

Consultation Process

1. Introduction

The Southeast Regional Planning Organization, Visibility Improvement State and Tribal Association of the Southeast (VISTAS), is comprised of the ten Southeast States (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia) and the local programs and tribal agencies located within these states. The VISTAS states have jointly developed technical analyses to define visibility improvement by 2018 under existing federal and state regulations compared to the uniform rate of progress. The VISTAS states looked at sulfur dioxide (SO2) Areas of Influence for each Class I area, and methods to prioritize contributions from individual sources within the Areas of Influence. The states collectively accepted the conclusions of these analyses.

In December 2006, the VISTAS State Air Directors held their first formal consultation meeting to review the latest modeling results and the SO2 Areas of Influence analyses. The Air Directors agreed to look at reasonable control measures for sources on the lists for the SO2 Areas of Influence. Each state would consider sources within their state and would identify sources in neighboring states that they would like to have that neighboring state consider. States acknowledged that the review process would differ among states since some Class I areas are projected to see visibility improvements near the uniform rate of progress.

In May 2007, the VISTAS State Air Directors met for their second formal interstate consultation. States shared their lists of sources in their state and neighboring states for each Class I area. They also shared their criteria for listing sources and their plans for further interstate consultation.

The Georgia Environmental Protection Division (GAEPD) has evaluated the impact of Georgia sources on Class I areas in neighboring states and determined that there are no additional reasonable control measures that should be implemented to mitigate impacts in Class I areas in neighboring states. The GAEPD has consulted with the responsible states regarding its evaluation showing no cost-effective controls available for those units contributing at least 0.5 percent to visibility impairment at Class I areas. Analyses of impacts from Georgia sources and potential controls are discussed in greater detail in Appendix H. Consultation letters may be found attached to this Appendix. Neighboring states are still in the process of evaluating BART and reasonable progress.

The Mid-Atlantic/Northeast Visibility Union (MANE-VU) states of Maine, New Jersey, New Hampshire, and Vermont sent letters to Georgia in the spring of 2007 stating that based on 2002 emissions, Georgia contributed to visibility impairment to Class I areas in those states. The MANE-VU states have asked the GAEPD to participate in further consultation with these states during the summer of 2007. GAEPD participated in telephone consultations with the MANE-VU states. Explaining that based on VISTAS SO2 emissions sensitivity modeling for 2009 and VISTAS SO2 Area of Influence (AOI) work for 2018 Georgia does not reasonably contribute to visibility impairment of MANE-VU Class I areas. Further more MANE-VU states were also notified that GAEPD is currently in the process of requiring 95% SO2 controls to be installed on the seven largest coal fired power plants in Georgia and not all of these controls were accounted for in the SO2 emissions sensitivity modeling or SO2 AOI work.

The letters from these states, and responses from GAEPD, are included as attachments to this Appendix.

2 Consultation Letters

Below is a list of consultation letters

Letter: 04/09/2007, Heather Abrams, Consultation letter to state of Florida regarding four factor analysis for regional haze
Letter: 05/04/2007, Joseph Kahn, FlDEP's response to state of Georgia
Letter: 04/09/2007, Heather Abrams, Consultation letter to state of North Carolina regarding four factor analysis for regional haze
Letter: 05/04/2007, Keith Overcash, NCDAQ's response to state of Georgia15
Letter: 08/2/2007, Keith Overcash, NCDAQ's letter for continuance consultation regarding four factor analysis for regional haze
Letter: 08/14/2007, Heather Abrams, GAEPD's response to state of North Carolina23
Letter: 04/09/2007, Heather Abrams, Consultation letter to state of Tennessee regarding four factor analysis for regional haze
Letter: 02/20/2008, Barry Stephens, State of Tennessee's response to state of Georgia30
Letter: 04/09/2007, Heather Abrams, Consultation letter to state of South Carolina regarding four factor analysis for regional haze
Letter: 04/09/2007, Heather Abrams, Consultation letter to state of Alabama regarding four factor analysis for regional haze
Letter: 02/23/2007, Justin Johnson, State of Vermont letter requesting consultation regarding impacts Georgia has on Lye Brook Wilderness Area
Letter: 04/05/2007, Carol Couch, GAEPD's response to State of Vermont50

Letter: 02/26/2007, David P Little, State of Maine letter inviting participation in development of Maine's Regional Haze Program	.51
Letter: 03/26/2007, Carol Couch, GAEPD's response to State of Maine's 2-26-2007 request	.54
Letter: 07/10/2007, Anna Garcia, Letter on behalf of MANE-VU states inviting participation in state-state consultation process	.56

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner Carol A. Couch, Ph.D., Director

April 9, 2007

Mr. Joe Kahn FL - Dept of Env Protection Div of Air Resource Management 2600 Blair Stone Rd Tallahassee FL 32399-2400

Re: Four Factor Analysis for Regional Haze

Dear Mr. Kahn:

Under the Environmental Protection Agency's Regional Haze Rule (citation), the Georgia Environmental Protection must submit to EPA a State Implementation Plan (SIP) that establishes reasonable progress towards achieving natural visibility conditions. In order to achieve this uniform rate of progress, EPD must establish reasonable progress goals through emissions reductions defined in the state's SIP submittal.

Section 169A(g)(1) of the CAA and Section 51.308(d)(1)(i)(A) of the Regional Haze Rule deems that States must consider four "statutory factors" in consultation with other affected States, Federal Land Managers, and all stakeholders, in determining their reasonable progress goals.

These following four statutory factors are:

- a) The costs of compliance,
- b) The time necessary for compliance,
- c) The energy and non air quality environmental impacts of compliance, and
- d) The remaining useful life of existing sources that contribute to visibility impairment.

An analysis of wind trajectory residence times, 2018 SO2 emission projections, and distance from nearby Class I areas allowed EPD to identify sources likely to contribute more than 0.5% to the total visibility impairment caused by sulfate at nearby Class I areas in 2018. Based on this analysis, a number of facilities in Georgia and neighboring states have been identified by EPD as sources which significantly impact one or more Class I areas in Georgia. Since Cohutta Wilderness and other nearby Class I areas are clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, only non-EGUs impacting these Class I area were included on the list. Since the Class I areas in Southern Georgia and Northern Florida (e.g, Okefenokee, Wolf Island, St. Marks) are not clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, both EGUs and non-EGUs impacting these Class I area were included on the list. Joe Kahn April 9, 2007 Page three

- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 1
- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 2
- RAYONIER PERFORMANCE FIBERS LLC UNIT 6
- SAINT JOHNS RIVER UNIT 16
- SAINT JOHNS RIVER UNIT 17
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 1
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 2
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 66
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 67

The sources in South Carolina that are contained in this list include:

- GIANT CEMENT CO UNIT 005
- HOLCIM:HOLLY HILL UNIT 002
- MEADWESTVACO CORPORATION INC UNIT 006
- SANTEE COOPER CROSS UNIT 002
- SANTEE COOPER CROSS UNIT 3
- SANTEE COOPER JEFFERIES UNIT 003
- SANTEE COOPER JEFFERIES UNIT 004
- SCE&G:CANADYS UNIT 001
- SCE&G:CANADYS UNIT 002

The sources in Tennessee (non-EGU only) that are contained in this list include:

- A.E. STALEY MANUFACTURING COMPANY UNIT 005
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 16
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 17
- BOWATER NEWSPRINT & DIRECTORY CALHOUN UNIT 015
- E. I. DU PONT DE NEMOURS AND COMPANY UNIT 0002
- EASTMAN CHEMICAL COMPANY UNIT 021520
- INTERTRADE HOLDINGS, INC. UNIT 001
- U.S. DEPARTMENT OF ENERGY, Y-12 PLANT UNIT 002

The Georgia facilities on this list have been sent letters requesting that they perform a Four Factor Analysis and submit their report to us by May 31, 2007. We would like for you to consider adding your state's facilities listed above to your state's final "Four Factor Analysis" list of facilities. In addition, we would very much appreciate a copy of your final "Four Factor Analysis" list of facilities when it is ready.



Florida Department of **Environmental Protection**

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

May 4, 2007

Ms. Heather Abrams Chief, Air Protection Branch Georgia Department of Natural Resources 4244 International Parkway, Suite 120 Atlanta, Georgia 30354

Re: Four-Factor Analysis for Regional Haze

Dear Ms. Abrams:

Thank you for your April 9, 2007, letter explaining Georgia's approach to meeting the regional haze reasonable progress requirements. Florida is also developing a plan to address these requirements. Our approach will be a little different from that of Georgia's in that we intend to develop a state rule that would require certain sources to complete a four-factor analysis and to submit that analysis to us in the form of a permit application. This is similar to the process Florida followed for the Best Available Retrofit Technology (BART) requirements. The selected sources would be required to address the four statutory factors in determining any reasonable reductions of sulfur dioxide (SO₂) that could be made. Like Georgia, the criteria for which sources will be selected will have as its basis the VISTAS area of influence analysis. However, we intend to simplify it for the purpose of rulemaking.

Our working model for this simplification is to select all sources with SO₂ emissions greater than or equal to 250 tons per year that are within 300 km of any Class I area. We have chosen to use the 2002 emissions as the basis for the selection because the 2018 IPM emissions projections assume that all oil-fired electric generating units will become gas-only units - an assumption we believe may not be accurate. Thus, in order to assure that these sources meet our selection criteria, and go through the four-factor analysis, the earlier year is being used. Our rationale for this selection criteria is that the expected visibility improvement by 2018 may not be sufficient to meet the uniform rate of progress in some of the Florida-impacted Class I areas.

Table 1, enclosed, is a list of sources in both Florida and Georgia that would fall within the Florida selection criteria. Highlighted (yellow shading) are those sources that are also on the Georgia EPD list. The un-shaded Georgia sources are those that would be selected using the Florida criteria, but not with the Georgia criteria. Table 2 is a list of the sources that are selected using the Georgia criteria, but not with the Florida criteria.

You ask in your letter that Florida consider completing a four-factor analysis for the Florida sources selected using the Georgia criteria. As proposed at this time, the Florida criteria would include 15 of the 18 Florida units from the Georgia list. The other three units are below

Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary Heather Abrams May 4, 2007 Page 2 of 5

our proposed selection criteria of 250 tons per year SO_2 , and our preliminary judgment is that we would not require these sources to complete a four-factor analysis. Similarly, there are a number of Georgia sources that have been selected using the Florida criteria that are not selected using the Georgia criteria. We also ask that you consider the inclusion of these sources in your four-factor analysis.

Just to be clear, the tables listed with this letter do not represent our final four-factor analysis list. We will be proceeding with rulemaking to fully develop the criteria to be used to select these sources. As such, changes could occur. We will provide you a final list after the rule has been approved. If you have any questions or would like additional information, please contact Tom Rogers at (850) 921-9554 or via e-mail at Tom.Rogers@dep.state.fl.us.

Sincerely,

Joseph Kahn, Director Division of Air Resource Management

cc: Larry George, FL DEP Tom Rogers, FL DEP Jimmy Johnston, GA EPD James Kelly, GA EPD James Boylan, GA EPD Elisabeth Munsey, GA EPD Pat Brewer, VISTAS

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Table 1 – Working List of Florida and Georgia Sources Selected for Reasonable Progress Four-Factor Analysis Using the Proposed Florida Criteria (>= 250 TPY and <=300 km) for Okefenokee, St. Marks, and Chassahowitzka Class I Areas. (Sources shaded in yellow were also selected by Georgia EPD using its selection criteria.)

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Florida 0630014 GULF POWER COMPANY SCHOLZ ELECTRIC GENER 1 320 Florida 0630014 GULF POWER COMPANY SCHOLZ ELECTRIC GENER 2 465 Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 6 257 Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 15 3,242 Florida 0890004 RAYONIER PERFORMANCE FIBERS LLC 6 1,075 Florida 0950137 ORLANDO UTILITIES COMMISSION STANTON ENF 1 5436	Florida	0570057	GULF COAST RECYCLING, INC.		577
Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 6 257 Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 6 257 Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 15 3,242 Florida 0890004 RAYONIER PERFORMANCE FIBERS LLC 6 1,075 Florida 0950137 ORLANDO UTILITIES COMMISSION STANTON ENF 1 5.436	Florida	0630014	GULF POWER COMPANY SCHOLZ ELECTRIC GENER		320
Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 6 257 Florida 0890003 JEFFERSON SMURFIT CORPORATION (US) 15 3,242 Florida 0890004 RAYONIER PERFORMANCE FIBERS LLC 6 1,075 Florida 0950137 ORLANDO UTILITIES COMMISSION STANTON ENE 1 5.436	Florida	1800003	GULF FUWER CUMPANY SCHULZ ELECTRIC GENER		465
Florida 0890004 RAYONIER PERFORMANCE FIBERS LLC 6 1,075 Florida 0950137 ORLANDO UTILITIES COMMISSION STANTON ENF 1 5.436	Florida	0890003	JEFFERSON SMURFIL CORPORATION (US)	σ	197
Florida 0950137 ORLANDO UTILITIES COMMISSION STANTON ENE 1 5.436	Florida	0890004	RAYONIER PERFORMANCE FIBERS II C	ה ק	4 075
	Florida	0950137	ORLANDO UTILITIES COMMISSION STANTON ENE		5,436

