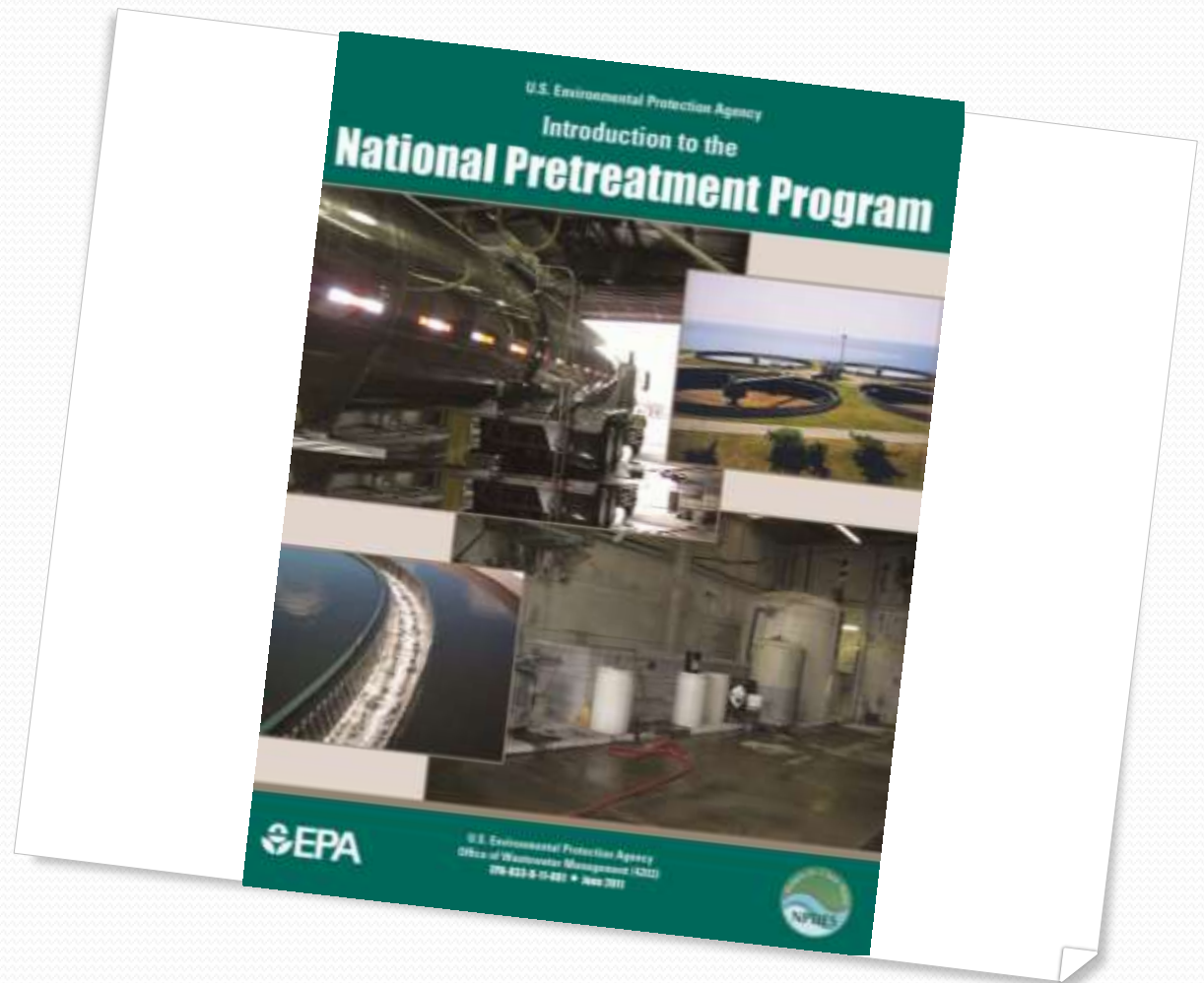


Pretreatment Program Elements

Wastewater Pretreatment 101

**Taken from:
Introduction to the
National
Pretreatment
Program**

U.S. Environmental
Protection Agency, 2011

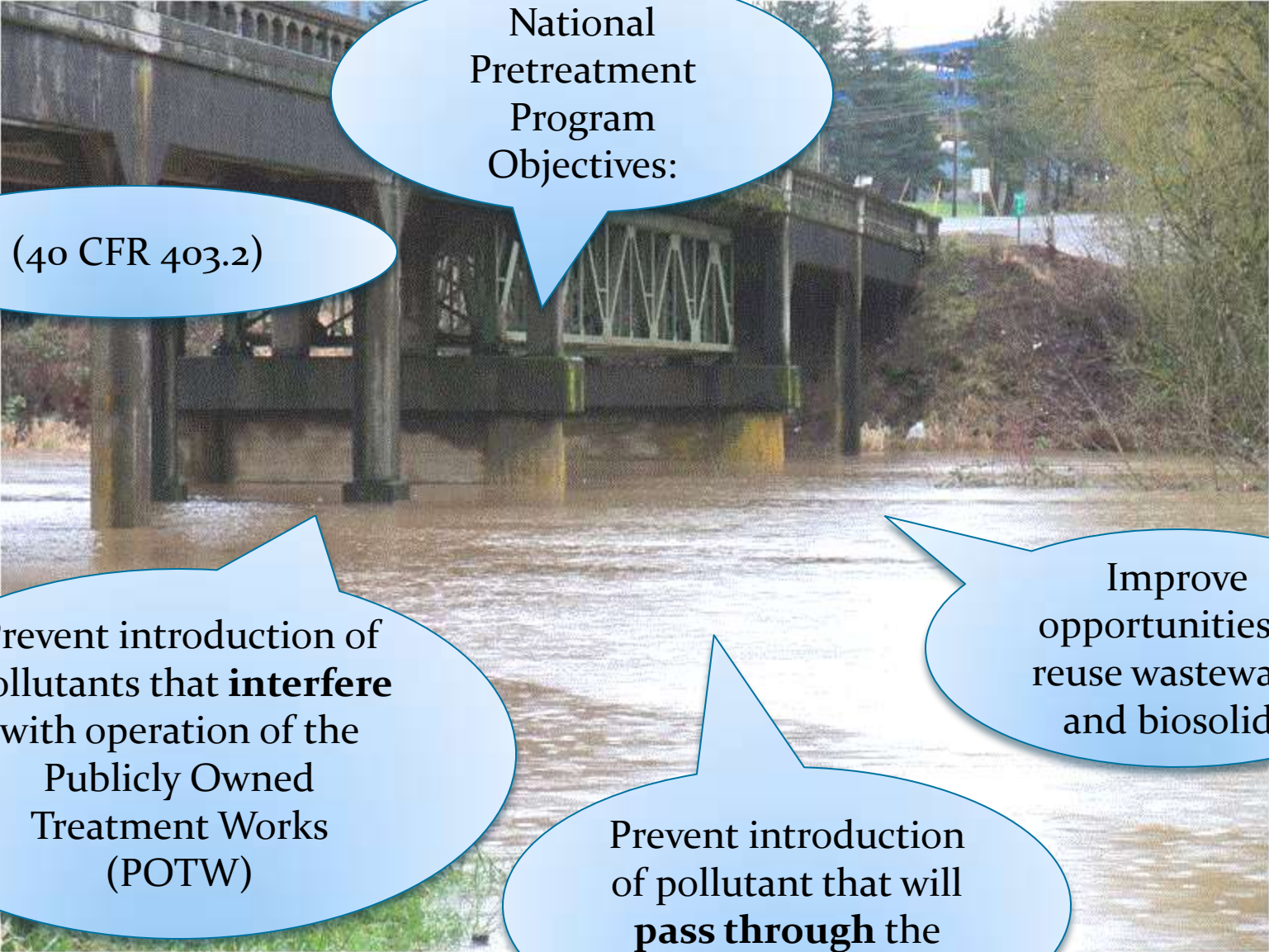


Timeline of Federal Pollution Control Laws

- 1899 The Rivers and Harbors Act
- 1912 The Public Health Service Act
- 1965 The Oil Pollution Control Act
- 1966 The Clean Water Restoration Act
- 1970 The Water Quality Improvements
- 1970 EPA created (December 1970)
- 1972 Federal Water Pollution Control Act
- 1977 Clean Water Act
- 1987 Water Quality Act

AKA:
The Clean
Water Act

Cuyahoga River Fire 1952



National
Pretreatment
Program
Objectives:

(40 CFR 403.2)

Prevent introduction of
pollutants that **interfere**
with operation of the
Publicly Owned
Treatment Works
(POTW)

Prevent introduction
of pollutant that will
pass through the
treatment works

Improve
opportunities to
reuse wastewater
and biosolids



Interference and Pass Through

A discharge
that...

Including an
increase in the
magnitude or
duration of a
violation.

Alone or in
conjunction
with another
discharge...

From other
sources...

Causes a...
violation ... of
the POTW's
NPDES permit...

