

## **CERTIFICATION OF THE 2008 OZONE INFRASTRUCTURE STATE IMPLEMENTATION PLAN**

When EPA revises or adds a new National Ambient Air Quality Standard, section 110 of the federal Clean Air Act (42 USC § 7410) requires the state to review its current regulations and make the necessary changes to ensure the state's air pollution control program can implement, maintain, and enforce the revised or new National Ambient Air Quality Standards.

The South Dakota Department of Environment and Natural Resources (DENR) completed a review of the laws and regulations for the Air Pollution Control Program as it relates to the implementation, maintenance, and enforcement of the 2008 revised Ozone National Ambient Air Quality Standard. The review finds that all the necessary changes to the regulations have been completed and no state laws or rules will need to be changed to implement the 2008 revised Ozone standard. DENR certifies that South Dakota is implementing the 2008 revised Ozone standard and is meeting all the requirements in section 110(a)(2)(A through H and J through M) of the Clean Air Act.

All state regulation changes go through the department's public notice procedures, board approval and were adopted into state regulations. The following information describes the regulations and how DENR is implementing the 2008 revised Ozone National Ambient Air Quality Standard in South Dakota.

**State of South Dakota**  
**Infrastructure State Implementation Plan**  
**for**  
**2008 Ozone National Ambient Air Quality Standard**

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## **1.0 Introduction**

On March 12, 2008, EPA revised the ozone standard lowering the concentration level to 0.075 parts per million which triggered the submittal of an infrastructure State Implementation Plan (SIP) from each state to EPA by March 12, 2011. On September 16, 2009, EPA announced in a press release it was reconsidering the 2008 ozone standard and proposed staying the 2008 standards for the purpose of attainment and non-attainment area designations. Although the schedule for states to submit their infrastructure SIP was not addressed in the press release, a majority of states believed the requirement for submitting the infrastructure SIP was also stayed.

In a memorandum dated September 22, 2011, from Gina McCarthy to the EPA regions, EPA outlined the implementation steps moving forward for states and local air agencies concerning EPA's recent decision to retain the 2008 ozone standard. Again, EPA did not address the schedule for states to submit their infrastructure SIPs.

On April 30, 2012, EPA notified states of EPA's 2008 ozone standard designations.

On October 17, 2012, the United States District Court, Northern District of California, agreed with the plaintiffs WildEarth Guardians, Midwest Environmental Defense Center, and Sierra Club that the states listed in the filing failed to submit infrastructure SIPs for the 2008 ozone standards. The court order EPA to sign a final rule or rules issuing findings of failure to submit for each state in the petition, South Dakota included, no later than January 4, 2013. Once EPA publishes this finding, EPA has 24 months to promulgate federal implementation plans (FIP) to address the outstanding SIP elements unless the affected state submits an EPA approved SIP that corrects the deficiency.

Although South Dakota disagrees with the timeline established by the court and believes the infrastructure SIP is required within three years of EPA decision to retain the 2008 ozone standard or September 2014. South Dakota is committed to working with EPA on the deficiencies in a timely manner.

The purpose of this SIP submittal is to address the deficiencies. The information included in this document certifies that South Dakota is meeting the requirements in section 110(a)(1) and 110(a)(2) of the Clean Air Act. Attachment A provides a list of each section in the Administrative Rules of South Dakota (ARSD) Article 74:36 (Air Pollution Control Program) that is part of South Dakota's SIP, the effective date of each section, and EPA's last approval of each section.

## **2.0 Section 110(a)(1)**

### **Requirement Summary**

*“Each State shall, after reasonable notice and public hearing, adopt and submit to the Administrator, [...] a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) with such State.”*

### **South Dakota’s Infrastructure**

In accordance with South Dakota Codified Laws (SDCL) 1-26, after reasonable notice for public comment, proposed rule changes are presented to the Board of Minerals and Environment during a public hearing. The rules if approved by the Board are then submitted to the State’s Interim Rules Committee for approval. Once approved by the Committee, the rules are presented to the Secretary of State and are final. Once the rules are final, DENR submits the changes to EPA as part of the State Implementation Plan with the documentation necessary to demonstrate the changes were approved in accordance with state procedures.

Currently, DENR has submitted the following SIP changes to EPA related to the revised 2008 ozone standard:

1. June 14, 2010 – DENR submitted revisions to South Dakota’s State Implementation Plan (SIP) which includes an air quality construction permit program and revisions to the rules which adopt 40 Code of Federal Regulations in Parts 1 to 99 as published on July 1, 2009. These rule changes adopted the new federal National Ambient Air Quality Standards for ozone. DENR is waiting for EPA to approve this SIP submittal;
2. January 21, 2011 – DENR submitted South Dakota’s Regional Haze Program as part of South Dakota’s SIP. DENR submitted revisions to the program on September 19, 2011. On April 26, 2012, EPA completed a full approval of the South Dakota’s Regional Haze Program in South Dakota’s SIP; and
3. June 20, 2011 – DENR submitted revisions to South Dakota’s SIP which adopt EPA’s greenhouse tailoring rule and revisions to the construction permit program. DENR is waiting for EPA to approve this SIP submittal.

The SIP submittals that have not been approved by EPA yet are reflected in Attachment A.

## **3.0 Section 110(a)(2)**

### **3.1 Section 110(a)(2)(A) – Emission limits and other control measures**

#### **Requirement Summary**

*“Each such plan shall [...] 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 chapter;”*

## **South Dakota's Infrastructure**

South Dakota is currently attaining the previous and 2008 revised National Ambient Air Quality Standards for ozone throughout the state. Therefore, South Dakota has not been required to adopt specific rules limiting ozone forming emissions from businesses in South Dakota.

South Dakota is relying on its existing Administrative Rules of South Dakota (ARSD) for implementing and maintaining the 2008 revised National Ambient Air Quality Standards for ozone in South Dakota. The following is a list of those rules which have been approved in South Dakota's SIP or were submitted to EPA to be included in South Dakota's SIP and awaiting EPA's approval:

1. ARSD Chapter 74:36:04 (Operating permits for minor sources);
2. ARSD Chapter 74:36:06 (Regulated air pollutant emissions);
3. ARSD Chapter 74:36:09 (Prevention of significant deterioration);
4. ARSD Chapter 74:36:17 (Rapid City street sanding and deicing);
5. ARSD Chapter 74:36:18 (Regulations for state facilities in the Rapid City area);
6. ARSD Chapter 74:36:20 (Construction permits for new sources and modifications); and
7. ARSD Chapter 74:36:21 (Regional haze program).

In addition, the following rules which have been approved by EPA or delegated by EPA are also used to implement and maintain the 2008 revised National Ambient Air Quality Standards for ozone in South Dakota:

1. ARSD Chapter 74:36:05 (Operating permits for Part 70 sources);
2. ARSD Chapter 74:36:07 (New source performance standards); and
3. ARSD Chapter 74:36:08 (National emission standards for hazardous air pollutants).

South Dakota's authority to promulgate these rules is contained in South Dakota Codified Laws (SDCL) Sections 34A-1-1, 34A-1-6, 34A-1-18, 34A-1-19, and 34A-1-21.

### **3.2 Section 110(a)(2)(B) – Ambient air quality monitoring/data system**

#### **Requirement Summary**

*“Each such plan shall [...] 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;”*

#### **South Dakota's Infrastructure**

ARSD Chapter 74:36:02, which is part of South Dakota's SIP, defines 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 this 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.

The need for additional air monitoring sites to test for ozone levels are assessed each year as part of South Dakota's Annual Network Plan as required in 40 Code of Federal Regulations (CFR) section 58.10. The public is provided a 30 day period to comment on the proposed changes to South Dakota's ambient monitoring network before it is finalized and submitted to EPA for approval. The Annual Network Plan is available on DENR's website at:

<http://denr.sd.gov/des/aq/monitoring/state-mo.aspx>

The ambient data, compared to the National Ambient Air Quality Standards in South Dakota, are collected using EPA's designated federal reference method monitors as specified in 40 CFR Part 50 or federal equivalent method monitors as specified in 40 CFR Part 53. DENR submits the ambient data to EPA's Air Quality System (AQS) database as required by 40 CFR Part 58.

