

Ozone Transport Commission  
Stationary Area Source  
Committee  
Potential Control Measures

SIPRAC

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# Ozone Transport Commission

- The Ozone Transport Commission (OTC) is a multi-state organization created under the Clean Air Act (CAA). They are responsible for advising EPA on transport issues and for developing and implementing regional solutions to the ground-level ozone problem in the Northeast and Mid-Atlantic regions.
- Located in Washington DC

# Ozone Transport Commission

- Brings together the states from Virginia to Maine
- Coordinate reductions in air pollution that benefit the whole region
- Provide air pollution assessment, technical support and a forum through which states can work together to harmonize their pollution reduction strategies.
- Members include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Virginia.

# OTC Stationary Area Source Committee

- 2008 8-hour ozone NAAQS = 75 ppb
- SIP - plan for reaching attainment
- Regional issues
- NOx control measures
- VOC control measures

# Annual OTC Stationary Area Source Committee Meeting

- February 4, 2009
- Maryland
- Attendees
  - OTC
  - States
  - Regional Groups – MARAMA, NESCAUM
  - EPA – Regions I, II, III
  - Industry

# Potential NO<sub>x</sub> Control Measures

- Municipal Waste Incinerators
- High Electric Demand Day (HEDD) Electric Generating Units (EGU)
- EGU Boilers
- Natural Gas Boilers/Water Heaters/Process Heaters
- Stationary Distributed Generators
- Energy Efficiency/Renewable Energy
- Minor New Source Review

# Potential VOC Control Measures

- Auto Refinishing
- AIM Rule
- Consumer Products Rule (CARB 2006)
- Lower Solvent Degreaser
- Stage I/Vent Pipe Off Gas Collection
- Large VOC Storage Tanks

# NO<sub>x</sub> - Municipal Waste Incinerators

- Optimize existing selective non-catalytic reduction (SNCR) systems
  - Fluid dynamic modeling – distribution of reagent
  - Additional reagent injection ports
  - Upgrade to urea-based SNCR

# NO<sub>x</sub> – HEDD EGUs

- Based on 2007 OTC Memorandum of Understanding
  - CT commitment: 11.7 tons NO<sub>x</sub>/HEDD day
- EGUs
  - 15 MW or more
  - Operated less than or equal to an average of 50% of the time on an annual basis
- NO<sub>x</sub> Limits (24-hour daily average compliance period)

# NO<sub>x</sub> – EGU Boilers

- Multipollutant Approach – NO<sub>x</sub>, PM, SO<sub>2</sub>
- Controls for Coal Fired Boilers
  - Selective Catalytic Reduction (SCR) – NO<sub>x</sub>
  - Baghouses – PM
  - Wet/Dry Scrubbers – SO<sub>2</sub>

# NOx - Natural Gas Boilers/Water Heaters/Process Heaters

- NOx emissions rates @ 3% stack oxygen by volume on a dry basis
- Heat Input Based
- Manufactured on or after 1/1/2013

Size	Emissions Rate (lb/MMBtu)
75-400 MBtu	0.093
400 Mbtu – 2MMBtu	0.036
2–5 MMBtu Atmospheric	0.014 or 12 ppmv
2-5 MMBtu Non-Atmospheric	0.011 or 9 ppmv

# NOx – Stationary Distributed Generators

- Limit Uncontrolled Ozone Season Use
- Demand Response
- Economic Dispatch
- RCOSA 22a-174-42

# NOx – Energy Efficiency/Renewable Energy

- Multiple Sector
  - Electric Generation and Use
  - Fuels
  - Boilers and Process Heaters
  - Heating and Cooling Equipment
  - Appliance Standards

# NO<sub>x</sub> – Minor NSR

- Control of New and Modified Minor Sources
- “Top Down BACT”
- Programs Exist
  - Connecticut
  - Delaware
  - New Jersey
  - Maine

# VOC – Auto Refinishing

- Revising OTC 2002 Mobile Equipment Repair and Refinishing Model Rule (Underway)
- Considering 2005 California Air Resources Board (CARB) Suggested Control Measure Recommendations
- Addition of VOC Limits for a Variety of Auto Coating Categories

# VOC – AIM Rule

- Revising OTC 2002 Architectural and Industrial Maintenance (AIM) Coatings Model Rule (RCSA 22a-174-41, effective 5/1/2008)
- Considering 2007 CARB Suggested Control Measure Recommendations for Architectural Coatings
- Product Reformulation
- Improve Definitions
- Revised Compliance and Reporting Requirements

# VOC – Consumer Products

- OTC States Adopted CARB's 2005 Consumer Products Regulations (RCSA 22a-174-40, effective 1/1/2009)
- Considering 2006 CARB Revisions
  - Revising VOC Limits for 15 Categories
  - Including 3 New Categories
- 2008 CARB Revisions May be Considered Once Adopted

# VOC – Solvent Degreasers

- Types of Units
  - Cold Cleaning Degreasers
  - Open Top Vapor Degreasers
  - Conveyor Degreasers
  - Cleaning Systems
- VOC Content of Solvents
  - 25 g/l or less
- No Longer Consider Vapor Pressure Limit Adequate

# VOC – Vent Pipe Off Gas Collection

- Gasoline Station Storage Tanks
- Virtually Eliminate Fugitive and Vent Emissions
- Vapor Recovery System
  - Membrane System
  - Control and Recycle Larger VOC Molecules
  - Maintain Slight Vacuum

# VOC – Large VOC Storage Tanks

- Above-Ground Tanks
- Floating Roof Design
- Control Measures
  - Deck Fittings and Seals
  - Domes
  - Roof Landings
  - Degassing and Cleaning
  - Inspection and Maintenance

# What is Next?

- Directors Call
- Identification of Measures to go Forward
- Creation of Subcommittees
- Develop Model Rules

# More Information

- [www.otcair.org](http://www.otcair.org)
- Current documents can be found under “Meetings” .
- 2009 - Stationary Area Sources and Mobile Committee Meeting February 4, 2009  
<http://www.otcair.org/document.asp?fview=meeting>