

# Pretreatment 101

From the Beginning

Adam Butterfield

Jeff Macfarlane

# PRETREATMENT 101

Opening / Introduction

Federal Water Pollution Control Act / Clean Water Act / Water Quality Act

40 CFR 403 / Pretreatment Program Requirements

General and Specific Prohibitions

Categorical Limits / Local Limits overview

Reporting: SIU to CA and CA to AA

Legal Authority

IU Permits

Enforcement Response Plan

Q&A

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# Two Things You Don't Want to See Being Made



Laws



Hotdogs





U.S. Constitution, Article 1, Section 1:

“All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.”

## IDEA

President, legislators, lobbyists, special interest groups, citizens.

## DRAFTING

Formal copy of bill prepared.

## INTRODUCTION

Bill is introduced, given a number, assigned to committee.

## FLOOR DEBATE AND VOTE

Bill is debated and voted on.

## CALENDARED

Placed on file for consideration on floor.

## COMMITTEE REVIEW

Testimony from author, proponents, opponents.  
Actions: Pass, Amend and Pass, No Action, Kill by Holding, Refer to another committee.

## PROCESS REPEATED IN OTHER HOUSE

If no amendments, it is sent to the President. If amended in 2<sup>nd</sup> house, bill is sent back to house of origin for review of amendments.

## CONFERENCE COMMITTEE

If committee members can't resolve differences, the bill dies. May write compromise version, if adopted, it goes to President.

## COMMITTEE REVIEW

House of origin decides whether to accept second-house amendments; if accepted, it goes to President, if not, it is sent to a two-house committee.

## PRESIDENT

Has 10 days to: Sign, allow to become law without signing, or veto.

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## COMMITTEE REVIEW

Testimony, Hearings, Amendments, Floor Action, No Action, to



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## PRESIDENT

Has 10 days to: Sign, allow to become law without signing, or veto.

Legislators write laws,  
agencies write regulations.

