

Regulation 101: Why am I Testing?

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Stationary Source Sampling & Analysis
for Air Pollutants Conference

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Overview

- The Clean Air Act
 - NAAQS/SIPs
 - Permitting
 - NSPS/NESHAP/Combustion
 - Acid Rain
- Other Programs Requiring Testing



The Clean Air Act (CAA)

Pollutant		Primary/ Secondary	Averaging Time	Level
CO		primary	8 hours	9 ppm
			1 hour	35 ppm
Lead		primary/secondary	Rolling 3 month average	0.15 µg/m ³
NO ₂		primary	1 hour	100 ppb
		primary/secondary	1 year	53 ppb
Ozone		primary/secondary	8 hours	0.070 ppm
PM	PM _{2.5}	primary	1 year	12.0 µg/m ³
		secondary	1 year	15.0 µg/m ³
		primary/secondary	24 hours	35 µg/m ³
	PM ₁₀	primary/secondary	24 hours	150 µg/m ³
SO ₂		primary	1 hour	75 ppb
		secondary	3 hours	0.5 ppm



State Implementation Plan

- General plan for the NAAQS
 - Achieved, maintained, and enforced
- Collection of regulations, programs and policies
- Addresses unique air pollution problems in a state
- Specific plan for nonattainment areas
- Must demonstrate attainment “as expeditiously as practicable”
- Revised by states as necessary

New Source Review

Ensure air quality doesn't worsen/significantly degrade

Criteria pollutants, sulfuric acid mist, H₂S, TRS, fluorides

Preconstruction permit

- NNSR
- PSD

Major Source ≥ 100 or 250 tpy

Title V

Improve compliance with CAA

Contains all site-wide requirement

Operating permit

Major Source (tpy)

- 10/25 HAP
- 100 other
- Non-attainment lower

Other

- Certain area
- HWC
- SW incinerators

State

Implement SIP and minor NSR

Contains all site-wide requirement

Operating permit

State's Discretion

Permits



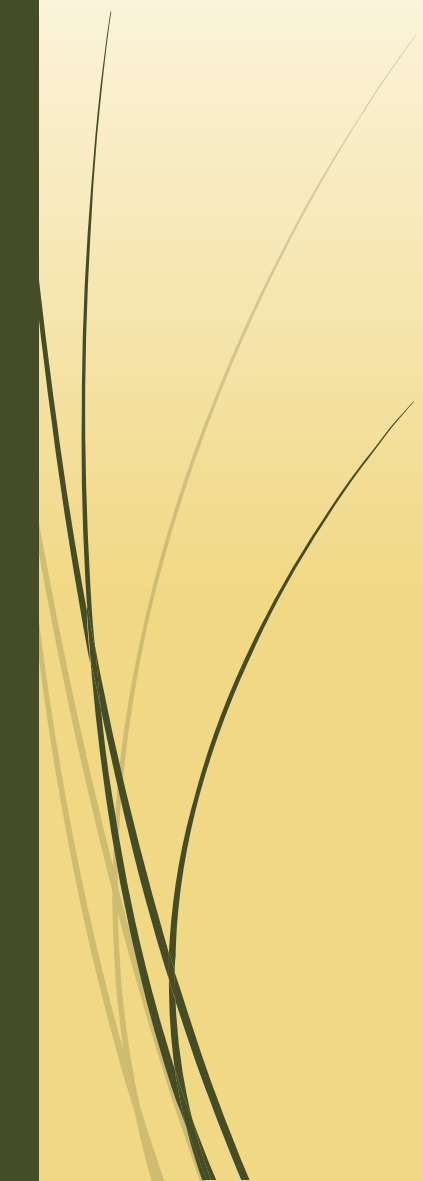
Section 111 vs Section 112

- 111 = New Source Performance Standards (NSPS)
 - Technology based standards
 - Intended to control emissions from new, modified, reconstructed stationary sources
- 112 = National Emissions Standards for Hazardous Air Pollutants (NESHAP)
 - Control emissions of HAPs
 - Originally HAP based (part 61)
 - Now source category based (part 63)

