



Clean Air Issues Facing States and Localities: Regulatory Update

**Bill Becker
Executive Director
National Association of Clean Air Agencies**

Institute of Clean Air Companies

April 27, 2011

What I Will Cover

- ❑ Greenhouse Gas Implementation
- ❑ National Ambient Air Quality Standards
- ❑ EPA's Transport Rule
- ❑ MACT
 - ◆ Industrial Boilers and CISWIs
 - ◆ Utilities
 - ◆ Cement Kilns

Greenhouse Gases: Regulatory Actions

- GHG Regulation is Derived From the CAA
 - ◆ *Massachusetts v. EPA* (April 2007)—Supreme Court ruling that GHGs are pollutants covered under the CAA
 - ◆ Endangerment Finding (December 2009)—EPA found that GHGs endanger public health and welfare
 - ◆ EPA proposal to require GHG emission reductions from cars and trucks (September 2009); final rule signed April 1, 2010
 - ◆ Once GHGs are “regulated pollutants,” major facilities above certain thresholds required to obtain permits

Greenhouse Gas Implementation

- ❑ Only the largest new/modified sources will be regulated; smaller sources will not be regulated until at least 2016
- ❑ Almost all states have revised their rules to issue GHG permits; for the few that haven't EPA will issue the GHG portion of permits under temporary federal authority
- ❑ In most states, very few permit applications are now triggering GHG controls
- ❑ GHG requirements for affected facilities will generally be improved energy efficiency

Greenhouse Gas Implementation

- ❑ There are far less permit applications pending today than most stakeholders had previously estimated
 - ◆ NACAA survey – 48 permit applications in 38 states
 - ◆ Likely between 75-100 permits pending nationwide
- ❑ Why the smaller number of permit applications?
 - ◆ Recession
 - ◆ Many sources got in under the wire (i.e., before 1/2/2011)
 - ◆ Some are waiting to see what Congress will do
 - ◆ The program is still new; we may see more come 7/1/2011
- ❑ While most agencies are faring well, some are experiencing challenges due to budget constraints and necessary adjustments

Examples of GHG Permits To Date

- ❑ Nucor Steel – direct reduced iron facility in Louisiana
- ❑ Pacificorp Lake Side Power Plant – electric utility combustion turbine project in Utah
- ❑ We Energies – biomass fueled cogeneration facility in Wisconsin
- ❑ Hyperion Energy Center – refinery and IGCC plant in South Dakota
- ❑ Abengoa Bioenergy Biomass – biomass to ethanol manufacturing and biomass to power cogeneration in Kansas
- ❑ EPA Tracking Site – <http://www.epa.gov/nsr/ghgcomment.html>

