



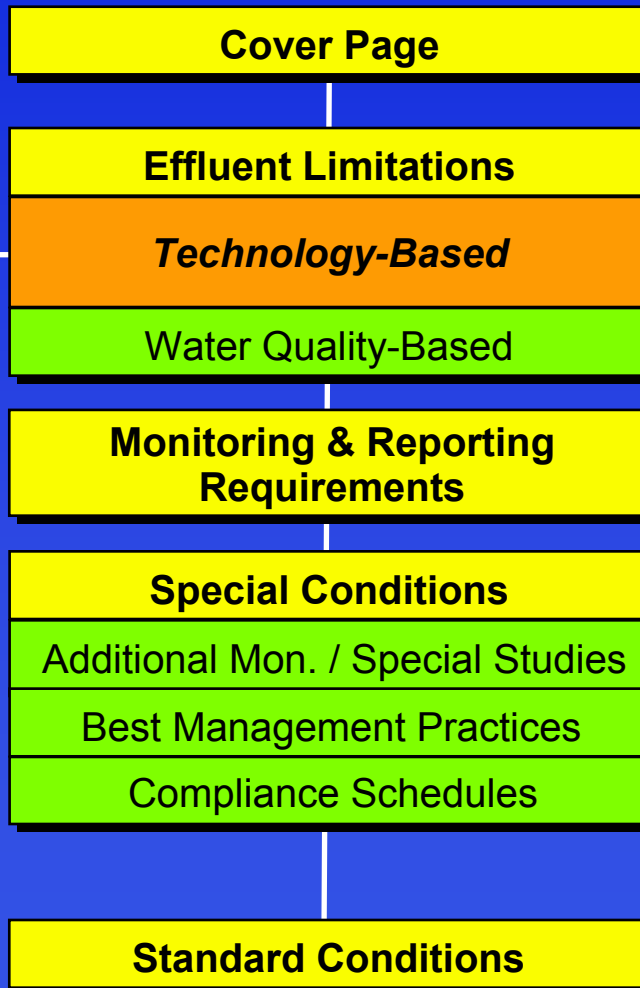
Best Professional Judgment- based Effluent Limitations for Non-Municipal Dischargers

Permit Components

Industry-Specific Components

- Effluent Guidelines
- *BPJ*

Components of All Permits



Municipal-Specific Components

- Secondary
- Equivalent to Secondary

- Pretreatment
- Municipal Sewage Sludge
- CSOs



Learning Objectives

- ◆ Define concept of and authority for BPJ
- ◆ Discuss BPJ technical and economic considerations
- ◆ Describe examples of BPJ application
- ◆ Present BPJ tools and resources

What is BPJ ?

- ◆ **Best Professional Judgment (BPJ)** is the approach used by permit writers to establish technology-based effluent limitations on a case-by-case basis in the absence of national standards of performance (i.e., ELGs)
 - Where EPA has not developed effluent limitations guidelines for a category of discharger
 - Where pollutants are present that were not considered by an applicable guideline

BPJ Authority

- ◆ 40 CFR §125.3(c)(2)
- ◆ Technology-based treatment requirements may be imposed:
 - On a case-by-case basis under Section 402(a)(1)(B) of the Act, **to the extent that EPA-promulgated effluent limitations are inapplicable...**

Basis for BPJ Decisions

- ◆ **BPJ is not discretionary for toxic pollutants [40 CFR 122.44(e)]**
- ◆ **When developing BPJ-based limitations, the permit writer must apply the “existing source” criteria outlined in 40 CFR 125.3(d)**
 - **Similar to the analysis performed by EPA in developing national ELGs, but performed for a single facility**
 - **Permit writer determines BPT, BCT, and BAT on a case-by-case basis considering any unique factors related to that facility**

BPJ Considerations – 40 CFR 125.3(d)

- ◆ The permit writer must establish an appropriate technology-based level of performance for the facility:
 - Using **BPT and BAT criteria** for Toxic and Non-conventional pollutants
 - Using **BPT and BCT criteria** for Conventional pollutants
 - **NSPS??**

Technical Considerations

- ◆ **BPT, BCT, BAT Technical Criteria**
 - Age of equipment and facilities involved
 - Process(es) employed
 - Engineering aspects of the application of various types of control techniques
 - Process changes
 - Non-water quality environmental impact including energy requirements