The ozone monitoring requirements in 40 CFR Part 58, Appendix D, Table D-2 identifies the minimum number of ozone monitors in each state for a Metropolitan statistical area (MSA) with a population equal to or greater than 50,000. South Dakota has two MSAs that meet the requirement in Table D-2 and they are Rapid City and Sioux Falls.

South Dakota is meeting the minimum monitoring requirements of two ozone monitoring site in Rapid City and Sioux Falls. In addition, South Dakota operates four more sites that collect data on ozone concentrations in the state. One site is located near the City of Brookings which is located on the eastern edge of South Dakota near the Minnesota border. The remaining three sites are in rural areas with small populations and are transport oriented sites. Two of the ozone monitors are located on the western side of South Dakota (i.e., Badlands and Wind Cave National Parks). The third site is located in the southeastern corner of South Dakota which borders Iowa and Nebraska.

### **3.3 Section 110(a)(2)(C) – Programs for enforcement, PSD, and NSR**

#### **Requirement Summary**

*“Each such plan shall [...] 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;”*

#### **South Dakota's Infrastructure**

SDCL 34A-1-39 through 34A-1-54 and 34A-1-62 gives DENR the authority to provide enforcement of all South Dakota state implementation plan measures and the regulations that require new sources or modifications to existing sources to apply for and obtain an air quality

permit before constructing. DENR reviews the application and ensures the new source or modification to an existing source will not cause an exceedance of a National Ambient Air Quality Standard before the air quality permit is issued. The air quality permit programs are identified below:

1. ARSD Chapter 74:36:09 (Prevention of significant deterioration); and
2. ARSD Chapter 74:36:20 (Construction permits for new sources and modifications).

As stated earlier, ARSD Chapter 74:36:09 already exists in South Dakota's SIP and ARSD Chapter 74:36:20 has been submitted to EPA as part of South Dakota's SIP and is waiting EPA's approval.

### **3.4 Section 110(a)(2)(D)(i) – Interstate transport provisions**

#### **Requirement Summary**

*“Each such plan shall [...] contain adequate provisions: prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will--*

*(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*

*(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility.”*

#### **South Dakota's Infrastructure**

DENR understands the issues with the court opinion on EME Homer City Generation vs. Environmental Protection Agency and on how it affects Section 110(a)(2)(D)(i) prongs 1 and 2. DENR believes the Clean Air Act still requires the state to provide any information it has addressing these elements in this certification review of the Infrastructure SIP in lieu of additional information that may affect this in the future.

As stated earlier, South Dakota is attaining the 2008 revised National Ambient Air Quality Standard for ozone and based on South Dakota's air emissions inventory, South Dakota does not contribute significantly or interfere with an implementation plan in another state. Attachment B contains further supporting information justifying this statement.

On March 6, 2009, DENR submitted the proposed designations for the 2008 revised 8-hour ozone standard. In a response letter from EPA to Governor Dennis Daugaard, dated April 30, 2012, EPA states in the third paragraph, “After reviewing the most recent certified ozone air quality data for your state and evaluating factors to assess contribution to nearby levels of ozone, I am pleased to inform you that no areas in South Dakota violate the 2008 standards or contribute to a violation of the ozone standard in a nearby area.”

South Dakota has a fully SIP approved PSD program and has successfully implemented this program for many years. After a 30 day public comment period, a public hearing on February 17, 2011, and Interim Rules Committee review on March 29, 2011, the federal Tailoring Rule provisions that were promulgated by EPA on June, 3, 2010 were incorporated in South Dakota's Prevention of Significant Deterioration program in ARSD Chapter 74:36:09. The change became effective on April 20, 2011. The Tailoring Rule changes were submitted to EPA for approval on June 20, 2011 and EPA has not yet acted on this submittal.

In addition, South Dakota has a fully SIP approved Regional Haze Program and is waiting on EPA to approve South Dakota's air quality construction permit program in the State Implementation Plan.

Otter Tail Power Company's Big Stone I power plant emits the highest emissions of nitrogen oxides, an ozone forming precursor, which is one of the ozone forming pollutants in South Dakota. In June 2012, Otter Tail Power Company commenced construction of its Air Quality Control Project. The control project consists of installing an upgraded bag house, a dry flue gas desulfurization system, and a selective catalytic reduction system and will be used to meet the best available retrofit technology requirements of the Regional Haze program. Once completed, Otter Tail Power Company will reduce its emissions of both sulfur dioxides and nitrogen oxides by approximately 16,000 tons per year per pollutant.

South Dakota concludes its PSD program in combination with its Regional Haze Program and air quality construction permit program ensures South Dakota will be able to regulate any new source or modification of air emissions to prevent it from causing a non-attainment area in another state or interfere with the maintenance of the ozone standard and visibility in South Dakota and in other state.

### **3.5 Section 110(a)(2)(D)(ii) – Interstate and international transport provisions**

#### **Requirement Summary**

*“Each such plan shall [...] insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement);”*

#### **South Dakota's Infrastructure**

South Dakota has a fully SIP approved PSD program which requires major new sources or major modification of an existing source of air pollution to provide written notification to all nearby states of the potential impacts from the source. This satisfies section 126(a) of the Clean Air Act.

No source or sources in South Dakota are the subject of an active finding under Section 126 of the Clean Air Act with respect to any air pollutant. In addition, there are no final findings under Section 115 of the Clean Air Act against South Dakota with respect to any air pollutant.

Attachment C contains a map showing all the counties not meeting the 2008 ozone standard in the nation. All of the states bordering South Dakota are attaining the 2008 ozone standard except

Wyoming. Rapid City area would be the closest area in South Dakota with major sources ozone forming emissions. The Rapid City area is about 340 miles northeast of the Wyoming non-attainment area.

### **3.6 Section 110(a)(2)(E)(i) – Adequate personnel, funding, and authority**

#### **Requirement Summary**

*“Each such plan shall [...] provide:*

- (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),”*

#### **South Dakota’s Infrastructure**

SDCL section 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 section 34A-1-57 through 34A-1-60, DENR’s agreement with EPA for 105 grants, and associated matching state funds provides DENR with the funding necessary to carry out South Dakota’s SIP and related issues. SDCL Chapter 34A-1 provides DENR with the legal authority to carry out South Dakota’s SIP and related issues.

### **3.7 Section 110(a)(2)(E)(ii) – Comply with the requirements respecting state boards**

#### **Requirement Summary**

*“Each such plan shall [...] provide:*

- (ii) requirements that the State comply with the requirements respecting State boards under section 128 of this title,”*

#### **South Dakota’s Infrastructure**

SDCL section 1-40-25 (Board of Minerals and Environment-Composition-Appointment and terms) and 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 section 128 of the Clean Air Act for all permits and enforcement orders initiated under SDCL 34A-1.

### **3.8 Section 110(a)(2)(E)(iii) – State responsibility for ensuring adequate implementation**

#### **Requirement Summary**

*“Each such plan shall [...] provide:*

*(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;*

#### **South Dakota’s Infrastructure**

The authority in SDCL section 34A-1-36 (Municipal and county programs approved by board) and 34A-1-37 (Municipal and county cooperation with other agencies) provide for the authority of the board to allow a municipal or county government to implement portions or the entire air pollution control program in its respective municipality or county. The authority in SDCL section 34A-1-38 (Control of air contaminant sources beyond capability of local authority) provides that if the board finds that any part of the local program is beyond the reasonable capability of implementing the air pollution control program, the department may assume and retain jurisdiction of the air pollution control program.

