effective

66. Water soluble

67. Impervious

68. In a covered container

69. Inspected for leakage

70. Annually

71. 3 years

72. turbidity, color, oil film

73. 24 hours

74. All significant materials that have the potential to be exposed to storm water runoff

75. Unannounced

76. Storm Water Pollution Prevention Plan; Inspection reports; Annual report

77. Storm sewer system or surface waters
APPENDIX A

Contact List
<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>CONTACT</th>
<th>COUNTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadillac District Office</td>
<td>Sy Paulik</td>
<td>Benzie, Grand Traverse, Kalkaska, Leelanau,</td>
</tr>
<tr>
<td>120 West Chapin Street</td>
<td><a href="mailto:pauliks@michigan.gov">pauliks@michigan.gov</a></td>
<td>Mason, Manistee</td>
</tr>
<tr>
<td>Cadillac, MI 49601</td>
<td>231-876-4477</td>
<td></td>
</tr>
<tr>
<td>Gaylord Field Office</td>
<td>Christopher McGarry</td>
<td>Lake, Osceola, Roscommon, Wexford</td>
</tr>
<tr>
<td>2100 West M-32</td>
<td><a href="mailto:mcgarryc@michigan.gov">mcgarryc@michigan.gov</a></td>
<td></td>
</tr>
<tr>
<td>Gaylord, MI 49735-9282</td>
<td>231-876-4476</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ryan Blazic</td>
<td>Alcona, Alpena, Crawford, Montmorency, Oscoda,</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:blazicr@michigan.gov">blazicr@michigan.gov</a></td>
<td>Presque Isle, Roscommon</td>
</tr>
<tr>
<td></td>
<td>989-705-3420</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Audrie Kirk</td>
<td>Antrim, Charlevoix, Cheboygan, Emmet, Otsego</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:kirka3@michigan.gov">kirka3@michigan.gov</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>989-705-3475</td>
<td></td>
</tr>
<tr>
<td>Grand Rapids District Office</td>
<td>Ryan Grant</td>
<td>Barry, Ionia, Kent, Mecosta, Montcalm,</td>
</tr>
<tr>
<td>State of Michigan Office</td>
<td><a href="mailto:grantr3@michigan.gov">grantr3@michigan.gov</a></td>
<td>Muskegon, Newaygo, Oceana, Ottawa</td>
</tr>
<tr>
<td>Building</td>
<td>616-356-0250</td>
<td></td>
</tr>
<tr>
<td>350 Ottawa Ave. NW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th Floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Rapids, MI 49503</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackson District Office</td>
<td>Kenneth Mroczkowski</td>
<td>Hillsdale, Jackson, Lenawee, Monroe,</td>
</tr>
<tr>
<td>301 East Louis Glick Highway</td>
<td><a href="mailto:mroczkowskik@michigan.gov">mroczkowskik@michigan.gov</a></td>
<td>Washtenaw</td>
</tr>
<tr>
<td>Jackson, MI 49201</td>
<td>517-780-7693</td>
<td></td>
</tr>
<tr>
<td>Kalamazoo District Office</td>
<td>Janelle Hohm</td>
<td>Allegan, Branch, Calhoun, St. Joseph, Berrien,</td>
</tr>
<tr>
<td>7953 Adobe Road</td>
<td><a href="mailto:hohmj@michigan.gov">hohmj@michigan.gov</a></td>
<td>Cass, Kalamazoo, Van Buren</td>
</tr>
<tr>
<td>Kalamazoo, MI 49009</td>
<td>269-567-3581</td>
<td></td>
</tr>
<tr>
<td>District Office</td>
<td>Contact Person</td>
<td>Email</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Lansing District Office</strong></td>
<td>Stephanie Kammer</td>
<td><a href="mailto:kammers@michigan.gov">kammers@michigan.gov</a></td>
</tr>
<tr>
<td>525 West Allegan Street</td>
<td>Christe Alwin</td>
<td><a href="mailto:alwinc@michigan.gov">alwinc@michigan.gov</a></td>
</tr>
<tr>
<td>4th Floor - North</td>
<td>Pending</td>
<td></td>
</tr>
<tr>
<td>Lansing, MI 48933</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Saginaw Bay District Office</strong></td>
<td>Keith Noble</td>
<td><a href="mailto:noblek@michigan.gov">noblek@michigan.gov</a></td>
</tr>
<tr>
<td>401 Ketchum Street Suite B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay City, MI 48708</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Southeast Michigan District Office</strong></td>
<td>Melinda Steffler</td>
<td><a href="mailto:stefflerm@michigan.gov">stefflerm@michigan.gov</a></td>
</tr>
<tr>
<td>27700 Donald Court</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warren, MI 48092</td>
<td>Pending</td>
<td></td>
</tr>
<tr>
<td><strong>Upper Peninsula District Office</strong></td>
<td>Lindsey Ringuette</td>
<td><a href="mailto:rinquettel@michigan.gov">rinquettel@michigan.gov</a></td>
</tr>
<tr>
<td>KI Sawyer International Airport and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>420 Fifth Street</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gwinn, MI 49841</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See DEQ website for up to date staff contact information
APPENDIX B

Related Websites
RELATED WEBSITES

The MDEQ Storm Water Website:
http://www.michigan.gov/deqstormwater

The Notice of Intent (permit application) from the MDEQ Web site:

Sample Storm Water Pollution Prevention Plan:

Construction Storm Water Certified Operator Training Manual:
http://www.michigan.gov/deq/0,4561,7-135-3311_4113-81197--,00.html

Guidebook of Best Management Practices for Michigan’s Watersheds

Total Maximum Daily Load (TMDL) Requirements

Part 4 Rules, Water Quality Standards, of Act 451:

Part 5 Rules, Spillage of Oil and Polluting Materials, of Act 451:

Spill Prevention Control and Countermeasures (SPCC) website
http://www.epa.gov/emergencies/content/spcc/index.htm

Part 21 Rules, Wastewater Discharge Permits, of Act 451
http://www7.dleg.state.mi.us/WebORRGSA/102_87_AdminCode.pdf

EPA industrial storm water website
http://cfpub.epa.gov/npdes/stormwater/indust.cfm
EPA Industrial Fact Sheet Series website
http://cfpub.epa.gov/npdes/stormwater/swsectors.cfm

Metal Working Guidance Document
http://www.deq.state.mi.us/documents/deq-ead-tas-metalwrk.pdf

Universal Waste Management Guidance Document

Power Washing Guidance Document

Salt Storage Guidance Documents


Scrap Metal Bin Guidance Document

Used Oil Guidance Document

Unpermitted Discharge Information

Standard Industrial Classification (SIC) / North American Industrial Classification System (NAICS) Conversion Information
http://www.census.gov/eos/www/naics/concordances/concordances.html
APPENDIX C

Standard Industrial Classification Codes
Primary Activities & Standard Industrial Classification (SIC) Codes

Federal regulations require sites with primary activities and/or SIC codes that fall under any of the eleven categories of industrial activity, defined at 40 CFR 122.26(b)(14)(i)-(x), except category (x), to obtain permit coverage or certify a condition of no exposure. The facilities classified with the following primary activities and/or SIC codes are required to obtain NPDES storm water permit coverage or certify a condition of no exposure.

Primary Activities:

- Hazardous waste treatment, storage, or disposal facilities (including those that are operating under interim status or a permit under Subtitle C of the RCRA).
- Landfills (active, inactive, or closed) and land application sites that receive or have received industrial wastes.
- Steam electric power generating facilities, including coal handling sites.
- Wastewater Treatment Facilities (or other treatment works) with a design flow of at least 1.0 million gallons per day (MGD).
- Facilities involved in the recycling of material, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including, but not limited to those classified as SIC 5015 and 5093.
- Transportation activities at facilities classified by the SIC codes listed in the box on Page 5 are required to obtain coverage if the facility conducts any vehicle maintenance and/or it operates maintenance shops, equipment cleaning, or airport de-icing. Vehicle maintenance means fueling, vehicle rehabilitation, mechanical repairs, painting, and lubrication. Includes SIC groups 40-45, (except 4221-4225) and 5171. For a complete description see listing under Transportation (box, Page 5).