The General Pretreatment Regulations

40 CFR 403.8(a)

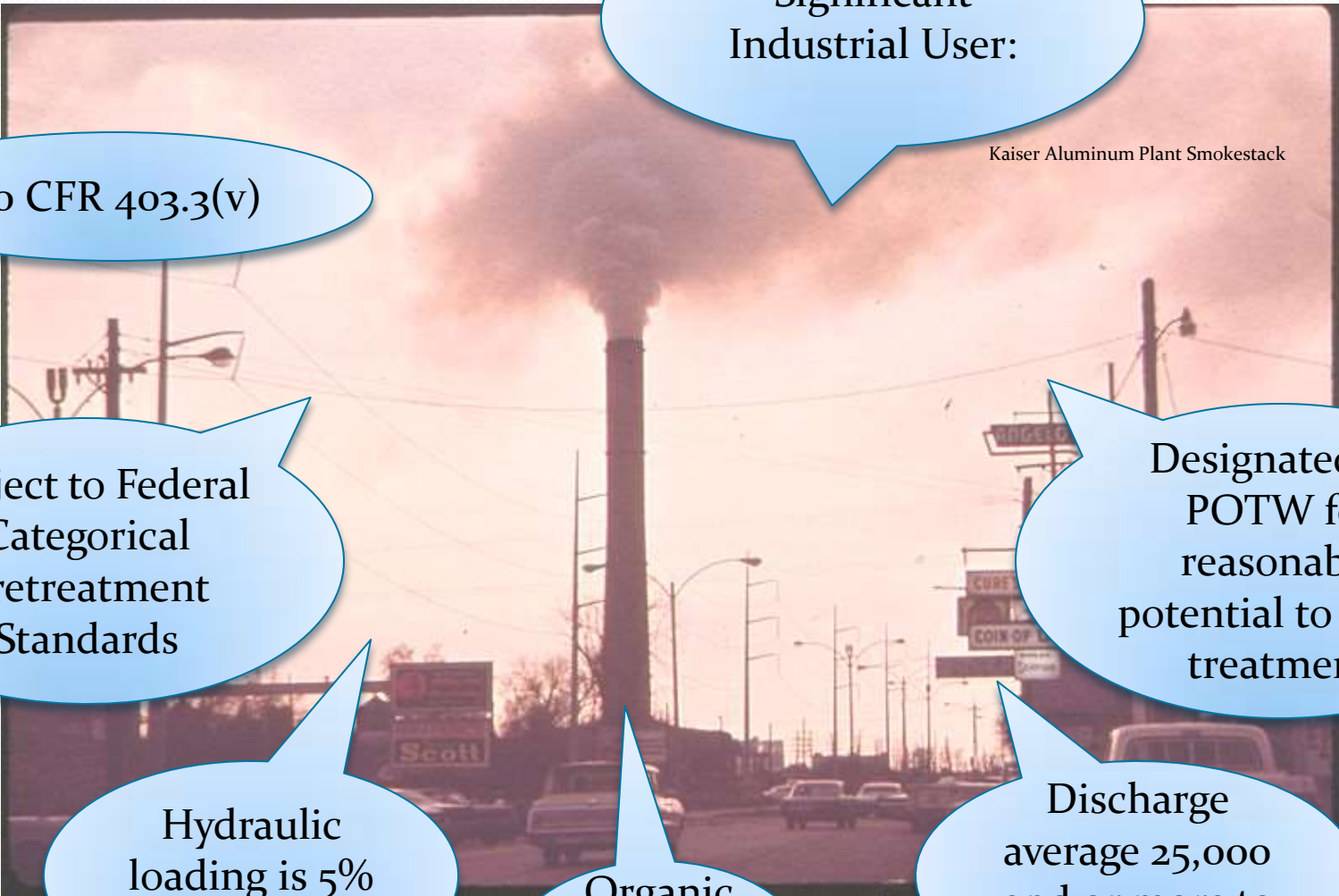
Pretreatment program required for POTWs with:

Design flow greater than 5 MGD

Smaller POTWs in defined circumstances

SIU

Water Reclamation Facility 2010



Significant
Industrial User:

Kaiser Aluminum Plant Smokestack

40 CFR 403.3(v)

Subject to Federal
Categorical
Pretreatment
Standards

Designated by
POTW for
reasonable
potential to affect
treatment

Hydraulic
loading is 5%
or more

Organic
loading is
5% or
more

Discharge
average 25,000
gpd or more to
POTW

General pretreatment regulations don't provide POTW's legal authority...

They set minimum legal requirements.



CoolClips.com

Federal:
General
Pretreatment
Regulations

Set Minimum
Requirements

State:
State Laws

Confer Minimum
Legal Authority

Local:
SUO or
similar

POTW pretreatment programs have six minimum elements:

40 CFR 403.8(f)

Legal authority

List of SIUs

Procedures

Enforcement Response Plan (ERP)

Funding

Local Limits



Oregon
Association of
Clean Water
Agencies
www.oracwa.org



“Community-Based
Pretreatment Tool”

