Federal Categorical Pretreatment Standards Overview

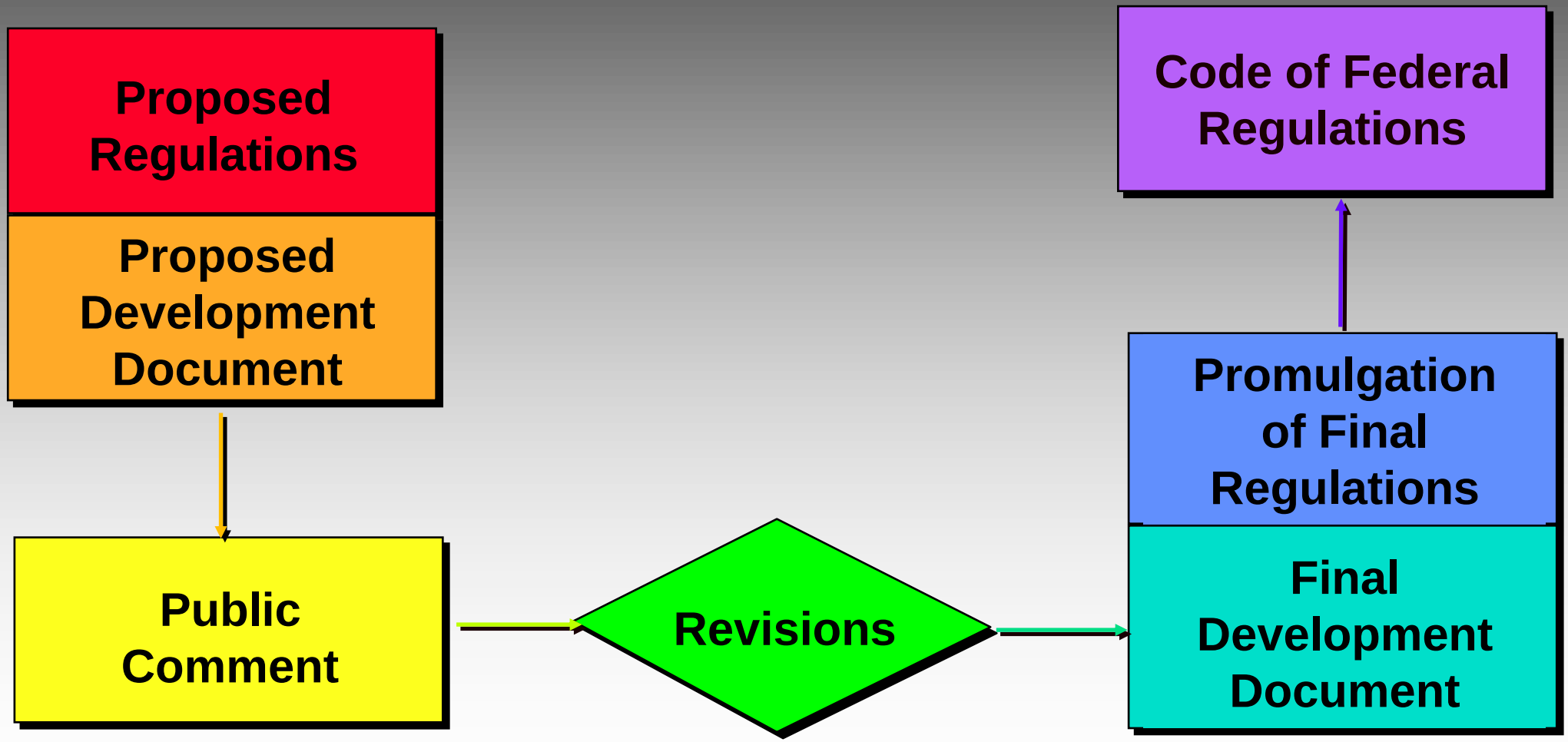
Categorical Pretreatment Standards

- Technology Based
- Clean Water Act section 307 and 1976 EPA/NRDC consent decree.
- National Standards
  - technology available
  - processes performed
  - economic impacts

IU Categories Targeted

- **More than 50 categories**
- **40 CFR Parts 405-471**
- **New 304(m) strategy**
  - Previously discussed EPA Update

From Proposal to Codification



Categorical Regulations:
Subparts

- Manufacturing processes employed
- Raw materials used
- Types of items produced
- Characteristics of typical wastes generated

Categorical Regulations: *Existing vs. New Source*

- New source, 40 CFR §403.3(m)
  - *Construction date*
  - *Total replacement*
  - *Substantially independent*
- Compliance dates
- Interpretations

Why is Existing/New Source Determination So Important?