National Ambient Air Quality Standards: Implementation Milestones

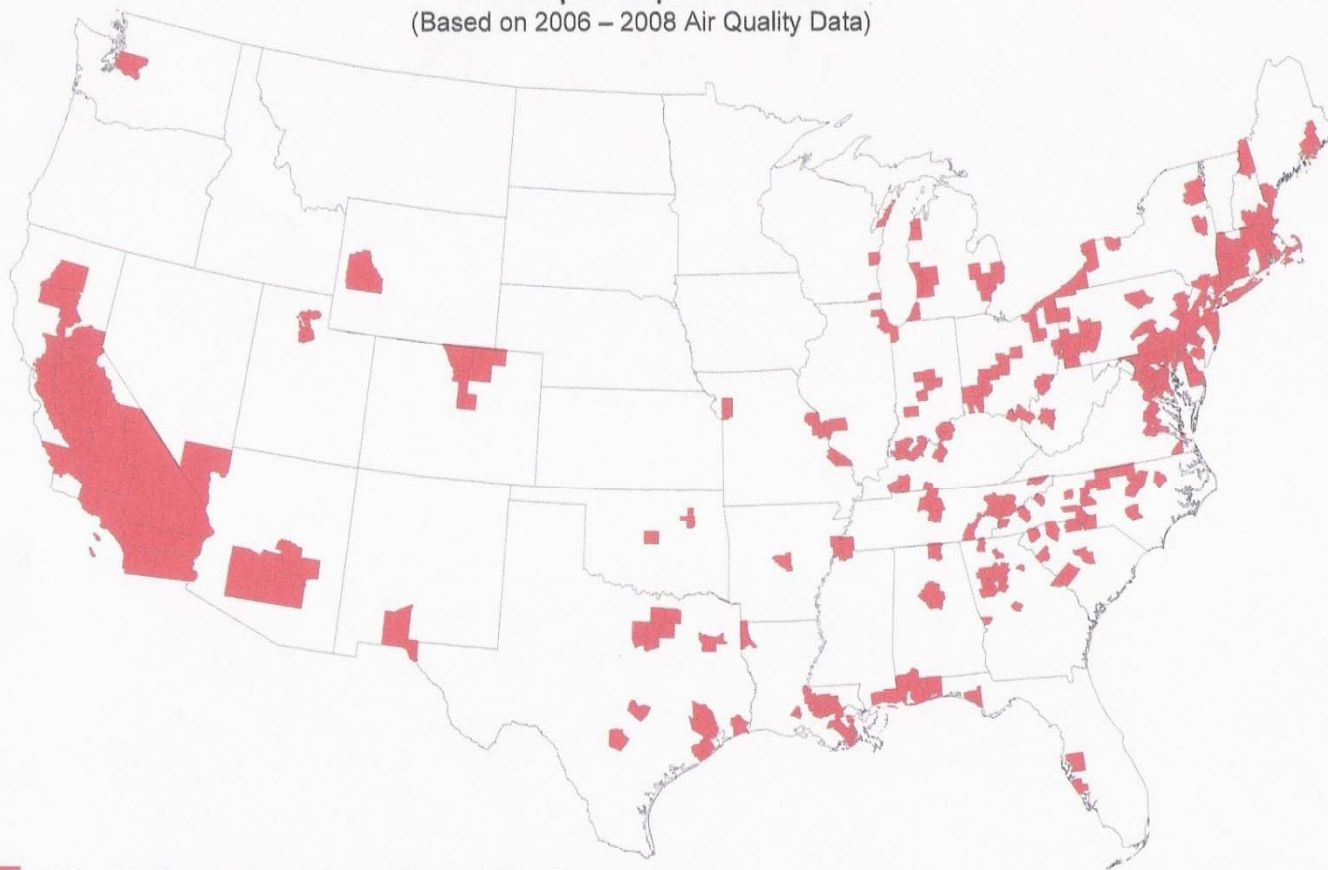
(as of April 2011)

Pollutant	NAAQS Promulgation	Designations Effective (approximate date)	110(a) SIPs Due (3 yrs after NAAQS promulgation)	Attainment Demonstration Due	Attainment Date
PM _{2.5} (2006)	Sept 2006	Dec 2009	Sept 2009	Dec 2012	Dec 2014/2019
Pb	Oct 2008	Dec 2010/2011 (extra time for new monitors)	Oct 2011	June 2012/2013	Nov 2015/2016
NO ₂ (primary)	Jan 2010	Feb 2012	Jan 2013	Aug 2013	Feb 2017
SO ₂ (primary)	June 2010	July 2012	June 2013	Jan 2014	July 2017
Ozone (all dates but promulgation are tentative)	July 2011	No later than Summer 2013	July 2014	No later than Summer 2016	No later than 2019 (Moderate)
CO	Aug 2011	Sept 2013	Aug 2014	Sept 2015	Sept 2018
PM _{2.5} (2011)	TBD				
NO ₂ /SO ₂ Secondary	Mar 2012	Apr 2014	Mar 2015	Oct 2015	N/A

