

WYOMING STATE IMPLEMENTATION PLAN

INTERSTATE TRANSPORT

**TO SATISFY THE REQUIREMENTS OF CLEAN AIR ACT 110(a)(2)(D)(i)
FOR THE 8-HOUR OZONE AND PM2.5 NAAQS
PROMULGATED IN JULY 1997**

Presented Before the Wyoming Air Quality Advisory Board
December 11, 2006

WYOMING STATE IMPLEMENTATION PLAN

A. Introduction

The Clean Air Act, §110(a)(2)(D)(i), requires that each state implementation plan (SIP) submitted to EPA must address emissions that affect other states through interstate transport. In addition, states must ensure that no SIP interferes with another state's program to prevent significant deterioration of its air quality, or interferes with visibility in another state. Until August 2006, there had been no EPA guidance as to the appropriate scope of such a SIP.

On April 25, 2005, in response to a lawsuit, EPA published (70 FR 21147) a finding that states had failed to submit SIPs meeting the requirements of 110(a)(2)(D)(i) within three years after EPA issued new National Ambient Air Quality Standards (NAAQS) for ozone and PM_{2.5} in 1997. The finding requires that EPA issue a Federal Implementation Plan (FIP) for any state that does not submit a SIP and obtain EPA approval of it by May 25, 2007.

On August 15, 2006, EPA issued final guidance to states for preparation of SIPs that satisfy the 110(a)(2)(D)(i) requirements, and, on September 11, 2006, added a supplement to the guidance.

There are four components of 110(a)(2)(D)(i) that must be addressed. The first two, demonstrating adequate provisions to prevent emissions from Wyoming from interfering with attainment or maintenance of the federal NAAQS in any other state, are discussed together in Part B below. The requirement that Wyoming show no interference with another state's program to prevent significant deterioration of its air quality is found in Part C below, and discussion of Wyoming's influence on visibility is found in Part D below.

B. Nonattainment and Maintenance Area Impact

The "good neighbor" provisions of §110(a)(2)(D)(i) require that state SIPs prohibit

any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will--

(1) contribute significantly to nonattainment in, or interference with maintenance by, any other state with respect to any such national primary or secondary ambient air quality standard...

To demonstrate that emissions from Wyoming do not contribute to nonattainment or interfere with maintenance of the ozone or PM_{2.5} standards issued in 1997, Wyoming relies on modeling work conducted by EPA to determine which states were to be covered by the Clean Air Interstate Rule (CAIR). In the final CAIR rule, published on May 12, 2005, EPA described how it determined which states were subject to the rule because they contributed to ozone nonattainment in any state. EPA's first step was to remove from consideration those states whose upwind contributions were very low. "Specifically, EPA considered an upwind State not to contribute significantly to a downwind nonattainment area if the State's maximum contribution to the area was either (1) less than 2 ppb, as indicated by either of the two modeling

techniques; or (2) less than one percent of the total nonattainment in the downwind area.” (See Footnote 44, page 25191 of Vol. 70, No. 91, FR May 12, 2005). With respect to ozone, EPA determined in the technical work done for the CAIR rule, that Wyoming did not contribute to downwind nonattainment. On EPA’s website for the Clean Air Interstate Rule, EPA states:

The final Clean Air Interstate Rule covers 28 eastern states and the District of Columbia. Air emissions in these states contribute to unhealthy levels of ground-level ozone, fine particles or both in downwind states. Several states are not included in the CAIR region because they do not contribute to downwind nonattainment. These states include: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Maine, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington, and Wyoming.

Finally, the closest nonattainment area for ozone (Las Vegas - Clark County) is approximately 400 miles away from the southwest border of Wyoming. Considering the magnitude of the population associated with the Clark County Ozone Nonattainment Area and the geological and topological separation of Clark County from Wyoming, it is unlikely that Wyoming is a significant contributor to the nonattainment status in the Las Vegas area.

With respect to determining whether Wyoming contributes to nonattainment or maintenance of the PM_{2.5} standard in other states, again Wyoming relies on EPA modeling methodology. EPA says,

Regarding modeling of all States, in the PM_{2.5} modeling for the NPRM, we modeled 41 States, and found that the westernmost of these States made very small contributions to nonattainment in any other State.¹ For the revised modeling for the final rule, we reduced the set of States modeled [from 41 to 37 for PM - the additional 4 states NOT modeled for the final rule are Montana, Wyoming, Colorado, and New Mexico] for reasons of efficiency. The results again showed that the westernmost States modeled did not make contributions above the significance threshold, indicating that had other even more western States been modeled they also would not have done so.²

The closest PM_{2.5} nonattainment area is in Libby, Montana, which is approximately 325 miles upwind of the northern border of Wyoming. The technical support document submitted for the Libby, Montana area indicates that the sources of PM_{2.5} are localized problems due to topography and meteorological factors. It is unlikely that Wyoming, which is downwind from the nonattainment area, contributes to the nonattainment status of Libby, Montana.

