

Appendix A. Historical Emission Rates and EGU Capacity Factors

BART-Eligible EGU Facility	BART Eligible Unit ID	SO ₂ Emission Rate (lb/mmBtu)						NO _x Emission Rate (lb/mmBtu)						Capacity Factor					
		2002	2009	2010	2011	2012	2013	2002	2009	2010	2011	2012	2013	2002	2009	2010	2011	2012	2013
Asheville	1	1.28	0.13	0.13	0.21	0.15	0.09	0.45	0.05	0.07	0.08	0.10	0.12	70%	69%	73%	54%	51%	34%
	2	1.33	0.12	0.20	0.28	0.22	0.13	0.34	0.06	0.10	0.15	0.10	0.11	75%	59%	69%	49%	57%	44%
Belews Creek	1	1.36	0.06	0.06	0.05	0.06	0.09	0.52	0.05	0.05	0.06	0.08	0.09	91%	72%	86%	82%	77%	58%
	2	1.33	0.06	0.05	0.04	0.06	0.08	0.63	0.05	0.06	0.06	0.08	0.09	78%	75%	65%	83%	63%	68%
Cliffside	5	1.60	1.45	0.99	0.02	0.05	0.07	0.24	0.07	0.07	0.06	0.07	0.11	50%	66%	51%	53%	23%	28%
Marshall	1	1.32	0.09	0.06	0.08	0.11	0.10	0.43	0.21	0.20	0.21	0.22	0.24	71%	52%	58%	43%	32%	40%
	2	1.32	0.09	0.07	0.07	0.10	0.10	0.29	0.21	0.20	0.20	0.21	0.23	76%	47%	53%	56%	41%	45%
	3	1.32	0.07	0.06	0.07	0.08	0.09	0.30	0.06	0.05	0.04	0.12	0.14	80%	81%	74%	69%	57%	32%
	4	1.31	0.07	0.06	0.07	0.10	0.14	0.25	0.21	0.21	0.23	0.30	0.37	84%	78%	83%	71%	67%	64%
Roxboro	1	1.37	0.12	0.16	0.19	0.21	0.29	0.34	0.09	0.09	0.14	0.16	0.19	53%	77%	82%	54%	62%	45%
	2	1.44	0.15	0.16	0.16	0.21	0.26	0.28	0.06	0.07	0.08	0.18	0.20	73%	73%	67%	44%	71%	66%
	3	1.44	0.12	0.17	0.15	0.18	0.23	0.43	0.14	0.11	0.14	0.21	0.22	67%	62%	80%	59%	60%	39%

Note: Sutton (Unit 3) is excluded from the list because it was retired in 2013.

Appendix B. Consultation with Federal Land Managers



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

June 11, 2014

Ms. Susan Johnson (*via email*)
Policy, Planning, and Permit Review Branch
National Park Service
PO Box 25287
Denver, CO 80225
susan_johnson@nps.gov

Subject: North Carolina Regional Haze State Implementation Plan Revision

Dear Ms. Johnson:

On June 7, 2012, the United States Environmental Protection Agency (EPA) finalized a limited disapproval of North Carolina's regional haze State Implementation Plan (SIP). This was due to North Carolina's reliance on the Clean Air Interstate Rule (CAIR) being equal to or better than Best Available Retrofit Technology (BART) and concerns about a long-term strategy sufficient to achieve the reasonable progress goals. This letter represents a SIP revision based upon the requirements using EPA's Alternative BART Guidelines that the subject sources in North Carolina meet BART in terms of emissions controls for sulfur dioxide (SO₂) and nitrogen oxide (NO_x) as well as federal enforceability provisions with suitable emission limits.

Enclosed is the North Carolina Division of Air Quality's Alternative to Source Specific BART Demonstration for the six affected coal-fired electrical generating unit (EGU) facilities identified in our previous related submittals. These six EGU facilities are: Asheville Units 1-2, Belews Creek Units 1-2, Cliffside Unit 5, Marshall Units 1-4, Roxboro Units 1-3, and Sutton Unit 3. The first five facilities are equipped with the most stringent emission controls in response to the North Carolina Clean Smokestack Act (CSA) legislation and statewide emission limits for SO₂ and NO_x. The sixth facility retired its coal-fired boilers in December 2013.

