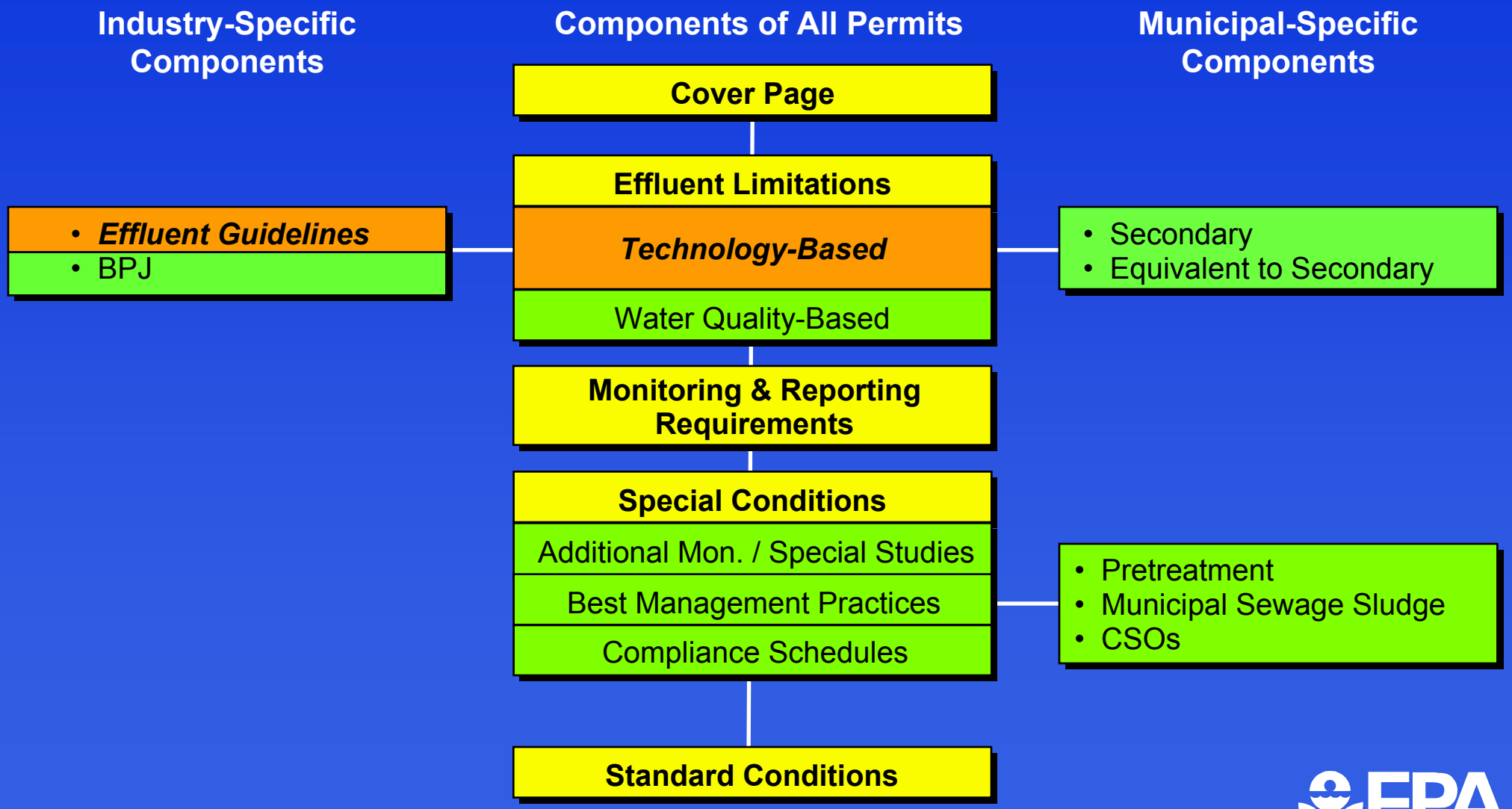
Effluent Limitations Guidelines for Non-Municipal Dischargers

Permit Components



Learning Objectives

- Describe process used in developing effluent limitations guidelines (ELGs)
- Discuss considerations in applying ELGs
- Explain application of effluent guidelines

Effluent Limitations Guidelines

- **Definition**
  - Effluent limitations guidelines are national standards prescribing allowable discharges of pollutants from industrial point source categories corresponding to various levels of treatment or control technologies
- **Scope**
  - Guidelines are established for most primary and some secondary industries

Effluent Limitations Guidelines (cont.)

