

Attainment Planning Requirements

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Nonattainment Areas

- Requirements for nonattainment areas are linked to the date of designation
- Areas are required to attain NAAQS within a specified time period (attainment date)
- States are required to submit specific State Implementation Plan elements with the goal of bringing the area to attainment by the attainment date
 - Control measures, *e.g.*, rules, administrative orders, etc.
 - Nonregulatory components, *e.g.*, emissions inventory, attainment demonstration, etc.

CAA Title I Part D

Nonattainment Area (NAA) SIPs

- Subpart 1 (Section 172): General provisions
- Subpart 2 (Section 182): Ozone
- Subpart 3 (Section 187): Carbon Monoxide
- Subpart 4 (Section 189): Particulate Matter
- Subpart 5 (Section 191): SO_x/NO_x/Pb SIP

Subpart 1 Nonattainment Provisions

- Apply to all pollutants unless superseded by a pollutant-specific requirement
- Establish an attainment date of 5 years from designation
- Administrator has discretion to extend up to 10 years from designation considering severity of problem and availability/feasibility of control measures
- SIPs are due no later than 3 years after designation
- SIP requirements are listed under section 172(c) and include the following...

Subpart 1 Nonattainment Provisions

Emissions Inventories & RFP

- **Emission Inventories**
 - A comprehensive, current inventory of actual emissions from all sources of the relevant pollutant (and/or precursors) in the area
- **Reasonable Further Progress (RFP)**
 - Annual incremental emissions reductions of relevant pollutants for the purpose of attaining the NAAQS by the applicable attainment date

Subpart 1 Nonattainment Provisions

Reasonably Available Control Measures (RACM)

- **RACM - requires a demonstration that:**
 - State has adopted all reasonable measures to meet RFP requirements and to demonstrate attainment as expeditiously as practicable
 - No additional measures that are reasonably available will advance the attainment date or contribute to RFP for the area.
 - At a minimum, RACM includes Reasonably Available Control Technology (RACT)

Subpart 1 Nonattainment Provisions

RACM/RACT (cont.)

- **RACT**
 - Applies to existing sources
 - The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility

Subpart 1 Nonattainment Provisions

Attainment Demonstration

- Demonstrate how the emissions control strategies proposed by a State will lead to attainment of the NAAQS
- Primarily a modeling exercise that simulates the changes in air quality that will result from the implementation of emissions controls

Subpart 1 Nonattainment Provisions

Contingency Measures

- NAA SIPs must provide for the implementation of measures if an area fails to attain the NAAQS or make RFP
- Contingency measures shall take effect without further action by the State or EPA

Subpart 1 Nonattainment Provisions

Nonattainment New Source Review (NSR)

- Requires the implementation of a nonattainment NSR permitting program in the nonattainment area

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Subpart 2

Ozone Nonattainment Provisions

- In addition to being designated, ozone areas are classified based on the severity of their ozone levels
 - Marginal - 3 years after designation
 - Moderate - 6 years after designation
 - Serious - 9 years after designation
 - Severe - 15 - 17 years after designation
 - Extreme - 20 years after designation

| | | NSR Offset Ratio | Major Source Threshold | |
|--|---|-----------------------------|------------------------|---|
| EXTREME (20 years to attain) | TRAFFIC CONGESTION CONTROLS (if appropriate) | 1.5 : 1 Extreme | 10 tpy | |
| | CLEAN FUELS REQUIREMENT FOR BOILERS | | | |
| SEVERE (15/17 years to attain) | PENALTY FEE PROGRAM FOR MAJOR SOURCES | 1.3 : 1 Severe | 25 tpy | |
| | LOW VOC REFORMULATED GAS (as appropriate) | | | |
| | VMT GROWTH DEMONSTRATION (& TCMs if needed) | | | |
| SERIOUS (9 years to attain) | VMT DEMONSTRATION (& TCMs if needed) | 1.2 : 1 Serious | 50 tpy | |
| | NSR REQUIREMENTS FOR EXISTING SOURCE MODS | | | |
| | CLEAN FUELS PROGRAM (if applicable) | | | |
| | MODELED DEMO OF ATTAINMENT | | | MILESTONE DEMONSTRATIONS and CONTINGENCY MEASURES FOR RFP |
| | 3% ANNUAL RFP UNTIL ATTAINMENT | | | ENHANCED I/M for larger population areas |
| | CONTINGENCY MEASURES FOR FAILURE TO ATTAIN | | | ENHANCED MONITORING PLAN |
| | Stage II Gasoline Vapor Recovery | | | BASIC VEHICLE I/M for larger population areas |
| MODERATE (6 years to attain) | 15% VOC ROP or 15% VOC/NO _x RFP (OVER 6 YEARS) | 1.15 : 1 Moderate | 100 tpy | |
| | VOC/NO _x RACT for MAJOR/CTG SOURCES | | | ATTAINMENT DEMONSTRATION |
| | NONATTAINMENT NEW SOURCE REVIEW PROGRAM | | | MAJOR SOURCE EMISSION STATEMENTS |
| MARGINAL (3 years to attain) | BASELINE EMISSION INVENTORY (EI) | 1.1 : 1 Marginal | 100 tpy | |
| | PERIODIC EMISSION INVENTORY UPDATES | | | |

NOTE: Transportation and General Conformity apply in all ozone nonattainment areas.

Subpart 2 - Ozone

Marginal

- “Base year” emission inventory and “periodic emission” inventories every 3 years, continuing until redesignation
- Emission statements
- Major source - 100 tons per year (tpy)
- Nonattainment NSR, 1.1 to 1 offsets

Subpart 2 - Ozone

Moderate

- All Marginal requirements
- VOC and NO_x RACT
- 15% RFP plan
- Basic Vehicle Inspection and Maintenance (I/M)
- Attainment demonstration
- RACM
- Nonattainment NSR, 1.15 to 1 offsets

Subpart 2 - Ozone

Serious

- All Moderate requirements
- 3% annual RFP until attainment
- Enhanced I/M
- Enhanced monitoring
- Emissions reduction milestones & compliance demonstration - showing RFP has been met
- Major source threshold 50 tpy (RACT & nonattainment NSR)
- Nonattainment NSR revisions and 1.2:1 offsets

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Subpart 4

Particulate Matter (PM) Nonattainment Provisions

- **2-tier classification system:**
 - Moderate - 6 years after designation
 - Serious - 10 years after designation
- All areas initially classified as Moderate
- EPA can reclassify an area to Serious if we determine the area “cannot practicably attain” by that date
- Reclassified to Serious mandatory if area fails to attain by attainment date

Subpart 4 - Particulate Matter

Moderate

- Attainment plan due in 18 months
 - Plan must address PM and its precursors (SO₂, NO_x, VOC, NH₃)
 - Emissions inventories
 - Control measures
 - RACM/RACT
 - Attainment demonstration
 - Reasonable further progress (RFP) and quantitative milestones
 - Contingency measures

Subpart 4 - Particulate Matter

Serious

- Moderate provisions plus
 - Attainment demonstration for serious attainment date
 - Best available control measures (BACM)
- Major source 70 tons per year