

Special or Narrative Conditions in NPDES Permits

NPDES Permit Writers' Course
Online Training Curriculum



Presenters

- *David Hair*
Environmental Engineer
US Environmental Protection Agency
Washington, DC
- *Greg Currey*
Environmental Engineer
Tetra Tech, Incorporated
Fairfax, Virginia



Purposes for Special Conditions

- Address effluent guidelines narrative requirements
 - best management practices for ancillary activities [40 CFR 122.44(k)]
 - treatment practices
 - monitoring, reporting, and compliance requirements
- Address site-specific concerns
- Incorporate preventive requirements
- Incorporate compliance schedules
- Incorporate NPDES programmatic requirements (e.g., pretreatment, sewage sludge)

3



Categories of Special Conditions – All Facility Types

- **A**dditional monitoring or special studies
- **B**est management practices (BMPs)/pollution prevention
- **C**ompliance schedules



4



Additional Monitoring/Special Studies

- Supplement effluent limitations and routine monitoring
- May be used to collect data for future limitation development
- Examples:
 - sediment samples
 - bioaccumulation studies
 - ambient monitoring
 - dilution studies
 - Toxicity Identification Evaluation (TIE)/ Toxicity Reduction Evaluation (TRE)



5



Special Studies Example—TIE/TRE

- A TIE/TRE is a site-specific special study designed to:
 - identify the causative agents of whole effluent toxicity (WET)
 - isolate the sources of the toxicity
 - evaluate the effectiveness of toxicity control options
 - confirm the reduction in effluent toxicity after control measures are in place



6



Requiring a TIE/TRE through Special Conditions



- TIE/TRE requirements supplement WET limitations or testing requirements
- Special conditions could require initiation of a TIE/TRE when the results of WET tests exceed
 - WET limitations
 - WET “trigger values”
- TIE/TRE implementation might lead to information that supports future limit development (i.e., when specific toxicants are identified)

7



Definition of Best Management Practices

Best management practices (BMPs) mean schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the U.S. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. [§ 122.2]



8



Authority for Best Management Practices § 122.44(k)

- CWA section 304(e)
 - effluent limitations guidelines
- CWA section 402(p)
 - stormwater
- When numeric effluent limitations are infeasible
- When reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA

9



BMPs in NPDES Permits

Two methods for incorporating BMPs in a permit are:

- site-specific BMPs
 - facility-specific
 - pollutant-specific
- BMP Plan



10



Site-Specific BMPs

- Generally used in conjunction with, not as a substitute for, numeric effluent limitations in permits
- Qualitative – should generally indicate how or what, not how much
- BMPs should not:
 - tell managers how to run their plants
 - require costly construction or methods where simple management practices would suffice



11



Recommended Elements of a BMP Plan

- Name and location of facility
- Statement of BMP policy and objectives
- Review by plant manager
- BMP committee
- Risk identification and assessment
- Reporting of BMP incidents
- Materials compatibility
- Good housekeeping
- Preventive maintenance
- Inspections and records
- Security
- Employee training

Guidance Manual for Developing Best Management Practices (BMP)
[EPA 833-B-93-004, October 1993]

12



Compliance Schedules – § 122.47

- Permit may, when appropriate, specify a schedule of compliance leading to compliance with CWA and regulations
- Technology-based limitations
 - generally not allowed because CWA compliance deadlines have passed for existing sources
- Water quality-based limitations
 - Star-Kist decision (1990)
 - Memorandum from James A. Hanlon (2007)



13



Compliance Schedule Considerations

- StarKist Decision (April 16, 1990)
 - require immediate compliance with effluent limitations based on WQS adopted on or before 7/1/1977
 - may allow compliance schedules for limitations based on WQS adopted or modified after 7/1/1977 only if the state has clearly indicated in its WQS or implementing regulations that it intends to allow compliance schedules



14



Compliance Schedule Considerations (continued)

- Memorandum from James A. Hanlon (May 10, 2007)
 - Explains existing regulatory structure and requirements
 - Regulations require that permitting authority:
 - demonstrate that the permittee cannot immediately comply with new limit
 - justify and document “appropriateness”
 - evaluate and justify “as soon as possible”
 - include enforceable sequence of events leading to compliance (interim milestones as needed)
 - include enforceable “final” effluent limitation and date for achievement
 - not appropriate for schedule solely to provide time to develop TMDL or conduct UAA

15



Special Conditions – POTW Programmatic Requirements

- Pretreatment Program
- Biosolids (Sewage Sludge)
- Combined Sewer Overflows



16



National Pretreatment Program

- Major goal is controlling discharges in order to:
 - prevent interference with POTW processes
 - prevent pass through of pollutants
 - protect sludge management options
- Additional programmatic goals
 - encourage recycling and reclamation
 - ensure POTW personnel health and safety