SIC Codes:

### Mining

<table>
<thead>
<tr>
<th>Metal Mining</th>
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<tbody>
<tr>
<td>1011 Iron ores</td>
</tr>
<tr>
<td>1021 Copper ores</td>
</tr>
<tr>
<td>1031 Lead and zinc ores</td>
</tr>
<tr>
<td>1041 Gold ores</td>
</tr>
<tr>
<td>1044 Silver ores</td>
</tr>
<tr>
<td>1061 Ferroalloy ores (except vanadium)</td>
</tr>
<tr>
<td>1081 Metal Mining Services</td>
</tr>
<tr>
<td>1094 Uranium-radium-uranium ores</td>
</tr>
<tr>
<td>1099 Miscellaneous metal ores, not elsewhere classified (NEC)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coal Mining</th>
</tr>
</thead>
<tbody>
<tr>
<td>1221 Bituminous coal and lignite surface mining</td>
</tr>
<tr>
<td>1222 Bituminous coal underground mining</td>
</tr>
<tr>
<td>1231 Anthracite mining</td>
</tr>
<tr>
<td>1241 Coal Mining Services</td>
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<table>
<thead>
<tr>
<th>Oil and Gas Extraction</th>
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</thead>
<tbody>
<tr>
<td>1311 Crude petroleum and natural gas</td>
</tr>
<tr>
<td>1321 Natural gas liquids</td>
</tr>
<tr>
<td>1381 Oil and gas well drilling</td>
</tr>
<tr>
<td>1382 Oil and gas field exploration services</td>
</tr>
<tr>
<td>1389 Oil and gas field services, NEC</td>
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### Mining and Quarrying of Nonmetallic Minerals (except fuels)

<table>
<thead>
<tr>
<th>1411 Dimension stone</th>
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</thead>
<tbody>
<tr>
<td>1422 Crushed and broken limestone</td>
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<tr>
<td>1423 Crushed and broken granite</td>
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<tr>
<td>1429 Crushed and broken stone, NEC</td>
</tr>
<tr>
<td>1442 Construction sand and gravel</td>
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<tr>
<td>1446 Industrial sand</td>
</tr>
<tr>
<td>1455 Kaolin and ball clay</td>
</tr>
<tr>
<td>1459 Clay, ceramic and refractory minerals, NEC</td>
</tr>
<tr>
<td>1474 Potash, soda and borate minerals</td>
</tr>
<tr>
<td>1475 Phosphate rock</td>
</tr>
<tr>
<td>1479 Chemical and fertilizer minerals mining NEC</td>
</tr>
<tr>
<td>1481 Nonmetallic minerals services</td>
</tr>
<tr>
<td>1499 Miscellaneous nonmetallic minerals except fuels</td>
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</table>