- New source standards generally are more stringent
- New sources are required to be in compliance upon commencement of discharge
- New source requirements are triggered by some facility alterations

Categorical Regulations: *General Provisions*

- Applicability
- Definitions
- Monitoring and reporting requirements
- Compliance dates for PSES
- Other

Categorical Regulations:
Elements of a Subpart

- **Applicability**
- **Specialized definitions**
- **Effluent limitations and standards, i.e.,**
  - ~~BPT, BAT, BCT~~, PSES, ~~NSPS~~, and PSNS

Effluent Limitations and Standards: *Pretreatment Standards (PSES and PSNS)*

- **Requires EPA determine**
  - ***Pass through***
  - ***Pollutant by pollutant***
  - ***No two are the SAME***
- **For removal of toxic pollutants**
  - ***PSES are analogous to BAT***
  - ***PSNS are analogous to NSPS***

Types of Categorical Pretreatment Standards

Industrial Categories Without PSES and PSNS

Part 422 - Phosphate Manufacturing
Part 434 - Coal Mining
Part 436 - Mineral and Mining Processing
Part 440 - Ore Mining and Dressing
Part 445 - Landfills
Part 454 - Gum and Wood Chemicals Manufacturing
Part 457 - Explosives Manufacturing
Part 459 - Photographic Processing
Part 460 - Hospitals
Part 438 - Metal Products & Machinery
Part 451 - Concentrated Aquatic Animal Production

Industrial Categories Without Specific PSES and/or PSNS

- 11 categories
- For example:
  - *"Any existing source subject to this subpart that introduces process wastewater pollutants in a POTW must comply with 40 CFR Part 403."*

“No discharge of process wastewater pollutants”

Categorical Pretreatment Standards

Examples

- **Concentration-based (mg/l)**
  - ***40 CFR Parts 433 (Metal Finishing)***
- **Production-based (kg/1000 kg)**
  - ***40 CFR Part 464 (Metal Molding & Casting)***

Types of Standards

- **Daily maximum**
- **Long term averages**
  - 4-day
  - 30-day
  - Monthly

Other Considerations...

- **Removal credits** - *credit for POTW's ability to remove pollutant.*
  [40 CFR §403.7]
- **Fundamentally different factors** - *within 180 days of PSES promulgation*
  [40 CFR §403.13]
- **Net/Gross calculation** - *adjust for pollutants in intake source.*
  [40 CFR §403.15]

Total Toxic Organics (TTO)

- Defined in categorical regulation
- Toxic Organic Management Plan ("TOMP")
  - toxic organic compounds used
  - method of disposal
  - spill prevention/control
- Certification in lieu of self-monitoring
- Oil and grease

Toxic Organic Management Plans (TOMPs)

Development and Assessing Compliance

What is a TOMP?

- A plan that is developed by an industrial user (IU) to reduce the toxic organic pollutants from being discharged to the POTW.
- The plan assists facilities in achieving compliance with Categorical Pretreatment Standards.
- Also known as a Solvent Management Plan or a Pollutant Management Plan (PMP)

Why Develop a TOMP?

- In lieu of monitoring for TTOs, categorical industrial users (CIUs) subject to 40 CFR Parts 413, 433 or 469 are allowed to certify that there is no dumping or usage of toxic organics to the wastestream. In addition to the certification statement, they must have a TOMP. (NOTE: The TTO list for 40 CFR Parts 413 and 433 ARE NOT the same as those for 40 CFR Part 469)

Which CIUs Can Certify and Submit TOMPs In Lieu of Monitoring?