Heather Abrams May 4, 2007 Page 4 of 5

State	Plant ID	Plant Name	Point ID	2002 SO2 Emissions (TPY)
Florida	0950137	ORLANDO UTILITIES COMMISSION STANTON ENE	2	2,589
Florida	1050004	LAKELAND ELECTRIC C.D. MCINTOSH, JR. POW	6	6,994
Florida	1050046	CARGILL FERTILIZER, INC.	12	1,444
Florida	1050046	CARGILL FERTILIZER, INC.	32	1,548
Florida	1050046	CARGILL FERTILIZER, INC.	33	1,491
Florida	1050053	CARGILL FERTILIZER, INC.	4	896
Florida	1050053	CARGILL FERTILIZER, INC.	5	1,256
Florida	1050053	CARGILL FERTILIZER, INC.	38	1,416
Florida	1050055	IMC PHOSPHATES COMPANY	4	1,791
Florida	1050055	IMC PHOSPHATES COMPANY	5	1,635
Florida	1050059	IMC PHOSPHATES COMPANY	2	1,403
Florida	1050059	IMC PHOSPHATES COMPANY	3	1,634
Florida	1050059	IMC PHOSPHATES COMPANY	4	1,711
Florida	1050059	IMC PHOSPHATES COMPANY	36	832
Florida	1050059	IMC PHOSPHATES COMPANY	42	1,376
Florida	1050059	IMC PHOSPHATES COMPANY	44	1,607
Florida	1070005	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	15	3,703
Florida	1070005	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	16	1,354
Florida	1070005	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	18	282
Florida	1070025	SEMINOLE ELECTRIC COOPERATIVE, INC.	1	10,912
Florida	1070025	SEMINOLE ELECTRIC COOPERATIVE, INC.	2	12,775
Florida	1130014	PETRO OPERATING COMPANY	10	417
Florida	1230001	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	2	449
Florida	1230001	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	4	736
Florida	1230001	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	6	554
Florida	1230001	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	7	621
Florida	1230001	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	11	385
Florida	0310045-A	SAINT JOHNS RIVER	16	11,076
Florida	0310045-A	SAINT JOHNS RIVER	17	10,185
Georgia	05100005	HERCULES INCORPORATED	SB9	314
Georgia	05100006	SAVANNAH ELECTRIC: KRAFT STEAM - ELECTRI	SG01	1,876
Georgia	05100006	SAVANNAH ELECTRIC: KRAFT STEAM - ELECTRI	SG02	1,874
Georgia	05100006	SAVANNAH ELECTRIC: KRAFT STEAM - ELECTRI	SG03	3,992
Georgia	05100007	INTERNATIONAL PAPER - SAVANNAH MILL	PB12	274
Georgia	05100007	INTERNATIONAL PAPER - SAVANNAH MILL	PB13	7,643
Georgia	05100008	KERR-MCGEE PIGMENTS (SAVANNAH) INC.	2404	509
Georgia	05100010	WEYERHAEUSER COMPANY - PORT WENTWORTH MI	PB04	323
Georgia	05100077	SOUTHERN STATES PHOSPHATE & FERTILIZER C	SA01	428
Georgia	05100077	SOUTHERN STATES PHOSPHATE & FERTILIZER C	SA02	640
Georgia	05100110	SAVANNAH SUGAR REFINERY	U161	1,005
Georgia	09500002	GEORGIA POWER COMPANY, MITCHELL STEAM-EL	SG03	4,173
Georgia	09500010	MILLER BREWING CO	B001	969
Georgia	09500010	MILLER BREWING CO	B002	441

Heather Abrams May 4, 2007 Page 5 of 5

Georgia	09900001	GEORGIA PACIFIC CORPORATION, CEDAR SPRIN	R400	390
				2002 SO2
State	DiantiD	Diant Name	Point	Emissions
State	Plant ID	Plant Name		
Georgia	09900001	GEORGIA PACIFIC CORPORATION, CEDAR SPRIN	R401	301
Georgia	09900001	GEORGIA PACIFIC CORPORATION, CEDAR SPRIN	R402	1,477
Georgia	09900001	GEORGIA PACIFIC CORPORATION, CEDAR SPRIN	U500	2,164
Georgia	09900001	GEORGIA PACIFIC CORPORATION, CEDAR SPRIN	U501	2,257
Georgia	10300003	SAVANNAH ELECTRIC: MCINTOSH STEAM - ELEC	SG01	7,089
Georgia	10300007	GEORGIA-PACIFIC CORP SAVANNAH RIVER MILL	BO01	1,578
Georgia	10300007	GEORGIA-PACIFIC CORP SAVANNAH RIVER MILL	BO02	1,211
Georgia	10300007	GEORGIA-PACIFIC CORP SAVANNAH RIVER MILL	BO03	1,097
Georgia	12700003	GEORGIA-PACIFIC BRUNSWICK OPERATIONS	F1	1,642
Georgia	15300003	CEMEX, INC.	560	865
Georgia	15300014	ANCHOR GLASS CONTAINER CORPORATION	F1	260
Georgia	17500004	SP NEWSPRINT CO.	PB1	841
Georgia	17500004	SP NEWSPRINT CO.	PB2	573
Georgia	18500001	PACKAGING CORPORATION OF AMERICA - VALDO	1017	559
Georgia	18500001	PACKAGING CORPORATION OF AMERICA - VALDO	7020	255
Georgia	24500006	INTERNATIONAL PAPER - AUGUSTA MILL	PB2A	1,574
Georgia	30500001	JESUP MILL, RAYONIER PERFORMANCE FIBERS	PB02	556
Georgia	30500001	JESUP MILL, RAYONIER PERFORMANCE FIBERS	PB03	1,423
Georgia	30500001	JESUP MILL, RAYONIER PERFORMANCE FIBERS	RF01	285
Georgia	30500001	JESUP MILL, RAYONIER PERFORMANCE FIBERS	RF04	286

Table 2 – Sources in Florida and Georgia Selected Using the Georgia EPD Criteria, But Not Selected Using the Florida Criteria.

State	Plant ID	Plant Name	Point ID	2002 SO2 Emissions (TPY)
Florida	0310005	ANCHOR GLASS CONTAINER CORPORATION	3	156
Florida	0310005	ANCHOR GLASS CONTAINER CORPORATION	4	161
Florida	0310039	MILLENNIUM SPECIALTY CHEMICALS	5	237
Georgia	12700003	GEORGIA-PACIFIC BRUNSWICK OPERATIONS	M24	165
Georgia	11500021	INLAND PAPERBOARD & PACKAGING, INC.	F4	3,293
Georgia	17900001	INTERSTATE PAPER LLC	F1	161
Georgia	?	MOUNT VERNON MILLS, INC., APAREL FABRIC	EU03	?
Georgia	?	MOUNT VERNON MILLS, INC., APAREL FABRIC	EU04	?

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100

Noel Holcomb, Commissioner Carol A. Couch, Ph.D., Director

April 9, 2007

Mr. Keith Overcash NC – Dept of Env and Nat Resources Div of Air Quality 1641 Mail Service Center Raleigh NC 27699-1641

Re: Four Factor Analysis for Regional Haze

Dear Mr. Overcash:

Under the Environmental Protection Agency's Regional Haze Rule (citation), the Georgia Environmental Protection must submit to EPA a State Implementation Plan (SIP) that establishes reasonable progress towards achieving natural visibility conditions. In order to achieve this uniform rate of progress, EPD must establish reasonable progress goals through emissions reductions defined in the state's SIP submittal.

Section 169A(g)(1) of the CAA and Section 51.308(d)(1)(i)(A) of the Regional Haze Rule deems that States must consider four "statutory factors" in consultation with other affected States, Federal Land Managers, and all stakeholders, in determining their reasonable progress goals.

These following four statutory factors are:

- a) The costs of compliance,
- b) The time necessary for compliance,
- c) The energy and non air quality environmental impacts of compliance, and
- d) The remaining useful life of existing sources that contribute to visibility impairment.

An analysis of wind trajectory residence times, 2018 SO2 emission projections, and distance from nearby Class I areas allowed EPD to identify sources likely to contribute more than 0.5% to the total visibility impairment caused by sulfate at nearby Class I areas in 2018. Based on this analysis, a number of facilities in Georgia and neighboring states have been identified by EPD as sources which significantly impact one or more Class I areas in Georgia. Since Cohutta Wilderness and other nearby Class I areas are clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, only non-EGUs impacting these Class I area were included on the list. Since the Class I areas in Southern Georgia and Northern Florida (e.g, Okefenokee, Wolf Island, St. Marks) are not clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, both EGUs and non-EGUs impacting these Class I area were included on the list. Keith Overcash April 9, 2007 Page three

- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 1
- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 2
- RAYONIER PERFORMANCE FIBERS LLC UNIT 6
- SAINT JOHNS RIVER UNIT 16
- SAINT JOHNS RIVER UNIT 17
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 1
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 2
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 66
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 67

The sources in South Carolina that are contained in this list include:

- GIANT CEMENT CO UNIT 005
- HOLCIM:HOLLY HILL UNIT 002
- MEADWESTVACO CORPORATION INC UNIT 006
- SANTEE COOPER CROSS UNIT 002
- SANTEE COOPER CROSS UNIT 3
- SANTEE COOPER JEFFERIES UNIT 003
- SANTEE COOPER JEFFERIES UNIT 004
- SCE&G:CANADYS UNIT 001
- SCE&G:CANADYS UNIT 002

The sources in Tennessee (non-EGU only) that are contained in this list include:

- A.E. STALEY MANUFACTURING COMPANY UNIT 005
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 16
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 17
- BOWATER NEWSPRINT & DIRECTORY CALHOUN UNIT 015
- E. I. DU PONT DE NEMOURS AND COMPANY UNIT 0002
- EASTMAN CHEMICAL COMPANY UNIT 021520
- INTERTRADE HOLDINGS, INC. UNIT 001
- U.S. DEPARTMENT OF ENERGY, Y-12 PLANT UNIT 002

The Georgia facilities on this list have been sent letters requesting that they perform a Four Factor Analysis and submit their report to us by May 31, 2007. We would like for you to consider adding your state's facilities listed above to your state's final "Four Factor Analysis" list of facilities. In addition, we would very much appreciate a copy of your final "Four Factor Analysis" list of facilities when it is ready.



JUL 1 7 2007

North Carolina Department of Environment and Natural Resources

Division of Air Quality

Michael F. Easley, Governor

AIR PROTECTION BRANCH

William G. Ross, Jr., Secretary B. Keith Overcash, P.E., Director

July 6, 2007

Ms. Heather Abrams, Chief Air Protection Branch Environmental Protection Division Georgia Department of Natural Resources 4244 International Parkway, suite 120 Atlanta, GA 30354

Dear Ms. Abrams:

This letter is in response to your letter of April 9, 2007 to me regarding the consultation process under the Regional Haze rule.

As you know, the North Carolina Division of Air Quality (DAQ) has been active in the Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the Southeastern United States. Through VISTAS, we have been pleased to work closely with Jim Boylan and Jimmy Johnston of your staff, and expect to continue to do so.

As you may also know, North Carolina is home to five different Class I areas, as designated under Section 169A of the Clean Air Act, including the Great Smoky Mountains National Park, which is recognized as being one of the more polluted parks in the United States. The state has a major interest in improving air quality and visibility at these Class I areas and all across North Carolina. That interest is best demonstrated by the adoption of the Clean Smokestacks Act by the General Assembly of North Carolina during the 2002 session. This landmark legislation establishes caps on the nitrogen oxide and sulfur dioxide emissions from the coal-fired power plants in the State. These caps can only be met with actual reductions in North Carolina; that is, no credits can be used to satisfy the cap and any allowances earned by these reductions cannot be sold to facilities outside of North Carolina. I have attached the compliance plans provided by each of our two utilities showing which units are expected to install control equipment in order to meet these caps. I believe the expected controls under this legislation will address a significant portion of North Carolina's contribution to not only our own Class I areas, but those downwind of our state.

1641 Mail Service Center, Raleigh, NC 27699-1641 2728 Capital Blvd., Raleigh, NC 27604 Phone: 919-715-7670 / Fax: 919-715-7476 / Internet: <u>www.ncair.org</u> NorthCarolina Naturally

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Heather Abrams July 6, 2007 page 2

In your letter, you request that we share our list of sources for which we expect to complete a "Four Factor Analysis" for reasonable progress, and that we add to our list any sources that you have identified as significantly impacting one or more Class I areas in Georgia. We note that your list of sources identified as significantly impacting one or more Class I areas in Georgia does not include any North Carolina sources. Attached please find our list of sources for which we will be completing a "Four Factor Analysis." We look forward to discussing these analyses with you.

Should your staff have any questions about this letter or on North Carolina's regional haze state implementation plan development, please contact Sheila Holman of my staff at (919) 715-0971. I look forward to continuing to work with you both directly and through VISTAS.

Sincerely,

B. Ketth Overcash, P.E. Director

BKO/kk

attachment

Cc: John Hornback, SESARM/Metro4 Director Sheila Holman, Chief, Planning Section, NCDAQ

FIPSST	State	FIPSCNTY	County	Plant ID	Plant	Point ID	SIC
SWAN							
37	North Carolina	013	Beaufort Co	3701300071	PCS PHOSPHATE COMPANY INC AURORA	G-1034	2874
37	North Carolina	013	Beaufort Co	3701300071	PCS PHOSPHATE COMPANY INC AURORA	G-1035	2874
37	North Carolina	117	Martin Co	3711700069	WEYERHAEUSER COMPANY - PLYMOUTH	G-148	2611
37	North Carolina	013	Beaufort Co	3701300071	PCS PHOSPHATE COMPANY INC AURORA	G-1033	2874
37	North Carolina	049	Craven Co	3704900104	WEYERHAEUSER COMPANY - VANCEBORO PULP AN	G-42	2611
37	North Carolina	013	Beaufort Co	3701300071	PCS PHOSPHATE COMPANY INC AURORA	G-1032	2874
37	North Carolina	117	Martin Co	3711700069	WEYERHAEUSER COMPANY - PLYMOUTH	G-140	2611
37	North Carolina	117	Martin Co	3711700069	WEYERHAEUSER COMPANY - PLYMOUTH	G-143	2611
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37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-25	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-65	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-24	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-66	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-26	2621
37	North Carolina	175	Transylvania Co	3717500056	ECUSTA BUSINESS DEVELOPMENT CENTER LLC	G-29	2621
37	North Carolina	175	Transylvania Co	3717500056	ECUSTA BUSINESS DEVELOPMENT CENTER LLC	G-28	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-31	2621
37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-32	2621
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37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-25	2621
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37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-25	2621
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37	North Carolina	087	Haywood Co	3708700159	BLUE RIDGE PAPER PRODUCTS - CANTON MILL	G-25	2621

