



Update on EPA Rule Making

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Topics Covered Last Year (Apr 14, 2016)



- **GHG Regulations**

- Aug 2015 Final Carbon Pollution Standards for Modified and New Power Plants
- Aug 2015 Final Clean Power Plan
- June 2015 Proposed GHG Standards for Medium- and Heavy-Duty Engines and Vehicles
- March 2016 announcement on next steps to reduce methane emissions from the Oil and Natural Gas Industry

- **Air Quality**

- Implementation of 2008 Ozone NAAQS
 - April 2016 action on Marginal Areas
 - Nov 2015 Proposed Cross State Air Pollution Rule (CSAPR) Update
- Oct 2015 Ozone NAAQS Revisions
- 1-Hr SO₂ NAAQS Implementation
 - March 2015 court order on SO₂ designations
 - Aug 2015 Final Data Requirements Rule (DRR)



Presentation Overview



- **Status of Various GHG Regulations**
 - Clean Power Plan
 - Carbon Pollution Standards for Modified and New Power Plants
 - Oil and Natural Gas Industry
 - Final GHG Standards for Medium- and Heavy-Duty Engines and Vehicles
- **Air Quality**
 - Implementation of 2008 Ozone NAAQS
 - Implementation of 2015 Ozone NAAQS
 - Regional Haze
 - 1-Hr SO₂ NAAQS Implementation
 - MSW Landfill Regulations



Status of Various GHG Regulations

- **Clean Power Plan**
 - Implementation of the CPP stayed by the Supreme Court on Feb 9, 2016
 - Oral arguments on litigation heard in DC court on Sept 27, 2016
 - FR notice published April 3, 2017 announcing withdrawal of proposed Model Trading Rules; and Clean Energy Incentive Program (CEIP) design details
 - FR notice published April 4, 2017 announcing review of CPP
- **Carbon Pollution Standards for Modified and New Power Plants**
 - FR notice published April 4, 2017 announcing review of GHG Standards From New, Modified, and Reconstructed Electric Generating Units
- **Oil and Gas Industry**
 - March 2, 2017 – 2016 information request for the oil and gas industry withdrawn
 - FR notice published April 4, 2017 announcing review of 2016 Oil and Gas New Source Performance Standards for New, Reconstructed, and Modified Sources



Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles - Phase 2

- In Aug 2016, EPA and National Highway and Traffic Safety Administration (NHTSA) jointly adopted standards for medium- and heavy-duty vehicles that would improve fuel efficiency and cut carbon pollution.
 - Expected to lower CO₂ emissions by approximately 1.1 billion metric tons, save fuel costs of about \$170 billion, and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.
- The vehicle and engine performance standards would cover model years 2018-2027 for certain trailers, and model years 2021-2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.



Air Quality - Outline



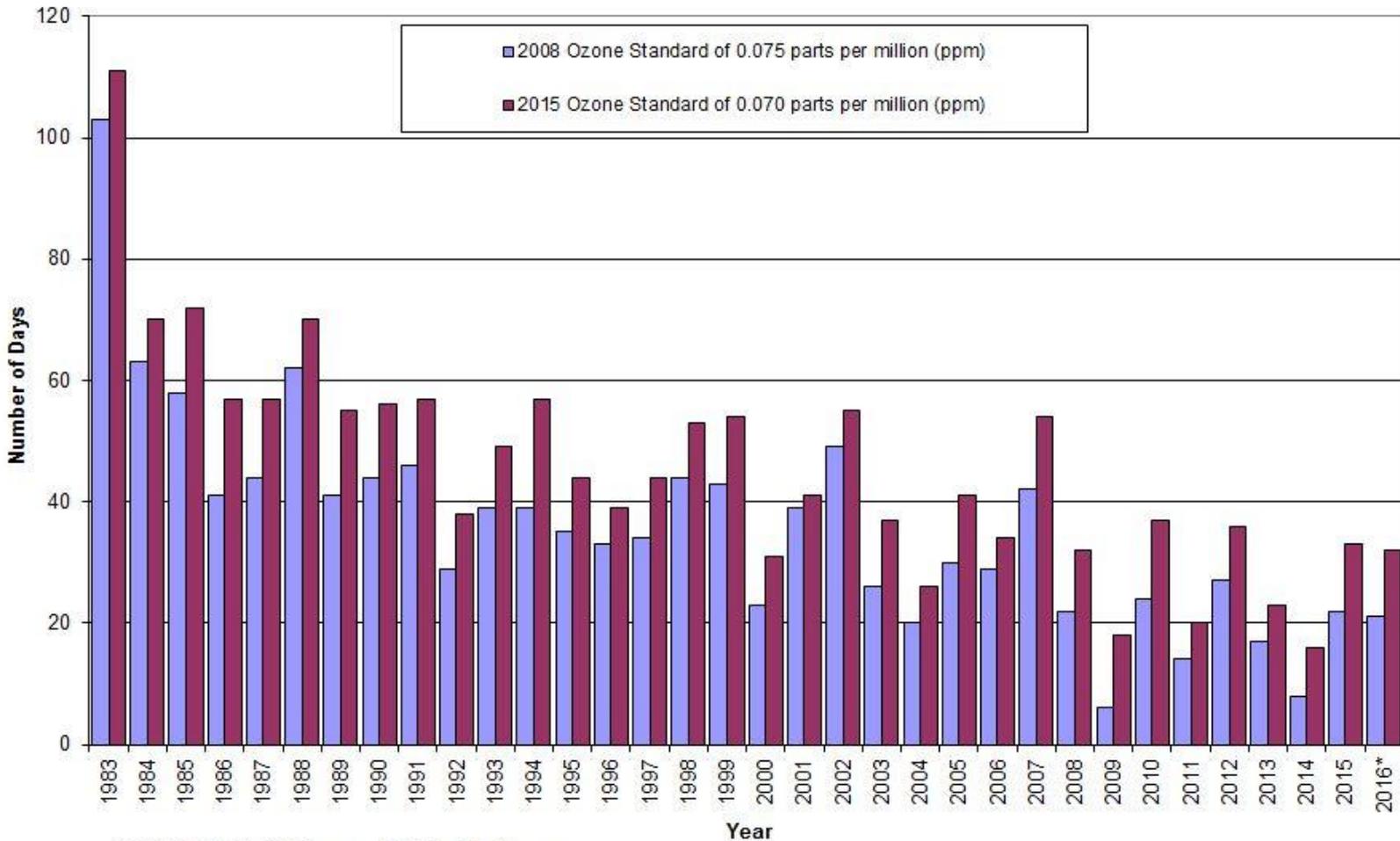
- Implementation of 2008 Ozone NAAQS (75 ppb)
 - Attainment Planning
 - Cross State Air Pollution Rule (CSAPR) Update
 - Other Actions on Interstate Transport for 2008 NAAQS
- 2015 Ozone NAAQS (70 ppb)
 - Designations
 - Implementation Rule
 - Interstate Transport for 2015 NAAQS
- Regional Haze Rule Revisions/Draft Guidance
- 1-Hr SO₂ NAAQS Implementation (75 ppb)
 - Infrastructure SIP
 - Designations
- Revised MSW Landfill Regulations



