National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Compliance

Audit Preparedness for Municipalities & Industrial Facilities in Michigan

Presented by:
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• Discharges from stormwater runoff to surface waters that require a discharge permit include:
  • Municipalities or other public entities located within urbanized areas through a separate storm sewer system (MS4)
  • Industrial Facilities with specific Standard Industrial Classification (SIC) codes:
    • Manufacturing (20- though 39-)
    • Public Warehousing (422-)
    • Transportation (40- though 45-)
    • Mining (10- though 14-)
    • Landfills
    • Steam Electric Power Plants
    • Recycling Facilities
    • Waste Water Treatment
    • Hazardous Waste Storage or Treatment
    • Other industries found to be significant contributors of pollutants
• Although these rules are federally mandated and regulated by the USEPA under Section 402 of the Clean Water Act, in Michigan the Department of Environmental Quality (MDEQ) is responsible for enforcement under part 31 of Public Act 451 NREPA
• Fines and penalties for non-compliance can include up to $25,000 per day of violation
• Criminal penalties can be as high as 2 years imprisonment per violation
Excepted Discharges

Discharges to surface waters from the following sources are not regulated:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising groundwater
- Uncontaminated groundwater infiltration
- Pumped groundwater (except from cleanups)
- Potable water
- Foundation drains
- Air conditioning condensate
- Springs
- Water from crawlspace pumps
- Footing drains
- Water from non-commercial car washing
- Flows from riparian lands or wetlands
- Residential swimming pool water (if backwash is treated)
- Residual street wash waters
Preparing for an Audit

• Have a good understanding of your Stormwater Management Program Plan (SWMP) or Stormwater Pollution Prevention Plan (SWPPP)
• Make sure that you have supporting documentation for each activity (BMP) outlined in your plan
• Review process for measurement of goals listed in the plan
• Tracking of progress toward completion of scheduled BMPs
• It is very important to carefully and accurately document all of your compliance actions
• Each BMP and measurable goal should also include a description of the documentation you plan to use as verification
• As with many government regulations, if you do not have documentation backing up your claims, the action did not occur
INDUSTRIAL SITE PERMITS
• General Permit w/o Monitoring
• General Permit with Monitoring
• Individual Permit
• Consent Order
• No Exposure Certification

Industrial Site Stormwater Discharge Permit Options
• In most cases the MDEQ will **NOT** provide advance notice.
• Be prepared to provide tours your facilities.
• Be prepared to interview applicable employees
• Maintain all of the required documentation in a ready, available, and organized manner.
SWPPPs are required and must include each of the following:

- Site Maps & Diagrams
- Evaluation of significant materials and exposure
- Identification and location of discharge points
- List of any spills and corrective actions
- Total Maximum Daily Load (TMDL) Assessment (if applicable)
- Routine inspection, repair, and maintenance schedule
- Policies and procedures for good housekeeping
- Bi-annual comprehensive site inspections
- Bi-weekly routine inspection reports
- Policies and procedures for materials handling and storage
- Identification of areas with erosion issues
- Employee Training
- Identification of significant materials expected to still present in discharges following implementation of structural and non-structural controls

**Stormwater Pollution Prevention Plan (SWPPP)**
Indoor & Outdoor Inspection

• Loading, unloading, & materials handling areas
• Equipment & material storage areas
• Secondary containment systems
• Outdoor processing areas
• Air emission controls and stacks
• Maintenance areas
• Point source discharges
• Internal floor drains
• Other areas where stormwater runoff could contact significant pollutants
• Copy of SWPPP
• Certificate of Coverage (COC) or Consent Agreement
• Stormwater Program Manager
• Stormwater Operator Certifications
• Routine preventative maintenance inspection reports
• Routine good housekeeping inspection reports
• Comprehensive site inspection reports
• Employee training records
• Written summary of annual SWPPP review
• What criteria are used to determine if/when the plan is amended?
MUNICIPAL SEPARATE STORM SEWER (MS4) PERMIT
• Cities, villages and townships in the urbanized area
• County Governments & Road Commissions
• Michigan Department of Transportation
• All other public institutions (schools, hospitals, prisons, etc.)
• Construction sites over 1 acre