Element #1:
Legal
Authority

40 CFR 403.8(f)(1)



Must be
enforceable in
federal, state or
local courts

40 CFR 403.8(f)(1)(iii)(A and B)

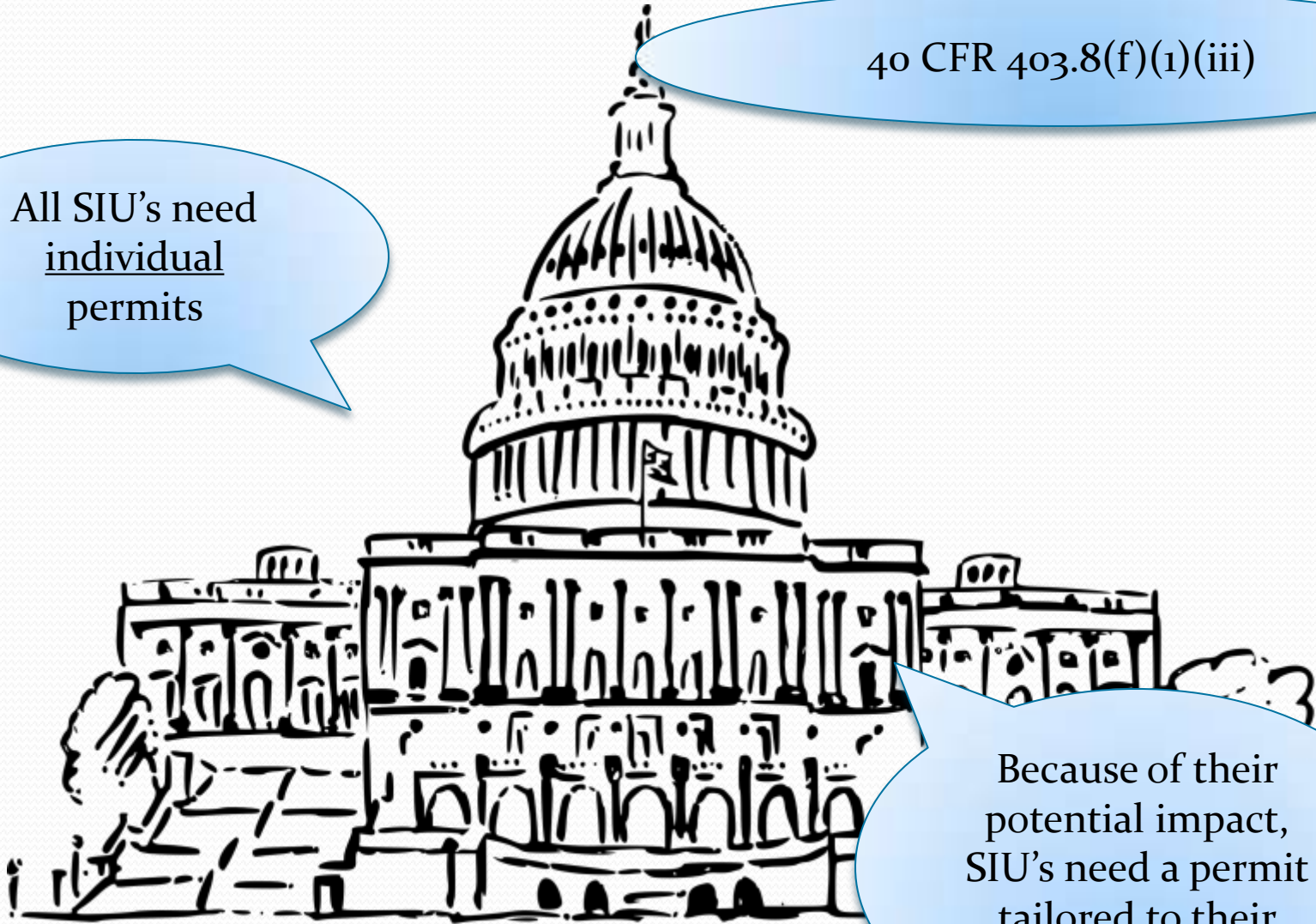
All IU's discharging to POTW with an approved pretreatment program must have a control mechanism

Control mechanism ensures compliance with applicable Pretreatment Standards and Requirements

