Stormwater NPDES Compliance

Rule 5

February 23, 2017
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Stormwater Program
Department of Public Works
City of Indianapolis

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Agenda

- Overview
- EPA Audit
- New INDOT Requirements
- New RPR Certifications
Overview
Overview of 327 IAC 15-5 (Rule 5)

- National Pollution Discharge Elimination System (NPDES) as Authorized by Clean Water Act (CWA)
- EPA Authority given to Indiana Department of Environmental Management (IDEM)
- Permit by Rule 327 IAC 15-5 (Rule 5)
Overview of 327 IAC 15-5 (Rule 5)

- Construction Activity
- Soil disturbance of 1 acre or more
- Protect
  - Public health
  - Existing water uses
  - Aquatic biota
Overview of 327 IAC 15-5 (Rule 5)

- Minimize the potential for pollutants to contaminate surface water and/or ground water
  - Soil
  - Construction chemicals
  - Oil, grease, transmission fluid
  - Fertilizers and pesticides
  - Temporary toilet facilities
  - Trash
Storm Water Manual & City Code

• Section 100 and 600 require being in compliance with Rule 5 (327 IAC 15-5)
• Projects under 1 acre
  o No Notice of Intent (NOI) required
  o But, **ALL** land disturbing activities require an erosion and sediment control plan
• City Code 561
  o Exposed areas to be protected
  o Potential erosion minimized
  o Applies to **ALL** projects
NPDES MS4 Permit

- Municipal Separate Storm Sewer System (MS4) Phase I Community

- Since 1998

- Other Communities regulated under Rule 13 (Phase II)
NPDES MS4 Permit

- Legal Authority
- Operations and Maintenance
- Post-Construction BMPs
- Illicit Discharges and Improper Disposal
- Industrial
- Construction
- Public Education
- Monitoring
Construction

• Standards and Codes in Place
• Public Projects in Compliance
• Inspectors Trained Annually
EPA Audit
EPA Audit

• April 2016
• MS4 NPDES Program
• Visited Construction Sites
• Interviewed Inspectors
• Have not yet received findings
Why do we care?

- It’s the law (city, state and federal)
- Erosion issues are expensive
- Erosion can lead to structure damage
- Hazardous road conditions – liability
- Violations expensive
New INDOT Requirements
RSP 205-R-636

- Effective beginning September 2016 lettings
  - Federally Funded
  - Locally Funded beginning January 2018

- Storm Water Quality Manager (Contractor’s Inspector)
  - Level 1
  - Level 2
RSP 205-R-636

- Contractor Certifications (Level 1)
  - INDOT Stormwater Certification

- Contractor Certifications (Level 2)
  - INDOT Stormwater Certification
  - National Certification
    - CESSWI,
    - CISEC,
    - CPESC,
    - In-Training,
    - Or Approved Equivalent
RSP 205-R-636

- Storm Water Quality Control Plan (SWQCP)
  - Engineer & CPESC or CPESC In-Training
  - Start with SWPPP
  - SWPPP in CIB
  - Submitted to RPR within 14 days of operations
RSP 205-R-636

- Storm Water Quality Control Plan (SWQCP)
  - Update with:
    - Storage/Staging areas
    - Stockpile locations
    - Fueling locations
    - Batch plants
    - Concrete Washout location
    - Material Handling & Spill Prevention Plan
    - Sequencing
    - Construction entrance(s)
RSP 205-R-636

• Storm Water Quality Control Plan (SWQCP)
  o When Waters of the US (WOTUS) are located within the project limits SWQCP also to include:
    o Method to delineate WOTUS (signs, fencing, etc.)
    o Work methods in those areas (pump around, diversions, temporary crossings, turbidity barrier)
    o Work must be in compliance with 401/404 permits
RSP 205-R-636

• Designer Establishes Stormwater Budget

• Pay Items & Prices in RSP
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<tr>
<th>Pay Item</th>
<th>Pay Unit Symbol</th>
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<tr>
<td>Diversion Interceptor Type C</td>
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Concrete Washout

- RSP 205-R-636 (revised 11/18/16)
- Effective Bids March 1, 2017
- Storm Water Quality Control Plan
  - Include plan for collection, storage and disposal of concrete washout waste water
Concrete Washout

- Contractor to size washout container
- Submit daily concrete waste water calculations
- Straw bale washouts no longer allowed
- May be recycled, lined roll off container, etc.
- Evaporate or Pumped into Tanker
- Secondary washout container on site
Why Concrete Washout?

H⁺ Ion Concentration

10⁰  —  0  —  Hydrochloric acid
10⁻¹  —  1  —  Stomach acid
10⁻²  —  2  —  Lemon juice
10⁻³  —  3  —  Vinegar, cola, beer
10⁻⁴  —  4  —  Tomatoes
10⁻⁵  —  5  —  Black coffee
10⁻⁶  —  6  —  Normal rainwater
10⁻⁷  —  7  —  Urine
10⁻⁸  —  8  —  Saliva
10⁻⁹  —  9  —  Pure water
10⁻¹⁰  —  10  —  Blood
10⁻¹¹  —  11  —  Seawater
10⁻¹²  —  12  —  Baking soda
10⁻¹³  —  13  —  Great Salt Lake
10⁻¹⁴  —  14  —  Milk of magnesia

Examples of Solutions

OH⁻  —  pH Value
H⁺  —  0
H⁺  —  1
H⁺  —  2
H⁺  —  3
H⁺  —  4
H⁺  —  5
H⁺  —  6
H⁺  —  7
H⁺  —  8
H⁺  —  9
H⁺  —  10
H⁺  —  11
H⁺  —  12
H⁺  —  13
H⁺  —  14
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OH⁻  —  1
OH⁻  —  2
OH⁻  —  3
OH⁻  —  4
OH⁻  —  5
OH⁻  —  6
OH⁻  —  7
OH⁻  —  8
OH⁻  —  9
OH⁻  —  10
OH⁻  —  11
OH⁻  —  12
OH⁻  —  13
OH⁻  —  14

THE CITY OF INDIANAPOLIS
Why Concrete Washout?
Why Concrete Washout?
New RPR Requirements
RPR Certifications

• Beginning 2018
• In line with Contractor Requirements
• INDOT Stormwater Certification
  o INDOT University
  o Next class March 30
• National Certification
  o CESSWI,
  o CISEC,
  o CPESC,
  o In-Training,
  o Or Approved Equivalent
• Continuing Education