- CWA establishes technology-based performance levels and compliance dates for different types of dischargers:
  - New Sources (CWA §306)
  - Existing Sources (CWA §301 and §304)
  - Indirect Dischargers (CWA §307)
    - New sources
    - Existing sources

Type of Discharger: Key Definitions

- **New Source** – Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
  - After promulgation of effluent limitations guidelines and standards applicable to such source, or
  - After proposal of effluent limitations guidelines and standards, but only if the standards are promulgated within 120 days of proposal

Additional New Source Determination Criteria

- Constructed at a site at which no other source is located; or
- Totally replaces the process causing the discharge from an existing source; or
- Processes are substantially independent of an existing source at the same site; and
- A new source performance standard is independently applicable to the discharge

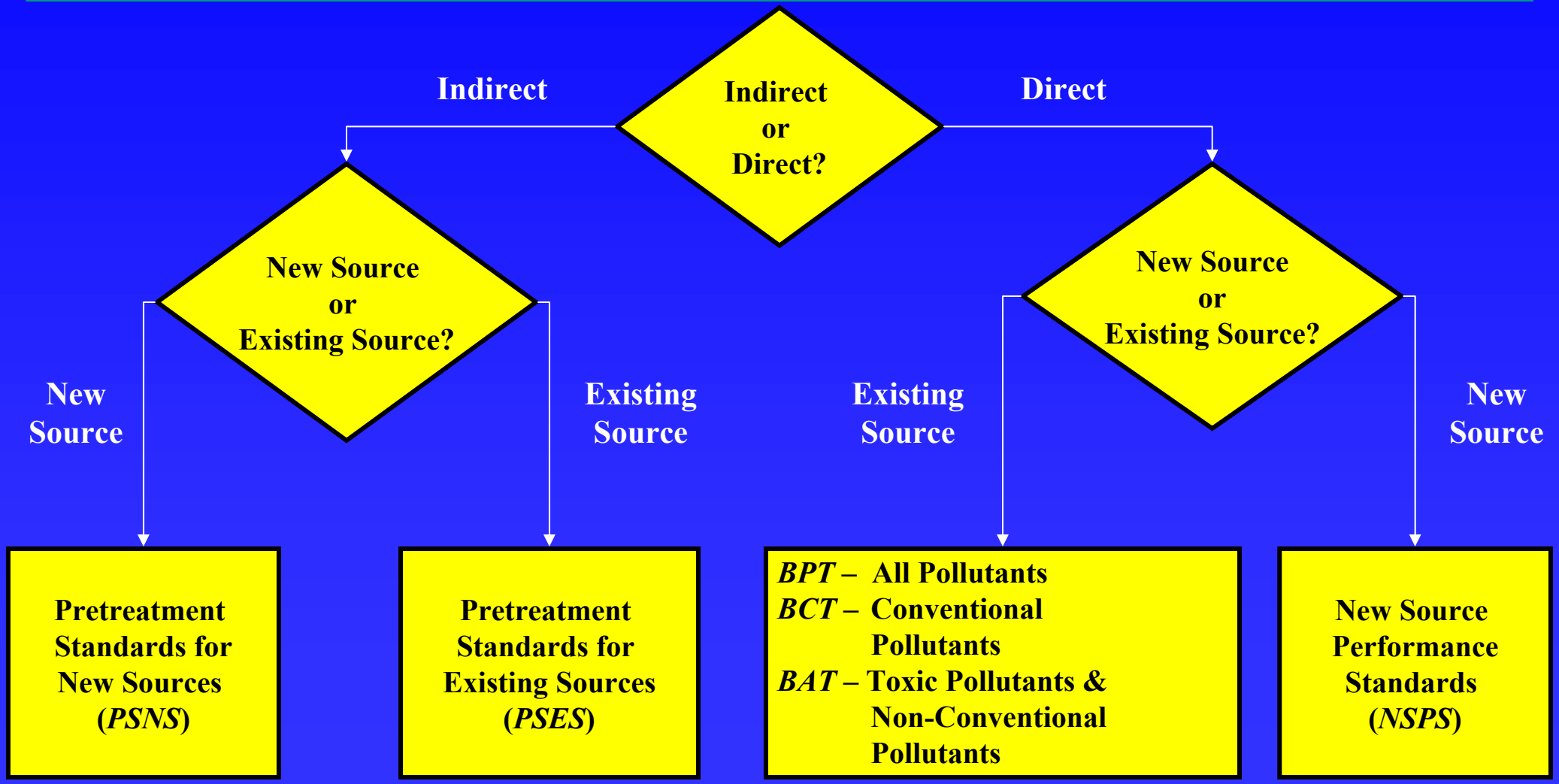
Type of Discharger: Key Definitions
(Continued)

