

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 4, 2011

James B. Martin
Regional Administrator
US EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Mr. Martin:

Governor Daugaard delegated the authority to submit the state implementation plan documents for South Dakota to the Secretary of the Department of Environment and Natural Resources (DENR). In that capacity, I am submitting the enclosed demonstration certifying South Dakota adopted the necessary rules and can show the state is meeting all the Clean Air Act requirements in sections 110(a)(1) and (2) for the revised 24-hour PM_{2.5} standard promulgated in 2006.

The enclosed document and attachments will provide further information concerning the state laws and regulations adopted by the state through the public notice and hearing process.

DENR has and will continue to provide adequate resources to implement the state implementation plan in South Dakota. Thank you for your assistance in completing this process and we look forward to your approval of the state implementation plan. If you have questions on this report, please contact Brian Gustafson at 605-773-3151 for more information.

Sincerely,

Steven M. Pirner
Secretary

Enclosure

cc: Deb Lebow, EPA Region 8

**South Dakota Air Quality Program
State Implementation Plan Demonstration
PM2.5 Standard as Revised in 2006**

1.0 Introduction

On September 25, 2009, EPA issued guidance to states for preparation of a state implementation plan that satisfy the Clean Air Act sections 110(a)(1) and (2) requirements for the 24-hour PM2.5 standard revision in 2006. The information included in this document will certify South Dakota is meeting the requirements in the Clean Air Act.

2.0 110(a)(1)

As required by section 110(a)(1) of the Clean Air Act states will review and if necessary revise their existing particulate matter state implementation plans to ensure the plan is adequate to address the 2006 24-hour PM2.5 National Ambient Air Quality Standard.

In the state rules of Article 74:36 South Dakota adopted the applicable federal regulations by reference from 40 Code of Federal Regulations in Parts 1 to 99 as published on July 1, 2009. The changes in state rules became effective on June 27, 2010 and are waiting for EPA approval. After completing a review of the rules in Article 74:36, as revised on June 27, 2010, the Department determined South Dakota's state implementation plan for particulate matter is adequate to implement the revised 24-hour PM2.5 standard set by EPA in 2006.

Attachment 1 contains a section by section discussion on how the rules in Article 74:36 are meeting the requirements of section 110(a)(1).

3.0 110(a)(2)

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

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 3.1. 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 3.2, and discussion of South Dakota's influence on visibility is found in Section 3.3.

The "good neighbor" provisions of §110(a)(2)(D)(i) require 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...”

3.1 Nonattainment and Maintenance Area Impact PM2.5 Standard

With respect to determining whether South Dakota contributes to nonattainment or maintenance of the PM2.5 standard in other states, 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)”

All the states bordering South Dakota are attaining the revised PM2.5 standard set in 2006. The closest PM2.5 nonattainment area downwind of South Dakota is the Chicago, Illinois area, which is approximately 460 miles from Sioux Falls, South Dakota. It is unlikely that South Dakota, contributes to the PM2.5 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 2 for a map showing the current PM2.5 nonattainment areas in the nation.

Based on the conclusions stated by the EPA in the above-cited guidance and the relative distance to PM2.5 nonattainment areas, the State of South Dakota believes emissions from South Dakota do not significantly affect PM2.5 nonattainment or maintenance areas in other states.

3.2 Impact on Prevention of Significant Deterioration PM2.5 Standard

In § 110(a)(2)(D)(i)(II), the Clean Air Act requires 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 the state implementation plan must address Prevention of Significant Deterioration (PSD) and New Source Review (NSR) and have adequately demonstrated they do not affect PSD implementation in other states.

South Dakota has a fully SIP approved PSD program and successfully implemented this program for many years. South Dakota's PSD rules were revised and those revisions became effective on June 28, 2010, 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 NSR program is part of the state implementation plan; but since there are no nonattainment areas in the state the NSR 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 until all the necessary tools are available in the PSD program.

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

3.3 Effects on Visibility

The final requirement of § 110(a)(2)(D)(i)(II) is 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.