### Manufacturing

<table>
<thead>
<tr>
<th>Food and Kindred Products</th>
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<tbody>
<tr>
<td>2011 Meat packing plants</td>
</tr>
<tr>
<td>2013 Sausages and other prepared meat products</td>
</tr>
<tr>
<td>2015 Poultry slaughtering and processing</td>
</tr>
<tr>
<td>2021 Creamery butter</td>
</tr>
<tr>
<td>2022 Natural, processed and imitation cheese</td>
</tr>
<tr>
<td>2023 Dry, condensed and evaporated dairy products</td>
</tr>
<tr>
<td>2024 Ice cream and frozen desserts</td>
</tr>
<tr>
<td>2026 Fluid milk</td>
</tr>
<tr>
<td>2027 Canned specialties</td>
</tr>
<tr>
<td>2033 Canned fruits, vegetables, preserves, jams and jellies</td>
</tr>
<tr>
<td>2034 Dried &amp; dehydrated fruits, vegetables and soup mixes</td>
</tr>
<tr>
<td>2035 Pickled fruits &amp; vegetables, sauces, seasonings, and salad dressings</td>
</tr>
<tr>
<td>2037 Frozen fruits, fruit juices, and vegetables</td>
</tr>
<tr>
<td>2038 Frozen specialties, NEC</td>
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<tr>
<td>2041 Flour and other grain mill products</td>
</tr>
<tr>
<td>2043 Cereal breakfast foods</td>
</tr>
<tr>
<td>2044 Rice milling</td>
</tr>
<tr>
<td>2045 Prepared flour mixes and doughs</td>
</tr>
<tr>
<td>2046 Wet corn milling</td>
</tr>
<tr>
<td>2047 Dog and cat food</td>
</tr>
<tr>
<td>2048 Prepared animal and poultry feeds (except dog and cat food)</td>
</tr>
<tr>
<td>2051 Bread and other bakery products (except cookies and crackers)</td>
</tr>
<tr>
<td>2052 Cookies and crackers</td>
</tr>
<tr>
<td>2053 Frozen bakery products (except bread)</td>
</tr>
<tr>
<td>2061 Cane sugar (except refining)</td>
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<tr>
<td>2062 Cane sugar refining</td>
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<tr>
<td>2063 Beet sugar</td>
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<tr>
<td>2064 Candy and other confectionary products</td>
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<td>2066 Chocolate and other cocoa products</td>
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<td>2067 Chewing gum</td>
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<td>2068 Salted &amp; roasted nuts and seeds</td>
</tr>
<tr>
<td>2074 Cottonseed oil mills</td>
</tr>
<tr>
<td>2075 Soybean oil mills</td>
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<tr>
<td>2076 Vegetable oil mills, except corn, cottonseed and soybean</td>
</tr>
<tr>
<td>2077 Animal &amp; marine fats and oils</td>
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<tr>
<td>2079 Shortening margarine &amp; other fats and oils, NEC</td>
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71
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<th>Description</th>
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<tr>
<td>2082</td>
<td>Malt beverages</td>
<td>2386</td>
<td>Leather and sheep-lined clothing</td>
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<td>2083</td>
<td>Malt</td>
<td>2387</td>
<td>Apparel belts</td>
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<td>2084</td>
<td>Wines, brandy and brandy spirits</td>
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<td>Apparel and accessories NEC</td>
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<td>2085</td>
<td>Distilled and blended liquors</td>
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<td>Curtains and draperies</td>
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<td>2086</td>
<td>Bottled &amp; canned soft drinks and carbonated waters</td>
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<td>Housefurnishings (except curtains and draperies)</td>
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<td>Flavoring extracts and flavoring syrups, NEC</td>
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<td>Textile bags</td>
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<td>Canned &amp; cured fish and seafood</td>
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<td>Canvas and related products</td>
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<td>Prepared fresh or frozen fish and seafood</td>
<td>2395</td>
<td>Pleating, decorative and novelty stitching, tucking for the trade</td>
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<td>Roasted coffee</td>
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<td>Automotive trimmings, apparel findings and related products</td>
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<td>Potato chips, corn chips and similar snacks</td>
<td>2397</td>
<td>Schiffli machine embroiderries</td>
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<td>2097</td>
<td>Manufactured ice</td>
<td>2399</td>
<td>Fabricated textile products, NEC</td>
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<td>2098</td>
<td>Macaroni, spaghetti, vermicelli and noodles</td>
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<td>2099</td>
<td>Food preparations, NEC</td>
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<td>2131</td>
<td>Chewing &amp; smoking tobacco and snuff</td>
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<td>2141</td>
<td>Tobacco stemming and redrying</td>
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<td>Textile Mill Products</td>
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<tr>
<td>2211</td>
<td>Broadwoven cotton mills</td>
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<tr>
<td>2221</td>
<td>Broadwoven manmade fiber and silk mills</td>
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<td>2231</td>
<td>Broadwoven wool mills</td>
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<tr>
<td>2241</td>
<td>Narrow cotton, wool, silk, and manmade fiber mills</td>
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<td>2251</td>
<td>Women's full-length and knee-length hosiery (except socks)</td>
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<td>Hosiery, NEC</td>
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<tr>
<td>2253</td>
<td>Knit outerwear mills</td>
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<td>2254</td>
<td>Knit underwear and nightwear mills</td>
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<td>2257</td>
<td>Wett knit fabric mills</td>
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<td>2258</td>
<td>Lace and warp knit fabric mills</td>
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<td>2259</td>
<td>Knitting mills, NEC</td>
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<tr>
<td>2261</td>
<td>Broadwoven cotton finishing plants</td>
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<td>2262</td>
<td>Broadwoven manmade fiber and silk finishing plants</td>
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<td>2269</td>
<td>Textile finishing plants, NEC</td>
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<td>Carpets and rugs</td>
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<td>Yarn spinning mills</td>
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<td>2282</td>
<td>Yarn texturizing, throwing, twisting, and winding mills</td>
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<td>2284</td>
<td>Thread mills</td>
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<td>2295</td>
<td>Coated fabrics, not rubberized</td>
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<td>Tire cord and fabrics</td>
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<td>2297</td>
<td>Nonwoven fabrics</td>
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<td>Cordage and twine</td>
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<td>2299</td>
<td>Textile goods, NEC</td>
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<td>Apparel and Other Finished Products Made from Fabrics and Similar Materials</td>
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<td>2311</td>
<td>Men's and boys' suits, coats, and overcoats</td>
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<td>2321</td>
<td>Men's and boys' shirts (except work shirts)</td>
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<td>Men's and boys' underwear and nightwear</td>
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<td>Men's and boys' neckwear</td>
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<td>Men's and boys' separate trousers and slacks</td>
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<td>2326</td>
<td>Men's and boys' work clothing</td>
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<td>Men's and boys' clothing, NEC</td>
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<td>Women's, misses' &amp; juniors' blouses and shirts</td>
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<td>Women's, misses' &amp; juniors' dresses</td>
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<td>Women's, misses' &amp; juniors' suits, skirts, and coats</td>
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<td>Women's, misses' &amp; juniors' outerwear</td>
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<td>2341</td>
<td>Women's, misses' children's, and infants' underwear and nightwear</td>
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<td>2342</td>
<td>Brasieres, girdles and allied garments</td>
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<td>Hats, caps and millinery</td>
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<td>Girl's, children's &amp; infants' dresses, blouses &amp; shirts</td>
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<td>Girl's, children's &amp; infants' outerwear NEC</td>
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<td>Fur goods</td>
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<td>Dress and work gloves (except knit and all-leather)</td>
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<td>2384</td>
<td>Robes and dressing gowns</td>
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<td>2385</td>
<td>Waterproof outerwear</td>
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<td>Lumber and Wood Products</td>
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<td>Sawmills and planning, general</td>
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<td>Hardwood dimension and flooring mills</td>
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<td>Special products, sawmills, NEC</td>
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<td>2431</td>
<td>Millwork</td>
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<td>Hardwood veneer and plywood</td>
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<td>Softwood veneer and plywood</td>
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<td>Structural wood members, NEC</td>
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<td>Nailed and lock corner wood boxes and shock</td>
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<td>Wood pallets and skids</td>
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<td>2449</td>
<td>Wood containers, NEC</td>
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<td>2461</td>
<td>Mobile homes</td>
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<td>2452</td>
<td>Prefabricated wood buildings and components</td>
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<td>2491</td>
<td>Wood preserving</td>
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<td>Furniture and Fixtures</td>
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<td>Wood household furniture (except upholstered)</td>
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<td>Upholstered wood household furniture</td>
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<td>Mattresses, foundations, &amp; convertible beds</td>
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<td>Wood TV, radio, phonograph and sewing machine cabinets</td>
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<td>2519</td>
<td>Household furniture, NEC</td>
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<td>Wood office furniture</td>
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<td>Office furniture (except wood)</td>
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<td>Public building and related furniture</td>
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<td>Wood office &amp; store fixtures, partitions, shelving and lockers</td>
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<td>Office &amp; store fixtures, partitions, and shelving (except wood)</td>
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<td>Drapery hardware, window blinds and shades</td>
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<td>Furniture and fixtures, NEC</td>
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<td>Paper and Allied Products</td>
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<td>Pulp mills</td>
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<td>2631</td>
<td>Paperboard mills</td>
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<td>2652</td>
<td>Setup paperboard boxes</td>
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<td>2653</td>
<td>Corrugated and solid fiber boxes</td>
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<td>Fiber cans, tubes, drums, and similar products</td>
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<td>2656</td>
<td>Sanitary food containers (except folding)</td>
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<td>Folding paperboard boxes, including sanitary</td>
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<td>2671</td>
<td>Packaging paper &amp; plasticsfilm coated and laminated</td>
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<td>Coated and laminated paper, NEC</td>
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<td>2673</td>
<td>Plastics, foil and coated paper bags</td>
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<td>2674</td>
<td>Uncased paper and multwall bags</td>
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<td>Die-cut paper, paperboard and cardboard</td>
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<td>2676</td>
<td>Sanitary paper products</td>
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<td>Envelopes</td>
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<td>2678</td>
<td>Stationary, tablets, and related products</td>
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<tr>
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<td>Converted paper and paperboard products, NEC</td>
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</table>
Printing, Publishing and Allied Industries
- 2711 Newspaper publishing or newspaper publishing and printing
- 2721 Periodical publishing or periodical publishing and printing
- 2731 Book publishing or book publishing and printing
- 2732 Book printing
- 2741 Miscellaneous publishing
- 2752 Commercial lithographic printing
- 2754 Commercial gravure printing
- 2759 Commercial printing, NEC
- 2761 Manifold business forms
- 2771 Greeting cards
- 2782 Blankbooks, looseleaf binders, and devices
- 2789 Bookbinding and related work
- 2791 Typesetting
- 2796 Platemaking and related services

Chemicals and Allied Products
- 2812 Alkalis and chlorine
- 2813 Industrial gases
- 2816 Inorganic pigments
- 2819 Industrial inorganic pigments, NEC
- 2821 Plastic materials, synthetic resins and elastomers
- 2822 Synthetic rubber (vulcanizable elastomers)
- 2823 Cellulosic manmade fibers
- 2824 Mannmade organic fibers, except cellulosic
- 2833 Medicinal chemicals and botanical products
- 2834 Pharmaceutical preparations
- 2835 In vitro and in vivo diagnostic substances
- 2836 Biological products (except diagnostic substances)
- 2841 Soap and other detergents, except specialty cleaning
- 2842 Specialty cleaning, polishing and sanitation preparations
- 2843 Surface active agents, finishing agents and sulfonated oils
- 2844 Perfumes, cosmetics and other toilet preparations
- 2851 Paints, varnishes, lacquers, enamels and allied products
- 2861 Gum and wood chemicals
- 2865 Cyclic organic crudels and intermediates and organic dyes
- 2869 Industrial organic chemicals, NEC
- 2873 Nitrogenous fertilizers
- 2874 Phosphatic fertilizers
- 2875 Fertilizers, mixing only
- 2879 Pesticides and agricultural chemicals, NEC
- 2919 Adhesives and sealants
- 2932 Explosives
- 2933 Printing ink
- 2995 Carbon black
- 2999 Chemicals and chemical preparations, NEC

Petroleum Refining and Related Industries
- 2911 Petroleum refining
- 2951 Asphalt paving mixtures and blocks
- 2952 Asphalt felts and coatings
- 2992 Lubricating oils and greases
- 2999 Petroleum and coal products, NEC

