

# NPDES Permits, Compliance and SSOs

Rick Pinneo, P.E.  
Manager, Southern Municipal Unit  
Permit Section  
Division of Water Pollution Control  
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# Regulations/Policies Affecting SSOs

1. Subtitle C: part 306.304 & 306.305
2. 40 CFR 133: Definition of Secondary Treatment
3. 40 CFR 122.41(e): Proper Operation & Maintenance
4. USEPA's Activities
  - a. SSO Task Force
  - b. Wet Weather Flow Policy of 2002
  - c. Present FR Request for Information

**Subtitle C: Part 306.304:  
Overflows**

**“Overflows from Sanitary Sewers  
are Expressly Prohibited”.**

**3IAC 306.305 Treatment Plant  
Bypasses and CSOs**

40 CFR 133: Definition of  
Secondary Treatment:  
No effluent shall exceed  
30/30 mg/l BOD/SS

Exceptions for:

- <sup>1</sup> treatment plants utilizing  
trickling filter and/or lagoon  
systems.
- <sup>2</sup> discharges from CSOs.

# Proper Operation & Maintenance Requirements

- Treatment Systems
- Collection Systems

USEPA's Wet Weather Flow Policy of 2002 prioritized USEPA's (and states) workload for permit and compliance activities. Discharges from CAFOs, stormwater requirements for construction site activities and industrial sites, CSO discharges and LTCP and SSOs.

# Current Compliance Activities

2008 – 22 VNs

2009 – 71 VNs

2010 – 28 VNs

sent due to SSOs

# VN Actions

- Immediate Compliance
- Possible Cease and Desist Order if Definitely correctable
- Possible Compliance Commitment Agreement
  - a. Previous sewer rehabilitation work
  - b. Financial documentation



# Conditions in NPDES Permits

## 1. I/I Study Requirements

- I/I Special Condition General
- I/I Special Condition Detailing Efforts and Evaluation Process

## 2. Overflow Prohibition

- Prohibits Specific Chronic Overflow Points and Requires Reporting
- Standard Condition 12(e) Requires Reporting of Any Overflow

# Previous Permits Conditions

3. CMOM – Capacity, Management, Operation and Maintenance
  - Requires Development and Implementation of a Capacity Management, Operations and Management Plan
4. Authorized Discharges from Excess Flow Treatment Facilities With Effluent Limitations of Blended or Non-Blended Flows

The CMOM plan shall include the following elements (as a minimum):

a. Measure and Activities:

1. A complete map of the collection system;
2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment;
3. An assessment of the capacity of the collection and treatment system at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; and
4. Identification and prioritization of structural deficiencies in the system.

## b. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and,
3. Maintain a summary of CMOM activities.
4. Upgrade collection system as necessary.

## c. Overflow Response Plan:

1. Know where overflows and backups occur; and,
2. Respond to each overflow or backup to determine additional actions such as clean up.

## d. System Evaluation Plan.

## e. Reporting and Monitoring Requirements.

# Other Requirements Considered

- Event Report
- Monthly and Annual Summaries
- Notification of Local Health Departments and/or General Public

# History

- 1970s – 1980s USEPA and IEPA Awarded Grant Money for Excess Flow Facilities
  - Required I/I Analysis, removal of cost-effective I/I, treatment of remaining flows.
- Define Discharge Requirements for Excess Flow Requirements
  - 35 IAC306..305 and 40 CFR 133
- 1995 USEPA Charters Urban Wet Weather Flow Federal Advisory Committee (FAC)

# History (cont.)

- October 20, 1999 FAC Completed Framework to Address SSOs
- Notice of Proposed Rulemaking Was Never Formally Released
- November 7, 2003 EPA Seeks Comments on Draft Policy

# Thursday, December 22, 2005

## Proposed Rules

- Result of National Resource Defense Council (NRDC)
- National Association of Clean Water Agencies (NACWA) Joint Proposal
- Clarification That Bypass Provisions Would Apply to Wet Weather Diversions at POTWs



