



The Basics of State Implementation Plans

May 3, 2023



Overview

What is a State Implementation Plan (SIP)?

- National Ambient Air Quality Standards (NAAQS) for Criteria Pollutants
- Key SIP Sections in Federal Law & Regulations

Types of SIPs

Contents and Components of a SIP

SIP Process

SIP Timeline and Regulatory Requirements

What is a State Implementation Plan (SIP)?

- A collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce the National Ambient Air Quality Standards, or NAAQS, and to fulfill other requirements of the Clean Air Act (CAA)

Key SIP Sections in Federal Law and Regulation

Clean Air Act

- Sec 110 (Implementation Plans)
Title 1, Part A
- Sec 172 (Nonattainment Plan Provisions, Title 1, Part D, Subpart 1)
- Appropriate sections for Title 1, Part D, either Subparts 2, 3, 4, or 5 (depending on the pollutant)

Regulations

- 40 CFR Part 51 (Preparing Implementation Plans)
- 40 CFR Part 52 (Approval of Implementation Plans)

Types of SIPs

Infrastructure and Transport SIPs

Attainment Demonstration SIP

Redesignation and Maintenance SIPs

Regional Haze SIP

Program SIPs

Infrastructure and Transport SIP

- Title I, Part A, Sections 110(a)(1) and (2)(A)–(M)
- Assures State has structural requirements for implementing a new or revised NAAQS
 - Programs in place to write rules, develop permits, conduct inspections, monitor air quality, enforce laws, regulate/enforce NAAQS
 - Demonstrate control of sources significantly contributing to nonattainment or interfering with maintenance of NAAQS in other states (Good Neighbor/Transport SIP)
- Due 3 years after Promulgation of new/revised standard

Attainment Demonstration

- Title I, Part D, Subpart 1, Sec. 172 and Subpart 2, Sec. 182 (for ozone)
- Required when an area is not meeting NAAQS
 - States that are part of the same NAA may submit separate or joint SIPs
- Demonstrate how to attain relevant NAAQS
 - Includes control strategies
 - Primarily based on modeling exercise
- Due 3-4 years after designation

Redesignation and Maintenance SIP

- Title I, Part D, Sec. 175A
- To keep an area in compliance once it meets attainment goals
- Ensures that area will meet NAAQS for 10 years after redesignation (a 2nd 10-year maintenance SIP due prior to the end of the 1st period)

Regional Haze

- Title I, Part C, Subpart 2, Sections 169A and B
 - National Visibility Goal for Class I Areas
 - Class I areas - National Parks > 6,000 acres, Wilderness Areas and National Memorial Parks > 5,000 acres, and all International Parks in existence on August 7, 1977
 - NJ Class 1 Area: Brigantine Wilderness Area in the Edwin B. Forsythe National Wildlife Refuge
- Goal: Natural Background Levels by 2064
- RH SIP Revisions are 10-year plans to show incremental progress (2nd planning phase 2018-2028)
- Progress Reports 5 years after SIP Plan

Program SIP

- Implements programs or parts of programs required by the CAA
 - Motor Vehicle Inspection and Maintenance
 - Emission Statements
 - Nonattainment Area Permitting
 - Transportation Conformity
 - Smoke Management

SIP Content Categories

- Three main categories
 - Regulatory: State statutes, regulations, orders, consent decrees
 - Non-Regulatory and Quasi Regulatory: State-submitted components in accordance with the CAA
 - Source-Specific SIP Revisions: Facility-specific SIP Revisions

What's generally in a SIP?

- Submittal letter to EPA
- Monitoring program and data
- Emissions inventories
- Control strategies, descriptions of control programs, regulations
- Modeling results
- Transportation conformity budget
- Documentation of public input process

SIP Components

- Monitoring program and data
 - A collection of monitoring devices that provide measurements of air pollutant concentrations in the air.
 - Ambient air quality data is used (among other things) to determine an areas design value to assess designations and classifications.

SIP Components

- Emissions Inventories
 - Compiled data of the sources and categories of emissions of a given pollutant, and how much is emitted by each source or source category.
- Air Quality Calculations and Atmospheric Modeling
 - Methods/tools to predict future trends and the effects of emissions reduction strategies; and to produce the attainment demonstration.

SIP Components

- Control strategy research and analysis, Reasonably Available Control Technology (RACT), and Reasonably Available Control Measures (RACM) analysis
 - Determine how best (environmentally and cost/benefit wise) to reduce emissions in order to meet air quality standards.
- Formal adoption of measures/regulations
 - Ensure that the reductions deemed necessary in the planning process will be achieved
 - Enforceable by EPA, states, and citizen suits
- Documentation of public review
 - Including responses to public comments

SIP Components

- Rate of Progress (ROP) or Reasonable Further Progress (RFP) plan
- Mobile source budgets (for conformity)
- Demonstration of attainment
- Contingency plan/measures
- Periodic Review (when necessary)
 - Evaluates whether the needed reductions were achieved and had the predicted result

General SIP Process & Roles

- Designations
- Classifications
- SIP Development
 - State, local, or tribal authorities develop SIPs in response to new or revised NAAQS, SIP Calls, new/revised state regulations, or changes in attainment status
- SIP Adoption, Public Process, Adoption and Submittal
- SIP Review and Approval
 - EPA Regional Administrators (RA) are delegated the authority to receive, return, approve, or disapprove SIPs



EPA's SIP Processing Options

- EPA decides the format
 - Sequential
 - Direct Final
 - Parallel Processing
- Sequential Rulemaking is most common
 - Notice of Proposed Rulemaking (NPR) → 30-day public comment period → Final Rulemaking Notice (FRN)

What Happens After EPA Approves a SIP?

