

Draft SIP Requirements Rule Proposal for the 2008 Ozone NAAQS

NACAA conference call

July 19, 2012

Reminder

- This presentation covers the status and contents of the draft SIP Requirements Rule proposal as it currently exists.
- Changes could occur prior to publication of the proposal.
- There will be a formal public comment period.

Overview

- Anticipated rulemaking timeline
- SIP Requirements Rule
 - SIP requirements for areas that are nonattainment for 2008 ozone NAAQS
 - Anti-backsliding requirements for 1-hour and 1997 ozone NAAQS nonattainment areas
- Discussion/Questions

Anticipated Timeline for Developing SIP Requirements Rule

- Arrival at OMB anticipated this summer
- Anticipate proposal in late summer
 - 60-day public comment period
 - 2 public hearings
- Draft final to OMB in February, 2013
- Signature anticipated in April, 2013
- Note: Proposing revocation of the 1997 ozone NAAQS 1 year after the effective date of designation (July 20, 2013)

SIP Requirements for Areas that are Nonattainment for the 2008 Ozone NAAQS

Requirements for Implementing the 2008 Ozone NAAQS

1. Nonattainment area SIP deadlines
2. Modeling and attainment demonstration requirements
3. RFP requirements
4. RACM and RACT requirements
5. Vehicle I/M program requirements*
6. Transportation conformity requirements*
7. General conformity requirements*
8. Contingency measure requirements
9. Nonattainment NSR requirements
10. Emission inventory and emission statement requirements
11. 1-year attainment deadline extension
12. Rural transport area requirements
13. Multi-state nonattainment area requirements*
14. Provisions for international transport*
15. Section 182(f) NO_x provisions and waiver*
16. Tribal obligations*
17. Ozone Transport Region (OTR) requirements*
18. Emergency episode plans*
19. Clean Data Policy*
20. Section 185 penalty fee provision for Severe and Extreme areas

* Issues where no significant changes are being proposed in this rulemaking compared to the approach used for the 1997 ozone NAAQS.

CAA Nonattainment Area SIP Submittal Deadlines

- The CAA establishes maximum deadlines for submitting various SIP elements.
- Emission inventories and emission statement SIPs are due 2 years after the effective date of designation (July 20, 2014)
- RACT SIPs are due 2 years after the effective date of designation (July 20, 2014).
- Most other nonattainment-related SIP elements, including RFP plans, the attainment plan (RACM), and attainment demonstration are due 3 years after the effective date of designation (July 20, 2015).
- If EPA determines that an area attains before SIPs are due, the SIP submittal requirements due at 3 years can be suspended (Clean Data Policy).

Proposed SIP Due Dates

- Note: Infrastructure and Transport SIPs were due March 2011. State submission of these SIPs and EPA findings are currently the subject of litigation. We are not intending to address that in this rulemaking.
- We are proposing two options for the final rule on deadlines for nonattainment area SIPs:
 - Option 1: timeframe provided by statute
 - Option 2 (preferred): states may choose to submit SIPs in the timeframe provided by statute, or they may submit a combined submittal of the emissions inventory, emission statement, RACT, RFP plan, attainment plan (RACM), and attainment demonstration SIPs at 28 months (November 20, 2014).
- Deadline to adopt and submit rules for Severe/Extreme Areas Penalty Fee Programs (§185).
 - Propose deadline of 10-years from effective date of designations (July 20, 2022).
 - Similar to CAA requirement for 1-hour standard.

Modeling Attainment Demonstrations

- Moderate and above areas are required to use photochemical grid modeling to demonstrate attainment.
- However, an alternative approach can be used for these areas if the Administrator determines that it is at least as effective.
- Model results are used to determine the amount of VOC and/or NO_x emission reductions that are needed for the area to attain the NAAQS.
- EPA has not specified a specific approved model but has issued guidance on choosing a model (<http://www.epa.gov/scram001/guidance/guide/final-03-pm-rh-guidance.pdf>).
 - The rule directs the reader to the current modeling guidance.
 - EPA does plan updates to the guidance for the 2008 NAAQS.
 - Note that the guidance addresses how high electricity demand days (HEDDs) can be characterized.

