Infrastructure SIPs

SIP 101 Training
September 20, 2023

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Infrastructure State Implementation Plans (iSIP)

What is it?

- Clean Air Act sections 110(a)(1) and 110(a)(2): States/Tribes required to submit a SIP that provides for the implementation, maintenance and enforcement of a revised primary or secondary NAAQS.
  - within 3 years after EPA promulgates a new or revised NAAQS

iSIP – Required Elements

- Section 110(a)(2)(A) Emission limits and other control measures
- Section 110(a)(2)(B) Ambient air quality monitoring/data system
- Section 110(a)(2)(C) Program for enforcement of control measures
- Section 110(a)(2)(D)(i) - I Prong 1: Interstate transport - significant contribution
- Section 110(a)(2)(D)(i) - I Prong 2: Interstate transport - interfere with maintenance
- Section 110(a)(2)(D)(i) - II Prong 3: Interstate transport - prevention of significant deterioration
- Section 110(a)(2)(D)(i) - II Prong 4: Interstate transport - protect visibility
- Section 110(a)(2)(D)(ii) - Interstate and international pollution abatement
- Section 110(a)(2)(E) Adequate authority and resources
- Section 110(a)(2)(F) Stationary source monitoring system
- Section 110(a)(2)(G) Emergency episodes
- Section 110(a)(2)(H) Future SIP revisions
- Section 110(a)(2)(J) Consultation with government officials; Public notification; PSD and visibility protection
- Section 110(a)(2)(K) Air quality modeling/data
- Section 110(a)(2)(L) Permitting fees
- Section 110(a)(2)(M) Consultation/participation by affected local entities

iSIP – 2013 Guidance

- Nonbinding recommendations for 2008 ozone NAAQS, 2010 NO_2 and SO_2 primary NAAQS, 2012 $PM_{2.5}$ primary NAAQS, and all future revised NAAQS
- Does not address section 110(a)(2)(D)(i)(I) - interstate pollution transport affecting attainment and maintenance of the NAAQS.

iSIP – Interstate Transport

What is it?

- Clean Air Act section 110(a)(2)(D)
- States set provisions prohibiting any source from emitting air pollutants which effect downwind states by:
  - Prong 1: Contributing significantly to nonattainment areas
  - Prong 2: Interfere with NAAQS maintenance
  - Prong 3: Interfere with Prevention of Significant Deterioration measures
  - Prong 4: Interfere with visibility measures

iSIP – Transport Required Elements

- Section 110(a)(2)(A) Emission limits and other control measures
- Section 110(a)(2)(B) Ambient air quality monitoring/data system
- Section 110(a)(2)(C) Program for enforcement of control measures
- Section 110(a)(2)(D)(i) - I Prong 1: Interstate transport - significant contribution
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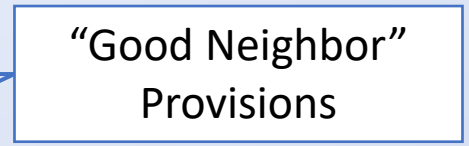


Good Neighbor Provisions

- Specifically Prongs 1 and 2 of the Interstate Transport Provisions.
  - Nomenclature note: Outside of the context of iSIPs, transport, interstate transport, and good neighbor provisions are all only referring to prongs 1 and 2.
  - For example: The monthly EPA workgroup for this is just the “Transport Call”.
- Different standards warrant difference solutions.
- Always looked at through a 4-step framework
  - 1. Identifying downwind receptors that are expected to have problems attaining or maintaining clean air standards (i.e., NAAQS);
  - 2 . Determining which upwind states contribute to these identified problems in amounts sufficient to “link” them to the downwind air quality problems;
  - 3. Identifying upwind emissions that significantly contribute to nonattainment or interfere with maintenance of a standard by quantifying appropriate upwind emission reductions and assigning upwind responsibility among linked states; and
  - 4. Reduce the identified upwind emissions via permanent and enforceable requirements (e.g., regional allowance trading programs).