### **3.9 Section 110(a)(2)(F) – Stationary source monitoring and reporting**

#### **Requirement Summary**

*“Each such plan shall [...] require, as may be prescribed by the Administrator—*

- (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,*
- (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources, and*
- (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;”*

#### **South Dakota’s Infrastructure**

The following rules approved in South Dakota’s SIP require sources to monitor and periodically report to ensure compliance with its air quality permit:

1. ARSD section 74:36:04:15(10);
2. ARSD Chapter 74:36:09 (Prevention of significant deterioration program);
3. ARSD Chapter 74:36:11 (Performance testing);
4. ARSD Chapter 74:36:13 (Continuous emission monitoring systems); and
5. ARSD Chapter 74:36:20(10).

In addition, the following rules have been approved by EPA or delegated by EPA and identify monitoring and periodic reporting requirements for sources applicable to these standards.

1. ARSD section 74:36:05:16.01(9) – Title V air quality operating permit program;
2. ARSD Chapter 74:36:07 – New Source Performance Standards; and
3. ARSD Chapter 74:36:08 – National Emission Standards for Hazardous Air Pollutants.

### **3.10 Section 110(a)(2)(G) – Emergency episodes**

#### **Requirement Summary**

*“Each such plan shall [...] provide for authority comparable to that in section 303 of this title and adequate contingency plans to implement such authority;”*

#### **South Dakota’s Infrastructure**

SDCL section 34A-1-45 (Emergency order for immediate reduction or discontinuance of emissions) is comparable to Section 303 of the Clean Air Act and provides that *“if the Secretary of the Department of Environment and Natural Resources finds that any person is causing or contributing to air pollution and that such pollution creates an emergency by causing imminent danger to human health or safety and requires immediate action to protect human health or safety, the Secretary shall order such person or persons to reduce or discontinue immediately the emissions of air contaminants.”*

ARSD section 74:36:03:01 (Air pollution emergency episode) provides the basis for the Secretary to take action to prevent air pollutant concentrations from reaching levels which could endanger the public health or to abate such concentrations should they occur. The Secretary may proclaim an air pollution emergency episode and its extent on the criteria specified in 40 CFR § 51.151 and Appendix L to Part 51.

### **3.11 Section 110(a)(2)(H) – Future SIP Revisions**

#### **Requirement Summary**

*“Each such plan shall [...] provide for revision of such plan—*  
*(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*  
*(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 implements, or to otherwise comply with any additional requirements established under this chapter;”*

### **South Dakota's Infrastructure**

SDCL section 34A-1-6 provides the South Dakota Department of Environment and Natural Resources 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 South Dakota's SIP is substantially inadequate.

#### **3.12 Section 110(a)(2)(I) – Plans for non-attainment areas**

##### **Requirement Summary**

*“Each such plan shall [...] in the case of a plan or plan revision for an area designated as a nonattainment area, meet the applicable requirements of part D of this subchapter (relating to nonattainment areas);”*

### **South Dakota's Infrastructure**

South Dakota is in attainment for all National Ambient Air Quality Standards. Therefore, this section is not applicable.

#### **3.13 Section 110(a)(2)(J) – Consultation with government officials**

##### **Requirement Summary**

*“Each such plan shall [...] meet the applicable requirements of section 121 of this title (relating to consultation), section 127 of this title (relating to public notification), and part C of this subchapter (relating to prevention of significant deterioration of air quality and visibility protection);”*

### **South Dakota's Infrastructure**

SDCL section 34A-1-1 and 34A-1-10 provides the South Dakota Department of Environment and Natural Resources with the authority to meet the applicable requirements of section 121 of the Clean Air Act. SDCL section 34A-1-10 requires the department to advise, consult, and cooperate with agencies of the state, local governments, industries, other states, interstate or interlocal agencies, and the federal government, and with interested persons or groups.

SDCL section 1-40-31 provides full public inspection and disclosure of all nonconfidential public records relating to the Department of Environment and Natural Resources and those activities within its jurisdiction. SDCL section 34A-1-9 provides the department with the authority to collect and disseminate information to the public. The department implements this by notifying the public of any concentrations that exceed the National Ambient Air Quality Standards through the department's website that contains the daily concentrations updated hourly from 10 sites covering 33 parameters from continuous analyzers and monitors located throughout the state. The following is the department's website location:

<http://denr.sd.gov/des/aq/aarealtime.aspx>

All six of these sites report hourly ozone levels to the AirNow EPA website which we have a linked to our department database. Through both the department's website and the AirNow website the public is notified of high concentration periods and what actions to take to reduce health impacts.

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.

### **3.14 Section 110(a)(2)(K) – Air quality modeling/data**

#### **Requirement Summary**

*“Each such plan shall [...] 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 quality standard, and*
- (ii) the submission, upon request, of data related to such air quality modeling to the Administrator;”*

#### **South Dakota's Infrastructure**

ARSD Chapter 74:36:09 (Prevention of significant deterioration) and 74:36:20 (Construction permits for new sources and modifications) provide the South Dakota Department of Environment and Natural Resources with the ability to perform air quality modeling for predicting the new source or modification to an existing source impacts on the ambient air quality to ensure the National Ambient Air Quality Standard will not be exceeded.

As stated earlier, SDCL section 34A-1-1, 34A-1-10, and 1-40-31 provides the department with the authority to advise, consult, and cooperate with EPA and provide EPA with public records such as air quality modeling.

### **3.15 Section 110(a)(2)(L) – Permitting fees**

#### **Requirement Summary**

*“Each such plan shall [...] 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) the reasonable costs of reviewing and acting upon any application for such a permit, and*
- (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 approval of a fee program under title V;*

**South Dakota's Infrastructure**

DENR has an EPA approved Title V air quality operating permit program that requires major stationary sources to pay permitting fees (ARSD 74:37:01 – Air Emission Fees) to cover the cost of reviewing, approving, implementing and enforcing the Title V air quality operating permit. Therefore, Section 110(a)(2)(L), is not applicable.

**3.16 Section 110(a)(2)(M) – Consultation/participation by affected local entities**

**Requirement Summary**

*“Each such plan shall [...] provide for consultation and participation by local political subdivisions affected by the plan.*

**South Dakota's Infrastructure**

SDCL section 34A-1-1 and 34A-1-10 provide the South Dakota Department of Environment and Natural Resources with the authority to advise, consult, and cooperate with agencies of the state, local governments, industries, other states, interstate or interlocal agencies, and the federal government, and with interested persons or groups.

