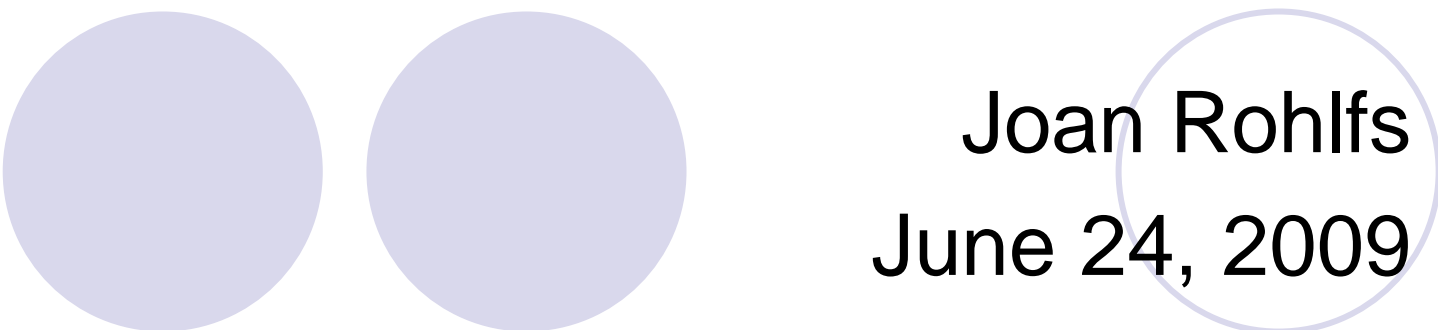




Ozone SIP Processes, OTC Planning and Schedule



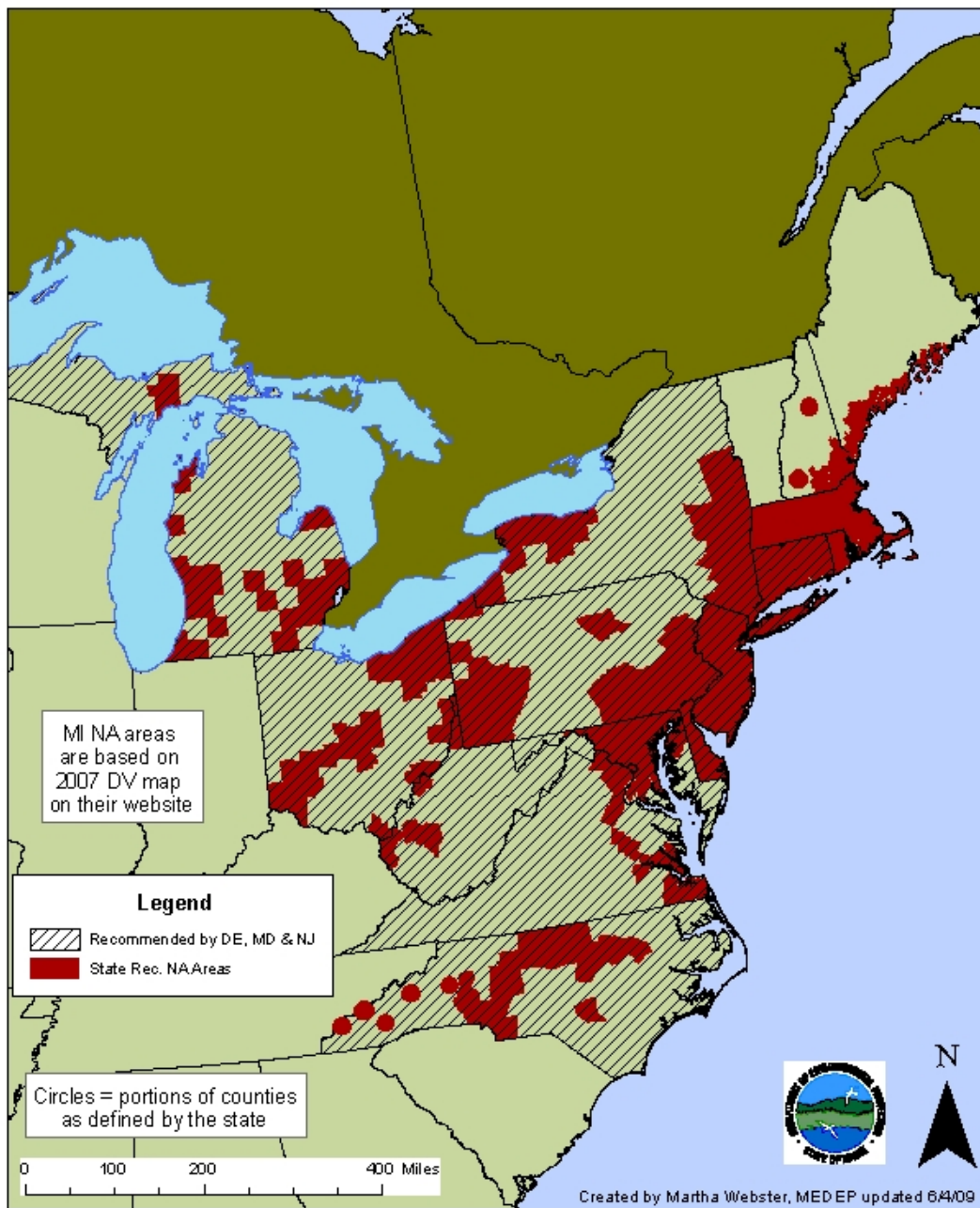
Joan Rohlfs
June 24, 2009

Overview



- Air Quality in the OTR
 - Ozone air quality (2006 – 2008 design values)
 - State recommended nonattainment areas
 - SIP schedule
- Potential Control Measures
 - Stationary Area Source Committee
 - Potential measures
 - Costs and emissions reductions
 - Strategies for boilers
 - Mobile Committee
 - Potential measures
 - Measures for further development

OTC State Recommended Ozone Nonattainment Areas
with other states recommendations for the 2008 Ozone NAAQS of 75 ppb