2008 Lead (Pb) and 2010 NO_2

- The controls already in the SIP were determined to be adequate for these two standards.
- Pb because it doesn't disperse far, so doesn't cause transport issues.
- NO_2 because the whole country was designated attainment, so there were no concerns with contributing significantly to nonattainment or interfering with maintenance.

2010 SO_2 and 2012 $PM_{2.5}$

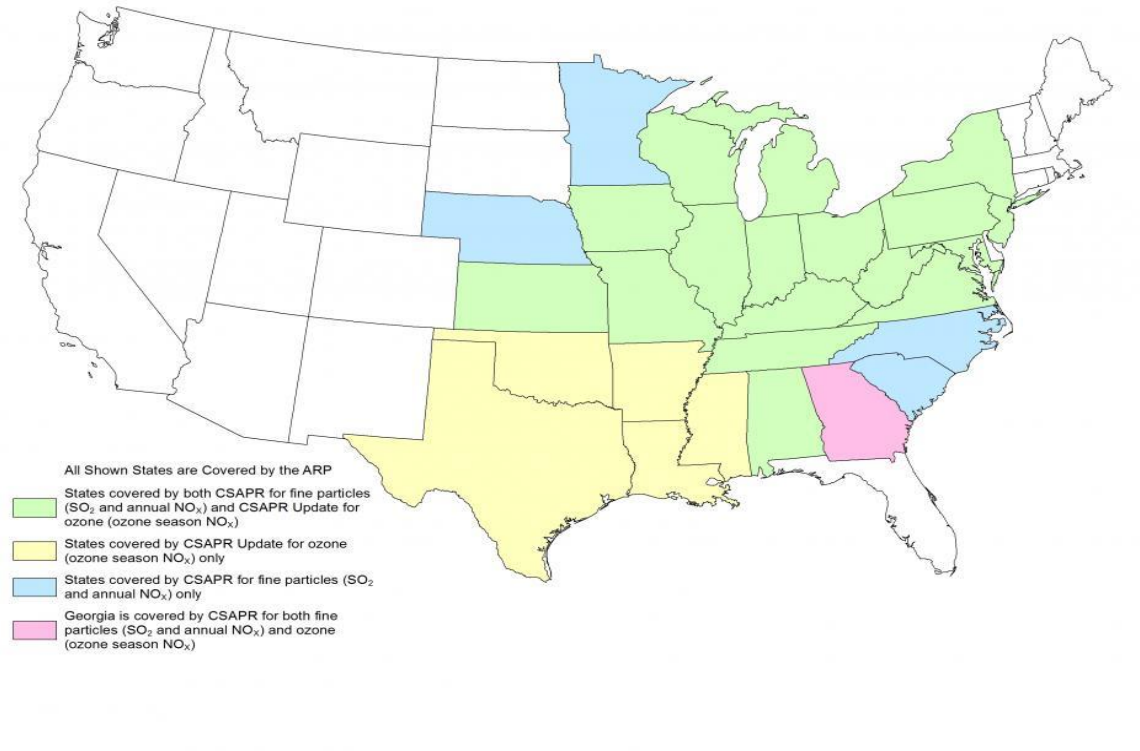
- Looked at on a case-by-case basis.
- 2012 $PM_{2.5}$
  - In the eastern portion of the country there were only a few nonattainment or maintenance issues, which were considered to be local issues.
  - States put together demonstrations showing that they did not contribute to those issues.
- 2010 SO_2
  - Is looked at through a source by source lens.
  - States look at a variety of data to determine if sources near the state's border may be causing nonattainment or maintenance issues in the bordering state.