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	SO2 Tons								
Industry Description	(2002 G)	(2018 G)	CE (%)*	Distance (km)	Q/d	Q/d^2	RT Max**	RTM*(Q/d)	Fraction
Phosphatic Fertilizers	1,834	2,408	Ô	52.51	45.85	0.87	70.09	3213.6265	0.077555576
Phosphatic Fertilizers	1,782	2,340	0	52.51	44.57	0.85	70.09	3123,9113	0.075390448
Pulp Mills	1,890	2,209	32	69.39	31.84	0.46	40.95	1303.848	0.031466221
Phosphatic Fertilizers	601	789	0	52.51	15.02	0.29	70.09	1052.7518	0.025406429
Pulp Mills	1,026	1,200	0	86.48	13.87	0.16	74.00	1026.38	0.024769989
Phosphatic Fertilizers	398	522	0	52.51	9.94	0.19	70.09	696.6946	0.016813575
Pulp Mills	812	911	4	69.39	13.13	0.19	40.95	537,6735	0.012975863
Pulp Mills	637	745	32	69.39	10.73	0.15	40.95	439.3935	0.010604038
Paper Mills	2,195	2,565	0	16.95	151.40	8.93	83.17	12591 938	0 10389547
Paper Mills	1,734	2,026	0	16.95	119.59	7.06	83.17	9946,3003	0.082066442
Paper Mills	1,574	1,840	0	16.95	108.59	6.41	83.17	9031,4303	0.074517894
Paper Mills	1,419	1,659	Ò	16.95	97.91	5.78	83.17	8143.1747	0.06718894
Paper Mills	1,230	1,380	4	16.95	81.46	4.81	83.17	6775.0282	0.055900429
Paper Mills	681	765	0	15.59	49.06	3.15	85.00	4170 1	0.034407293
Paper Mills	463	520	. 4	15.59	33.36	2.14	85.00	2835.6	0.023396398
Paper Mills	351	410	0	16.95	24.21	1.43	83.17	2013.5457	0.016613668
Paper Mills	214	250	0	16.95	14.74	0.87	83.17	1225.9258	0.010115054
Paper Mills	2,195	2,565	0	95.42	26.89	0.28	29,17	784.3813	0.011025018
Paper Mills	2,195	2,565	0 , 19	104.38	24.58	0.24	26.88	660.7104	0.010725422
Paper Mills	2,195	2,565	0	100.17	25.61	0.26	50.35	1289.4635	0.011812595

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North Carolina Department of Environment and Natural Resources

Division of Air Quality

Michael F. Easley, Governor

William G. Ross, Jr., Secretary B. Keith Overcash, P.E., Director

August 2, 2007

Ms. Heather Abrams, Chief Air Protection Branch Environmental Protection Division Georgia Department of Natural Resources 4244 International Parkway, suite 120 Atlanta, GA 30354

Dear Ms. Abrams:

This letter is a follow up to my July 6, 2007 letter to you and is intended to continue consultation between our states on reasonable progress under the Regional Haze Rule at 40 CFR §51.308. As you know, section 308(d)(3) of the rule requires states to consult with neighboring states on reasonable progress determinations for sources that affect Class I areas in those states. The purpose of this letter is to discuss our reasonable progress evaluations for North Carolina sources that may contribute to visibility impairment in Class I areas in Georgia, and to request that you share your evaluations for any sources in Georgia that may contribute to visibility impairment in Class I areas in North Carolina.

The reasonable progress assessment is only one part of a larger effort to reduce emissions and improve air quality throughout the Southeast and Eastern United States. These efforts, like EPA's Clean Air Interstate Rule (CAIR) and North Carolina's CSA, generally require emission reductions of a whole class of significant sources, in particular coal fired electric generating units (EGUs). In contrast, the reasonable progress assessments were performed on a sub-source unit-byunit basis and for the specific purpose of evaluating impacts at Class I areas.

It is important that we point out that North Carolina's concern over emissions of SO2 and oxides of nitrogen relates to much more than visibility impacts at specific Class I areas. North Carolina is also concerned about the serious health and welfare implications that these pollutants have in North Carolina. The public health concerns in particular demand a faster schedule of control than is required by the federal Regional Haze Rule. North Carolina is in fact pursuing these reductions in separate actions.

For all of these reasons, the reasonable progress assessments below must be considered only within the limited regulatory framework of the Regional Haze Rule.

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Heather Abrams August 2, 2007 Page 2 of 4

NCDAQ Process on Reasonable Progress Assessment

The following summarizes the general process NCDAQ used in making this Reasonable Progress Assessment:

Step 1: Determine pollutants of concern.

As you know, VISTAS evaluated the species contribution on the 20 percent worst visibility days and concluded that sulfate accounted for greater than 70 percent of the visibility impairing pollution. The VISTAS States concluded that controlling sulfur dioxide (SO2) emissions was the appropriate step in addressing the reasonable progress assessment for 2018.

Step 2: Determine which source sectors should be evaluated for reasonable progress.

Since SO2 point source emissions in 2018 represent greater than 95 percent of the total SO2 emissions inventory, the VISTAS States concluded that the focus should be on electric generating unit (EGU) and non-EGU point SO2 emissions.

Step 3: Determine if the Clean Air Interstate Rule (CAIR) is sufficient for reasonable progress.

The NCDAQ evaluated the amount of SO2 reduction from the EGUs due to both Clean Smokestacks Act (CSA) and CAIR. The EGUs in North Carolina are expected to reduce their SO2 emissions by greater than 80 percent between 2002 and 2018. Much of that reduction is the result of CSA requirements which are directly enforceable and which must be satisfied by actual emission reductions. In contrast, the SO2 emission reductions beyond CSA that are predicted by the Integrated Planning Model (IPM) to meet the CAIR requirements are not as certain due to the current rule's reliance on unchecked trading and the use of banked Title IV allowances. The NCDAQ intends to re-evaluate the IPM predictions of SO2 reductions for CAIR at the time of our next periodic report in 2012 to ensure that the reductions currently predicted by IPM for CAIR do in fact take place where they are expected and needed. Based on the controls required by CSA, and predicted by IPM under CAIR, we have concluded that at this time these existing regulatory programs constitute reasonable measures for North Carolina EGUs during this first assessment period (between baseline and 2018).

Step 4: Determine which emission units would be evaluated based on impact.

The NCDAQ calculated the fractional contribution from all emission units within the SO2 Area of Influence for a given Class I area and identified those emission units with a contribution of one percent or more to the visibility impairment at that Class I area.

Step 5: Evaluate the four factors.

Each emission unit identified in Step 4 above was evaluated using the statutory and regulatory factors of 1) cost of compliance, 2) time necessary for compliance, 3) the energy and non-air quality environmental impacts of compliance, and 4) the remaining useful life of the

Heather Abrams August 2, 2007 Page 3 of 4

emissions unit. For the limited purpose of evaluating the cost for the reasonable progress assessment in this first regional haze SIP, NCDAQ believes it is not equitable to require non-EGUs to bear a greater economic burden than EGUs for a given control strategy.

Sources in North Carolina Affecting Georgia's Class I Areas

Our analysis in step 4 of the reasonable progress assessment indicated there are no North Carolina units that contribute one percent or greater to visibility impairment at Georgia's Class I areas. The North Carolina facility with the greatest contribution to visibility impairment is a Blue Ridge Paper unit (Point ID G-25) in Haywood County, North Carolina, emissions from which contribute 0.3% of the visibility impairment on the 20% worst days at Cohutta Wilderness Area.

Several units at Blue Ridge Paper (including Point ID G-25) were evaluated since these units contributed at least one percent to a Class I area in North Carolina or one of its neighboring States. As previously stated, we did not identify any cost-effective controls for our non-EGU units during our reasonable progress assessment. However, it should be noted that Blue Ridge Paper and other facilities in North Carolina that have units which contribute at least one percent to visibility impairment at any Class I area in the State, or in neighboring States, will be receiving a letter indicating that while no additional controls were identified as cost effective during this reasonable progress assessment, that they should be addressing possible SO2 reduction strategies for the next round of regional haze SIP development.

Georgia Sources Affecting North Carolina's Class I Areas

Your staff and mine have begun discussions informally about the Georgia Power units Bowen Steam Point ID SG03 and SG04 in Bartow County, Georgia, Scherer Steam Point ID SG01, SG02, SG03 and SG04 in Monroe County, Georgia, and Yates Steam Point ID SG06 and SG07 in Coweta County, Georgia. Our analysis (based upon VISTAS technical products) indicates that these units have a greater than one percent contribution to visibility impairment at the Joyce-Kilmer Slickrock Wilderness Area. At the VISTAS States meeting in Atlanta on May 14, 2007, Jimmy Johnston of your staff provided Sheila Holman of my staff with a draft regulation Chapter 391-3-1, dated April 13, 2007. This regulation would require significant SO2 reductions from all of these units between now and June 1, 2015. We would like to request that you share with us your final regulation when it has been adopted. The final adoption of these rules, which set a specific timeline for control of these units, will satisfactorily address their impact on the Joyce-Kilmer Slickrock Wilderness Area.

I am attaching our schedule for the completion of the adoption of the regional haze SIP for the North Carolina Class I areas. There are two opportunities for you to provide information on the final regulation of the units mentioned above: 1) prior to October 5, 2007 so that the information can be part of the SIP document that is made available to the public on October 12, 2007 in advance of the public hearings to be held during the week of November 12, 2007, or 2) prior to the end of the public comment period which is scheduled to close sometime during the week of November 26, 2007. Heather Abrams August 2, 2007 Page 4 of 4

Should your staff have any questions on this letter or on North Carolina's regional haze state implementation plan development, please contact Sheila Holman of my staff at (919) 715-0971. I look forward to continuing to work with you both directly and through VISTAS.

Sincerely,

B. Keith Overcash, P.E. to

Director

BKO/sch

Attachments

John Hornback, SESARM/Metro4 Director Cc: Kay Prince, EPA Region 4

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner Carol A. Couch, Ph.D., Director

August 14, 2007

Keith Overcash Director North Carolina Department of Environmental and Natural Resources Division of Air Quality 1641 Mail Service Center Raleigh, NC 27699-1641

Re: your letter of August 2, 2007

Dear Mr. Overcash:

This is in response to your letter of August 2, 2007, regarding reasonable progress under the Regional Haze Rule. As indicated in our letter of April 9, 2007, Georgia EPD identified sources that are likely to contribute more than 0.5% to the total visibility impairment caused by sulfate at nearby class I areas (as compared to 1% contribution used by North Carolina and several other VISTAS states). Georgia EPD also determined that since the Cohutta Wilderness and other nearby southern Appalachian Class I areas are clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, that EGU's subject to the federal Clean Air Interstate Rule (CAIR) are assumed to to meet the requirements for reasonable progress under the Regional Haze rule. Therefore, only non-EGU's that impact a southern Appalachian Class I area were identified by Georgia as requiring additional analysis regarding reasonable progress.

Also, as indicated in our letter of April 9, 2007, Georgia EPD did not identify any North Carolina non-EGU's that contribute to more than 0.5% of the total visibility impairment at Cohutta Wilderness. As a matter of information, Georgia EPD also did not identify any North Carolina EGU's that contributed to more than 0.5% of the total visibility impairment at Cohutta Wilderness.

Concerning the impact of Georgia's sources on North Carolina Class I areas (Joyce Kilmer-Slickrock, Great Smokey Mountains, Shining Rock, and Linville Gorge), Georgia EPD utilized a similar approach as NCDENR. EPD utilized VISTAS analyses to determine that controlling sulfur dioxide from EGU's and non-EGU's are the pollutant and source sectors of concern for evaluation of the 2018 reasonable progress goal. As stated above, Georgia EPD determined that the Clean Air Interstate Rule is sufficient for EGUs subject to that rule for Class I areas clearly meeting the uniform rate of progress glide slope in 2018.

Keith Overcash August 14, 2007 Page three

Mercury emissions from coal-fired EGU's are also of concern for impairment of Georgia's waterways. Construction and operation of sorbent injection and baghouses at the four Plant Scherer units as well as year-round operation of SCRs and FGD on 15 units and FGD alone on four units are estimated to reduce mercury emissions by approximately 75-85% from current levels by 2015. This level of mercury reduction is greater than and quicker than what would otherwise be required by the federal Clean Air Mercury Rule.

If you have any questions or need more information, please contact Jimmy Johnston at (404) 363-7014 or via email at jimmy_johnston@dnr.state.ga.us.

Sincerely,

Heather Abrano

Heather Abrams Chief Air Protection Branch

attachment

c: John Hornback, SESARM/Metro4 Director Kay Prince, EPA Region 4

- (i) Plant Scherer Unit 4 unless such source is equipped and operated with sorbent injection and a baghouse.
- 5. **Effective June 1, 2010**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:
 - (i) Plant Bowen Unit 1 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).
- 6. **Effective December 31, 2011**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:
 - (i) Plant Scherer Unit 3 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse; provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.
- 7. **Effective December 31, 2012**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:
 - (i) Plant Scherer Unit 4 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse, provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.
 - (ii) Plant McDonough Unit 1 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).
- 8. **Effective December 31, 2013**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:
 - (i) Plant Branch Unit 3 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).
 - (ii) Plant McDonough Unit 2 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).
 - (iii) Plant Scherer Unit 2 unless such source is equipped and operated with selective catalytic reduction, flue gas desulfurization, sorbent injection, and a baghouse, provided that the owner or operator is not required to operate the selective catalytic reduction system during the non-ozone season months of January through April and October through December of each year.
- 9. **Effective June 1, 2014**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:
 - (i) Plant Branch Unit 4 unless such source is equipped and operated with selective catalytic reduction (SCR) and flue gas desulfurization (FGD).
- 10. **Effective December 31, 2014**, no person shall cause, let, permit, suffer or allow the operation of the following units except as specified below:

representative shall follow the procedures given in Section 2.124 of the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants** for the establishment of optimized operating parameters for the applicable control equipment installed as required in subparagraphs 1. through 11.

- 14. **Alternative Control Technology:** The owner/operator of an affected unit specified in subparagraphs 1. through 11. may operate alternative control technology or alternative method of emissions reductions from that specified in the applicable subparagraphs 1. through 11. if the following requirements are met:
 - The Division has approved the operation of the alternative control technology or the alternative method of emission reductions as being capable of achieving reductions of NOx, SO₂ and/or mercury emissions equivalent to or greater than the control technology requirement specified in applicable subparagraphs 1. through 11. for an individual emissions unit or the respective plant site as a whole; and
 - (ii) The owner/operator has submitted the appropriate permit application(s) to the Division at least twelve months before the effective date of the applicable subparagraph 1. through 11.
- 15. The owner or operator of any EGU subject to this subsection may submit a request to the Director to delay implementation of any of the controls required by subparagraphs 1. through 11. for a specific EGU if there is a delay caused by reasonably unforeseen circumstances beyond the control of the owner operator. Any delay allowed under this subparagraph is subject to review and approval by the Division. Reasonably unforeseen circumstances beyond the control of the owner or operator shall include, without limitation, the following:
 - (i) Failure to secure timely and necessary federal, state or local approvals, responses, notifications or permits to install the controls, provided that such approvals or permits have been timely and diligently sought;
 - Act of God, act of war, insurrection, civil disturbance, flood or other extraordinary weather conditions, vandalism, contractor or supplier strikes or bankruptcy, or unanticipated breakage or accident to machinery or equipment despite diligent maintenance; and

- (ii) the sources of mercury (including air, land, and water sources) that might influence in-state mercury concentrations in fish tissue;
- the state of the science regarding the relationship among sources of mercury, mercury speciation and mercury concentrations in fish tissue in water bodies in the State;
- (iv) the health impact of mercury contamination in fish tissue;
- (v) technically and economically feasible controls for the reduction of mercury emissions from coal-fired EGUs or other sources;
- (vi) whether additional reductions of mercury from coal-fired EGUs or other sources and/or whether additional time or study is appropriate and necessary in light of items (i) through (v);
- (vii) recommendations for any necessary revisions to paragraph (sss) or other actions as needed to address other sources; and
- (viii) recommendations for an appropriate timeline for the development of any such additional regulations; provided, however, that implementation and operation of any such additional controls shall be required no earlier than January 1, 2027.

