Categorical Standards Primer

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By the End of This Course

Be Able to…

- Identify Different Pretreatment Standards
- Differentiate Between Local Limits and Categorical Limits
- Correctly Apply Local and Categorical Limits

By the End of This Course

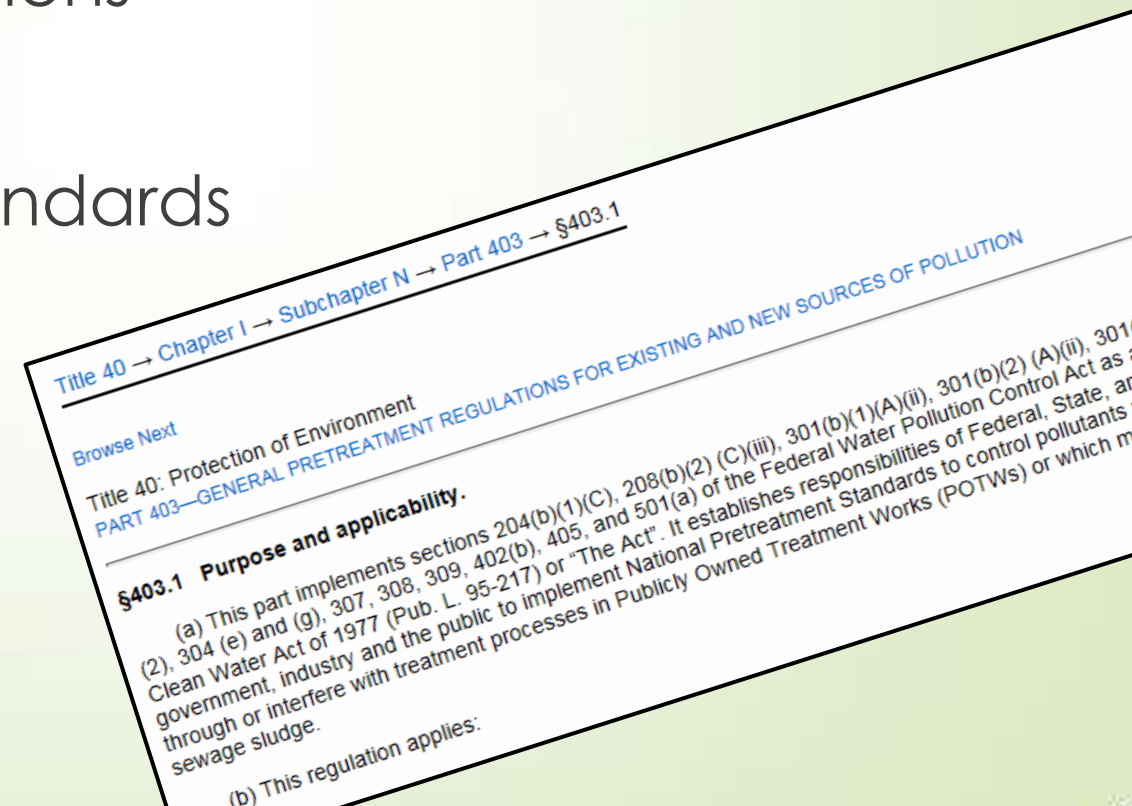
Be Able to…

- Determine an Industry's Categorical Designation and Limits
- Aware of Methodologies to Alter Categorical Limits
- Agree that Categorical Standards can be Ridiculously Complex

And hopefully remain conscious

Types of Pretreatment Standards

- Four Types (40 CFR 403) :
  - General Prohibitions
  - Specific Prohibitions
  - Local Limits
  - Categorical Standards


Title 40 → Chapter I → Subchapter N → Part 403 → §403.1

Browse Next

Title 40: Protection of Environment

PART 403—GENERAL PRETREATMENT REGULATIONS FOR EXISTING AND NEW SOURCES OF POLLUTION

§403.1 Purpose and applicability.

(a) This part implements sections 204(b)(1)(C), 208(b)(2) (C)(iii), 301(b)(1)(A)(ii), 301(b)(2) (A)(ii), 301
(2), 304 (e) and (g), 307, 308, 309, 402(b), 405, and 501(a) of the Federal Water Pollution Control Act as
Clean Water Act of 1977 (Pub. L. 95-217) or "The Act". It establishes responsibilities of Federal, State, a
government, industry and the public to implement National Pretreatment Standards to control pollutants
through or interfere with treatment processes in Publicly Owned Treatment Works (POTWs) or which m
sewage sludge.

(b) This regulation applies:

Types of Pretreatment Standards

General Prohibitions (403.5)

- **Discharge cannot cause:**
- Pass Through, or
- Interference

The ___full Eight

Specific Prohibitions (403.5)

- **Discharge cannot cause:**
- Fire or explosion hazard, flashpoint <140 F
- Corrosion, pH < 5.0
- Obstruction to flow
- BOD causing interference
- Inhibition due to temperature, wastewater >104 F
- Petroleum/mineral oils causing interference
- Toxic gases
- Hauled pollutants, except as designated by POTW

Types of Pretreatment Standards

Local Limits (403.5)

- Developed by POTW
- Based on local conditions
- Apply to all permitted industries

Categorical Standards (403.6)

- Developed by EPA
- Technology based
- Apply to certain categories of industries

Overview of Categorical Standards

- Developed and implemented by EPA's Effluent Guidelines Program

  https://www.epa.gov/eg

- Targets the 126 Priority Pollutants
- 40CFR parts 405-471

Overview of Categorical Standards

You can find list of Categorical Industries here:

https://www.epa.gov/eg/industrial-effluent-guidelines

Existing Regulations

The table below lists the Effluent Guidelines promulgated by EPA, organized by industry category.

- For some of the regulations, the links in the 'Category Overview' column provide a summary of the regulation and available EPA publications for the category.
- The links under '40 CFR' go directly to the **Code of Federal Regulations** (CFR). 'Initial' indicates the year of the first rulemaking for the category, and 'Last' indicates the most recent substantive revision.

Category Overview	40 CFR	Initial	Last
Airport Deicing	449	2012	2012
Aluminum Forming	467	1983	1988
Asbestos Manufacturing	427	1974	1975
Battery Manufacturing	461	1984	1986
Canned and Preserved Fruits and Vegetable Processing	407	1974	1976
Canned and Preserved Seafood (Seafood Processing)[1]	408	1974	1975
Carbon Black Manufacturing	458	1976	1978
Cement Manufacturing	411	1974	1974
Centralized Waste Treatment[2]	437	2000	2003
Coal Mining	434	1975	2002

Lets look at a Category!!

- Its got a Part!
- Its got Subparts!!
- It even has Applicability!!!!!!
- And Standards too!

PART 469—ELECTRICAL AND ELECTRONIC COMPONENTS POINT

Contents

Lets look at a Category!!

Industry A began manufacturing gallium arsenide crystals for semi-conductors used in cell phones in 1998.

Which Category (i.e. Part)?

Click here for general description of industry & supporting documents

Click here for actual regulation

Initial publication year and most recent revision

Category Overview	40 CFR	Initial	Last
Airport Deicing	449	2012	2012
Aluminum Forming	467	1983	1988
Asbestos Manufacturing	427	1974	1975
Battery Manufacturing	461	1984	1986
Canned and Preserved Fruits and Vegetable Processing	407	1974	1976
Canned and Preserved Seafood (Seafood Processing)[1]	408	1974	1975
Carbon Black Manufacturing	458	1976	1978
Cement Manufacturing	411	1974	1974
Centralized Waste Treatment[2]	437	2000	2003
Coal Mining	434	1975	2002
Coil Coating	465	1982	1983
Concentrated Animal Feeding Operations (CAFO)	412	1974	2008
Concentrated Aquatic Animal Production (Aquaculture)	451	2004	2004
Construction and Development	450	2009	2014
Copper Forming	468	1983	1986
Dairy Products Processing	405	1974	1974
Electrical and Electronic Components	469	1983	1983
Electroplating	413	1974	1983
Explosives Manufacturing	457	1976	1976
Ferroalloy Manufacturing	424	1974	1974
Fertilizer Manufacturing	418	1974	1974
Glass Manufacturing	426	1974	1974
Grain Mills	406	1974	1974

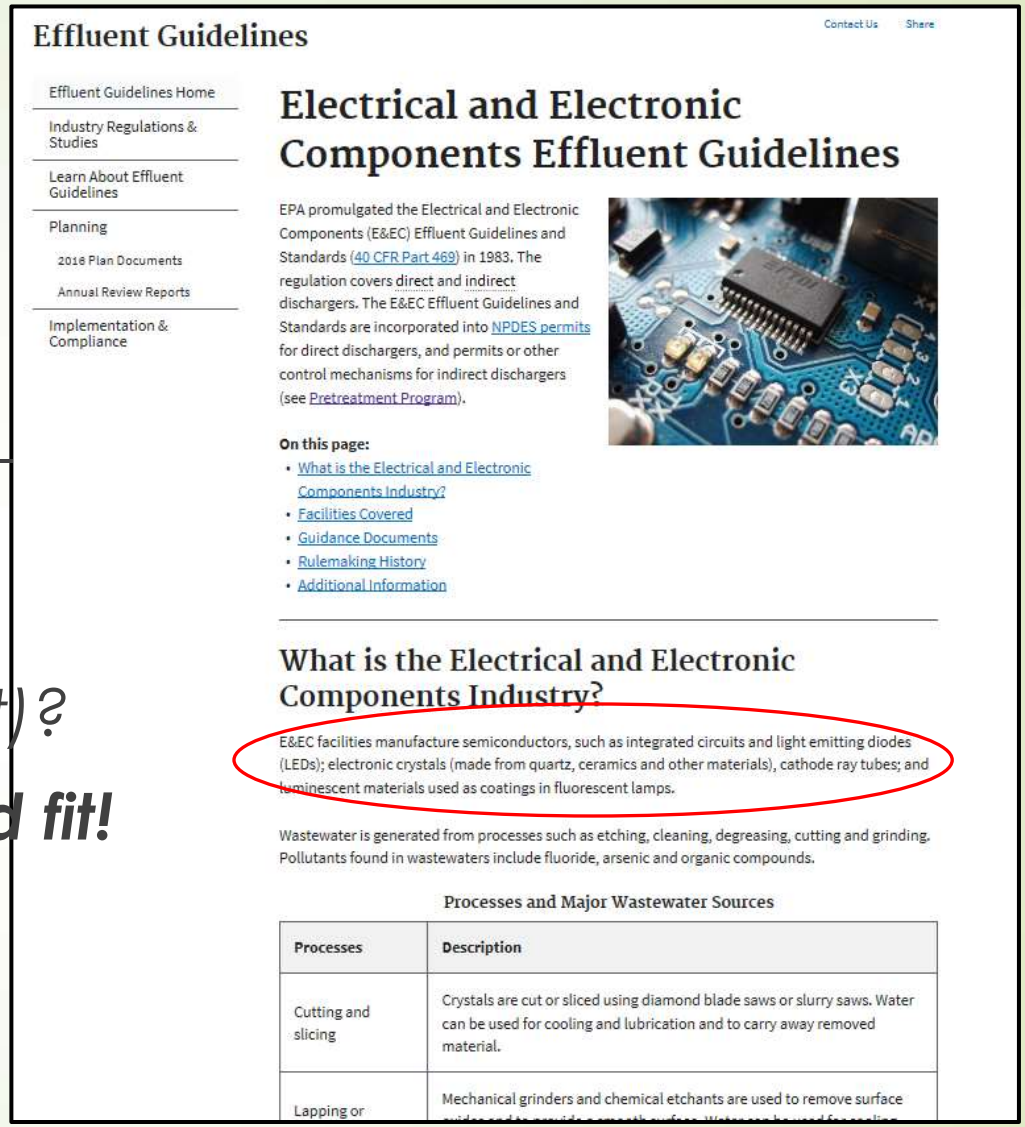
Lets look at a Category!!