- EPA amends its regulations in 40 CFR Part 52 to add the approved SIP
- Each state has a subpart in 40 CFR Part 52. See “Identification of Plan” (For example: Connecticut’s is located in subpart H. 52.369 – 52.387)
- Once 40 CFR Part 52 is amended, EPA has the same authority and responsibility to enforce it as the state.

What Exactly is the SIP?

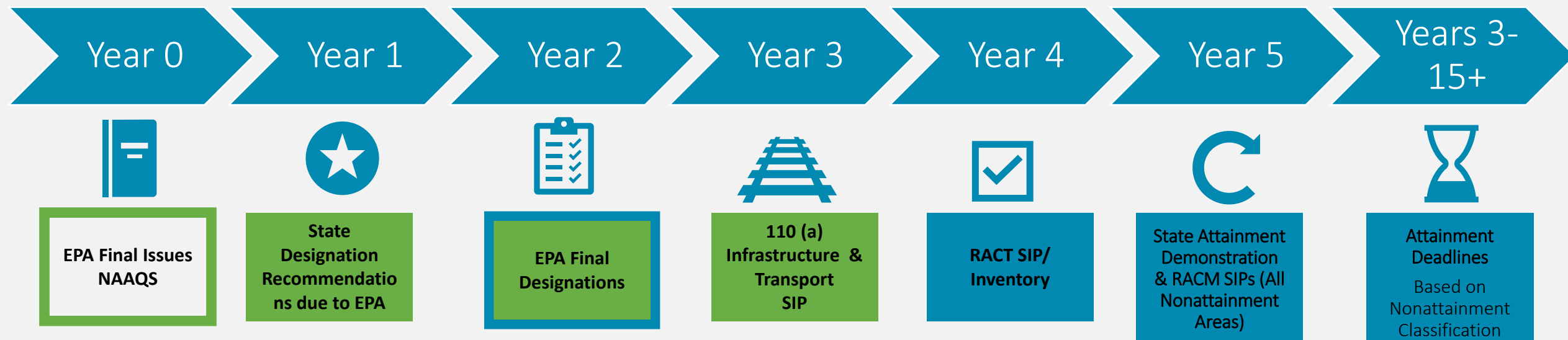
- Strictly speaking, it is everything that is codified in a state's subpart of 40 CFR Part 52
- “The Ozone SIP” is the attainment plan and all the SIP elements approved to control ozone precursors

SIP v. SIP Revisions

- Original SIPs approved by EPA for all 50 states, 4 territories, and Washington DC on May 31, 1972 (37 FR 10842)
- Since 1972, numerous SIP revisions submitted by states in response to CAA amendments
- Technically, all SIPs after 1972 are SIP revisions
- Even if a State believes no updates are necessary to its SIP, it must provide for public participation on that determination

Approx. SIP Timeline of Regulatory Requirements

Years After NAAQS Promulgation...	1	State Designation Recommendations
	2	Federal Designations
	3	110(a) infrastructure & transport SIPs
Years After Designation...	2-3	RACT SIPS
	3	Attainment Demonstration & RACM SIPs (All Nonattainment Areas)



Keep Your Eye on the Goal

- Lots of process, components, and paperwork
- Don't forget: Goal is to clean the air to protect public health and the environment

Resources

- Note 40 CFR Subparts F & G. These subparts describe the requirements for “control strategy” SIPs (e.g., Rate of progress (ROP), Attainment demonstrations)
- See 40 CFR Part 51 Appendix v for How to Submit a Complete SIP Revision to an EPA Region Office

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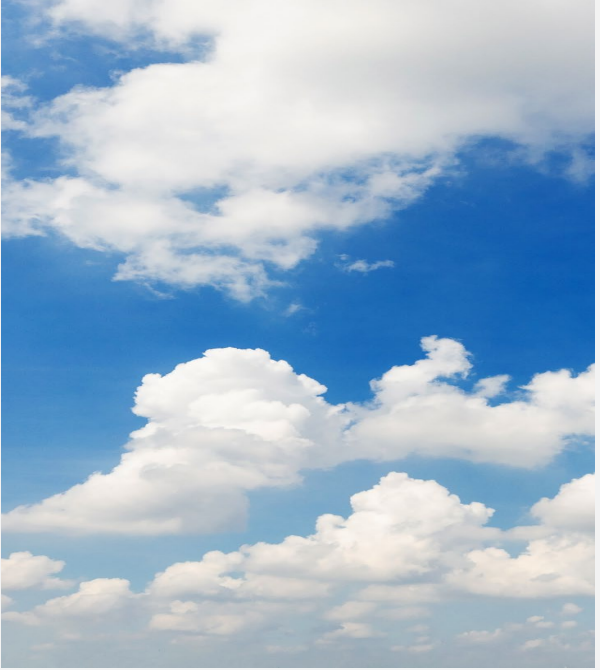
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Thank you!