Rubber and Miscellaneous Plastic Products
- 3011 Tires and inner tubes
- 3021 Rubber and plastic footwear
- 3052 Rubber, plastic hose, and belting
- 3053 Gaskets, packing and sealing devices
- 3061 Molded, extruded and lathe-cut mechanical rubber goods
- 3069 Fabricated rubber products, NEC
- 3081 Unsupported plastics film and sheet
- 3082 Unsupported plastics profile shapes
- 3083 Laminated plastics plate, sheet and profile shapes
- 3084 Plastics pipe
- 3085 Plastics bottles
- 3086 Plastics foam products
- 3087 Custom compounding of purchased plastics resins

3088 Plastics plumbing, fixtures
3089 Plastics products NEC

Leather and Leather Products
- 3111 Leather tanning and finishing
- 3131 Boot & shoe cut stock and findings
- 3142 House slippers
- 3143 Men’s footwear (except athletic)
- 3144 Women’s footwear (except athletic)
- 3148 Footwear (except rubber), NEC
- 3151 Leather gloves and mittens
- 3161 Luggage
- 3171 Women’s handbags and purses
- 3172 Personal leather goods (except women’s handbags and purses)
- 3199 Leather goods, NEC

Stone, Clay, Glass and Concrete Products
- 3211 Flat glass
- 3221 Glass containers
- 3229 Fressed & blown glass and glassware
- 3231 Glass products, made of purchased glass
- 3241 Hydraulic cement
- 3251 Brick and structural clay tile
- 3253 Ceramic wall and floor tile
- 3255 Clay refractories
- 3259 Structural clay products, NEC
- 3261 Vitreous china plumbing fixtures and bathroom fittings
- 3262 Vitreous china table and kitchen articles
- 3263 Fine earthenware (white ware) table and kitchen articles
- 3254 Porcelain electrical supplies
- 3269 Pottery products, NEC
- 3271 Concrete block and brick
- 3272 Concrete products, except block and brick
- 3273 Ready-mixed concrete
- 3274 Lime
- 3275 Gypsum products
- 3281 Cut stone and stone products
- 3291 Abrasive products
- 3292 Asbestos products
- 3295 Ground or otherwise treated minerals and earths
- 3296 Mineral wool
- 3297 Nonclay refractories
- 3299 Nonmetallic mineral products, NEC

Primary Metal Industries
- 3312 Steel works, blast furnaces (including coke ovens) and rolling mills
- 3313 Electrometallurgical products except steel
- 3315 Steel wiredrawing, nails, and spikes
- 3316 Cold-rolled steel sheet, strip and bars
- 3317 Steel pipe and tubes
- 3321 Gray and ductile iron foundries
- 3322 Malleable iron foundries
- 3324 Steel investment foundries
- 3325 Steel foundries, NEC
- 3331 Primary copper smelting and refining
- 3334 Primary aluminum production
- 3339 Primary nonferrous metals smelting and refining, NEC
- 3341 Secondary nonferrous metals smelting and refining
- 3351 Copper rolling, drawing and extruding
- 3353 Aluminum sheet, plate and foil
- 3354 Aluminum extruded products
- 3355 Aluminum rolling and drawing, NEC
- 3356 Nonferrous metals rolling, drawing, and extruding NEC
- 3357 Nonferrous wire drawing and insulating
- 3363 Aluminum die-castings
- 3364 Nonferrous die-castings, except aluminum
3578 Electronic connectors
3579 Electronic components NEC
3591 Storage batteries
3592 Primary batteries (dry and wet)
3594 Electrical equipment for internal combustion engines
3595 Magnetic and optical recording media
3599 Electrical machinery, equipment and supplies, NEC

Transportation Equipment
3711 Motor vehicles and passenger car bodies
3713 Truck and bus bodies
3714 Motor vehicle parts and accessories
3715 Truck trailers
3716 Motor homes
3721 Aircraft
3724 Aircraft engines and engine parts
3728 Aircraft parts and auxiliary equipment, NEC
3731 Ship building and repairing
3732 Boat building and repairing
3743 Railroad equipment
3751 Motorcycles, bicycles, and parts
3751 Guided missiles and space vehicles
3764 Guided missile and space vehicle propulsion units & parts
3769 Guided missile and space vehicle parts & equipment, NEC
3792 Travel trailers and campers
3795 Tanks and tank components
3799 Transportation equipment, NEC

Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; and Watches and Clocks
3812 Search, detection, navigation, and guidance systems
3821 Laboratory apparatus and furniture
3822 Automatic environmental and appliance controls
3823 Process measurement, display, and control instruments
3824 Totalizing fluid meters and counting devices
3825 Electricity & signal measurement and testing instruments
3826 Laboratory analytical instruments
3827 Optical instruments and lenses
3829 Measuring and controlling devices, NEC
3841 Surgical & medical instruments and apparatus
3842 Orthopedic, prosthetic and surgical appliances and supplies
3843 Dental equipment and supplies
3844 X-Ray apparatus & tubes and related irradiation apparatus
3845 Electromedical and electrotherapeutic apparatus
3851 Ophthalmic goods
3861 Photographic equipment and supplies
3873 Watches, clocks, clockwork operated devices & parts

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3911 Precious metal jewelry
3914 Silverware, plated ware, and stainless steel ware
3915 Jewelers' findings and materials and lapidary work
3931 Musical instruments
3942 Dolls and stuffed toys
3944 Games, toys, and children's vehicles (except dolls and bicycles)
3949 Sporting and athletic goods, NEC
3951 Pens, mechanical pencils, and parts
3952 Lead pencils, crayons and artists' materials
3953 Marking devices
3955 Carbon paper and inked ribbons
3961 Costume jewelry and novelties (except precious metal)
3965 Fasteners, buttons, needles and pins
3991 Brooms and brushes
3993 Signs and advertising specialties
3995 Burlap caskets
3996 Linoleum and other hard surface floor coverings NEC
3999 Manufacturing industries NEC

Transportation Activities
4011 - 4215 (see below)
4221 Farm product warehousing and storage
4222 Refrigerated warehousing and storage
4225 General warehousing and storage
4226 - 4581 (see below)

Durable Goods
5015 Used motor vehicle parts
5093 Scrap and waste materials

Transportation (see note in Primary Activities)

Railroad Transportation
4011 Line-haul railroad operation
4013 Railroad switching and terminal establishments

Local and Suburban Transit and Intercity Highway Passenger Transportation
4111 Local and suburban transit
4119 Local passenger transportation, NEC
4121 Taxi and limousine service
4131 Intercity and rural bus transportation
4141 Local bus charter service
4142 Bus charter service, except local
4151 School bus operation
4173 Terminal and service facilities for passenger transportation

Motor Freight Transportation and Warehousing
4212 Local trucking without storage
4213 Trucking, except local
4214 Local trucking with storage
4215 Courier service, except by air
4226 Special warehousing and storage, NEC
4231 Trucking terminal and maintenance facilities

United States Post Office
4311 United States Postal Service

Water Transportation
4412 Deep sea foreign freight transportation
4424 Deep sea domestic freight transportation
4432 Freight transportation on the Great Lakes/Saint Lawrence Seaway
4449 Water freight transportation, NEC
4481 Deep sea passenger transportation, NEC
4482 Ferry operation
4489 Water passenger operation NEC
4491 Marine cargo handling
4492 Towing and tugboat services
4493 Marina operation
4499 Water transportation services, NEC

Transportation by Air
4512 Scheduled air transportation
4513 Air courrier services
4522 Non-scheduled air transportation
4581 Airports, flying fields, and airport terminal services

Non-durable Goods
5171 Petroleum bulk stations and terminals
APPENDIX D

No Exposure Certification Guidance
GUIDANCE ON MICHIGAN’S NO EXPOSURE CERTIFICATION
FOR EXCLUSION FROM THE STORM WATER PERMIT PROGRAM

This guidance provides information on Michigan’s no exposure certification for exclusion from the permitting program for the discharge of storm water regulated under the National Pollutant Discharge Elimination System (NPDES).