**Attachment A**  
**Administrative Rules of South Dakota**  
**State Implementation Plan for South Dakota**

State Citation	Title	State Effective Date	EPA's Last SIP Approval
74:36:01:01	Definitions	4/20/2011	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:01:03	Administrative permit amendment defined	4/4/1999	4/7/2003 68 FR 16726
74:36:01:04	Affected states defined	4/22/1993	10/19/1998 63 FR 55804
74:36:01:05	Applicable requirements of the CAA defined	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:01:06	Complete application defined	4/22/1993	10/19/1998 63 FR 55804
74:36:01:08	Major source defined	4/20/2011	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:01:09	Categories of sources defined	1/2/2005	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:01:10	Modification defined	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:01:11	National ambient air quality standard (NAAQS)	4/22/1993	10/19/1998 63 FR 55804
74:36:01:12	Potential to emit defined	4/22/1993	10/19/1998 63 FR 55804
74:36:01:13	Process weight rate defined	4/22/1993	10/19/1998 63 FR 55804
74:36:01:15	Regulated air pollution defined	4/20/2011	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:01:16	Responsible official defined	1/2/2005	8/14/2006 71 FR 46403
74:36:01:18	Municipal solid waste landfill defined	12/29/1996	10/19/1998 63 FR 55804
74:36:01:19	Existing municipal solid waste landfills defined	12/29/1996	10/19/1998 63 FR 55804
74:36:01:20	Physical change or change in method of operation	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:01:21	Commenced construction defined	6/28/2010	Pending <sup>1</sup>
74:36:02:01	Air quality goals	4/22/1993	10/19/1998 63 FR 55804
74:36:02:02	Ambient air quality standards	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
74:36:02:03	Methods of sampling and analysis	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:02:04	Air Quality monitoring network	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:02:05	Ambient air monitoring requirements	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:03:01	Air pollution emergency episodes	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:03:02	Episodes emergency contingency plan	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:04:01	Applicability	4/22/1993	10/19/1998 63 FR 55804
74:36:04:02	Minor source operating permit required	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:02.01	Minor source operating permit exemption	6/28/2010	Pending <sup>1</sup>
74:36:04:03	Emission unit exemptions	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:04:03.01	Minor source operating permit variance	6/28/2010	Not approved by EPA into the SIP
74:36:04:04	Standards for issuance of a minor source operating permit	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:04:05	Time period for operating permits and renewals	4/22/1993	10/19/1998 63 FR 55804
74:36:04:06	Timely and complete application for operating permit required	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:04:07	Required contents of complete application for operating permit	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:08	Applicant required to supplement or correct application	1/5/1995	10/19/1998 63 FR 55804
74:36:04:09	Permit application completeness review	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:10	Time period for department's recommendation	6/28/2010	10/19/1998 63 FR 55804
74:36:04:12	Public participation in	6/28/2010	4/7/2003

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
	permitting process		68 FR 16726 <sup>1</sup>
74:36:04:12.1	Public review of department's draft permit	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:13	Final permit decision – Notice to interested persons	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:14	Right to petition for contested case hearing	4/4/1999	4/7/2003 68 FR 16726
74:36:04:15	Contents of operating permit	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:16	Operating permit expiration	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:17	Renewal of operating permit	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:18	Operating permit revision	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:19	Administrative permit amendment	4/4/1999	4/7/2003 68 FR 16726
74:36:04:20	Procedures for administrative permit amendments	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:20.01	Minor permit amendment required	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:20.02	Requirements for minor permit amendment	1/5/1995	10/19/1998 63 FR 55804
74:36:04:20.03	Application for minor permit amendment	1/5/1995	10/19/1998 63 FR 55804
74:36:04:20.04	Department deadline to approve minor permit amendment	6/28/2010	4/7/2003 68 FR 16726 <sup>1</sup>
74:36:04:21	Permit modification	1/5/1995	10/19/1998 63 FR 55804
74:36:04:22	Source status change - - new permit required	4/4/1999	4/7/2003 68 FR 16726
74:36:04:23	Reopening operating permit for cause	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:24	Procedures to reopen operating permit	4/22/1993	10/19/1998 63 FR 55804
74:36:04:27	Operating permit terminated, modification, and revocation	6/28/2010	10/19/1998 63 FR 55804 <sup>1</sup>
74:36:04:28	Notice of operating	4/22/1993	10/19/1998

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
	noncompliance - - contents		63 FR 55804
74:36:04:29	Petition for contested case on alleged violation	4/22/1993	10/19/1998 63 FR 55804
74:36:04:31	Circumvention of emissions not allowed	4/22/1993	10/19/1998 63 FR 55804
74:36:04:32	General permits	6/28/2010	5/10/2004 69 FR 25839 <sup>1</sup>
74:36:04:33	Secretary may require an individual permit	9/1/2003	5/10/2004 69 FR 25839
74:36:06:01	Applicability	1/5/1995	10/19/1998 63 FR 55804
74:36:06:02	Allowable emissions for fuel-burning units	4/4/1999	4/7/2003 68 FR 16726
74:36:06:03	Allowable emissions for process industry units	4/4/1999	4/7/2003 68 FR 16726
74:36:06:04	Regulated Air Pollution Emissions	1/2/2005	10/11/2007 72 FR 57864
74:36:06:05	Most stringent interpretation applicable	4/22/1993	10/19/1998 63 FR 55804
74:36:06:06	Stack performance test	1/2/2005	10/11/2007 72 FR 57864
74:36:06:07	Open burning practices prohibited	4/4/1999	4/7/2003 68 FR 16726
74:36:07:08	New Source Performance Standards	6/28/2010	5/22/2000 65 FR 32033 <sup>1</sup>
74:36:07:29	Operating requirements for wire reclamation furnaces	4/22/1993	9/6/1995 60 FR 46222
74:36:07:30	Monitoring requirements for wire reclamation furnaces	4/22/1993	9/6/1995 60 FR 46222
74:36:09:01	Applicability	9/18/2006	12/21/2007 72 FR 72617
74:36:09:01.01	Prevention of significant deterioration permit required	9/18/2006	12/21/2007 72 FR 72617
74:36:09:02	Prevention of significant deterioration	6/28/2010	12/21/2007 72 FR 72617 <sup>1</sup>
74:36:09:03	Public participation	6/28/2010	12/21/2007

State Citation	Title	State Effective Date	EPA's Last SIP Approval
			72 FR 72617 <sup>1</sup>
74:36:10:01	Applicability	4/22/1993	10/19/1998 63 FR 55804
74:36:10:02	Definitions	6/28/2010	8/14/2006 72 FR 46403 <sup>1</sup>
74:36:10:03.01	New source review preconstruction permit required	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:10:05	New source review preconstruction permit	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:10:06	Causing or contributing to violation of any ambient air quality standard	9/1/2003	5/10/2004 69 FR 25839
74:36:10:07	Determine credit for emission offsets	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:10:08	Projected actual emissions	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:10:09	Clean unit test for emission units subject to lowest achievable emission rate	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:10:10	Clean unit test for emission units Comparable to lowest achievable emission rate	6/28/2010	8/14/2006 71 FR 46403 <sup>1</sup>
74:36:11:01	Stack performance testing methods	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:11:02	Secretary may require performance tests	12/29/1996	10/19/1998 63 FR 55804
74:36:11:03	Notice to department of performance test	12/29/1996	10/19/1998 63 FR 55804
74:36:11:04	Testing new fuels or raw materials	4/4/1999	2/3/2000 65 FR 5264
74:36:12:01	Restrictions on visible emissions	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:12:02	Exception to restrictions	4/22/1993	10/19/1998 63 FR 55804
74:36:12:03	Exception granted to alfalfa pelletizers or	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
	dehydrators		
74:36:13:01	Secretary may require continuous emission monitoring systems (CEMS)	4/22/1993	10/19/1998 63 FR 55804
74:36:13:02	Minimum performance specifications for all continuous emission monitoring systems	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:13:03	Reporting requirements	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:13:04	Notice to department of exceedance	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:13:05	Compliance determined by data from continuous emission monitor	4/22/1993	10/19/1998 63 FR 55804
74:36:13:06	Compliance certification	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:13:07	Credible evidence	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:13:08	Compliance assurance monitoring	6/28/2010	10/11/2007 72 FR 57864 <sup>1</sup>
74:36:17:01	Applicability	2/11/1996	6/10/2002 72 FR 57864
74:36:17:02	Reasonable available control technology	2/11/1996	6/10/2002 72 FR 57864
74:36:17:03	Street sanding specifications	2/11/1996	6/10/2002 72 FR 57864
74:36:17:04	Street deicing and maintenance plan	2/11/1996	6/10/2002 72 FR 57864
74:36:17:05	Street sanding and sweeping recordkeeping	2/11/1996	6/10/2002 72 FR 57864
74:36:17:06	Inspection authority	2/11/1996	6/10/2002 72 FR 57864
74:36:18:01	Definitions	7/1/2002	1/20/2004 72 FR 57864
74:36:18:02	Applicability	7/1/2002	1/20/2004 72 FR 57864