Cap and Trade Programs

- NOx Budget Trading Program
  - 2003-2009
  - Addresses 1997 ozone standard
  - Stemmed from NOx SIP Call
- Clean Air Interstate Rule (CAIR)
  - 2009-2014
  - Addresses 1997 ozone and $PM_{2.5}$ standards
- Cross-State Air Pollution Rule (CSAPR)
  - 2015-Present
  - Addresses 1997 ozone and $PM_{2.5}$ standards, and 2006 $PM_{2.5}$
- Revised CSAPR Update
  - 2020-Present
  - Add 2008 ozone to existing program
- Good Neighbor Plan
  - 2023- present
  - Add 2015 ozone to existing program

Cross-State Air Pollution Rule (CSAPR)

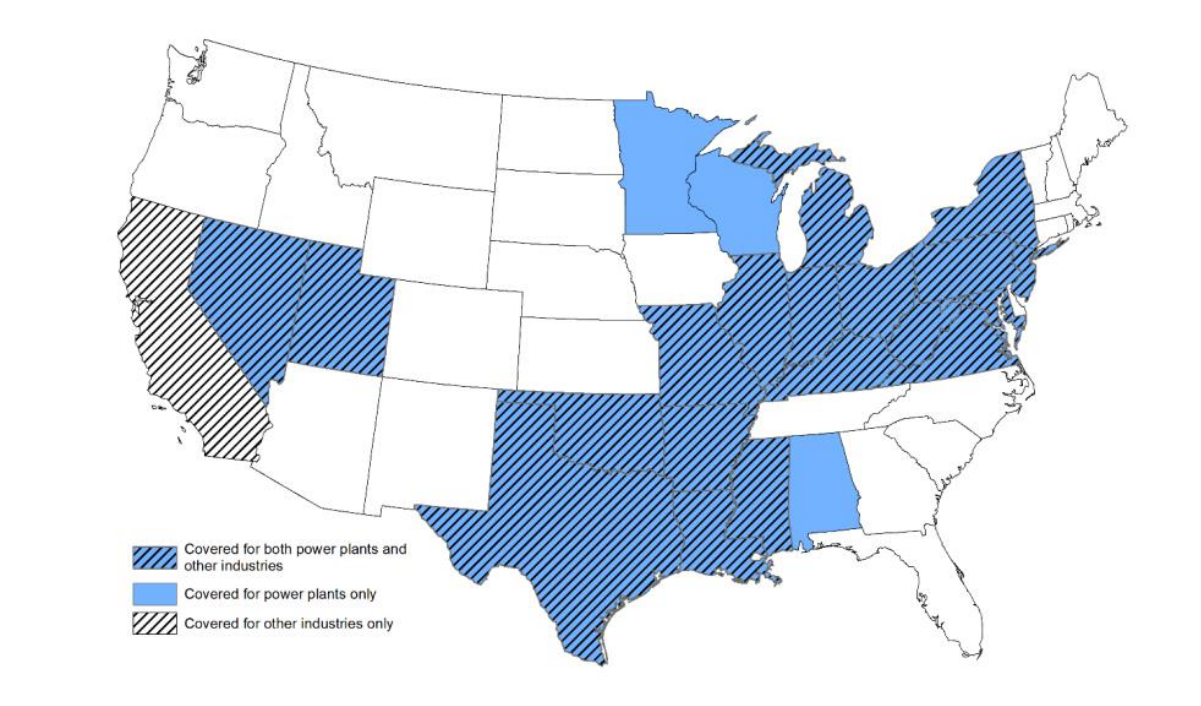
Map of States Covered by CSAPR



- The CSAPR requires fossil fuel-fired electric generating units in 27 states to reduce emissions to help downwind areas attain fine particle and/or ozone NAAQS.
- EPA sets an emission budget for each of the states covered by CSAPR. Authorizations to emit pollution, known as allowances, are allocated to affected sources based on these state emissions budgets.
- Sources can buy and sell allowances and bank (save) allowances for future use as long as each source holds enough allowances to account for its emissions by the end of the compliance period.

Good Neighbor Plan for 2015 Ozone NAAQS

Map of States Covered by Good Neighbor Plan



- The Good Neighbor Plan requires emissions reductions from power plants and industrial sources that pollute across state lines and contribute to problems attaining and maintaining the 2015 Ozone NAAQS in downwind states
- The Final Rule Includes a Combination of Approaches to Reduce Ozone Pollution:
  - NOx Allowance Trading Program for Fossil Fuel-Fired Power Plants in 22 States
  - NOx Emissions Standards for Nine Large Industries in 20 States