Better-than-source-specific-BART emission reductions for SO₂ and NO_x that are permanent and federal enforceable are the essence of North Carolina's alternative BART demonstration. Further explanation on the details and rationale supporting this alternative BART demonstration is provided and illustrated in the enclosed SIP revision. While our EGU facilities have and are expected to meet statewide CAIR and CAIR's replacement (Cross State Air Pollution Rule) emissions budgets and the upcoming EGU Maximum Achievable Control Technology (MACT) emission standards, we are reluctant to rely solely on CSAPR due to uncertainty regarding EPA's next steps following the Supreme Court's decision to reinstate CSAPR.

Ms. Susan Johnson
June 11, 2014
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This pre-draft version of the Alternative BART Demonstration is forwarded to EPA and the Federal Land Managers for review. We look forward to your review and comments before August 12, 2014.

If you have any questions or comments regarding this SIP revision, please contact me or Sushma Masemore of my staff at 919-707-8700 or at sushma.masemore@ncdenr.gov.

Sincerely,



Sheila Holman, Director
Division of Air Quality, NCDENR

SCH/ss

Attachment

cc: Michael Abraczinskas, NCDAQ
Sushma Masemore, NCDAQ

Patricia Brewer, NPS (with enclosures)
patricia_f_brewer@nps.gov



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

June 11, 2014

Ms. Sandra V. Silva (*via email*)
U.S. Fish and Wildlife Service
7333 W. Jefferson Avenue, Ste. 375
Lakewood, CO 80235-2017
sandra_v_silva@fws.gov

Subject: North Carolina Regional Haze State Implementation Plan Revision

Dear Ms. Silva:

On June 7, 2012, the United States Environmental Protection Agency (EPA) finalized a limited disapproval of North Carolina's regional haze State Implementation Plan (SIP). This was due to North Carolina's reliance on the Clean Air Interstate Rule (CAIR) being equal to or better than Best Available Retrofit Technology (BART) and concerns about a long-term strategy sufficient to achieve the reasonable progress goals. This letter represents a SIP revision based upon the requirements using EPA's Alternative BART Guidelines that the subject sources in North Carolina meet BART in terms of emissions controls for sulfur dioxide (SO₂) and nitrogen oxide (NO_x) as well as federal enforceability provisions with suitable emission limits.

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1641 Mail Service Center, Raleigh, North Carolina 27699-1641
Phone: 919-707-8400 \ Internet: www.ncdenr.gov

Ms. Sandra Silva

June 11, 2014

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Sincerely,



Sheila Holman, Director
Division of Air Quality, NCDENR

SCH/ss

Attachment

cc: Michael Abraczinskas, NCDAQ
Sushma Masemore, NCDAQ

Tim Allen (with enclosures)
U.S. Fish and Wildlife
tim_allen@fws.gov



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

June 11, 2014

Mr. Chuck Sams (*via email*)
U.S. Forest Service
1730 Peachtree Rd NW
Atlanta, GA 30309
csams@fs.fed.us

Subject: North Carolina Regional Haze State Implementation Plan Revision

Dear Mr. Sams:

On June 7, 2012, the United States Environmental Protection Agency (EPA) finalized a limited disapproval of North Carolina's regional haze State Implementation Plan (SIP). This was due to North Carolina's reliance on the Clean Air Interstate Rule (CAIR) being equal to or better than Best Available Retrofit Technology (BART) and concerns about a long-term strategy sufficient to achieve the reasonable progress goals. This letter represents a SIP revision based upon the requirements using EPA's Alternative BART Guidelines that the subject sources in North Carolina meet BART in terms of emissions controls for sulfur dioxide (SO₂) and nitrogen oxide (NO_x) as well as federal enforceability provisions with suitable emission limits.

