

Update on EPA Rule Making

David Conroy,
EPA Region 1
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Climate Change - Regulatory Initiatives



- Completed Actions

- California Greenhouse Gas Waiver Request - Granted 6/30/09
- GHG Reporting Rule - Final rule signed 9/22/09
 - Misc. amendments - See www.epa.gov/climatechange/emissions/notices.html
- Endangerment Finding - Signed 12/7/09
- Renewable Fuel Standard Program (RFS2) - Final rule signed 2/3/10
 - 2012 Standards set 12/22/11
- Light-Duty Vehicle GHG Emissions Standards for Model Year 2012-2016 - Final rule signed 4/1/10
- PSD and Title V GHG Tailoring Rule - Final rule signed 5/13/10
- GHG Permitting - SIP Call, Failure to Submit, FIP, Narrowing Rule - Final rules signed in 12/10
- GHG and fuel efficiency standards for Medium- and Heavy-Duty Engines and Vehicles, beginning model year 2014 - Final rule signed 8/9/11

More info: www.epa.gov/climatechange/initiatives/

Climate Change - Regulatory Initiatives



- Status Update
 - Connecticut GHG SIP Revision
 - National GHG Permit Status
- Pending Actions*
 - GHG Permitting - Tailoring Rule Step 3 & 4
 - GHG Permitting - Biomass Deferral
 - GHG and CAFE Standards for 2017 and Later Model Year Light-Duty Vehicles
 - GHG performance standards for refineries and utilities

* More info: www.epa.gov/climatechange/initiatives/

Connecticut GHG SIP Revision



- December 13, 2010 - EPA sets SIP submittal deadline for CT of March 1, 2011
- January 6, 2011 - Using parallel process, EPA proposes approval of Connecticut's GHG regulations
- February 9, 2011 - Connecticut submits SIP revision
- May 10, 2011* - EPA approves SIP revision

* See: www.gpo.gov/fdsys/pkg/FR-2011-05-10/pdf/2011-11218.pdf

GHG Permit Status



- Once EPA approves the plan for Nevada (Clark Co.), EPA or the states will have authority to permit GHG sources for all the states
- As of November 2011, about 100 permit applications submitted including source categories such as:
 - Biofuel Production, Cement Plants, Electric Generating Units, Lime Production Facilities, Outer Continental Shelf Exploration, Pulp and Paper Mills, Refineries
- GHG permits as of mid-November
 - Permits issued for 17 companies/plants (3 of them by EPA)
 - EPA comments on 18 draft GHG permits to be issued by state agencies
 - EPA reviewing 17 new GHG permit applications where EPA will issue the permits
- **Lessons learned: documentation of GHG control considerations and BACT limits is important for a robust permit record**
- GHG Best Available Control Technology (BACT) generally involves energy efficiency measures

GHG Permitting Activities



- **Tailoring Rule - next steps**

- Tailoring Rule Step 3 proposal anticipated during Q1 2012
 - Final rule required to be completed by July 1, 2012
- 5-year GHG NSR study and Step 4 final rule planned for 2016
- Oral arguments on Tailoring Rule litigation scheduled for February 28-29, 2012

GHG Permitting Activities



- **Biomass Deferral**

- In July 2011, EPA completed a rulemaking to defer the application of pre-construction permitting requirements to biomass-fired CO₂ *and other biogenic* CO₂ emissions for a **period of three years**
- EPA submitted a draft biomass study to Science Advisory Board (SAB) for review
 - Spring 2012: SAB will release recommendations
 - Late 2012: If necessary, EPA will propose rule addressing biomass based on study

GHG and CAFE Standards for 2017 and Later Model Year Light-Duty Vehicles



- Proposed standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2017 through 2025.
- Projected to require on an average industry fleet wide basis
 - 163 grams CO₂/mile in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if met all through fuel economy improvements.
- Proposed rule published Dec 1, 2011.
 - Comment period extended to Feb 13, 2012.
- Final rule expected to be published Aug 2012.*

GHG performance standards for refineries and utilities



- In Dec 2010, EPA announced it will set GHG performance standards for refineries and utilities; focusing on sectors with high emissions from the fewest facilities
- Utility Rule will establish GHG NSPS for new and modified oil, natural gas and coal utility boilers and establish GHG emission guidelines for existing utility boilers.
- EPA held five listening sessions to gain important information and feedback from key stakeholders and the public before the agency initiates the rulemaking process.
- Timing: Proposed regulations for utilities sent to OMB in Nov 2011.* EPA originally agreed to finish rules in May 2012.