	NSPS	NESHAP
40 CFR part	60	63
Regulates	Typically criteria pollutants	All HAPs
Major vs Area Source	No differentiation	MACT always apply to major sources. Area sources MACT or GACT.
New vs Existing	Only apply to existing if 111(d)	Applies to both, standards more stringent for new
Limits	Best System of Emissions Reduction (BSER)	Maximum Achievable Control Technology (MACT)
Cost Consideration	Costs are always considered	Costs only considered for beyond-the-floor
Review	Technology review every 8 years	Technology review every 8 years Risk review after first 8 years



Section 111(d)

- Existing sources
 - If a pollutant is:
 - Controlled by NSPS
 - NOT a HAP
 - NOT a criteria pollutant
 - Emission Guidelines (EG)
 - State/Federal Plans
- 



Section 129

- Solid Waste Combustion
 - But not Hazardous Waste
- Meshes NSPS and NESHAP
 - Found in NSPS (part 60); always includes EG
 - Maximum degree of reduction taking into consideration cost
 - 8 year risk review, 5 year technology review
- Specific pollutants
 - PM, SO₂, HCl, NO_x, CO, Pb, Cd, Hg, D/Fs
 - Opacity, as appropriate




Title IV - Acid Rain

- 1990 CAAA
- Control acid deposition
- SO_2 and NO_x react with water vapor
- Falls to Earth as acid rain/snow/mist
 - Acid lakes/streams
 - Damage to trees
 - Hazy/foggy air quality
 - Damage to manmade objects
- Can be carried long distances

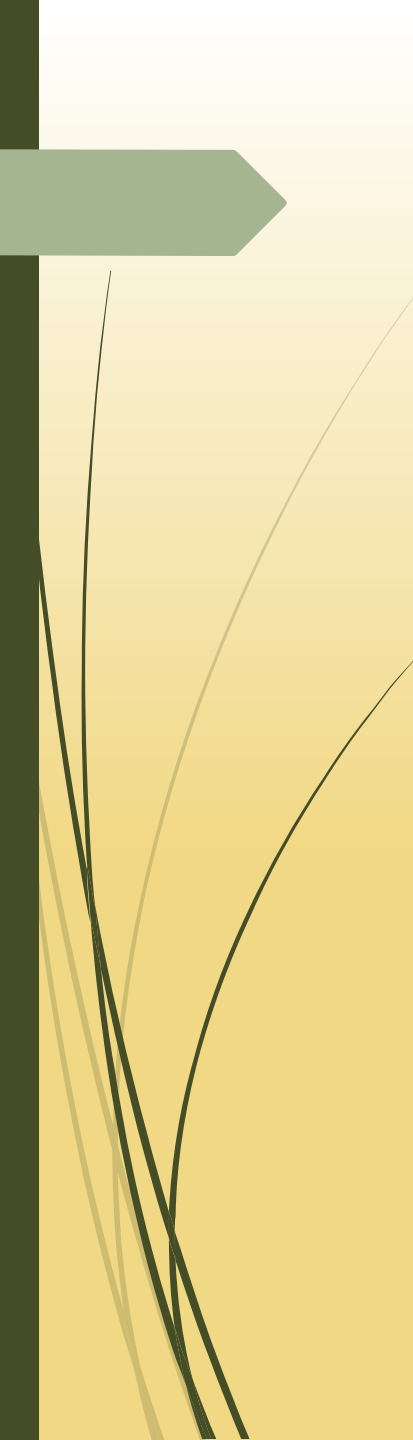


Other Requirements



Resource Conservation and Recovery Act (RCRA)

- 1976 – Congress passed RCRA
- 1984 – Amended and strengthened
- Addresses increasing problems from growing volume of municipal/industrial waste
- Proper management cradle-to-grave
- HW Industrial Furnaces
- HWC MACT alternate PM standard



Toxic Substances Control Act (TSCA)

- 1976
- Regulates production/sale of chemical substances
 - Not food/drugs/cosmetics/pesticides
 - Assess new commercial chemicals
 - Regulate existing chemicals
- 40 CFR 761.70 – Incineration of PCBs
 - 99.99999% DRE



Information Collection Requests

- How many entities?
- What is the purpose?
- What might be included?
- What happens next?