Ozone Trends in Connecticut



Days Exceeding the 8-Hour Ozone Standard in Connecticut



* 2016 Data Preliminary and Subject to Change

Connecticut Nonattainment Areas for 2008 NAAQS



- Both areas originally classified as marginal nonattainment in July 2012
- Marginal Area & OTR required SIPs:
 - Emission Inventory (*due July 2014*)
 - Emission Statements certification (*due July 2014*)
 - Nonattainment NSR rules (*due July 2015*)
 - VOC and NO_x RACT (*due July 2014*)

Attainment Planning: 2008 Ozone Standard (75 ppb)



- **EPA Actions**

- EPA reclassified CT's two areas from Marginal to Moderate on April 11, 2016; requires submission of attainment and RFP plans by Jan 1, 2017; new attainment date July 2018
- Findings of failure to submit Nonattainment NSR rules issued to CT on Jan 17, 2017. *Started sanctions clock.*

- **State Submittals**

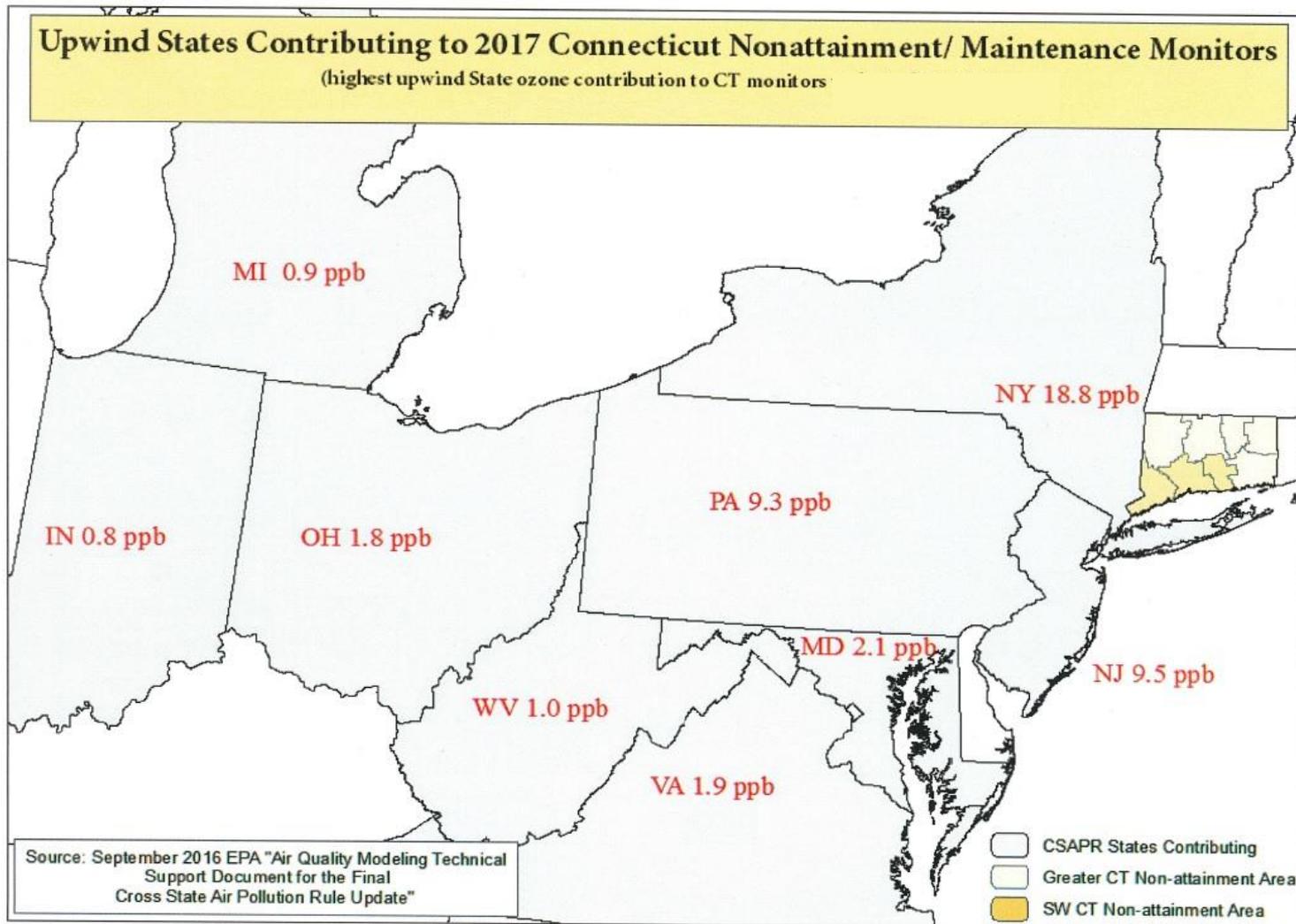
- Emission Inventory – *submitted March 9, 2016*
- RACT SIP – *submitted July 17, 2014; Sept 16, 2016; Jan 24, 2017*
- Nonattainment NSR certification – *submitted March 9, 2017*
- Attainment Plan: Greater CT Area – *submitted Jan 17, 2017; MVEBs deemed adequate Mar 20; plan currently under review*

Ozone-Related Actions in Connecticut



- **Connecticut RACT SIP for 2008 Ozone NAAQS**
 - Proposed approval published in ***Federal Register*** on April 6, 2017 for CT's July 18, 2014 RACT certification SIP.
 - Also proposes approval of: (1) 22a–174–38, *Municipal Waste Combustors*; (2) 22a–174–22e, *Control of nitrogen oxides emissions from fuel-burning equipment at major stationary sources of nitrogen oxides*; and (3) RCSA section 22a–174–22f, *High daily NOx emitting units at non-major sources of NOx*.
 - Comment periods closes May 8, 2017.
 - EPA required by consent decree to take final action by June 30, 2017.
- **Connecticut SIP; Decommissioning of Stage II Vapor Recovery Systems**
 - Proposed approval published in ***Federal Register*** on April 10, 2017. SIP requires decommissioning of Stage II vapor recovery systems at gasoline service stations. Also includes revisions that strengthen Stage I rules.
 - Comment periods closes May 10, 2017.
- **Single Source Orders**
 - Approval of 89 NOx Emissions Trading Orders published in ***Federal Register*** on Sept 9, 2016
 - Publication of direct final rulemaking pending in ***Federal Register*** for two single source VOC RACT Orders, and withdrawal of seven previously-approved VOC RACT Orders from the SIP.