Industry A began manufacturing gallium arsenide crystals for semi-conductors used in cell phones in 1998.

Which Category (i.e. Part)?

Part 469 looks like a good fit!

Which subpart?



Effluent Guidelines

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- Planning
  - 2016 Plan Documents
  - Annual Review Reports
- Implementation & Compliance

Electrical and Electronic Components Effluent Guidelines

EPA promulgated the Electrical and Electronic Components (E&EC) Effluent Guidelines and Standards (40 CFR Part 469) in 1983. The regulation covers direct and indirect dischargers. The E&EC Effluent Guidelines and Standards are incorporated into NPDES permits for direct dischargers, and permits or other control mechanisms for indirect dischargers (see Pretreatment Program).

On this page:

- What is the Electrical and Electronic Components Industry?
- Facilities Covered
- Guidance Documents
- Rulemaking History
- Additional Information

What is the Electrical and Electronic Components Industry?

E&EC facilities manufacture semiconductors, such as integrated circuits and light emitting diodes (LEDs); electronic crystals (made from quartz, ceramics and other materials), cathode ray tubes; and luminescent materials used as coatings in fluorescent lamps.

Wastewater is generated from processes such as etching, cleaning, degreasing, cutting and grinding. Pollutants found in wastewaters include fluoride, arsenic and organic compounds.

Processes and Major Wastewater Sources

Processes	Description
Cutting and slicing	Crystals are cut or sliced using diamond blade saws or slurry saws. Water can be used for cooling and lubrication and to carry away removed material.
Lapping or	Mechanical grinders and chemical etchants are used to remove surface

Lets look at a Category!!

Industry A began manufacturing gallium arsenide crystals for semi-conductors used in cell phones in 1998.

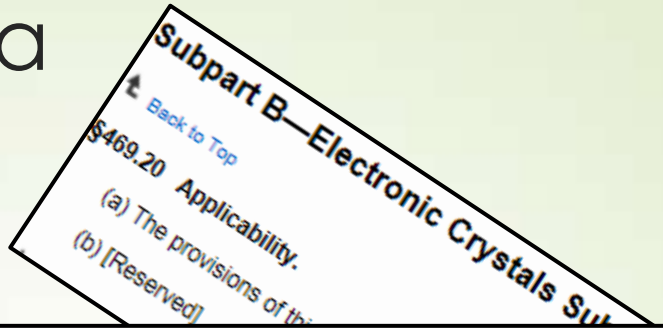
Which subpart?

Check applicability

PART 469—ELECTRICAL AND ELECTRONIC COMPONENTS POINT

Contents

Lets look at a Category!!


Subpart B—Electronic Crystals Su
Back to Top
§469.20 Applicability.
(a) The provisions of th
(b) [Reserved]

Industry A begi
manufacturing
crystals for semi-
used in cell phon

Which subpart?

Check applicab

§469.22 Specialized definitions.

The definitions in 40 CFR part 401 and the chemical analysis methods in 40 CFR part 136 apply to this subpart. In addition,

(a) The term "total toxic organics (TTO)" means the sum of the concentrations for each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten (10) micrograms per liter:

1,2,4 Trichlorobenzene chloroform

1,2 Dichlorobenzene

1,3, Dichlorobenzene

1,4, Dichlorobenzene ethylbenzene

1,1,1 Trichloroethane methylene chloride naphthalene

2 Nitrophenol phenol bis (2-ethylhexyl) phthalate tetrachloroethylene toluene trichloroethylene

2 Chlorophenol

2,4 Dichlorophenol

4 Nitrophenol pentachlorophenol di-n-butyl phthalate anthracene

1,2 Diphenylhydrazine isophorone butyl benzyl pthalate

1,1 Dichloroethylene

2,4,6 Trichlorophenol carbon tetrachloride

1,2 Dichloroethane

1,1,2 Trichloroethane dichlorobromomethane

(b) The term "electronic crystals" means crystals or crystalline material which because of their unique structural and electronic properties are used in electronic devices. Examples of these crystals are crystals comprised of quartz, ceramic, silicon, gallium arsenide, and idium arsenide.

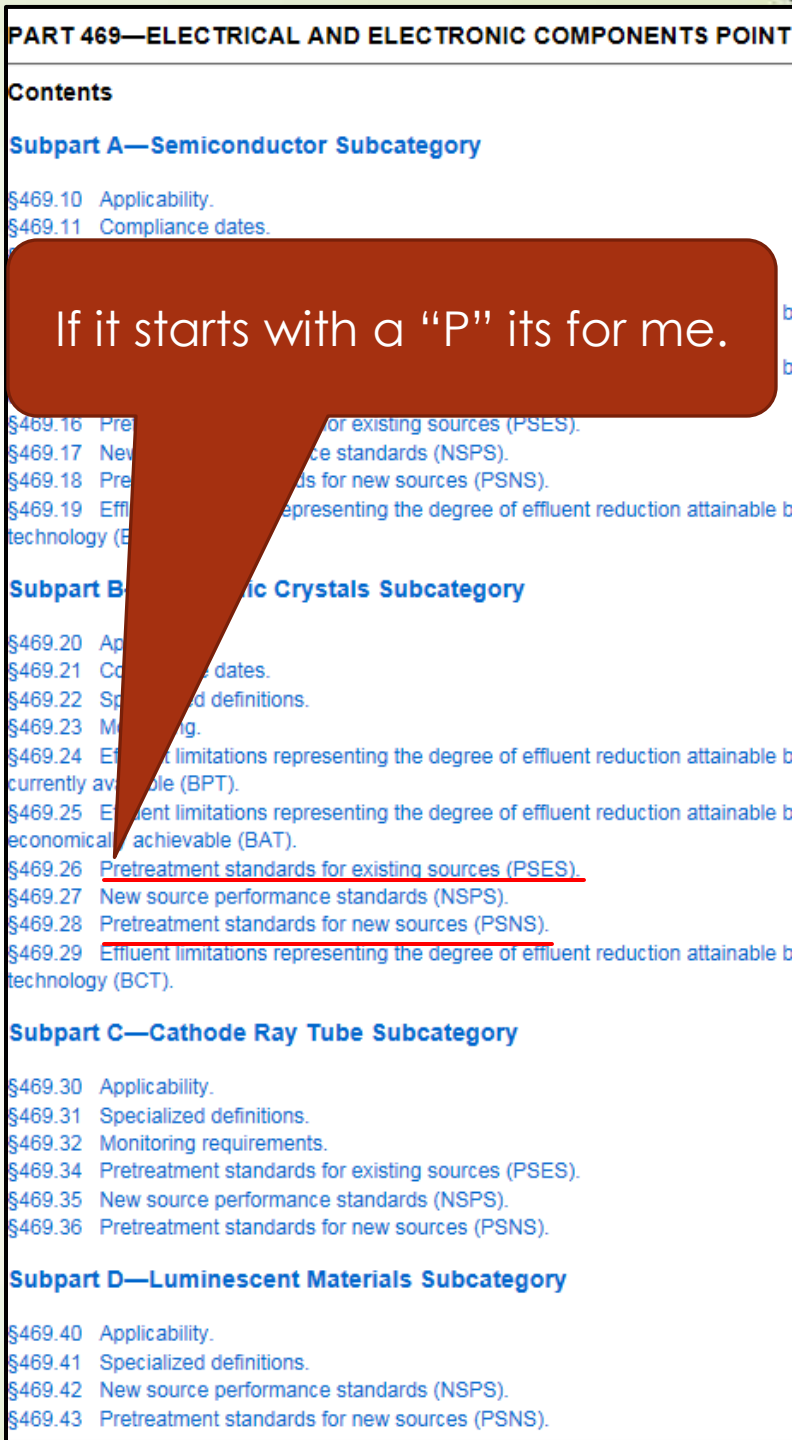
(c) The term "manufacture of electronic crystals" means the growing of crystals and/or the production of crystal wafers for use in the manufacture of electronic devices.

Lets look at a Category!!

Industry A began manufacturing gallium arsenide crystals for semi-conductors used in cell phones in 1998.

Applicable categorical regulation is 40 CFR 469 subpart B

Question: What categorical standards (i.e. limits) apply to this industry that is discharging to your POTW?



Lets look at a Category!!

New or existing Source??

§469.26 Pretreatment standards for existing sources (PSES).

(a) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources (PSES):

SUBPART B—ELECTRONIC CRYSTALS PSES EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
	Milligrams per liter (mg/l)	
TTO[1]	1.37	([2])
Arsenic (T)[3]	2.09	0.83

[1]Total toxic organics.

§469.27 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

SUBPART B—ELECTRONIC CRYSTALS NSPS EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
	Milligrams per liter(mg/l)	
TTO[1]	1.37	([2])
Arsenic(T)[3]	2.09	0.83
Fluoride(T)	32.0	17.4
TSS	61.0	23.0
pH	([4])	([4])

[1]Total toxic organics.

§469.28 Pretreatment standards for new sources (PSNS).