Air Quality - Regulatory Initiatives



- NAAQS Implementation
 - Schedule
 - Ozone and PM
 - Regional Haze
 - CSAPR
 - Mobile Source Rules
 - SO₂ and NO₂
- Air Toxics Standards

Current Schedule for Ongoing NAAQS Reviews (November 2011)



MILESTONE	POLLUTANT						
	PM	NO ₂ /SO ₂ Secondary	Ozone	Lead	NO ₂ Primary	SO ₂ Primary	CO
NPR	TBD	<u>July 12, 2011</u>	Fall 2013	Winter 2013	Summer 2015	Winter 2015	Spring 2016
NFR	TBD	<u>Mar 20, 2012</u>	Summer 2014	Fall 2014	Spring 2016	Fall 2016	Winter 2016

•NOTE: Underlined dates indicate court-ordered or settlement agreement deadlines.

Anticipated NAAQS Implementation Milestones

(October, 2011)



Pollutant	NAAQS Promulgation Date	Designations Effective	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	Oct 2011	June 2012/2013	Dec 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 (2008)	Mar 2008	2012	Mar 2011	2015	2015-2032
Ozone (current review)	July 2014	2016	July 2017	2019/2020	2019-2036
PM _{2.5} (current review)	TBD	TBD	TBD	TBD	TBD
NO ₂ /SO ₂ Secondary	Mar 2012	TBD	Mar 2015	TBD	TBD

Reconsidered Ozone Standard



- In January 2010, EPA proposed to reconsider the ozone standard. Specifically, we proposed to:
 - revise the level of primary 8-hour ozone standard to a level within the range of 0.060-0.070 ppm; and
 - establish a separate cumulative secondary standard within a range of 7-15 ppm-hours.
- On Sept 2, 2011*, President Obama announced that we were not pursuing a reconsidered standard.
- On Sept 22, 2011**, EPA outlined steps it would be taking to implement the 2008 ozone NAAQS (0.075 ppm).

* See: www.whitehouse.gov/the-press-office/2011/09/02/statement-president-ozone-national-ambient-air-quality-standards

