

EPA's NPDES Stormwater Permitting Program



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Presentation Overview

- I. NPDES Stormwater Permitting Background
- II. EPA's Multi-Sector General Permit (MSGP)
- III. Why Permitting Requirements May Differ Across the Country
- IV. Discussion

I. NPDES Stormwater Permitting Background

1972 Clean Water Act

➤ Established a basic structure

○ Requires all states to:

- Designate uses for water bodies
- Establish water quality standards to protect those uses
- Determine if standards are met or if waters are impaired
- Establish TMDLs for impaired waters

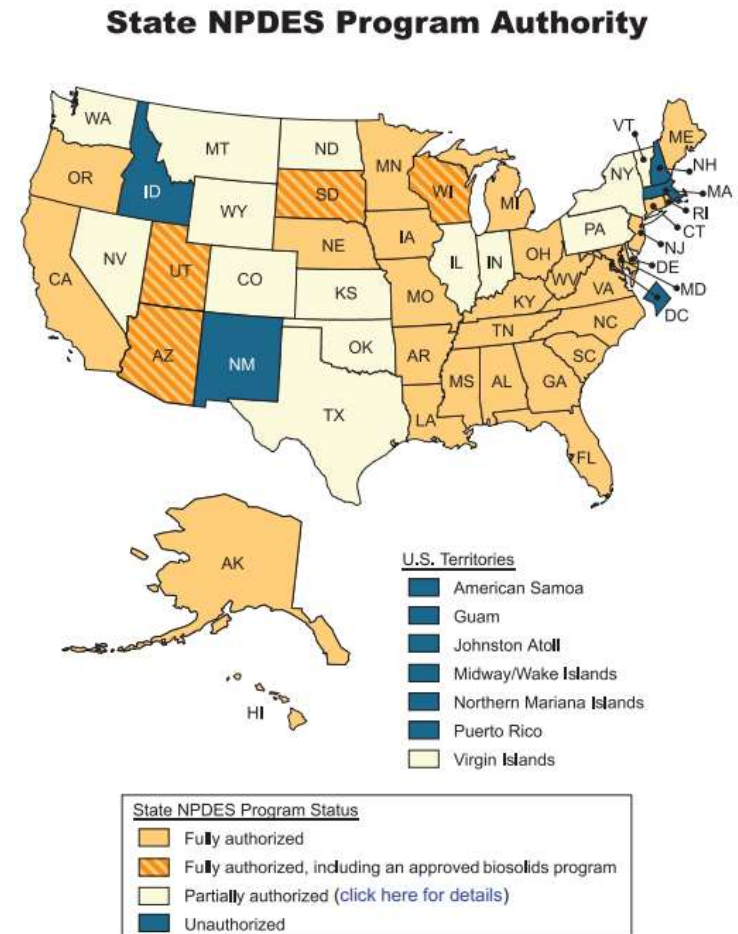
○ Requires point source discharges to obtain NPDES permit.

Permits must provide two levels of control:

- Technology-based controls (i.e., effluent limitations guidelines or secondary treatment for POTWs)
- Water quality-based controls – if needed

NPDES Program

- Not all states have the authority to implement the NPDES program
- EPA is the NPDES permitting authority and issues NPDES permits for the following areas:
 - All of Idaho, Massachusetts, New Hampshire, New Mexico, the District of Columbia, American Samoa, Guam, Johnston Atoll, Midway and Wake Islands, Northern Mariana Islands, Puerto Rico
 - Most Indian Country lands
 - Facilities operated by federal operators in Colorado, Delaware, Vermont, and Washington
 - Limited areas of Oklahoma and Texas
- EPA permits must:
 - Be consistent with state water quality standards
 - Include additional provisions specified by states in accordance with Section 401 of the Clean Water Act