Who May File a No Exposure Certification

The Phase II Final Rule, published December 8, 1999, allows for a conditional no exposure exclusion to be applied to ALL industrial categories listed in the 1990 storm water regulations, except for construction activities.

Definition of “No Exposure”

“No Exposure” means all industrial materials and activities are protected by a storm resistant shelter to prevent exposure of rain, snow, snowmelt, and/or runoff.

Industrial materials or activities include, but are not limited to, material handling, equipment, industrial machinery, raw materials, intermediate products, by-products, final products, waste materials, etc.

The term “storm-resistant shelter” includes completely roofed and walled buildings. Structures with only a roof are included provided material under the structure is not subject to any run-on and subsequent runoff of storm water. Temporary controls may be acceptable on a case by case basis.

The intent of the no exposure exclusion is to provide facilities with materials and activities entirely sheltered from storm water a simplified way of complying with the storm water permitting requirements.

A storm resistant shelter is not required for the following industrial materials and activities:

- Adequately maintained vehicles used in material handling activities; and
- Final products that are intended for use outside provided the products, materials, or treatments associated with the final product would not be mobilized in storm water discharges. Containers, racks, and other transport platforms (i.e., wooden pallets) used for the storage or conveyance of these final products can also be stored outside provided the containers, racks, and platforms are pollutant-free.
- Storage of sealed (sealed by manufacture & never subsequently opened), unopened drums, barrels, tanks, and similar containers that are tightly sealed (banded or otherwise secured and without an operational tap or valve), provided the containers are not deteriorated or otherwise damaged, are not stored in direct contact with the ground or pavement, are protected from damage from vehicles and equipment, have no residuals on the outside, and they do not leak.
While the intent of the no exposure provision is to promote a condition of permanent no exposure, it is understood that certain vehicles could become temporarily exposed to rain and snow while passing between buildings. Thus, adequately maintained vehicles (trucks, automobiles, forklifts, trailers, or other such general purpose vehicles) that are not industrial machinery, and are not leaking contaminants, and are not otherwise a source of industrial pollutants can be exposed to precipitation and runoff. Such activities would not prevent a facility from qualifying for the no exposure exclusion.

The Phase II Final Rule also addresses particulate matter emissions from roof stacks/vents that are regulated by and in compliance with, other environmental protection programs (air quality control programs). Roof vents at a facility which are in compliance with air quality programs are not considered exposure, provided there is no particulate evident in the storm water runoff, and the vents do not otherwise cause contamination of the storm water runoff.

Secondary containment structures and the materials enclosed within them are considered “Not Exposed” and do not require storm resistant shelter provided storm water accumulated within the containment is not discharged to waters of the state. However, secondary containment structures must be managed and maintained in such a way as to effectively eliminate the potential for impact on the storm water runoff.

General refuse and trash, not of an industrial nature is not considered exposure. However, measures (covering containers, good housekeeping practices, etc.) should be taken to minimize the impact of such material on the storm water runoff.

Facilities seeking exclusion from the storm water permitting program are also required to conduct an investigation to determine whether or not there are any unauthorized non-storm water discharges to the storm water system. Any such discharges must be removed or discharge authorization must be obtained.

If the facility currently has authorization to discharge storm water associated with industrial activities, then the no exposure certification form can be submitted as a termination request provided:

- The basis for the termination request is that there is no exposure of materials to storm water, and
- Upon conducting a facility inspection it is determined that the facility meets the no exposure exclusion requirements.

**General Requirements**

An operator seeking to qualify for this conditional no exposure exclusion must:

- Submit written certification that the facility meets the definition of “no exposure” to the Michigan Department of Natural Resources and Environment (MDEQ), Surface Water Quality Division (SWQD) once **every 5 years**. A copy of the “No Exposure Certification” form is available upon request.
For facilities that discharge through a municipal separate storm sewer system (MS4) must, upon request, submit a copy of the certification to the MS4 operator.

Allow the MDEQ, or the MS4 operator, to:
- Inspect the facility
- Make such inspection reports publicly available upon request.

**What if the Condition of “No Exposure” is not maintained?**

The no exposure exclusion is conditional. Therefore, if there is a change in circumstances that causes exposure of industrial activities or materials to storm water, the operator is required to comply immediately with all requirements of the storm water program, including obtaining a permit.

Where a facility operator determines that exposure is likely to occur in the future due to some anticipated change at the facility, the operator should obtain a permit prior to the discharge of storm water associated with industrial activities.

Regulated industrial operators need to either apply for a permit or submit a no exposure certification form in order to be in compliance with the NPDES storm water regulations.

Failure to maintain the condition of no exposure or obtain a permit to discharge can lead to the unauthorized discharge of pollutants to waters of the state. Such a discharge is a violation of the Federal Water Pollution Control Act and the Natural Resources and Environmental Protection Act, P.A. 451, and is subject to fines and penalties of those acts.

Even when an industrial operator certifies there is no exposure, MDEQ retains the authority to require the facility to obtain a permit if it is determined that there is exposure at the facility, or that the discharge of storm water is contributing to the violation of water quality standards.

The No Exposure Certification form is at:
APPENDIX E

Notice of Intent
NOTICE OF INTENT
FOR COVERAGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Submission of this Notice of Intent (NOI) constitutes notice that the party identified as Owner/Permittee requests authorization to discharge under the NPDES General Permit issued for storm water discharges associated with industrial or other activity in Michigan. The Michigan Department of Environmental Quality may deny coverage under the general permit and require submission of an application form for an individual permit. Becoming a permittee obligates a discharger to comply with the terms and conditions of the General Permit, including annual payment of a $260.00 fee billed each January. Failure to comply with these provisions may result in fines of up to $25,000 per day and the possibility of imprisonment, in accordance with Act 451, PA 1984, Part 31.

<table>
<thead>
<tr>
<th>FACILITY INFORMATION (where discharge occurs)</th>
<th>OWNER/PERMITTEE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE/FACILITY NAME</td>
<td>NAME</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>ADDRESS</td>
</tr>
<tr>
<td>CITY</td>
<td>CITY</td>
</tr>
<tr>
<td>STATE</td>
<td>STATE</td>
</tr>
<tr>
<td>ZIP CODE</td>
<td>ZIP CODE</td>
</tr>
<tr>
<td>RECEIVING WATERS</td>
<td>CONTACT PERSON</td>
</tr>
<tr>
<td>LATITUDE</td>
<td>LONGITUDE</td>
</tr>
<tr>
<td>CONTACT PERSON'S TELEPHONE (INCLUDING AREA CODE)</td>
<td></td>
</tr>
<tr>
<td>1/4 of 1/4 of Section</td>
<td></td>
</tr>
<tr>
<td>Town</td>
<td></td>
</tr>
<tr>
<td>Range</td>
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<tr>
<td>Township</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>Is the facility discharge: (must complete)</td>
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<tr>
<td>New ☐ or Existing ☐</td>
<td></td>
</tr>
<tr>
<td>Facility started operations:</td>
<td></td>
</tr>
<tr>
<td>If existing with NPDES coverage: NPDES number(s):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>FACILITY IS ENGAGED IN: CHECK THOSE THAT APPLY (if none apply, skip this block)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL</td>
</tr>
<tr>
<td>☐ LANDFILL</td>
</tr>
<tr>
<td>☐ LAND APPLICATION SITE OR OPEN DUMP</td>
</tr>
<tr>
<td>☐ SEWAGE TREATMENT WORKS</td>
</tr>
<tr>
<td>☐ STEAM ELECTRIC POWER GENERATING FACILITY</td>
</tr>
<tr>
<td>☐ COAL HANDLING? YES ☐ NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CERTIFIED STORM WATER OPERATOR NAME (INDUSTRIAL ONLY):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>CERTIFICATION NUMBER:</th>
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<td></td>
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</tbody>
</table>
Any person requesting authorization to discharge from an area described below may be subject to the terms of the NPDES General Permit for storm water discharges with required monitoring, and should examine the requirements of that permit prior to submitting this NOI. (If none apply skip the block)

☐ SECONDARY CONTAINMENT
I (we) request to discharge storm water to a surface water of the state from a secondary containment structure installed at the facility as required by state or federal law.
*Request not necessary if discharging storm water to a sanitary or combined sewer system.