EPA promulgated a revised regional haze rule on July 1, 1999. Under Title 40 of the Code for Federal Regulations, section 51.308(d)(1), states must "establish goals (expressed in deciviews) that provide for reasonable progress towards achieving natural visibility conditions" for each Class I area within a state by 2064. The proposed rules and South Dakota's state implementation plan for adopting a Regional Haze Program establish the measures South Dakota will take to achieve natural visibility conditions at our Class I areas by 2064.

On September 15, 2010 a public hearing was held in front of the Board of Minerals and Environment in Custer, SD to consider the proposed rules. The board unanimously approved the rules at the end of this hearing.

On November 17, 2010, DENR presented the proposed rules to the Legislative Interim Rules Committee in Pierre, SD. The Interim Rules Committee also approved the rules and on the same day DENR filed the new rules with the Secretary of State's office. The Regional Haze state implementation plan became effective on December 7, 2010. DENR submitted its proposed rules and state implementation plan to EPA on January 21, 2010 and is awaiting approval.

ATTACHMENT 1

SIP SUBMITTAL COMPLETENESS CRITERIA CHECKLIST

SIP Submitted by: **South Dakota Department of Environment and Natural Resources, Air Quality Program**

Date Submitted: **February 25, 2011**

Subject: **Confirmation of 110(a)(2)(A)-(M) PM2.5 2006 and all the other NAAQS Pollutant Requirements in the South Dakota SIP as regulated by the applicable sections in 40 CFR Parts 1 through 99 adopted by reference.**

South Dakota Air Pollution Control Rules can be viewed at the following website:

<http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:36>

110(a)(2)(A)-(M) Requirements Checklist

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
§110(a)(2)(A)	<i>include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this Act.</i>	The rules in ARSD Chapter 74:36:04 (Operating permits for minor sources), 74:36:05 (Operating permits for Part 70 sources), 74:36:06 (Regulated air pollutant emissions), 74:36:07 (New source performance standards), 74:36:08 (National emission standards for hazardous air pollutants), 74:36:09 (Prevention of significant deterioration), 74:36:10 (New source review), 74:36:17 (Rapid City street sanding and deicing), 74:36:18	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
		<p>(Regulations for state facilities in the Rapid City area), 74:36:20 (Construction permits for new sources and modifications) and 74:36:21 (Regional haze program) provide enforceable emission limits and other control measures, means or techniques, schedules for compliance and other related matters necessary to maintain South Dakota in attainment with the federal National Ambient Air Quality Standards. Authority used to promulgate these rules is contained in SDCL 34A-1-1, 34A-1-6, 34A-1-18, and 34A-1-19.</p>	
§110(a)(2)(B)	<p><i>provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to monitor, compile, and analyze data on ambient air quality, and upon request, make such data available to the Administrator;</i></p>	<p>The rules in ARSD 74:36:02 define the goals, national ambient air quality standards, air monitoring methods and monitoring requirements provide for establishment and operation of ambient air quality monitors, collecting and analyzing ambient air quality data and making these data available to EPA. Under these rules, DENR operates a network of air monitoring sites. Authority used to promulgate these rules is contained in SDCL 34A-1-6 and 34A-1-15.</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
§110(a)(2)(C)	<p><i>include a program to provide for the enforcement of the measures described in subparagraph (A) and regulation of the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that national ambient air quality standards are achieved, including a permit program as required in parts C and D;</i></p>	<p>SDCL 34A-1-39 through 34A-1-54 and 34A-1-62 gives DENR the authority to provide enforcement of all South Dakota SIP measures and the regulations under ARSD Chapter 74:36:09 (Prevention of significant deterioration), 74:36:10 (New source review) and 74:36:20 (Construction permits for new sources and modifications).</p>	
§110(a)(2)(D)	<p><i>contain adequate provisions—</i></p> <p><i>(i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will--</i></p> <p><i>(I) 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, or</i></p> <p><i>(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C</i></p>	<p>DENR submitted its Interstate transport demonstration to EPA on May 15, 2007. Since 2007, emission inventories show that Title V facility air pollution emissions have remained about the same. Some facilities with PM_{2.5} precursors of sulfur dioxide and nitrogen dioxide have declined and will continue to decline so impacts from South Dakota on other states have not changed or are being reduced. In addition, DENR adopted regulations and submitted its Regional Haze Program to be included as part of the SIP. This program will continue to reduce PM_{2.5} and precursors as DENR implements it</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
	<p><i>to prevent significant deterioration of air quality or to protect visibility.</i></p> <p><i>(ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);</i></p>	<p>and achieves natural visibility by 2064.</p>	
<p>§110(a)(2)(E)(i)</p>	<p><i>provide</i></p> <p><i>(i) necessary assurances that the state (or, except where the Administrator deems inappropriate, the general purpose local government or governments, or a regional agency designated by the state or general purpose local governments for such purpose) will have adequate personnel, funding, and authority under state (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of federal or state law from carrying out such implementation plan or portion thereof);</i></p>	<p>SDCL 34A-1-4, 34A-1-7 through 34A-1-10 provides DENR with adequate personnel to carry out South Dakota's SIP and related issues. SDCL 34A-1-57 through 34A-1-60, DENR's agreement with EPA for 103 and 105 grants and associated matching state funds provides DENR with the funding necessary to carry out South Dakota's SIP and related issues. SDCL 34A-1 provides DENR with the legal authority to carry out South Dakota's SIP and related issues.</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
§110(a)(2)(E)(ii)	<i>(ii) requirements that the state comply with the requirements respecting state boards under section 128, and</i>	SDCL 1-40-25 (Board of Minerals and Environment-Composition-Appointment and terms) and SDCL 1-40-25.1 (Board of Minerals and Environment composed in conformance with Clean Air Act) specifies that the board's composition must comply with the requirements of Clean Air Act subsection 128 as amended to January 1, 1995, for all permits and enforcement orders initiated under SDCL 34A-1.	