Based on the conclusions stated by the EPA in the above-cited guidance and the relative distance to nonattainment areas, the State of Wyoming agrees that emissions from Wyoming do not significantly affect nonattainment or maintenance areas in other states.

¹ The 9 westernmost states that were NOT modeled for the NPRM are Idaho, Washington, Oregon, Nevada, California, Utah, Nevada, Alaska, and Hawaii.

² *Corrected Response To Significant Public Comments On the Proposed Clean Air Interstate Rule*, March 2005, Corrected April 2005, Document ID No. EPA-HQ-2003-0053-2172, pages 200-201.

C. Impact on PSD

In § 110(a)(2)(D)(i)(II), the Clean Air Act requires that states prohibit emissions within the state from interfering “with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality...”

EPA guidance indicates that states with SIPs addressing Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR) have adequately demonstrated that they do not affect PSD implementation in other states:

For the 8-hour ozone standard, each State only needs to make a SIP submission that confirms that major sources in the State are currently subject to PSD and NNSR permitting programs that apply to the 8-hour ozone standard and that SIP-approved States are on track to meet the June 15, 2007 deadline for SIP submissions adopting the requirements of the Phase II ozone implementation rule.

For the PM-2.5 standard, States need only provide a SIP submission that confirms that major sources in the State are subject to PSD and NNSR permitting programs implemented in accordance with EPA’s interim guidance calling for use of PM-10 as a surrogate for PM-2.5 in the PSD and NNSR programs.³

Wyoming has a fully-approved PSD program, and has successfully implemented this program for many years. Wyoming’s PSD rules were revised effective October 6, 2006, to conform with the federal NSR Reform rules. These changes have not yet been submitted to EPA and are not yet approved. With regard to being on track to meet the June 15, 2007 deadline for SIP submission adopting requirements of the Phase II ozone implementation rule, Wyoming has initiated the review of these changes, and will be working on rule revision over the next year. Until any of these changes are approved, the previously-approved versions are federally enforceable. Wyoming does not have a NNSR (nonattainment new source review) program since there has not been a need for one to date. Wyoming will update its PSD program to include a NNSR program in the future if the need should arise. Wyoming will implement the current rules in accordance with EPA’s interim guidance using PM10 as a surrogate for PM2.5 in the PSD program.

Based on the conclusions stated by the EPA in the above-cited guidance, the State of Wyoming concludes that Wyoming’s PSD SIP rule ensures that Wyoming does not interfere with PSD implementation in other states.

D. Effects on Visibility

The final requirement of § 110(a)(2)(D)(i)(II) is that states prohibit emissions within the state from interfering with the programs of other states to protect visibility. In 1980, EPA issued regulations that required states to address reasonably attributable visibility impairment (RAVI). EPA’s recent guidance states that:

³ SIP Guidance on Section 110(a)(2)(D)(i) Findings of Failure to Submit, August 11, 2006, page 2.

At this point in time, EPA has made no determination that emissions from any State interfere with measures required to be included in a plan to address reasonably attributable visibility impairment. Further, EPA is not aware of any certification of existing reasonably attributable impairment of visibility by a Federal Land manager that has not already been resolved. The EPA accordingly believes that States should be able to make a relatively simple SIP submission verifying that no source within the State emits pollutants that interfere with measures included in the visibility SIPs under the 1980 regulations.⁴

Based on the conclusions stated by the EPA in the above-cited guidance, the State of Wyoming concludes that there are no Wyoming sources of emissions that interfere with implementation of RAVI SIPs in other states.

Because states are not required to submit Regional Haze SIPs until December 2007, it is probably too early to assess the impact of transported pollution on visibility in federally protected areas. EPA's guidance states that:

EPA believes that it is currently premature to determine whether or not State SIPs for 8-hour ozone or PM_{2.5} contain adequate provisions to prohibit emissions that interfere with measures in other States' SIPs designed to address regional haze. Accordingly, EPA believes that States may make a simple SIP submission confirming that it is not possible at this time to assess whether there is any interference with measures in the applicable SIP for another State designed to "protect visibility" for the 8-hour ozone and PM_{2.5} NAAQS until regional haze SIPs are submitted and approved.⁵

Wyoming, however, submitted its first Regional Haze SIP to EPA in December 2003 under 40 CFR 51.309, already demonstrating reasonable progress in reducing impacts on Class I areas on the Colorado Plateau. The 2007 SIP update will analyze any impacts from Wyoming that extend beyond the Colorado Plateau and determine appropriate long-term strategies for control measures.

⁴ Guidance for State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM_{2.5} National Ambient Air Quality Standards, EPA, August 15, 2006, page 9.

⁵ Guidance for State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM_{2.5} National Ambient Air Quality Standards, August 15, 2006. Pages 9-10.