☐ ENVIRONMENTAL CONTAMINATION SITE
I (we) request to discharge storm water from an area identified on Michigan’s list of Sites of Environmental Contamination pursuant to the Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 201, Section 307.
*Request only necessary if storm water comes into contact with contaminated materials.

☐ OTHER SIGNIFICANT CONTRIBUTOR
The Department of Environmental Quality has determined that the storm water discharges from this facility are a significant contributor of pollutants to waters of the state.

CERTIFICATION

State of Michigan regulations require this form be signed as follows:

- Corporation: By the principal executive officer or vice president or higher, or his/her designated representative if the representative is responsible for the overall operation of the facility from which the discharge originates.
- Partnership: By a general partner
- Sole Proprietorship: By the proprietor
- Municipal, State, or Other Public Facility: By a principal executive officer, the mayor, village president, city or village manager, or other duly authorized employee.

I certify that my facility has developed a Storm Water Pollution Prevention Plan (SWPPP) according to the requirements of the Storm Water General Permit.

I certify that my facility has no unauthorized discharges.

I certify that my facility has implemented the non-structural controls as described in the SWPPP. New facilities shall fulfill requirement when industrial activity begins.

I certify my facility has completed construction and will put into operation all structural controls as described in the SWPPP. If necessary, new facilities shall fulfill requirement when industrial activity begins.

I certify, under penalty of law, that this document and all attachments were prepared by me, or under my direction or supervision in accordance with a system to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I understand that my signature constitutes a legal agreement to comply with the requirements of the appropriate NPDES General Storm Water Permit. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this Notice of Intent.

Printed name
Signature
Title
Date

IF YOU HAVE ANY QUESTIONS ABOUT THE PREPARATION OF THIS FORM, PLEASE CALL 517-335-4137.

RETURN THIS COMPLETED FORM (original signatures only), AND ANY ATTACHMENTS TO:

KELLY PLOEHN
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
2ND FLOOR NORTH
525 WEST ALLEGAN STREET
P.O. BOX 32273
LANSING MI 48909

EOP 4504 (Rev. 5/05)
APPENDIX F

Short Term Storm Water Characterization Study Guidance
Purpose of the Study
The purpose of the short-term characterization study is to determine the quality of the storm water being discharged from your special use area. The data from the study will be used to determine if discharges from this special use area comply with the discharge limitation in Part I.A.1 of the general permit. The special use area is either a secondary containment area or an area of environmental contamination. Please read Part I.A.2 of the general permit for additional information on this requirement.

To ensure that this study provides useful data, you need to follow certain steps in designing and carrying out your study. Your study plan should include all of the following information. Please note that this guidance is not intended to serve as guidelines for quality assurance. It is our expectation that personnel conducting this study will be properly trained in how to conduct all facets of this study.

Describe the Situation
• Identify the special use area (e.g. a secondary containment area for fuel storage tanks), and approximate size or volume (e.g. approximately 100 cubic feet).
• Identify the way in which discharges from this area reach surface waters; specify the receiving water (e.g. valves are periodically opened to allow the release of storm water; this storm water runs across pavement into a municipal storm sewer that discharges to the Kalamazoo River).
• Identify the potential contaminants of concern (e.g. diesel fuel).

Sampling Methods
• Identify the pollutants that will be monitored.
• If following prescribed standard sampling method(s), identify the source(s) or reference(s) for the method(s).
• Identify the location or locations at which samples will be taken.
• Identify the method of sampling (e.g. grab samples; composite samples).
• To adequately evaluate certain contaminant concentrations, additional data may be needed (e.g. hardness of the receiving stream).
• Identify the person or people who will conduct the sampling.

Number of Samples and Sample Events
• Identify the number of samples that will be taken for each sample event (e.g. 1 sample per location per sampling event will be taken).
• Identify the number of sampling events necessary to characterize the quality of the discharge; at a minimum 3 events must be monitored.
• Identify the frequency or spacing of these events, as relevant (e.g. at least 72 hours since previous measurable storm event).
• Identify the timing of the sampling events (e.g. first 30 minutes of each rainstorm greater than 0.1 inch; whenever discharge from the containment area becomes necessary).
• Identify the approximate time of year (seasons) samples will be taken.
Sample Analysis

- Note the EPA approved analytical method to be used (40 CFR part 136).
- Identify the quantification level for each analysis.
- Identify the laboratory performing the analysis.
- Note if the laboratory has EPA certification, or if the lab or technician have other qualifications.

Report

- Indicate the approximate date you intend to finish the study (realizing this may be dependent upon precipitation events or other factors), and when you plan to submit the results to MDEQ.
- Plan to include dates of sampling and analysis, and if handling times were met or exceeded.
- Plan to include all data, including actual quantification levels, and provide any other notations provided by the laboratory. Attach all sheets provided by the laboratory.
- When actual rain event discharges are monitored, include date and duration of the storm event, the rainfall measurement or estimate, duration between the storm event sampled and the end date of the previous measurable storm event, pollutant concentration(s) and estimated total volume of the discharge.

Submit Study Plan to MDEQ for Approval

Within 6 months of the effective date of your permit coverage, you must complete the study plan and submit to the MDEQ, Surface Water Quality Division District Supervisor for approval. District staff may request changes in your monitoring plan. If the District Supervisor does not take action to approve or comment on the plan within 90 days after submittal, and the Storm Water Pollution Prevention Plan has been fully implemented, then you shall begin monitoring in accordance with the plan submitted.

If the area for which you plan to characterize the discharge is an area of environmental contamination (Part 201 of Act 451, 1994 as amended) please submit a copy of your Storm Water Pollution Prevention Plan (SWPPP) along with the short-term characterization study plan.

Data Interpretation

Unlike most study designs, this monitoring plan does not need to identify information on data interpretation. MDEQ will review the data submitted, and determine if there is an expectation that water quality problems may result from storm water discharges from your special use area.
APPENDIX G

Sample Site Maps
Contaminated Soil listed under Part 201

Trench Drain

Asphalt

Roof Drains

Storm Water Catch Basins

Vegetation

Exposed / Erodible Soils

Building

Detention Pond

Crystal Clear Creek
Outfall 001

NPDES Non-Contact Cooling Water Discharge

Outfall 002

Asphalt Drainage

Crystal Clear Creek

Municipal Storm Sewer System

Municipal Storm Water Discharge

Outfall 003
Double Walled Diesel and Gasoline Tanks

Material Handling & Loading / Unloading Area

Fuel Island with curbing

Plastic Pellet Hopper in secondary containment

2 Covered 20 yrd roll-off dumpsters

Clean pallets

Material Handling & Loading / Unloading Area

Crystal Clear Creek
APPENDIX H

Significant Material Inventory Table
**SIGNIFICANT MATERIAL INVENTORY AND DESCRIPTION OF INDUSTRIAL ACTIVITY OR SIGNIFICANT MATERIAL STORAGE AREAS**

**Instructions** - The intent of this table is to ensure that facilities comply with Part I, Section C.1.b. of their industrial storm water permit. See sample table in Section 26 for reference. Fill out the applicable areas or activities in the corresponding sections. Add more lines as needed. Once you have described the area or activity, list the significant materials that are associated with the areas or activities, the exposure methods, and evaluate the level of exposure. Once that is completed indicate the inlet(s) and outfall(s) that would be impacted if significant materials were discharged from the areas or activities described.