**See: www.epa.gov/air/ozonepollution/pdfs/OzoneMemo9-22-11.pdf

2008 Ozone NAAQS Area Designations



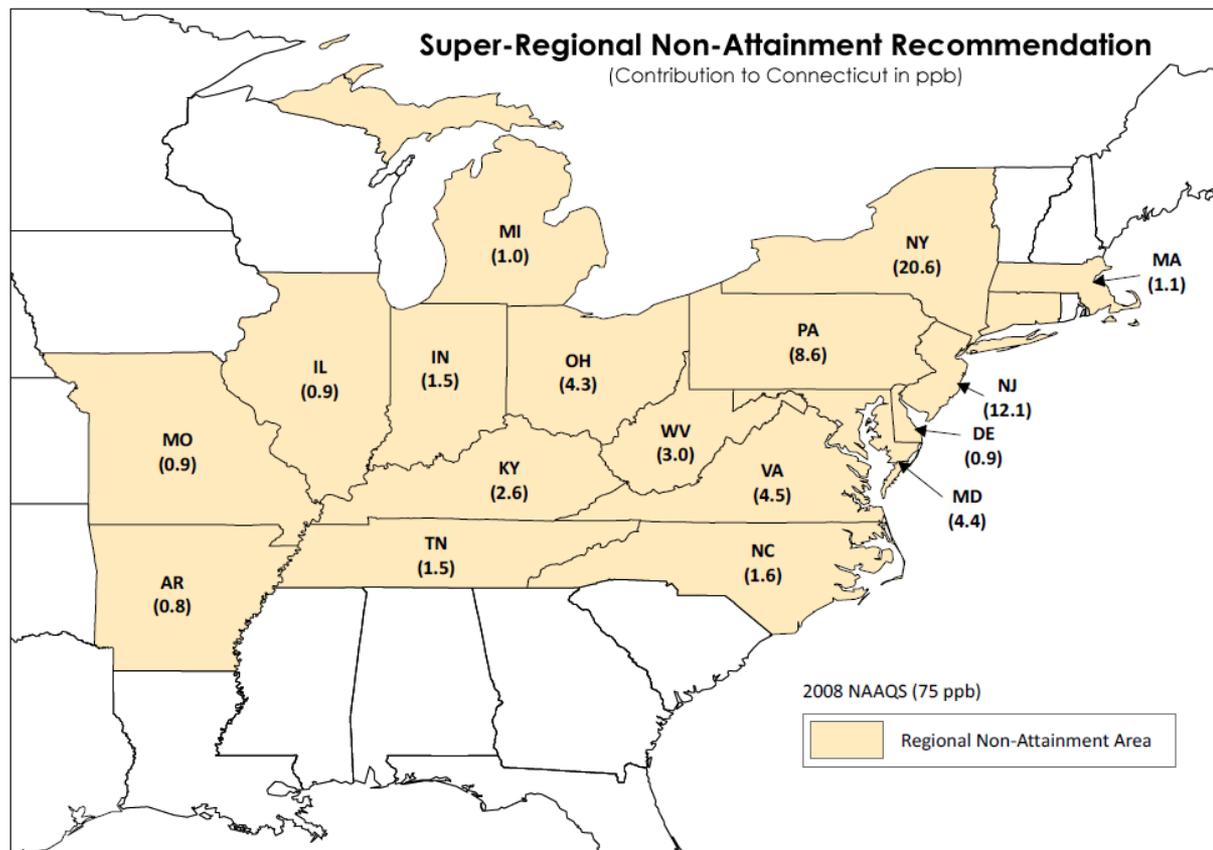
- Suit filed on August 24, 2011 by WildEarth Guardians in US District Court, for failure to promulgate area designations for the 2008 NAAQS
- EPA now moving rapidly to designate areas based on 2008-2010 air quality data and 2009 state recommendations
 - Preliminary decisions (120-day letters) in Dec. 2011
 - Final decisions by April 30, 2012
- States were allowed to revise previous recommendations if received by Oct 28, 2011
- States were told that 2011 data will be considered if certified Feb 15, 2012
- Update recommendations received from CT, RI, MA and NH*

* See: www.epa.gov/ozonedesignations/2008standards/rec/region1R.htm

Updated Ozone Nonattainment Recommendations



- In letter dated 10/28/11*, CT Governor asked for “Super-Regional” nonattainment area



* See: www.epa.gov/ozonedesignations/2008standards/rec/letters/01_CT_rec3.pdf

Updated Ozone Nonattainment Recommendations - Cont.



- NH and RI - Requested state-wide attain. based on 2009-2011 data
- MA - Req. state-wide attainment based on 2009-2011 data, except for Dukes Co. (Martha's Vineyard)
- In letters dated Dec 9, 2011*, EPA agreed with NH, RI and MA but not CT. EPA said it intended to define CT NA areas consistent with boundaries for 1997 ozone NAAQS.
- Notice of comment period published Dec. 20, 2011**. Comment period closes Jan. 19, 2012