§110(a)(2)(E)(iii)	<i>(iii) necessary assurances that, where the state has relied on a local or regional government, agency, or instrumentality for the implementation of any plan provision, the state has responsibility for ensuring adequate implementation of such plan provision;</i>	The authority in SDCL 34A-1-36 (Municipal and county programs approved by board), 34A-1-37 (Municipal and county cooperation with other agencies), and 34A-1-38 (Control of air contaminant sources beyond capability of local authority) provide for the authority of the board to establish a program with a municipal or county government. In addition if the board finds that any part of the local program is beyond the reasonable capability the laws provides for the state to assume and retain jurisdiction over that contamination source.	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
§110(a)(2)(F)	<p><i>require, as may be prescribed by the Administrator—</i></p> <p><i>(i) the installation, maintenance, and replacement of equipment, and the implementation of other necessary steps by owners or operators of stationary sources to monitor emissions from such sources,</i></p> <p><i>(ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and</i></p> <p><i>(iii) correlation of such reports by the state agency with any emission limitations or standards established pursuant to this Act, which reports shall be available at reasonable times for public inspection;</i></p>	<p>The rules in ARSD Chapter 74:36:04 (Operating permits for minor sources), 74:36:05 (Operating permits for Part 70 sources), 74:36:11 (Performance testing) and 74:36:13 (Continuous emission monitoring systems) establish a system to monitor emissions from stationary sources and periodic emissions reports. Authority to promulgate these rules is contained in SDCL 34A-1-6 and SDCL 34A-1-12.</p>	
§110(a)(2)(G)	<p><i>provide for authority comparable to that in section 303 and adequate contingency plans to implement such authority;</i></p>	<p>The rules in ARSD Chapter 74:36:03 (Air quality episodes) adopts by reference the criteria in 40 CFR § 51.151 as the air quality episode plan to address activities causing imminent and substantial endangerment to public health, including contingency plan to implement the emergency episode provisions of South Dakota</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
		<p>SIP. Authority to promulgate these rules is contained in SDCL34A-1-6, 34A-1-15, and 34A-1-45.</p> <p>As of the date of this submittal, EPA has not set in rule priority classifications or a significant harm level for PM2.5. Once EPA promulgates such rules, DENR will adopt them in ARSD Chapter 74:36:03 (Air quality episodes).</p>	
§110(a)(2)(H)	<p><i>provide for revision of such plan—</i></p> <p><i>(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard, and</i></p> <p><i>(ii) except as provided in paragraph (3)(C), whenever the Administrator finds on the basis of information available to the Administrator that the plan is substantially inadequate to attain the national ambient air quality standard which it</i></p>	<p>SDCL 34A-1-6 provides DENR with the authority to revise South Dakota's SIP in response to changes to the federal National Ambient Air Quality Standards, availability of improved methods for attaining the federal standards, or in response to an EPA finding that the SIP is substantially inadequate.</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
	<i>implements, or to otherwise comply with any additional requirements established under this Act;</i>		
§110(a)(2)(I)	<i>in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D (relating to nonattainment areas);</i>	In ARSD Chapter 74:36:10 (New source review) DENR adopted by reference the New Source Review requirements in 40 CFR Part 51. The authority to promulgate rules relating to nonattainment areas are in SDCL 34A-1-6.	
§110(a)(2)(J) (§ 121 consultation)	<i>meet the applicable requirements of section 121 (relating to consultation), ...</i>	SDCL 34A-1-1 and 34A-1-10 provide DENR with the authority to consult with local governments, other states, federal government, etc.	
§110(a)(2)(J) (Section 127 public notification)	<i>meet the applicable requirements of section 127 of this title (relating to public notification)</i>	SDCL 1-40-31 and 34A-1-9 provide DENR with the authority to collect and disseminate information and provide full public inspection and disclosure of all non confidential public records related to DENR and those activities within its jurisdiction. The public is notified of any concentrations that exceed the NAAQS through DENR's Air Quality program website that contains the daily concentrations updated hourly from nine sites covering 29 parameters from continuous analyzers and	