<table>
<thead>
<tr>
<th>Section Listed in General Permit</th>
<th>Storage Areas / Activity Areas</th>
<th>Significant Materials</th>
<th>Exposure Method</th>
<th>Reasonable Potential Evaluation (high, medium, low)</th>
<th>Inlet(s)</th>
<th>Outfall(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Loading, unloading, and other material handling operations</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2) Outdoor storage including secondary containment structures</td>
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</table>
### TABLE CONTINUED

<table>
<thead>
<tr>
<th>Section Listed in General Permit</th>
<th>Storage Areas / Activity Areas</th>
<th>Significant Materials</th>
<th>Exposure Method</th>
<th>Reasonable Potential Evaluation (high, medium, low)</th>
<th>Inlet(s)</th>
<th>Outfalls(s)</th>
</tr>
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<tbody>
<tr>
<td>3) Outdoor manufacturing or processing activities</td>
<td></td>
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<td></td>
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<tr>
<td>4) Significant dust or particulate generating processes</td>
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<tr>
<td>5) Discharge from vents, stacks, and air emission controls</td>
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</tr>
<tr>
<td>Section Listed in General Permit</td>
<td>Storage Areas / Activity Areas</td>
<td>Significant Materials</td>
<td>Exposure Method</td>
<td>Reasonable Potential Evaluation (high, medium, low)</td>
<td>Inlet(s)</td>
<td>Outfalls(s)</td>
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<tr>
<td>6) On-site waste disposal practices</td>
<td></td>
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<tr>
<td>7) Maintenance and cleaning of vehicles, machines and equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8) Areas of exposed and/or erodible soils</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section Listed in General Permit</td>
<td>Storage Areas / Activity Areas</td>
<td>Significant Materials</td>
<td>Exposure Method</td>
<td>Reasonable Potential Evaluation (high, medium, low)</td>
<td>Inlet(s)</td>
<td>Outfalls(s)</td>
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<tr>
<td>9) Sites of Environmental Contamination listed under Part 201</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>10) Areas of significant material residues</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>11) Areas where animals congregate (wild or domestic) and deposit wastes</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>12) Other areas where storm water may contact significant materials</td>
<td></td>
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</tbody>
</table>
APPENDIX I

Secondary Containment Regulations
### State and Federal Programs With Secondary Containment Requirements

The following statutes require secondary containment structures for certain volumes and types of materials.

<table>
<thead>
<tr>
<th>Regulation Reference</th>
<th>Agency with Regulatory Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941 PA 207, as amended; Michigan Storage and Handling of Flammable and Combustible Liquids (FL/CL) Rules</td>
<td>Department of Natural Resources and Environment (DEQ) - Waste and Hazardous Materials Division (WHMD)</td>
</tr>
<tr>
<td>Part 111 of 1994 PA 451, as amended</td>
<td>DEQ - WHMD</td>
</tr>
<tr>
<td>Federal Resource Conservation and Recovery Act; 40 CFR, Parts 260 to 299 (hazardous wastes)</td>
<td>US Environmental Protection Agency (EPA)</td>
</tr>
<tr>
<td>Spill Prevention, Control and Counter Measure under the Clean Water Act, 40 CFR, Part 112 (petroleum storage)</td>
<td>US EPA</td>
</tr>
<tr>
<td>Part 31 of 1994 PA 451, as amended, and the Part 5 Rules (oil, salt, polluting materials, and items on Michigan's Critical Materials Registry)</td>
<td>DEQ - Water Resources Division</td>
</tr>
</tbody>
</table>
APPENDIX J

Rule 97 Procedures (Water Treatment Additives)
MDEQ Process for Obtaining Authorization to Conduct Tracer Dye Studies

The Michigan Department of Natural Resources and Environment (MDEQ) has regulatory jurisdiction over application or discharge of tracer dyes to surface waters of the state (Rule 97 of the Water Quality Standards, promulgated under Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended [NREPA]).

Under R 323.1097 of the Michigan Water Quality Standards the Water Resources Division (WRD) is responsible for approving projects where tracer dyes are applied or may be discharged to surface waters of the state. Surface waters of the state are defined as the Great Lakes and their connecting waters, inland lakes, rivers, streams, impoundments and open drains and other surface bodies of water within the confines of the state.

The following link details the MDEQ process for obtaining authorization to use tracer dyes: http://www.michigan.gov/deq/0,4561,7-135-3313_46123_54919---,00.html

An entity is authorized to apply tracer dyes to surface waters of the state by following the provisions under the appropriate certification. The certifications are as follows:

1. For applications or discharges of tracer dyes appearing on the Acceptable Michigan Tracer Dye List to surface waters of the state, coverage under the General Rule 97 Certification of Approval Authorizing Tracer Dyes in Surface Waters is necessary. (Certification R97-12/001) This process is initiated by submittal of a Notification of Intent by the applicant. Upon acknowledgement from the MDEQ that a Notification of Intent has been received, the applicant is authorized to commence the tracer dye study in compliance with the certification. Acknowledgement of receipt of the Notification of Intent can be determined at www.michigan.gov/deq, or by contacting Ms. Kay Edly at 517-373-4633 or by e-mail at edlyk@michigan.gov.

2. For any application or discharge of tracer dyes to surface waters of the state that is not authorized by Certifications R97-12/001, an Individual Rule 97 Certification of Approval (http://www.michigan.gov/documents/deq/wrd-rule97-certification_approval_383406_7.pdf) is necessary. Upon receipt of approval by the MDEQ, the applicant is authorized to commence treatment under the individual Rule 97 approval.
ACCEPTABLE MICHIGAN TRACER DYE LIST

The following tracer dyes have been reviewed by the Michigan Department of Natural Resources and Environment (MDEQ) Surface Water Assessment Section (SWAS) for aquatic toxicity concerns and are approved for use in Michigan surface waters only with authorization by the MDEQ through the Rule 97 certification process (see http://www.mighigan.gov/deq) and according to manufactures’ label instructions and at or below the concentrations indicated.

<table>
<thead>
<tr>
<th>DYE NAME</th>
<th>CAS NUMBER</th>
<th>ALTERNATE NAME(S)</th>
<th>CONCENTRATION LIMIT (FAV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue AZO Liquid</td>
<td>3844-45-9</td>
<td>Acid Sky Blue A, Blue 1206, Blue Dye, CI Acid Blue 9</td>
<td>12 mg/L</td>
</tr>
<tr>
<td>Eosine Y</td>
<td>17372-87-1</td>
<td>Acid Red 87, Eosine, Eosine G, Eosine Sodium, Eosine YB, Eosine YS</td>
<td>7 mg/L</td>
</tr>
<tr>
<td>Fluorescein</td>
<td>2321-07-4</td>
<td>CI Acid Yellow 73, Fluorescein LT, Fluorescent LT, Fluoro Green 1234, Sodium Fluorescein, Uranine</td>
<td>30 mg/L</td>
</tr>
<tr>
<td></td>
<td>518-47-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lissamine Yellow FF</td>
<td>2391-30-2</td>
<td>Brilliant Acid Yellow 8G, Brilliant Sulphoflavine FF, CI Acid Yellow 7</td>
<td>200 mg/L</td>
</tr>
<tr>
<td>Rhodamine WT</td>
<td>37299-86-8</td>
<td>Acid Red 388, FWT Red 200, FWT Red 25*, FWT Red 50</td>
<td>13 mg/L</td>
</tr>
</tbody>
</table>

* FWT 25 may contain trimellitic acid and have a CAS# of 528-44-9. This is an approved dye.
APPENDIX K

Watershed Map
Watershed Evaluation Schedule

For detailed watershed information see:

http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3713-10412--,00.html
APPENDIX L

Transfer of Coverage
Submission of this Transfer of Coverage constitutes notice that the party identified as the Purchaser requests authorization to discharge under NPDES General Permit issued for storm water discharges associated with industrial activity in Michigan. The Michigan Department of Environmental Quality may deny coverage under the general permit and require submittal of an application form for an individual or new general permit. Becoming a permittee obligates a discharger to comply with the terms and conditions of the general permit including payment of a $200.00 fee billed each January. Failure to comply with these provisions may result in fines of up to $25,000 per day and the possibility of imprisonment, in accordance with Act 451, PA 1994, Part 31.