40 CFR 403.8(f)(1)(iii)

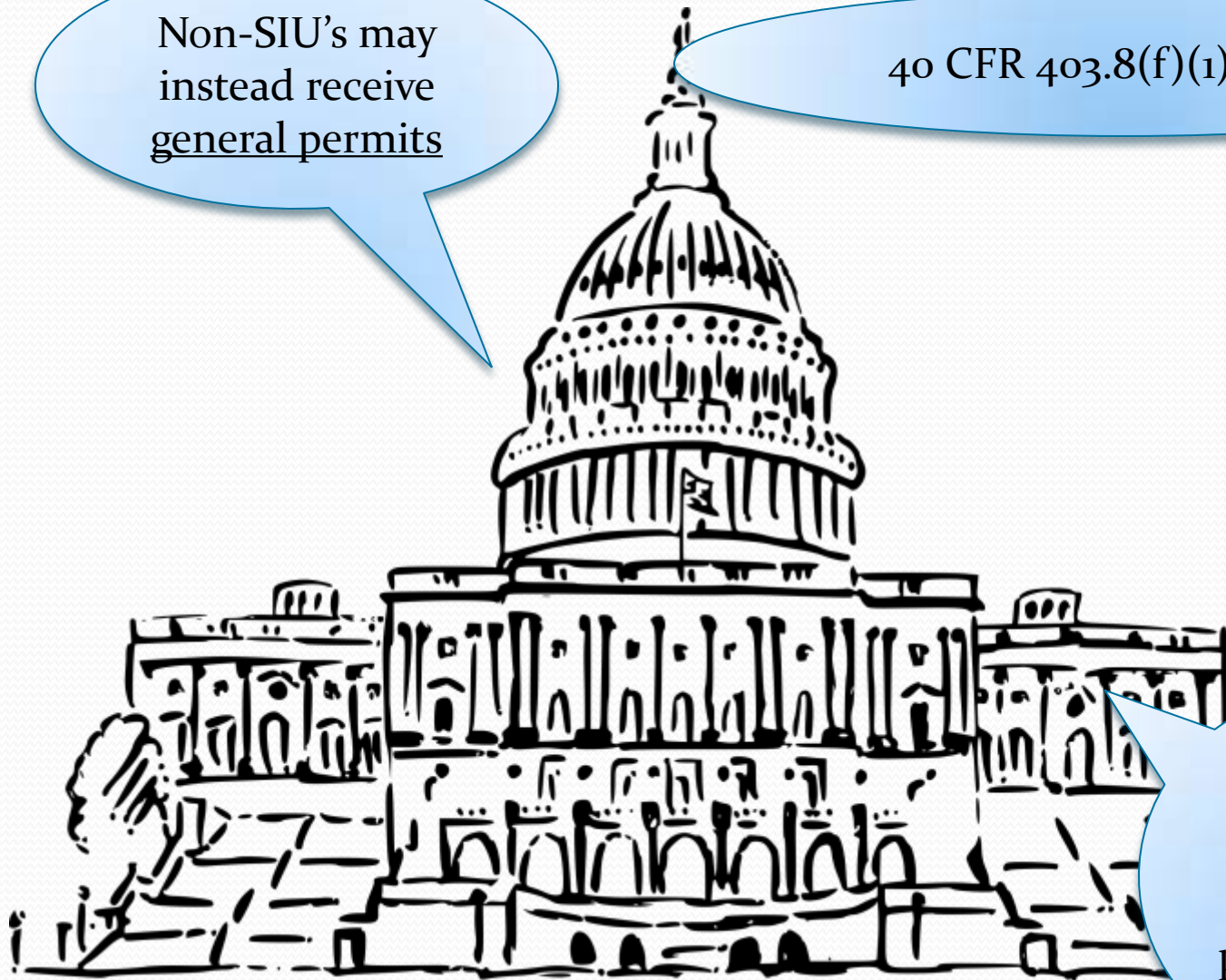
All SIU's need
individual
permits

Because of their
potential impact,
SIU's need a permit
tailored to their
circumstances



Non-SIU's may
instead receive
general permits

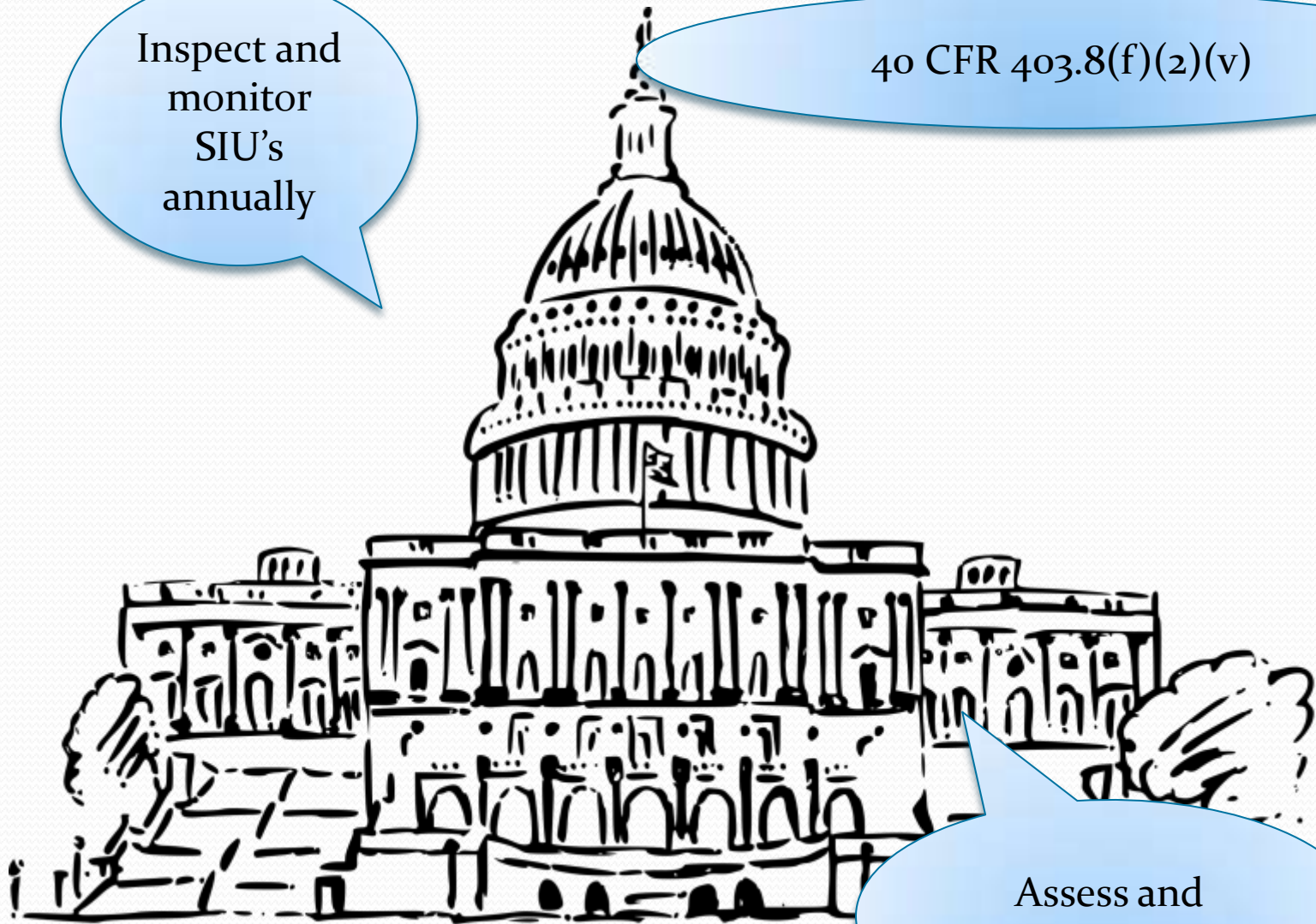
40 CFR 403.8(f)(1)(iii)(A)