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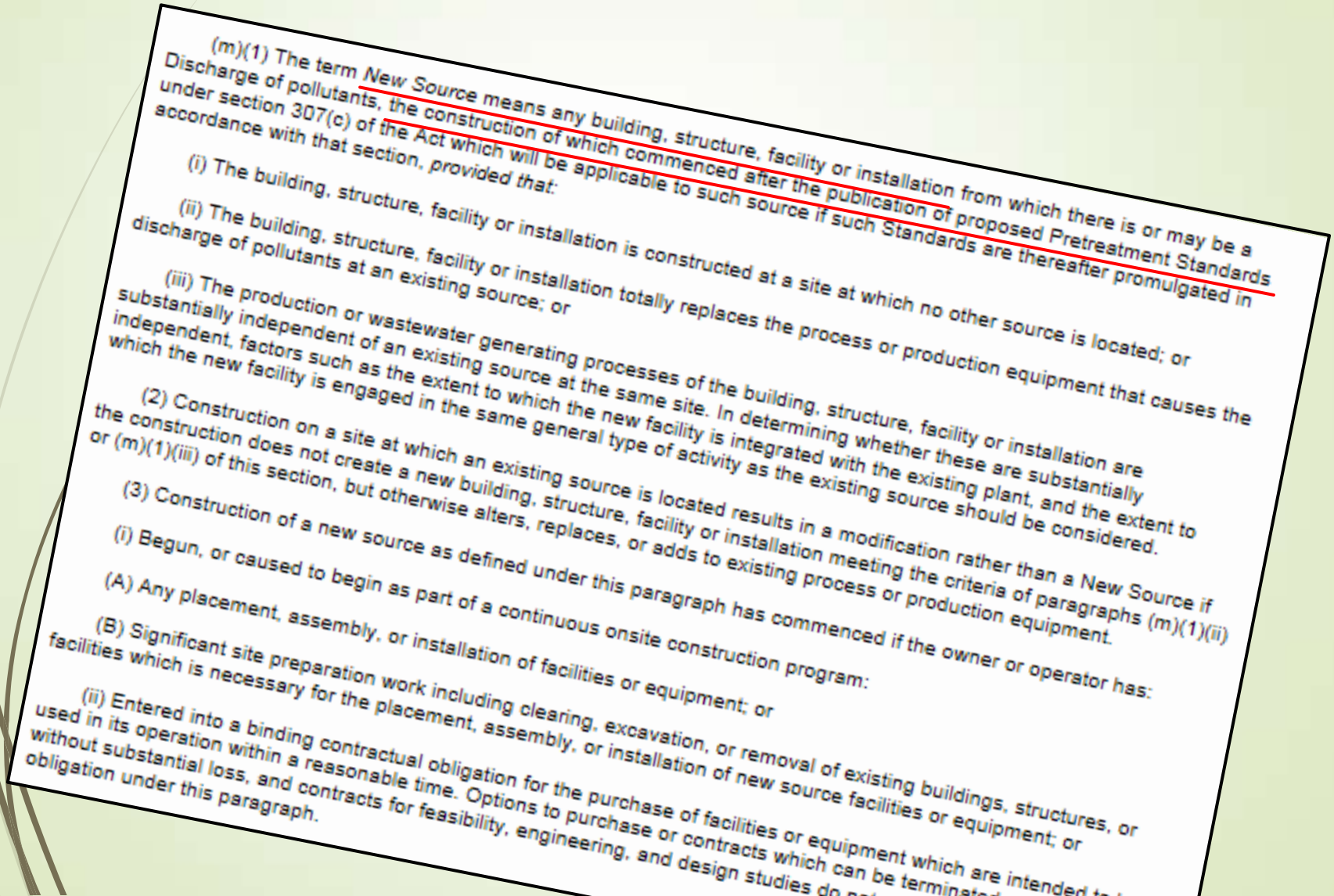
What's a New Source?

40 CFR part 403.3 Definitions



(m)(1) The term *New Source* means any building, structure, facility or installation from which there is or may be a Discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, *provided that:*

(i) The building, structure, facility or installation is constructed at a site at which no other source is located; or

(ii) The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

(iii) The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

(2) Construction on a site at which an existing source is located results in a modification rather than a New Source if the construction does not create a new building, structure, facility or installation meeting the criteria of paragraphs (m)(1)(ii) or (m)(1)(iii) of this section, but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:

(i) Begun, or caused to begin as part of a continuous onsite construction program:

(A) Any placement, assembly, or installation of facilities or equipment; or

(B) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(ii) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated without substantial loss, and contracts for feasibility, engineering, and design studies do not

Lets look at a Category!!

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Manufacturing Began - 1998
Rule Published -1983
New Source 469.28 applies

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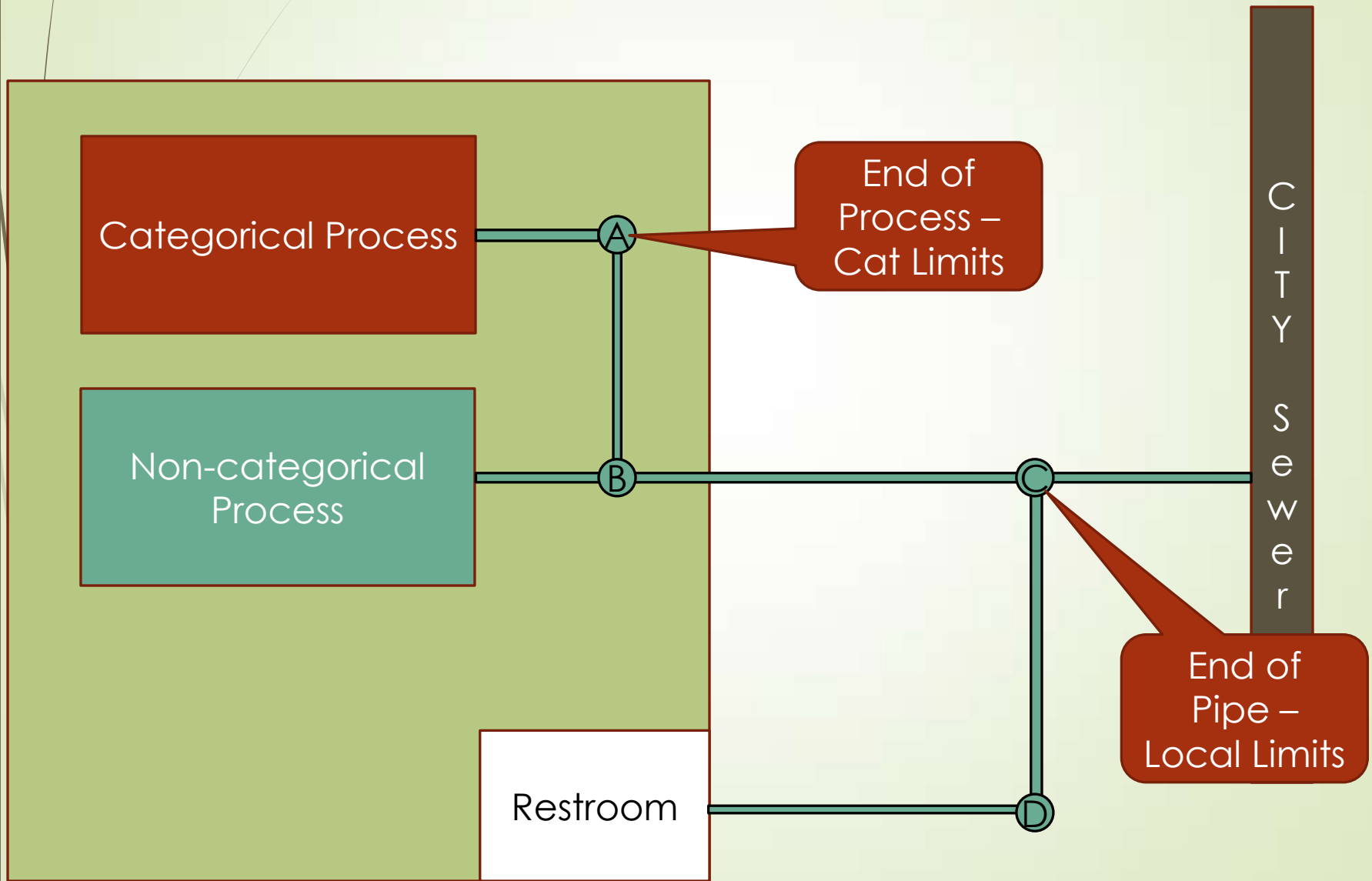
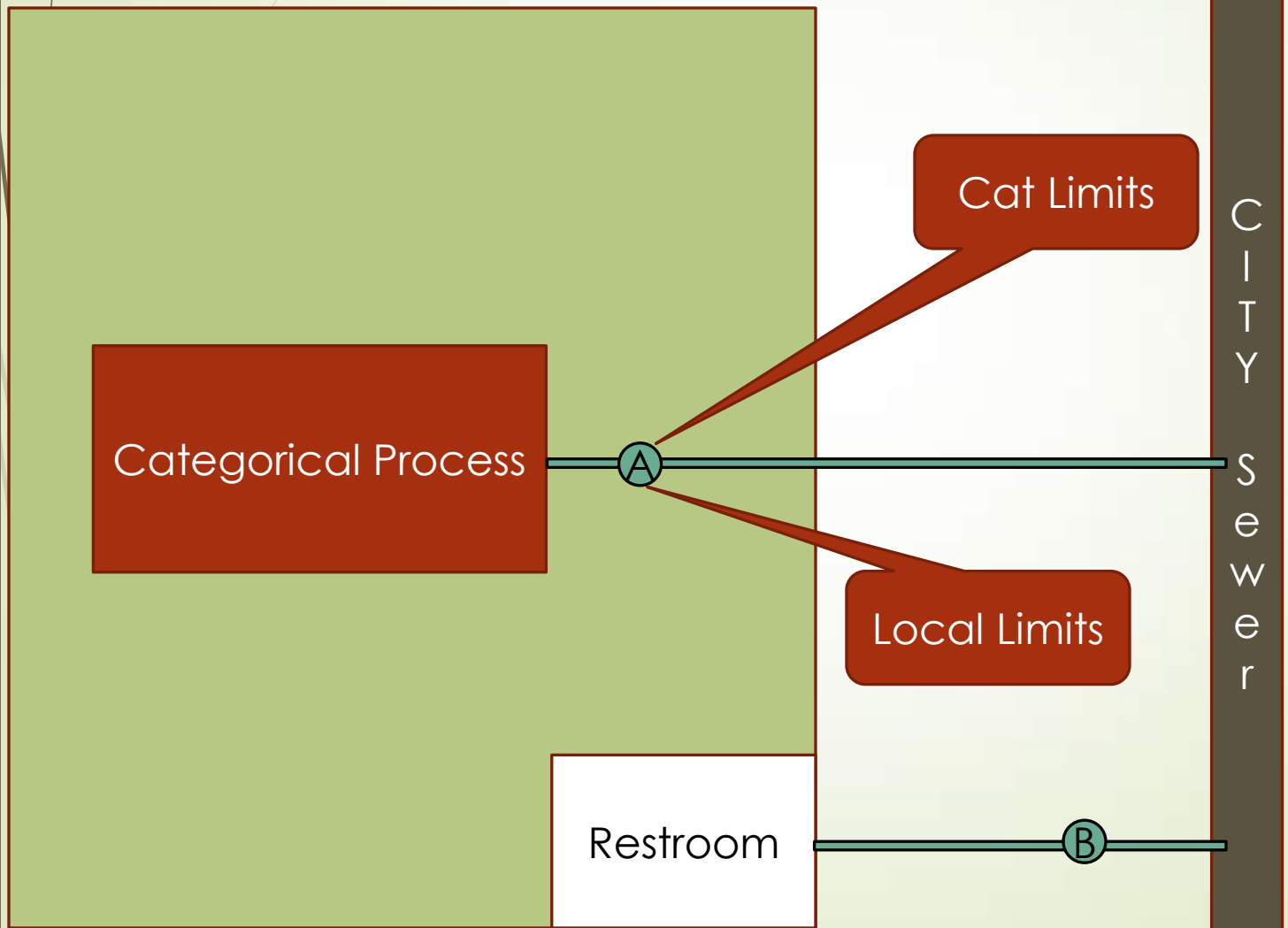
Local Limits vs. Categorical Standards
Where to apply limits?