Reasonable Further Progress (RFP)

- Purpose is to ensure that areas are making steady progress toward attainment, rather than waiting until close to the attainment date.
- Marginal areas are not required to submit an RFP plan.
- Moderate and above areas are required to achieve a 15% reduction in VOC emissions in the first 6 years after the baseline year.
- Beyond that, Serious and above areas are required to achieve an additional 3% per year reduction in emissions (can be VOC, NOx or a combination) starting 6 years after designation until the attainment date.
- Baseline year: we recommend that states use the most recent PEI year (2011), or can select (justifiable) alternate year such as the designation year (2012).
 - If a year prior to 2012 is selected, states will need to plan for and achieve an additional 3% per year reduction (in NOx and/or VOC) through the attainment year.
- Credit for reductions only from within the same nonattainment area due to court decision.
 - We are requesting specific comment on a legal basis for crediting reductions from outside the nonattainment area toward RFP.
- We are proposing not to require CAA-specified calculations to remove miniscule RFP credit for four specific pre-1990 measures.

Options for 15% VOC Reduction for First 6 Years (RFP)

- 15% VOC-only reduction plan required for Moderate and above areas and all areas of the OTR.
 - Applies to 6-year period starting with the year of nonattainment designation (2012-2017).
 - CAA requires these reductions to be VOC-only, even though NO_x reductions are now known in some cases to be more effective at reducing ozone.
 - Additional VOC reductions could be difficult to achieve for some existing nonattainment areas.
- If areas have a previously approved plan meeting the 15% requirement under the 1979 1-hr or 1997 8-hr NAAQS, they can substitute NO_x for VOC. This is the approach that was used for the 1997 NAAQS. We are also proposing similar flexibility for other areas:
 - Other areas, including previous OTR attainment areas, that can demonstrate they actually obtained a 15% VOC reduction from 1991-1996 can also substitute.

Reasonably Available Control Technology (RACT)

- The RACT provision is intended to ensure that states adopt emission controls that are available and reasonable for all major sources.
- Moderate and above areas are required to implement RACT for:
 - VOC sources covered by one of the 45 control techniques guideline (CTG) documents;
 - Other major stationary sources of VOC and NO_x (unless the area has received a NO_x waiver) located in the area; and
 - Each state in a multi-state area must submit a RACT SIP.
- RACT requirement for EGUs is not presumed to be satisfied by CAIR/CSAPR. States must conduct source-specific or area-specific assessments.
- RACT SIPs must contain adopted regulations, certifications (where appropriate) that existing provisions are RACT, or negative declarations.
 - Public notice and comment is required in all cases.
- All RACT controls must be implemented by January 1, 2017.
 - This is roughly equivalent to 53½ months (roughly equivalent to 54½ months) from the effective date of designations.

Vehicle and Fuels Requirements

- Gasoline vapor recovery
 - ORVR is now in sufficient use that the requirement for Stage II vapor recovery systems at fuel dispensing stations can be waived in non-OTR areas. Stage II previously applied to Serious and above areas. (76 FR 41731)
 - EPA is issuing separate guidance on phasing out existing SIP-approved Stage II programs
 - Will provide methods for calculating emissions impacts and guidance on demonstrating compliance with the noninterference provisions of CAA section 110(l) and the OTR comparable measures provision of CAA section 184(b)(2)
- Vehicle inspection and maintenance programs are required in all Moderate and above ozone nonattainment areas with a population over 200,000 (or over 100,000 for OTR).
 - There are currently no new I/M areas.

New Source Review (NSR)

- All nonattainment area SIPs must include provisions to require permits for the construction and operation of new or modified major stationary sources.
- SIPs for attainment areas in the Ozone Transport Region (OTR) must also meet nonattainment area NSR requirements.
- For new nonattainment areas, SIPs containing NSR rules must be submitted by 3 years after the effective date of designation.
- Affected sources must install technology that meets the lowest achievable emission rate (LAER), secure emission reductions to offset any increases in VOC or NO_x emissions, and perform other analyses.
- The amount of offsets needed depends on the area's classification:
 - Marginal 1.1:1, Moderate 1.15:1, Serious 1.2:1, Severe 1.3:1, Extreme 1.5:1
 - OTR same as Moderate areas unless they have a higher classification
- Preamble explains CAA provisions for Economic Development Zones (EDZs)
 - For areas that meet certain criteria (not well-established), states can establish a "pool" of NSR offsets that would allow for new source growth.
 - Provides discussion of the only area to implement an EDZ: Crittenden County, AR.

