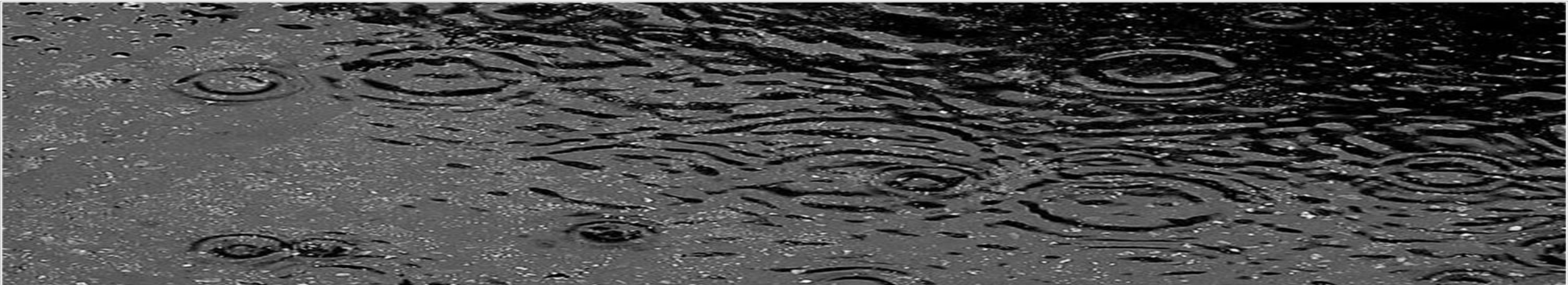


ADDRESSING THE IMPACTS OF RECENT INDUSTRIAL STORMWATER REGULATIONS AND COMPLIANCE



NEWEA 2022 SPRING MEETING

Presented by

Russell Parkman, PE and Courtney Messer, EIT



Bright ideas. Sustainable change.



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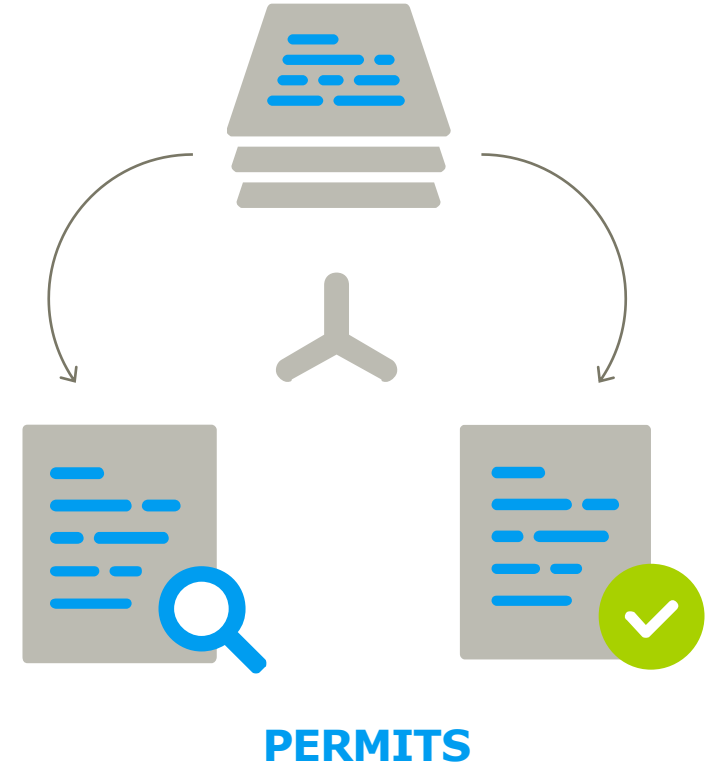