Local Limits vs. Categorical Standards Where to apply limits?



Copper

LL – 2.80 mg/L

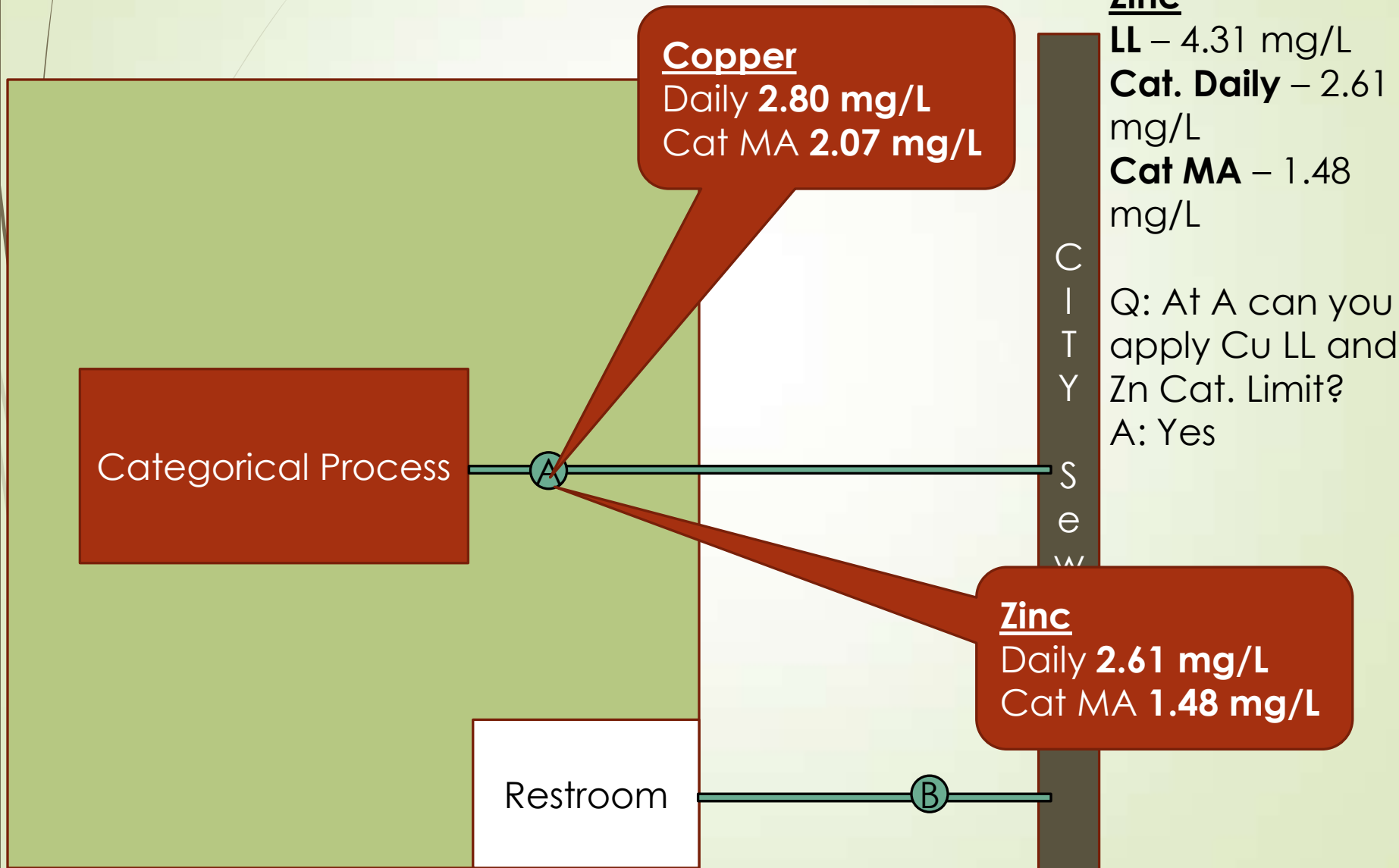
Cat. Daily Max – 3.38 mg/L

Cat. Monthly Ave. Limit – 2.07 mg/L

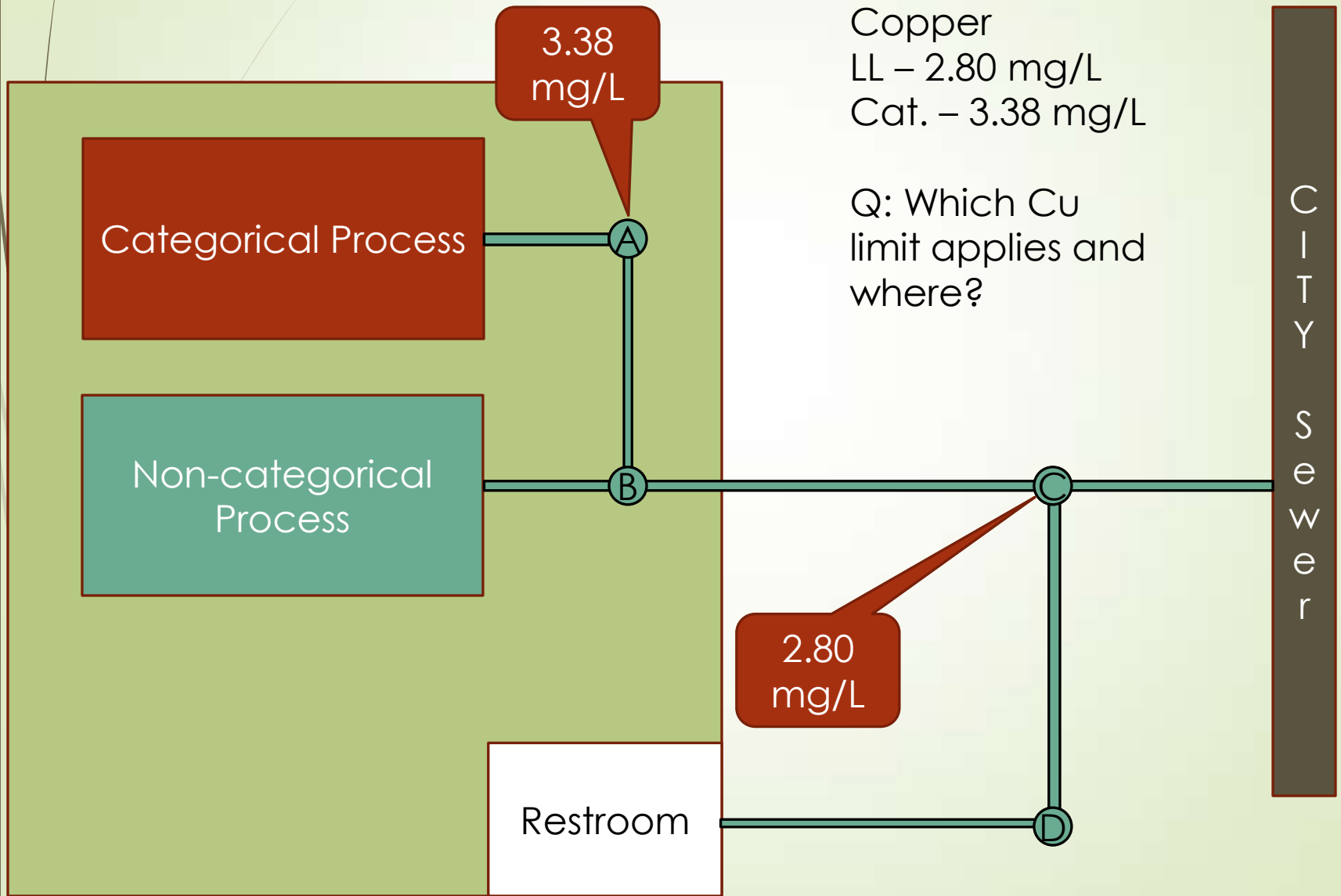
Q: Which limit(s) do you apply at A?

A: The most stringent daily limit – **2.80 mg/L** and the Cat. M.A. – **2.07 mg/L**

Local Limits vs. Categorical Standards
Where to apply limits?



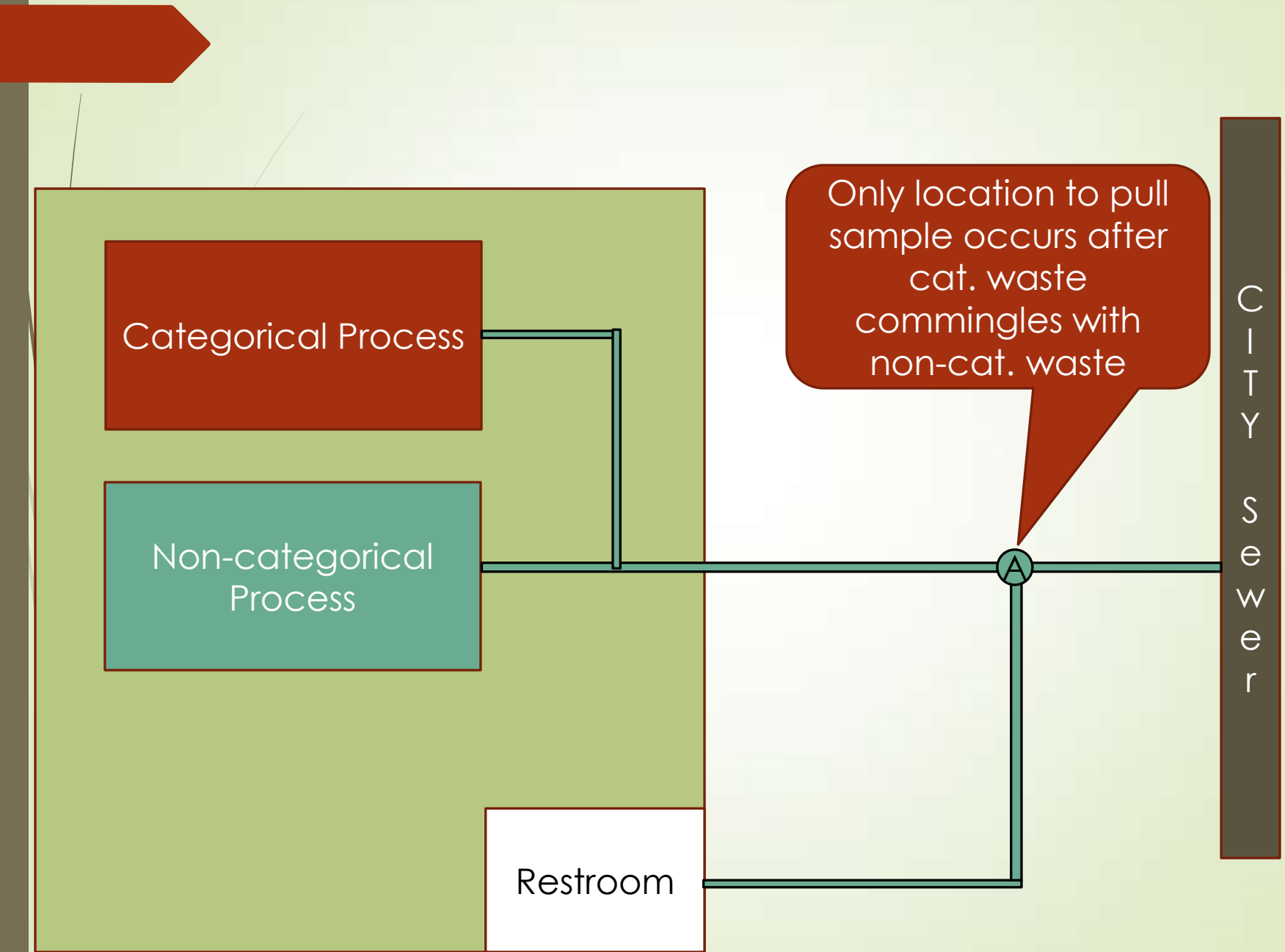
Local Limits vs. Categorical Standards
Where to apply limits?



