

5. Demonstrate Expedient Attainment

For the reasons discussed below, we propose to find that the Clark County Plan demonstrates attainment by the earliest date practicable after December 31, 2001 as required by CAA section 189(b)(1)(A)(ii). We also propose to find that: The attainment demonstration relies on control measures that either are approved or have been proposed for approval and meet our SIP enforceability criteria; the emissions estimates credited to these measures in the attainment demonstration are reasonable; and the measures are being implemented on a schedule that is as expeditious as practicable and will result in attainment by the earliest practicable date.

a. Air Quality Modeling

The attainment demonstration for the 24-hour standard in the Clark County Plan is divided into two parts, a microscale analysis and a regional analysis. The microscale part evaluates 24-hour exceedences at five monitoring sites in the Las Vegas. The regional part evaluates 24-hour levels throughout the rest of the Clark County nonattainment area.

Clark County relies upon an emissions "rollback" model for the attainment demonstrations. EPA's guidelines⁴⁵ allow the need for case-by-case approaches in circumstances when recommended dispersion models are not available or applicable and where area sources are the predominant component of PM-10. To predict future concentration, the current concentration is reduced or "rolled back" by the same fractional amount that emissions are reduced. In recognition of the special characteristics of fugitive dust-dominated areas, we believe an attainment demonstration based on proportional rollback of one or more microinventories is a reasonable approach and is consistent with EPA guidance, as long as the microinventory areas are representative of worst case conditions, and the resulting emission controls are applied throughout the area.

We have evaluated the five microinventory areas mentioned previously in this document and find that they contain varying source category mixes and span a range of conditions that occur in the Las Vegas Valley. By showing that the chosen microinventory areas are representative of conditions leading to PM-10 NAAQS exceedences, and by then applying the controls shown to be needed in these

microareas to the entire nonattainment area, Clark County has followed an acceptable procedure for demonstrating attainment.

b. Control Measures Relied on for Attainment

For demonstrating attainment of the annual and 24-hour PM-10 standards, the Clark County Plan relies on reductions in directly-emitted PM-10 from the following measures: Section 90 controls for disturbed vacant land, section 92 controls for unpaved parking lots,⁴⁶ section 94 (including Handbook) controls for construction sites, section 91 and government agency SIP commitment controls for unpaved roads, and section 93 and government agency SIP commitment controls for unpaved road shoulders (within the paved road dust category).

For the 24-hour attainment demonstration, Clark County models controlled valley-wide future concentrations for the years 2001 and 2006 as well as controlled 2006 concentrations at each of the five microscale sites. We have evaluated the emissions reductions credited to each measure in the attainment demonstrations to ensure they are reasonable. Three factors considered include:

1. Emissions reductions from controls applied (*e.g.* percent reduction achieved through paving or chemical stabilization);
2. Rule penetration (*i.e.* percentage of sources within the total source category that the rule or measure will impact); and
3. Rule effectiveness (*i.e.* the expected rate of compliance with a rule or measure).

We find that the emission reduction estimates for each source category are consistent with available research on the applicable control methods, rule penetration estimates are reasonable based on emissions inventory data, and rule effectiveness estimates are reasonable given the schedule for adoption of measures and other factors. Emissions reductions credited based on these estimates are appropriately

applied in the attainment demonstrations. For more information on the quantification of emission reductions, we refer to the TSD associated with this rulemaking.

We are also proposing that the measures relied on for attainment are being expeditiously implemented. Section 90, 91, 92, 93 and 94 requirements all applied well before adoption of the Clark County Plan in June 2001. While Clark County has revised the original SIP commitment deadline for adopting certain revisions to its fugitive dust regulations to March 31, 2003, these revisions provide incremental reductions above an already-adopted baseline that should achieve substantial immediate reductions. Therefore, we believe the extension is reasonable and does not impact our finding that the Plan provides for expeditious implementation of measures. Finally, Clark County's SIP commitment for hiring additional staff to implement and enforce fugitive dust controls was established with an expeditious timeframe for all positions to be filled by the end of 2001. Clark County has not only met, but exceeded this commitment.

6. Other Factors That EPA May Consider

CAA section 188(e) lists five additional factors that we may consider in deciding whether to grant an extension and the length of that extension. These include: (1) The nature and extent of the nonattainment problem; (2) the types and numbers of sources or other emitting activities in the area (including the influence of uncontrollable natural sources and international transport); (3) the population exposed to concentrations in excess of the standard; (4) the presence and concentration of potentially toxic substances in the mix of particulate emissions in the area; and (5) the technological and economic feasibility of various control measures.

In evaluating these factors, we have focused on the nature and extent of the nonattainment area problem, the types of sources contributing to the problem, and the ability of the County to control these sources. Fugitive dust sources dominate the emissions inventory in the Clark County PM-10 nonattainment area. Controls for these sources are well known (paving, wetting surfaces, etc.) and have been adopted; however, the number of sources and nature of sources make education, outreach and enhanced enforcement necessary to assure full compliance with those controls. In addition, costs for paving roads and stabilizing shoulders necessary to

⁴⁵ Guideline On Air Quality Models, 2001, sections 7.2.1 and 7.2.2.

⁴⁶ Emission reductions for section 92 controls were only specifically calculated for the two microscale areas that included unpaved parking as opposed to a valley-wide basis. These microscale areas play a role in the 24-hour but not annual attainment demonstration. Clark County did not prepare a separate valley-wide inventory for unpaved parking lots apart from the disturbed vacant land inventory. Thus, reductions attributable to the section 92 controls are only implicitly assumed, for purposes of the annual attainment demonstration, within the larger valley-wide emission reductions anticipated from disturbed vacant land.