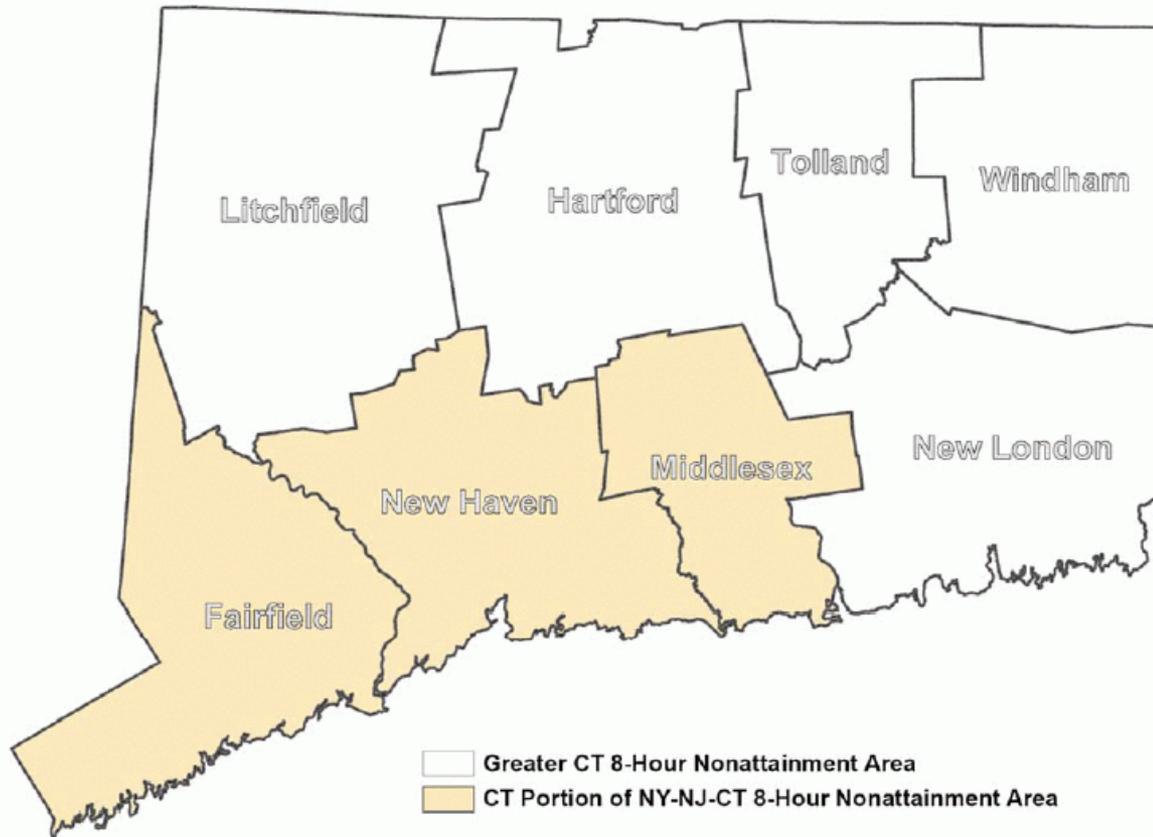
* See: www.epa.gov/ozonedesignations/2008standards/rec/region1R.htm

** See: www.gpo.gov/fdsys/pkg/FR-2011-12-20/pdf/2011-32557.pdf

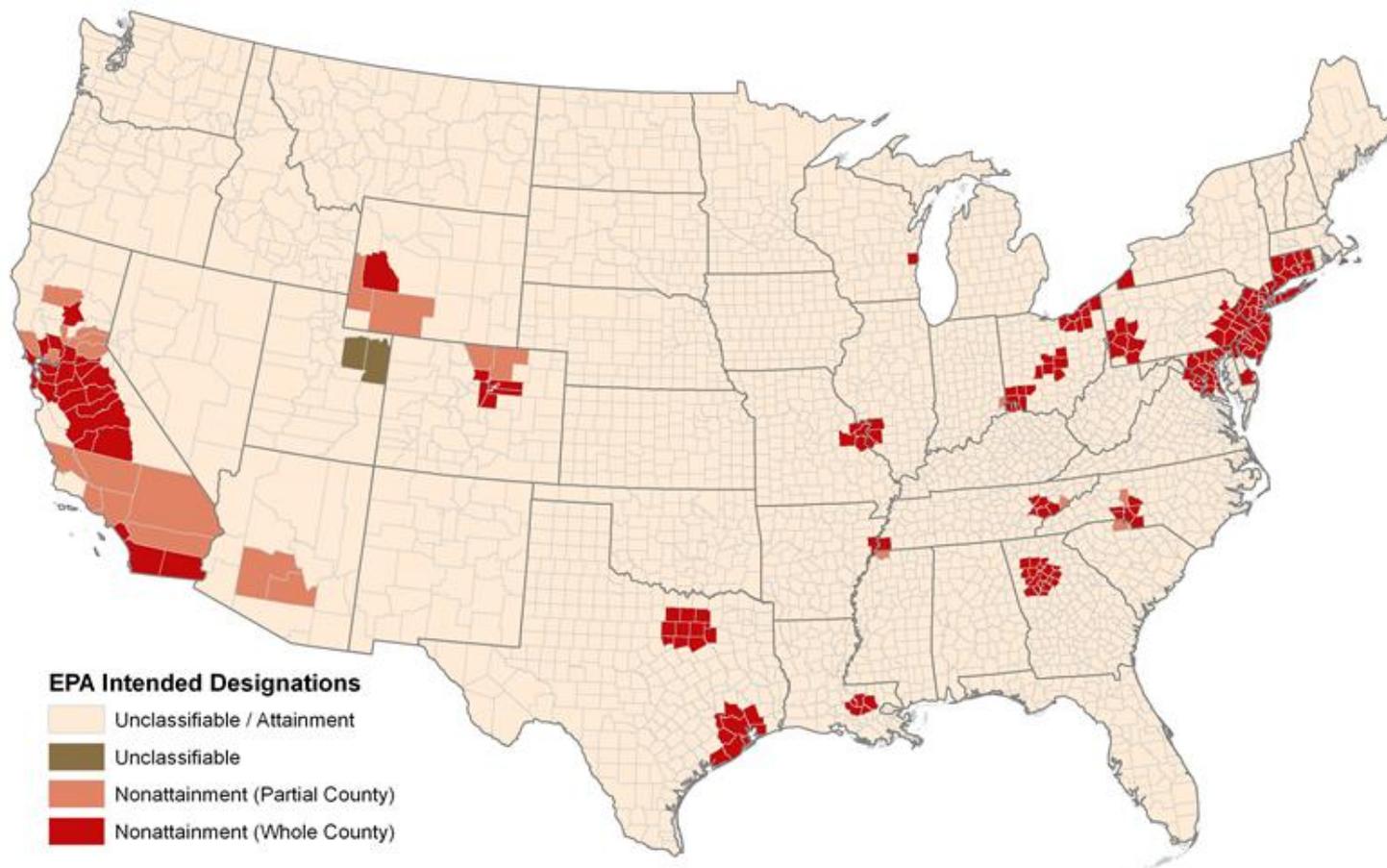
CT Nonattainment Areas for 1997 Ozone NAAQS