BPT Criteria – 40 CFR 125.3(d)(1)

◆ BPT Economic Criterion

- Cost vs. effluent reduction benefits

BCT Criteria – 40 CFR 125.3(d)(2)

◆ BCT Economic Criteria:

- Reasonableness of the relationship between costs of attaining reduction in effluent and the derived effluent reduction benefits (i.e., costs and benefits of going beyond BPT)
- Comparison of the cost and level of reduction of such pollutants from publicly owned treatment works to the cost and level of reduction from a class or category of industrial sources



BAT Criteria – 40 CFR 125.3(d)(3)

- ◆ **BAT Economic Criterion:**
 - Cost of achieving effluent reduction

BPJ Tools and Resources

- ◆ **Permits and BPJ rationale for similar facilities**
 - **Permits and fact sheets for all major facilities being made available from the EPA NPDES homepage and searchable via:**
 - **SIC code**
 - **Geographic information**
 - **Pollutant**
 - **Etc.**

- ◆ **<http://www.epa.gov/npdes/permitissuance>**
 - **Envirofacts**

- ◆ **<http://www.epa.gov/npdes/permitdocuments>**
 - **Click on “View Individual and General NPDES Permits”**



BPJ Tools and Resources (Continued)

- ◆ **Treatability manual and database**
- ◆ **Effluent guideline data/information**
 - Development documents
 - Proposed regulations
 - Industry studies
- ◆ **Economic guidance (BCT two-part cost test and BAT economic achievability guidance)**

BPJ Tools and Resources (Continued)

◆ Other sources of information

- Model permits
- Discharge monitoring reports
- Industry teams/national experts
- Technical Support Document for Water Quality-Based Toxics Control
 - Provides statistical approach for setting MDL and AML at an appropriate performance level based on expected long-term average performance



Example BPJ Analysis

◆ Beef Packing Plant

- **Problem:** High ammonia discharge
- BPJ appropriate because:
 - Final ELG in place, but ammonia standard remanded to EPA for reconsideration for all meat packing operations
 - Large amount of dilution – water quality standards not a factor



Example BPJ Analysis

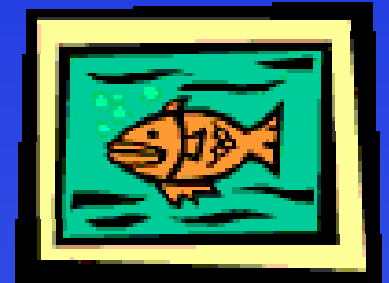
◆ Beef Packing Plant (cont.)

- BPJ Performance level:
 - BPT and BAT for ammonia
- BPJ Analysis based on:
 - Assessment of controls used by similar facilities in other locations
 - Economic achievability assessment

Example BPJ Analysis

◆ Concentrated Aquatic Animal Production (CAAP) facilities

- **Problem:** High solids discharge
- BPJ appropriate because:
 - No final ELG for CAAP facilities
 - No numeric water quality criteria for solids



Example BPJ Analysis

◆ CAAP facilities (cont.)

- BPJ Performance level:
 - BPT and BCT for total suspended solids (TSS)
 - BPT and BAT for settleable solids
- BPJ Analysis based on:
 - EPA industry study
 - Proposed ELG
 - Region 10 permit for similar facilities



Example BPJ Analysis

◆ Federally-owned Treatment Works (FOTWs)

- **Problem:** BOD₅, TSS, pH
- BPJ appropriate because:
 - Secondary treatment standards do not apply to FOTWs
 - No ELG for FOTWs



Example BPJ Analysis

◆ FOTWs (cont.)

- BPJ Performance level:
 - BPT and BCT for BOD₅, TSS, pH
- BPJ Analysis based on:
 - Secondary treatment standards established for POTWs
 - FOTW similarity to POTWs

BPJ Justification

- 1. Establish that BPJ is appropriate (i.e., why ELGs don't apply)**
- 2. Identify pollutant(s) for BPJ analysis and the performance level required by the CWA (i.e., BPT and BAT or BCT)**
- 3. List each of the applicable criteria from 40 CFR 125.3(d) and provide an explanation of how each was considered in the BPJ analysis**

BPJ Defensibility

- ◆ **Defensibility depends on reasonableness**
- ◆ **Reasonableness demonstrated by documentation**