

## NPDES PERMIT WRITERS' TRAINING COURSE CONTENT

**Module 1: Overview of the Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) Program** Presents an overview of the Clean Water Act, identifies sections applicable to the NPDES Program, provides the history, evolution and future direction of the NPDES program, and defines "point source", "pollutant" and "waters of the U.S."

**Module 2: Scope and Regulatory Framework of the NPDES Program** Describes the types of discharges covered under the NPDES Program and programmatic areas established to address such discharges, provides overview of NPDES regulations (40 CFR Part 122), and explains the roles of Federal and state authorities.

**Module 3: NPDES Permits -- Types, Components, and Issuance Process** Describes the types of NPDES permits, components of an NPDES permit, and provides an overview of the development and issuance process.

**Module 4: The Permit Application Process** Provides an overview of EPA application forms, identifies forms to be submitted, responsible parties and deadlines for application submittal, defines "existing discharge", "new discharge", and "new source", and discusses the role of permit writer in reviewing applications for NPDES permits.

**Module 5: Technology-Based Effluent Limitations** Explains the purpose of technology-based effluent limitations in NPDES permits and defines general types of technology-based requirements for pollutant categories (conventional, non-conventional and toxics).

**Module 5A: Secondary Treatment Standards for Municipal Discharges** Explains secondary treatment standards, discusses considerations used in applying secondary treatment standards for Publicly Owned Treatment Works (POTWs), and identifies scenarios where exceptions/alternatives to secondary treatment standards are appropriate.

**Module 5B: Effluent Limitation Guidelines for Non-Municipal Dischargers** Explains the general process for developing effluent limitation guidelines (ELGs), defines treatment standards for non-municipal dischargers (i.e., BPT, BCT, BAT, NSPS), explains considerations in applying ELGs, and discusses distinction of mass- vs concentration-based effluent limits.

**Module 5C: Best Professional Judgement-Based Effluent Limitations** Provides an overview of when and how to use BPJ-based effluent limits, discusses the necessary considerations (e.g., technical and economic) when developing BPJ-based effluent limits, and identifies available tools and resources available to assist permit writers in developing BPJ-based effluent limits.

**Module 5D: Variances to Technology-Based Effluent Limitations** Describes the role of variances in NPDES permits, identifies types of variances for technology-based effluent limitations and types of relief provided, and explains how variance requests are initiated and the process for granting/denying variance requests.

**Module 6: Overview of Water Quality Standards and Limitations** Provides an overview of the need for water quality-based effluent limitations and explains relationship to technology-based effluent limitations, defines the purpose of water quality standards and their relationship to the NPDES Program, discusses components of a water quality standard, explains relationship between water quality criteria and standards, and provides overview of water criteria development process.

**Module 6A: Standards to Permits Process** Introduces total maximum daily loads (TMDL), wasteload allocations (WLA), and statistical procedures for developing permit limitations.

**Module 6B: Implementation of Water Quality Standards and Modeling** Provides an overview of methods and considerations for water quality modeling including steady state and dynamic models, mixing zones, and pollutant fate.

**Module 6C: Developing Water Quality-Based Effluent Limitations** Explains process for determining "reasonable potential", presents types of calculations required for developing water quality based effluent limitations, identifies data requirements and considerations when developing effluent limitations.

**Module 6D: Whole Effluent Toxicity** Discusses the applicability and uses of whole effluent toxicity (WET), presents different types of WET limitations (i.e., acute and chronic), defines WET test endpoints (i.e.,  $LC_{50}$ , NOEC,  $IC_{25}$ ), and defines acute-to-chronic ratio, and explains the purpose of toxicity reduction evaluations.

**Module 7: Monitoring and Reporting Conditions** Explains the regulatory requirements and purpose of establishing monitoring requirements in NPDES permits, discusses considerations for establishing monitoring requirements, identifies different methods for monitoring wastewater discharges and considerations when applying them, explains analytical requirements for sample analysis, and discusses reporting and record keeping requirements.

**Module 8: Special Conditions** Describes the purpose and regulatory authority for establishing special conditions in NPDES permits, introduces general types of special conditions applicable to municipal and non-municipal dischargers, and explains considerations for developing special conditions.

**Module 8A: Special Conditions Applicable to Municipal Dischargers** Describes NPDES Program areas applicable to municipal dischargers addressed in special conditions of permit: pretreatment, sewage sludge, CSOs, storm water.

**Module 9: Standard Conditions of NPDES Permits** Identifies the purpose of standard conditions, provides an understanding and implications of each standard conditions, and discusses methods for implementing standard conditions in NPDES permits,

**Module 10: Administrative Process** Defines the requirements and need for fact sheet and statement of basis, provides examples of good permit documentation, and discusses public participation requirements, explains regulatory requirements, procedures and roles of EPA/states during permit issuance.