Cross State Air Pollution Rule Update for the 2008 Ozone Standard (75 ppb)



Section 176A Petition



- In Dec, 2013, CT, MA, NH, RI, VT along with several other OTR states have petitioned EPA to expand the OTR to include IL, IN, KY, MI, NC, OH, TN, WV and the rest of VA.
 - **Section 176A:** The Administrator . . . may (1) add any state or portion of a state to any region . . . whenever the Administrator has reason to believe that the interstate transport of air pollutants from such state significantly contributes to a violation of the standard in a transport region.
- EPA proposed to deny the petition on Jan 11, 2017:
“EPA believes that, ... other CAA provisions (e.g., CAA sections 110 or 126) provide a better alternative pathway for states and the EPA to develop a targeted remedy to address interstate ozone transport that focuses on the precursor pollutants and sources most effective at addressing the nature of the downwind air quality problems identified by the petitioning states.”
- Public hearing scheduled for April 13; comment period closes May 15.

Section 126 Petitions



- CT, DE (4), and MD filed 6 petitions asking EPA to address the impact of upwind state EGUs on downwind ozone attainment.
 - **CAA Section 126:** Any state may petition for a finding that a major source or group of stationary sources emits or would emit any pollutant in violation of the Good Neighbor Provision, CAA §110(a)(2)(D)(i).
- Petitioners request EPA make a finding for 41 units at 21 facilities located in IN, KY, OH, PA and WV.
 - CT petition focused on Brunner Island Steam Electric Station located in York County, PA
 - EPA extended its deadline to act on CT petition until Jan 25, 2017.
 - Both CT and Sierra Club filed notice of intent to sue on failure to take action on CT petition; DE has filed suit regarding one of it petitions.

2015 Ozone NAAQS Designations

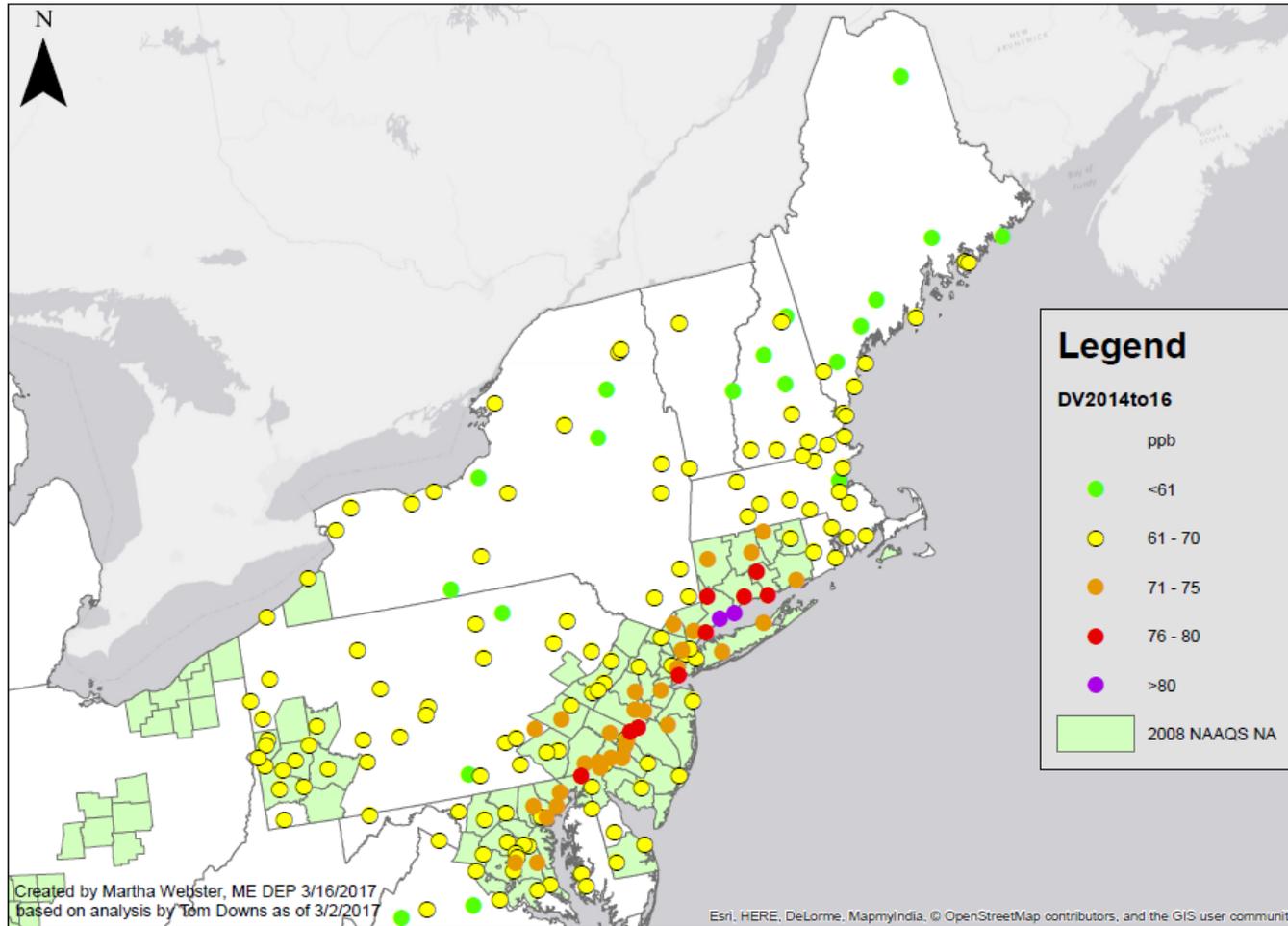


Milestone	Date
EPA promulgates 2015 Ozone NAAQS rule (70 ppb)	October 1, 2015
States and Tribes submit recommendations for ozone designations to the EPA	No later than October 1, 2016
The EPA notifies states and tribes concerning any intended modifications to their recommendations (120-day letters)	No later than June 2, 2017 (120 days prior to final ozone areas designations)
The EPA publishes public notice of state and tribal recommendations and the EPA's intended modifications, if any, and initiates 30-day public comment period	On or about June 9, 2017
End of 30-day public comment period	On or about July 10, 2017
States and tribes submit additional information, if any, to respond to the EPA's modification of a recommendation designation.	No later than August 7, 2017
The EPA promulgates final ozone area designations	No later than October 1, 2017