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
74:36:18:03	Permit required	7/1/2002	1/20/2004 72 FR 57864
74:36:18:04	Time period for permits and renewals	7/1/2002	1/20/2004 72 FR 57864
74:36:18:05	Required contents of a complete application for a permit	7/1/2002	1/20/2004 72 FR 57864
74:36:18:06	Contents of permit	7/1/2002	1/20/2004 72 FR 57864
74:36:18:07	Permit expiration	7/1/2002	1/20/2004 72 FR 57864
74:36:18:08	Renewal of permit	7/1/2002	1/20/2004 72 FR 57864
74:36:18:09	Reasonably available control technology required	7/1/2002	1/20/2004 72 FR 57864
74:36:18:10	Visible emission limit for construction and continuous operation activities	7/1/2002	1/20/2004 72 FR 57864
74:36:18:11	Exception to visible emission limit	7/1/2002	1/20/2004 72 FR 57864
74:36:18:12	Notice of operation noncompliance contents	7/1/2002	1/20/2004 72 FR 57864
74:36:20:01	Applicability	6/28/2010	Pending <sup>1</sup>
74:36:20:02	Construction permit required	6/28/2010	Pending <sup>1</sup>
74:36:20:02.01	Initiating construction prior to permit issuance	6/28/2010	Pending <sup>1</sup>
74:36:20:03	Construction permit exemption	6/28/2010	Pending <sup>1</sup>
74:36:20:04	Emission unit exemption	6/28/2010	Pending <sup>1</sup>
74:36:20:05	Standard for issuance of construction permit	6/28/2010	Pending <sup>1</sup>
74:36:20:06	Timely and complete application for a construction permit required	6/28/2010	Pending
74:36:20:07	Required contents of complete application for a construction permit	6/28/2010	Pending <sup>1</sup>

<b>State Citation</b>	<b>Title</b>	<b>State Effective Date</b>	<b>EPA's Last SIP Approval</b>
74:36:20:08	Applicant required to supplement or correct application	6/28/2010	Pending <sup>1</sup>
74:36:20:09	Permit application – Completeness review	6/28/2010	Pending <sup>1</sup>
74:36:20:10	Time period for department's recommendation	6/28/2010	Pending <sup>1</sup>
74:36:20:11	Public participation in permitting process	6/28/2010	Pending <sup>1</sup>
74:36:20:12	Public review of department's draft permit	6/28/2010	Pending <sup>1</sup>
74:36:20:13	Final permit decision – Notice to interested persons	6/28/2010	Pending <sup>1</sup>
74:36:20:14	Right to petition for contested case hearing	6/28/2010	Pending <sup>1</sup>
74:36:20:15	Contents of construction permit	6/28/2010	Pending <sup>1</sup>
74:36:20:16	Administrative permit amendment	6/28/2010	Pending <sup>1</sup>
74:36:20:17	Procedures for administrative permit amendment	6/28/2010	Pending <sup>1</sup>
74:36:20:18	Reopening construction permit for cause	6/28/2010	Pending <sup>1</sup>
74:36:20:19	Procedures for reopening construction permit	6/28/2010	Pending <sup>1</sup>
74:36:20:20	Construction permit does not exempt from other requirements	6/28/2010	Pending <sup>1</sup>
74:36:20:21	Expiration of a construction permit	6/28/2010	Pending <sup>1</sup>
74:36:20:22	Notice of constructing or operating noncompliance - - Contents	6/28/2010	Pending <sup>1</sup>
74:36:20:23	Petition for contested case or alleged violation	6/28/2010	Pending <sup>1</sup>
74:36:20:24	Circumvention of emissions not allowed	6/28/2010	Pending <sup>1</sup>

<sup>1</sup> – Waiting on EPA to approve changes since EPA's last SIP approval.

**Attachment B**  
**Section 110(a)(2)(D)(ii)**  
**Interstate and International Transport Provisions**  
**No Significant Impact to Non-attainment Areas in Other States**

**B.1 South Dakota’s Size and Population**

South Dakota’s population is the 5<sup>th</sup> smallest in the nation with a 2011 population of 824,082. The state is the 17<sup>th</sup> largest in the nation with a surface area of 77,116 square miles. The two largest cities in the state are Sioux Falls (156,592) on the southeast edge and Rapid City (69,200) on the west central edge of the state. South Dakota’s remaining population is spreadout throughout the state with a majority on the eastern half of the state.

**B.2 State Emissions Inventory**

The air pollutants that form ozone are volatile organic compounds and nitrogen oxides. There were 85 sources in South Dakota in 2011 that had a Title V air quality operating permit and reported annual air emissions. The total nitrogen oxide and volatile organic compound emissions in 2011 from these sources was 14,070 and 3,315 tons, respectively. Of the 14,070 tons of nitrogen oxide, Otter Tail Power Company’s Big Stone I coal-fired electric power plant located in the northeast corner of the state was the major emitter at 9,825 tons. There was no major emitter of volatile organic compound emissions. There were eight sources which emitted over 100 tons and ranged from 110 to 295 tons in 2011. Seven of those sources are located on the eastern edge of South Dakota while the eighth is located on the western edge of South Dakota.

Table B-1 through B-7 contains a list of the air emissions from sources considered major sources in South Dakota under the Title V air quality operating permit program that potentially could impact air quality in neighboring states.

**Table B-1. 2011 Air Emissions Inventory Potentially Impacting North Dakota**

<b>No.</b>	<b>Name</b>	<b>County</b>	<b>NOx</b>	<b>VOCs</b>	<b>Units</b>
<b>1</b>	3M Company	Brown	5	4	tons
<b>2</b>	ABE South Dakota	Brown	58	30	tons
<b>3</b>	Aberdeen Energy	Brown	81	74	tons
<b>4</b>	Associated Milk Producers	Walworth	1	0	tons
<b>5</b>	Avera St. Lukes Hospital	Brown	3	0	tons
<b>6</b>	Basin Electric - Groton	Brown	33	1	tons
<b>7</b>	Benchmark Foam	Codington	1	75	tons
<b>8</b>	Brown County Landfill	Brown	0	2	tons
<b>9</b>	Dakota Foundry	Day	0	1	tons
<b>10</b>	Glacial Lakes	Codington	94	95	tons
<b>11</b>	Magellan Pipeline Company	Codington	0	110	tons

No.	Name	County	NOx	VOCs	Units
12	Molded Fiber Glass Companies	Brown	0	49	tons
13	NorthWestern Energy	Brown	4	0	tons
14	NorthWestern Energy	Clark	1	0	tons
15	NorthWestern Energy	Faulk	1	0	tons
16	NuStar Pipe Line Operating Partnership	Brown	0	68	tons
17	Otter Tail Power Company - Big Stone I	Grant	9,825	91	tons
18	Poet Biorefining - James Valley Ethanol	Brown	50	64	tons
19	Poet Biorefining - Northern Lights Ethanol	Grant	62	54	tons
20	Red River Energy	Roberts	12	11	tons
21	TransCanada	Clark	97	2	tons
22	TransCanada	Edmunds	95	2	tons
23	Watertown Regional Landfill	Codington	0	4	tons
24	Western Minnesota Municipal Power	Codington	2	0	tons
25	Woodland Cabinetry	Roberts	0	158	tons
<b>Total</b>			<b>10,425</b>	<b>895</b>	<b>tons</b>