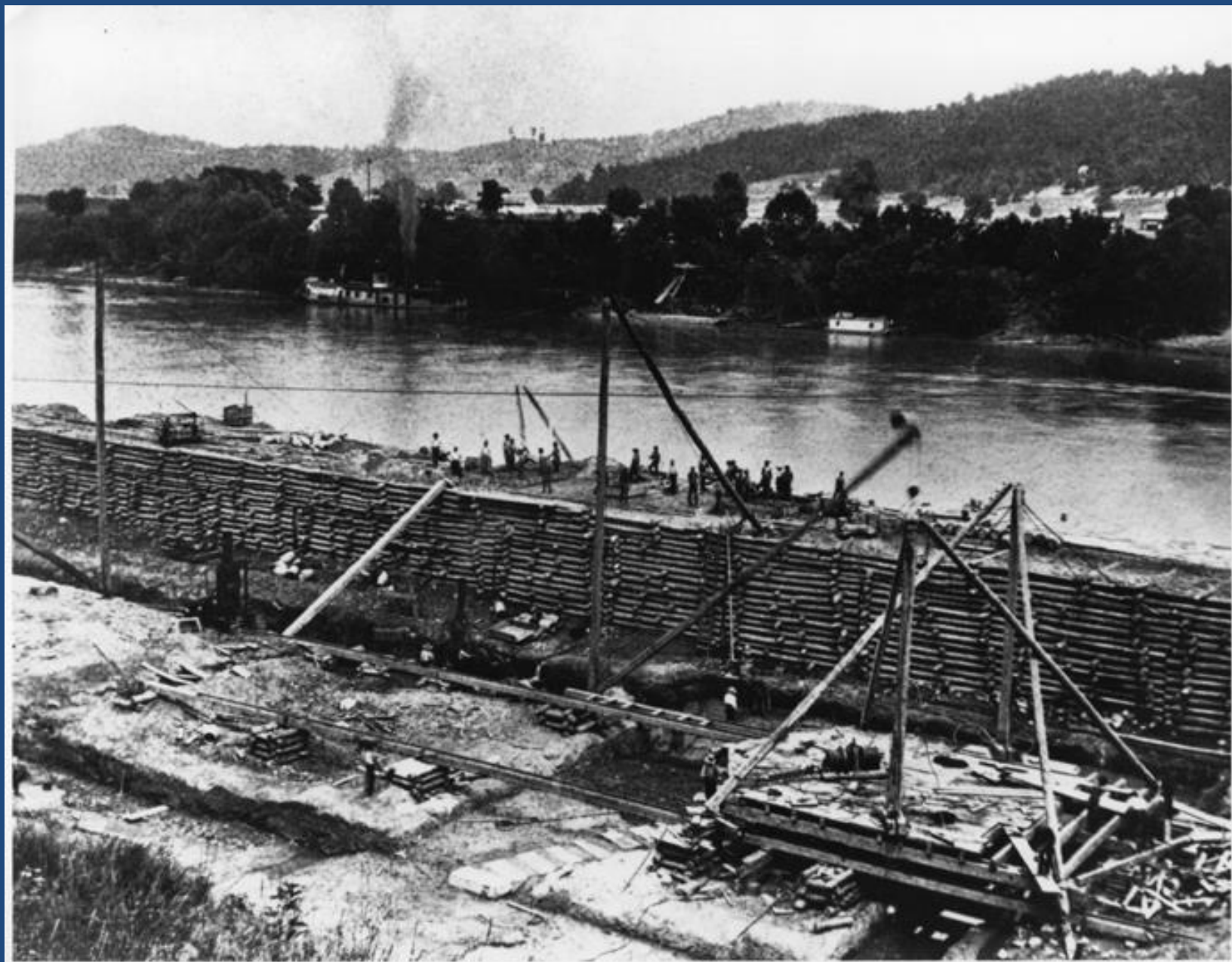


# History of the Clean Water Act

# 1869 – 1948 Bills



Mostly bills approving funding for rivers and harbors projects that either created or improved military and commercial navigation.





UPPER MISS. RIVER - LOCK NO. 2  
S.W. - CUT. No. 1, 2, 3 - 1936  
WOOD PILES DELIVERED

U. S. Engineer Office, St. Paul, Minn.  
MAY 3, 1936. No. 02.



# 1890 Bill (Section 6 was called the Refuse Act)

Section 6 of the Act prohibited “...the casting, throwing, emptying, or unlading of specific substances, ballast, stone, slate, gravel, rubbish, sawdust and of ***“refuse, or other wastes of any kind”*** into ports, roads, or navigable waters unless a permit was first secured from the Secretary of War.

# Senate Bill 418, 80th Congress, April 28, 1948

“...pollution of our water resources by domestic and industrial wastes has become an increasingly serious problem due to the rapid growth of our cities and industries.... ***Polluted waters menace the public health (through contamination of water and food supplies), destroy fish and game life, and rob us of other benefits of our natural resources.***”

# Water Quality Act of 1965

“It shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, ***any refuse matter of any kind or description whatever...***”





# Water Quality Act of 1965

*“...other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States...”*



# Water Quality Act of 1965

“...and it shall not be lawful to deposit, or cause, suffer, or procure to be deposited material of any kind in any place on the bank of any navigable water, or on the bank of any tributary of any navigable water, where the same shall be liable to be washed into such navigable water, either by ordinary or high tides, or by storms or floods, or otherwise...”



# Water Quality Act of 1965

*“...whereby navigation shall or may be impeded or obstructed...”*



Between 1949 and 1971 numerous bills were introduced but ultimately were defeated due to concerns of “federal government over-reach” and a perceived surrender of state sovereignty.

The 1948 Act, amended in 1965, had some good parts, such as some funding help and technical expertise but had no real enforcement “teeth” to limit water pollution.