Preliminary 2014 – 2016* Ozone Design Values

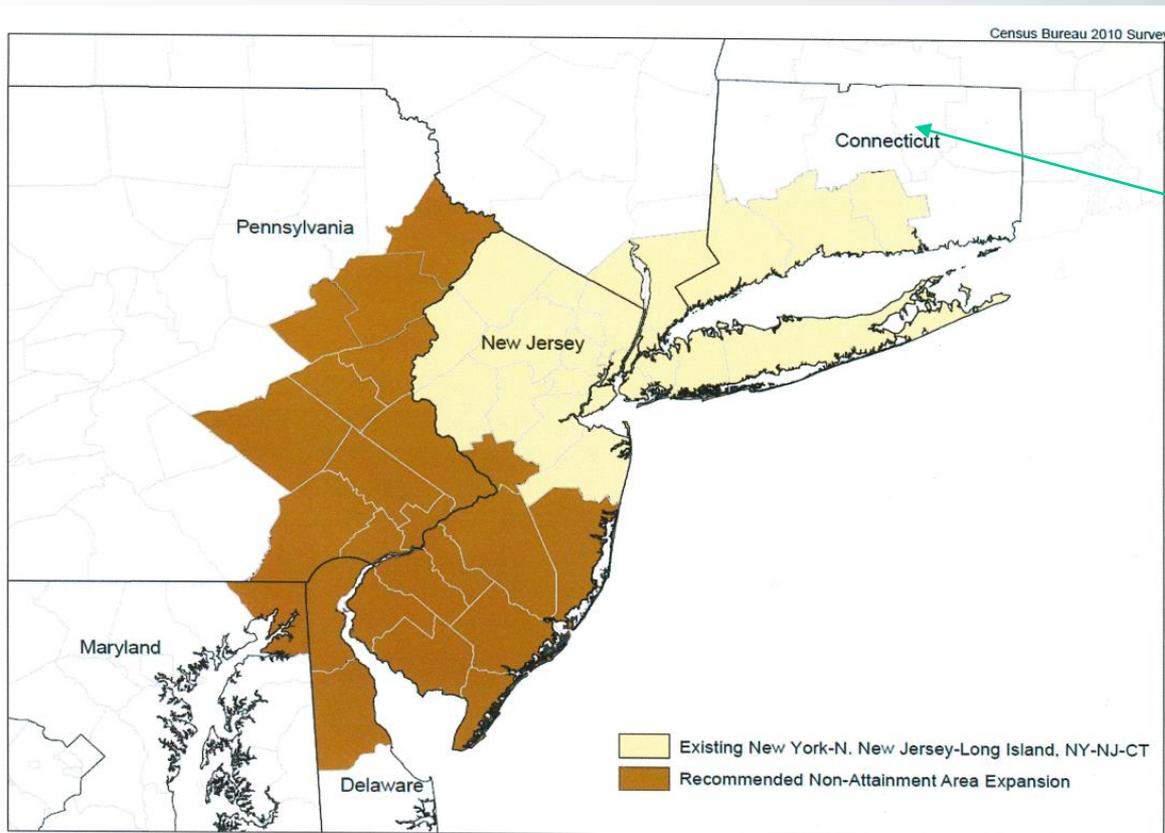


2014-16 8hr Ozone Preliminary Design Value



- *2016 Data is preliminary and subject to change
- Map from Maine DEP

CT's Preferred Option for Boundaries of New York City Nonattainment Area



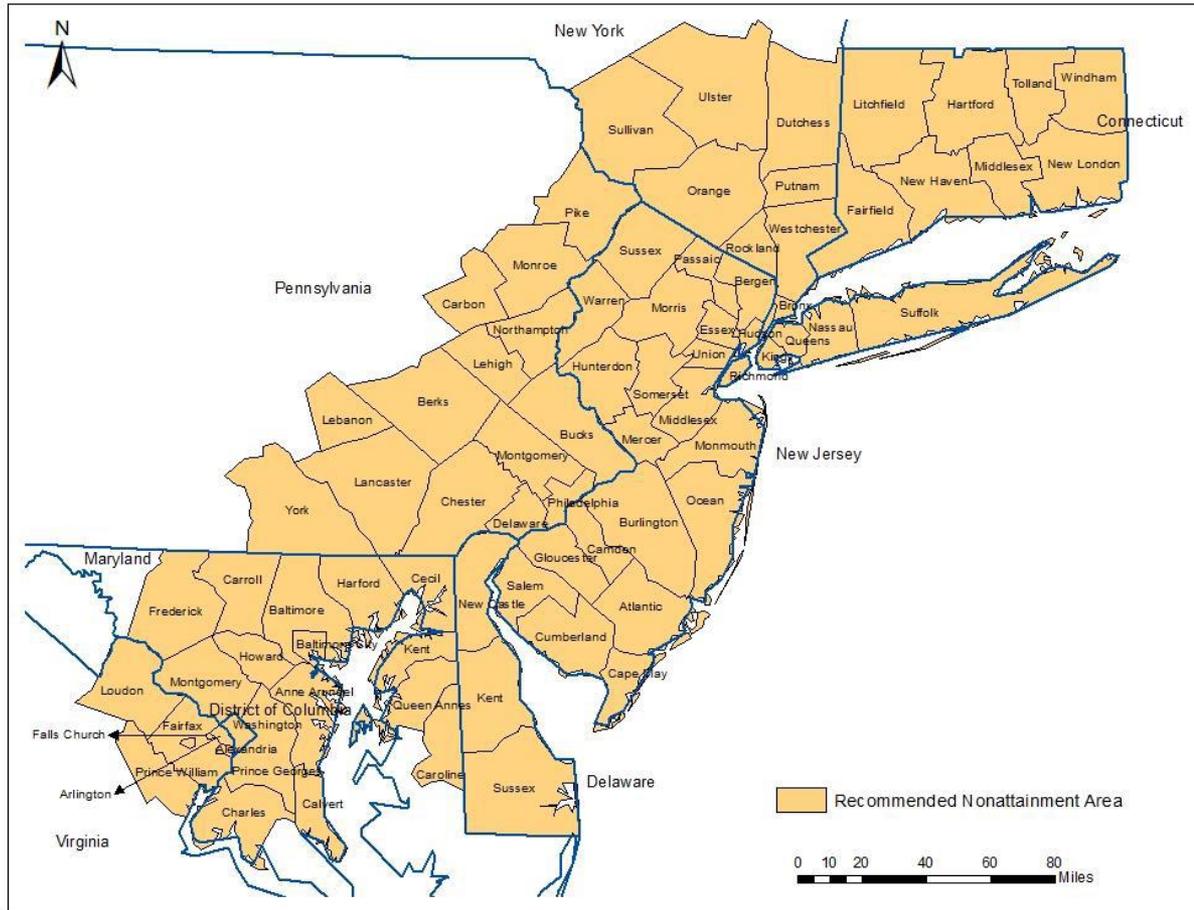
- The Greater Connecticut Area as a separate nonattainment area