**MS4 regulations apply to**
• Each permit holder must develop and implement a written program to ensure compliance with these rules
  • Nested entities need to coordinate efforts with the nesting party. In most cases, you will still be required to prepare a management plan to outline shared and separate responsibilities
  • Jurisdictional Permit requires a “Stormwater Management Plan (SWMP)”
  • Watershed Permit requires a “Stormwater Pollution Prevention Initiative (SWPPI)”

Stormwater Management Planning
Components of the Stormwater Management Plan

- Six Minimum Management Measures
  - Public Education
  - Illicit Discharge Elimination
  - Public Involvement & Participation
  - Pollution Prevention & Good Housekeeping
  - Construction Site Storm Water Runoff Control
  - Post Construction Storm Water Management
• Each section of the plan must address the individual tasks outlined in the federal regulations
• How you determine to address each task is referred to as a “Best Management Practice” or BMP?
• Each BMP must have a compliance schedule and measurable goal
• Plans are submitted to the MDEQ and once approved become your permit requirements
• You get to decide how you plan to comply with the regulations

**Required Elements**
Preparing for an Audit

• Have a good understanding of your Stormwater Management Plan (SWMP) or Stormwater Pollution Prevention Plan (SWPPI)
• Make sure that you have supporting documentation for each activity (BMP) outlined in your plan
• Review process for measurement of goals listed in the plan
• Tracking of progress toward completion of scheduled BMPs
• It is very important to carefully and accurately document all of your compliance actions
• Each BMP and measurable goal should also include a description of the documentation you plan to use as verification
• As with many government regulations, if you do not have documentation backing up your claims, the action did not occur

Supporting Documentation
• In most cases the MDEQ will provide sufficient notice in advance of the visit
• It is important to make sure that individuals with responsibility under this program will be available
• Prepare to provide tours of representative facilities
• Have all of the required documentation ready, available, and organized

**MDEQ Audit Expectations**
• Copy of approved SWMP
• Approval letter from MDEQ (Certificate of Coverage)
• Stormwater Program Manager
• Certified Stormwater Operator(s)
• List of departments involved with implementation of the SWMP
• How are inter-department activities coordinated and tracked
• Is the program efficient and effective to ensure cohesiveness?
• How often is the SWMP reviewed?
• What criteria are used to determine if/when the plan is amended?

Stormwater Plan Review
• Overview of PEP program
  • Who is responsible for implementing the PEP?
  • What departments participate with the PEP?
  • How are PEP components coordinated?
  • What problems have occurred due to inter-department communications?
  • Are you responsible for another nested entities PEP?
  • Does your PEP augment your nesting agreement?

Public Education Plan Review
• **Effectiveness**
  - How are measurable goals tracked?
  - Has the implementation been effective?
  - Have changes been made to increase effectiveness?

• **Review of Specific Activities (your BMPs)**
  - Mechanisms used
  - Compliance with schedule
  - Were target audiences reached?
  - Documentation of implementation
• Distribution list of printed materials
  • Who?
  • When?
  • Where?
  • How Many?
• Copies of Invoices
• Sign-in sheets or certificates of training
• Materials or agenda from attended workshop
• Survey Results
• Examples of materials
• Photos of displays
• Website materials
• Publicized “Hotline” postings

Supporting Documentation for PEP
Public Involvement Program Review

- **Public Notice**
  - When and how was the public notified?
  - Was the public allowed a chance to review the SWMP?
  - Have any comments been received?

- **Cooperation with Steam or Watershed Groups**
  - Were watershed groups and organizations notified of the SWMP?
  - Were they offered an opportunity to review the SWMP?
  - Were comments received?
  - How were the comments addressed?
  - What type of cooperative efforts have been conducted with watershed organizations?

