



Stationary and Area Source Committee Update

OTC Fall Meeting
November 10, 2011
Wilmington, DE
Hotel DuPont

The Charge to the Committee

- At the June 2011 Annual Meeting, the Commission charged the SAS Committee with developing the following control measures:
 - Municipal Waste Incinerators
 - Coal Fired Boilers Serving EGUs
 - Vapor Controls at Gasoline Service Stations
 - Industrial, Commercial, Institutional (ICI) Boilers
 - Energy Efficiency Strategies
 - Solvent Degreasers
 - Consumer Products
 - Natural Gas Compressor Facilities

Today's Presentation

- Cost per ton and expected emissions reductions per measure for NOx and VOC
- Committee focus
 - What we are doing now
- Updates on measures still under development
 - Municipal Waste Incinerators, Coal Fired Boilers, ICI Boilers, Vapor Controls, Energy Efficiency Strategies
- Measures completed or near completion
 - Natural Gas Compressor Stations, Solvent Degreasing, Consumer Products
- Measure development process moving forward
- Updating the Charge to the Committee
 - Where we want to go next
- Recommendations for Action

Stationary and Area Sources – Costs and Reductions

NOx Measure	State(s) Rule Based On	Emissions Reduction	Cost
Oil and Gas Fired Boilers serving EGUs	DE, NJ, MA, MD, NY	12 TPD OTR	\$2,730 to \$21,800 per ton
Coal Fired Boilers serving EGUs	TBD	TBD	\$1,250 per ton (SCR Only)
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 to \$2,500 per ton (SNCR)
HEDDCT EGUs	NJ	20 TPD OTR	WI: \$44,000 per ton HEDDCT (or \$4400 seasonal)
Stationary Generator Regulation (DG)	DE, MA, MD, NJ	TBD	\$39,700 to \$79,700 per ton per day
Energy Efficiency – Commercial Retrofits	TBD	TBD	Potentially Cost Negative
Natural Gas Compressor Stations	TBD	8-11 TPD OTR	\$5,100 to \$11,100 per ton

Stationary and Area Sources – Costs and Reductions

VOC Measure	State(s) Rule Based On	Emissions Reduction	Cost
AIM Rule Update	CA	60 TPD OTR	\$2,240 per ton
Autobody Refinishing	CA	21 TPD OTR	\$2,860 per ton
Consumer Products	CA	18-27 TPD OTR	\$480 per ton
Solvent Degreasers	MD, CA	81 TPD OTR	\$1,400-\$2,000 per ton
Stage 1 and 2 Vapor Recovery	TBD	4 TPD (CT Only)	\$435-\$22,000 per ton
Large Above Ground Storage Tanks	MD, NJ	6 TPD OTR	\$2,288 to \$29,000 per ton (Industry estimate: \$47,000/ton)

Adopted Measures – Year and Reductions

NOx Measure	Rule Basis - States	Year Adopted?	Emissions Reduction
Oil and Gas Fired Boilers serving EGUs	DE, NJ, MA, MD, NY	2010	12 TPD OTR
New Small Gas Boilers	CA, TX	2010	53 TPD OTR
HEDDCT EGUs	NJ	2010	16 TPD OTR (annualized)
Stationary Generator Regulation (DG)	DE, MA, MD, NJ	2010	TBD
VOC Measure	Rule Basis - States	Year Adopted?	Emissions Reduction
AIM Rule Update	CA	2010	60 TPD OTR
MVMERR (Autobody Refinishing)	CA	2009	21 TPD OTR
Consumer Products	CA	2010	19-26 TPD OTR
Large Above Ground Storage Tanks	MD, NJ	2010	6 TPD OTR

Committee Focus

- Research and data collection
- Economic analysis
- Stakeholder outreach
- Collaboration with other states on issues
- Completing action on remaining measures
- Revisiting and updating adopted measures
- Analyzing EPA proposals
- Discussing adoption and implementation issues
- Identifying new candidate measures

Measures Still Under Development

- Municipal Waste Incinerators
 - Goal to coordinate with EPA action;
 - EPA MACT delayed;
 - The Committee is considering options for possible action.
- Coal Fired Boilers Serving EGUs
 - Evaluating EPA’s Cross-State Air Pollution Rule (CSAPR);
 - Drafting white paper evaluating impacts of CSAPR;
 - The Committee is considering options for possible action – time to move forward?