- Electroplating – 40 CFR Part 413
- Metal Finishing – 40 CFR Part 433
- Electrical and Electronic Components – 40 CFR Part 469
- Transportation Equipment Cleaning – 40 CFR Part 442 (only for indirect dischargers subject to subparts A or B)

NOTE: It is the Control Authority's decision whether a CIU can certify and submit TOMP or PMPs in lieu of monitoring of regulated pollutants.

Developing a TOMP for 40 CFR Parts 413, 433, and 469 Facilities

- **Step 1: Initial Sampling of Effluent**
- **Step 2: Process Engineering Analysis**
  - Review published reports on specific industry
  - Review water flow diagram of the facility
  - Create a list of raw materials used
  - Evaluate the toxic organics found in the effluent
  - Examine possible sources of toxic organics

Developing a TOMP for 40 CFR Parts 413, 433, and 469 Facilities

- **Step 3: Pollutant Control Evaluation**
  - Review control options to eliminate TTOs
    - In-plant modifications
    - Solvent or chemical substitution
    - Recycling
    - Reuse
    - Neutralization
    - Operational changes
  - Decide whether a TOMP is a feasible alternative to TTO monitoring

Developing a TOMP for 40 CFR Parts 413, 433, and 469 Facilities

- **Step 4: Prepare a TOMP**
  - A TOMP MUST INCLUDE:
    - A list of toxic organic pollutants used
    - The method of disposal used (instead of discharging into wastestreams)
    - Procedures for ensuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW or surface waters

Developing a TOMP for 40 CFR Parts 413, 433, and 469 Facilities

- **Step 5: Submission of the TOMP and Certification Statement**
  - TOMP should be submitted to the Control Authority for review and approval.
  - Along with the TOMP, the IU should submit the appropriate certification statement.

TOMP Certification Statement

Based on my inquiry of the person or persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing the toxic organic pollutant management plan submitted to the Control Authority on [specify date].

Classification Scenarios

Question:

- A job-shop plating company has been in business since 1980. In 1990, it was bought by All-Clean Metal Finishing. Is the newly-purchased All-Clean facility a new source?

- What if the equipment is moved into a building across the street?

Scenario 1

- **Facility started its copper plating operations in June 1972.**
  - *average categorical wastewater discharge flow is 9,000 gallons per day.*
- **In 1994, the facility installed a brand new wastewater treatment system to fully replace the existing treatment system.**

Potential Classifications

A. Noncategorical SIU

B. CIU subject to 40 CFR Part 413 for flow over 10,000 gallons per day

C. 40 CFR Part 433, PSNS

D. 40 CFR Part 433, PSES

Rationale for Classification

The answer is B.

CIU subject to 40 CFR Part 413 for flow under 10,000 gallons per day

Key Factors

- **Originally classified as subject to 40 CFR Part 413 (startup in Sept. 1979).**
  - <10,000 gpd (avg. discharge 9,000 gpd)
- **Added new treatment system BUT NOT THE PROCESS LINE**
- **Facility is still subject to 40 CFR Part 413 for flow under 10,000 gallons**
  - because the treatment system does NOT trigger a new source determination

Scenario 2

Golf club manufacturer began operations in July 1992. Operations include cleaning (alkaline wash and acid dip), coating, 2-stage rinse, and a tumbling operation for deburring purposes.

There is no discharge form the plating operation or rinse tanks (uses countercurrent rinses disposes of off-site).

Only discharge is from tumbling operation and rinse that follows (350 gpd).

Should they be considered a metal finisher under 433?