INDUSTRIAL STORMWATER PERMITTING

DISCHARGE TO WOTUS

GENERAL PERMITS

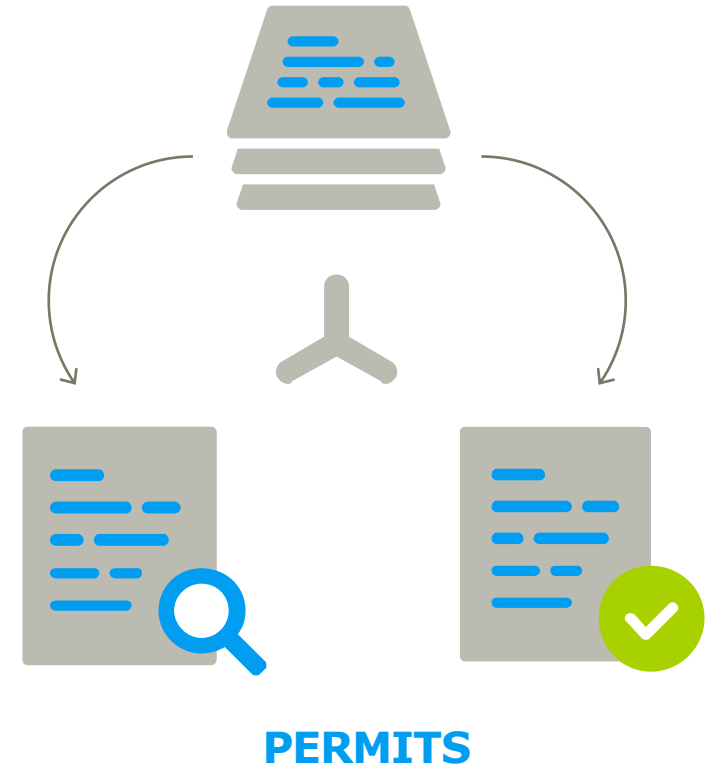
- 2021 USEPA MSGP for New Hampshire, Massachusetts, New Mexico
- State-specific general permits for other U.S. states
 - RI – 2019 MSGP is of local significance
- Each industry falls under a specific SIC code which determines SWPPP and monitoring requirements
- File for the permit under a Notice of Intent
- Develop a SWPPP
- Appropriate for stormwater and authorized non-stormwater



INDUSTRIAL STORMWATER PERMITTING

INDIVIDUAL PERMITS (LESS COMMON)

- 2019 USEPA Individual Permit Forms (Form 1, 2A-F)
- States usually follow USEPA guidance
- Each facility will have specific monitoring requirements, depending upon their discharge characterization
- Develop a SWPPP or BMP Plan
- Appropriate for stormwater with non-authorized non-stormwater, process water, industrial wastewater, mining, oil and gas facilities, etc.



INDUSTRIAL STORMWATER PERMITTING

NO EXPOSURE

“No exposure” means no industrial materials or activities exposed to stormwater. Exempts:

- Final products
- Sealed containers
- Adequately maintained vehicles

Exempts facility from:

- SWPPP
- Sampling and monitoring

Facility still requires:

- Annual inspections, re-certifications, and fees

No New EPA Guidance

TYPES AND SOURCES OF INDUSTRIAL POLLUTANTS



BONEYARDS



WASTE MATERIALS



EXPOSED RAW MATERIALS



**EXPOSED FINISHED
PRODUCT**

INDUSTRIAL STORMWATER EXPOSURE

INDUSTRIAL SOURCES OF POLLUTANTS Obvious Source of Pollutants



INDUSTRIAL STORMWATER EXPOSURE

INDUSTRIAL SOURCES OF POLLUTANTS Not so obvious



INDUSTRIAL STORMWATER EXPOSURE

NON-INDUSTRIAL SOURCES OF POLLUTANTS



GALVANIZED ROOF



LANDSCAPE EROSION

INDUSTRIAL STORMWATER COMMON POLLUTANTS

- ❑ Suspended Solids
- ❑ Heavy Metals (Many with low Benchmark limits)
- ❑ Oil & Grease
- ❑ COD