Contingency Measures and Fee Programs

- Attainment and RFP Plans are required to have contingency measures that would go “automatically” into effect if the area fails to make reasonable further progress, or to attain by the applicable attainment date. Soliciting comment on flexibility for certain Extreme areas:
 - Would allow EPA to approve a contingency plan containing a commitment to adopt measures (rather than one containing specific measures) in cases where the 182(e)(5) “black box” is part of the attainment demonstration.
- SIPs for Severe and Extreme areas must provide that, if the area fails to attain the primary ozone NAAQS by the applicable attainment date, each major stationary source of VOCs and NO_x located in the area shall pay a fee to the State beginning the year after the attainment date, until the area is redesignated.
 - These SIPs are due 10 years after the effective date of designations (July 20, 2022).

Ozone Transport

- Rural Transport NAAs
 - Areas that meet certain criteria must only meet the Marginal area requirements:
 - Nonattainment boundary may not include or be adjacent to a census-defined Metropolitan Statistical Area (MSA) or Combined MSA (CMSA).
 - Emissions from the area cannot significantly contribute to ozone in that area or another area
 - We intend to apply the U.S. Census Bureau’s “2000 Standards for Defining Metropolitan and Micropolitan Statistical Areas” to the CAA “MSA/CMSA” provision
 - We are proposing that a nonattainment area adjacent to a micropolitan area <50k pop can qualify as a Rural Transport Area.
- International Transport
 - States may elect to address through §179B of the CAA
 - SIP must meet all other requirements of the CAA
 - SIP demonstrates area would attain “but for” emissions from outside the U.S.
- Interstate Transport
 - This proposal does not address interstate transport.

NO_x Requirements (§182(f))

- All mandatory control requirements for major stationary sources of VOC also apply to major sources of NO_x.
- We are proposing that an exemption/NO_x Waiver granted for 1-hour or 1997 8-hour standards does not automatically apply for the 2008 NAAQS.
 - SIPs requesting a waiver must contain an adequate demonstration that reducing NO_x would not contribute to attainment of the NAAQS.

Tribal Obligations

- Tribal Authority Rule gives tribes the option of developing a Tribal Implementation Plan (TIP)
 - EPA has the ultimate responsibility to implement CAA programs in Indian Country as necessary/appropriate.
- We encourage states and tribes to coordinate planning
 - States are obligated to notify tribes in advance of public hearings.
 - Recommend sharing modeling results.

Anti-Backsliding Requirements for 1-hour and 1997 Ozone NAAQS Nonattainment Areas

Anti-backsliding

- We are proposing to revoke the 1997 NAAQS on July 20, 2013.
- Areas still designated nonattainment for the 1997 or 1-hour NAAQS on July 20, 2013 will be subject to anti-backsliding requirements.
- Proposed anti-backsliding requirements reflect D.C. Circuit decisions on anti-backsliding and would codify approaches we use now in implementing 1-hour NAAQS anti-backsliding.
 - Section 185 fee programs, contingency measures for failure to make RFP or attain, and nonattainment NSR are “applicable requirements” that, in accordance with court decisions, continue to apply after 1997 ozone NAAQS is revoked until either the 1997 or 2008 NAAQS is attained.
 - Two valid paths to fulfilling anti-backsliding requirements (more detail on next slide).
- For 2008 nonattainment areas with overdue 1997 NAAQS attainment demonstrations, we are not proposing to offer an option that would allow the state to substitute a quick, special RFP plan instead (few areas affected).

Anti-backsliding (cont.)