*Table B-2. 2011 Air Emissions Inventory Potentially Impacting Minnesota*

No.	Name	County	NOx	VOCs	Units
1	3M Company	Brookings	7	235	tons
2	Benchmark Foam	Codington	1	75	tons
3	Bergquist Company	Minnehaha	3	2	tons
4	CCL Label	Minnehaha	1	0	tons
5	Dakota Ethanol	Lake	64	56	tons
6	Dakota Foundry	Day	0	1	tons
7	Dakota Kitchen and Bath	Minnehaha	0	15	tons
8	Daktronics	Brookings	0	50	tons
9	Design Tanks	Minnehaha	0	33	tons
10	Earthgrains Baking	Minnehaha	1	27	tons
11	Glacial Lakes	Codington	94	95	tons
12	Jebro	Minnehaha	1	0	tons
13	John Morrell & Company	Minnehaha	125	3	tons
14	Madison Generation Plant	Lake	1	0	tons
15	Magellan Pipeline Company	Codington	0	110	tons
16	Magellan Pipeline Company	Minnehaha	7	93	tons
17	Midwest Railcar Repair	Minnehaha	0	20	tons
18	Norcraft Companies	Minnehaha	0	229	tons
19	Northern States Power Company	Minnehaha	16	0	tons
20	NorthWestern Energy	Clark	1	0	tons
21	NuStar Pipe Line Operating Partnership	Minnehaha	0	30	tons
22	Otter Tail Power Company - Big Stone I	Grant	9,825	91	tons
23	Poet Biorefining - Great Plains Ethanol	Turner	95	50	tons
24	Poet Biorefining - Northern Lights Ethanol	Grant	62	54	tons

No.	Name	County	NOx	VOCs	Units
25	Poet Biorefining - Sioux River Energy	Lincoln	45	50	tons
26	Red River Energy	Roberts	12	11	tons
27	Sanford USD Medical Center	Minnehaha	42	0	tons
28	ShowPlace Wood Products	Lincoln	0	167	tons
29	Sioux Falls Regional Sanitary Landfill	Minnehaha	0	26	tons
30	Sioux Falls Water Reclamation Facility	Minnehaha	56	5	tons
31	Siouxland Energy and Livestock Coop	Lincoln	0	0	tons
32	South Dakota Soybean Processors	Brookings	36	295	tons
33	South Dakota State University	Brookings	112	1	tons
34	TransCanada	Clark	97	2	tons
35	TransCanada	Deuel	97	2	tons
36	Valero Renewable Fuels	Brookings	85	49	tons
37	Watertown Regional Landfill	Codington	0	4	tons
38	Western Minnesota Municipal Power	Codington	2	0	tons
39	Woodland Cabinetry	Roberts	0	158	tons
<b>Total</b>			<b>10,888</b>	<b>2,039</b>	<b>tons</b>

*Table B-3. 2011 Air Emissions Inventory Potentially Impacting Iowa*

No.	Name	County	NOx	VOCs	Units
1	Bergquist Company	Minnehaha	3	2	tons
2	CCL Label	Minnehaha	1	0	tons
3	Dakota Kitchen and Bath	Minnehaha	0	15	tons
4	Design Tanks	Minnehaha	0	33	tons
5	Earthgrains Baking	Minnehaha	1	27	tons
6	Jebro	Minnehaha	1	0	tons
7	John Morrell & Company	Minnehaha	125	3	tons
8	Magellan Pipeline Company	Minnehaha	7	93	tons
9	Midwest Railcar Repair	Minnehaha	0	20	tons
10	Norcraft Companies	Minnehaha	0	229	tons
11	Northern States Power Company	Minnehaha	16	0	tons
12	NuStar Pipe Line Operating Partnership	Minnehaha	0	30	tons
13	Poet Biorefining - Great Plains Ethanol	Turner	95	50	tons
14	Poet Biorefining - Sioux River Energy	Lincoln	45	50	tons
15	Sanford USD Medical Center	Minnehaha	42	0	tons
16	ShowPlace Wood Products	Lincoln	0	167	tons
17	Sioux Falls Regional Sanitary Landfill	Minnehaha	0	26	tons
18	Sioux Falls Water Reclamation Facility	Minnehaha	56	5	tons
19	Siouxland Energy and Livestock Coop	Lincoln	0	0	tons
<b>Total</b>			<b>392</b>	<b>750</b>	<b>tons</b>

**Table B-4. 2011 Air Emissions Inventory Potentially Impacting Nebraska**

<b>No.</b>	<b>Name</b>	<b>County</b>	<b>NOx</b>	<b>VOCs</b>	<b>Units</b>
1	Basin Electric - Spirit Mound	Clay	7	0	tons
2	Bergquist Company	Minnehaha	3	2	tons
3	Black Hills Health Care	Fall River	5	0	tons
4	CCL Label	Minnehaha	1	0	tons
5	Dakota Kitchen and Bath	Minnehaha	0	15	tons
6	Design Tanks	Minnehaha	0	33	tons
7	Earthgrains Baking	Minnehaha	1	27	tons
8	Jebro	Minnehaha	1	0	tons
9	John Morrell & Company	Minnehaha	125	3	tons
10	Kolberg-Pioneer	Yankton	0	0	tons
11	Magellan Pipeline Company	Minnehaha	7	93	tons
12	Midwest Railcar Repair	Minnehaha	0	20	tons
13	Norcraft Companies	Minnehaha	0	229	tons
14	Northern States Power Company	Minnehaha	16	0	tons
15	NorthWestern Energy	Yankton	4	0	tons
16	NuStar Pipe Line Operating Partnership	Minnehaha	0	30	tons
17	NuStar Pipe Line Operating Partnership	Yankton	0	93	tons
18	Pacer Corporation - White Bear Mica Plant	Custer	1	0	tons
19	Poet Biorefining - Great Plains Ethanol	Turner	95	50	tons
20	Poet Biorefining - Sioux River Energy	Lincoln	45	50	tons
21	Poet Research Center	Bon Homme	18	76	tons
22	Sanford USD Medical Center	Minnehaha	42	0	tons
23	SAPA Extrusions	Yankton	18	148	tons
24	ShowPlace Wood Products	Lincoln	0	167	tons
25	Sioux Falls Regional Sanitary Landfill	Minnehaha	0	26	tons
26	Sioux Falls Water Reclamation Facility	Minnehaha	56	5	tons
27	Siouxland Energy and Livestock Coop	Lincoln	0	0	tons
28	University of South Dakota	Clay	7	0	tons
<b>Total</b>			<b>452</b>	<b>1,067</b>	<b>tons</b>

**Table B-5. 2011 Air Emissions Inventory Potentially Impacting Colorado**

<b>No.</b>	<b>Name</b>	<b>County</b>	<b>NOx</b>	<b>VOCs</b>	<b>Units</b>
1	Black Hills Health Care	Fall River	5	0	tons
2	Black Hills Power - Ben French	Pennington	785	3	tons
3	Black Hills Power - Lange	Pennington	4	1	tons
4	Countertops	Pennington	36	169	tons
5	GCC Dacotah	Pennington	900	72	tons
6	Hills Materials	Pennington	4	2	tons
7	Pacer Corporation - White Bear Mica Plant	Custer	1	0	tons
8	Pete Lien and Sons	Pennington	627	29	tons
9	Rapid City Regional Hospital	Pennington	6	0	tons

No.	Name	County	NOx	VOCs	Units
10	Rapid City Regional Landfill	Pennington	0	49	tons
11	Rocky Mountain Pipeline System	Pennington	3	21	tons
12	Rushmore Forest Products	Pennington	13	29	tons
		<b>Total</b>	<b>2,384</b>	<b>375</b>	<b>tons</b>

*Table B-6. 2011 Air Emissions Inventory Potentially Impacting Wyoming*

No.	Name	County	NOx	VOCs	Units
1	Black Hills Health Care	Fall River	5	0	tons
2	Black Hills Power - Ben French	Pennington	785	3	tons
3	Black Hills Power - Lange	Pennington	4	1	tons
4	Countertops	Pennington	36	169	tons
5	GCC Dacotah	Pennington	900	72	tons
6	Hills Materials	Pennington	4	2	tons
7	Pacer Corporation - White Bear Mica Plant	Custer	1	0	tons
8	Pete Lien and Sons	Pennington	627	29	tons
9	Rapid City Regional Hospital	Pennington	6	0	tons
10	Rapid City Regional Landfill	Pennington	0	49	tons
11	Rocky Mountain Pipeline System	Pennington	3	21	tons
12	Rushmore Forest Products	Pennington	13	29	tons
13	Spearfish Forest Products	Lawrence	39	83	tons
14	Wharf Resources	Lawrence	1	0	tons
15	Williston Basin	Butte	276	8	tons
		<b>Total</b>	<b>2,700</b>	<b>466</b>	<b>tons</b>