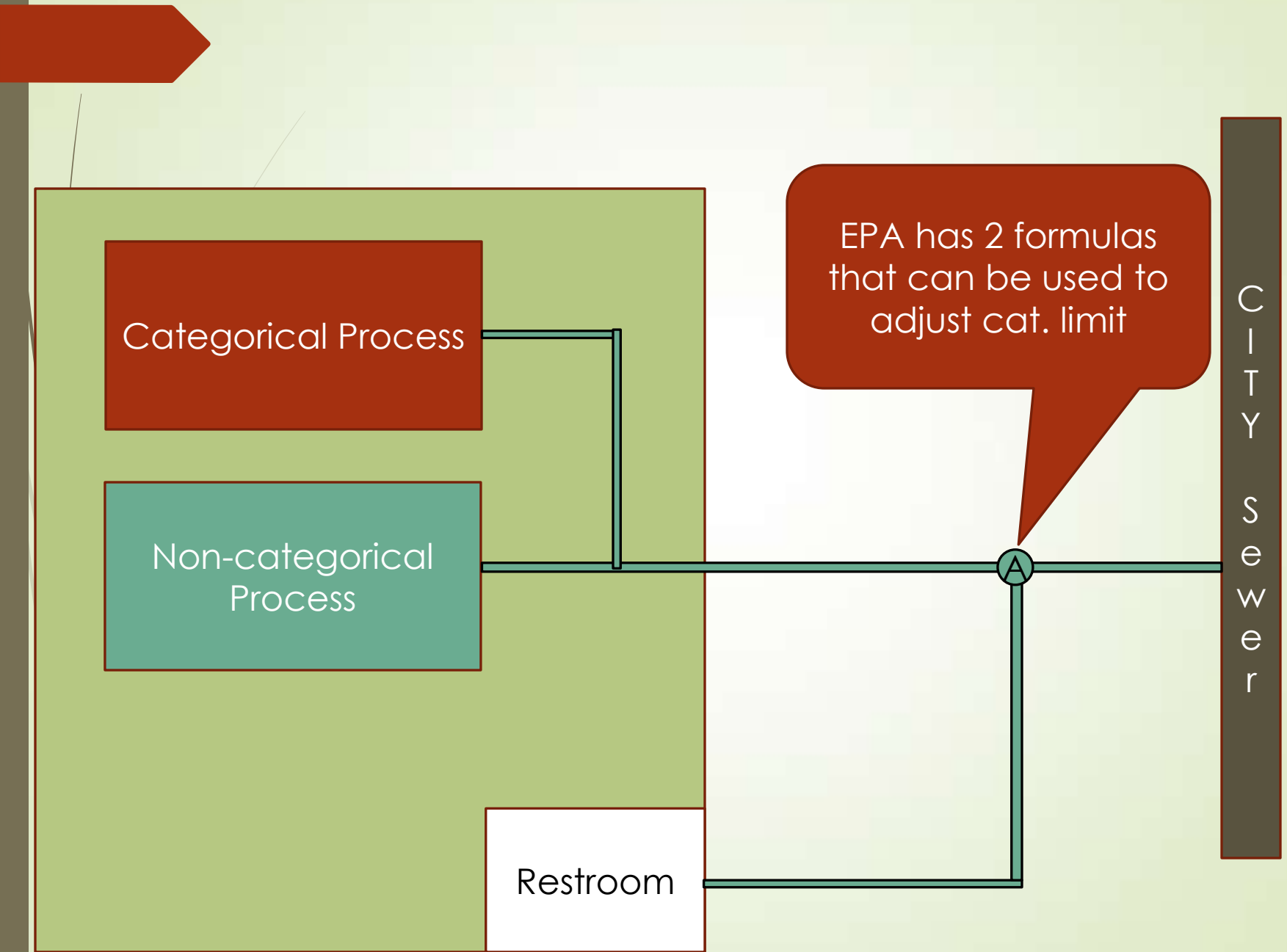
Copper
LL – 2.80 mg/L
Cat. – 3.38 mg/L

Q: Which Cu limit applies and where?

Commingling of Waste Streams



Commingling of Waste Streams



Commingling of Waste Streams

Adjusting Cat. Limits:

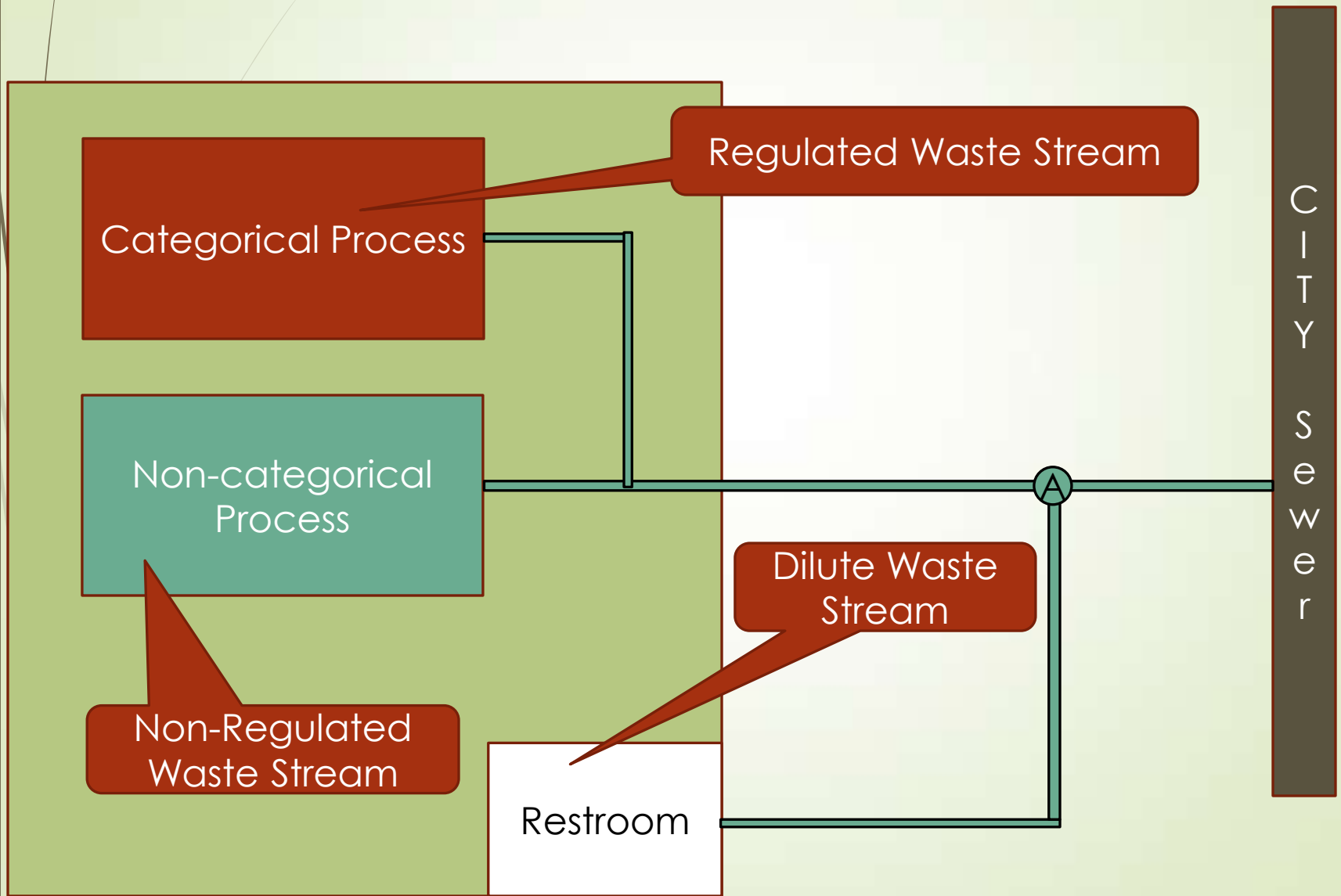
- Combined Waste Stream Formula

$$C_{AL} = \frac{\sum_{i=1}^{N} C_i F_i}{\sum_{i=1}^{N} F_i} \left(\frac{F_{AL} - F_D}{F_{AL}} \right)$$

- Flow Weighted Average

$$C_{AD} = \frac{\sum_{i=1}^{NA} C_{AL_i} F_{AL_i} + \sum_{i=1}^{NC} C_{u_i} F_{u_i}}{F_{AD}}$$

Commingling of Waste Streams CWF or FWA terms to know:



Commingling of Waste Streams

- *Guidance Manual for the Use of Production Based Pretreatment Standards and the Combined Wastestream Formula*, September 1985
- EPA Number: 833/B-85-201
- https://www3.epa.gov/npdes/pubs/owm0260.pdf

Lets look at a Category!!

Industry X began manufacturing photovoltaic cell modules (PVs), using a stainless steel foil as a substrate in 2005.

Which subpart?

Hint: Photovoltaic cells are a type of semi-conductor

PART 469—ELECTRICAL AND ELECTRONIC COMPONENTS POINT

Contents

Lets look at a Category!!

Industry X began manufacturing photovoltaic cell modules (PVs), using a stainless steel foil as a substrate in 2005.

Which subpart?

Subpart A—Semiconductor Subcategory

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§469.10 Applicability.

The provisions of this subpart are applicable to discharges resulting from all process operations associated with the manufacture of semiconductors, except sputtering, vapor deposition, and electroplating.