In general, states remain subject to fulfilling any outstanding or ongoing nonattainment area requirements for previous standards. EPA is proposing to provide states with flexibility in the following circumstances:

1. If area is designated maintenance for 1997 standard and designated unclassified/attainment for the 2008 NAAQS:
 - An approved 175A maintenance plan fulfills the 110(a)(1) obligation for the 2008 NAAQS. No second 10-year maintenance plan for the 1997 NAAQS will be required.
2. If area is still designated nonattainment for 1997 standard and designated unclassified/attainment for the 2008 NAAQS:
 - Under our preferred option, state can rely on an approved PSD SIP to fulfill the 110(a)(1) obligation.
 - Co-proposing as an alternative a requirement for a 2008 NAAQS maintenance showing.
3. If area is designated nonattainment for the 2008 NAAQS and nonattainment for the 1-hour or 1997 ozone NAAQS:
 - The area may fulfill the 1-hour or 1997 NAAQS anti-backsliding requirements if it provides a “redesignation substitute” in place of the redesignation process, which no longer applies for a revoked standard.
 - This showing does not need to include new air quality modeling, and is not required to be a formal SIP submission, reducing cost and delay for the states.
4. If area is designated nonattainment for the 2008 NAAQS and maintenance for the 1-hour or 1997 NAAQS:
 - The approved 175A maintenance plan is in effect, and no second 175A plan will be required.