Enclosed is the North Carolina Division of Air Quality's Alternative to Source Specific BART Demonstration for the six affected coal-fired electrical generating unit (EGU) facilities identified in our previous related submittals. These six EGU facilities are: Asheville Units 1-2, Belews Creek Units 1-2, Cliffside Unit 5, Marshall Units 1-4, Roxboro Units 1-3, and Sutton Unit 3. The first five facilities are equipped with the most stringent emission controls in response to the North Carolina Clean Smokestack Act (CSA) legislation and statewide emission limits for SO₂ and NO_x. The sixth facility retired its coal-fired boilers in December 2013.

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1641 Mail Service Center, Raleigh, North Carolina 27699-1641
Phone: 919-707-8400 \ Internet: www.ncdenr.gov

Chuck Sams
June 11, 2014
Page 2

This pre-draft version of the Alternative BART Demonstration is forwarded to EPA and the Federal Land Managers for review. We look forward to your review and comments before August 12, 2014.

If you have any questions or comments regarding this SIP revision, please contact me or Sushma Masemore of my staff at 919-707-8700 or at sushma.masemore@ncdenr.gov.

Sincerely,



Sheila Holman, Director
Division of Air Quality, NCDENR

SCH/ss

Attachment

c: Michael Abraczinskas, NCDAQ
Sushma Masemore, NCDAQ

Bret Anderson (with enclosures)
USFS, Denver
baanderson02@fs.fed.us

Betty Mathews (with enclosures)
USFS, Georgia
bamathews@fs.fed.us

Anthony Matthews (with enclosures)
USFS, Florida
jmatthews@fs.fed.us



United States Department of the Interior

NATIONAL PARK SERVICE

Air Resources Division

P.O. Box 25287

Denver, CO 80225-0287

TRANSMITTED VIA ELECTRONIC MAIL - NO HARDCOPY TO FOLLOW

N3615 (2350)

August 5, 2014

Sushma Masemore
Planning Chief
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

Dear Ms. Masemore:

Thank you for the opportunity to review and comment on North Carolina Division of Air Quality's draft Revision to the Regional Haze State Implementation Plan (SIP). In the original SIP submitted in December 2007, North Carolina relied on EPA's finding that for sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions from electric generating units (EGU), complying with the Clean Air Interstate Rule was a better alternative than implementing Best Available Retrofit Technology (BART) for individual EGU that are subject to BART requirements. In June 2012, EPA partially disapproved North Carolina's SIP with respect to relying on CAIR and in its place, approved reliance on the Cross State Air Pollution Rule as a better alternative to single source BART. In this SIP revision, North Carolina is demonstrating that compliance with the Clean Smokestack Act that was enacted by the North Carolina legislature in 2002 is a better alternative than single source BART in North Carolina. Following EPA guidance, North Carolina reports that presumptive BART limits for SO₂ and NO_x for the six EGU facilities that are subject to BART would reduce state-wide SO₂ and NO_x emissions by 274,668 and 19,364 tons per year (t/y), respectively. The Clean Smokestack Act required the 14 coal fired EGU facilities in North Carolina to reduce SO₂ emissions by 337,330 t/y by 2013 (72%) and NO_x emissions by 86,963 t/y by 2009 (39%). We agree with that North Carolina has demonstrated that the emissions limits under the Clean Smokestack Act are better than presumptive BART for SO₂ and NO_x for EGU in North Carolina.

Actual emissions reductions between 2002 and 2013 are 425,250 tons per year for SO₂ (91%) and 102,552 t/y for NO_x (72%). Actual SO₂ emissions in 2013 are well below the VISTAS assumptions for 2018 that were used to set reasonable progress goals for visibility in Class I areas in the Southeast. Actual NO_x emissions in 2013 are comparable to 2018 assumptions.

IMPROVE monitoring data indicate that visibility in Class I areas is improving and emissions data indicate that North Carolina is on track to meet the 2018 reasonable progress goals set in the original SIP.

We appreciate the opportunity to work closely with North Carolina to improve visibility in our national parks and wilderness areas. If you have questions, please contact me at (303) 969-2153 or patricia_f_brewer@nps.gov.

Sincerely,

A handwritten signature in cursive script that reads "Pat Brewer".