Measures Still Under Development

- Industrial, Commercial and Institutional (ICI) Boilers
 - Time for the Committee to move forward with a model rule?
- Vapor Controls from Gas Stations
 - Gathering information from states;
 - Meeting with vendors;
 - Reviewing cost/benefit data;
 - Awaiting completion of study done by CT;
 - Developing white paper draft.



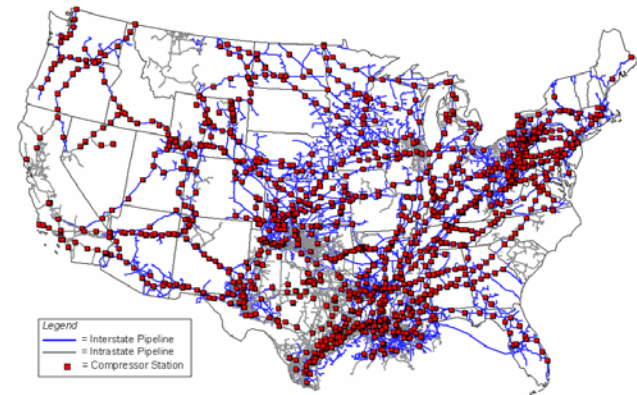
Measures Still Under Development

- Energy Efficiency Strategies
 - Focus on commercial building retrofits;
 - Workgroup developing emissions reduction estimates and strategy options;
 - Drafting white paper.



Measures Nearing Completion

- Natural Gas Compressor Prime Movers
 - Developed draft white paper focusing on pipeline prime movers, released at June Annual Meeting;
 - Gathered additional information on emissions and cost;
 - Conducted extensive stakeholder outreach and calls;
 - Released Draft Model Rule August 2011, focusing on large prime movers.



Measures Nearing Completion

- Natural Gas Compressor Stations (continued)
 - Evaluated stakeholder comments from September Committee Meeting – received 9 comments;
 - Updated and modified draft model rule for November;
 - Updated and finalized white paper for Fall meeting, using data gathered on small unit population;
 - The Committee estimates 8-11 TPD in NO_x reductions from this rule, and believes this is a cost effective measure for this growing inventory category;
 - Still need to finalize emissions limits and update the inventory.

Measures Nearing Completion

- Solvent Degreasing
 - Released updated draft model August 2011 - see rule for comprehensive list of changes;
 - Contacted over 80 stakeholder organizations for comment on rule development, received 14 stakeholder comments on revised proposal;
 - 150 g/L limit for cold cleaning printed circuit boards;
 - Forgoing additional regulation of vapor degreasing in relation to 2001 rule
 - Compliance date of 1/1/14;
 - The Committee estimates 81 TPD in VOC reductions from this rule, and believes this is a cost effective measure.

Measures Nearing Completion

- Consumer Products Update
 - Developed white paper on the potential inclusion of Paint Thinners and Multipurpose Solvents in the Consumer Products model rule for Annual Meeting;
 - Consulted with SCAQMD, sought stakeholder input;
 - Developed recommendation on Tire Shine products;
 - Released draft model rule August 2011, received 6 stakeholder comments;
 - The Committee estimates 18-27 TPD in VOC reductions from this rule, and believes it is a cost effective measure;
 - Still working on a response to recent SCAQMD comments and finalizing specific language.



Measure Development Process Moving Forward

- Next Steps for the Committee
 - Additional sector specific calls with stakeholders;
 - Update measures as needed;
 - Develop screening modeling inputs, sharpen emission reduction estimates, develop economic analysis tools;
 - Continue to develop white papers and model rule language;
 - Assemble TSDs for measures being considered for adoption;
 - Prepare for next stakeholder meeting – March 2012;
 - Continue evaluation of and comments on EPA proposals;
 - Explore new measures, continue data gathering.

Updating the Charge to the Committee

- Where should the Committee go next?
 - Move forward on Coal Fired Boilers, ICI Boilers and Municipal Waste Incinerators;
 - Expand the scope of the Natural Gas Compressors measure to include wellhead and drilling operations;
 - Continue work on another round of Consumer Products updates;
 - Continue work on and development of white papers for Vapor Controls, Energy Efficiency Strategies;
 - Finalize Natural Gas Compressors, Solvent Degreasers, and the current Consumer Products rule



Recommendations for Action

- Develop charge to the committee including expanded scope for natural gas operations, including wellhead units;
- Move forward with ICI Boilers, Coal Fired Boilers and Municipal Waste Incinerators model rule development;
- Continue finalization of rules nearing completion;
- Instruct Committee to continue work on the remaining control measures.

Questions?