National Ambient Air Quality Standards: Ozone

- ❑ EPA proposed to strengthen the primary and secondary NAAQS for ground-level ozone in January 2010; final standard is delayed until July, 2011
- ❑ EPA proposed a range between 60-70 ppb for primary standard
- ❑ Previous standard was 75 ppb, but not consistent with recommendations of EPA's independent scientists—CASAC
- ❑ States' schedule
 - ◆ States/localities required to expand ozone monitoring networks (270 more)
 - ◆ Once standard is promulgated, states recommend areas to be designated
 - ◆ States must submit SIPs (state strategies) to EPA for approval
 - ◆ States required to meet standard; deadlines vary from 2014 to 2031

Counties With Monitors Violating the March 2008 Ground-Level Ozone Standards
0.075 parts per million
(Based on 2006 – 2008 Air Quality Data)



322 of 675¹ monitored counties violate the standard

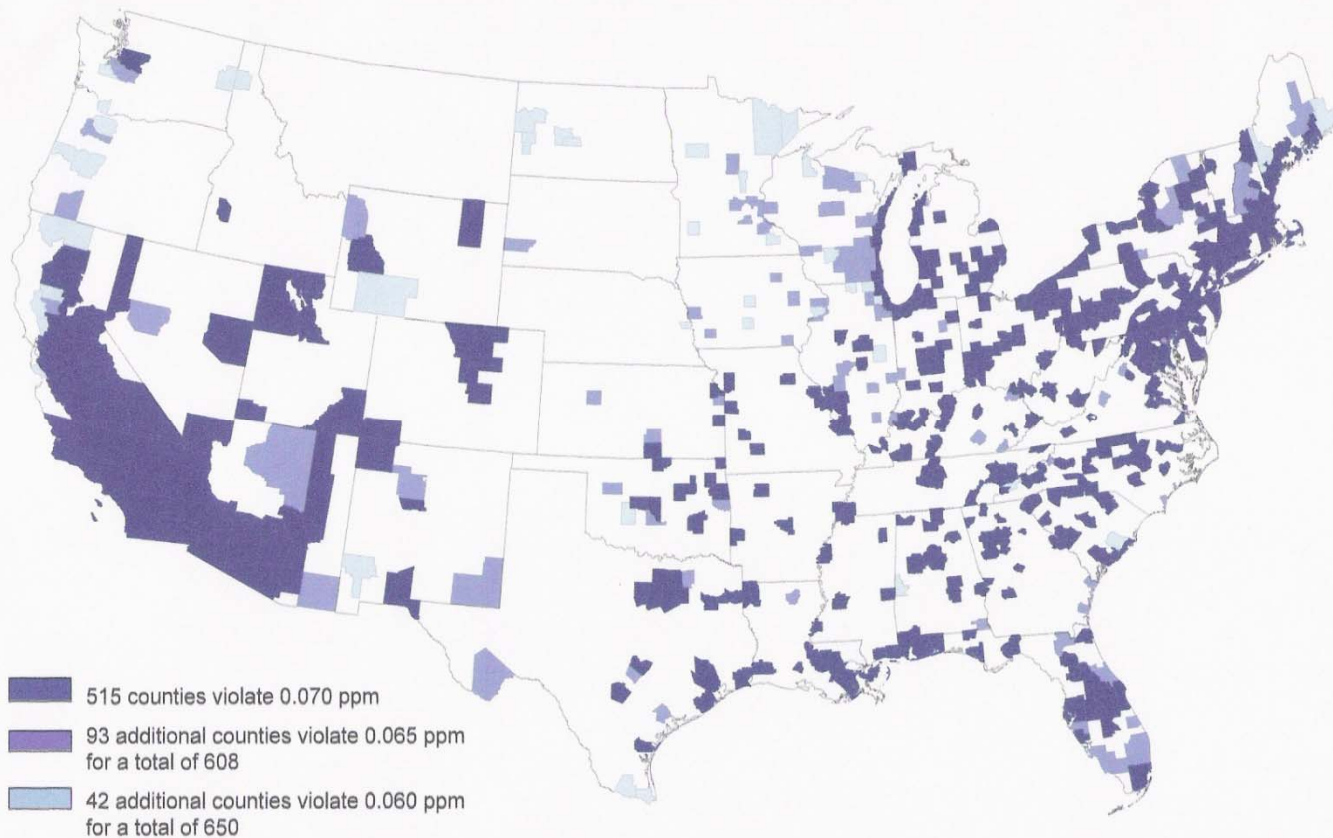
Notes:

1. Counties with at least one monitor with complete data for 2006 – 2008
2. To determine compliance with the March 2008 ozone standards, the 3-year average is truncated to three decimal places.

Counties With Monitors Violating Proposed Primary 8-hour Ground-level Ozone Standards 0.060 - 0.070 parts per million

(Based on 2006 - 2008 Air Quality Data)

EPA will not designate areas as nonattainment on these data, but likely on 2008 - 2010 data which are expected to show improved air quality.



Notes:

1. No monitored counties outside the continental U.S. violate.
2. EPA is proposing to determine compliance with a revised primary ozone standard by rounding the 3-year average to three decimal places.

EPA's Transport Rule 1

- Transport Rule 1 (TR1) proposed July 2010 to address interstate transport of SO₂ and NO_x by reducing EGU emissions in 32 eastern states
 - ◆ EGUs represent 70% of SO₂ emissions and 20% of NO_x emissions in covered states
 - ◆ EPA estimates benefit-to-cost ratio for controls in proposed rule to be between 40:1 and 100:1
- Remedies some key flaws of CAIR
 - ◆ Limits interstate trading
 - ◆ Seeks to align compliance deadlines with attainment deadlines for 1997 ozone, 1997 PM_{2.5} and 2006 PM_{2.5} NAAQS
 - ◆ Bases state emissions budgets on air quality factors and health benefits assessment (vs. just availability of highly cost-effective controls)
 - ◆ SO₂ caps, with tightened cap for 2014, appear sufficiently stringent to meet most states' needs

EPA's Transport Rule 1 (cont.)

- ❑ EPA also committed to quickly finalizing more rigorous Transport Rule 2 (TR2)
- ❑ Problems with proposed TR1:
 - ◆ NO_x emissions caps not stringent enough
 - ✓ Tighter 2014 NO_x cap needed in TR1 to help meet 1997 ozone and 2006 PM_{2.5} standards
 - ✓ Caps don't reflect 2008 ozone standard because EPA is reconsidering it, yet tighter NO_x caps will be necessary to meet reconsidered standard
 - ◆ Omits other significant contributors to transport (e.g., industrial, commercial and institutional boilers and cement kilns)
 - ✓ Should include these in TR2
- ❑ Continued postponement of TR1 of growing concern as is impact of postponement on timely promulgation of TR2
 - ◆ Tighter NO_x caps in TR2 are critical to meeting the forthcoming ozone standard

Industrial Boiler and CISWI MACTs

- ❑ EPA's rules for area and major source Industrial/Commercial/Institutional Boilers (Section 112) and Commercial and Industrial Solid Waste Incinerators (CISWI) (Section 129) were vacated by the U.S. Court of Appeals on June 19, 2007
- ❑ NACAA issued model permit guidance for boilers on June 10, 2008
- ❑ EPA proposed Boiler/CISWI rules on June 4, 2010 to address deficiencies cited by the Court
- ❑ EPA published final rules on March 21, 2011
- ❑ At the same time, the agency announced it would "reconsider" the rules to address technical issues requiring additional public input
- ❑ While the final rules represent an improvement over the vacated rule, there are still remaining concerns

Industrial Boiler and CISWI MACTs

□ What We Like

- ◆ No risk-based exemptions (Health-Based Compliance Alternative); HBCAs were initially in the vacated rule
- ◆ Improved control levels, especially for PM, for existing sources compared to vacated rule (but limits for many categories are still not adequate)