1987 CWA Amendments

- Addressed how stormwater discharges should be regulated
- Established a moratorium on stormwater permits except for:
 - Already-issued permits
 - Stormwater discharges associated with industrial activity
 - Stormwater discharges from a municipal separate storm sewer systems (MS4) serving a population of 100,000 or more
 - Stormwater discharges that are a significant contributor of pollutants
- Required EPA to establish permit application requirements for industrial discharges and large MS4s
- Industrial stormwater discharges must meet water quality standards
- MS4 discharges shall require controls to reduce discharges of pollutants to the maximum extent practicable and such other provisions as determined appropriate for the control of such pollutants
- Required EPA to study other discharges and issue regulations, as needed, to control such discharges

Stormwater Regulations

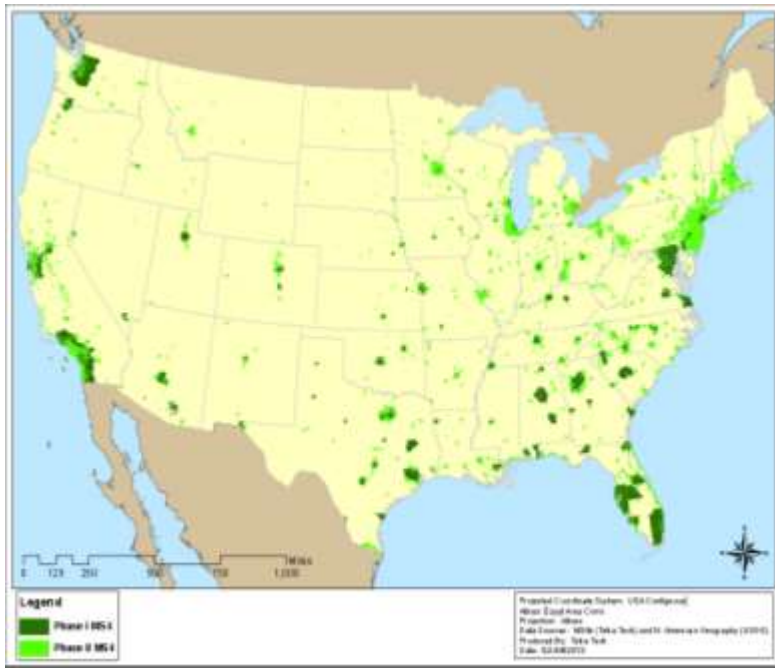
Phase I Stormwater Regulations:

- Finalized in 1990
- Regulates stormwater discharges from:
 - 10 categories of industrial activities
 - Construction activity disturbing 5 acres or more
 - Medium and large municipal separate storm sewer systems (MS4s) that serve 100,000 or more people

Phase II Stormwater Regulations:

- Finalized in 1999
- Regulates stormwater discharges from:
 - Construction activity disturbing 1-5 acres
 - Small MS4s (located in a Census-defined “urbanized area”, including ports, military bases, universities, hospitals, prison complexes, highways)

Municipal Stormwater Permitting



- Approximately 750 large and medium MS4s:
 - Primarily regulated under *individual* NPDES permits
 - Regulations include application requirements
 - Permits are tailored to application
- Approximately 6,700 small MS4s:
 - Primarily regulated under *general* NPDES permits
 - Required to develop and implement a SWMP to satisfy six minimum measures:
 1. Public education and outreach
 2. Public participation/involvement
 3. Illicit discharge detection and elimination
 4. Construction site runoff control
 5. Post-construction stormwater management for new development and redevelopment
 6. Pollution prevention/good housekeeping
- Iterative approach to meet water quality objectives

Construction Stormwater Permitting



- Applies to active construction sites that meet size limit
- Primarily regulated under general permits
- Starting in 2010, all reissued construction stormwater permits must incorporate effluent limits from the Construction & Development Effluent Limitation Guideline, which included requirements for:
 - Erosion & sediment controls
 - Soil stabilization
 - Dewatering
 - Pollution prevention measures
 - Prohibited discharges
 - Surface outlets

Industrial Stormwater Permitting



➤ NPDES permit coverage is required for stormwater discharges from 10 different categories of industrial activity:

- Facilities subject to New Source Performance Standards 122.26(b)(14)(i)
- Heavy manufacturing (ii)
- Mining, oil & gas (iii) (CWA requires these facilities to obtain coverage only under certain conditions; for oil & gas only when there's a reportable quantity spill or WQS violation)
- Hazardous waste facilities (iv)
- Landfills (v)
- Recycling facilities (vi)
- Steam electric power plants (vii)
- Transportation industries (vii)
- Sewage treatment facilities (ix)
- Light industry (xi)

➤ Industrial stormwater discharges are primarily regulated under general permits (facilities with “no exposure” of industrial activities or materials are not required to obtain NPDES permit coverage)

II. EPA's Multi-Sector General Permit (MSGP)

EPA MSGP Background

- Issued in 1995, 2000, and 2008
- 2008 MSGP expired September 30, 2013
 - Permit administratively extended
 - EPA has issued a “no action assurance” for new facilities
- Draft 2014 MSGP proposed for public comment September 27, 2013; EPA intends to finalize later this year
- Covers about 2,400 existing facilities and 50 new facilities per year
 - General requirements for all facilities
 - Sector specific requirements

EPA MSGP Features

- Authorizes discharges of stormwater and certain non-stormwater
- Requires certain conditions to be met prior to obtaining permit coverage (e.g., endangered species and historic preservation, SWPPP)
- Requires that a Notice of Intent be submitted
- Contains technology-based effluent limits
 - If no Effluent Limitation Guidelines applies, based on best professional judgment of permit writer
 - Because numeric limits not easily developed for stormwater general permits, limits are typically non-numeric and are expressed in the form of best management practices (BMPs) and pollution prevention measures
- Contains a narrative water quality-based effluent limitation
 - Discharges must be controlled to meet WQS
 - Compliance with permit presumes compliance with this requirement

Technology-Based Effluent Limits in the EPA MSGP

- Minimize exposure
- Good housekeeping
- Maintenance
- Spill prevention and response
- Erosion and sediment control
- Management of runoff
- Enclose or cover salt piles
- Employee training
- Non-stormwater discharges
- Dust generation & vehicle tracking of pollutants



Other EPA MSGP Requirements

➤ Requires 3 types of monitoring:

1. Benchmark (applies to ~50% of facilities)
 - Applies only to certain subsectors
 - Not a violation for an exceedance; requires permittees to evaluate controls
 - Quarterly for 1 year; if over benchmark, must continue monitoring unless no further controls are practicable
2. Impaired Waters (applies to ~32% of facilities): must monitor 1x / year for impairment pollutant(s)
3. Numeric Effluent Limitations (applies to ~14% of facilities): must monitor 1x / year for ELGs with a stormwater component

➤ Requires routine facility inspections and visual assessments of stormwater discharges

➤ Requires corrective actions for major spills/releases, inspections, assessments, monitoring

➤ Requires the submission of an annual report summarizing yearly activities / results

➤ Includes permit conditions applicable for dischargers in certain states and tribes included as part of a Section 401 certification

Water Transportation Sector Q

Specific Requirements

- Sector specific requirements for:
 - Blasting & painting areas
 - Material storage areas
 - Engine maintenance & repair areas
 - Material handling areas
 - Drydock activities
 - Employee training
 - Preventive maintenance program
 - Drainage area site map

- Not covered by MSGP: bilge & ballast water, sanitary wastes, pressure wash water, & cooling water originating from vessels. [If pressure washing is used, the discharge water must be permitted separately as wastewater]

Water Transportation Benchmark Monitoring

Table 8.Q-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead (freshwater) ²	Hardness Dependent
	Total Lead (saltwater) ¹	0.21 mg/L
	Total Zinc (freshwater) ²	Hardness Dependent
	Total Zinc (saltwater) ¹	0.09 mg/L

III. Why Permitting Requirements May Differ Across the Country

Reasons Permitting Requirements May Differ:

- State water quality standards
- TMDLs
- Threatened and endangered species concerns
- State 401 certifications
- **State priorities** – State/territory water quality concerns and priorities can influence permit conditions in their NPDES permits

IV. Discussion