*Table B-7. 2011 Air Emissions Inventory Potentially Impacting Montana*

No.	Name	County	NOx	VOCs	Units
1	Black Hills Health Care	Fall River	5	0	tons
2	Black Hills Power - Ben French	Pennington	785	3	tons
3	Black Hills Power - Lange	Pennington	4	1	tons
4	Countertops	Pennington	36	169	tons
5	GCC Dacotah	Pennington	900	72	tons
6	Hills Materials	Pennington	4	2	tons
7	Pacer Corporation - White Bear Mica Plant	Custer	1	0	tons
8	Pete Lien and Sons	Pennington	627	29	tons
9	Rapid City Regional Hospital	Pennington	6	0	tons
10	Rapid City Regional Landfill	Pennington	0	49	tons
11	Rocky Mountain Pipeline System	Pennington	3	21	tons
12	Rushmore Forest Products	Pennington	13	29	tons
13	Spearfish Forest Products	Lawrence	39	83	tons
14	Wharf Resources	Lawrence	1	0	tons
15	Williston Basin	Butte	276	8	tons
		<b>Total</b>	<b>2,694</b>	<b>466</b>	<b>tons</b>

As represented in the tables, the largest emission source for nitrogen oxides is Big Stone (Otter Tail Power) in Grant County on the northeastern edge of the state. This facility as stated in Section 3.4 of this document is currently installing new control devices as required by the Regional Haze Program which is part of South Dakota's SIP. The new control devices will significantly reduce the amount of nitrogen oxide emissions by 70% per year from this facility.

Another future reduction in emissions will come from Black Hills Power and Light's Ben French facility in Rapid City which has the third highest emission level of nitrogen oxide. Black Hills Power's Ben French facility is located in the western side of the state and their current plan is to shutdown the coal fired boiler at the facility by 2014. This change will decrease emission levels down to around 20 tons of nitrogen oxide per year from the Ben French facility.

### **B.3 South Dakota Meteorology**

South Dakota's ozone season occurs from April 1 to September 30. Predominate wind direction during these months in Rapid City (see Figure B.1 and B.2) on the west side of the state blow from the northwest. The predominate wind direction for the Brookings area (see Figure B.3) on the east side of the state is from the south southeast. Major weather systems move mainly from west to east through the state.

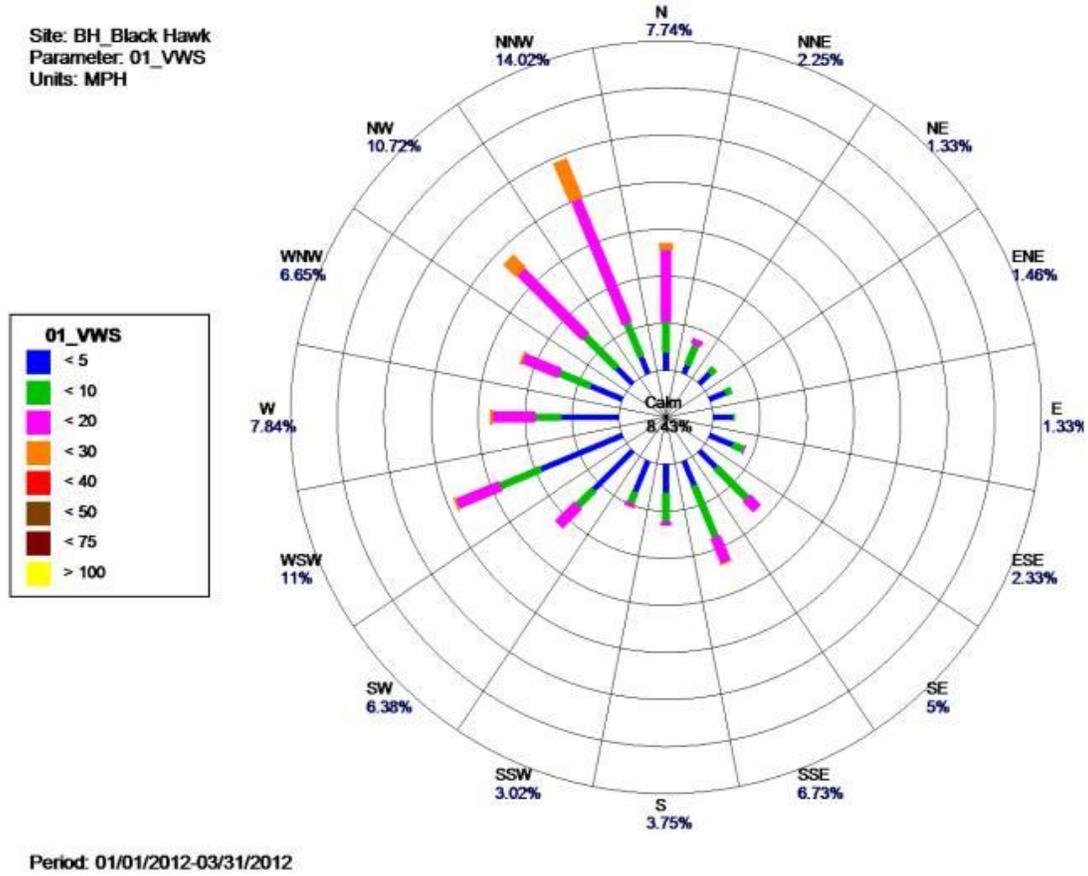
### **B.4 Non-attainment Areas in Neighboring States**

As stated earlier, South Dakota is attaining the 2008 ozone National Ambient Air Quality Standards. Only one state bordering South Dakota has a non-attainment area for ozone and it is located in Sublette County in southwestern Wyoming. See the map in Attachment C. Sublette County has the unusual event of having the highest ozone levels during the winter months of February and March. Rapid City is the closest location in South Dakota to the Wyoming non-attainment area that has major Title V permitted facilities with ozone forming emissions.

During the winter months the predominate wind direction is from the northwest in Rapid City. See Figure B.1 for a windrose of the weather data collected in Rapid City. Sublette County in Wyoming is around 340 miles southwest of Rapid City and predominate winds from the northwest would blow air pollution emissions away from the Wyoming ozone non-attainment area. Even if weather conditions blew in the direction of Sublette County, there are mountain ranges between Sublette County and Rapid City which would hinder air pollution from South Dakota impacting Sublette County's air quality.

The closest ozone non-attainment area to South Dakota is located southwest of the state in counties of northeast Colorado, east of the front range of the Rocky Mountains (beginning about 260 miles to the southwest of Rapid City). The Colorado non-attainment area has the highest ozone concentrations recorded in the summer months.