The picture of the Cuyahoga River on fire that ended up in Time Magazine in 1969 was actually from a much more serious fire in November 1952. No picture of the 1969 river fire is known to exist.



The Cuyahoga River fire, Cleveland, Ohio  
November 1952



# Cleveland Mayor Carl Stokes, 1968





# Cleveland Mayor Carl Stokes and the Cleveland City Council

## Top 12 legislative accomplishments of 1968

Administration-sponsored bills have been passed by City Council in unprecedented volume. Among the major legislation enacted:

1. An increase in the city income tax to 1 percent.
2. Authorization of \$49 million in bonds, plus \$6.5 million in bond anticipation notes, to finance a broad range of capital improvements—street lighting, motor vehicles and equipment, airport parking, water and sewers, recreation facilities.
3. Establishment of the Department of Human Resources and Economic Development to coordinate job training and placement programs and to retain and expand business and industry.
4. Higher salary bands (\$30,000 top) for the Community Development Director and Health Director; higher pay throughout the city, in order to attract outstanding persons in all areas of government.
5. Creation of a city-county port authority.
6. An estimated \$1 million of utilities and other improvements in the Gladstone Area to make sites attractive for industrial development.
7. Approval of an application to the Federal government for a Community Development Improvement Program grant.
8. *Submission to the voters of a \$100 million Clean Water Bond Issue which passed.*
9. Authorization of transfer of the Zoo to the Cleveland Metropolitan Park Board.
10. Approval of a five-year, multi-million-dollar Urban Beautification program and application for Federal grant.
11. Increase in Municipal Light [electrical power] rates and authorization of improvements of light [electrical power] plant aimed at abating air pollution.
12. Approval of Cleveland's first and the nation's largest Open Spaces program, to acquire and add to park and recreation lands. Approval led to \$1,815,000 in Federal matching funds for the overall \$3,359,000 program.

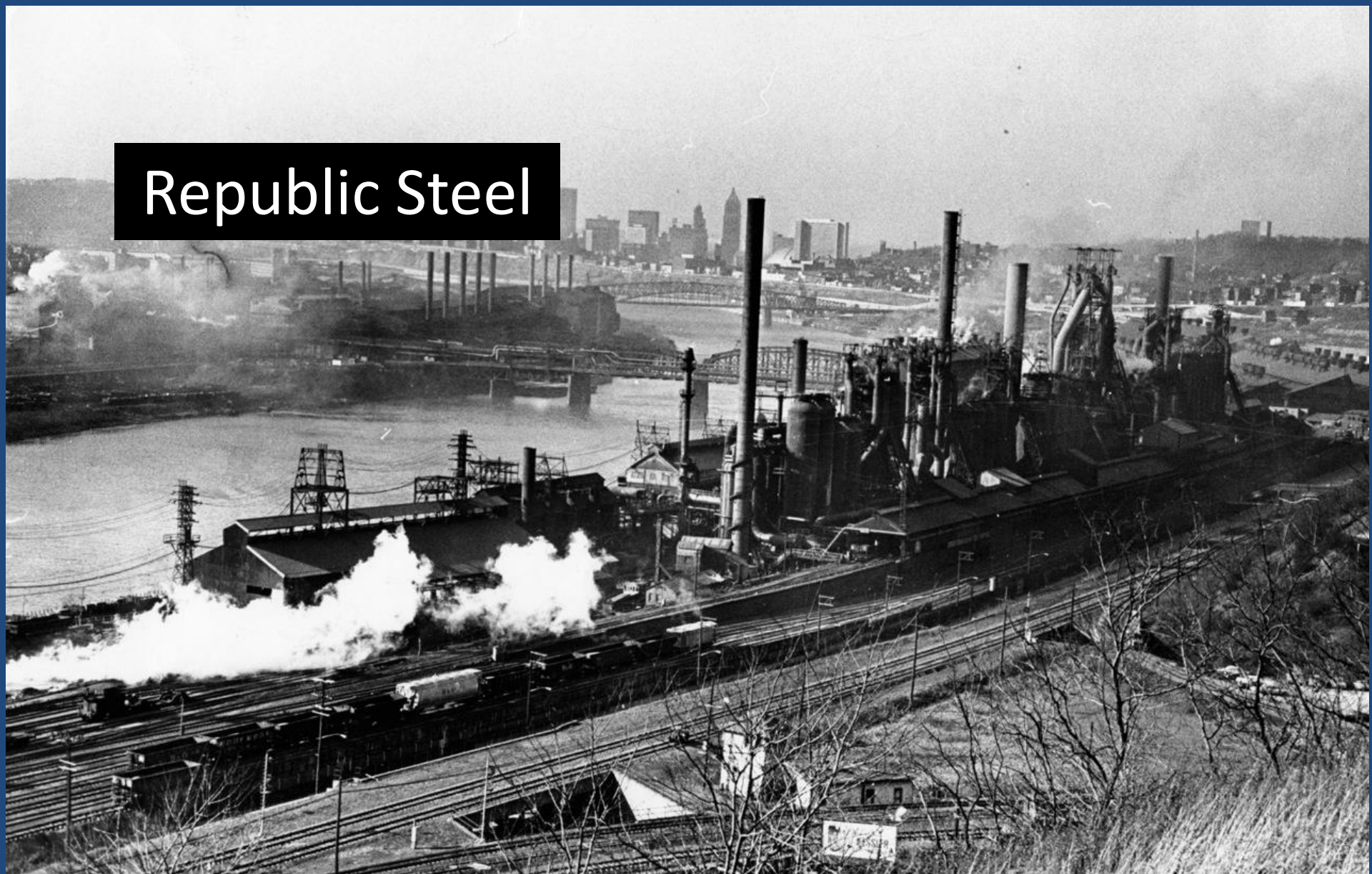
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# Republic Steel