Ozone NAAQS Nonattainment Area Boundaries



Map of Preliminary Nonattainment Areas for 2008 Ozone Standards



Notes:

EPA does not intend to designate as nonattainment any areas outside the Continental US.

2008 O₃ NAAQS Classifications Approach Rule



- Proposal expected early 2012 and final rule by mid-2012 (same time as initial area designations go final)
 - Classification Thresholds: Intend to propose “percent-above-standard” approach used for 1997 ozone NAAQS.
 - Marginal 0.076 up to 0.086 ppm
 - Marginal areas - 3 years to attain; attainment demonstrations NOT required
 - All areas in Region 1 would be marginal based on above approach

2008 Ozone NAAQS Implementation Rule



- **“Simple and straightforward” rule addressing SIP requirements under Subpart 2**
 - Provides flexibility
 - Federal assistance to states
- **Tentatively final in late 2012**
- **Preliminary Content:**
 - Anti-backsliding provisions for revoked 1997 NAAQS
 - Criteria for attainment date extensions
 - Deadlines for emissions inventory, RACT, ROP/RFP, attainment plan/demo, and section 185 fee program SIPs
 - RACT and RACM policies
 - Satisfying 15% ROP and 3% annual RFP requirements
 - Photochemical modeling for attainment demonstrations
 - Transportation and general conformity
 - Contingency measures
 - Nonattainment NSR
 - Emissions inventory and emissions statements
 - Application of the Clean Data Policy

Other Ozone-related Actions



- **Widespread Use of Onboard Refueling Vapor Recovery and Stage II Waiver**
 - Proposed rule issued July 2011 addresses waiver of Serious and above area requirements for Stage II vapor recovery systems at gasoline refueling stations
 - EPA intends to issue separate guidance to address technical aspects of removing existing Stage II programs from SIPs, and the Ozone Transport Region “comparable measures” requirement (to be issued in summer 2012 at time of final rule)
- **Revision to Monitoring Rules**
 - Proposed July 2009 to modify minimum monitoring requirements in urban areas, add new minimum monitoring requirements in non-urban areas, and extend the length of the required ozone monitoring season in some states
 - Focus has shifted to revising ozone season requirements vs. expanding network size
 - If finalized, potentially effective in 2013
- **Actions to Address 1997 Ozone Implementation Issues:**
 - Out of Area RFP
 - Classification of former subpart 1 areas under subpart 2
 - RACT / CAIR / NO_x SIP Call
 - Anti-backsliding rules for legacy 1-hour nonattainment NSR