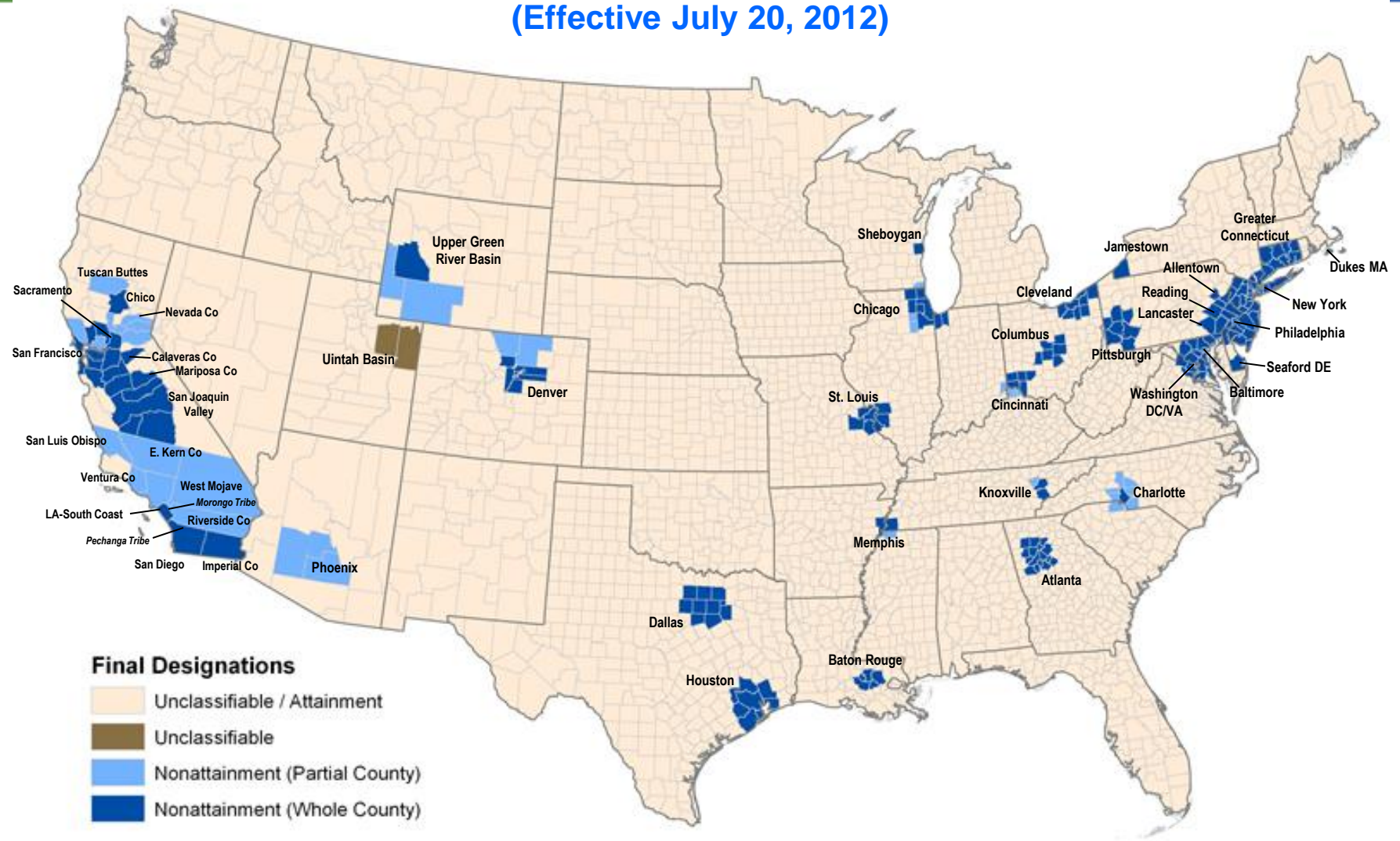
Anti-backsliding summary

2008 NAAQS Status	Status under previous NAAQS	NSR/PSD	Proposed Transition Obligations
1. Attainment	Nonattainment for 1997 ozone NAAQS only; or nonattainment for 1997 <u>and</u> 1-hour NAAQS	NSR in effect until redesignation or revocation of 1997 standard; then PSD applies	<ul style="list-style-type: none"> •An area remains subject to nonattainment requirements already in prior SIP, unless modified with a section 110(l) demonstration and a section 193 demonstration if applicable. •Two proposed alternatives: <ul style="list-style-type: none"> a) Area's approved PSD SIP satisfies maintenance under section 110(a)(1) b) Must develop new section 110(a)(1) maintenance showing
2. Attainment	Maintenance	PSD currently in effect	<ul style="list-style-type: none"> •Area remains subject to existing 1997 maintenance plan and requirements already in SIP, subject to revision consistent with sections 110(l) and 193 •Existing section 175A maintenance plan satisfies maintenance under section 110(a)(1) •No 2nd section 175A maintenance plan due
3. Nonattainment	Nonattainment for 1997 ozone NAAQS or <u>both</u> the 1997 and 1-hour ozone NAAQS	NSR for highest classification	<ul style="list-style-type: none"> •All applicable anti-backsliding requirements for 1-hr and/or 1997 standards •Anti-backsliding obligations considered filled when the area either is redesignated to attainment for the 2008 ozone NAAQS, or EPA approves a "redesignation substitute" showing for the revoked 1-hour or 1997 NAAQS
4. Nonattainment	Maintenance	NSR for 2008 classification	<ul style="list-style-type: none"> •Section 175A maintenance plan in effect •No second section 175A maintenance plan due

QUESTIONS?