(b) The term "semiconductors" means solid state electrical devices which perform functions such as information processing and display, power handling, and interconversion between light energy and electrical energy.

(c) The term "manufacture of semiconductors" means those processes, beginning with the use of crystal wafers, which lead to or are associated with the manufacture of semiconductor devices.

Lets look at a Category!!

Industry X began manufacturing photovoltaic cell modules (PVs), using a stainless steel foil as a substrate in 2005.

More information about process:

Circuitry is placed on the foil substrate through sputtering, electro-deposition (plating), and screen printing.

Which category?

Lets look at a Category!!

Industry X began manufacturing photovoltaic cell modules (PVs), using a stainless steel foil as a substrate in

More information on process:

Circuitry is place substrate through sp electro-deposition (pla and screen printing.

Which category?

Part 433

Iron and Steel Manufacturing	420	1974	2005
Landfills	445	2000	2000
Leather Tanning and Finishing	425	1982	1996
Meat and Poultry Products	432	1974	2004
Metal Finishing[2]	433	1983	1986
Metal Molding and Casting (Foundries)	464	1985	1985
Products and Machinery	438	2003	2003
nd Processing	436	1975	1979
g and Metal Powders	471	1985	1989
	421	1976	1990
	435	1975	2016
	440	1975	1988
	4	1987	1993
		1975	1975
			1975
Pes			
Petroleum Re			2

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Subpart A—Metal Finishing Subcategory

§433.10 Applicability; description of the metal finishing point source category.

(a) Except as noted in paragraphs (b) and (c), of this section, the provisions of this subpart apply to plants which perform any of the following six metal finishing operations on any basis material: Electroplating, Electroless Plating, Anodizing, Coating (chromating, phosphating, and coloring), Chemical Etching and Milling, and Printed Circuit Board Manufacture. If any of those six operations are present, then this part applies to discharges from those operations to discharges from any of those six operations are present, then this part applies to discharges from those operations: Cleaning, Machining, Grinding, Polishing, Tumbling, Burnishing, Impact Deformation, Pressure Deformation, Shearing, Heat Treating, Thermal Cutting, Welding, Soldering, Flame Spraying, Sand Blasting, Other Abrasive Jet Machining, Electric Discharge Machining, Machining, Electron Beam Machining, Laser Beam Machining, Plasma Arc Machining, Ultrasonic Machining, Laminating, Hot Dip Coating, Sputtering, Vapor Plating, Thermal Infusion, Salt Bath Descaling, Stripping, Painting, Electrostatic Painting, Electropainting, Vacuum Metalizing, Assembly, Mechanical Plating.

How Different Can Categorical Regulations Be?

- For each industry discharging to your POTW, determine if it is required to have a CIU permit:
  - A Simple Slaughterhouse
  - Soap Manufacturer
  - Oil Based Paint Formulator
  - Roofing Asphalt Emulsions Production Plant

How Different Can Categorical Regulations Be?

A Simple Slaughterhouse?

No

§432.14 Pretreatment standards for existing sources (PSES). [Reserved]

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PART 432—MEAT AND POULTRY PRODUCTS POINT SOURCE CATEGORY

Contents

How Different Can Categorical Regulations Be?

Soap Manufacturer
NO

If it meets SIU criteria, then permit as a non-categorical SIU

§417.16 Pretreatment standards for new sources.

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403.

Title 40: Protection of Environment

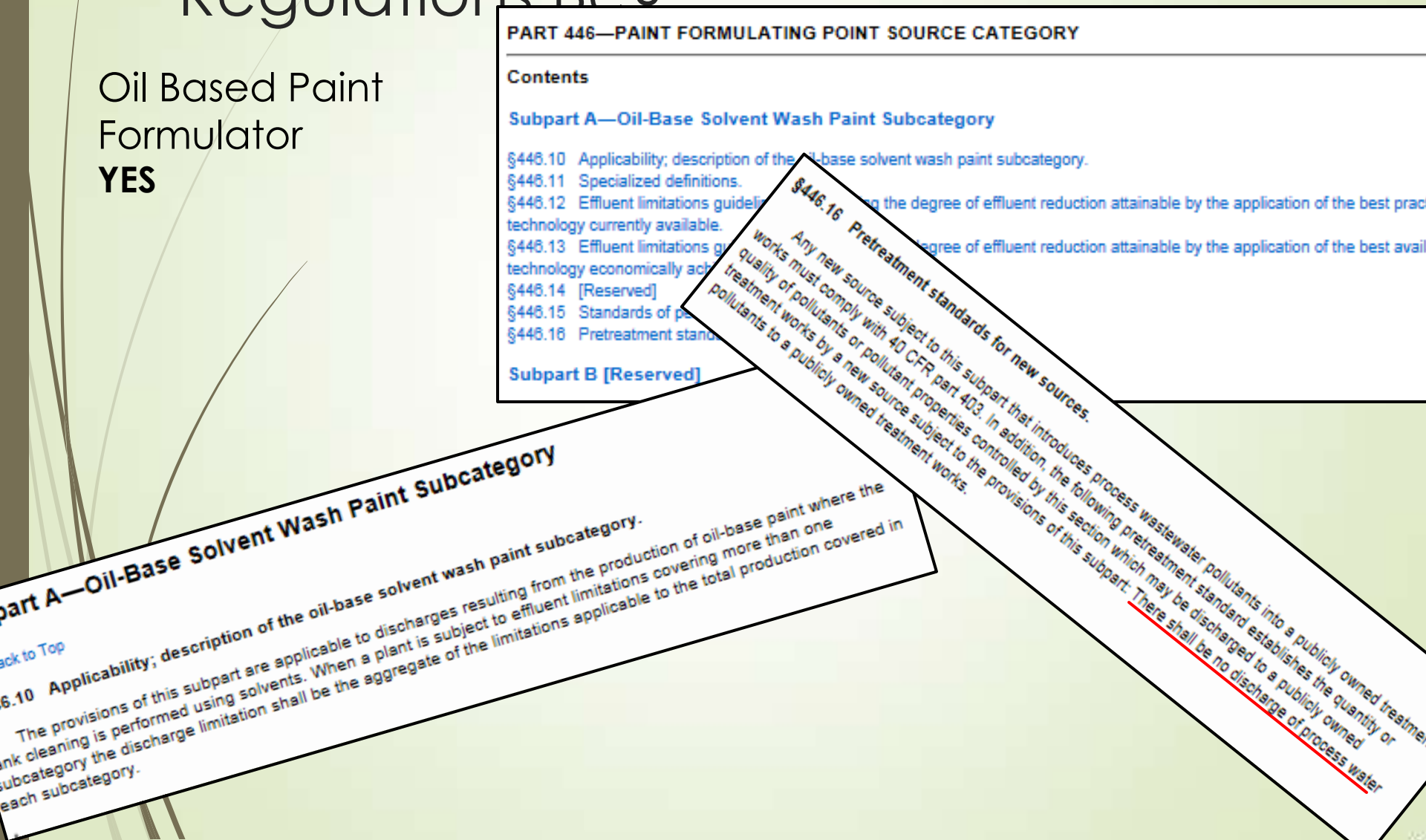
PART 417—SOAP AND DETERGENT MANUFACTURING POINT SOURCE CATEGORY

Contents

How Different Can Categorical Regulations Be?

Oil Based Paint Formulator

YES



PART 446—PAINT FORMULATING POINT SOURCE CATEGORY

Contents

Subpart A—Oil-Base Solvent Wash Paint Subcategory

§446.10 Applicability; description of the oil-base solvent wash paint subcategory.
§446.11 Specialized definitions.
§446.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable technology currently available.
§446.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
§446.14 [Reserved]
§446.15 Standards of performance for new sources.
§446.16 Pretreatment standards for new sources.

Subpart B [Reserved]

§446.16 Pretreatment standards for new sources.

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403. In addition, the following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart: There shall be no discharge of process water pollutants to a publicly owned treatment works.

Subpart A—Oil-Base Solvent Wash Paint Subcategory

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§446.10 Applicability; description of the oil-base solvent wash paint subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of oil-base paint where the tank cleaning is performed using solvents. When a plant is subject to effluent limitations covering more than one subcategory the discharge limitation shall be the aggregate of the limitations applicable to the total production covered in each subcategory.

How Different Can Categorical Regulations Be?

Roofing Asphalt Emulsion Production Plant

YES

PART 443—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRE-TREAT-MENT STANDARDS FOR NEW SOURCES FOR THE PAVING AND ROOFING MATERIALS (TARS AND ASPHALT) POINT SOURCE CATEGORY

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Title 40: Protection of Environment
PART 443—EFFLUENT LIMITATIONS GUIDELINES FOR EXISTING SOURCES AND STANDARDS OF PERFORMANCE AND PRE-TREAT-MENT STANDARDS FOR NEW SOURCES FOR THE PAVING AND ROOFING MATERIALS (TARS AND ASPHALT) POINT SOURCE CATEGORY
Subpart A—Asphalt Emulsion Subcategory

§443.10 Applicability; description of the asphalt emulsion subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of asphalt paving and roofing emulsions.