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner Carol A. Couch, Ph.D., Director

April 9, 2007

Mr. Barry Stephens TN – Dept of Env and Conservation Div of Air Pollution Control L & C Annex 9th Fl 401 Church St Nashville TN 37243-1531

Re: Four Factor Analysis for Regional Haze

Dear Mr. Stephens:

Under the Environmental Protection Agency's Regional Haze Rule (citation), the Georgia Environmental Protection must submit to EPA a State Implementation Plan (SIP) that establishes reasonable progress towards achieving natural visibility conditions. In order to achieve this uniform rate of progress, EPD must establish reasonable progress goals through emissions reductions defined in the state's SIP submittal.

Section 169A(g)(1) of the CAA and Section 51.308(d)(1)(i)(A) of the Regional Haze Rule deems that States must consider four "statutory factors" in consultation with other affected States, Federal Land Managers, and all stakeholders, in determining their reasonable progress goals.

These following four statutory factors are:

a) The costs of compliance,

b) The time necessary for compliance,

c) The energy and non air quality environmental impacts of compliance, and

d) The remaining useful life of existing sources that contribute to visibility impairment.

An analysis of wind trajectory residence times, 2018 SO2 emission projections, and distance from nearby Class I areas allowed EPD to identify sources likely to contribute more than 0.5% to the total visibility impairment caused by sulfate at nearby Class I areas in 2018. Based on this analysis, a number of facilities in Georgia and neighboring states have been identified by EPD as sources which significantly impact one or more Class I areas in Georgia. Since Cohutta Wilderness and other nearby Class I areas are clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, only non-EGUs impacting these Class I area were included on the list. Since the Class I areas in Southern Georgia and Northern Florida (e.g, Okefenokee, Wolf Island, St. Marks) are not clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, both EGUs and non-EGUs impacting these Class I area were included on the list. Barry Stephens April 9, 2007 Page three

- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 1
- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 2
- RAYONIER PERFORMANCE FIBERS LLC UNIT 6
- SAINT JOHNS RIVER UNIT 16
- SAINT JOHNS RIVER UNIT 17
- SEMINOLE ELECTRIC COOPERATIVE, INC. UNIT 1
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 2
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 66
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 67

The sources in South Carolina that are contained in this list include:

- GIANT CEMENT CO UNIT 005
- HOLCIM:HOLLY HILL UNIT 002
- MEADWESTVACO CORPORATION INC UNIT 006
- SANTEE COOPER CROSS UNIT 002
- SANTEE COOPER CROSS UNIT 3
- SANTEE COOPER JEFFERIES UNIT 003
- SANTEE COOPER JEFFERIES UNIT 004
- SCE&G:CANADYS UNIT 001
- SCE&G:CANADYS UNIT 002

The sources in Tennessee (non-EGU only) that are contained in this list include:

- A.E. STALEY MANUFACTURING COMPANY UNIT 005
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 16
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 17
- BOWATER NEWSPRINT & DIRECTORY CALHOUN UNIT 015
- E. I. DU PONT DE NEMOURS AND COMPANY UNIT 0002
- EASTMAN CHEMICAL COMPANY UNIT 021520
- INTERTRADE HOLDINGS, INC. UNIT 001
- U.S. DEPARTMENT OF ENERGY, Y-12 PLANT UNIT 002

The Georgia facilities on this list have been sent letters requesting that they perform a Four Factor Analysis and submit their report to us by May 31, 2007. We would like for you to consider adding your state's facilities listed above to your state's final "Four Factor Analysis" list of facilities. In addition, we would very much appreciate a copy of your final "Four Factor Analysis" list of facilities when it is ready.



STATE OF TENNESSEE **DEPARTMENT OF ENVIRONMENT AND CONSERVATION** DIVISION OF AIR POLLUTION CONTROL 9TH FLOOR L & C ANNEX 401 CHURCH STREET NASHVILLE, TENNESSEE 37243-1531

February 20, 2008

Delivered via Electronic Mail

Heather Abrams Branch Chief Georgia Environmental Protection Division Air Protection Branch 4244 International Parkway, Suite 120 Atlanta, Georgia 30354

Re: Interstate Consultation – Regional Haze SIP

Dear Ms. Abrams: Hearther:

This letter is to document the state of Tennessee's consultation with your state to satisfy the consultation among states requirement in the EPA regional haze SIP development regulations.

As you know, Tennessee is a part of the VISTAS regional planning organization that also includes the states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Virginia and West Virginia. VISTAS is charged with developing the science used to support the regional haze SIPs of these southeastern states. Based upon a review of the science developed, Tennessee determined what measures it would require of its visibility impairing sources and what concerns it might have about visibility impairing sources in neighboring states.

Tennessee does not plan to ask your state to reduce emissions of visibility impairing pollutants beyond what EPA will require during this first cycle of the regional haze SIP process. This is based upon three criteria:

• The Class I Area analysis for 2018 demonstrates that the Class I Areas in Tennessee are well below the uniform rate of progress "glide slopes" developed by VISTAS.

Ms. Heather Abrams February 20, 2008 Page 2

> • VISTAS developed an area of influence (AOI) criteria for determining which sources should be subject to a reasonable progress analysis at a one percent impact level. It is believed that your state will use this criterion as a minimum and perform the four-factor analysis per EPA guidance and regulations and that EPA will determine the adequacy of that in their review of your SIP.

> • EPA rules dictate which sources are subject to BART, and EPA with input from the federal land mangers, will determine the adequacy of the BART control requirements in your SIP.

Tennessee has examined the VISTAS apportionment of impacts from Tennessee and its sources upon the Class I areas in your state. Based upon that review, Tennessee has identified two sources, INVISTA in Hixson, Tennessee and Bowater Newsprint in Calhoun, Tennessee as candidates for a reasonable progress four-factor analysis. The decision for requiring the analysis is based upon a predicted 1.5 percent and 8.6 percent impact respectively at Cohutta Wilderness Area.

For INVISTA, Tennessee has elected to require no further controls from the facility during this first review period. A simplistic calculation INVISTA's deciview impact at Cohutta in 2018 would be to take the predicted 2018 visibility value at Cohutta of 23dv versus INVISTA's 1.5 percent impact, and determine its future dv impairment contribution (23 dv x 0.015 = 0.31 dv). Without any additional control, the 0.31 dv INVISTA impact at Cohutta is less than the humanly discernable change of visibility levels and generally accepted BART exemption modeling cut point of 0.5 dv.

EPA commented in Tennessee's pre-hearing regional haze SIP that 0.5 dv might not always be an accepted value, particularly in cases where there was a cluster of visibility impairing sources in the vicinity of a Class I area. Our analysis does not suggest that the cluster effect is so great that the 0.5 dv cut point would be improper.

For Bowater Newsprint, Tennessee has also elected to require no further controls from the facility during this first review period. Again, using the simplistic calculation procedure shown above, Bowater Newsprint's contribution to future visibility impacts at Cohutta was determined (23 dv x 0.086 = 1.978 dv). While this calculated value is greater than the 0.5 dv cut point, it is important to note three points Bowater Newsprint brought up after reviewing the VISTAS inventory used to make the future visibility impairment calculations:

- The firing rate is greater than they currently employ.
- The sulfur content of the fuel is greater than they currently employ and expect to employ in the future.

Ms. Heather Abrams February 20, 2008 Page 3

• The future growth assumptions for this particular mill are not representative for this particular mill because of its age and marginal efficiency.

A full explanation of these three bullets may be found in Bowater Newsprint's four-factor analysis that is attached as a separate file to this message. Bowater has also provided information in a subsequent letter that speaks to their energy conservation efforts. Because of these inventory disparities and the energy efficiency projects that have and will continue to equate to less coal being burned, Tennessee will not require any additional controls in this first review period.

For ease of reference, I have attached an electronic copy of both the INVISTA and Bowater Newsprint 4 factor analysis reports. If you should have further questions, please feel free to contact me by telephone at (615) 532-0525 or e-mail: Barry.Stephens@state.tn.us.

Sincerely,

Barry R. Stephens, P. E. Director Division of Air Pollution Control

Electronic copy with attachments to:

James P. Johnston, P.E., GEPD Bill Jackson, USDA Forest Service Bruce Polkowsky, USDOI National Park Service Michele Notarianni, USEPA Air, Pesticides and Toxics Management Division

5020 Highway 11 S Calhoun, TN 37309

October 31, 2007

Mr. Quincy Styke Tennessee Department of Environment and Conservation Division of Air Pollution Control 9th Floor, L&C Annex Nashville, Tennessee

Re: Regional Haze State Implementation Plan for Tennessee Class I Areas Statutory Factor Analysis (Four Factor Analysis) Bowater Newsprint – Calhoun Operations

Dear Mr. Styke:

Bowater Newsprint – Calhoun Operations (Bowater) wishes to extend thanks to Mr. Barry Stephens, Ms. Lacy Hardin, Mr. Eric Flowers, and Mr. Hernan Flores for travelling to the mill on July 11 to discuss visibility (regional haze) improvement measures for the East Tennessee Class I Areas.

1.0 Background

The USEPA published the final "Guidance for Setting Reasonable Progress Goals under the Regional Haze Rule" on July 1, 2007. The purpose of the guidance was to assist states with preparing State Implementation Plan (SIP) submittals by December 17, 2007 that meet the statutory requirements of sections 169A and 169B of the Clean Air Act (CAA).

The Regional Haze Rule (RHR) requires visibility improvement on the 20% worst days following the "uniform rate of progress" (a.k.a., "glidepath") until natural background conditions are achieved in 2064. The RHR also requires states to establish Reasonable Progress Goals (RPG) approximately every ten years. The first RPG planning cycle runs through 2018.

2.0 VISTAS Findings

The Visibility Improvement State and Tribal Association of the Southeast (VISTAS) has conducted modeling analyses for each Class I area in the Southeastern United States and predicted the regional haze conditions in 2009 and 2018. The results of the VISTAS modeling indicate that all the East Tennessee Class I Areas will meet the RPG "glidepath" in 2018 without any additional emission controls beyond those already mandated by the Clean Air Act (BART, CAIR, etc.).

The VISTAS modeling effort also concluded that the overwhelming pollutant of concern during the first RPG planning cycle was sulfur dioxide (SO₂) being emitted from electric generating utility (EGU) coal-fired boilers and to a lesser extent industrial (non-EGU) coal-fired boilers.

Due to the proximity of the Bowater Calhoun mill to the Class I areas in East Tennessee (Great Smoky Mountains National Park, Joyce Kilmer-Slickrock Wilderness, and Cohutta Wilderness in Northern Georgia), VISTAS has identified Bowater as the top contributor to regional haze at the Cohutta and Joyce Kilmer-Slickrock Wilderness Areas. These two Class I areas are located less than 75 kilometers from the mill. The source of Bowater SO₂ emissions are the three coal-fired power boilers at the mill.

4.0 Statutory Factor Analysis (Four Factor Analysis)

TDEC has requested that Bowater perform a "Four Factor Analysis" to evaluate reasonable progress. USEPA has issued guidance to states for setting RPG under the RHR that makes it clear that emission reductions from implementation of BART, CAIR, and other CAA programs may be all that is necessary to achieve reasonable progress in the first planning period¹.

The modeling performed by VISTAS has confirmed no additional emission reductions are necessary to meet the RPG for the first planning period. The USEPA guidance also makes it clear that other relevant factors beyond the four statutory factors may be considered when evaluating reasonable progress.

4.1 Costs of Compliance

The first statutory factor is the costs of compliance. USEPA has stated that "in this context we believe that the cost of compliance factor can be interpreted to encompass the cost of compliance for individual sources or source categories, and more broadly the implication of compliance costs to the health and vitality of industries within a state."

Switching to Lower Sulfur Coal

The Bowater power boilers were originally designed to burn high sulfur eastern bituminous coal having a sulfur content up to 3.3 percent. However, since 1984 Bowater has burned marginally low sulfur eastern bituminous coal (as defined by the US Energy Information Administration) of slightly less than 1.1 percent sulfur.

Switching to a lower sulfur (0.6 percent) western sub-bituminous coal is not a viable option for the Bowater power boilers due to the different physical properties (ash fusion temperature, etc.) of western sub-bituminous coal.

Power Boiler Costs

Installing SO_2 scrubbers is technically possible, but also expensive for older existing boilers. USEPA estimates the costs to install and operate an SO_2 scrubber for new electric utility boilers

¹ "Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program", USEPA, Office of Air Quality Planning and Standards, June 1, 2007, Pages 4-1 and 5-1.

ranges from 500 - 5,000 dollars per ton of SO₂ removed². USEPA also notes capital costs can be as much as 30% higher to retrofit existing boilers. Capital and operating costs are typically also higher for industrial boilers because they are typically smaller than utility boilers and operate under more variable load conditions. Therefore, the cost for SO₂ scrubbers on the Bowater power boilers may exceed 5,000 dollars per ton of SO₂ removed.

Manufacturing Costs

North American newsprint demand is forecast to decline by almost 30 percent by 2018 (see Section 5.3). As a result, many newsprint machines in North America will be permanently shut down over the next several years. Bowater is one of the largest newsprint producers in North America, and the Calhoun mill is one of the largest newsprint mills in North America.

Increases in manufacturing cost, regardless of the reason (energy, labor, raw materials, etc.), increases the likelihood that higher cost paper machines will be permanently shut down in the coming years. Not only would the increased manufacturing costs increase the probability that Bowater will be forced to curtail newsprint production and reduce employment in East Tennessee, it will further reduce actual SO₂ emissions from the Bowater mill, further increasing the cost per ton of SO₂ removed.