Next Ozone NAAQS Review



Stage of review	Major milestones	Schedule
Integrated Science Assessment (ISA)	1 st Draft ISA	Mar 2011
	CASAC and public review 1 st Draft ISA	May 19-20, 2011
	2 nd Draft ISA	Sept 2011
	CASAC and public review of 2 nd Draft ISA	Jan 9-10, 2012
	Final ISA	Feb/Mar 2012
Risk/Exposure Assessments (REAs)	Scope and Methods Plans	Apr 2011
	CASAC consultation and public review of Scope and Methods Plans	May 19-20, 2011
	1 st Draft REAs	Feb/Mar 2012
	CASAC and public review 1 st Draft REAs	May 2012
	2 nd Draft REAs	Nov 2012
	CASAC and public review 2 nd Draft REAs	Jan/Feb 2013
Final REAs	Apr 2013	
Policy Assessment (PA) and Rulemaking	1 st Draft PA	Apr 2012
	CASAC and public review 1 st Draft PA	May 2012
	2 nd Draft PA	Dec 2012
	CASAC and public review 2 nd Draft PA	Jan/Feb 2013
	Final PA	May 2013
	Proposed Rule	Oct 2013
	Final Rule	July 2014

PM NAAQS - Current Review



- Policy Assessment Document (April 2011)
 - $PM_{2.5}$ health standards:
 - Revising the level of the annual health standard within a range of 11 to 13 $\mu\text{g}/\text{m}^3$
 - Staff concludes evidence most strongly supports range from 11-12 $\mu\text{g}/\text{m}^3$
 - Retaining the daily standard at 35 $\mu\text{g}/\text{m}^3$ would be appropriate if the annual standard were set at 11 to 12 $\mu\text{g}/\text{m}^3$; if annual set at 13 $\mu\text{g}/\text{m}^3$, consider revising to 30 $\mu\text{g}/\text{m}^3$
 - $PM_{2.5}$ welfare standards:
 - Staff concludes it is appropriate to consider setting a distinct secondary $PM_{2.5}$ standard to address visibility impairment primarily in urban areas
 - PM_{10} standards:
 - Staff concludes scientific evidence and associated uncertainties could provide support for either retaining or revising the current primary 24-hour PM_{10} standard
- In Oct 2011*, EPA Administrator announced that she is prepared to propose to keep the current standard for PM_{10} when it is sent to OMB
- Revised PM standards not yet proposed
 - On Oct 18, 2011, received Notice of Intent to Sue from EarthJustice
 - On Nov 15, 2011, petitions filed by Environmental Groups and 10 States (including CT) seeking court-ordered deadline for new standards

* See: www.epa.gov/air/particlepollution/pdfs/20111014Klobuchar.pdf
www.epa.gov/air/particlepollution/pdfs/20111014Stabenow.pdf

2006 PM_{2.5} NAAQS Implementation



- SIP timeline for 2006 standards
 - Designations effective in December 2009. *SW CT was designated NA.*
 - Attainment demonstration SIPs due December 2012
- Drafting Guidance for 2006 Standards to clarify several issues
 - Framework of existing implementation rule 40 CFR 51 Subpart Z (§51.1000) is appropriate for attainment planning for 2006 PM_{2.5} standards
 - Clarifications: RFP milestone years, seasonal emission inventory issues, policy for contingency measures
- Permitting
 - PSD Program SIP revisions were due May 16, 2011. 1997 PM₁₀ Surrogate Policy can no longer be used to satisfy PSD requirements for PM_{2.5}
 - EPA granting reconsideration of 2010 PM_{2.5} Increments, SILs, and SMC Rule to re-propose three provisions to ensure notice and public comment opportunity. Rule is not stayed.
- Status in Connecticut for NJ-NY-CT nonattainment area
 - Clean data determination for 1997 annual standard published Nov 15, 2010
 - CT DEP requested clean data determination for 2006 24-hr standard on Feb 8, 2011
 - EPA currently working on clean data determination proposal for the 2006 24-hr standard
 - EPA has been working with CT DEP on the requirements that are necessary to redesignate the nonattainment area to attainment

Regional Haze: Status in New England



- Regional Haze SIPs were due Dec 2007
- EPA issued a “finding of failure to submit” in Jan 2009
 - All New England states received this finding
 - Finding starts a two year Federal Implementation Plan (FIP) clock
- On January 19, 2011, National Parks Conservation Association (NPCA) and several others filed a Notice of Intent to sue for EPA’s failure to act upon the Regional Haze SIPs.
- EPA’s Proposed Consent Decree with NPCA et al., published December 2, 2011.