# The Federal Water Pollution Control Act (the Clean Water Act)

- Began as Rivers and Harbors Act of 1869
- 53 Acts between 1869 and 1970, water pollution being only a secondary consideration.
- Completely rewritten and passed as FWPCA on October 18, 1972.
- Clean Water Act of 1977
- Water Quality Act of 1987, expanded to include storm water.

# Clean Water Act

“The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act—”

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water (***fishable and swimmable***) be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly-owned waste treatment works;

(5) it is the national policy that area-wide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and

(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this Act to be met through the control of both point and nonpoint sources of pollution.

# Regulations

- Clean Water Act's stated goal is "eliminating the discharge of all pollutants."
  - What are "pollutants"?
  - What are "waters of the United States"?



# What is a Pollutant?



Hardly  
recognizable  
as water



Pure  
 $H_2O$

# What is a Water Pollutant?

The term "pollutant" means: dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, and agricultural waste, discharged into water.

# What are Navigable Waters of the United States?

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

(8) The term "territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of ***three miles***.

# Waters of the United States:

All waters with a "significant nexus" to "navigable waters" are covered under the CWA; however, the phrase "significant nexus" remains open to judicial interpretation and considerable controversy.

The 1972 statute frequently uses the term "navigable waters," but also defines the term as "waters of the United States, including the territorial seas."

# Waters of the United States:

Some regulations interpreting the 1972 law have included water features such as *intermittent streams, playa lakes, prairie potholes, sloughs and wetlands* as "waters of the United States."

# Waters of the United States:

In 2006 the Supreme Court held that the term "waters of the United States":

*...includes only those relatively permanent, standing or continuously flowing bodies of water "forming geographic features" that are described in ordinary parlance as "streams, oceans, rivers, and lakes."*

# Not Waters of the United States:

An **intermittent stream** or **seasonal stream** only flows for part of the year.



# Not Waters of the United States:

A **dry lake** or **playa lake** is an ephemeral lakebed that either partially or completely dries up most years.