SIGNIFICANT LOCAL GENERAL PERMIT UPDATES

2021 USEPA MSGP (NH, MA, NM, TER)

- Indicator monitoring
- Benchmark monitoring thresholds
- Corrective actions and Additional Implementation Measures (AIM) requirements

2019 MSGP – RI

- Benchmark monitoring requirements and frequency
- Corrective actions and Level requirements

Other

- Maine to issue draft in 6/2022
- Connecticut – 2021
- Vermont – Draft was issued in 2017 ???
- New York - 2018

INDUSTRIAL STORMWATER EFFLUENT MONITORING (EPA MSGP)

Monitoring Type	Monitoring Type Applies To	Frequency	Duration	Follow-up Action	Permit Part Reference
Indicator – pH, TSS, COD	Subsectors B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1, and AD1	Quarterly	Entirety of permit coverage	None	Part 4.2.1.1a
Indicator – PAHs*	Operators with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; sectors; Sector A facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation; and Sectors C (SIC 2911), D, F, H, I, M, O, P (SIC 4011, 4013, and 5171), Q (SIC 4493), R, and S	Bi-annually (2 times per year)	First year and fourth year	None	Part 4.2.1.1b
Benchmark	Subsectors A1, A2, A3, A4, B1, C1, C2, C3, C4, D1, E1, E2, F1, F2, F3, F4, G1, G2, H1, J1, J2, K1, L1, M1, N1, Q1, S1, U1, U2, Y1, AA1, AA2	Quarterly	First year and fourth year	AIM. See Part 5.2.	Part 4.2.2

INDUSTRIAL STORMWATER EFFLUENT MONITORING (RI MSGP)

Monitoring Type	Monitoring Type Applies To	Frequency	Duration	Follow-up Action	Permit Part Reference
Indicator – NONE	Not Applicable	Not Applicable	Not Applicable	None	Not Applicable
Benchmark	All Facilities – TSS, O&G Sectors/Subsectors – SIC Code specific	Twice within the January 1-June 30 period and twice within the July 1-December 31 period.	First year – All facilities Afterwards – Continue frequency if the average of the 4 monitoring values for any parameter exceeds the benchmark value	Level 1, 2, 3 if benchmark concentrations are exceeded.	Part III.A

EXCEEDANCES

- Several states have adopted exceedance levels for industrial stormwater benchmark compliance
- Benchmark exceedances result in triggering exceedance level responses
- Exceedances of benchmarks are not permit violations but discharger must comply with the level requirements to avoid a permit violation
- State MSGPs all have slightly different names, numbers and/or requirements for each of the exceedance levels; however, they tend to follow the same overall Corrective Action hierarchy

Overall Level	MA, NH, NM Nomenclature	RI Nomenclature
1	AIM Level 1	Level 1 Corrective Action
2	AIM Level 2	Level 2 Corrective Action
3	AIM Level 3	Level 3 Corrective Action

GENERALLY, EXCEEDANCE LEVELS CORRESPOND TO BMPS

Level 1 Exceedance

- Typically requires site investigation, BMP evaluation, SWPPP review/update, and implementation of additional BMPs which can be non-structural
- Level 1 BMPs include operational and source control BMPs

Level 2 Exceedance

- Additional Structural Source Control BMPs
- RI – 6 mo. compliance, EPA – 14 - 45 day

Level 3 Exceedance

- Industrial Activity Demonstration – Significant Treatment BMPs with engineering calculations/design
- RI – 6 mo. compliance, EPA – 60 - 90 day



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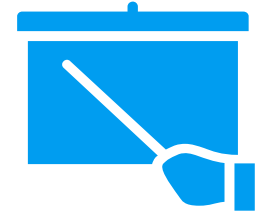


SELECTION, DESIGN, AND INSTALLATION OF STORMWATER CONTROL MEASURES (INCLUDING BMPS)