- **Participation with a Citizen Advisory Committee**
  - Do you sponsor or participate in a citizen advisory committee?
  - What level of participation?
  - Documentation
Supporting Documentation for Public Involvement and Participation

- Copy of the Public Notice
  - When was it posted?
  - Where?
  - List of comments received
  - Description of actions taken based on public comments
- Documentation of participation with citizen advisory committee
- Documentation showing cooperative efforts with watershed groups or other organizations
• Program Overview
  • Who is responsible for oversight and implementation of the IDEP?
  • What training is provided to employees conducting IDEP?
  • How are efforts coordinated between departments or nested jurisdictions?
  • Have there been any problems implementing the IDEP due to other entities?
• **IDEP Legal Authority**
  • Is there a legal mechanism in place to prohibit and eliminate illicit connections of discharges?
  • Have there been any problems exercising this authority?

• **Discharge Locations**
  • How many discharge points have been identified?
    • That connect to another MS4?
    • Discharge to surface waters?
  • Have any new discharge point sources been identified?
    • How is the MDEQ notified?
    • Are maps updated when a new discharge point has been located?
• **Dry-Weather Screening (DWS) program**
  • How is DWS performed and by who?
  • What data is collected?
  • How many discharge points have been screened?
  • Is DWS on schedule with permit requirements (every 5 years)?
• **Illicit Discharges and Connections**
  - What actions are taken to investigate potential illicit discharges or connections identified during DWS?
  - Have any illicit discharges or connections been identified?
  - How many have been eliminated/if not, what is the schedule?
  - How are corrective actions prioritized?
  - What actions are taken to eliminate illicit discharges?
  - How long does it take to eliminate an illicit discharge or connections once identified?
  - What problems have been encountered?
  - What actions are taken to minimize infiltration from sanitary sewers or septic systems?
  - Provide documentation of illicit discharge investigations and corrective actions
• **Program Effectiveness**
  • Document the investigations, inspections, and reports
  • What and how are the investigations conducted?
  • How is the effectiveness determined?
  • Have there been any changes to the approved IDEP?

• **SWMP specific BMPs**
  • What are the measurable goals listed in the SWMP?
  • Are they being measured as described?
  • Is the schedule accurate?
  • Are any BMPs met or completed?
• Diagram showing district, municipal, and watershed boundaries including location of all owned properties
• Copies of individual facility storm sewer system maps
• Results of investigations and Dry-Weather Screening
• Identification of illicit connections
• Actions taken to address any illicit discharges or connections
• Copies of training for employees conducting IDEP investigations or repairs

**Supporting Documentation for Illicit Discharge Elimination Program**
• **Policies and procedures for compliance with Post-Construction requirements**
  • Have PCSWC been implemented for owned property?
  • Who is responsible for PCSWC program?
  • How does the program minimize impacts to water quality?

• **Legal Authority**
  • What is the mechanism for enforcement?
  • What size projects do they apply to?
  • Are there any exclusions from this policy?
  • How are BMPs determined?
  • How does the ordinance (resolution) ensure compliance?
  • How are soil erosion issues addressed?
  • What rate of discharge is allowed?
• **Construction Plan Review**
  - Have BMP management plans been developed?
  - Are BMPs included in the site planning process?
  - Are there specific criteria for site plan review?
  - How are unique situations addressed (vehicle washing, equipment maintenance, etc.)?