- **Existing Source** – Any building, structure, facility, or installation from which there is or may be a discharge of pollutants which is not a new discharge or new source

CWA Technology-Based Control Matrix

Technology-Based Control Level	Type of Discharger	Conventional	Non-Conventional	Toxic
Best Practicable Control Technology Currently Available (BPT)	Direct	X	X	X
Best Conventional Pollutant Control Technology (BCT)	Direct	X		
Best Available Control Technology Economically Achievable (BAT)	Direct		X	X
New Source Performance Standards	Direct	X	X	X
Pretreatment Standards for Existing Sources (PSES)	Indirect	X	X	X
Pretreatment Standards for New Sources (PSNS)	Indirect	X	X	X

ELG Technology-Based Limits for Non-Municipal Dischargers



Statutory Compliance Deadlines for Technology-Based Requirements

Pollutant Category	Level of Treatment	Compliance Deadline
Conventional	BPT	July 1, 1977
Conventional	BCT	March 31, 1989
Non-conventional	BPT	July 1 1977
Non-conventional	BAT	March 31, 1989
Toxic	BPT	July 1, 1977
Toxic	BAT	March 31, 1989

EPA

Effluent Limitations Guidelines (Continued)

- CWA Section 304(m)
  - September 2, 2004, FR notice identifies the following categories to consider for new and revised guidelines:
    - Vinyl Chloride Manufacturing (revised)
    - Chlor-Alkali Manufacturing (revised)
    - Airport Deicing Operations (new)
    - Drinking Water Supply and Treatment (new)