General
permits add
flexibility to
the
pretreatment
program

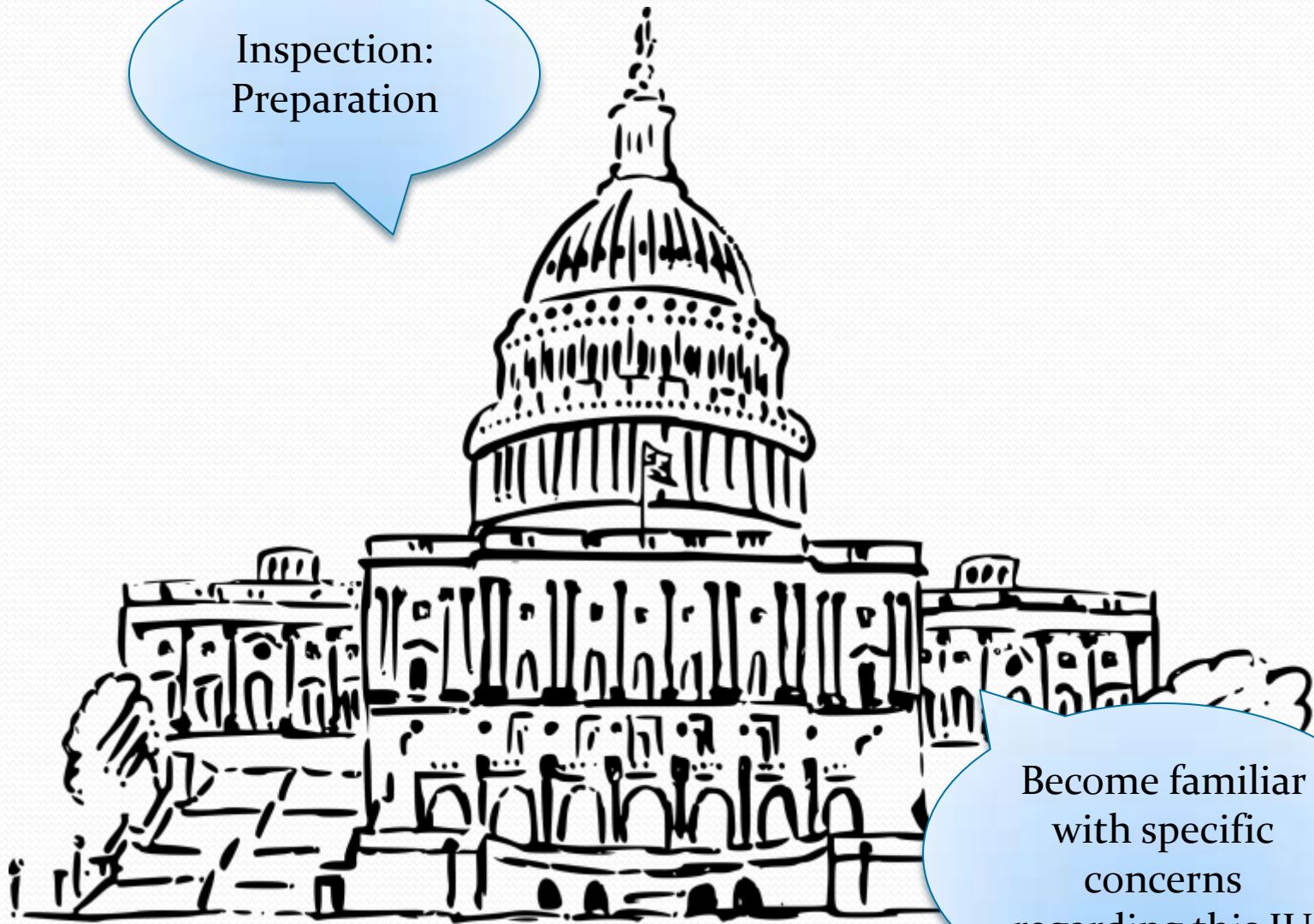
Inspect and
monitor
SIU's
annually

40 CFR 403.8(f)(2)(v)



Assess and
evaluate the IU

Inspection:
Preparation



Become familiar
with specific
concerns
regarding this IU

Inspection:
On-site
assessment



Verify, verify,
verify

Inspection:
Follow up



“In a timely
manner”