*EPA Final Designations:
March 12, 2010*

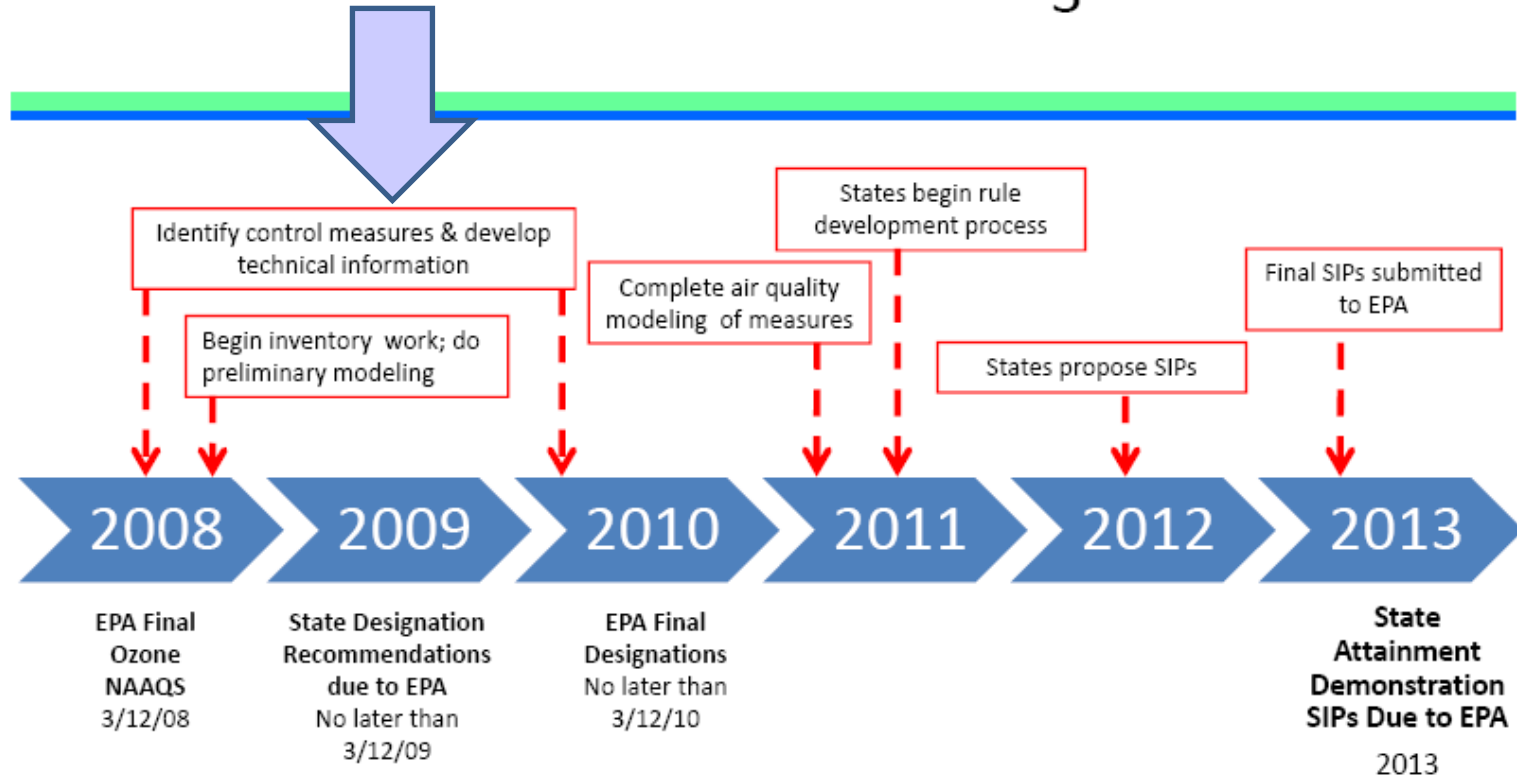
Marginal
Attainment: 2013

Moderate
Attainment: 2016

Serious
Attainment: 2019

*Non OTC state recommendations
unverified

SIP Timeline for New O₃ NAAQS



2008 Ozone NAAQS Attainment Dates 2013 - 2030

Stationary and Area Source

NOx Measure	State Rules	National Measure	Emissions Reduction	Cost
Boilers serving EGUs	DE, NJ, MA, MD	*	413 TPD OTR	\$1,100 - 8,700 per ton
New Small Gas Boilers	CA, TX	*	53 TPD OTR	\$3,300 to \$16,000 per ton
Municipal waste incinerators	NJ, MD	*	14 TPD OTR	\$2,140 per ton (SNCR)
HEDD EGUs	NJ	*	TBD	\$45,000 to \$300,000 per unit
Stationary Generator Regulation (DG)	DE, MA, MD, NJ	*	TBD	\$39,700 to \$79,700 per TPD
Minor New Source Review	DE, CT, MD, MA, NJ, RI	*	TBD	\$600 to \$18,000 per ton
Energy security / Energy efficiency	TBD	*	TBD	TBD

Stationary and Area Source

VOC Measure	State Rules	National Measure	Emissions Reduction	Cost
AIM rule	CA	*	50 TPD OTR	\$2,240 per ton
Auto Refinishing	CA	*	21 TPD OTR	\$2,860 per ton
Consumer Products 2006	CA	*	19 TPD OTR	\$7,700 per ton
Lower VOC Solvent Degreaser	MD, CA	*	13 TPD OTR	\$1,400 per ton
Gas Stations	TBD	*	TBD	TBD
Large VOC Storage Tanks	MD, NJ	*	TBD	\$2,288 to \$29,000 per ton
Minor New Source Review	DE, CT, MD, MA, NJ, RI	*	TBD	TBD

Potential Reductions from Boiler Strategies

Estimated NOx tons per year reductions from OTR and national recommendations:

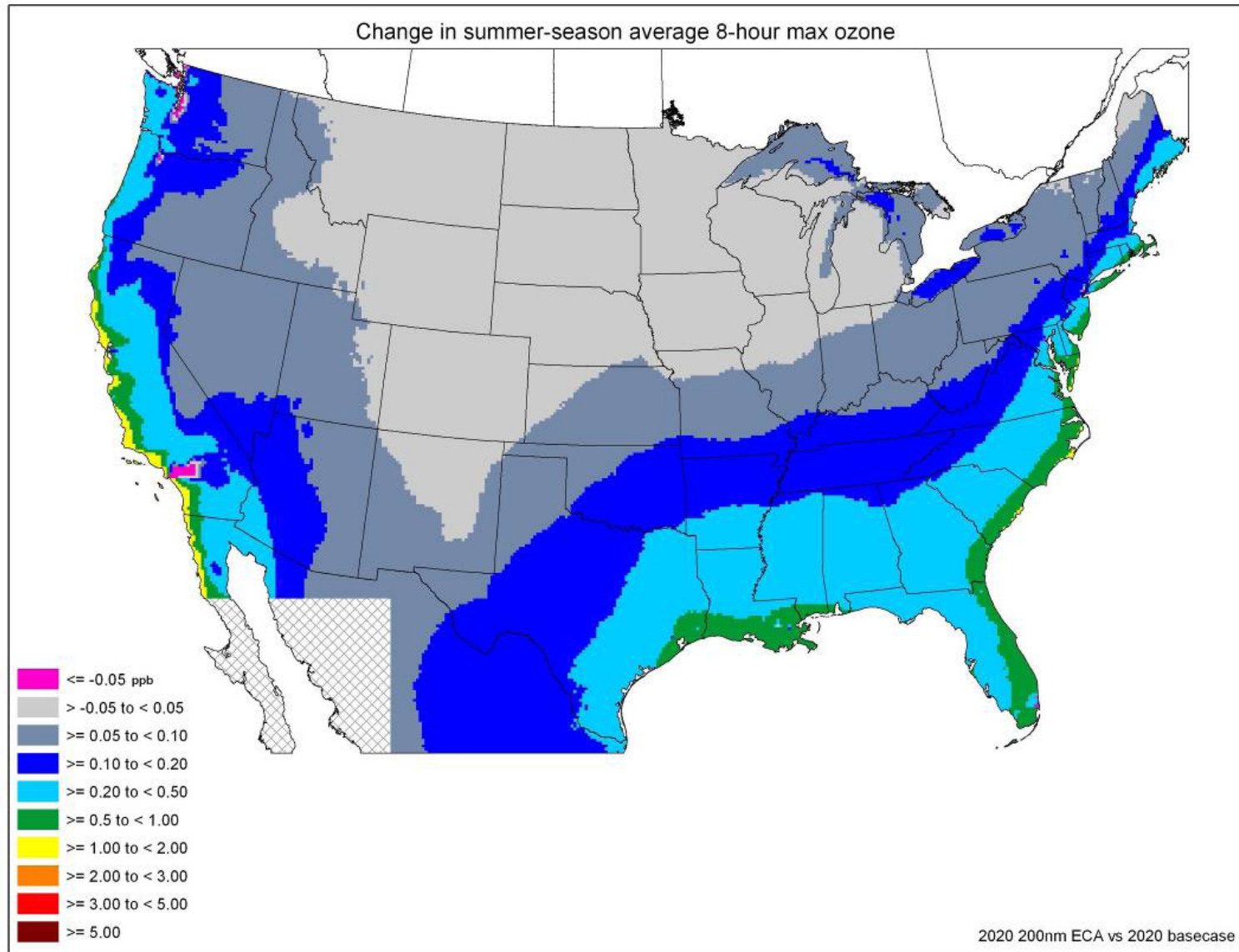
○ Boilers serving EGU	151,000
○ ICI national recommendation (oil / gas area)	49,000
○ ICI national recommendation (oil / gas point)	24,000
○ New Small Gas Boilers	19,000
○ <u>ICI national recommendation (coal point)</u>	<u>10,000</u>
○ Boilers total in OTR	254,000
○ Goal Reduction 40% in OTR	500,000

Mobile Sources: Potential Measures



- Potential national measures
 - Letter of support for the ocean going vessels Emission Control Areas (ECA) designation
 - Concern Regarding Backsliding in Renewable Fuel Standard (RFS) Part II
 - Aftermarket Catalyst Replacement Standards
- Measures for further OTC and NESCAUM development
 - Off shore lightering for ships
 - Sea ports
 - Non-Road idling
 - Regional fuels
 - Heavy duty diesel
 - Vehicle miles traveled (VMT)

Improvement in Summertime Average 8-hour Average Ozone Concentrations in 2020 Resulting from the Proposed Emission Control Area



Next Steps

The slide features a decorative header with the title 'Next Steps' in a large, black, sans-serif font. Below the title is a horizontal bar consisting of a thin blue line on top and a slightly thicker green line on the bottom. The background is white with four light purple circles arranged horizontally. The first and third circles are solid, while the second and fourth are hollow outlines.

- OTC will continue to work on developing the strategies
- Seek stakeholder input in strategy development
- Do AQ screening / sensitivity analysis