# Not Waters of the United States:



**Prairie Potholes** are depressions gouged out by glaciers. They fill with water in the spring, creating wetlands which range in duration from temporary to semi-permanent.

# Not Waters of the United States:



A **slough** or **marsh** is a wetland that is dominated by herbaceous rather than woody plant species. Marshes often form a transition between the aquatic and terrestrial ecosystems.

# CWA Regulations

Title 40 of the Code of Federal Regulations (40 CFR)

- Parts 100-140
- Parts 401-471
  - 60 categories
  - 27 with pretreatment standards
- Parts 501-503

# What is in the Clean Water Act?

- 40 CFR 105: An awards program for reducing water pollution.
- 40 CFR 109 – 112: Oil pollution
- 40 CFR 116 & 117: Hazardous waste
- 40 CFR 122 – 127: The NPDES program
- 40 CFR 129: Toxic Pollutant Effluent Standards
- 40 CFR 133: Secondary Treatment Standards (for POTWs)
- 40 CFR 136: Testing methods

# What is in the Clean Water Act?

- 40 CFR 401: General provisions with a “...national goal of *eliminating the discharge of all pollutants...*”

# What is in the Clean Water Act?

- 40 CFR 405 through 471: Effluent guidelines and standards for point sources.
- 40 CFR 501 through 503: Biosolids and sewage sludge

# What is in the Clean Water Act?

- **40 CFR 403:** General Pretreatment regulations for existing and new sources of pollution.

**YOUR PRETREATMENT PROGRAM  
WAS DEVELOPED FROM THIS PART**

# Are They Categorical?

403.1(b) This regulation applies:

To pollutants from non-domestic sources covered by Pretreatment Standards which are indirectly discharged into or transported by truck or rail or otherwise introduced into POTWs...

To any new or existing source that is ***subject to Pretreatment Standards.***

FYI: National Pretreatment Standards do not apply to sources which discharge to a sewer which is not connected to a POTW Treatment Plant.



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# How to Read and Cite the CFRs

TITLE (40 CFR)

PART (403)

SUBPART

SECTION (.1)