Proposed Consent Decree Schedule for New England States



State	Proposed Action	Final Action
Maine	November 15, 2011 ✓	March 15, 2012
Vermont	February 15, 2012	June 15, 2012
New Hampshire	February 15, 2012	June 15, 2012
Rhode Island	February 15, 2012	June 15, 2012
Connecticut	March 15, 2012	July 13, 2012
Massachusetts	March 15, 2012	July 13, 2012

CSAPR – Final rule signed July 6, 2011



- EPA finalized the Cross-State Air Pollution Rule (CSAPR) under the “good neighbor” provision of the Clean Air Act to reduce transported pollution that significantly affects downwind nonattainment and maintenance problems.
- CSAPR will reduce annual emissions from power plants in the eastern half of the United States by 6.4 million tons of SO₂ and 1.4 million tons of NO_x.
- The costs are affordable, and greatly outweighed by the benefits:
 - \$800 million anticipated annual costs in 2014
 - \$120 - \$280 billion annual benefits
- The rule put in place a new framework to address pollution that affects air quality in downwind states and helps states meet air quality standards as quickly as possible.
 - Both CT and MA were excluded from the final rule

CSAPR Revisions



- Technical Adjustments - Proposed Oct 6, 2011*
 - Slight increase in emissions budgets for 9 states
 - No changes to core elements of program
 - Public comment period ended November 28, 2011
- Supplemental Proposal - Final rule signed Dec 15, 2011**
 - Inclusion of six states for Ozone season NOx reductions
- CSPAR as Alternative BART - Proposed Dec 23, 2011***
 - Proposes to approve CSAPR as an alternative to determining source-by-source BART
 - Allow CSAPR region states to substitute participation in CSAPR for source-specific BART for SO₂ and/or NOx emissions from power plants.
 - EPA also proposed to disapprove states plans that previously relied on CAIR to improve visibility and proposed to replace it with a FIP that would rely on CSAPR

*See: www.gpo.gov/fdsys/pkg/FR-2011-10-14/pdf/2011-26521.pdf

**See: www.gpo.gov/fdsys/pkg/FR-2011-12-27/pdf/2011-32821.pdf

*** See: www.gpo.gov/fdsys/pkg/FR-2011-12-30/pdf/2011-33586.pdf

Originally Planned Transition to CSAPR



- CAIR implemented through 2011 compliance periods.
- CSAPR would cover emissions in 2012 and beyond.
 - January 1, 2012: Cross-State Air Pollution Rule Phase 1 SO₂ and annual NO_x trading programs begin.
 - May 1, 2012: Cross-State Air Pollution Rule ozone season NO_x trading program begins.
- CSAPR establishes new allowances for all programs.
 - There is no carryover of Acid Rain Program, NO_x SIP Call/NBP, or CAIR allowances.

CSAPR Stay



- On Dec 30, 2011*, the D.C. Circuit issued a ruling to stay the CSAPR pending judicial review.
- EPA is working to ensure the transition back to CAIR occurs as seamlessly as possible.
 - CAIR allowances reinstated to allowance accounts on Jan 11, 2012
- CT's CAIR-replacement program is still required since the Regional Haze SIP will rely on it.

*See: www.epa.gov/airtransport/pdfs/CourtDecision.pdf

Promulgated Mobile Source Clean Air Rules



A new vehicle today is up to 95% percent cleaner than a new vehicle in 1970. Still, by 2020, mobile sources are projected to account for up to 50% of the NO_x emissions, and substantial hydrocarbon and PM emissions.

- **Clean Cars and Passenger Trucks - Tier 2**
- **Clean Heavy-Duty Trucks and Buses**
- **Mobile Source Air Toxics Rule**
- **Clean Non-road Diesel Engines and Equipment**
- **Locomotive and Marine Diesel Standards**
- **Ocean-going Vessels**
- **Small Gasoline and Recreational Marine Standards**



Light Duty Vehicles and Fuels



- Tier-3 builds on existing approach
- Systems-based approach comprehensively addresses vehicles and fuels
 - Cost effective reduction of NO_x, PM, VOCs, and air toxics
 - Technologically feasible
- Harmonize with California standards
- Reduced gasoline sulfur levels facilitates immediate reductions in emissions from existing fleet
- Proposal projected by March 2012*