4.2 Time Necessary for Compliance

It would require several years to design, engineer, fabricate, and install an SO₂ scrubber at the Bowater Calhoun mill.

4.3 Energy and Non-Air Impacts

The primary non-air impact of installing an SO_2 scrubber would be the increased water usage. The Bowater Calhoun mill is located along the lower section of the Hiwassee River, which forms part of the Chickamauga Lake impoundment behind the Chickamauga Dam in Chattanooga.

The Tennessee Valley Authority (TVA) operates a series of hydroelectric dams along the Tennessee River System, both upstream and downstream of the Bowater Calhoun mill, to manage river flow for optimal power generation and flood control. This results in periods during the year when the Hiwassee River flow past the mill stops entirely.

During extended periods of dry weather, such as the current exceptional drought across the Southeast, water management becomes critical to the mill maintaining operations. The SO_2 scrubber would require additional water that is not available during drought conditions.

² "Air Pollution Control Technology Fact Sheet - Flue Gas Desulfurization", USEPA, EPA-452/F-03-034, Table 1a.

5.2 Seasonal Coal-Firing Rates

The VISTAS inventory assumed that SO₂ emissions were equally distributed throughout the year. The Bowater power boilers are used primarily to heat river water from ambient temperature to approximately 125°F. During the winter months when the river is cold, this requires as much as 20,000 tons per month of coal. However in the summer when the river is warmer, as little as 10,000 tons of coal per month is required.

When the actual coal utilization is compared to the cumulative number of days each month having the 20% worst visibility and the 20% best visibility, a very different picture emerges. The months of highest coal firing at Bowater correspond to the months with the 20% best visibility (November through March), and the months of lowest coal firing at Bowater correspond to the months with the 20% worst visibility (June through September). The seasonal variation in coal firing and visibility at Great Smoky Mountains and Joyce Kilmer-Slickrock is shown in Figure 1. Figure 2 shows the same information for Cohutta.





Figure 2 Bowater Coal Usage .vs. Cohutta Regional Haze

5.3 Growth Assumptions

The VISTAS 2009 and 2018 inventories assumed SO_2 emissions would increase consistent with worldwide pulp and recovered paper growth. The assumed growth factors from 2002 through 2009 and 2018 were 6.7% and 16.9%, respectively³. These growth factors are not representative for the Bowater Calhoun mill.

The growth of the global paper industry is not directly related to North American coal consumption. The U.S. Energy Information Administration (EIA) publishes an Annual Energy Outlook which includes coal consumption by industry category. The EIA 2007 Annual Energy Outlook indicates no growth in coal consumption by the paper industry through 2030⁴.

Bowater anticipates coal consumption will continue to decrease in the future as manufacturing efficiency increases. This is necessary to lower overall manufacturing costs so the Calhoun mill can remain competitive in the North American newsprint business.

³ "Documentation of the Base G 2002 Base Year, 2009 and 2018, Emission Inventories for VISTAS", MACTEC, Inc., page 111.

⁴ "Annual Energy Outlook 2007 with Projections to 2030", Energy Information Administration, U.S. Department of Energy, February 2007, Table 26: Paper Industry Energy Consumption.

4.4 Remaining Useful Life of the Source

The remaining useful life of the power boilers exceeds the useful life of any potential SO_2 control equipment. However, the remaining useful life of the paper machines supported by the power boilers may be considerably shorter than the life of any potential SO_2 controls.

Paper manufacturing requires steam to operate the process equipment and to generate millions of gallons per day of hot water. The Calhoun mill generates steam using one recovery furnace, one multi-fuel boiler, and three coal-fired power boilers. The recovery furnace and multi-fuel boiler burn biomass substances (black liquor solids and bark) generated by the kraft pulp mill, which are lower cost fuels than coal.

The kraft mill operates at a constant rate during the year, generating biomass substances at a constant rate, so the recovery furnace and multi-fuel boiler generate steam consistently throughout the year. The coal-fired power boilers are used to generate any additional steam required by the mill, which varies seasonally due to temperature of the river water which must be heated to approximately 125°F.

Three of the five paper machines at the Bowater Calhoun mill were built in the 1950's, and are smaller and less cost efficient than larger paper machines built in the 1980's. As the newsprint market continues to decline in North America, many vintage 1950's paper machines can be expected to be permanently shutdown. The Bowater Calhoun mill may not be operating all five paper machines by 2018, reducing the amount of hot water needed and resulting in less coal being burned in the power boilers.

5.0 Other Relevant Factors

During the July 11 meeting, Bowater presented information and data that suggests the Bowater impact on regional haze in the Class I areas of East Tennessee are greatly over-estimated in the VISTAS modeling analysis.

5.1 Coal Sulfur Content

The SO₂ emissions for Bowater used in the VISTAS modeling were from conservative (i.e., on the high side) estimates of Bowater's 2002 actual SO₂ emissions. This used the actual amount of coal fired in 2002 (177,579 tons) and a conservative sulfur content of 1.5 percent. The actual coal sulfur content since then, and now, has averaged slightly less than 1.1 percent, and the actual amount of coal fired has decreased to approximately 140,000 tons per year. Using the actual average sulfur content and current actual annual coal fired tonnage would lower power boiler SO₂ emissions by over 40% (a reduction of approximately 42% or 2,135 tons of SO₂ per year). In addition, kraft mill non-condensable TRS gases are no longer burned in the power boilers, reducing SO₂ emissions by another 170 tons per year.

The Bowater Calhoun mill primarily produces newsprint for the North American market, which has seen double digit declines in demand. The same industry group forecasting 16.9% growth of global pulp and recovered paper also predicts North American newsprint production will decrease nearly 30% over the same period.

North American Newsprint Production Forecast (million tons)

	2002 ⁵	2009 ⁶	2018 ³	2002 to 2009	2002 to 2018
Newsprint	5.81	4.80	4.12	0.826%	0.709%

6.0 Conclusion

The VISTAS findings indicate that the reasonable progress goals for 2018 will be achieved at all Class I areas in East Tennessee, as well as other nearby Class I areas in other states, following the implementation of current Clean Air Act requirements.

The VISTAS modeling analyses that form the underlying basis of the VISTAS findings overestimate the impacts the Bowater power boiler SO_2 emissions are having on regional haze. This is due to conservative overestimates of coal sulfur content by approximately 34% and future coal firing by approximately 16%. The seasonal variation in coal firing is also unaccounted for in the VISTAS modeling analysis, and is inversely related to the days with worst visibility. During the warmest months when most of the worst visibility days occur, coal firing averages 10% to 30% lower than modeled.

The North American newsprint market is declining at double digit rates, requiring continuous reductions in manufacturing capacity to match demand. As the newsprint market continues to shrink, manufactures will continue to shutdown the highest cost production. Several paper machines at the Bowater Calhoun mill are more than 50 years old, and are not among the lowest cost machines in North America. The additional cost of SO₂ controls would increase the manufacturing cost for these paper machines further, without a demonstrated need to reduce SO₂ emissions further until at least 2018.

Bowater does not believe controlling SO_2 emissions from the power boilers is justified for achieving reasonable progress during the first planning period that extends until 2018.

⁵ "North American Graphical Paper Annual Historical Data – 2006", Resource Information Systems Inc., Executive Summary, Table 1.

⁶ "North American Graphic Paper Forecast – September 2007", Resource Information Systems Inc., Executive Summary, Table A1.

If you have any questions or require further information, please call me at (423) 336-7117.

Sincerely,

J.W. O'Grady

Director of Environmental Affairs



January 29, 2008

Mr. Quincy Styke Tennessee Department of Environment and Conservation Division of Air Pollution Control 9th Floor, L&C Annex 401 Church Street Nashville, Tennessee 37243-1531

Re: Regional Haze State Implementation Plan for Tennessee Class I Areas Additional Comments following January 16 Meeting Bowater Incorporated – Calhoun Operations (a.k.a. Bowater Newsprint)

Dear Mr. Styke:

Bowater Incorporated – Calhoun Operations (Bowater) wishes to extend thanks to Mr. Barry Stephens, Ms. Lacy Hardin, and Mr. Hernan Flores for meeting on January 16, 2008, to discuss comments received by TDEC on the Draft Regional Haze SIP that potentially pertain to Bowater.

1. Bowater Four Factor Analysis

As discussed at the meeting, Bowater would like to re-emphasize that TDEC did not receive any specific comments regarding Bowater, either generally suggesting that Bowater should receive further consideration regarding reasonable further progress or specifically regarding the four-factor analysis submitted by Bowater on October 31, 2007.

In summary, the Bowater four-factor analysis concluded that no sulfur dioxide (SO₂) controls are warranted for the coal-fired power boilers during the first planning period. This conclusion is based primarily on the fact that the VISTAS modeling analysis, which demonstrated that all of the Class I areas potentially impacted by Bowater's emissions meet the reasonable progress goal (RPG) per the current planning period, significantly overestimated the impact of Bowater emissions. Specifically, the assumptions in this modeling analysis result in significant overestimation of the future SO2 emissions from the power boilers, and therefore result in significant overestimates of impacts from these emissions on visibility in Class I areas.

First, the modeled 2018 growth factors increased the SO_2 emissions from the power boilers by nearly 17% over the baseline 2002 emissions. The U.S. Energy Information Administration forecasts no growth in coal consumption by the paper industry through 2018. Bowater also provided paper industry forecasts showing the newsprint market will continue to decline through 2018, further reducing the need for burning coal at the mill.

Second, the modeling analysis used emissions data for these boilers that is much higher than current and anticipated emissions from these boilers. Bowater re-iterates that the 2002 emissions

Mr. Quincy Styke January 29, 2008 Page 2

were calculated using a conservative coal sulfur content of 1.5%. Based on historical records, the actual coal sulfur content averages between 1.0% and 1.1%, overestimating the future SO_2 emissions by an additional 30%. More importantly, actual emissions from these boilers are substantially less than 2002 (see comment 4.).

Third, the power boiler utilization is seasonal, resulting in SO_2 emissions being 10% to 30% lower than modeled during the warmer summer months when the 20% worst visibility days are observed. When these facts are considered together, the modeled 2018 emissions are overestimated by 25% or more on the 20% worst days.

2. Bowater Contribution to Visibility

VISTAS identified geographic Areas of Influence (AOIs) for each Class I area to assist states in evaluating which sources should be considered for four factor analyses for reasonable progress (Appendix H, pages H-27 and H-30). VISTAS multiplied the distance weighted annual SO2 emissions by the residence time weighted sulfate extinction coefficient, based on back-trajectory modeling for each Class I area, to determine the potential impact from each source (page H-32). As noted in Appendix H, the residence time indicates general flow patterns, but does not necessarily imply specific contributions to visibility impairing pollutants (page H-30).

The potential impacts from all sources were then normalized by the total impact to determine the percentage contribution from each source. For the reasons documented in Appendix H, TDEC determined that any source with a potential contribution exceeding one percent would be required to submit a four factor analysis for SO2 (pages H-43 and H-44). Since the Bowater potential contribution exceeds one percent even after revising the power boiler emissions (see Comment 1), the four factor analysis submitted by Bowater was still required.

As noted above, the potential contribution to visibility impairment developed by VISTAS is simply a screening tool for states to determine who should submit four factor analyses as part of the long term strategy for each Class I area. The visibility impairment due to individual sources, expressed by VISTAS as the relative percent contribution, or determined by other means such as CALPUFF modeling, is not part of the four statutory factors for assessing reasonable progress at each Class I area. For this reason, the relative contribution or impact of individual sources on visibility is not a suitable metric to determine whether specific sources should install SO2 controls.

Every Class I area within Tennessee, as well as the Class I areas in neighboring states, meet the reasonable progress goal during the first planning period. Therefore, the impact to visibility of individual sources like Bowater, regardless of the apparent magnitude or the method used to estimate the impact, is not relevant when considering additional SO2 controls during the first planning period.

3. Bowater NO_X Emissions

Mr. Quincy Styke January 29, 2008 Page 3

The four factor analysis was focused exclusively on sulfur dioxide, and did not address other pollutants potentially contributing to regional haze.

Although nitrogen oxides (NO_X) were not identified by VISTAS for control during the first planning period, Bowater installed low NO_X burners on the two large coal-fired boilers in 2004 to reduce NO_X emissions during the ozone season. The low NO_X burners reduced emissions by over 40%, and this reduction is not reflected in baseline 2002 model inventory. Furthermore, although not required by the NO_X SIP Call, Bowater operates the low NO_X burners year round, which benefits the visibility on the 20% best days as well as the 20% worst days.

4.0 Bowater Energy Conservation

Bowater is continually seeking ways to reduce manufacturing costs to maintain a competitive market position. Energy is a large component of the manufacturing cost, and coal is the most expensive fuel used at the Calhoun mill. As Bowater continues improving energy efficiency to reduce manufacturing costs, coal consumption will continue to decline. As a result of these ongoing efforts, Bowater reduced consumption in 2007 to 135,237 tons and anticipates 2008 coal consumption will be approximately 115,000 tons, a 35% reduction from the 2002 baseline of 177,579 tons.

5.0 Conclusion

Bowater does not believe controlling SO_2 emissions from the power boilers is justified for achieving reasonable progress during the first planning period that extends until 2018.

If you have any questions or require further information, please call me at (423) 336-7117.

Sincerely,

'Grady

Director of Environmental Affairs

6691950.2

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner

Carol A. Couch, Ph.D., Director

April 9, 2007

Ms. Myra Reece SC - Dept of Health and Env Control Bureau of Air Quality 2600 Bull St Columbia SC 29201-1797

Re: Four Factor Analysis for Regional Haze

Dear Ms. Reece:

Under the Environmental Protection Agency's Regional Haze Rule (citation), the Georgia Environmental Protection must submit to EPA a State Implementation Plan (SIP) that establishes reasonable progress towards achieving natural visibility conditions. In order to achieve this uniform rate of progress, EPD must establish reasonable progress goals through emissions reductions defined in the state's SIP submittal.

Section 169A(g)(1) of the CAA and Section 51.308(d)(1)(i)(A) of the Regional Haze Rule deems that States must consider four "statutory factors" in consultation with other affected States, Federal Land Managers, and all stakeholders, in determining their reasonable progress goals.

These following four statutory factors are:

- a) The costs of compliance,
- b) The time necessary for compliance,
- c) The energy and non air quality environmental impacts of compliance, and

d) The remaining useful life of existing sources that contribute to visibility impairment.