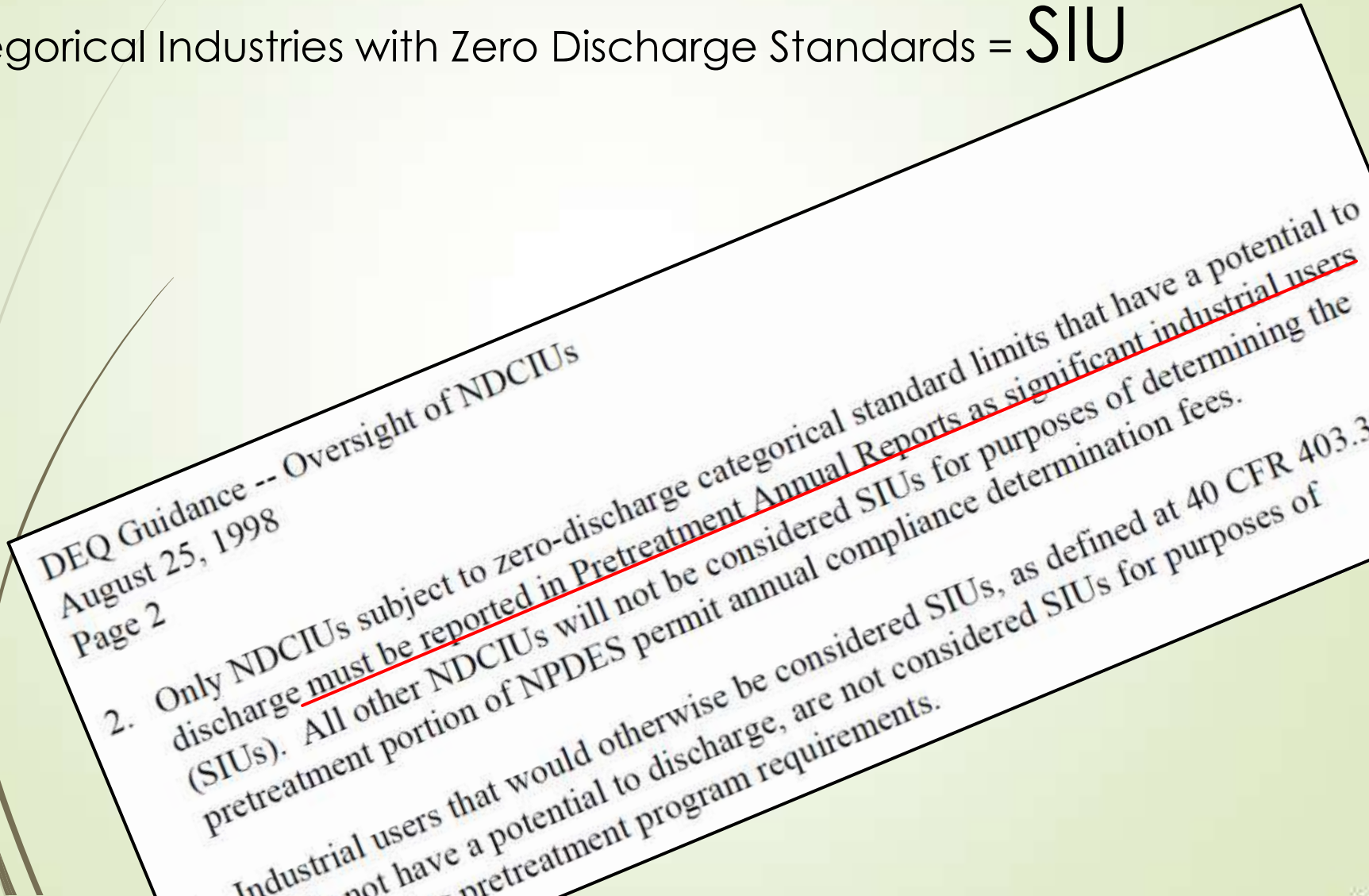
§443.16 Pretreatment standards for new sources.

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403. In addition, the following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a new source subject to the provisions of this subpart:

Pollutant or pollutant property	Pretreatment standard
BOD_5	No limitation.
TSS	Do.
pH	Do.
Oil and grease	100 mg/l.

How Different Can Categorical Regulations Be?

Categorical Industries with Zero Discharge Standards = SIU


DEQ Guidance -- Oversight of NDCIUs
August 25, 1998
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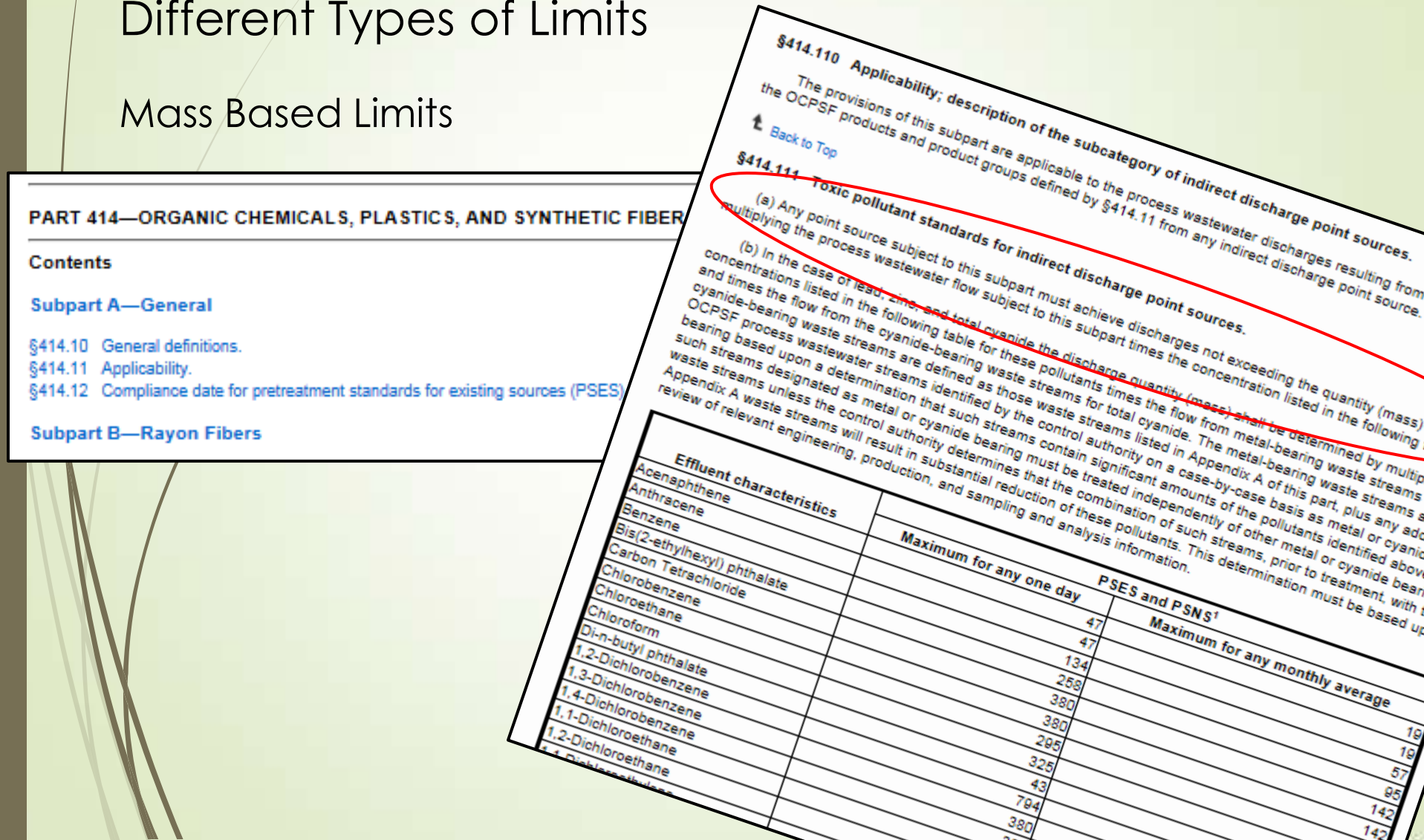
2. Only NDCIUs subject to zero-discharge categorical standard limits that have a potential to discharge must be reported in Pretreatment Annual Reports as significant industrial users (SIUs). All other NDCIUs will not be considered SIUs for purposes of determining the pretreatment portion of NPDES permit annual compliance determination fees.

Industrial users that would otherwise be considered SIUs, as defined at 40 CFR 403.3
not have a potential to discharge, are not considered SIUs for purposes of
pretreatment program requirements.

How Different Can Categorical Regulations Be?

Different Types of Limits

Mass Based Limits



PART 414—ORGANIC CHEMICALS, PLASTICS, AND SYNTHETIC FIBER

Contents

Subpart A—General

§414.10 General definitions.
§414.11 Applicability.
§414.12 Compliance date for pretreatment standards for existing sources (PSES)

Subpart B—Rayon Fibers

§414.110 Applicability; description of the subcategory of indirect discharge point sources.

The provisions of this subpart are applicable to the process wastewater discharges resulting from the OCPSF products and product groups defined by §414.11 from any indirect discharge point source.

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§414.111 Toxic pollutant standards for indirect discharge point sources.

(a) Any point source subject to this subpart must achieve discharges not exceeding the quantity (mass) multiplying the process wastewater flow subject to this subpart times the concentration listed in the following

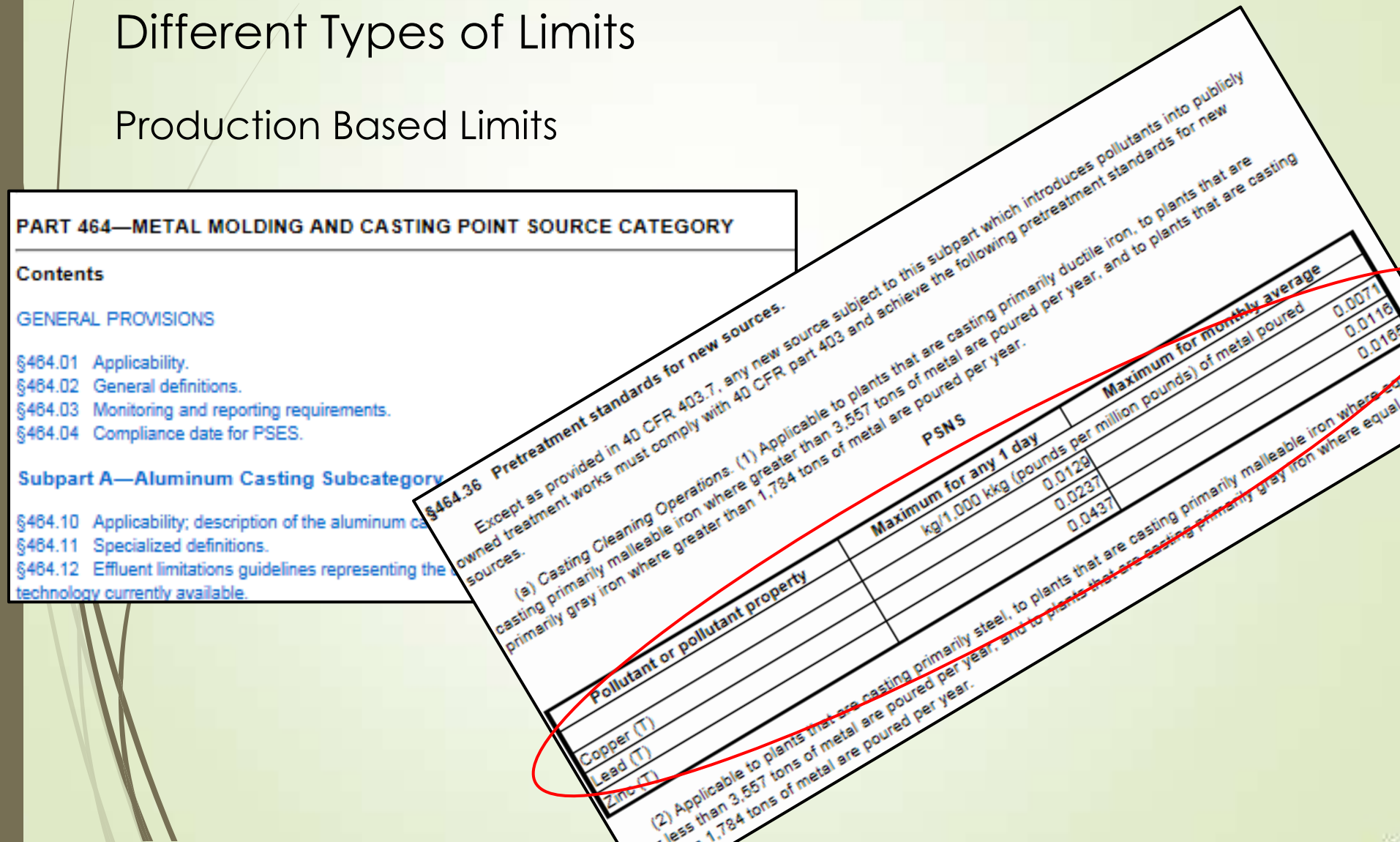
(b) In the case of lead, zinc, and total cyanide the discharge quantity (mass) shall be determined by multip concentrations listed in the following table for these pollutants times the flow from metal-bearing waste streams and times the flow from the cyanide-bearing waste streams for total cyanide. The metal-bearing waste streams cyanide-bearing waste streams are defined as those waste streams listed in Appendix A of this part, plus any add OCPSF process wastewater streams identified by the control authority on a case-by-case basis as metal or cyanid bearing based upon a determination that such streams contain significant amounts of the pollutants identified above such streams designated as metal or cyanide bearing must be treated independently of other metal or cyanide bear waste streams unless the control authority determines that the combination of such streams, prior to treatment, with Appendix A waste streams will result in substantial reduction of these pollutants. This determination must be based up review of relevant engineering, production, and sampling and analysis information.

