

State Implementation Plans

**under the federal
Clean Air Act**

State Implementation Plan (SIP)

- Section 110 of the Clean Air Act requires states to develop a State Implementation Plan (SIP) to maintain the National Ambient Air Quality Standards by:
 - Demonstrating the state has air quality program components needed to protect air standards,
 - Identifying the emission control requirements the state will use to attain/maintain standards, and
 - Adopting as administrative rules to be enforceable.

Components of SD's SIP

- **Ambient Air Quality Standards**
 - Adopts federal National Ambient Air Quality Standards
 - Establishes air quality monitoring network for standards
 - Currently South Dakota is in “attainment” with all standards
- **Construction Permits**
 - Prevention of Significant Deterioration (PSD) Permits
 - Depicts attainment areas
 - Applies to large sources like Big Stone Power
 - Minor Source Construction Permits
 - Applies to small/medium sources like ethanol plants, manufacturers, etc.

Components of SD's SIP

- **Operating Permits**
 - **Minor Sources**
 - Applies to small sources like grain elevators & concrete plants
- **Regional Haze**
 - **Improve visibility in Class I Areas**
 - Badlands National Park
 - Wind Cave National Park
- **State Emission Standards**
 - **Sulfur Dioxide**
 - **Particulate Matter (Dust)**
 - **Opacity (Dust and Smoke)**

Not All Air Activities in SIP

- **Title V Operating Permits**
 - Medium/Large Sources (Big Stone, ethanol plants, etc.)
- **New Source Performance Standards**
 - Federal standards for a specific industry
 - Regulates criteria air pollutants (dust, sulfur dioxide, etc.)
- **Maximum Achievable Control Technologies**
 - Federal standards for specific industries
 - Regulates hazardous air pollutants (Benzene, Toluene, etc.)
- **Acid Rain**
 - Trading program for electrical generating units (Big Stone)
 - Sulfur dioxide and nitrogen oxide

111(d) Plans

- Section 111(d) of the Clean Air Act requires air quality plans for existing sources to control pollutants that may endanger public health or welfare.
- **12 Components:**
 1. Identification of affected entities
 2. Description of plan and geographic scope
 3. Identification of state emission levels
 4. Demonstration that plan is projected to achieve emission performance level
 5. Identification of emission standards

12 Components Needed to Submit 111(d) Plan

- 6. Demonstration that each emission standard is quantifiable, non-duplicative, permanent, verifiable, and enforceable**
- 7. Identification of monitoring, reporting, and recordkeeping requirements**
- 8. Description of state reporting**
- 9. Identification of milestones**
- 10. Identification of backstop measures**
- 11. Certification of hearing on state plan**
- 12. Supporting material**

111(d) Plans vs State Implementation Plans (SIPs)

- **Similarities:**

- Develop enforceable limits through laws and/or regulations
- Develop sufficient methods to determine compliance
- Identify the state's authority to enforce the laws and/or regulations
- Provide for public comment/hearings on the regulations
- Plans submitted to EPA for approval
- If EPA approves, the plans become federally enforceable
- If states do not establish a plan, EPA develops federal plan

- **Differences:**

- SIPs are designed for air pollutants that have a federal National Ambient Air Quality Standard
- 111(d) plans are designed for air pollutants that do not have a federal National Ambient Air Quality Standard

SD's Existing 111(d) Plans

- **Municipal Solid Waste Landfills**
- **Hospital / Medical / Infectious Waste Incinerators**
- **Municipal Waste Combustors**
 - DENR submitted Negative Declaration (i.e. no existing sources)
 - No 111(d) plan required

How Did EPA Get to 111(d) Plans for Power Plants?

- EPA filed an endangerment finding for greenhouse gases
- EPA filed 111(b) proposal to reduce carbon dioxide from new power plants
- EPA filed 111(d) proposal to reduce carbon dioxide from existing power plants

Recent EPA Disapprovals of South Dakota SIP

- **Opacity Waiver in SIP for Start-up, Shut down, and Malfunctions**
 - July 1972 - EPA approves opacity waiver in SIP
 - **February 2013 - EPA proposed to disapprove**
 - May 2013 - DENR objected to EPA disapproval because:
 - it is a common-sense waiver;
 - the waiver has been in place for 40 plus years; and
 - the waiver has not resulted in any violations of the National Ambient Air Quality Standards
 - EPA's final decision is still pending

Recent EPA Disapprovals of South Dakota SIP

- **Greenhouse Gas Implementation in SIP**
 - June 2013 - DENR includes language in our SIP to void the regulation of greenhouse gases if:
 - EPA stays or withdraws the regulation, or
 - a court issues order vacating or invalidating EPA's greenhouse gas regulations
 - **April 2014 - EPA disapproved**

Recent EPA Disapprovals of South Dakota SIP

- **Construction permit program in SIP**
 - June 2011 - To streamline air quality permitting for small sources, DENR revised its rules to allow construction prior to obtaining an air quality permit
 - Small sources need to submit permit application prior to construction
 - A small source will not violate ambient air quality standards
 - Not applicable to large sources
 - Large sources still need to obtain an air quality permit prior to construction
 - June 2014 – EPA disapproved

SUMMARY

- **EPA is using the Clean Air Act to require states to develop 111(d) Plans to reduce carbon emissions from power plants**
 - First priority is to draft comments to submit to EPA prior to October 16, 2014 deadline
- **Challenges will be to:**
 - Develop a plan that will be approved by EPA,
 - Develop a plan that will keep the lights on, and
 - Develop a plan that will still provide affordable power.