SUBSECTION

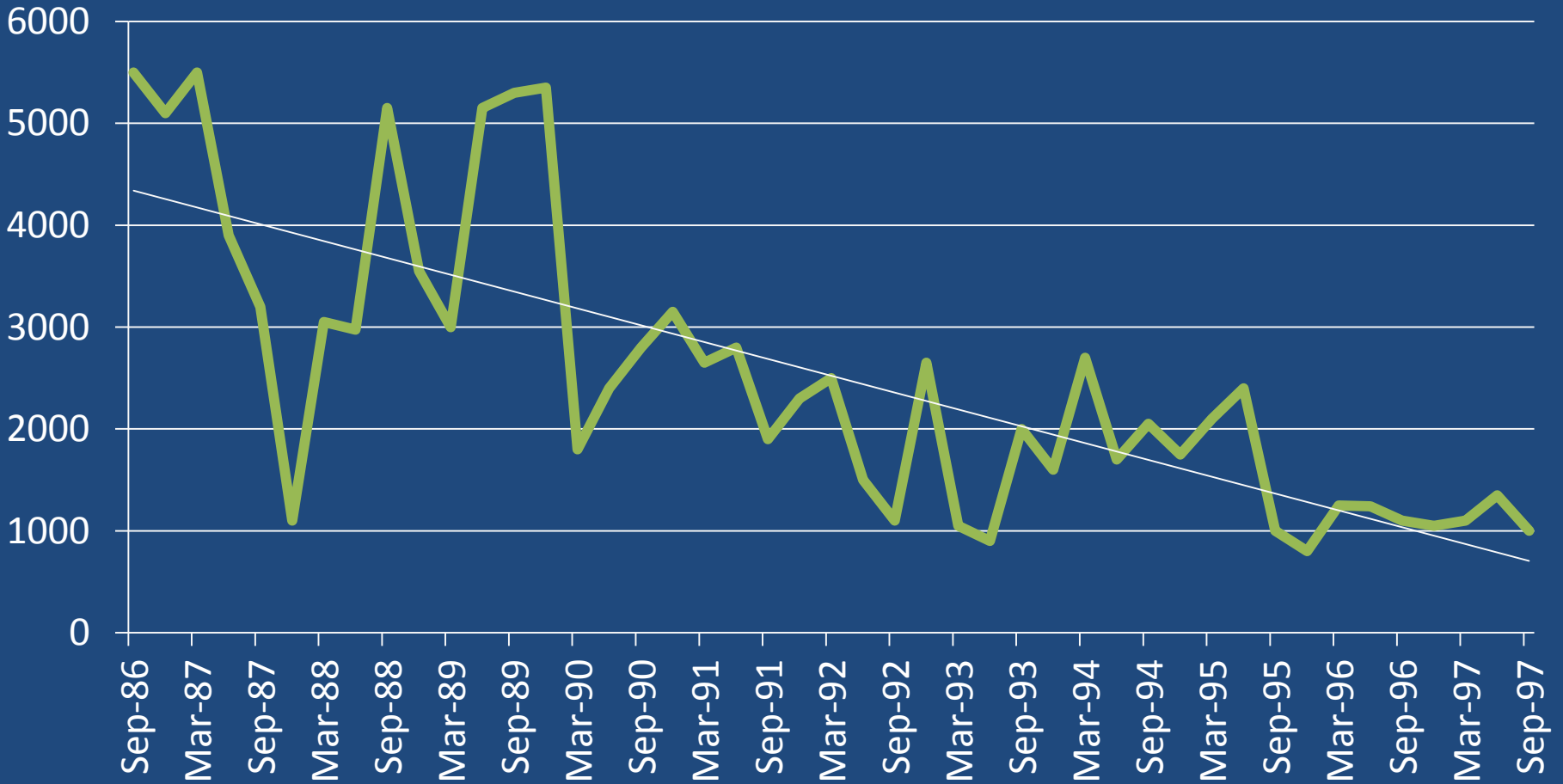
Paragraph (a)

Sub-  
paragraphs  
(1)

	Symbol
Paragraph	(a), (b), (c), etc.
Further subdivisions	(1), (2), (3), etc.
	(i), (ii), (iii), etc
	(A), (B), (C), etc.
	(1), (2), (3), etc.
	(i), (ii), (iii), etc

# It's working!

## Total Metals in Biosolids, lbs











05/22/2012







A70740T

TARE WEIGHT  
24,700 LBS

TARE WEIGHT  
24,700 LBS

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03/10/2011















**DANGER**  
**CORROSIVE**

**DANGER**  
**CONFINED SPACE**  
CONTACT SHEET EQUIPMENT  
FOR ENTRY PERMITS



**DANGER**  
**CORROSIVE**

**DANGER**  
**CONFINED SPACE**  
CONTACT SHUT & LOCKED  
FOR ENTRY - EXITS

INVESTIGATION-DERIVED MATERIAL  
BORING NO. B-6  
DATE 4/14/16  
IDM TYPE (Circle one) SOIL  WATER DEBRIS  
SOURCE LOCATION DRILLING DECON WATER  
HIGHEST PID READING ppm  
PERCENT FULL  
COMMENTS POSSIBLE PCL F.T.C.I.

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4/14/16  
Hazardous  
WATER POSSIBLE  
DCE  
TCE

WATER POSSIBLE  
DCE  
TCE









# Boss to Employee:

Boss: The guy from the sewer district said we have to store all chemical containers on containment pallets.

Employee: But Boss...

Boss: We just spent a fortune on containment pallets, why aren't we using them?!

Employee: But Boss...

Boss: You heard what I said! Put it on a containment pallet!

Employee: But Boss...

Boss: No "buts", JUST DO IT!

Employee: OK, you're the Boss...





You dumped WHAT?