
US Legal Framework for Developing and Implementing Control Programs for PM2.5, Ozone and Regional Haze

**Sara Schneeberg
Assistant General Counsel
US EPA Office of General Counsel**

State Implementation Plans

- Once EPA has established ambient air quality standards (NAAQS), States must then develop **State Implementation Plans (SIPs)**

- SIPs impose **controls on individual sources** of air pollution as necessary to timely attain and maintain the NAAQS throughout the state

Attainment Plan Content

- Plans must show that the area can attain and maintain air quality standards by requiring sufficient emissions control measures
 - Demonstration is made through **modeling** of future air quality levels with controls in place
 - Plans must demonstrate that attainment will be reached **as expeditiously as practicable**

Control Measure Requirements

- Control measures must be **permanent** and **enforceable**
- Plan must include adequate **monitoring** and **reporting** requirements to assess effectiveness of control measures and aid enforcement

States can develop local measures or take advantage of federally promulgated measures

- Federal programs provide for nationwide reductions in emissions of PM_{2.5} and ozone through
 - **Federal Mobile Source Control Program** including controls for automobile, truck, bus, motorcycle, and nonroad emissions
 - **New source performance standards**
 - **Emission standards for hazardous air pollutants**
 - **Regional trading programs** such as Clean Air Interstate rule

Transported emissions

- SIPs must provide controls necessary to prevent any **significant interference** with attainment or maintenance in downwind states
- EPA can create **regional emissions trading** programs to address transported emissions if states fail to address through SIPs

Designations of air quality areas

- Additional **more stringent control** requirements apply to areas that are not attaining specific air quality standards, including PM2.5 and ozone
- First, EPA designates all areas as attaining or **not attaining** the standards
 - Nonattainment areas include **violating** areas and areas **contributing** to violations

Nonattainment Area Plans

- Attainment SIPs for areas that do not attain the standards must include additional requirements as necessary to provide for timely attainment, including
 - **inventory** of actual emissions from all sources
 - **all reasonably available control measures**
 - **reasonable further progress** in years prior to attainment
 - **contingency measures** to be implemented automatically should the area fail to attain by the applicable attainment date

Attainment deadlines

- Nonattainment SIPs must include sufficient controls to provide for attainment as expeditiously as practicable but within no longer than **five years**
- Attainment deadline may be **extended** to no longer than ten years considering severity of nonattainment and availability of controls

Ozone nonattainment requirements

- Persistent difficulties attaining the ozone standard have led to further requirements specific to ozone
- Ozone nonattainment areas are **classified** from marginal to extreme according to the degree of nonattainment, with increasingly more stringent control obligations in more heavily polluted areas
 - Higher classifications have **more time** to attain, from three to twenty years respectively
 - Higher classifications must include **all controls** required for lower classifications as well

Reasonable Further Progress (RFP)

- In moderate areas RFP is defined as an initial **15% reduction** in emissions over 6 years
- In serious areas **3% additional** emissions reductions per year required until the attainment year

Reasonably Available Control Technology (RACT)

- RACT controls required for all **major sources** of volatile organic compounds (VOC) and nitrogen oxides (NO_x) as well as all source categories for which EPA has issued Control Technique Guidelines (CTGs)
- Required RACT controls are **independent** of controls needed for attainment

Vehicle inspection and maintenance programs (I/M)

- **Basic** vehicle I/M programs required in moderate ozone areas
- **Enhanced** vehicle I/M programs required in serious ozone areas

Controls related to mobile sources

- **Gasoline station vapor recovery** systems required in moderate areas
- **Clean fuel vehicle** programs required in serious areas

Transportation Control Measures (TCMs)

- States periodically assess **estimates** of vehicle miles travelled (VMT) and must adopt controls to keep VMT within estimates used in the attainment demonstration in serious areas
- TCMS must be adopted to **offset** any growth in emissions from growth in VMT in severe areas

Stationary source controls

- Progressively smaller sources must receive preconstruction **new source review** (NSR) permits in each more stringent classification
 - Sources in such areas must also obtain increasing emissions reductions to offset their anticipated new emissions
- Electric utilities and boilers must use **low polluting fuels** in extreme areas

Regional Haze Requirements

- The Clean Air Act includes provisions to protect **scenic vistas**
- The provisions are designed to protect the country's special areas
 - Premier **national parks**
 - **Wilderness areas**

Regional Haze – National Goal

- The national visibility goal calls for the prevention of future, and remedying of existing visibility impairment from **manmade** air pollution
- Major program requirements
 - **Best available retrofit technology**
 - **Reasonable progress** towards national goal

Regional Haze – Implementation

- The state and federal roles
 - EPA establishes **guidelines** and overarching regulatory requirements
 - The states have the primary role in implementing visibility protection requirements by developing **plans** to control emissions from sources that contribute to haze
 - EPA has responsibility for states that fail to act

EPA review and approval

- EPA works with states to develop plans for submittal by established deadlines
- EPA reviews and approves plans that meet applicable requirements and makes them **federally enforceable**
- If states fail to submit timely SIPs or EPA disapproves plan various **sanctions** apply and EPA prepares federal plan

Enforcement and Sanctions

- Enforcement and sanctions provisions exist against **states and sources** for failure to comply with planning or implementation requirements
- No sanctions for failure to attain, but
 - States must undertake a **new round of planning** and control measure development
 - EPA can require **additional measures** to ensure attainment by new attainment date
 - Ozone areas are **automatically reclassified** to higher classification and must meet all requirements for that classification

Thank You

Sara Schneeberg

Assistant General Counsel

US EPA Office of General Counsel

Air and Radiation Law Office

schneeberg.sara@epa.gov

202/564-5592