APPENDICES

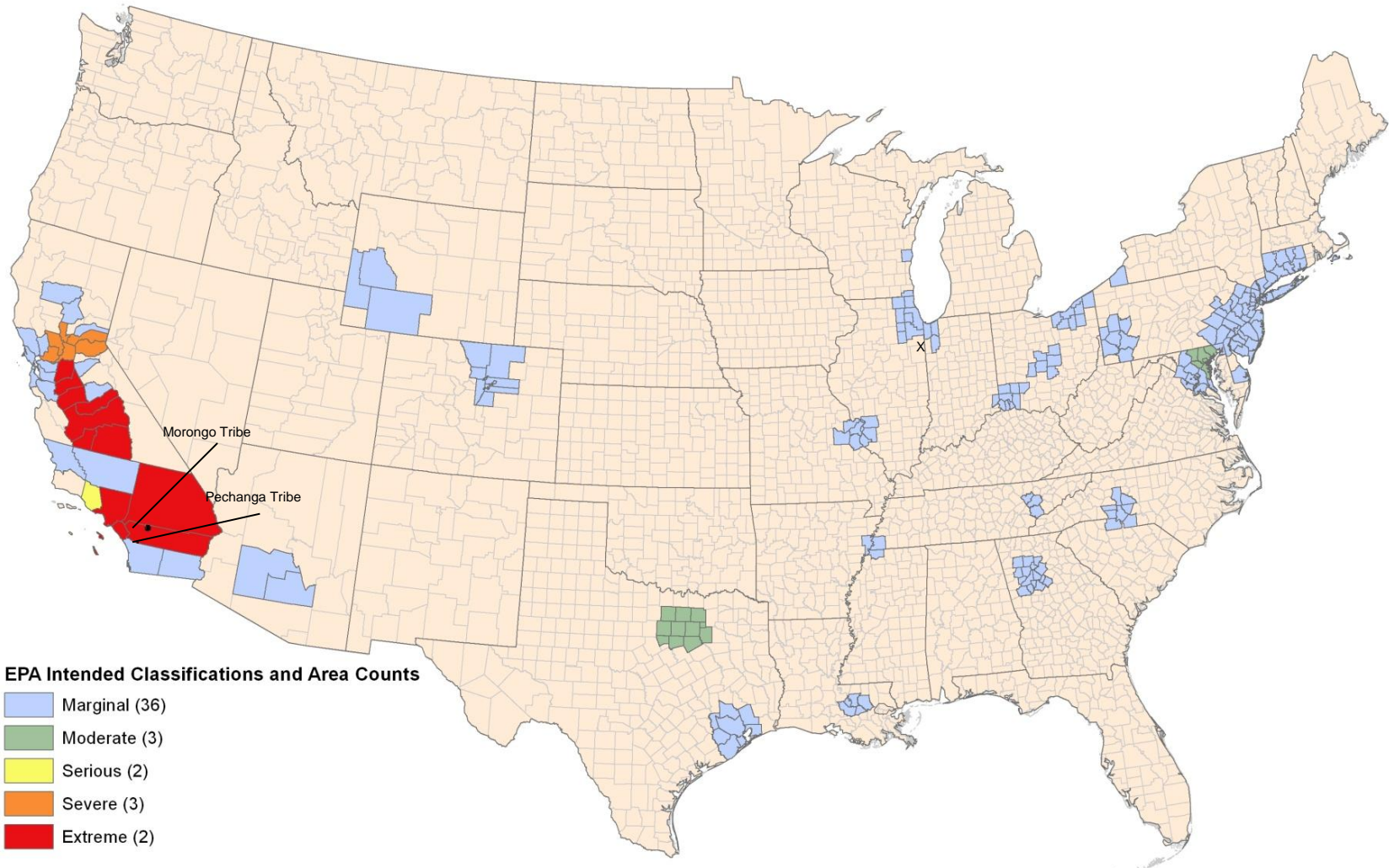
Area Designations for 2008 Ozone NAAQS (Effective July 20, 2012)



Notes:

EPA has not designated as nonattainment any areas outside the Continental US.

NONATTAINMENT AREAS FOR 2008 OZONE NAAQS BY CLASSIFICATION (EFFECTIVE JULY 20, 2012)



EPA Intended Classifications and Area Counts

- Marginal (36)
- Moderate (3)
- Serious (2)
- Severe (3)
- Extreme (2)

Notes:

- EPA does not intend to designate as nonattainment any areas outside the Continental US.
- Map reflects classifications following requests for voluntary bump-up.