**Figure B.1. Rapid City Windrose Data Winter 2011**

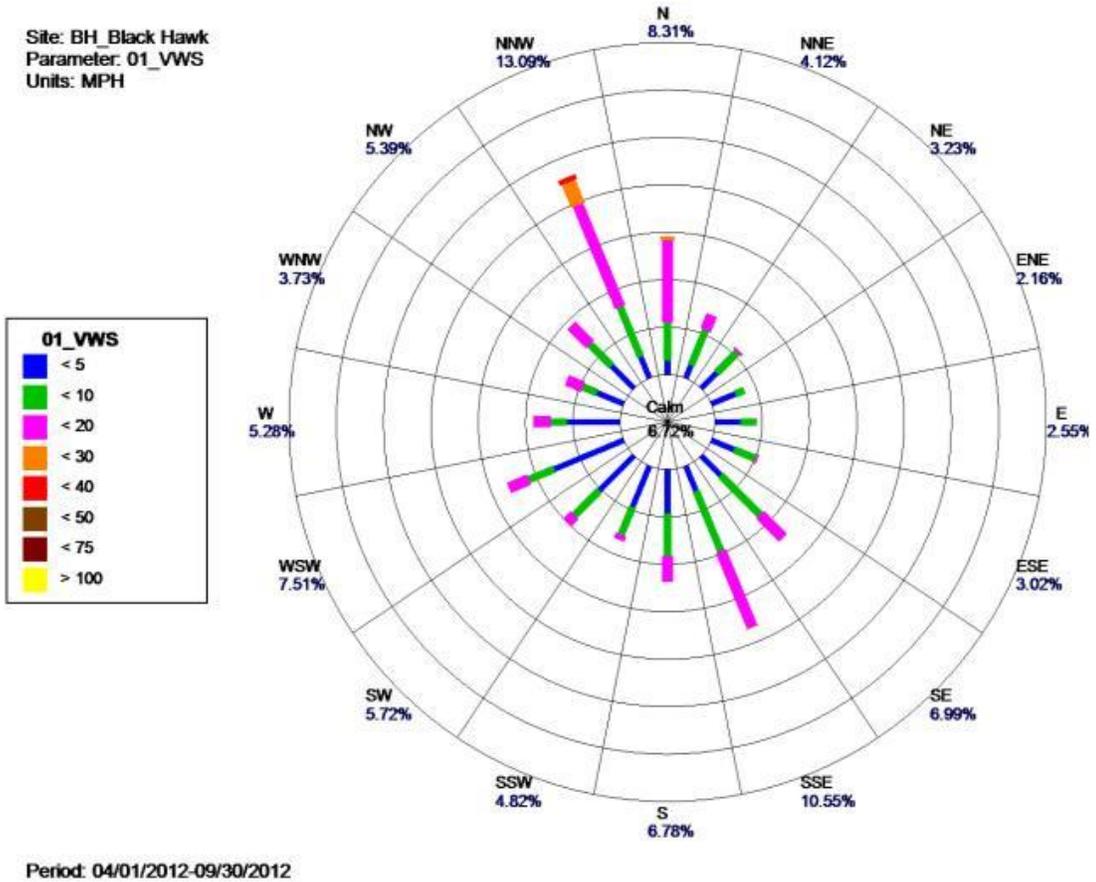


During the summer months the predominate wind direction is from the Northwest and the second highest predominate wind direction is from the southeast. Both directions would push air pollution emissions away from the Colorado ozone non-attainment area. Figure B.2 contains a windrose graph showing the Rapid City summer time wind direction for the western part of the state.

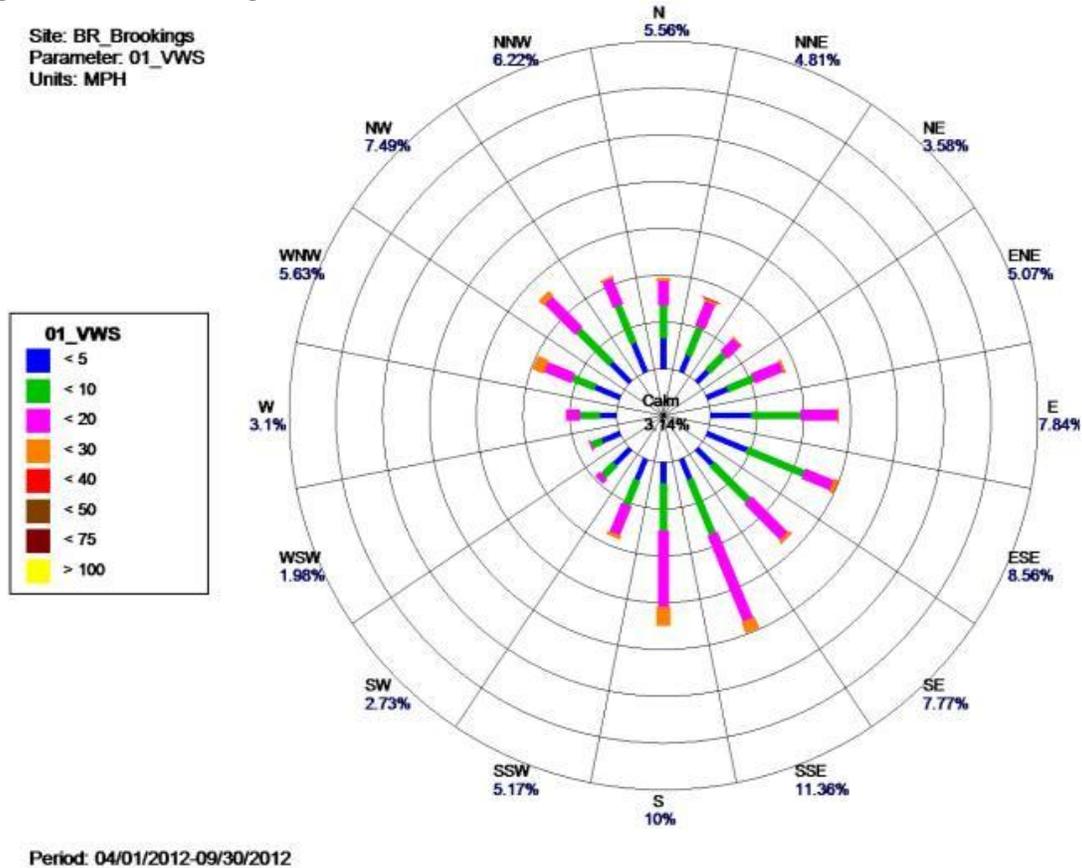
The non-attainment areas that are closest to the east side of South Dakota are Sheboygan County in eastern central Wisconsin (440 miles east of Sioux Falls) and the counties around Chicago, Illinois (480 miles southeast of Sioux Falls). Both have the highest ozone concentrations recorded in the summer months.

Predominate winds in the summer months in eastern South Dakota blow from the southeast blowing air pollution emissions away from these non-attainment areas. Figure B.3 contains a windrose graph showing the summer time wind directions and speeds for the eastern part of the state from Brookings.

Figure B.2. Rapid City Windrose Data Summer of 2011



**Figure B.3. Brookings Windrose Data Summer of 2011**



## B.5 Conclusions

The 2008 ozone National Ambient Air Quality Standards are being attained throughout South Dakota. One of the main reasons South Dakota is attaining the standard is its population and air emissions of ozone forming pollution is relatively small compared to states with ozone non-attainment problems.

South Dakota is not impacting non-attainment or maintenance areas in other states for ozone. DENR bases this statement on South Dakota’s air emission inventory, meteorological conditions, and the distance and location of non-attainment areas in other states. The closest non-attainment areas are located southwest to west of South Dakota while a majority of South Dakota’s ozone forming air pollution (i.e., nitrogen oxide and volatile organic compounds) is emitted on the eastern side of the state.

Predominate wind direction during the ozone season keeps air pollutants on both sides of the state from being blown to the ozone non-attainment areas which are hundreds of miles from South Dakota. Even if the wind blew in those directions, the distance to the non-attainment areas, along with mountain ranges in some cases, would dilute the air pollution to a point if it did reach the non-attainment area, it would have minimal impact.

The information above clearly shows South Dakota is not significantly impacting non-attainment areas in other states and as South Dakota's Regional Haze Program is implemented, impacts from South Dakota will be even less. This is confirmed by EPA in a letter to Governor Dennis Daugaard, dated April 30, 2012. In the letter, EPA states, "After reviewing the most recent certified ozone air quality data for your state and evaluating factors to assess contribution to nearby levels of ozone, I am pleased to inform you that no areas in South Dakota violate the 2008 standards or contribute to a violation of the ozone standard in a nearby area."

# Attachment C

## 8-Hour Ozone Nonattainment Areas (2008 Standard)