Effluent characteristics	PSES and PSNS[1]	
	Maximum for any one day	Maximum for any monthly average
Acenaphthene	47	19
Anthracene	47	19
Benzene	134	57
Bis(2-ethylhexyl) phthalate	258	95
Carbon Tetrachloride	380	142
Chlorobenzene	380	142
Chloroethane	295	
Chloroform	325	
Di-n-butyl phthalate	43	
1,2-Dichlorobenzene	794	
1,3-Dichlorobenzene	380	
1,4-Dichlorobenzene		
1,1-Dichloroethane		
1,2-Dichloroethane		

How Different Can Categorical Regulations Be?

Different Types of Limits

Production Based Limits



PART 464—METAL MOLDING AND CASTING POINT SOURCE CATEGORY

Contents

GENERAL PROVISIONS

§464.01 Applicability.
§464.02 General definitions.
§464.03 Monitoring and reporting requirements.
§464.04 Compliance date for PSES.

Subpart A—Aluminum Casting Subcategory

§464.10 Applicability; description of the aluminum ca
§464.11 Specialized definitions.
§464.12 Effluent limitations guidelines representing the
technology currently available.

§464.36 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources.

(a) *Casting Cleaning Operations.* (1) Applicable to plants that are casting primarily ductile iron, to plants that are casting primarily malleable iron where greater than 3,557 tons of metal are poured per year, and to plants that are primarily gray iron where greater than 1,784 tons of metal are poured per year.

PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	kg/1,000 kkg (pounds per million pounds) of metal poured	
Copper (T)	0.0129	0.0071
Lead (T)	0.0237	0.0116
Zinc (T)	0.0437	0.0165

(2) Applicable to plants that are casting primarily steel, to plants that are casting primarily malleable iron where less than 3,557 tons of metal are poured per year, and to plants that are casting primarily gray iron where equal 1,784 tons of metal are poured per year.

How Different Can Categorical Regulations Be?

Different Types of Limits

Best Management Plans

PART 433—METAL FINISHING POINT SOU

Contents

Subpart A—Metal Finishing Subcategory

Subpart B [Reserved]

§433.15 Pretreatment standards for existing sources (PSES).

(a) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart that introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources (PSES):

PSES FOR ALL PLANTS EXCEPT JOB SHOPS AND INDEPENDENT PRINTED CIRCUIT BOARD MANUFACTURERS

Pollutant or pollutant property	Maximum for any 1 day	Monthly average shall not exceed
	Milligrams per liter (mg/l)	
Cadmium (T)	0.69	0.26
Chromium (T)	2.77	1.71
Copper (T)	3.38	2.07
Lead (T)	0.69	0.43
Nickel (T)	3.98	2.38
Silver (T)	0.43	0.24
Zinc (T)	2.61	1.48
Cyanide (T)	1.20	0.65
TTO	2.13	

(b) Alternatively, for industrial facilities with cyanide treatment, upon agreement between a source subject to those limits and the pollution control authority. The following amenable cyanide limit may apply in place of the total cyanide limit specified in paragraph (a) of this section:

Pollutant or pollutant property	Maximum for any 1 day	Monthly average shall not exceed
	Milligrams per liter (mg/l)	
Cyanide (A)	0.86	0.32

(c) No user introducing wastewater pollutants into a publicly owned treatment works under the provisions of this subpart shall augment the use of process wastewater as a partial or total substitute for adequate treatment to achieve compliance with this standard.

(d) An existing source submitting a certification in lieu of monitoring pursuant to §433.12 (a) and (b) of this regulation must implement the toxic organic management plan approved by the control authority.

(e) An existing source subject to this subpart shall comply with a daily maximum pretreatment standard for TTO of 4.57 mg/l.

TOMP

How Diff
Categorical

Different Types of Limits

Total Toxic Organics

Specialized definitions.

The definitions set forth in 40 CFR part 401 and the chemical analysis methods set forth in 40 CFR part 136 are bo
incorporated here by reference. In addition, the following definitions apply to this part:

(a) The term "T", as in "Cyanide, T", shall mean total.

(b) The term "A", as in "Cyanide A", shall mean amenable to alkaline chlorination.

(c) The term "job shop" shall mean a facility which owns not more than 50% (annual area basis) of the materials
undergoing metal finishing.

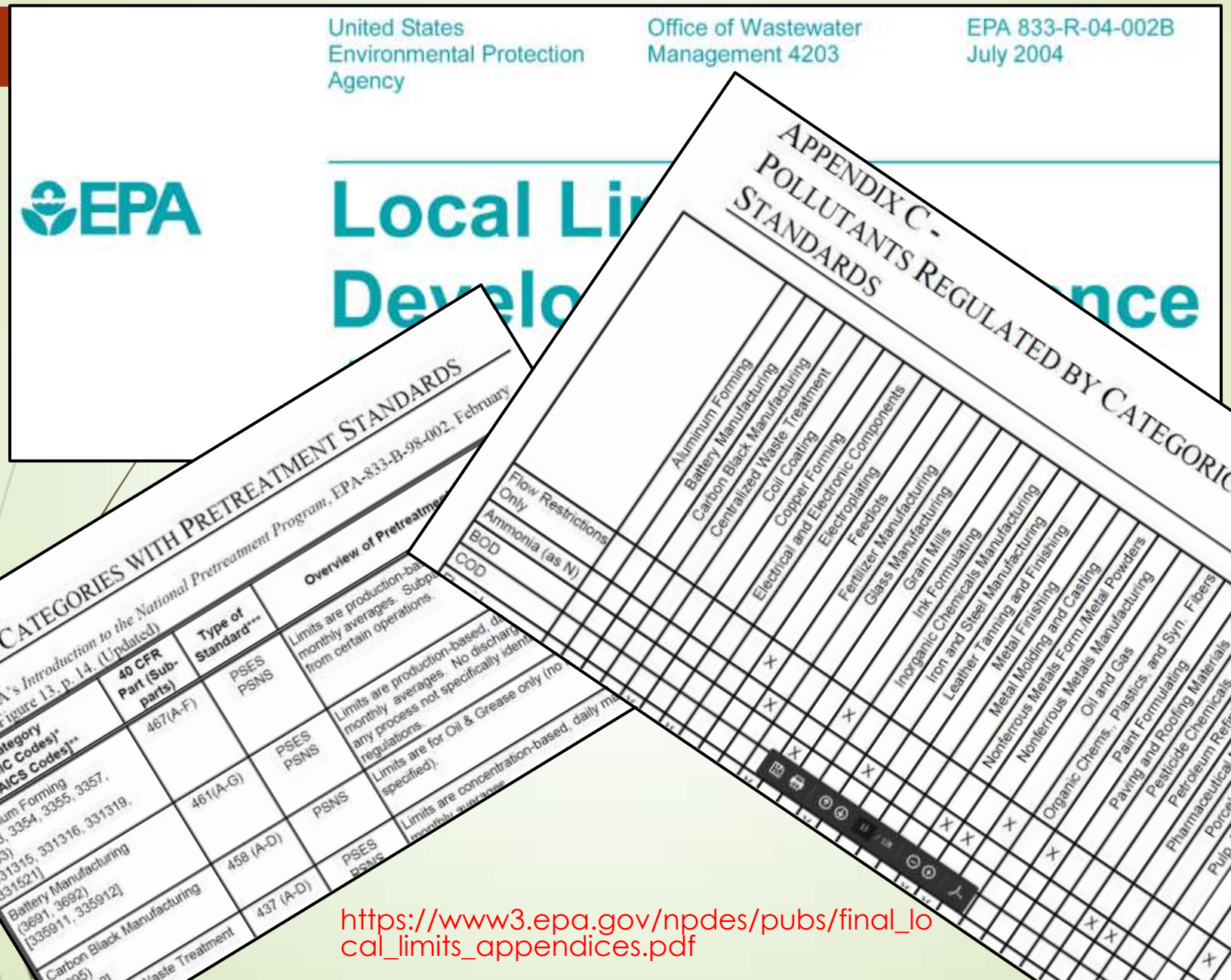
(d) The term "independent" printed circuit board manufacturer shall mean a facility which manufacturers printed circuit
boards principally for sale to other companies.

(e) The term "TTO" shall mean total toxic organics, which is the summation of all quantifiable values greater than .01
milligrams per liter for the following toxic organics:

Acenaphthene
Acrolein
Acrylonitrile
Benzene
Benzidine
Carbon tetrachloride (tetrachloromethane)
Chlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobenzene
1,2-Dichloroethane
1,1,1-Trichloroethane
Hexachloroethane
1,1-Dichloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
Chloromethane
Bis (2-chloroethyl) ether
2-Chloroethyl vinyl ether (mixed)
2,4,6-Trichlorophenol
Parachloromeeta cresol
Chloroform (trichloromethane)
2-Chlorophenol
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3-Dichlorobenzidine

Turns Out Pretty Different

Resource for Categorical Overview



https://www3.epa.gov/npdes/pubs/final_local_limits_appendices.pdf

You (yes, even you!) Can Adjust Categorical Standards

40 CFR 403 - 7 ways to alter numerical standards

1. Combined Waste Stream Formula
2. Flow Weighted Averages
3. Removal Credits
   - CIU gets limit(s) reduced based on POTWs ability to remove regulated pollutant
   - Burden on POTW to demonstrate its ability to treat IU's categorical pollutant
4. Fundamentally Different Factors Variance – CIU demonstrates operation is fundamentally different than those EPA considered when developing rule

You (yes, even you!) Can Adjust Categorical Standards

5. Net/Gross Adjustment – CIU can receive credit for pollutant demonstrated to be in its source water.
6. Equivalent mass limits – CA can convert conc. limits to mass if CIU demonstrates need for water conservation efforts
7. Equivalent Conc. Limits for Mass Based Standards

6&7 are optional Streamlining changes, must be adopted into SUO

Questions?

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