

Control Strategies: Background and Overview

Summary and Organization

This section of the TSD describes the consideration of possible control measures and their inclusion or elimination from consideration as part of the overall control strategies in the various SIPs supported by the modeled attainment demonstrations.

A basic description of the process to be employed is followed by four sections, each addressing one of the fundamental sectors of the emissions inventories (area sources, large stationary point sources, off-road mobile sources, and on-road mobile sources).

Requirements

Section 172 of the CAA requires that each attainment plan “provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology), and shall provide for attainment of the NAAQS”

EPA interprets RACM as referring to measures of any type that may be applicable to a wide range of sources (mobile, area, or stationary), whereas RACT refers to measures applicable to stationary sources. Thus, RACT is a type of RACM specifically designed for stationary sources.

RACT would be determined as part of the broader RACM analysis, and identification of all measures (for stationary, mobile, and area sources) that are technically and economically feasible.

In general, the combined approach to RACT and RACM includes the following steps:

- identification of potential measures that are reasonable
- modeling to assess attainment by the attainment date
- selection of RACT and RACM

Section 172 does not include any specific applicability thresholds to identify the size of sources that States and EPA must consider in the RACT and RACM analysis.

For each technologically feasible control technology or measure, the State should provide the following information:

- control efficiency, by pollutant (PM_{2.5}, SO₂, NO_x, VOC)
- possible emission reductions by pollutant

- estimated \$/ton reduced
- date by which the measure could be reasonably implemented

The cost effectiveness of a technology is expressed as its annualized cost divided by the emissions reduced per year (\$/ton.) When making a determination as to whether an available control technology or measure is economically feasible, there are certain factors that should be taken into consideration. Similar sources may have different marginal costs, profit margins and abilities to pass costs through to the consumer. These factors are appropriate to consider.

Seasonal controls are acceptable, in situations such as Utah's, where PM and Ozone violations occur in winter and summer respectively.

Source Categories

In examining emission controls, it is helpful to categorize the sources of those emissions into the same basic groupings used in the compiling the emissions inventories: stationary point sources, area sources, non-road mobile sources, and on-road mobile sources. Each is discussed in turn.