Pat Brewer
Environmental Protection Specialist

cc:

Michelle Notariani
Environmental Protection Agency Region IV
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

Appendix C. Public Notice Announcement and Comments

**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
PUBLIC NOTICE**

PURPOSE: The North Carolina Department of Environment and Natural Resources, Division of Air Quality (DAQ), hereby gives notice regarding its Pre-hearing Draft of the Regional Haze State Implementation Plan (SIP) Revision for North Carolina Class I Areas - Alternative to Source Specific Best Available Retrofit Technology Demonstration (BART) for Electric Generating Facilities in North Carolina. Class I areas represent certain national parks, wilderness areas, national memorial parks and international parks whose visibility has been impaired due to pollution from sources and activities that emit fine particulate matter and their precursors. In this SIP revision, the DAQ has demonstrated that the North Carolina's Clean Smokestack Act meets Alternative BART requirements and achieves greater emissions reductions of sulfur dioxide and nitrogen oxides than BART-alone. Persons wishing to submit comments or request a public hearing are invited to do so.

COMMENT PROCEDURES: Any person wishing to comment may submit a written statement for inclusion in the record of proceedings regarding the Pre-hearing Draft of the Regional Haze SIP Revision – Alternative BART Demonstration. Written comments should be received by no later than September 20, 2014.

REQUESTS FOR A PUBLIC HEARING: Requests for a public hearing must be in writing and include a statement supporting the need for such a hearing, an indication of your interest in the subject, and a brief summary of the information intended to be offered at such hearing. A public hearing will be scheduled if requested. A separate notice will be announced for the hearing including the date, time and location. Written requests for a public hearing should be received no later than September 20, 2014 and addressed to Sushma Masemore, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.

INFORMATION: Copies of the Pre-hearing Draft of the Regional Haze SIP Revision – Alternative BART Demonstration may be downloaded from the DAQ website at http://www.ncair.org/planning/nc_sip.shtml.

Comments can be submitted electronically to:
daq.publiccomments@ncdenr.gov
(Please type "Regional Haze Alternative BART" in the subject line)

Comments can be mailed or faxed to:
Sushma Masemore
NC Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641
Fax: (919) 707-8700

The Pre-hearing Draft of the Regional Haze SIP Revision – Alternative BART Demonstration may be reviewed in person during normal business hours at the following North Carolina Department of Environment and Natural Resources, Division of Air Quality offices:

Raleigh Central Office, Planning Section	(919) 707-8403
Asheville Regional Office	(828) 296-4500
Wilmington Regional Office	(910) 796-7215

Date: 8/19/14



Sheila C. Holman, Director



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

September 17, 2014

Ms. Sheila C. Holman, Director
Division of Air Quality
North Carolina Department of
Environment and Natural Resources
1641 Mail Service Center
Raleigh, North Carolina 27699-1641

Dear Ms. Holman:

Thank you for your letter dated August 19, 2014, transmitting a prehearing package regarding North Carolina's State Implementation Plan (SIP) submittal providing an alternative to certain source-specific best available retrofit technology (BART) demonstration under the regional haze program. We understand that this submittal is the subject of a public hearing, if requested, with written comments due by the close of business on September 20, 2014. We have completed our review of the prehearing submittal and offer the following comments in the enclosure.

We look forward to continuing to work with you and your staff. If you have any questions, please contact Ms. Lynorae Benjamin, Chief, Regulatory Development Section at (404) 562-9040, or have your staff contact Nacosta C. Ward at (404) 562-9140.

Sincerely,

A handwritten signature in black ink that reads "R. Scott Davis".

R. Scott Davis
Chief
Air Planning Branch

Enclosure

**Enclosure - Comments on North Carolina Regional Haze Alternative to
Source-Specific Best Available Retrofit Technology**

General Comments:

- 1. 40 CFR 51.308(g)(3):** Please clarify that the information in Section 2.4(D) is intended to support a weight of evidence demonstration pursuant to 40 CFR 51.308(e)(2)(i)(E) that the Clean Smoke Stacks Act achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources.

- 2. Selective Non-Catalytic Reduction (SNCR):** Please either modify or remove statements made throughout the document that characterize SNCR as one of the “most stringent” controls available for nitrogen oxides under the Regional Haze Rule.