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# **Best Professional Judgment-based Permit Limits**

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# Permit Components

## Industry-Specific Components

- Effluent Guidelines
- *BPJ*

## Components of All Permits

Cover Page

Effluent Limitations

*Technology-Based*

Water Quality-Based

Monitoring & Reporting Requirements

Special Conditions

Compliance Schedules

Storm Water

Special Studies, Evaluations, and Other Requirements

Standard Conditions

## Municipal-Specific Components

- Secondary
- Equivalent to Secondary

- Pretreatment
- CSOs
- Municipal Sewage Sludge



# Learning Objectives

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- ◆ **Define concept 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 limits on a case-by-case basis in the absence of national standards of performance (i.e., ELGs)
  - Where EPA has not developed effluent 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)

Technology-based treatment requirements may be imposed:

- On a case-by-case basis under Section 401(a)(1) of the Act, **to the extent that EPA-promulgated effluent limitations are inapplicable**. The permit writer shall apply the appropriate factors listed in Section 125.3(d) and shall consider:
  - The appropriate technology for the category or class of point sources of which the applicant is a member, based on all available information; and
  - Any unique factors relating to the applicant.



# Basis for BPJ Decisions

- ◆ BPJ is “discretionary” except for toxic pollutants [40 CFR 122.44(e)]
- ◆ When developing BPJ-based limits, 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

# BPJ Considerations – 40 CFR 125.3(d)

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

# BCT Criteria – 40 CFR 125.3(d)(2)

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- ◆ **BCT 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

# BCT Criteria – 40 CFR 125.3(d)(2)

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## ◆ BCT Economic Criteria:

- Reasonableness of the relationship between costs of attaining reduction in effluent and the derived effluent reduction benefits
- 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 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

## ◆ **BAT Economic Criterion:**

- Cost of achieving effluent reduction



# BPJ Tools and Resources

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- ◆ **NPDES Permits and BPJ rationale for similar facilities**
  - **Permits and fact sheets for all major facilities will be available via EPA “Envirofacts” data warehouse**
  - **Searchable via SIC code, geographical information, etc.**
  - **Will be launched in summer 2003**

# BPJ Tools and Resources (Continued)

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- ◆ **Treatability Manual and Database**
- ◆ **Effluent guideline data/information**
  - Development documents
  - Proposed regulations
  - Industry studies
- ◆ **Economic achievability protocol (BAT cost test)**

# BPJ Tools and Resources (Continued)

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- ◆ **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 limits at an appropriate performance level

# 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., 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**

# Example BPJ Analysis

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- ◆ **Nebraska – Beef Packing Plant**
  - **Problem:** High ammonia discharge
  - BPJ appropriate because:
    - Final ELG in place, but chose not consider ammonia for all meat packing operations
    - Large amount of dilution – water quality standards not a factor

# Example BPJ Analysis

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- ◆ **Nebraska – Beef Packing Plant (cont.)**
  - **BPJ Performance level:**
    - **BAT for ammonia**
  - **BPJ Analysis based on:**
    - **Assessment of controls used by similar facilities in other locations**
    - **Economic achievability assessment**

# Example BPJ Analysis

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- ◆ **Region 9 – 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

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- ◆ **Region 9 – CAAP facilities (cont.)**
  - **BPJ Performance level:**
    - BCT for total suspended solids
    - BAT for settleable solids
  - **BPJ Analysis based on:**
    - EPA industry study
    - Proposed ELG
    - Region 10 permit for similar facilities

# BPJ Defensibility

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- ◆ **Defensibility depends on reasonableness**
- ◆ **Reasonableness demonstrated by documentation**
- ◆ **Documentation should include:**
  - **What is being imposed?**
  - **Why is it being imposed?**
  - **How was it developed?**