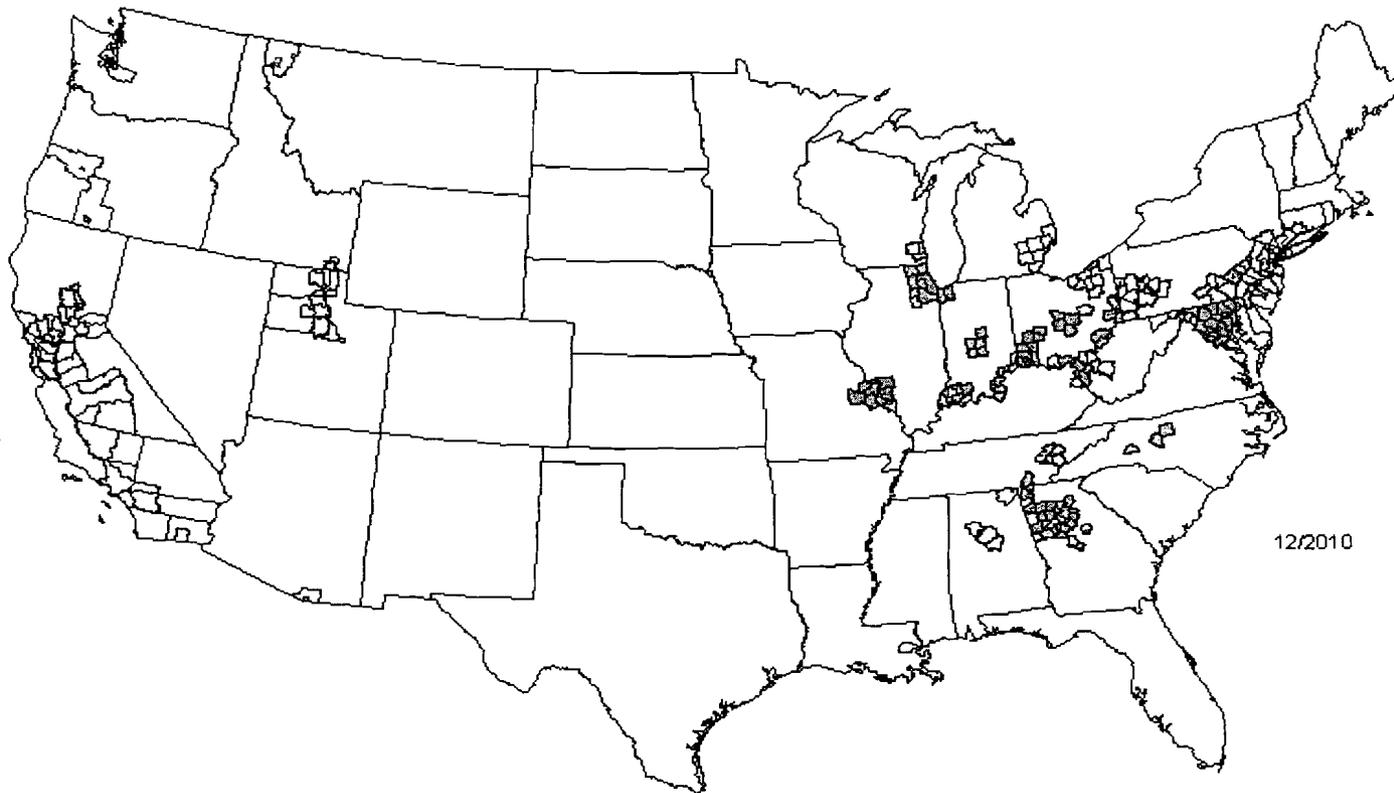
Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
		monitors located throughout the state. Three of these sites also report hourly ozone and PM _{2.5} levels to the AirNow EPA website which we have a link to on our website. Through this site the public is notified of high concentration periods and what actions to take to reduce health impacts.	
§110(a)(2)(J) (PSD)	<i>meet the applicable requirements of ... part C (relating to prevention of significant deterioration of air quality and visibility protection);</i>	The rules in ARSD Chapter 74:36:09 (Prevention of significant deterioration) adopts by reference federal regulations under 40 CFR Part 51 and 52 and provides DENR with regulations necessary to meet the applicable requirements of part C of the federal Clean Air Act related to prevention of significant deterioration and visibility protection.	
§110(a)(2)(K)	<i>provide for: (i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air</i>	The rules in ARSD Chapter 74:36:04 (Operating permit for minor sources), 74:36:05 (Operating permit for Part 70 sources), 74:36:09 (Prevention of significant deterioration), and 74:36:10 (New source review), 74:36:20 (Construction permits for new sources and modifications) provide DENR with the authority to	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
	<p><i>quality standard, and</i> <i>(ii) the submission, upon request, of data related to such air quality modeling to the Administrator;</i></p>	<p>perform air quality modeling for predicting effects on air quality of emissions from any National Ambient Air Quality Standard pollutant and submission of such data to EPA upon request. Authority to promulgate these rules is contained in SDCL34A-1-6 and 34A-1-9.</p>	
<p>§110(a)(2)(L)</p>	<p><i>require the owner or operator of each major stationary source to pay to the permitting authority, as a condition of any permit required under this Act, a fee sufficient to cover—</i> <i>(i) the reasonable costs of reviewing and acting upon any application for such a permit, and</i> <i>(ii) if the owner or operator receives a permit for such source, the reasonable costs of implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action), until such fee requirement is superseded with respect to such sources by the Administrator's</i></p>	<p>DENR has an EPA approved Title V air quality permit program that requires major stationary sources to pay permitting fees to cover the cost of reviewing, approving, implementing and enforcing the Title V air quality permit. Therefore, Section 110(a)(2)(L), is not applicable.</p>	

Section 110(a) element	Summary of element	How Addressed in State SIP	Where codified/approved by EPA
	<i>approval of a fee program under title V;</i>		
§110(a)(2)(M)	<i>provide for consultation and participation by local political subdivisions affected by the plan.</i>	SDCL 34A-1-1, 34A-1-10 provides DENR with the authority to provide for consultation and participation in South Dakota's SIP development by local political subdivision affected by the SIP. Cooperation by DENR with other agencies provides for the consultation, advise, and cooperation with other state, local, industries, other states, interstate or inter local agencies, and the federal government, and with interested persons or groups on air pollution control issues.	

Attachment 2

Counties Designated Nonattainment
for PM-2.5 (1997 Standard) and/or PM-2.5 (2006 Standard)



Designated Nonattainment

-  1997 PM-2.5
-  Both 1997 and 2006 PM-2.5
-  2006 PM-2.5

Nonattainment areas are indicated by color.
When only a portion of a county is shown in color,
it indicates that only that part of the county is within
a nonattainment area boundary.