Vacated vs. Recently Repromulgated Limits Existing ICI Boilers

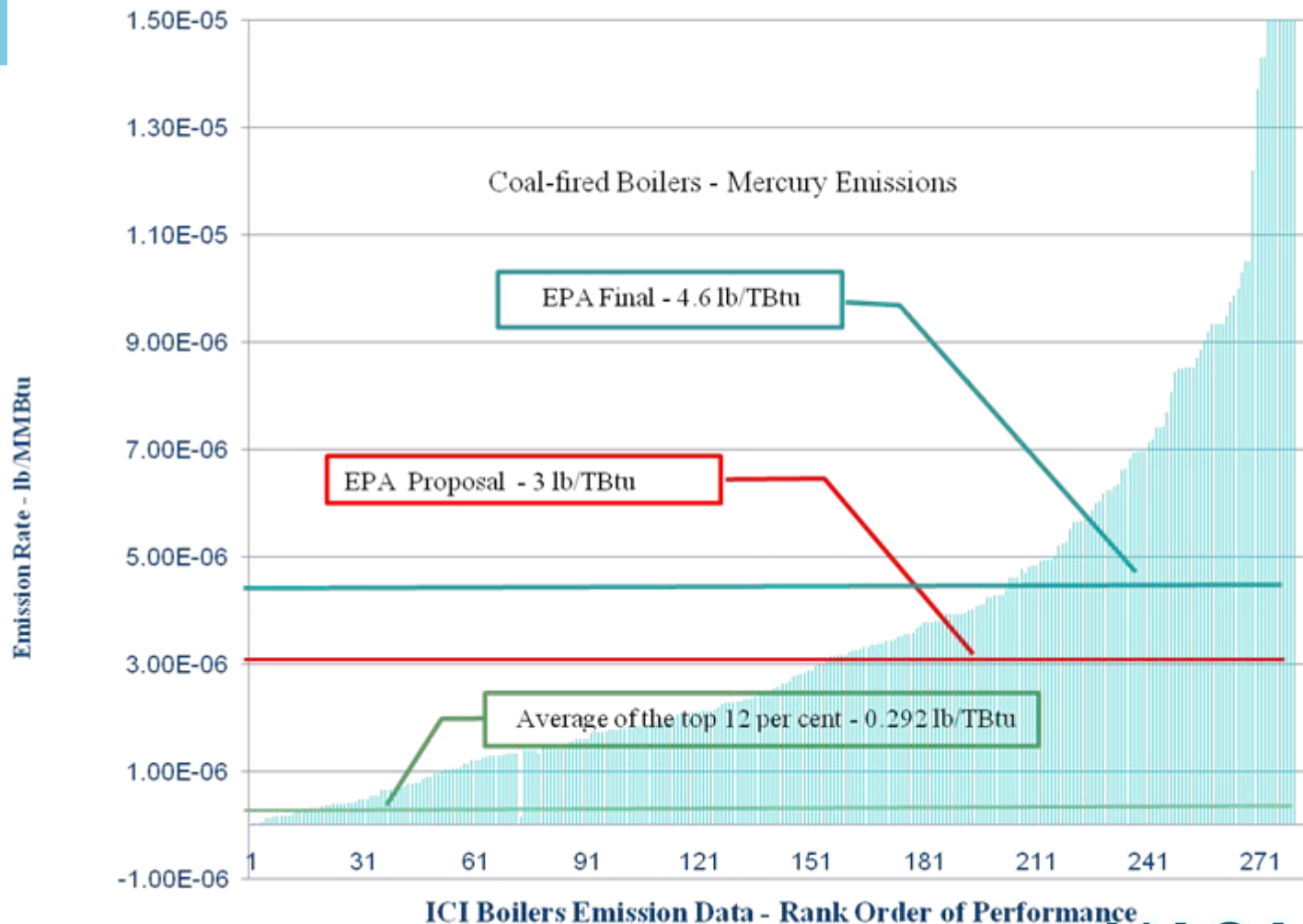
	Natural Gas-fired Vacated/Recent	Oil-fired Vacated/Recent	Solid-fired Vacated/Recent
CO (ppmv)	no limit/work practice	no limit/10 (160 non-continental)	no limit/82-3500
PM (lb/MMBtu)	no limit/work practice	no limit/0.0075	0.07/0.039
HCl (ppmv)	no limit/work practice	0.09/0.00033	0.09/0.035
Hg (lb/TBtu)	no limit/work practice	no limit/3.5 (0.78 non-continental)	9 (coal only)/4.6
D/F (TEQ) (ng/dscm)	no limit/work practice	no limit/4	no limit/0.002 – 4.0