- The rest of New England meets the 2015 Ozone Standard

- From Oct 1, 2016 letter from CT Governor

- See: <https://www.epa.gov/ozone-designations/2015-ozone-standards-state-recommendations>

NJ's Recommended Boundaries for Nonattainment Area



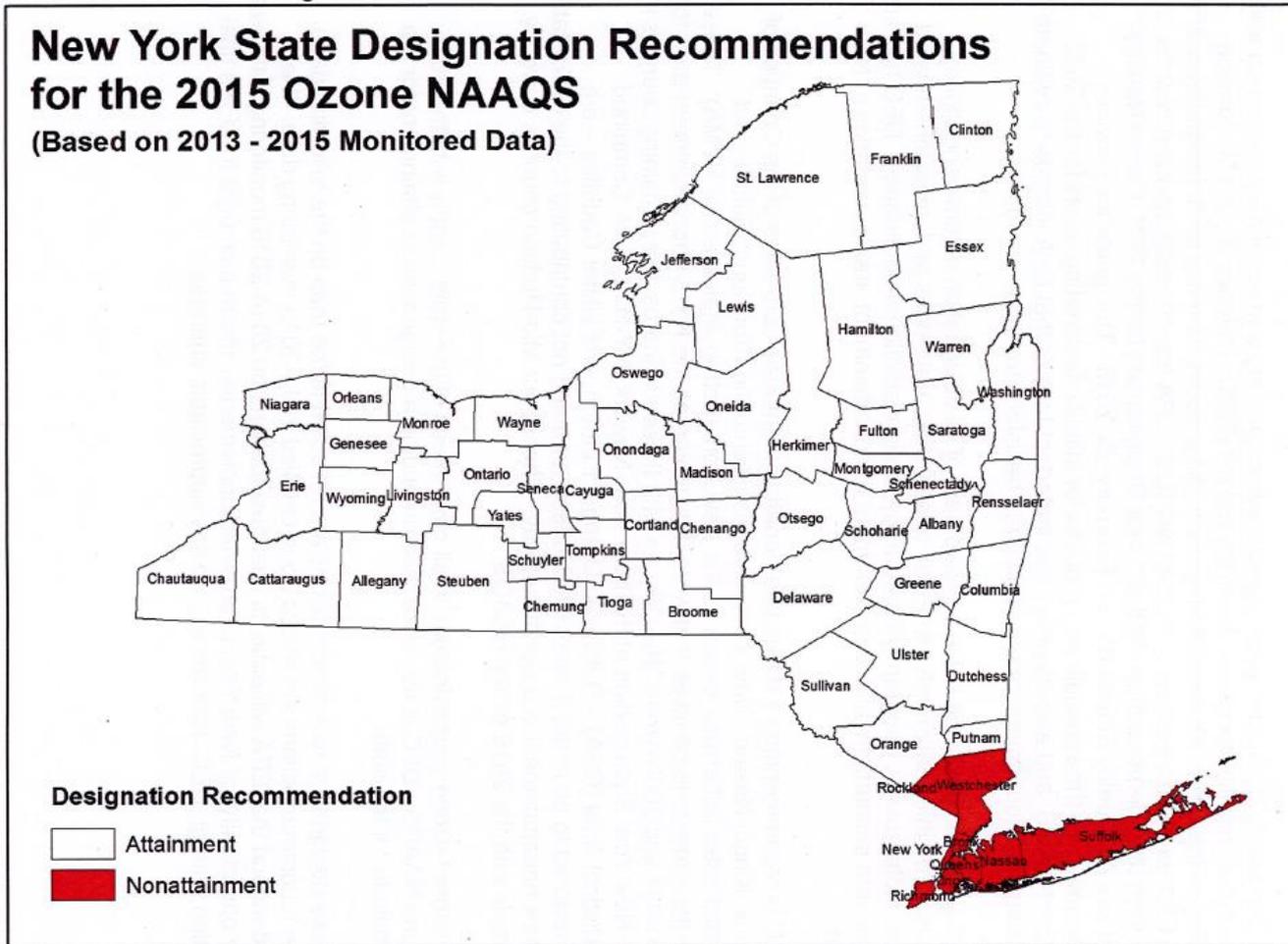
Revised 9/16/2016

- From Sept 29, 2016 letter from NJ DEP Commissioner
- See: <https://www.epa.gov/ozone-designations/2015-ozone-standards-state-recommendations>

NY's Recommended Boundaries for Nonattainment Area



Figure 1. New York State Designation Recommendations



- From Sept 22, 2016 letter from NY DEC Deputy Commissioner
- See: <https://www.epa.gov/ozone-designations/2015-ozone-standards-state-recommendations>



Exceptional Event (EE) Demonstrations

- In Sept 2016, EPA finalized revisions to the 2007 Exceptional Events Rule, and issued ***Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations****
- MassDEP, CT DEEP, and RI DEM are working on EE demonstrations to show that elevated ozone conc. on May 25-25, 2016 were influenced from smoke from a wildfire in Canada.
 - Initial Notification Letters received from CT (Sept 28, 2016), MA (Nov 9, 2016), and RI (Jan 9, 2017)
 - EPA Region 1 working closely with CT DEEP, MassDEP and RI DEM, and has commented on early drafts
 - Proposed EE demonstrations for public comment from CT and MA expected soon. *(NJ EE demo out for public comment until May 3)*
 - Under 2015 Ozone Rule, EE demonstrations for 2016 data due by May 31, 2017