An analysis of wind trajectory residence times, 2018 SO2 emission projections, and distance from nearby Class I areas allowed EPD to identify sources likely to contribute more than 0.5% to the total visibility impairment caused by sulfate at nearby Class I areas in 2018. Based on this analysis, a number of facilities in Georgia and neighboring states have been identified by EPD as sources which significantly impact one or more Class I areas in Georgia. Since Cohutta Wilderness and other nearby Class I areas are clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, only non-EGUs impacting these Class I area were included on the list. Since the Class I areas in Southern Georgia and Northern Florida (e.g, Okefenokee, Wolf Island, St. Marks) are not clearly meeting the uniform rate of progress glide slope according to VISTAS modeling, both EGUs and non-EGUs impacting these Class I area were included on the list. Myra Reece April 9, 2007 Page three

- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 1
- PROGRESS ENERGY FLORIDA, INC. CRYSTAL RI UNIT 2
- RAYONIER PERFORMANCE FIBERS LLC UNIT 6
- SAINT JOHNS RIVER UNIT 16
- SAINT JOHNS RIVER UNIT 17
- SEMINOLE ELECTRIC COOPERATIVE, INC.- UNIT 1
- SEMINOLE ELECTRIC COOPERATIVE, INC. UNIT 2
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 66
- WHITE SPRINGS AGRICULTURAL CHEMICALS, INC UNIT 67

The sources in South Carolina that are contained in this list include:

- GIANT CEMENT CO UNIT 005
- HOLCIM:HOLLY HILL UNIT 002
- MEADWESTVACO CORPORATION INC UNIT 006
- SANTEE COOPER CROSS UNIT 002
- SANTEE COOPER CROSS UNIT 3
- SANTEE COOPER JEFFERIES UNIT 003
- SANTEE COOPER JEFFERIES UNIT 004
- SCE&G:CANADYS UNIT 001
- SCE&G:CANADYS UNIT 002

The sources in Tennessee (non-EGU only) that are contained in this list include:

- A.E. STALEY MANUFACTURING COMPANY UNIT 005
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 16
- ALUMINUM COMPANY OF AMERICA SOUTH PLAN UNIT 17
- BOWATER NEWSPRINT & DIRECTORY CALHOUN UNIT 015
- E. I. DU PONT DE NEMOURS AND COMPANY UNIT 0002
- EASTMAN CHEMICAL COMPANY UNIT 021520
- INTERTRADE HOLDINGS, INC. UNIT 001
- U.S. DEPARTMENT OF ENERGY, Y-12 PLANT UNIT 002

The Georgia facilities on this list have been sent letters requesting that they perform a Four Factor Analysis and submit their report to us by May 31, 2007. We would like for you to consider adding your state's facilities listed above to your state's final "Four Factor Analysis" list of facilities. In addition, we would very much appreciate a copy of your final "Four Factor Analysis" list of facilities when it is ready.

Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner

Carol A. Couch, Ph.D., Director

April 9, 2007

Mr. Ron Gore AL - Dept of Env Management Air Division PO Box 301463 Montgomery AL 36130-1463

Re: Four Factor Analysis for Regional Haze

Dear Mr. Gore:

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- EASTMAN CHEMICAL COMPANY UNIT 021520
- INTERTRADE HOLDINGS, INC. UNIT 001
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State of Vermont

Department of Environmental Conservation

AGENCY OF NATURAL RESOURCES

AIR POLLUTION CONTROL DIVISION

Building 3 South 103 South Main Street Waterbury, VT 05671-0402

TEL 802-241-3840

FAX 802-241-2590

February 23, 2007

Lonice C. Barrett, Commissioner

Georgia Environmental Protection Department of Natural Resources 2 Martin Luther King Jr. Drive, S.E., Suite 1152 East Tower Atlanta, GA 30334 Mar 06 2007

Environmental Protection Division Director's Office

Dear Commissioner Barrett:

This letter has two purposes. Its first purpose is to present a brief summary of results of analyses which the State of Vermont, in conjunction with the Regional Planning Organization (RPO) MANE-VU, has conducted to fulfill requirements for the protection of visibility in federally managed areas of the United States known as Class I areas (Section 169A of the Clean Air Act). The analyses indicate that sources of visibility impairing air pollutants in the State of Georgia are contributing significantly to regional haze in the Class I Lye Brook Wilderness area located in Vermont.

MAR - 1 2007

COMINICASINER'S OFFICE

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Its second purpose is to invite you and/or representatives from the department/agency responsible in your state for regulatory air matters, to participate in a consultation process to determine an appropriate mitigation strategy for Lye Brook Wilderness. The consultation process will develop a recommendation for the most cost-effective strategy, agreeable to all jurisdictions involved, for implementation of long-term measures and controls which demonstrate that reasonable progress goals for the Class I area, to be established in Vermont's State Implementation Plan (SIP), will be achieved.

Background:

Environmental Protection Agency (EPA) final regional haze rules promulgated on July 1, 1999 require every state, whether containing a Class I area or not, to develop a SIP describing that state's control commitments (if any) to a long-term strategy for achieving reasonable progress goals (RPGs) in all Class I areas by 2018. 2018 is the end of the first 10 year period in a series of periodic SIP submittals that are required by the rules. The first SIPs under the regional haze rules (40 CFR 51.300) must be submitted to EPA by December 2007. Individual state plans that are developed need to be consistent with each other for them to be effective in achieving the RPGs. The regulations at 40 CFR 51.308 (d) (1) (iv) require a documented consultation process between all states involved in any multi-state strategy aimed at achieving the RPGs. This consultation record is one element required in the SIP of any state such as Vermont which contains one or more Class I areas. This letter serves to initiate the formal consultation process between our two states regarding the strategies to be incorporated in our state SIPs for submittal in December 2007.

Because the development of an effective strategy for mitigation of regional haze will be regional in nature, several other states have also been invited to participate in this consultative process to develop a SIP strategy that demonstrates the RPGs for visibility will be met in Lye Brook Wilderness Area by 2018. Vermont is a member of the Regional Planning Organization MANE-VU which is comprised of the New England States and New York,



State of Vermont Department of Environmental Conservation

TABLE 1

AGENCY OF NATURAL RESOURCES

States to be Consulted on Establishing Vermont's Class I Area 2018 Reasonable Progress Goals and Strategies for Achieving Them

State Name

Connecticut Delaware District of Columbia Georgia Illinois Indiana Kentucky Maine Maryland Massachusetts Michigan New Hampshire New Jersev New York North Carolina Ohio Pennsylvania Rhode Island Tennessee Virginia West Virginia Wisconsin

<u>Primary Haze-Causing Significant Impact⁽¹⁾</u> <u>and/or Other Reason for Inclusion</u>

MANE-VU member MANE-VU member MANE-VU member Sources impact > 2% Sulfate Contribution MANE-VU member Sources impact > 2% Sulfate Contribution Sources impact > 2% Sulfate Contribution Sources impact > 2% Sulfate Contribution MANE-VU member MANE-VU member Sources impact > 2% Sulfate Contribution MANE-VU member Sources impact > 2% Sulfate Contribution Sources impact > 2% Sulfate Contribution Sources impact > 2% Sulfate Contribution Sources impact > 2% Sulfate Contribution

⁽¹⁾ From the report entitled "Contributions to Regional Haze in the Northeast and Mid-Atlantic United States", prepared by NESCAUM for the Mid-Atlantic / Northeast Visibility Union (MANE-VU), August 2006. The primary criteria Vermont used to identify a state as having a significant impact on Vermont's Class I area was the modeled base-year 2002 state-wide sulfur oxide emission impacts on the ambient sulfate levels predicted at receptors in the Class I area. Any state with a modeled annual average sulfate ion impact greater than 2% of all modeled sulfate ion impacts was considered to have "significant impacts" for purposes of consultation on long-term strategies and reasonable progress goals.



Georgia Department of Natural Resources

Environmental Protection Division • Air Protection Branch 4244 International Parkway • Suite 120 • Atlanta • Georgia 30354 404/363-7000 • Fax: 404/363-7100 Noel Holcomb, Commissioner Carol A. Couch, Ph.D., Director

reci mal

April 5, 2007

Justin Johnson Deputy Commissioner Department of Environmental Conservation Vermont Agency of Natural Resources 103 South Main Street, 1 South Building Waterbury, VT 05671-0401

Re: Your letter of February 23, 2007

Dear Mr. Johnson:

This is in response to your letter to the Georgia Department of Natural Resources regarding interstate consultation for improving visibility at the Lye Brook Wilderness Class I area. Your letter indicated that the Vermont Department of Environmental Conservation, based on analysis conducted by the MANE-VU Regional Planning Organization, has identified Georgia as a state that may reasonably contribute to visibility impairment at Lye Brook Wilderness Class I.

Georgia EPD is a member of the VISTAS Regional Planning Organization. Based on VISTAS SO2 emissions sensitivity modeling for 2009 and VISTAS SO2 Area of Influence (AOI) work for 2018, we have concluded that Georgia does not reasonably contribute to visibility impairment at Lye Brook Wilderness Class I Area. Furthermore, it should be noted that Georgia EPD is currently in the process of requiring 95% SO2 controls to be installed on the seven largest coal fired power plants in Georgia. Not all of these controls were accounted for in the SO2 emission sensitivity modeling or the SO2 AOI work; therefore, Georgia's contributions to Lye Brook Wilderness Class I area in these analyses will be a conservative upper bound leading to our conclusion that Georgia EGU and non-EGU SO2 sources do not reasonably contribute to visibility impairment at Lye Brook Wilderness Area.

Georgia will continue to work with VISTAS, which has been and will continue to participate in discussions with MANE-VU regarding these matters. If you would like to discuss the details of our analyses and our conclusions based on these analyses, please feel free to contact us.

If you have any questions or need more information, please contact Jimmy Johnston at (404) 363-7014.

Sincerely,

Carol A. Couch Director

c: Heather Abrams Jimmy Johnston Jim Boylan Pat Brewer, VISTAS John Hornback, VISTAS

STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR PROTECTION JOHN FLIAS BALDACCI VID P | ITTFL GOVERNOR COMMISSIONER February 26, 2007 MAR -22007 Lonice C. Barrett, Commissioner 2 Martin Luther King Jr. Drive, S.E., Suite 1152 East Tower Atlanta, GA 30334 MAK 06 Dear Commissioner Barrett:

Environmental Protection Division I am writing to request your state participate in the development of Maine's regional haze 2a programs under Section 169A of the Clean Air Act. Visibility impairment, or regional haze, is caused by fine particle air pollution from many sources located over a wide region, and is an issue of great importance to both the future of our nation's wild places, and to the health of millions throughout the United States. In Maine, and most of the northeast, regional haze is due primarily to emissions of sulfur oxides (SO_x) , organic carbon, and nitrogen oxides (NO_x) . Regional haze has reduced visibility in the East by as much as 75% from natural conditions, and the same pollutants that are responsible for visibility degradation also cause a variety of serious health environmental impacts such as cardio-pulmonary disease, and contribute to the acidification of our waters.

The national visibility goal, as set forth in Section 169A of the Clean Air Act (CAA), requires "the prevention of any future, and the remedying of any existing, impairment of visibility in Class I areas which impairment results from manmade air pollution." The 156 Class I areas across the country include many well-known national parks and wilderness areas, such as the Grand Canyon National Park in Arizona and Shenandoah National Park in Virginia. Maine is fortunate to be home to three Class I areas: 1) Acadia National Park; 2) Moosehorn National Wildlife Refuge Wilderness Area; and 3) Roosevelt Campobello International Park. States with Class I areas are required to maintain and improve visibility in these areas to eventually achieve natural background conditions by the year 2064.

The federal regional haze rules implementing Section 169A of the CAA require all states, to prepare State Implementation Plans (SIPs) demonstrating that reasonable progress is being made toward meeting the 2064 visibility goals. The first regional haze SIP is due in December 2007, and for Class I states such as Maine, must include reasonable progress goals for 2018 that have been developed in consultation with any other state having emissions that are reasonably anticipated to contribute to impairment in any of the State's Class I areas.¹ Future regulations to control air pollutant emissions affecting visibility must be evaluated and included in our regional haze SIPs before setting this first reasonable progress goal. Although future regional haze plans may need to address emissions from a very broad geographic area, for the purposes of this first SIP, we plan to focus our regional haze consultation and planning efforts on a number of eastern states. Appendix 1 provides a listing of these states along with technical justification for their inclusion in our first consultation process.

¹ 40 CFR 51.308 (d) (1) (iv)

AUGUSTA **17 STATE HOUSE STATION** AUGUSTA, MAINE 04333-0017 (207) 287-7688 FAX: (207) 287-7826 RAY BLDG., HOSPITAL ST.

BANGOR 106 HOGAN ROAD BANGOR, MAINE 04401 PORTLAND 312 CANCO ROAD PORTLAND, MAINE 04103

PRESQUE ISLE 1235 CENTRAL DRIVE, SKYWAY PARK PRESQUE ISLE, MAINE 04769-2094 (207) 941-4570 FAX: (207) 941-4584 (207) 822-6300 FAX: (207) 822-6303 (207) 764-0477 FAX: (207) 760-3143

In an effort to better utilize technical resources and foster inter-state and inter-agency cooperation in regional haze planning, EPA established and is funding Regional Planning Organizations (RPOs). Maine is a member of the Mid-Atlantic Northeast Visibility Union (MANE-VU), which is coordinating plans to reduce regional haze in the Northeast and Mid-Atlantic states.² During 2007, MANE-VU will be scheduling consultation meetings with the express intent of establishing reasonable progress goals for the Class I areas in the northeastern states. MANE-VU may also be working with other RPOs to which your State belongs (i.e.; the Mid-West RPO or VISTAS).

I am inviting your state to participate in our consultation process, and to send a representative to future meetings scheduled through our respective Regional Planning Organization. These meetings will provide a forum for discussing the policy and technical foundations behind the establishment of the first reasonable progress goals for the Class I areas of the northeastern United States, and will greatly facilitate the development of a coordinated program to address regional haze that will also significant public health benefits in the form of reduced fine particulate (and precursor) emissions. Please send the name, address and telephone number of the appropriate agency contact person to Jeff Crawford, Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333.

Thank you for considering this request and we look forward to working with you and your staff on this important initiative..