Element #2:
Procedures



Commons.wikimedia.org

POTW procedures
are intended to
ensure compliance
with pretreatment
requirements

Industrial Waste Survey

40 CFR 403.8(f)(2)(i)
and 40 CFR 122.44(j)(1)

Procedure:
ID and locate all
IUs subject to
pretreatment
program

[Commons.wikimedia.org](https://commons.wikimedia.org)

40 CFR
403.8.(f)(2)(ii)

Procedure:
ID character
and volume
of pollutants
from IUs

40 CFR 403.8.(f)(2)(iii)

Procedure:
Notify IUs of applicable
pretreatment standards
and requirements

Industrial Waste Survey



[Commons.wikimedia.org](https://commons.wikimedia.org)

Know who's
in your city

Procedures:
Receive and
analyze IU
reports

40 CFR 403.12



Commons.wikimedia.org

POTW is
responsible for
communicating
standards and
requirements

Procedures:
Sample and
analyze IU
discharges

40 CFR 136

40 CFR 403.12(o)(1)



Commons.wikimedia.org

Sampling is the most
appropriate method
for verifying
compliance with
pretreatment
standards

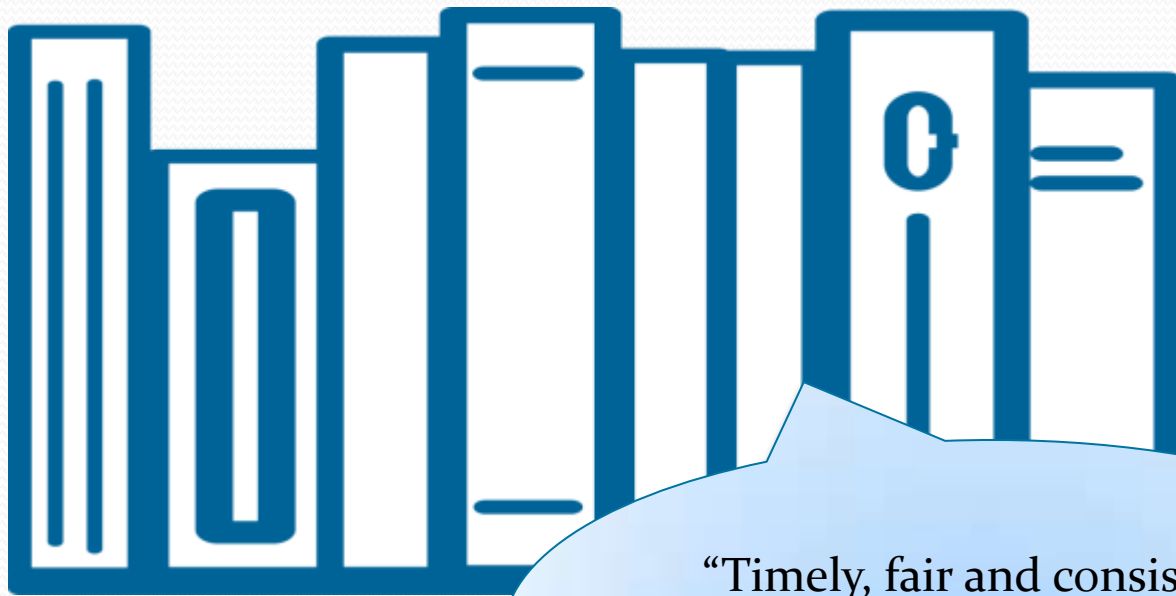
Procedure:
Evaluate the need
for IU slug
control plans



[Commons.wikimedia.org](https://commons.wikimedia.org)

Slug discharges have
reasonable potential
to cause interference
or pass through at
POTW

Procedures:
Investigate
noncompliance



[Commons.wikimedia.org](https://commons.wikimedia.org)

“Timely, fair and consistent”
protects against political
pressure from local officials

Procedures:
Comply with public
participation
requirements

CWA section 101(e)



[Commons.wikimedia.org](https://commons.wikimedia.org)

One goal of CWA is
public participation

Element # 3:
Funding



<https://clipartfest.com/>>clipartfest.com

POTW pretreatment
program must have
funding necessary to
do its job.