• **Enforcement**
  - How is the program enforced?
  - Are enforcement actions tracked?
  - How is follow-up conducted?
- **Project Review**
  - Provide steps for program as related to a specific project
  - Do they vary depending on the project?
- **Measurable Goals**
  - Review BMPs and measurable goals listed in the SWMP
  - Are BMPs tracked and evaluated?
  - Documentation
• Copy of laws or statutes enforcing compliance with the regulations
• Documentation of construction planning review
• Copy of policy and procedures
• Plan for long-term operation and maintenance
• Copies of operations and maintenance agreements
• Enforcement database or other documentation
• Do construction projects comply with Part 91 rules?
• Policies and procedures for notifying the MDEQ and SESC agency of releases of deposits
• Are site plans reviewed to ensure adequate space for runoff controls as well as permanent controls for post-construction?
• Compliant logs
• Stormwater operator certifications
• Copies of inspection reports

Construction Site Program Review
• Copies of SESC permits from local regulatory agency
• Copies of weekly and post-storm event inspections
• Procedures for receiving and addressing complaints
• Procedures for notifying the MDEQ of discharges
• Copy of complaint log

**Supporting Documentation for Construction Sites**
• **Structural Controls**
  - What structural controls are in place?
  - Review routine inspection, repair, and maintenance schedules and documentation

• **Fleet Maintenance**
  - Where are fleet vehicles washed?
  - Are wash areas connected to the sanitary sewer?
  - Where are vehicles and equipment maintained?
  - What policies and procedures are in place for fluid handling, storage, and disposal?

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**Pollution Prevention & Good Housekeeping Program Review**
• **Streets, Drives, and Parking Areas**
  • Are streets, drives, and parking areas maintained and cleaned?
  • Are catch basins cleaned?
  • Are areas prioritized for service?
  • Are waste materials properly characterized and disposed?
  • Catch basin cleaning
  • Street sweeping
  • BMP repair or maintenance
  • What policy or procedures are used to evaluate controls for cleaning, maintenance, or repair?
  • Are streets and parking areas cleaned?
  • Is there a schedule for cleaning/sweeping of streets and parking areas?
  • How is street sweeping effectiveness evaluated?
  • Are certain areas targeted more frequently; why?
  • Where is snow stockpiled?
  • What type of deicing materials are used?
  • Where are they stored?
  • How are deicing material use minimized?
  • Is there a PIPP or SWPPP for the storage facility?

**Pollution Prevention & Good Housekeeping Program Review**
• **Storm Sewer Labeling or Marking**
  • Have all newly installed (after March 10, 2004) discharge point structures been properly marked or labeled?

• **Flood Control Projects**
  • Are any new flood control projects planned?
  • Have any flood control projects been evaluated to incorporate additional water quality protections?
• Controls to reduce the discharge of pollutants
  • What type of training is provided to employees who could impact water quality?
  • How are herbicide, pesticide, and fertilizers stored, applied, and disposed?
  • Is there a written turf management program?
  • What controls are used to limit pollutants during application of herbicides, pesticides, and fertilizers?
  • Are soil tests conducted prior to applying fertilizer?

Pollution Prevention & Good Housekeeping Program Review
• Copies of training records
• Inspection, repair, and maintenance schedules
• Street sweeping receipts or invoices
• Policies and procedures for disposal of wastes from catch basin or other structure cleaning or maintenance
• Catch basin cleaning documentation, including waste characterization and manifest for shipments
• Copies of routine inspection reports
• Copies of repair or maintenance documents
• **Total Suspended Solids Reduction**
  - Calculate the amount of sediment discharged from the facility
  - Develop and implement a program to reduce the discharge by at least 25%

• **Total Maximum Daily Load Restrictions (TMDLs)**
  - E. Coli
  - Coliform
  - Phosphorous
  - Biota (sedimentation/siltation)

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**Other Permit Requirements**
• The MDEQ has revised the permitting process
• MS4 General permits will no longer be available
• Individual permits will be issued based on the approved Stormwater Management Plan
• SWMPs will be submitted with the renewal application
• Once approved by the MDEQ, the SWMP becomes your permit
• Individual permits will continue to be 5 years in length
• Permit renewals will be based on the watershed and spread over the next several years

Upcoming Permit Changes
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QUESTIONS?

Thank You