Potential Classifications

A. **Non-significant Industrial User**

B. **NSCIU**

C. **Electroplating New Source**
   A. 40 CFR 413 (< 10,000 gpd)

D. **Metal Finishing New Source**
   A. 40 CFR 433.17

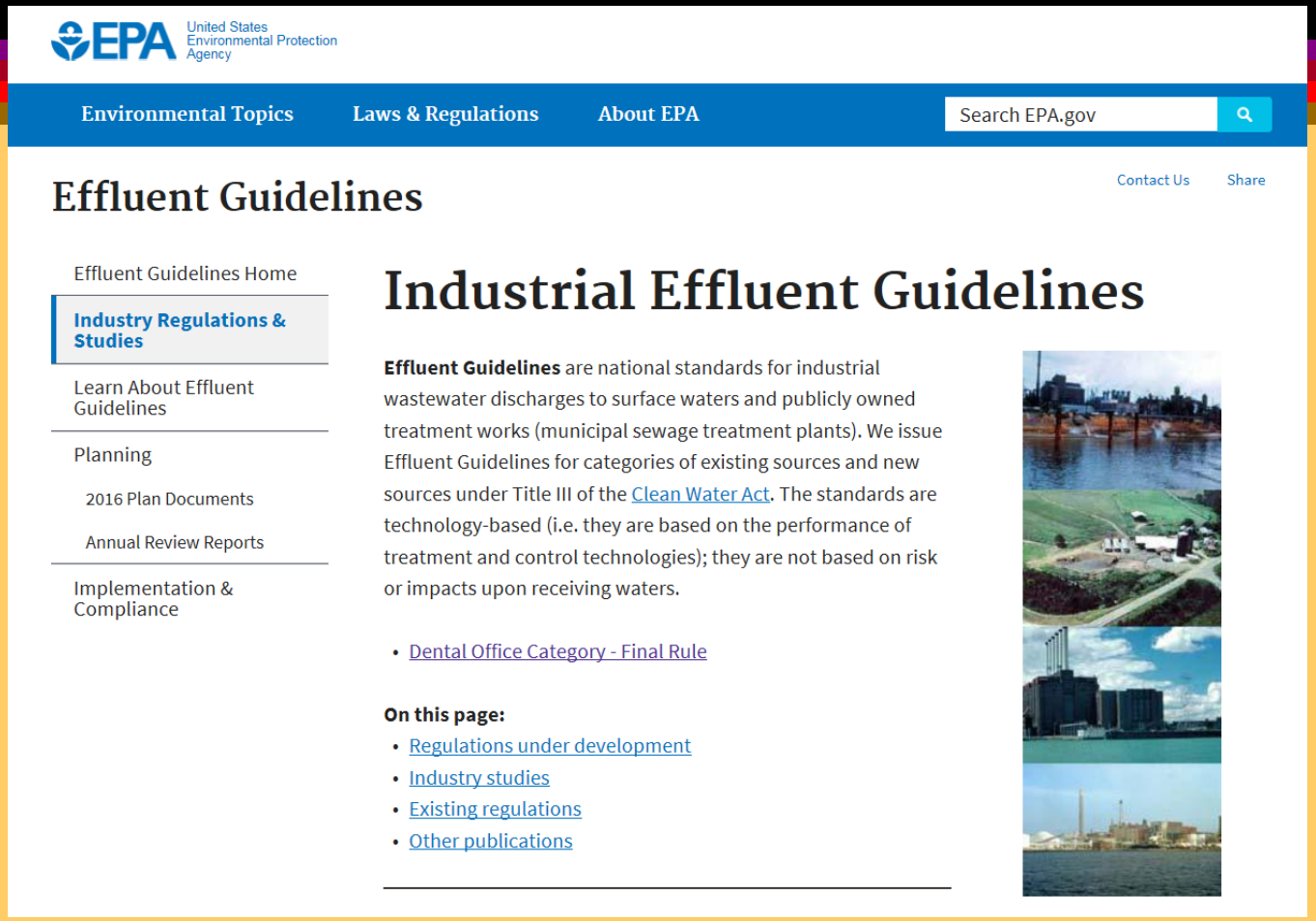
Rationale for Classification

The answer is D.

CIU subject to 40 CFR Part 433, Pretreatment Standards for New Sources.

Resources

- Final Rule Preambles, Development Documents, & Guidance
- State or EPA
- Fellow Pretreatment Coordinators



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Industrial Effluent Guidelines

Effluent Guidelines are national standards for industrial wastewater discharges to surface waters and publicly owned treatment works (municipal sewage treatment plants). We issue Effluent Guidelines for categories of existing sources and new sources under Title III of the Clean Water Act. The standards are technology-based (i.e. they are based on the performance of treatment and control technologies); they are not based on risk or impacts upon receiving waters.

- Dental Office Category - Final Rule

On this page:

- Regulations under development
- Industry studies
- Existing regulations
- Other publications

Questions?

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