Element #4:
Local Limits

40 CFR 403.5(c)

40 CFR 403.8(f)(4)
and...

40 CFR 122.21(j)(4)

Specifically address
existing or potential
problems at the local
level

Element #5:
Enforcement
Response
Plan (ERP)

40 CFR 403.8(f)(5)



<https://clipartfest.com/>

“Timely, fair and consistent”
enforcement protects against
political pressure from local
officials

Enforcement
Response Guide



<https://clipartfest.com/>clipartfest.com

Ensures
enforcement is
appropriate;
not arbitrary or
capricious

Significant
Non
Compliance
(SNC)

40 CFR 403.8(f)(2)(viii)



<https://clipartfest.com/>

“SNC violations
have potential
for greater
environmental
impact”

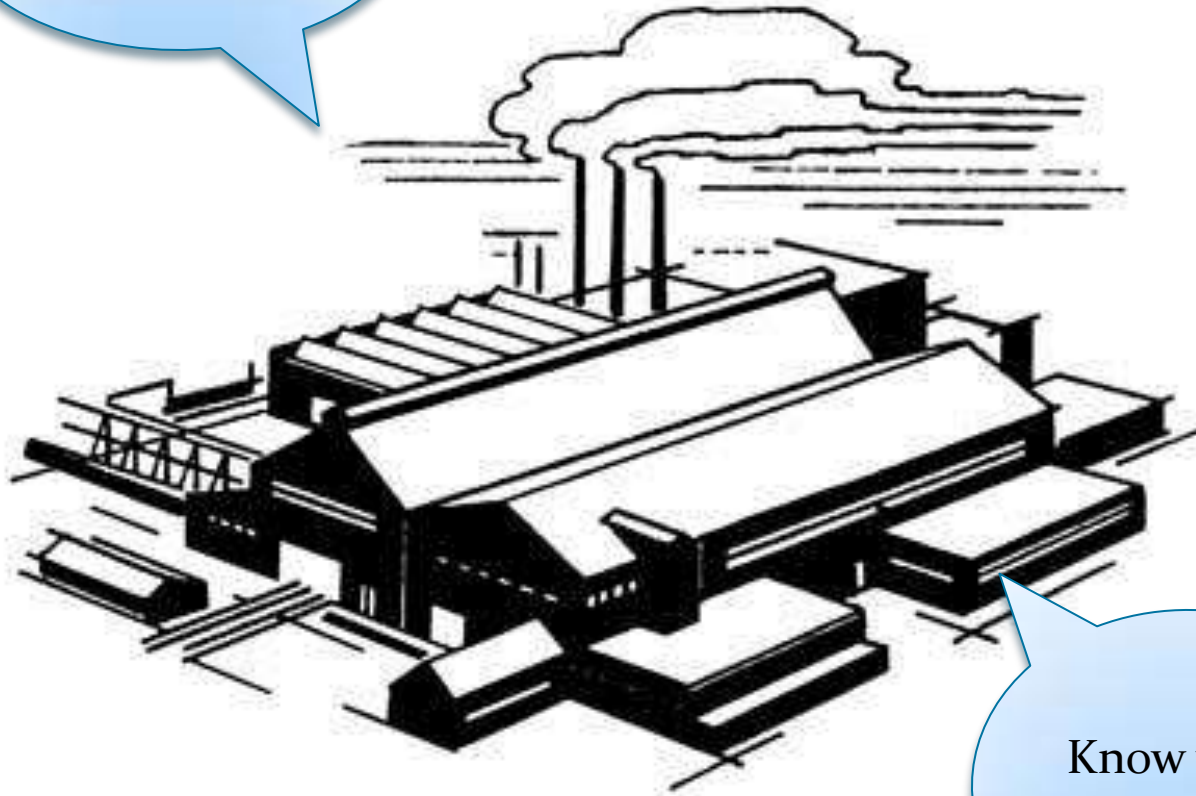
Formal
enforcement



<https://clipartfest.com/>clipartfest.com

Used to bring
IU's into
compliance

Element #6:
List of SIUs



Know who's
in your city

Summary



Any questions?

A question for you:

what do you wish someone had told you
when you first started in pretreatment?

Contact:

Matt Young: matt.young@mcminnvilleoregon.gov

City of McMinnville, Wastewater Services: 503-434-7313

Works Cited:

- City of McMinnville, various photos
- *Cuyahoga River Fire 1952*. Clark, Kylienne A., et al. "4.1 The Burning River- Aquatic Pollution in America's Rust Belt." *Environmental ScienceBites, Ohio State University Pressbooks Sites*, osu.pb.unizin.org/sciencebites/chapter/the-burning-river-aquatic-pollution-in-americas-rust-belt/. Accessed 21 Feb. 2017.
- "Empty Pockets" clipartfest.com
- Factory Clipart: <http://clipart-library.com/clipart/376899.htm>
- Gavel: http://clipart.coolclips.com/480/vectors/tf05243/CoolClips_vc034703.png
- *Kaiser Aluminum Smokestack: Messina, John*. KAISER ALUMINUM PLANT SMOKESTACK SPREADS FUMES ABOVE ST CLAUDE AVENUE IN THE CHALMETTE SECTION. 1973, *Wikimedia Commons*.
- Munro, Catherine. *Bookshelf*. commons.wikimedia.org. Web. 7 Apr. 2016.
- *Oregon Association of Clean Water Agencies*, www.oracwa.org
- "Speeding Ticket" clipartfest.com
- *US Capitol Building Drawing*. openclipart.org. Web. 8 Apr. 2016.
- U.S. Environmental Protection Agency. *Introduction to the National Pretreatment Program*. E-book ed. pdf, U.S. EPA, 2011.