



January 5, 2007

1.0 Introduction

The Clean Air Act (CAA), §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 CAA §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 a SIP 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 South Dakota from interfering with attainment or maintenance of the federal NAAQS in any other state, are discussed together in Section 2.0. The requirement that South Dakota show no interference with another state's program to prevent significant deterioration of its air quality is found in Section 3.0, and discussion of South Dakota's influence on visibility is found in Section 4.0.

2.0 Nonattainment and Maintenance Area Impact

The "good neighbor" provisions of §110(a)(2)(D)(i) require that a state SIP 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 interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard..."*

2.1 8-hour Ozone Standard

To demonstrate that emissions from South Dakota do not contribute to nonattainment or interfere with maintenance of the ozone or PM_{2.5} standards issued in 1997, South Dakota 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 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 parts per billion, 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 South Dakota did not contribute to downwind non-attainment. 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."*

None of the states bordering South Dakota have a nonattainment area for ozone. This includes the states of North Dakota, Minnesota, Iowa, Nebraska, Wyoming and Montana. The closest nonattainment area for ozone is the Denver-Boulder-Greeley-Ft. Collins-Loveland in Colorado that is approximately 170 miles from the southwest corner of South Dakota. Considering the magnitude of the population associated with the Denver/Front Range Ozone Nonattainment Area, meteorological movement of weather fronts, and the geological and topological separation of this area from South Dakota, it is unlikely that South Dakota is a significant contributor to the nonattainment status.

The closest ozone nonattainment area downwind of South Dakota is located in the counties around Chicago, Illinois extending north into the counties along the western shore of Lake Michigan in the states of Illinois and Wisconsin. This large area of ozone nonattainment is about 460 miles from Sioux Falls, South Dakota. Again the magnitude of the population associated with the Chicago and Lake Michigan ozone nonattainment areas and the geological and topological separation of these areas from South Dakota, it is unlikely that South Dakota is a significant contributor to the nonattainment status. See Appendix A for a map of 8-hour Ozone non-attainment areas in the nation.

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

2.2 PM2.5 Standards

With respect to determining whether South Dakota contributes to nonattainment or maintenance of the PM2.5 standard in other states, again South Dakota relies on EPA modeling methodology. EPA states,

"Thirty seven (37) States were modeled for potential inclusion in the final CAIR. Fourteen (14) of these States were not included in the CAIR because they did not contribute at least 0.2 ug/m³ to downwind nonattainment. The fourteen states not included were Arkansas, Connecticut, Delaware, Kansas, Maine, Massachusetts, Nebraska, New Hampshire, New Jersey, North Dakota, Oklahoma, Rhode Island,

South Dakota, and Vermont. (See Final CAIR Preamble at, 70 FR 25246, May 12, 2005)”

The only state bordering South Dakota that has a PM_{2.5} nonattainment area is in Libby, Montana. The Libby nonattainment area is about 570 miles west of the northwest corner of South Dakota. 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 South Dakota, which is downwind from the nonattainment area by 570 miles, contributes to the nonattainment status of Libby, Montana.

The closest PM_{2.5} nonattainment area downwind of South Dakota is the counties in Chicago, Illinois area, which is approximately 460 miles from Sioux Falls, South Dakota. It is unlikely that South Dakota, contributes to the PM_{2.5} nonattainment status of Chicago, Illinois area because of the magnitude of the population associated with the Chicago nonattainment area and the geological and topological separation of this area from South Dakota. See Appendix B for a map on PM_{2.5} non-attainment areas in the nation.

Based on the conclusions stated by the EPA in the above-cited guidance and the relative distance to PM_{2.5} nonattainment areas, the State of South Dakota agrees that emissions from South Dakota do not significantly affect PM_{2.5} nonattainment or maintenance areas in other states.

3.0 Impact on Prevention of Significant Deterioration

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. EPA recent guidance 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.”¹

¹ SIP Guidance on Section 110(a)(2)(D)(i) Findings of Failure to Submit, August 11, 2006, page 2.

South Dakota has a fully-approved PSD program, and has successfully implemented this program for many years. South Dakota's PSD rules were revised effective September 18, 2006, to conform with federal NSR Reform rules. These changes were submitted and are currently being reviewed by EPA for approval. Until they are, the previously-approved versions are federally enforceable. South Dakota's NNSR program is part of its SIP; but since there are no non-attainment areas in the state the NNSR program has not been implemented. South Dakota 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 EPA in the above-cited guidance, the State of South Dakota concludes that South Dakota's PSD SIP rule ensures that South Dakota does not interfere with PSD implementation in other states.

4.0 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:

*"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."*²

Based on the conclusions stated by the EPA in the above-cited guidance, the State of South Dakota concludes that there are no South Dakota 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 too early to assess the impact of transported pollution on visibility in federally protected areas until a regional haze SIP is submitted and approved. EPA's guidance states that:

"EPA believes that it is currently premature to determine whether or not State SIPs for 8-hour ozone or PM2.5 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

² Guidance for State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM2.5 National Ambient Air Quality Standards, EPA, August 15, 2006, page 9.

*to "protect visibility" for the 8-hour ozone and PM2.5 NAAQS until regional haze SIPs are submitted and approved."*³

~~Public Notice and Hearing~~

~~The CAA in Section 110 requires that any SIP submittal proposed to be added by the state must be public notice and discussed at a public hearing before adopting the submittal. To comply with this requirement the Interstate Transport Report was public noticed in three newspapers, Sioux Falls Argus Leader, Pierre Capital Journal, and Rapid City Journal, on the week beginning March 18, 2007. The public notice advertised the public hearing on April 19, 2007, at 10:15 am in the Matthew Environmental Education and Training Center, Joe Foss Building, Pierre, South Dakota. Appendix B contains a copy of the hearing minutes and the submittal adoption notice signed by the Board of Minerals and Environment.~~

³ Guidance for State Implementation Plan Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM2.5 National Ambient Air Quality Standards, August 15, 2006. Pages 9-10.