Industrial Boiler and CISWI MACTs

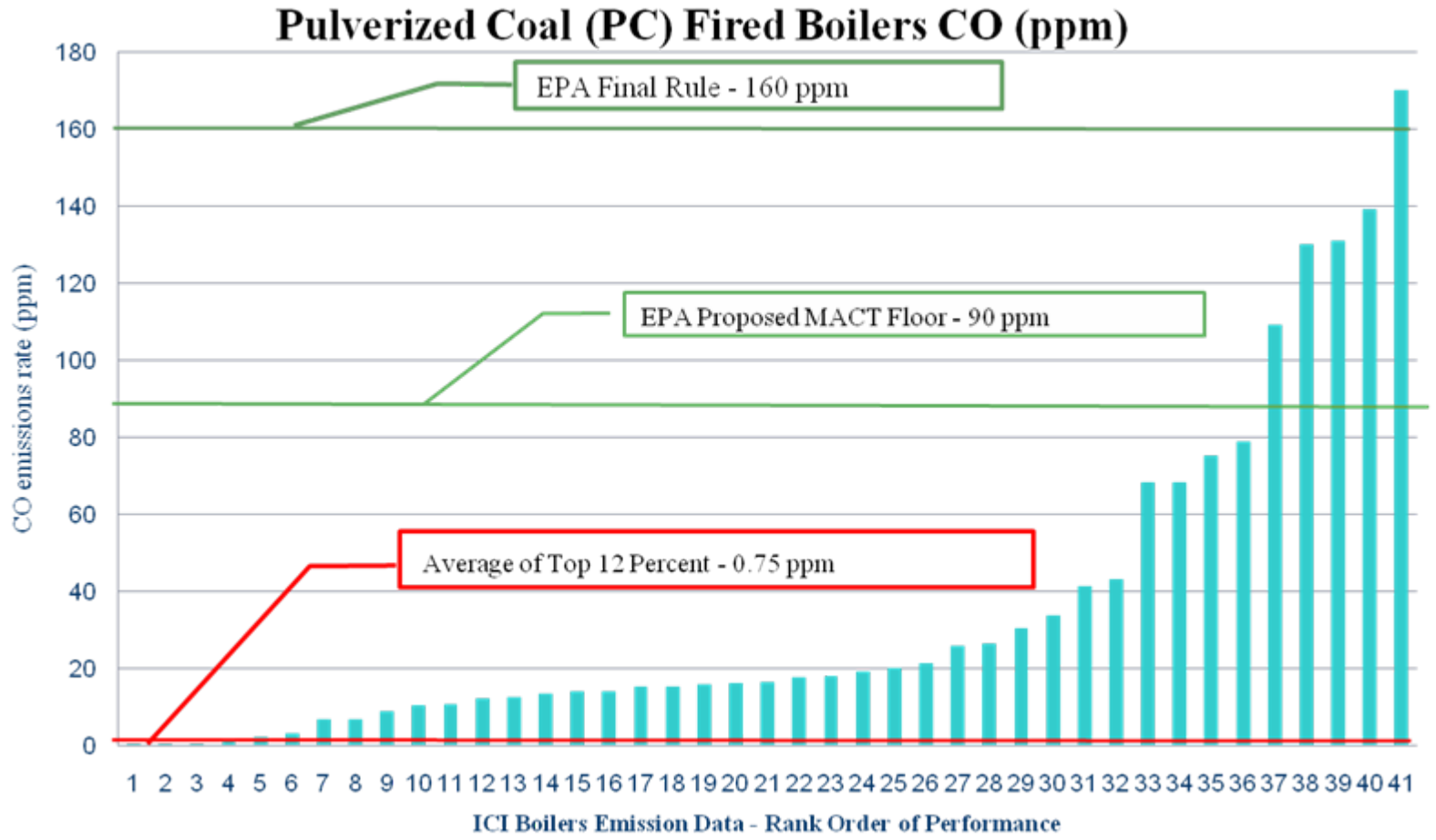
□ Our Concerns

- ◆ Many of the MACT floors are not adequate
 - ✓ Excessive variability allowances, including double counting
 - ✓ Limited data sets
 - ✓ Excessive number of subcategories
- ◆ EPA did not establish “Beyond the Floor” limits, except requiring an energy efficiency study
- ◆ Most sources will not be required to reduce their emissions

Many Sources Won't Have to Do Anything to Comply--Hg



Many Sources Won't Have to Do Anything to Comply--CO



Industrial Boiler and CISWI MACTs

- ❑ Our Concerns (cont.)
 - ◆ Compliance test results provided by state and local permitting officials were not used; instead EPA relied on industry data
 - ◆ Widely inconsistent limits depending on whether a source is covered by Section 129 (solid waste-CISWI) or Section 112 (boilers), even though units could be identical

Mercury and Air Toxics Rule (Utility MACT)

- ❑ EPA issued Clean Air Mercury Rule (CAMR) on March 15, 2005, regulating mercury emissions under Section 111, rather than Section 112
- ❑ NACAA published a model rule in November 2005 for state and local agencies that wished to go beyond CAMR; many agencies used the model
- ❑ U.S. Court of Appeals vacated CAMR on February 8, 2008 and instructed EPA to issue standards to regulate HAP emissions from electric utilities under Section 112
- ❑ EPA announced proposed rules to address HAPs from electric utilities under Section 112 on March 16, 2011