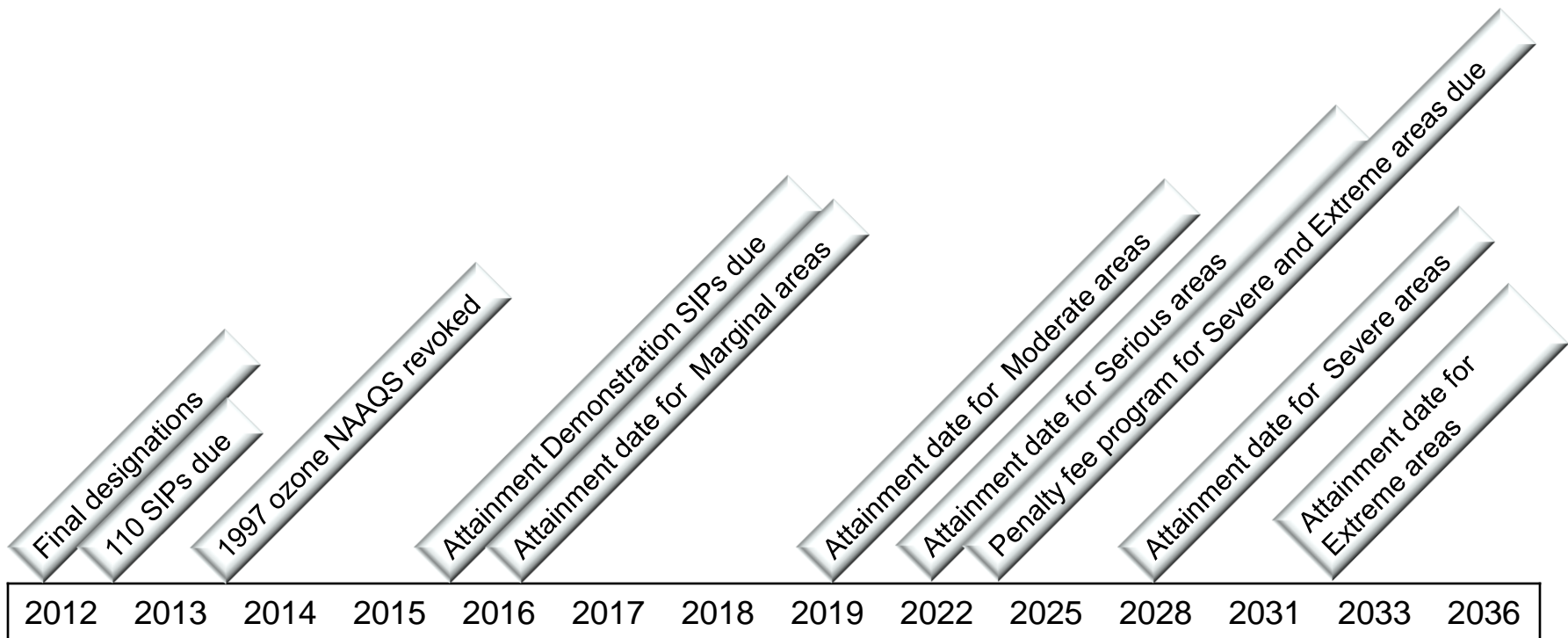
Overview of CAA Ozone Planning & Control Requirements by Classification

		NSR offset ratio	Major source threshold	
EXTREME (20 years to attain)	TRAFFIC CONTROLS DURING CONGESTION	1.5 : 1 Extreme	10	
	CLEAN FUELS REQUIREMENT FOR BOILERS			
SEVERE (15/17 years to attain)	PENALTY FEE PROGRAM FOR MAJOR SOURCES	1.3 : 1 Severe	25	
	LOW VOC REFORMULATED GAS			
	VMT GROWTH OFFSET			
	VMT DEMONSTRATION (& TCMs IF NEEDED)			
SERIOUS (9 years to attain)	NSR REQUIREMENTS FOR EXISTING SOURCE MODS	1.2 : 1 Serious	50	
	ENHANCED I/M			CLEAN FUELS PROGRAM (IF APPLICABLE)
	MODELED DEMO OF ATTAINMENT			MILESTONE CONTINGENCY MEASURES FOR RFP
	18% RFP OVER 6 YEARS			ENHANCED MONITORING PLAN
	STAGE II GASOLINE VAPOR RECOVERY			
	BASIC I/M			CONTINGENCY MEASURES FOR FAILURE TO ATTAIN
MODERATE (6 years to attain)	15% RFP OVER 6 YEARS	1.15 : 1 Moderate	100	
	MAJOR SOURCE VOC/NO _x RACT			ATTAINMENT DEMONSTRATION
	TRANSPORTATION CONFORMITY DEMONSTRATION			
MARGINAL (3 years to attain)	NEW SOURCE REVIEW PROGRAM	1.1 : 1 Marginal	100	
	BASELINE EMISSION INVENTORY (EI)			PERIODIC EMISSION INVENTORY UPDATES

CAA §182 Applicable Requirements

- 1) RACT (40+ source categories as applicable);
- 2) Major source applicability cut-offs for purposes of RACT;
- 3) Vehicle inspection and maintenance programs;
- 4) ROP reductions (15% VOC in 6 years) for Moderate and above areas;
- 5) RFP reductions for Serious and above areas;
- 6) ~~Stage II vapor recovery (waived for non-OTR areas);~~ Stage II or comparable measures in the OTR;
- 7) Clean fuels fleet program for Serious and above areas;
- 8) Clean fuels for boilers for Extreme areas;
- 9) Transportation control measures for Extreme areas during heavy traffic hours;
- 10) Enhanced (ambient) monitoring;
- 11) Transportation controls for Serious and above areas;
- 12) Provisions to offset emissions growth from projected increases in vehicle miles traveled for Serious and above areas;
- 13) NO_x control requirements under section 182(f) of the CAA; and
- 14) Attainment demonstrations