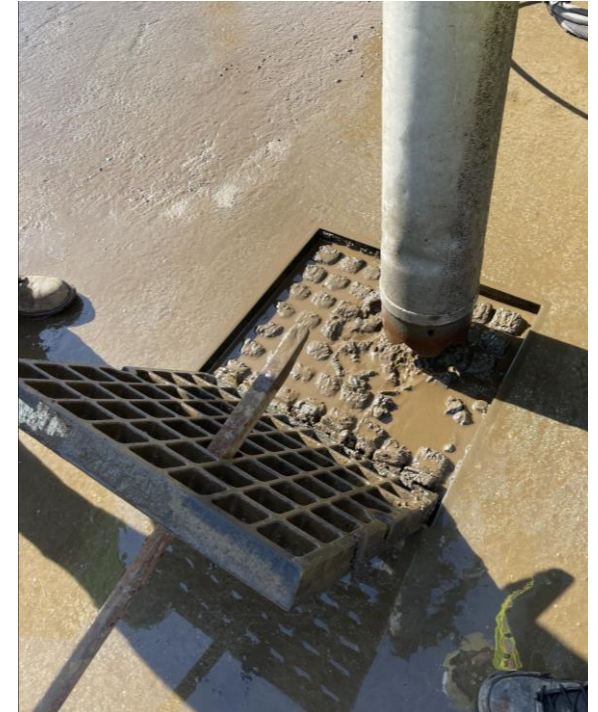
Basis

- Minimize pollutant discharges (address selection and design considerations)
- Meet non-numeric effluent limits
- Meet average benchmark limits

NON-STRUCTURAL (OPERATIONAL) BMPS



- Formation of a pollution prevention team
- Good housekeeping practices
- Preventative maintenance procedures
- Spill prevention and cleanup
- Employee training
- Inspections
- Recordkeeping



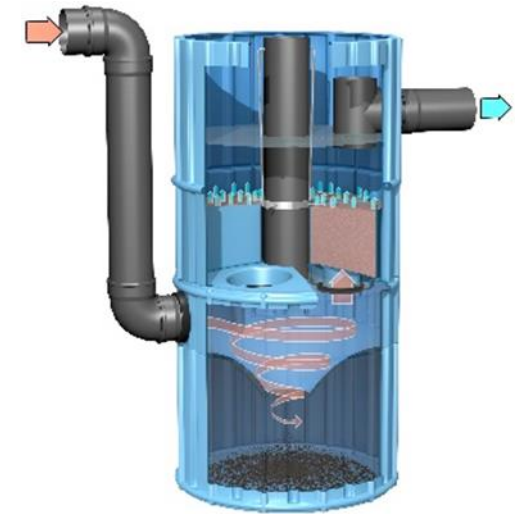
STRUCTURAL SOURCE CONTROL BMPS

- Enclosing and/or covering the pollutant source (e.g., within a building or other enclosure, a roof over storage and working areas, temporary tarp, etc.)
- Physically segregating the pollutant source to prevent run-on of uncontaminated stormwater (berms and secondary containment)
- Devices that direct contaminated stormwater to appropriate treatment BMPs
- Treatment controls (filter socks, catch basin inserts)



LEVEL 3 BMPS

- Treatment controls (e.g., sand filters, hydrodynamic separators, oil-water separators, retention ponds, infiltration structures)
- The treatment technologies or treatment train should be appropriate for the pollutants that triggered Level 3. The technologies are more rigorous than the pollution prevention/good housekeeping-type stormwater control measures implemented under Level 2



LEVEL 3 BMPS



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CONCLUSIONS

- Emerging trends in State MSGPs will tend to follow the EPA MSGP when up for renewal
 - Trends include:
 - Instituting Universal Benchmarks
 - Timelines to come into Benchmark compliance
 - Penalties for failure to come into compliance within the timelines



THANK YOU

QUESTIONS???

Russell Parkman, PE

Courtney Messer, EIT