May 25 & 26 Maps from NJ Demo



Figure 115: Overlay of Smoke Plume and Ozone Levels, May 25, 2016

Daily Maximum 8-hour Ozone Observations & HMS Smoke

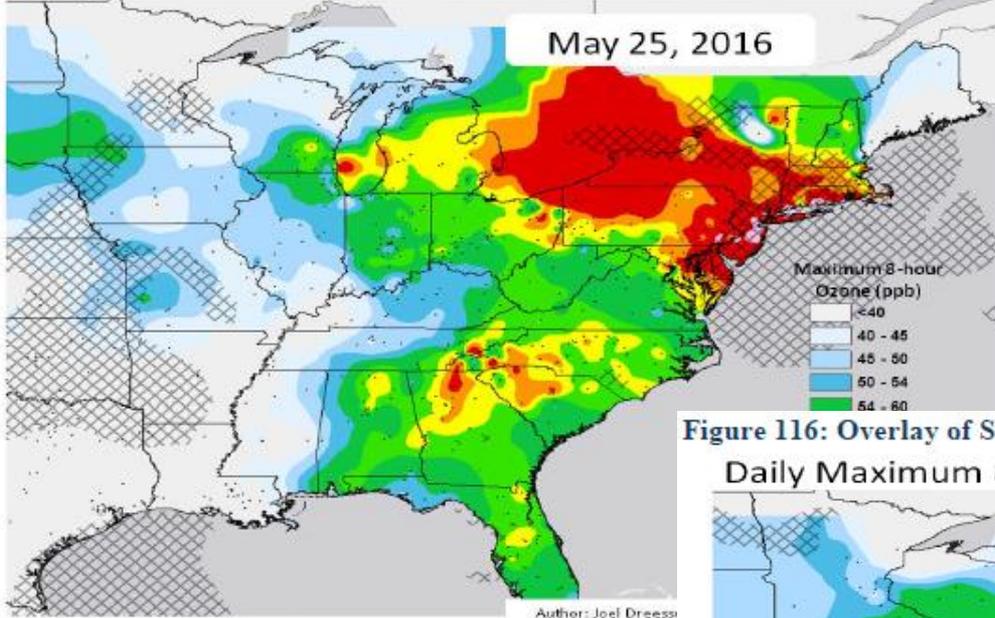
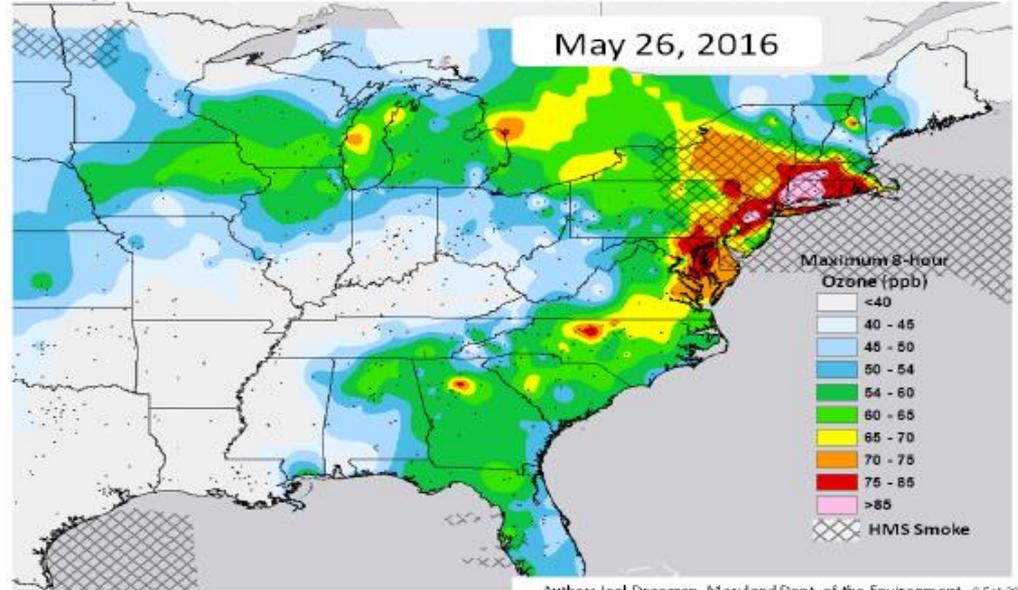


Figure 116: Overlay of Smoke Plume and Ozone Levels, May 26, 2016

Daily Maximum 8-hour Ozone Observations & HMS Smoke



- See www.nj.gov/dep/baqp/ee.html

2015 Ozone Standards Implementation Rule



- Proposed implementation rule published Nov 17, 2016 proposes a framework for nonattainment area classifications and SIP requirements for the 2015 ozone NAAQS.
 - Public comment period closed Feb 13, 2017
 - EPA addressing comments
- Proposed rule follows approach for the previous Classifications Rule and SIP Requirements Rule for the 2008 ozone NAAQS.

Classification thresholds and attainment dates



- Propose to retain current “percent-above-the-standard” method in establishing nonattainment area classification thresholds.
- Propose to retain current approach in establishing attainment dates for each nonattainment area classification (3, 6, 9 years etc.).

Area class		Percent above 1-hr ozone NAAQS	8-hour ozone design values (ppm)		Proposed attainment date (years after designation)
			2008 NAAQS (0.075 ppm)	2015 NAAQS (0.070 ppm) (<i>proposed</i>)	
Marginal	From up to ¹	0.833 15	0.076 0.086	0.071 0.081	3
Moderate	From up to ¹	15 33.333	0.086 0.100	0.081 0.093	6
Serious	From up to ¹	33.333 50	0.100 0.113	0.093 0.105	9
Severe-15	From up to ¹	50 58.333	0.113 0.119	0.105 0.111	15
Severe-17	From up to ¹	58.333 133.333	0.119 0.175	0.111 0.163	17
Extreme	Equal to or above	133.333	0.175	0.163	20

Note 1: But not including.