SO₂ NAAQS Implementation



- New 1-hr 75 ppb SO₂ NAAQS promulgated June 3, 2010.
- SO₂ designations guidance was issued March 24, 2011. State designation recommendations were submitted June 2011.
- NA areas, attainment demonstration SIPs due 18 months after nonattainment designations.
- For all other areas, maintenance SIPs required that:
 - Demonstrate through modeling that all sources will be sufficiently controlled to ensure timely attainment and maintenance; and
 - Include enforceable emissions limitations, timetables for compliance, and appropriate testing/reporting to assure compliance.
- Draft guidance for SIP development and modeling released for public review on September 23, 2011.
- Planning a rulemaking to address implementation issues. Proposal expected in July 2013*

NO₂ NAAQS Implementation



- 1-hr 100 ppb standard promulgated January 2010
- EPA intends to designate all areas of the country unclassifiable/attainment based on lack of violations anywhere in the existing community-wide monitoring network
- New monitoring network: 52 near-road sites in cities with population > 1 million in 2013/2104
- Infrastructure SIPs due January 2013; guidance planned.
- Guidance on NO₂ PSD permit modeling issued June 29, 2010
<http://www.epa.gov/NSR/guidance.html> includes:
 - Recommended interim significant impact level
 - Estimating ambient NO₂ concentrations and determining compliance with the new 1-hour NO₂ standard
 - Modeling emergency equipment
 - Additional clarifications issued March 21, 2011 (intermittent emissions, more detail on NO to NO₂ conversion, background concentrations, etc.)

Mercury and Air Toxics Standards (MATS)



- On December 16, 2011, EPA finalized the first ever national standards to reduce mercury and other toxic air pollution from coal and oil-fired EGUs with a capacity of 25 megawatts or greater.
- Power plants are currently the dominant emitters of Hg (50%), acid gases (over 75%) and many toxic metals (20-60%) in the U.S.
- Approx. 40 percent of the current EGUs still do not have advanced pollution control equipment.
- The final rule establishes power plant emission standards for mercury, acid gases, and non-mercury metallic toxic pollutants which will result in:
 - preventing about **90 percent** of the mercury in coal burned in power plants being emitted to the air;
 - reducing **88 percent** of acid gas emissions from power plants; and
 - reducing **41 percent** of SO₂ from power plants beyond reductions expected from CSAPR
- Existing sources generally will have up to 4 years if they need it to comply with MATS.

MATS - Changes from Proposal



- EPA's final rule remains largely the same as the proposal.
- Key Changes
 - Final emission limit for filterable PM - instead of total PM-- as a surrogate for non-mercury metallic air toxics.
 - Definition of subcategories for coal units
 - Subcategories for oil units, including limited-use subcategory
 - More flexible monitoring and recordkeeping requirements
 - Work-practice standards during start-up and shut-down
 - More flexible averaging approach for better compliance and reduced emissions
 - More achievable new source standards

Boiler MACT/CISWI Reconsideration*



- 4 Rules finalized in Feb 2011
 - Covered major and area source Boilers, Commercial and Industrial Solid Waste Incinerators (CISWI), and Sewage Sludge Incinerators (SSI)
 - EPA also signed notice regarding reconsideration of certain aspects of boiler and CISWI rules
- Stay
 - On May 18, 2011, EPA delayed the effective date of the major source Boiler MACT only and CISWI amendments
 - Boiler Area Source Rule is still in effect
- Schedule for Changes to Boiler Rules
 - In June, EPA filed a schedule with court for reconsidering the Boiler MACT, the boiler area source rule and CISWI rule
 - Proposed standards signed on Dec 2, 2011. Comment period ends Feb 21, 2012
 - Finalize standards by Spring 2012
- Stay lifted
 - On Jan 9, 2012, DC circuit court lifted the stay on the major source boiler rule and the CISWI rule

RICE NESHAP Reconsideration



- Final rules in 2010
- Proposed settlement agreement published in FR on Jan 4, 2012* to address petitions for reconsideration
 - Proposed rule for RICE NESHAPS and ICE NSPS by April 20, 2012
 - Final rule by Dec 14, 2012
 - Anticipated to allow emergency engines to operate for up to 60 hours per year as part of a demand response program

* See: www.gpo.gov/fdsys/pkg/FR-2012-01-04/pdf/2011-33758.pdf



Questions