Sincercly,

David P. Littell Commissioner

C:\ James Brooks, ME DEP Jeffrey Crawford, ME DEP Arthur Marin, NESCAUM Susan Weirman, MARAMA Chris Recchia, OTC Sandra Silva, USFWS Tim Allen, USFWS Bruce Polkowsky, USDA, FS Randy Moore, USDA, FS Anne Acheson, USDA, FS Anne Mebane, UDAA, FS Chris Shaver, NPS

² MANE-VU's members include Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the Penobscot Nation, the St. Regis Mohawk Tribe, the U.S. Environmental Protection Agency, the U.S. National Park Service (NPS), the U.S. Fish and Wildlife Service (FWS), and the U.S. Forest Service (USFS).

Appendix 1

States to be Consulted During the Establishment of Maine's Class I Area 2018 **Reasonable Progress Goals**

State	Technical Justification for Inclusion ³							
	MANE- VU	REMSAD	Q/D	Calpuff NWS	Calpuff MM5	% Time Upwind		
	Member							
Connecticut	X							
Delaware	X		and the second second second					
District of	X							
Columbia								
Georgia			X					
Illinois			X	X		X		
Indiana								
Kentucky			X	X	X	X		
Maryland	X							
Massachusetts	X							
Michigan		X	X	X	X	X		
New	X							
Hampshire								
New Jersey	X			·				
New York	X							
North Carolina			X		X			
Ohio		X	X	X	X	X		
Pennsylvania	X							
Rhode Island	X							
Tennessee					X			
Vermont	X							
Virginia					X			
West Virginia		X	X	X	X	X		

³ From the report entitled "Contributions to Regional Haze in the Northeast and Mid-Atlantic United States", prepared by NESCAUM for the Mid-Atlantic / Northeast Visibility Union (MANE-VU), August 2006.

RECEIVED APR 0 4 2007 AIR PROTECTION BRANCH

Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, S.E., Suite 1152 East, Atlanta, GA 30334-4100

Noel Holcomb, Commissioner Environmental Protection Division Carol A. Couch, Ph.D., Director Phone: (404) 656-4713

March 26, 2007

The Honorable David P. Littell Commissioner Maine Department of Environmental Protection 17 State House Station Augusta, Maine 04333

Subject: Your letter of February 26, 2007

Dear Commissioner Littell:

This is in response to your letter to the Georgia Department of Natural Resources regarding interstate consultation for improving visibility at Maine's Class I areas. Your letter indicated that the Maine Department of Environmental Protection, based on analysis conducted by the MANE-VU Regional Planning Organization, has identified Georgia as a state that may reasonably contribute to visibility impairment at Maine's Class I areas.

Georgia EPD is a member of the VISTAS Regional Planning Organization. Based on VISTAS SO2 emissions sensitivity modeling for 2009 and VISTAS SO2 Area of Influence (AOI) work for 2018, we have concluded that Georgia does not reasonably contribute to visibility impairment at any of Maine's Class I Areas (Acadia National Park, Moosehorn National Wildlife Refuge, and Roosevelt Campobello International Park). Furthermore, it should be noted that Georgia EPD is currently in the process of requiring 95% SO2 controls to be installed on the seven largest coal fired power plants in Georgia. Not all of these controls were accounted for in the SO2 emission sensitivity modeling or the SO2 AOI work; therefore, Georgia's contributions to Maine's Class I areas in these analyses will be a conservative upper bound leading to our conclusion that Georgia EGU and non-EGU SO2 sources do not reasonably contribute to visibility impairment at Acadia National Park, Moosehorn National Wildlife Refuge, nor Roosevelt Campobello International Park.

Georgia will continue to work with VISTAS, which has been and will continue to participate in discussions with MANE-VU regarding these matters. If you would like to discuss the details of our analyses and our conclusions based on these analyses, please feel free to contact us.

If you have any questions or need more information, please contact Jimmy Johnston at (404) 363-7014.

Sincerely,

Carol A. Couch Director

cc: Heather Abrams Jimmy Johnston Jim Boylan Pat Brewer, VISTAS John Hornback, VISTAS



Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersev

New York

Pennsylvania

Rhode Island

Vermont

Virginia

Christopher Recchia Executive Director

444 N. Capitol St. NW Suite 638 Washington, DC 20001 (202) 508-3840 FAX (202) 508-3841 e-mail: ozone@otcair.org July 10, 2007

Noel Holcomb, Commissioner Georgia Environmental Protection Department of Natural Resources 2 Martin Luther King, Jr. Drive, SE Suite 1252 East Tower Atlanta, GA 30334

Dear Mr. Holcomb,

On behalf of New Jersey, New Hampshire, Vermont, and Maine, the Mid-Atlantic/Northeast Visibility Union (MANE-VU) States with Class I areas, I am pleased to invite you to our upcoming State-to-State consultation call and meetings. We are holding these events in order to comply with the consultation requirements specified in 40 CFR, Part 51, and in accordance with the Inter-RPO Consultation Framework that MANE-VU approved at its May 5, 2005 Board Meeting.

Our goal for these and future consultation calls and meetings is to help states exchange and understand information regarding visibility issues in MANE-VU Class I areas, and to facilitate States' working together to develop acceptable approaches and policies for improving visibility.

After reviewing technical analyses the MANE-VU Class I states have formulated some ideas on the types and amounts of emissions reductions that are reasonable and, therefore, necessary to achieve reasonable progress in improving visibility at MANE-VU Class I areas. Due to the downwind location of MANE-VU Class I areas, these emissions reductions would be from states both within and outside the MANE-VU region. We know that you have also been working hard to address the visibility issues facing your own region's Class I areas. The consultation calls and meetings we engage in over the next several weeks will allow us to compare our work and findings, discuss what adjustments may be appropriate, and provide an opportunity to develop mutually beneficial solutions.

MANE-VU has been working closely with the Visibility Improvement State and Tribal Association of the Southeast (VISTAS) to find mutually convenient dates and times for these events, and we hope that you will be able to participate in these discussions. The schedule of calls and meetings that have been planned are as follows:

 Open Technical Call on July 19, 2007 from 10 am – 12:30 pm EDT (call-in number 1-866-537-1634, passcode 7545482#); and In-person Consultation Meeting on August 20, 2007 in Atlanta, GA from 10:00 am – 3:30 pm EDT.

The purpose of the Open Technical Call on July 19th is to provide a forum for States/staff from all three RPOs to summarize their technical analyses and findings, and to discuss the initial ideas on the types and amounts of reductions that may be needed to achieve reasonable progress. The call is open to all States and Tribes in the MANE-VU, VISTAS and MRPO regions, and open to all levels of participation (Commissioner/ Secretary, Air Director and staff), as well as to representatives from the U.S. Environmental Protection Agency and the Federal Land Manager agencies.

The purpose of the in-person Consultation Meeting on August 20th is to have State-to-State policy discussions based on the technical analyses and findings presented during the Open Technical Call. We anticipate that at this meeting we will go into greater depth in our discussion of the types of actions and reductions necessary to achieve reasonable progress, in accordance with the requirements of the Regional Haze Rule. The meeting is open to all States and tribes in the MANE-VU and VISTAS regions, as well as to representatives from the U.S. Environmental Protection Agency and the Federal Land Manager agencies. We welcome all levels of State and Tribal participation, but it will be particularly important to have decision-makers in attendance who can engage in meaningful discussions with other States and Tribes on policies and solutions to the visibility issues affecting the Class I areas.

As both the Open Technical Call and the in-person Consultation Meeting are government-to-government transactions, stakeholders are not to participate.

Attached are draft agendas for the Open Technical Call and the inperson Consultation Meeting. We are circulating these drafts for your review and comment, and will work with VISTAS to revise as necessary to facilitate our discussions.

In addition, attached is the draft table of contents for a briefing book which will contain summaries of the technical analyses and work that MANE-VU has performed. We will be developing these briefing books and getting them to you in advance for your use during the Open Technical Call and Consultation Meeting.

Finally, we are attaching a copy of four actions recently approved by MANE-VU. The first is a Resolution by the MANE-VU States with Class I areas outlining the principles they will follow in implementing the Regional Haze Rule. The second is a Statement that lays out a course of action that

MANE-VU, as a region, will pursue toward assuring reasonable progress. The third is a Statement that outlines the MANE-VU States' initial request for a course of action by States outside of the MANE-VU region toward assuring reasonable progress at our Class I areas. The course of action described is intended as a starting point for our discussions, and will be examined in light of the technical work and findings provided by or on behalf of the affected States during the Open Technical Call and the in-person Consultation Meeting. The fourth of these attachments is a request that we are making of the U.S. Environmental Protection Agency to work with the eastern Regional Planning Organizations to develop a national proposal to achieve additional cost-effective SO_2 reductions. MANE-VU would welcome support from other RPOs for this request for EPA action.

Please contact me if you have any questions about the scheduling or logistics of the call or meeting, or generally about the consultation process. On behalf of the MANE-VU States, I look forward to working with you and VISTAS to develop an informative and productive consultation process of that yields mutually beneficial results.

Sincerely,

An

Anna Garcia Acting Executive Director

Cc: Dr. Carol Couch, Georgia DEP Heather Abrams, Georgia DNR Jimmy Johnston, Georgia DNR

Enclosures

MANE-VU Class I States' Consultation / Open Technical Call

1) <u>When</u> – July 19, 2007, 2 hours (10:00 AM – 12:00 PM)

2) <u>Call-in Number</u> – 1-866-537-1634, passcode 7545482#

***** Draft Agenda*****

10:00 am	Introductions and Roll Call; Purpose of Today's Call	Anna Garcia
10:15 am	Review of MANE-VU's Contribution Assessment	Gary Kleiman
10:35 am	Q & A's on Contribution Assessment	All participants
10:40 am	Review of MANE-VU Reasonable Progress Project	Susan Wierman
11:00 am	Q & A's on Reasonable Progress Project	All participants
11:10 am	Reasonable Progress and Long-Term Strategy in MANE- VU Class I Areas: Resolution on Consultations Request for a course of action from contributing states (within MANE-VU region and outside it) Request for National action (from EPA)	MANE-VU Class I States
11:25 am	Reasonable Progress and Long-Term Strategy Needs from States Outside of MANE-VU Needs from MANE-VU region states Needs for National action (from EPA)	MWRPO and VISTAS Class I States
11:40 am	Discussion	All participants
11:50 am	Next Steps: In-Person Consultations – Week of July 30 th	Anna Garcia

DRAFT AGENDA MANE-VU Class I States' Consultation with VISTAS States

1) <u>When</u>: 10:00 a.m., August 20, 2007

2) <u>Where</u>: Georgia Environmental Protection Division Training Room 4244 International Parkway, Suite 116, Atlanta, Georgia

10:00 am	Welcome & Introductions	David Littell, ME DEP
	- Goals for Meeting	Chair, MANE-VU
10:15 am	Overview of July 19 Technical Conference Call and MANE-VU Consultation Briefing Book	Anna Garcia, OTC
10:30 am	Summary of Reasonable Progress Work for MANE-VU Class I Areas - Proposed request from MANE-VU Class I States for controls in the VISTAS region and from EPA - Where the MANE-VU reasonable progress goal (RPG) is in 2018	MANE-VU Class I State Representative
10:50 am	Clarifying Questions	All Participants
11:00 am	Summary of Reasonable Progress Work for VISTAS Class I Areas - Proposed request from VISTAS states for controls in the MANE-VU region - Where the VISTAS RPGs are in 2018	VISTAS Class I State Representative
11:50 am	Clarifying Questions	All Participants
12:00 pm	Working Lunch	
12:30 pm	FLM Perspectives on RPGs and Reasonable Measures Work	EPA and FLM Representatives
12:45 pm	EPA Perspectives on RPGs and Reasonable Measures Work	EPA and FLM Representatives
1:00 pm	Roundtable Discussion on Reasonable Progress Goals and Reasonable Measures	All Participants
2:30 pm	Preliminary Summary of Consultation Discussions - Areas with agreement - Areas with no agreement	
2:45 pm	Next Steps	
3:00 pm	End of Consultation	

Inter-RPO Consultation Briefing Book

Table of Contents

<u>Tab 1</u> – Introduction

<u>Tab 2</u> – Consultation Overview

Tab 3 – MANE-VU Class 1 States' Resolution and MANE-VU Statements

Tab 4 – Uniform Rate of Progress

<u>Tab 5</u> – Pollution Apportionment

<u>Tab 6</u> – BART

<u>Tab 7</u> – Technical Support for Reasonable Progress Goals and Long Term Strategies

- Tab 7A Overview of Control Options and Reasonable Progress Report
- <u>Tab 7B</u> Approach to Control Measures and EGU Stacks Analysis
- Tab 7C Summary of MANE-VU's CAIR+ Report

Tab 8 – Summary of Work

Mid-Atlantic/Northeast Visibility Union

MANE-VU

Reducing Regional Haze for Improved Visibility and Health

RESOLUTION OF THE COMMISSIONERS OF STATES WITH MANDATORY CLASS I FEDERAL AREAS WITHIN THE MID-ATLANTIC NORTHEAST VISIBILITY UNION (MANE-VU) REGARDING PRINCIPLES FOR IMPLEMENTING THE REGIONAL HAZE RULE

- WHEREAS the Clean Air Act and EPA's Regional Haze Rules require all States to identify key sources of haze-causing air pollution, develop plans to reduce emissions from those sources, and submit those plans to EPA by December 2007; and
- WHEREAS pollutants that impair visibility also cause unhealthy levels of ozone and fine particle pollution, and both the types of emission sources and major individual emission sources that contribute to visibility impairment in mandatory Class I Federal areas also contribute to unhealthy levels of ozone and fine particle pollution in urban and suburban areas; and,
- WHEREAS implementing controls to improve visibility in national parks and wilderness areas that are mandatory Class I Federal areas will also improve air quality in areas that are not currently attaining the health-based standards for ozone and fine particle pollution; and,
- WHEREAS the Clean Air Scientific Advisory Committee (CASAC) and USEPA staff have recently reviewed the health protection adequacy of the fine particulate and ozone standards and recommended these standards be lowered to more protective levels, and that additional emission controls would be required in order to meet more stringent ambient air quality standards; and,
- WHEREAS all States are required to develop and submit State Implementation Plans (SIPs) to control fine particulates, ozone and Regional Haze with varying dates for attaining a health or welfare standard; and,

444 North Capitol Street, NW ~ Suite 638 ~ Washington, DC 20001 202.508.3840 p ~ 202.508.3841 f www.mane-vu.org

Members

Connecticut Delaware District of Columbia Maryland Massachusetts New Hampshire New Jersey New York Pennsylvania Penobscot Indian Nation Rhode Island St. Regis Mohawk Tribe Vermont