# EPA Anticipates Elimination of Peak Wet Weather Diversions

1. Storage Enhancement
2. Treatment Capacity Increases
3. Source Reduction

# Applicability of the Bypass Regulation to Blending (40 CFR 122.41(m))

- Interprets Wet Weather flow diversions around secondary treatment and recombined with treated effluent
- Interprets “no feasible alternatives” in 40 CFR 122.41(m)(4)(i)(B)
- Does not apply to:
  - Discharges prior to the headworks (off site diversions)
  - Dry Weather Diversions
  - Diversions around primary or tertiary treatment
  - Diverted flow that is not recombined with flow from secondary treatment

# Applicability of the Bypass Regulation to Blending (40 CFR 122.41(m))

- Promotes measures to provide treatment at peak wet weather flow
- Promotes reporting and public notification of wet weather diversion
- Ensures full utilization of secondary treatment capacity at Design Maximum Flow

# Applicability of the Bypass Regulation to Blending (40 CFR 122.41(m))

- Reduces infiltration and inflow (I/I)
- Maximizes collection system storage
- Provides for off-line storage
- Provides for sufficient secondary treatment

# No Feasible Alternatives

- Analysis Provided for Every Renewal Application or New Bypass Facility
  - Documents Design Maximum Treatment Capacity and Assesses Treatment Capacity Increases
  - Estimates frequency, duration and volume of diversions and evaluates reduction alternatives
  - Estimates future diversions and evaluates alternatives
  - Assesses existing storage availability or expansion

# No Feasible Alternatives

- Assesses reduction alternatives
- Evaluates technology augmentation
- Evaluates I/I reduction
- Evaluates reductions through CMOM enhancements
- Evaluates funding capabilities for alternatives
- Monitoring protocol for recombined flow
- Projects effluent improvements related to utility improvements

# IEPA Requirements

- Evaluate the utility analysis and require implementation of treatment to the greatest possible wet weather flow accounting the full range of economic, environmental, public health and engineering considerations
- Approve or deny wet weather diversions based upon feasible and affordable alternatives
- Permit provisions recognizing approved diversions and conditions such diversions

# IEPA Requirements

- Require notice of peak wet weather diversion events within 24 hours of each event and the volume of the event 48 hours after cessation
- Require monitoring on a daily basis
- Explain in the Fact Sheet calculations of peak flows, reasons allowing peak flows and any permit provisions of peak flow
- Include permit provisions for pretreatment program revision to account for wet weather flow/divert industrial flows around bypasses
- Rigorously review each renewal request for continued wet weather diversion approval.



# Draft Guidance on Preparing a Utility Analysis

- July 2009
- Explains in detail nine elements of an analysis
- Provides nine page checklist

# June 1, 2010 Seeking Input on Current Regulatory Framework

1. Should EPA propose to clarify its standard permit conditions for SSO reporting, recordkeeping and public notification?
2. Should EPA propose to develop a standard permit condition with requirements for capacity, management, operations and maintenance programs based on asset management principles?
3. Should EPA propose to require permit coverage for municipal satellite collection systems?

# June 1, 2010 Seeking Input on Current Regulatory Framework

4. What is the appropriate role of NPDES permits in addressing unauthorized SSOs that are caused by exceptional circumstances?
5. How should EPA address peak flows at POTW treatment plants?
6. What are the costs and benefits of CMOM programs and asset management of sanitary sewers?
7. Are there other considerations?

# WEB SITES

❖ Guide for Evaluating Capacity, Management Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems

[http://www.epa.gov/npdes/pubs/cmom\\_guide\\_for\\_collection\\_systems.pdf](http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf)

❖ Sanitary Sewer Overflows

[http://cfpub/epa/gov/npdes/home.cfm?program\\_id=4](http://cfpub/epa/gov/npdes/home.cfm?program_id=4)

# WEB SITES

❖ June 1, 2010 Request for Input

[http://edocket/access.gpo.gov/2010/2010-13098.htm](http://edocket.access.gpo.gov/2010/2010-13098.htm)

❖ 2009 Utilities Analysis

<http://www.epa.gov/npdes/sanitaryseweroverflows>

❖ 2005 Proposed Rule

<http://www.epa.gov/npdes/wetweather/>

Rick Pinneo @ 217/782-0610  
rick.pinneo@illinois.gov