2008 Ozone NAAQS Implementation Timeline



Solicitation of Comments on RFP Requirements

- Outside of area reductions
 - The 2005 Phase 2 Ozone Implementation Rule allowed certain out of area emissions to apply inside a nonattainment area.
 - This provision was subsequently vacated and revised by EPA, but is still under legal challenge.
 - EPA is proposing that this would not be allowed due to reasoning in NRDC v. EPA, which addressed “in the area” for RACT.
 - Proposing that emissions reductions from outside the nonattainment area do not apply toward RFP inside the nonattainment area.
 - Soliciting comment on legal basis for allowing “out-of-area” RFP credit.
- Calculating RFP Targets and Compliance
 - Per request from CA, we are soliciting comment on the legal and technical bases for two alternate approaches for calculating RFP targets and compliance.
 - Translate an area’s RFP emissions reduction targets (tons) into ozone improvement targets (ppb) through modeling.
 - Weight VOCs based on reactivity, thus giving more reduction credit for a ton of highly reactive VOCs than for a ton of non-reactive VOCs.

Emissions Inventory Reporting

- Nonattainment area submission is due 24 months – July 20, 2014 – (or alternatively 28 months) from designation, and then every three years thereafter (July 2017, 2020, etc.)
- We recommend that states use 2011 as a base year (unless justified otherwise).
 - This is also a year for a required submission under the existing Air Emissions Reporting Requirements (AERR) Rule.
- Proposing that states can rely on periodic AERR emission inventory submittals to satisfy ongoing SIP emission inventory requirement.

Submission Requirement	CAA Due Date	AERR Substitute	AERR Due Date
2012 base year	July 20, 2014	2011	Dec 31, 2012
2015 periodic	July 20, 2017	2014	Dec 31, 2015
2018 periodic	July 20, 2020	2017	Dec 31, 2018
2021 periodic	July 20, 2023	2020	Dec 31, 2020

Ozone Advance

Collaborative effort by EPA, states, tribes, and local governments to encourage emission reductions in ozone attainment areas, to help them continue to meet the NAAQS.

- Program Goals:
 - Help attainment areas take action in order to keep ozone levels below the level of the standard to ensure continued health protection;
 - Better position areas to remain in attainment;
 - Efficiently direct available resources toward actions to address ozone problems quickly.
- What does participation mean?
 - Use best efforts to move quickly toward implementing steps that may reduce ozone levels
 - Develop a “path forward” within a year
 - Implement path forward measures/programs as soon as possible
 - Informal status check-ins at least annually
- Who Can Participate?
 - States, tribes, local governments (S/T/L)
 - Councils of Government (COGs)
 - Other stakeholders, in conjunction with any of the above
- What Are the Criteria for Program Eligibility?
 - Area must not be nonattainment for either 1997 or 2008 8-hour standards at the time the S/T/L(s) is/are accepted into the program.
 - S/T/L should generally identify the area
 - S/T/L should identify the monitor(s) that reflect the area’s air quality
 - Required emissions inventory reporting should be complete

Federal Rules Achieving New NO_x and/or VOC Reductions 2012 - 2020

- EPA has issued or is undertaking rulemakings for a number of rules that will help reduce ozone precursors (NO_x and VOC) during the period states are required to develop and implement ozone-related SIP requirements for the 2008 NAAQS. These include:
 - GHG rules for vehicles (proposed)
 - Cross-State Air Pollution Rule (CSAPR) for EGUs (stayed)
 - Tier 3 emission and fuel standards for vehicles (proposal in progress)
 - Mercury and Air Toxics Standards (MATS) rule for EGUs (final)
 - Oil and gas operations NSPS and air toxics standards (final)
 - GHG performance standards for power plants (proposal in progress)
 - Certain stationary engines air toxics standards (RICE rule) (final)
 - GHG performance standards for refineries (planned)
 - Boiler MACT/CISWI (proposed)
 - Regional Haze (e.g., various BART actions)