**This form is to be used for ownership changes and company/facility name changes. In the event of just name change, disregard the Seller portion of the form.**

<table>
<thead>
<tr>
<th>PURCHASER - MAILING INFORMATION</th>
<th>SELLER - MAILING INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANY NAME</td>
<td>COMPANY NAME</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>ADDRESS</td>
</tr>
<tr>
<td>CITY</td>
<td>CITY</td>
</tr>
<tr>
<td>STATE</td>
<td>STATE</td>
</tr>
<tr>
<td>ZIP CODE</td>
<td>ZIP CODE</td>
</tr>
<tr>
<td>BILLING ADDRESS IF DIFFERENT THAN THE ABOVE</td>
<td>CONTACT PERSON</td>
</tr>
<tr>
<td>CONTACT PERSON</td>
<td>CONTACT PERSON'S TELEPHONE INCLUDING AREA CODE</td>
</tr>
<tr>
<td>CONTACT PERSON'S TELEPHONE (INCLUDING AREA CODE)</td>
<td>TRANSFER NPDES CERTIFICATE OF COVERAGE NUMBER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FACILITY INFORMATION (COMPETE BY PURCHASER)</th>
<th>RECEIVING WATERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACILITY/SITE NAME</td>
<td>RECEIVING WATERS</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE</td>
</tr>
<tr>
<td>CITY</td>
<td>COUNTY</td>
</tr>
<tr>
<td>ZIP CODE</td>
<td>STORM WATER CERTIFIED OPERATOR AND CERTIFICATION NUMBER</td>
</tr>
</tbody>
</table>

**FACILITY IS ENGAGED IN:** Check those that apply (if none apply, skip this block)

- [ ] HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL
- [ ] LANDFILL
- [ ] LAND APPLICATION SITE OR OPEN DUMP
- [ ] STEAM ELECTRIC POWER GENERATING FACILITY COAL HANDLING?
- [ ] YES  [ ] NO
- [ ] SEWAGE TREATMENT WORKS

*Continued on reverse side*

EDP 5942 (5/07)
CERTIFICATION

State of Michigan regulations require this form be signed as follows:
- Corporation: by the principal executive officer or vice president or higher, or his/her designated representative if the representative is responsible for the overall operation of the facility from which the discharge described originates.
- Partnership: by a general partner
- Sole proprietorship: by the proprietor
- Municipal, state, or other public facility: by a principal executive officer, the mayor, village president, city or village manager, or other duly authorized employee.

I certify that my facility has developed a Storm Water Pollution Prevention Plan (SWPPP) according to the requirements of the Storm Water General Permit.

I certify that my facility has no unauthorized discharges.

I certify that my facility has implemented the non-structural controls as described in the SWPPP.

I certify my facility has completed construction and will put into operation all structural controls as described in the SWPPP.

I certify, under penalty of law, that this document and all attachments were prepared by me, or under my direction or supervision in accordance with a system to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I understand that my signature constitutes a legal agreement to comply with the requirements of the general storm water permit as listed above. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this Transfer of Coverage.

<table>
<thead>
<tr>
<th>PURCHASER NAME (PRINTED)</th>
<th>TITLE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td>SIGNATURE</td>
<td>DATE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SELLER NAME PRINTED</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SIGNATURE</td>
<td>DATE</td>
</tr>
</tbody>
</table>

IF YOU HAVE ANY QUESTIONS, CONTACT YOUR DISTRICT OFFICE. FOR DISTRICT INFORMATION GO TO:
WWW.MICHIGAN.GOV/DEQSTORMWATER

RETURN THIS COMPLETED FORM, AND ANY ATTACHMENTS TO:

KELLY FLOBEH
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
2ND FLOOR NORTH
525 WEST ALLEGAN STREET
P.O. BOX 3523
LANSONG, MI 48909

ECP 504A (9/07)
APPENDIX M

Common Terms
Common Terms

Best Management Practices (BMPs)
Control measures used to prevent or mitigate pollution. They can be structural or nonstructural control measures.

Certificate of Coverage (COC)
A document issued by the MDEQ that authorizes a discharge under a general permit.

Composite Sample
A sample that is made up of multiple grab samples that have been thoroughly mixed together.

Critical Materials
Materials listed in Rule 9 of the Part 5 rules, Spillage of Oil and Pollution Materials, of Act 451, as polluting materials that require secondary containment.

Designated Use
At a minimum, all surface waters of the state are designated and protected for all of the following uses:
(a) Agricultural
(b) Navigation
(c) Industrial water supply
(d) Warm water fishery
(e) Other indigenous aquatic life and wildlife.
(f) Partial body contact recreation.
(g) Fish consumption

District Supervisor
The District Supervisor of the MDEQ, Water Resources Division, as identified in a COC accompanying the general permit.

Existing Facility
A facility that is or has been involved in industrial operations.

Grab Sample
A single sample taken at neither a set time nor flow.

Illicit Connection
These are connections of sanitary or process water discharges to the storm water discharge system.

Individual Permit
A site-specific NPDES permit.
**Inlet**
A catch basin, roof drain, conduit, drain tile, retention basin riser pipe, sump pump, or other point where storm water or wastewater enters into a closed conveyance system prior to discharge off site or into waters of the state.

**New Facility**
A facility located on a newly developed or redeveloped site that is ready to begin industrial operations.

**Noncontact Cooling Water**
Water that is used for cooling that does not come into direct contact with any raw material, intermediate by-product, waste product, or finished product.

**Nonstructural Control Measure**
Measures that do not require the construction of a physical barrier.

**Point Source Discharge**
A discharge from any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, or rolling stock. Changing the surface of the land or establishing grading patterns on land will result in a point source where runoff from the site is ultimately discharged to waters of the state.

**Polluting Material**
Oil and any material, in solid or liquid form, identified as polluting material under the Part 5 rules of Act 451.

**Pretreatment**
The act of reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a storm or sanitary sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by a National Pretreatment Standard for a particular industrial category.

**Secondary Containment**
A unit, other than the primary container in which the significant materials are packaged or held, that is required by state or federal law to prevent the escape of significant materials by gravity into sewers, drains, or otherwise directly or indirectly into any sewer system or to the surface or ground waters of this state.

**Significant Material**
Any material that could degrade or impair water quality.
**Structural Control Measures**
Control measures that require a physical feature used to prevent or treat storm water pollution.

**Total Maximum Daily Load or TMDL**
means the amount of pollutant load a water body such as a lake or stream can assimilate and still meet Water Quality Standards.

**Water Quality Standards**
State adopted and Environmental Protection Agency (EPA) approved water quality levels that were established to protect the designated uses of the waters of the state. The Water Quality Standards can be found in the Part 4 Rules developed under Part 31 of Act 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.
APPENDIX N

Acronyms
<table>
<thead>
<tr>
<th>ACRONYM</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>COC</td>
<td>Certificate of Coverage</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>MDEQ</td>
<td>Michigan Department of Natural Resources and Environment</td>
</tr>
<tr>
<td>MDNR</td>
<td>Michigan Department of Natural Resources</td>
</tr>
<tr>
<td>MIOSHA</td>
<td>Michigan Occupational Safety and Health Act</td>
</tr>
<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
</tr>
<tr>
<td>NEC</td>
<td>No Exposure Certification</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intent Application</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>PIPP</td>
<td>Pollution Incident Prevention Plan</td>
</tr>
<tr>
<td>SPCC</td>
<td>Spill Prevention Control and Countermeasures plan</td>
</tr>
<tr>
<td>STSCS</td>
<td>Short Term Storm Water Characterization Study</td>
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<tr>
<td>SWPPP</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
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<td>TOC</td>
<td>Transfer Of Coverage</td>
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<tr>
<td>WRD</td>
<td>Water Resources Division</td>
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</table>