Mercury and Air Toxics Rule (Utility MACT)

□ What We Like

- ◆ The rule could result in significant reductions to mercury (91%), acid gases (91%), PM (30%), and SO₂ (55%)
- ◆ Will prevent 17,000 premature deaths, 11,000 heart attacks and 120,000 asthma attacks annually
- ◆ Benefits (\$60-140 billion annually) FAR outweigh costs (\$11 billion annually)

Mercury and Air Toxics Rule (Utility MACT)

□ Our Concerns

- ◆ EPA's limits should reflect greater use of wet scrubbing
- ◆ Proliferation of subcategories with limited data generates results dominated by uncertainty – there are at least two subcategories where the proposed floor is based on one data point
- ◆ Lack of consistency between standards for similarly designed boilers that are used for different purposes
- ◆ Work-practice requirements must be demonstrated to achieve emissions performance “consistent with” MACT floor – need to determine if dioxin/furans work-practice provisions are acceptable

Cement Kiln MACT

- ❑ Portland Cement MACT published September 9, 2010
- ❑ Will provide significant and needed reductions in mercury, acid gases, PM, SO₂ and NO_x
- ❑ Cement kilns are 3rd largest source of mercury emissions in the U.S.
- ❑ Benefits of the rule FAR outweigh costs
- ❑ Attempts in Congress to pull back rule (H.R. 1 and Congressional Review Act) – NACAA opposes those efforts and believes the rule should remain in force

For Further Information:

Bill Becker

Executive Director

NACAA

bbecker@4cleanair.org

Phone—202-624-7864

www.4cleanair.org