2015 Ozone NAAQS Implementation Rule Proposal: Key Topics



- Revocation of the 2008 ozone NAAQS - 2 options
 - Opt 1: revoke the 2008 NAAQS for all areas and purposes 1 year after designations are effective (historical ozone approach)
 - Opt 2: revoke the 2008 NAAQS only in areas attaining the 2008 NAAQS at time of its revocation, and later for areas upon redesignation to attainment for the 2008 or 2015 NAAQS (similar to $PM_{2.5}$ approach)
- Submitting nonattainment area and OTR SIP elements
 - Clear listing of required SIP elements
 - How to submit “certification” SIPs

Notice of Data Availability (NODA) - Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone NAAQS

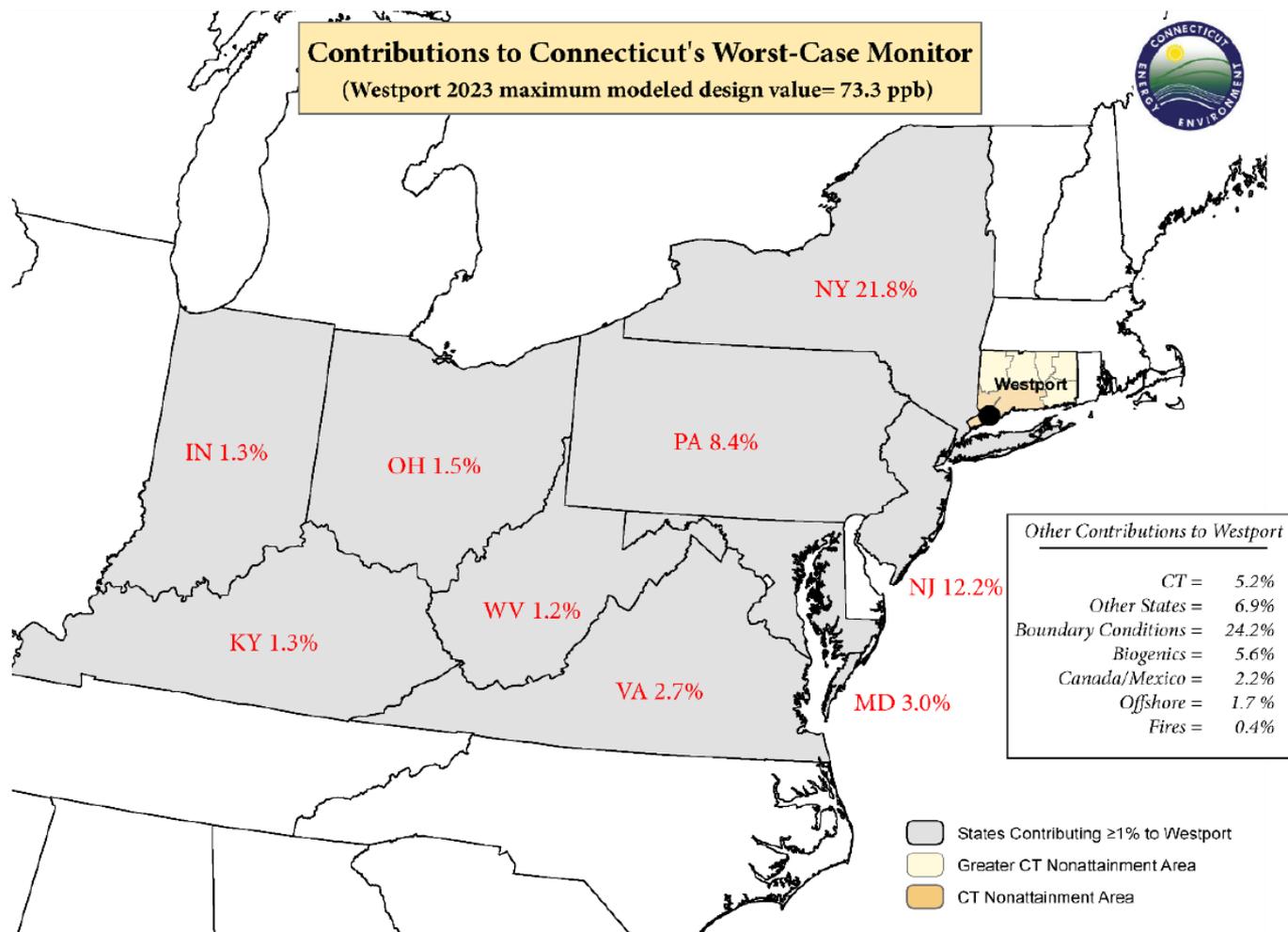


- The NODA was published in the ***Federal Register*** on Jan 6, 2017
- This information is intended to help states develop their “good neighbor” SIPs for the 2015 ozone NAAQS, which are due Oct 2018
- The information available includes:
 - (1) Emission inventories for 2011 and 2023 and
 - (2) air quality modeling results for:
 - base period (*i.e.*, 2009–2013) ozone design value concentrations,
 - projected 2023 ozone design value concentrations,
 - projected 2023 ozone contributions from state-specific anthropogenic emissions to ozone concentrations at individual ozone monitoring sites.
- The NYC nonattainment area is still expected to exceed the 2015 Ozone NAAQS in 2023 with currently projected controls
- The public comment period ended April 6, 2017
 - Approx. 53 commenters, including from CT DEEP, NY DEC, NY ISO, DE DNREC, MDE, OTC

Contributions to CT



Figure 1: Ozone contributions to the Westport CT monitor as projected by EPA's NODA modeling.



•From April 6, 2017 comment letter from CT DEEP

Regional Haze



- In Dec 2016, EPA finalized revisions to the Regional Haze Rule
 - The first state plans were due in 2007 and covered the 2008-2018 first planning period.
 - Revised rule addresses requirements for the second planning period from 2018-2028.
- Final revisions address various requirements to streamline, strengthen, and clarify aspects of the program including:
 - Strengthening the federal land manager (FLM) consultation requirements
 - Updating the SIP submittal deadlines for the second planning period from July 31, 2018 to July 31, 2021.
 - Adjusting interim progress report submission deadlines
 - Removing the requirement for progress reports to take the form of SIP revisions.
- Draft Guidance for the Second Implementation Period of the Regional Haze Rule – Released June 2016, Comment period ended Aug 22, still awaiting finalization