- www.epa.gov/waterscience/guide

Implementing Effluent Guidelines

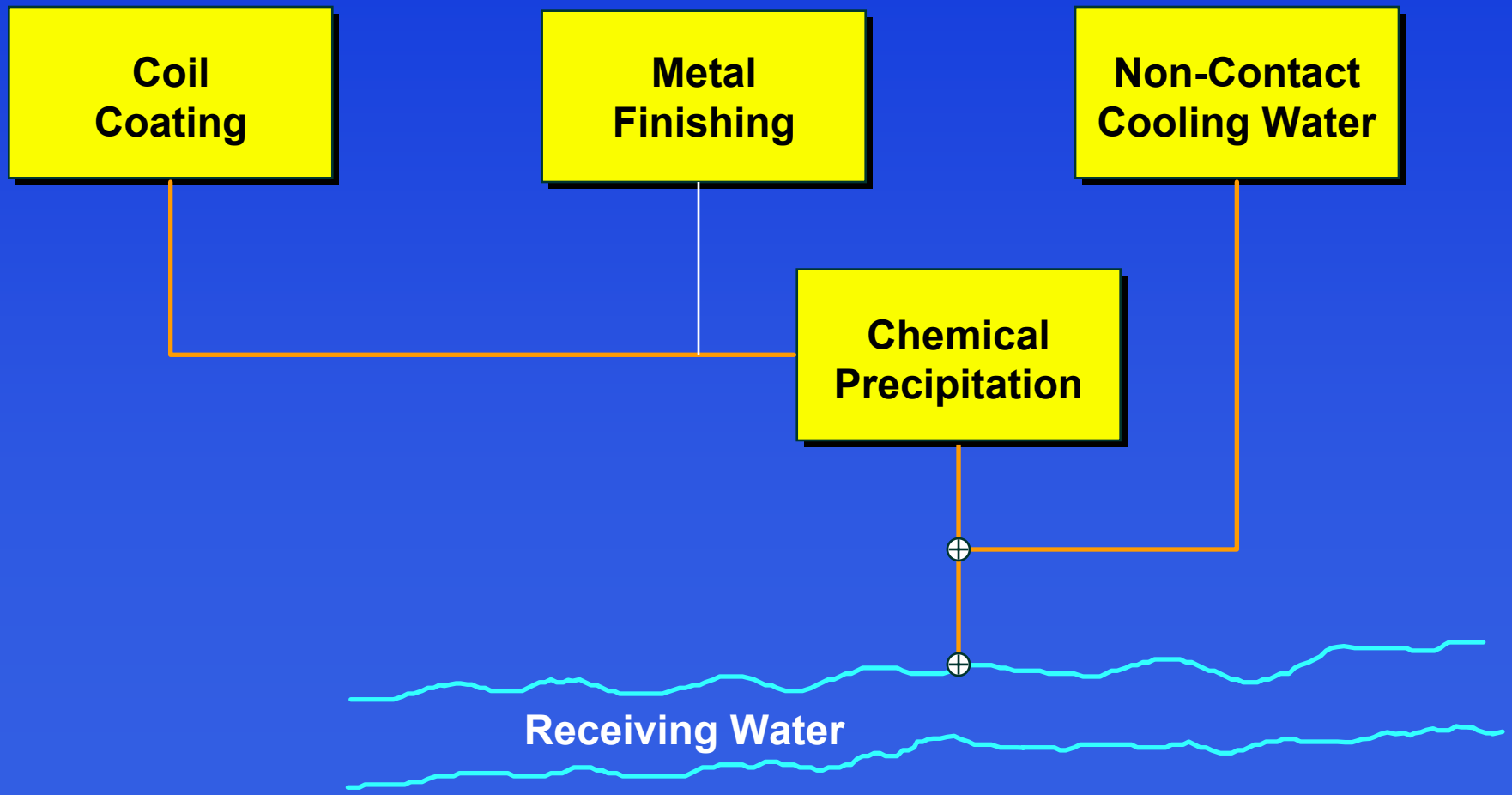
- Effluent limitations guidelines
  - Implemented and enforced through NPDES permits
  - Serve as the basis for technology-based effluent limitations

Considerations Involved in Use of Effluent Guidelines

- Determination of proper category and subcategory
  - Applicability section in regulation
  - Preamble to regulation
  - SIC Code(s)
    (e.g., Copper Forming = SIC Code 3351)
  - Development documents

Considerations Involved in Use of Effluent Guidelines (Continued)

Example 1:



Considerations Involved in Use of Effluent Guidelines (Continued)

- Classification of plants that fall under more than one category
  - Must apply all applicable effluent guidelines
  - Some guidelines supercede others
  - Considerations for common treatment systems
    - BPJ for non-regulated pollutants
    - Account for dilution from non-regulated wastestreams
  - Inconsistent limits expressions (units)
  - Use internal outfalls

Considerations Involved in Use of Effluent Guidelines (Continued)

Example 2:

Coil Coating	mg/m^2
Metal Finishing:	mg/L
Ferroalloy Manufacturing:	kg/mwh

Considerations Involved in Use of Effluent Guidelines (Continued)

- Determination of appropriate measures of production and flow
  - Use reasonable measure of actual production and flow rate
  - Account for planned changes
  - Time period of measurement
    - Daily maximum production/flow → Daily maximum limit
    - Average monthly production/flow → Monthly average limit

Considerations Involved in Use of Effluent Guidelines (Continued)

- Use of alternative or tiered limits
  - To account for variability of production/flow (e.g., seasonal)
  - Significant = > 20%
  - Requires careful examination of production data
  - Requires special reporting requirements
    - Notification of changed production/flow
    - Reporting of production data

Considerations Involved in Use of Effluent Guidelines (Continued)

- Application of effluent guidelines in permits
  - Include all regulated pollutants
  - Parameters considered by effluent guideline but not regulated by effluent guideline are not included in the permit
  - Include both maximum daily and average monthly effluent limitations
  - Express as mass limitations unless guideline allows or requires concentration-based limitations