17



Pretreatment Regulatory Requirements

- General Pretreatment Regulations for Existing and New Sources of Pollution [40 CFR Part 403]
 - National Pretreatment Standards
 - Prohibited Discharges [§ 403.5]
 - Categorical Standards [§ 403.6]
 - PSES and PSNS found in 40 CFR Parts 405-471
 - requirements for POTW and state, territorial, or tribal programs
 - industrial and POTW monitoring and reporting requirements

18



Pretreatment Program Development

- Who is required to have a pretreatment program?
 - POTWs > 5 MGD with dischargers subject to standards
 - POTWs ≤ 5 MGD with past problems
 - unless state assumes total responsibility for program implementation [§ 403.10(e)]



19



NPDES Permits Drive the Pretreatment Program

- Adequate legal authority
- Maintenance of industrial user inventory
- Development and implementation of local limits
- Individual control mechanisms be issued to all Significant Industrial Users (SIUs)
- Compliance monitoring activities
- Swift and effective enforcement
- Data management and recordkeeping
- Reporting to the approval authority (EPA or state/territory/tribe)
- Resources
- Public participation

20



Permits for Municipal Sewage Sludge (Biosolids)

- Any CWA section 402 permit issued to a POTW should contain requirements for sewage sludge use and/or disposal
- 40 CFR Part 503 requirements should be incorporated into a permit for:
 - incineration
 - land application
 - surface disposal



21



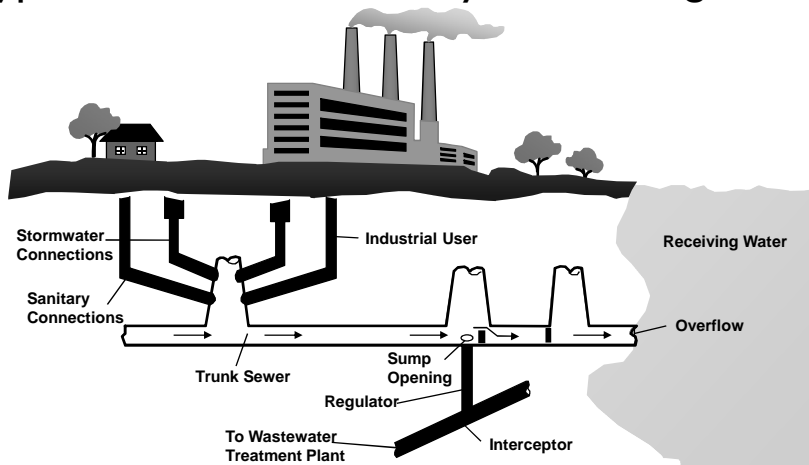
Permits for Municipal Sewage Sludge (Biosolids) (continued)

- Other entities may be delegated responsibility to comply (40 CFR Part 503 standards and requirements might not all be placed in the POTW permit)
- Permits must contain:
 - additional standard conditions
 - special conditions specific to each use or disposal method

22



Typical Combined Sewer System Configuration



23



Overview of CSO Control Policy Approach

NPDES Permit Requirements	Years after Phase I Permit Issuance		
	0	5	10+
	Phase I	Phase II	Post Phase II
A. Technology-Based	◆ Nine minimum controls (NMC), at a minimum	◆ NMC, at a minimum	◆ NMC, at a minimum
B. Water Quality-Based	◆ Narrative	◆ Narrative + performance-based standards	◆ Narrative + performance-based standards + numeric WQ-based effluent limits (as appropriate)
C. Monitoring	◆ Characterization, monitoring, and modeling of CSS	◆ Monitoring to evaluate WQ impacts ◆ Monitoring to determine effectiveness of CSO controls	◆ Post-construction compliance monitoring
D. Reporting	◆ Documentation of NMC implementation ◆ Interim long-term control plan (LTCP) deliverables	◆ Implementation of CSO controls	◆ Post-construction compliance monitoring reporting
E. Special Conditions	◆ Prohibition of dry weather overflows (DWO) ◆ Development of LTCP 1994 - 1999	◆ Prohibition of DWO ◆ LTCP implementation schedule ◆ Reopener clause for WQS violations ◆ Sensitive area reassessment 1999-2004	◆ Prohibition of DWOs ◆ Reopener clause for WQS violations 2004-2009

24



Documentation

- Document in the fact sheet or statement of basis:
 - appropriate statutory or regulatory citations for special conditions
 - purpose and basis for requiring special studies or best management practices
 - explanation of how any compliance schedule provisions are consistent with regulations, including demonstration that permittee cannot immediately comply and evaluation of “appropriateness” and “as soon as possible”
 - basis for inclusion of pretreatment program requirements, sewage sludge program requirements, or combined sewer overflow program requirements



25



Feedback and Other Presentations

Questions or comments?

npdeswebtraining@tetrattech.com

Join us for other online presentations on
NPDES Permitting

www.epa.gov/npdes/training

29