Infrastructure Requirements 2010 SO₂ NAAQS

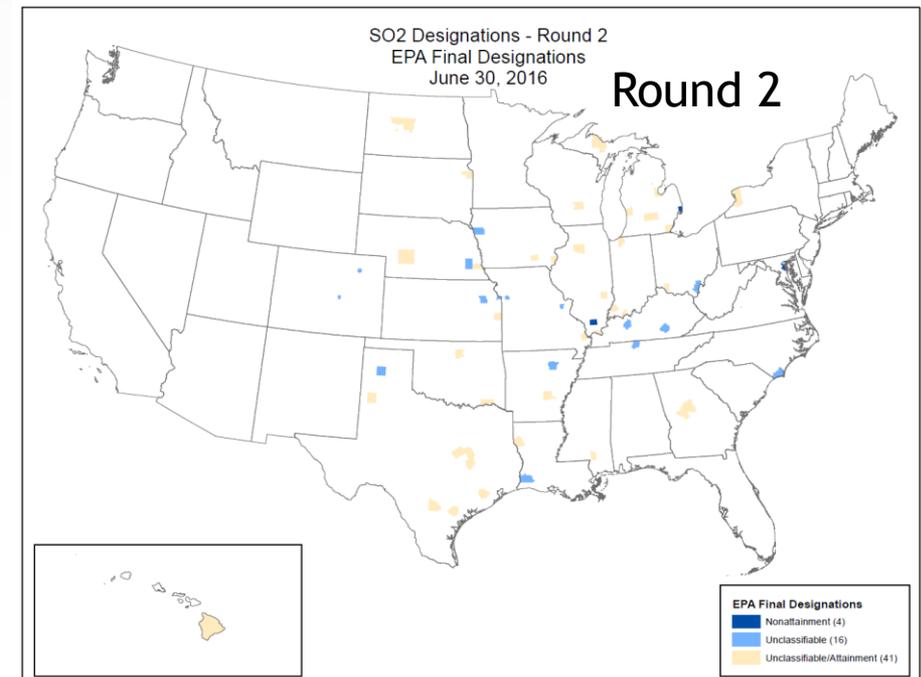
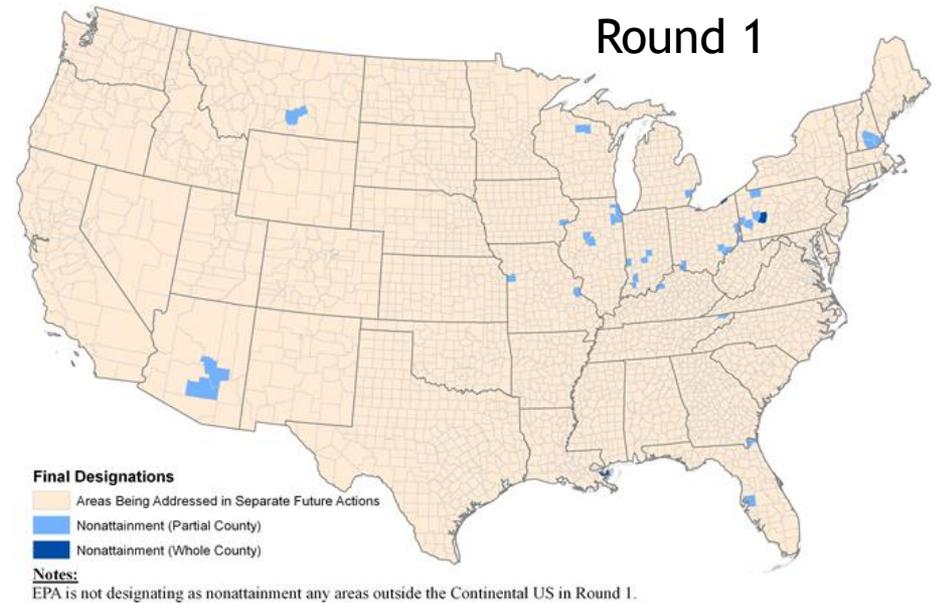


- CT DEEP submitted the SO₂ infrastructure SIP on May 30, 2013.
 - CT included a demonstration address interstate transport showing SO₂ emissions from CT do not contribute significantly to nonattainment or interfere with maintenance of the 2010 SO₂ standard in another state
- EPA took action on June 3, 2016 (81 FR 35636) on all ISIP elements except for interstate transport.
- Proposed notice to approve the interstate transport element was signed on March 16, 2017. Should be published in ***Federal Register*** soon.



2010 SO₂ NAAQS Designations

- Round 1 designations, based on violating monitors, effective Oct 4, 2013
 - 29 areas in 16 states designated (*Only NH in Region 1*)
 - Attainment plans due April 2015
 - Finding of Failure to Submit issued for 16 areas, including NH
 - NH submitted its plan on Jan 31, 2017. EPA is considering NH's plan.
- Round 2 designations based on modeling and monitoring, effective Sept 12, 2016
 - 61 areas in 24 states (*none in Region 1*)
 - Attainment plans due Mar 2018
 - Supplemented (effective Jan 2017) for 4 areas in TX; attainment plans due Jul 2018



Remaining 1-hr SO₂ Designations



A March 2015 court order requires the EPA to complete designations for the 2010 1-hr SO₂ standard for all undesignated or unclassifiable areas in the country in up to two additional rounds:

1. **By December 31, 2017** - areas where states have not installed and begun operating a new SO₂ monitoring network (Round 3)
2. **By December 31, 2020** - all remaining areas (Round 4)

Aug 2015 Data Requirements Rule (DRR)



- DRR requires air agencies to monitor or model ambient SO₂ levels in areas with largest SO₂ sources
 - At a minimum, the air quality around sources that emit 2,000 tons per year must be characterized
 - States and/or EPA have the discretion to add smaller sources or clusters of sources
 - National source list* has 375 sources, including 4 sources in Region 1
 - *Bridgeport Harbor (CT), Newington Station (NH), Schiller (NH), & Wyman (ME)*
 - Modeling required to EPA by Jan 13, 2017
- Region 1 has received modeling ** for the 4 sources on the DRR list

* Posted at: <https://www.epa.gov/so2-pollution/so2-data-requirements-rule-source-lists>

** Posted at: <https://www.epa.gov/so2-pollution/so2-data-requirements-rule-january-13-2017-state-submittals>



Round 3 SO₂ Designations



Required by Dec 2017 for any area that a state has not elected to install an air monitor under the DRR:

- 4 DRR sources in three Region 1 states (CT, NH, ME)
- All other previously undesignated areas in New England
- By Dec 2017, all of Region 1 will be designated

Next steps for Round 3:

- 1) By no later than Sept 1, 2017, EPA notifies states concerning any intended modifications (120-day letters)
- 2) By no later than Dec 31, 2017, EPA completes area designations

EPA's Updated MSW Landfill Regulations



- In July 2016, EPA finalized updated MSW landfill regulations:
 - New NSPS for MSW landfills (40 CFR Part 60 Subpart XXX), which serves as an update to existing NSPS (40 CFR Part 60 Subpart WWW)
 - Amendments to the emission guidelines for existing MSW landfills (40 CFR Part 60 Subpart Cc).
- The rules apply to “large MSW landfills,” defined as having design capacities of 2.5 million metric tons and 2.5 million cubic meters of waste or more.
- Both actions require affected landfills to install and operate a gas collection control system within 30 months after landfill gas emissions reach a new, lower threshold of 34 metric tons of non-methane organic compounds or more per year
- The combined rules will reduce methane emissions by an estimated 334,000 metric tons; and emissions of non-methane organic compounds by more than 2,000 metric tons, which are measured as a surrogate for landfill gas and include a number of air toxics, along with pollutants that cause landfill odors.



Questions