Nonvoting Members U.S. Environmental

Protection Agency National Park Service U.S. Fish and Wildlife Service U.S. Forest Service

MANE-VU Class I Areas ACADIA NATIONAL PARK ME BRIGANTINE WILDERNESS NJ GREAT GULF WILDERNESS NH

LYE BROOK WILDERNESS

VT

MOOSEHORN WILDERNESS

PRESIDENTIAL RANGE DRY RIVER WILDERNESS

ROOSEVELT CAMPOBELLO INTERNATIONAL PARK ME/NB, CANADA

- Allow the regulated community to better plan for the future with greater certainty with regard to air pollution control measures and programs; and
- WHEREAS technical analysis conducted for MANE-VU has identified sulfur dioxide emissions from sources in twenty-three States in the eastern United States as contributing to visibility impairment in the baseline year of 2002 within the MANE-VU mandatory Class I Federal areas (see attached list); and,
- WHEREAS further technical analysis conducted for MANE-VU has identified sulfur dioxide emissions from stacks at key Electric Generating Units (EGUs) as the most significant source of sulfate at MANE-VU mandatory Class I Federal areas in the baseline year of 2002, and
- WHEREAS it is in the best interest of human health and the environment to achieve these reductions as soon as practicable and as required by the Regional Haze rule and Clean Air Act to meet the 2018 planning goal for regional haze:

THEREFORE, be it resolved, that the Commissioners of the States with mandatory Class I Federal areas within MANE-VU will implement the regional haze rule in accordance with a set of principles that set forth a path for a) achieving reasonable progress toward preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal areas, and b) leveraging the multi-pollutant benefits that such actions may provide for enhanced public health and environmental protection; and

FURTHERMORE, that the set of principles for implementing the regional haze rule includes the following:

- We will establish reasonable progress goals for the mandatory Class I Federal areas within our borders based upon an identification of existing sources affecting visibility, considering new, existing and planned emissions control measures, and reflecting the requisite 4-Factor Analysis conducted to determine reasonable measures that can be implemented by 2018; and these goals will achieve as much or more visibility improvement as would be achieved by the uniform rate of progress, and
- 2. We invite all States identified as contributing to visibility impairment (listed below) in MANE-VU mandatory Class I Federal areas to review specific proposed measures identified as reasonable according to the 4-factor analysis required by the Regional Haze Rule, and

- 3. We will ask all States identified as contributing to visibility impairment in MANE-VU mandatory Class I Federal areas to make timely emissions reductions consistent with measures determined to be reasonable through the consultation process; and
- 4. In setting our reasonable progress goals, we are assuming all measures determined to be reasonable by the Class I states are implemented in contributing states; and
- 5. Our reasonable progress goals will assume implementation of measures already deemed "reasonable" to meet other requirements of the Clean Air Act within the MANE-VU or Ozone Transport Commission States, and we will seek agreement from other contributing States and areas outside the OTC or MANE-VU regions to implement these measures as well; and
- 6. The invitation to contributing States to review the proposed reasonable measures includes an option of flexibility such that each contributing State could obtain its share of the emission reductions needed to meet the progress goals for the MANE-VU mandatory Class I Federal areas through implementation of other new or expanded rules or programs that will achieve a commensurate or equal level of emission reduction in their State and visibility benefit in the mandatory Class I Federal areas as would have been achieved through implementation of the reasonable measure in the same time frame requested by the MANE-VU States with mandatory Class I Federal areas, and
- 7. We call upon Federal Land Managers responsible for the air quality within our national parks and wilderness areas to identify any State's Regional Haze SIP submittal that is inconsistent with the reasonable progress goals set by Class I States, and to express concerns in writing to the affected States and to EPA during the 60-day SIP review period required by the Regional Haze rule, and
- 8. We call upon the US EPA to act on any inconsistencies between the reasonable progress goals set by the States with mandatory Class I Federal areas and the Regional Haze SIPs of contributing States and to resolve these discrepancies prior to approving the affected States' Regional Haze SIPs and to act on incomplete SIPs in the SIP review process, and
- 9. We will call upon the US EPA to implement any national or regional measures deemed "reasonable" through the consultation process through new or expanded federal rules, and
- 10. Through the consultation process, we will seek near-term commitments to implement new or expanded reasonable measures and long-term

resolve these discrepancies prior to approving the affected States' Regional Haze SIPs and to act on incomplete SIPs in the SIP review process, and

- 9. We will call upon the US EPA to implement any national or regional measures deemed "reasonable" through the consultation process through new or expanded federal rules, and
- 10. Through the consultation process, we will seek near-term commitments to implement new or expanded reasonable measures and long-term commitments in the 10 year or beyond time frame to reduce fine particle, nitrogen oxide, volatile organic compound and sulfur dioxide emissions, and
- 11. We commit to submitting the 5-year progress reports required by the Regional Haze rule as a revision to the initial SIP, and we will use these reports to review the status of measures committed to in initial SIPs, to address unresolved new control programs, to determine the availability and need for new reasonable measures and to adjust the Regional Haze SIP accordingly. The Class I states will rely on adequate Federal funding to comply with this Federal requirement.

Respectfully signed and committed,

The Commissioners of the States with mandatory Class I Federal areas in MANE-VU

New Hampshire

New Jersey

Maine

Nermont

States within MANE-VU and others Contributing at least 2% of Modeled Sulfate to 2002 Concentrations at MANE-VU mandatory Class I Federal areas

1

Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut New York New Jersey Pennsylvania Delaware Maryland District of Columbia Michigan Illinois Indiana Ohio Wisconsin Kentucky West Virginia Virginia Tennessee North Carolina South Carolina Georgia

Members

Connecticut Delaware District of Columbia Maryland Massachusetts New Hampshire New Jersey New York Pennsylvania Penobscot Indian Nation Rhode Island St. Regis Mohawk Tribe Vermont

Nonvoting Members U.S. Environmental Protection Agency National Park Service U.S. FIsh and Wildlife Service U.S. Forest Service

MANE-VU Class I Areas ACADIA NATIONAL PARK ME BRIGANTINE WILDERNESS NJ GREAT GULF WILDERNESS NH

LYE BROOK WILDERNESS

MOOSEHORN WILDERNESS ME

PRESIDENTIAL RANGE DRY RIVER WILDERNESS NH

ROOSEVELT CAMPOBELLO INTERNATIONAL PARK ME/NB, CANADA Mid-Atlantic/Northeast Visibility Union

Reducing Regional Haze for Improved Visibility and Health

STATEMENT OF THE MID-ATLANTIC/NORTHEAST VISIBILITY UNION (MANE-VU) CONCERNING A COURSE OF ACTION WITHIN MANE-VU TOWARD ASSURING REASONABLE PROGRESS

The federal Clean Air Act and Regional Haze rule require States that are reasonably anticipated to cause or contribute to impairment of visibility in mandatory Class I Federal areas to implement reasonable measures to reduce visibility impairment within the national parks and wilderness areas designated as mandatory Class I Federal areas. Most pollutants that affect visibility also cause unhealthy concentrations of ozone and fine particles. In order to assure protection of public health and the environment, any additional air pollutant emission reduction measures necessary to meet the 2018 reasonable progress goal for regional haze should be implemented as soon as practicable.

To address the impact on mandatory Class I Federal areas within the MANE-VU region, the Mid-Atlantic and Northeast States will pursue a coordinated course of action designed to assure reasonable progress toward preventing any future, and remedying any existing impairment of visibility in mandatory Class I Federal areas and to leverage the multi-pollutant benefits that such measures may provide for the protection of public health and the environment. This course of action includes pursuing the adoption and implementation of the following "emission management" strategies, as appropriate and necessary:

- timely implementation of BART requirements; and
- a low sulfur fuel oil strategy in the inner zone States (New Jersey, New York, Delaware and Pennsylvania, or portions thereof) to reduce the sulfur content of: distillate oil to 0.05% sulfur by weight (500 ppm) by no later than 2012, of #4 residual oil to 0.25% sulfur by weight by no later than 2012, of #6 residual oil to 0.3 – 0.5% sulfur by weight by no later than 2012, and to further reduce the sulfur content of distillate oil to 15 ppm by 2016; and
- a low sulfur fuel oil strategy in the outer zone States (the remainder of the MANE-VU region) to reduce the sulfur content of distillate oil to 0.05% sulfur by weight (500 ppm) by no later than 2014, of #4 residual oil to 0.25 0.5% sulfur by weight by no later than 2018, and of #6 residual oil to no greater than 0.5% sulfur by weight by no later than 2018, and to further reduce the sulfur content of distillate oil to 15 ppm by 2018, depending on supply availability; and

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- A 90% or greater reduction in sulfur dioxide (SO₂) emissions from each of the electric generating unit (EGU) stacks identified by MANE-VU (Attachment 1-comprising a total of 167 stacks dated June 20, 2007) as reasonably anticipated to cause or contribute to impairment of visibility in each mandatory Class I Federal area in the MANE-VU region. If it is infeasible to achieve that level of reduction from a unit, alternative measures will be pursued in such State; and
- continued evaluation of other control measures including energy efficiency, alternative clean fuels, and other measures to reduce SO₂ and nitrogen oxide (NOx) emissions from all coal-burning facilities by 2018 and new source performance standards for wood combustion. These measures and other measures identified will be evaluated during the consultation process to determine if they are reasonable and cost-effective.

This long-term strategy to reduce and prevent regional haze will allow each state up to 10 years to pursue adoption and implementation of reasonable and cost-effective NOx and SO_2 control measures.

Adopted by the MANE-VU States and Tribes on June 20, 2007

Mid-Atlantic/Northeast Visibility Union

MANE-VU

Reducing Regional Haze for Improved Visibility and Health

STATEMENT OF THE MID-ATLANTIC/NORTHEAST VISIBILITY UNION (MANE-VU) CONCERNING A REQUEST FOR A COURSE OF ACTION BY STATES OUTSIDE OF MANE-VU TOWARD ASSURING REASONABLE PROGRESS

The federal Clean Air Act and the Regional Haze rule require States that are reasonably anticipated to cause or contribute to impairment of visibility in mandatory Class I Federal areas to implement reasonable measures to reduce visibility impairment within the national parks and wilderness areas designated as mandatory Class I Federal areas. Most pollutants that affect visibility also cause unhealthy concentrations of ozone and fine particles. In order to assure protection of public health and the environment, air pollutant emission reductions required to meet the 2018 reasonable progress goal for regional haze should be achieved as soon as practicable.

To address the impact on mandatory Class I Federal areas within the MANE-VU region, the Mid-Atlantic and Northeast States request that States outside of the MANE-VU region that are identified as contributing to visibility impairment in the MANE-VU mandatory Class I Federal areas pursue a course of action designed to assure reasonable progress toward preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal areas and to leverage the multi-pollutant benefits that such actions may provide for the protection of public health and the environment. This request for a course of action includes pursuing the adoption and implementation of the following control strategies, as appropriate and necessary:

- timely implementation of BART requirements; and
- A 90% or greater reduction in sulfur dioxide (SO₂) emissions from each of the electric generating unit (EGU) stacks identified by MANE-VU (Attachment 1-comprising a total of 167 stacks dated June 20, 2007) as reasonably anticipated to cause or contribute to impairment of visibility in each mandatory Class I Federal area in the MANE-VU region. If it is infeasible to achieve that level of reduction from a unit, alternative measures will be pursued in such State; and
- the application of reasonable controls on non-EGU sources resulting in a 28% reduction in non-EGU SO₂ emissions, relative to on-the-books, on-the-way 2018 projections used in regional haze planning, by 2018, which is equivalent to the projected reductions MANE-VU will achieve through its low sulfur fuel oil strategy ; and

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Members Connecticut Delaware District of Columbia Maryland Massachusetts New Hampshire New Jersey New York Pennsylvania Penobscot Indian Nation Rhode Island St. Regis Mohawk Tribe Vermont

Nonvoting Members U.S. Environmental Protection Agency National Park Service U.S. FIsh and Wildlife Service U.S. Forest Service

MANE-VU Class I Areas ACADIA NATIONAL PARK ME BRIGANTINE WILDERNESS NJ GREAT GULF WILDERNESS NH LYE BROOK WILDERNESS VT MOOSEHORN WILDERNESS ME PRESIDENTIAL RANGE

DRY RIVER WILDERNESS

ROOSEVELT CAMPOBELLO INTERNATIONAL PARK ME/NB, CANADA • continued evaluation of other measures including measures to reduce SO2 and nitrogen oxide (NOx) emissions from all coal-burning facilities by 2018 and promulgation of new source performance standards for wood combustion. These measures and other measures identified will be evaluated during the consultation process to determine if they are reasonable.

This long-term strategy to reduce and prevent regional haze will allow each state up to 10 years to pursue adoption and implementation, of reasonable NOx and SO_2 control measures.

Adopted by the MANE-VU States and Tribes on June 20, 2007

Mid-Atlantic/Northeast Visibility Union

MANE-VU

Reducing Regional Haze for Improved Visibility and Health

STATEMENT OF THE MID-ATLANTIC / NORTHEAST VISIBILITY UNION (MANE-VU) CONCERNING A REQUEST FOR A COURSE OF ACTION BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) TOWARD ASSURING REASONABLE PROGRESS

The US Clean Air Act and the EPA Regional Haze rule require States that are reasonably anticipated to cause or contribute to impairment of visibility in mandatory Class I Federal areas to implement reasonable measures to reduce visibility impairment within the national parks and wilderness areas designated as mandatory Class I Federal areas.

Most pollutants that affect visibility also cause unhealthy concentrations of ozone and fine particles, and contribute to other adverse environmental impacts. In order to assure protection of public health and the environment, air pollutant emission reductions required to meet the 2018 reasonable progress goal for regional haze should be achieved as soon as practicable.

MANE-VU assessments indicate that sulfur dioxide emissions from power plants in a broad region of the Eastern US are the most important contributor to regional haze at mandatory Class I Federal areas within MANE-VU.

By 2018, emissions from these plants will be substantially reduced under requirements of EPA's Clean Air Interstate Rule. This will result in improved visibility at MANE-VU Class I areas.

However, even after implementation of the CAIR rule, emissions from power plants will remain a substantial source of pollutants contributing to visibility impairment in MANE-VU Class I areas.

Furthermore, under more stringent national ambient air quality standards, these same pollutants will continue to contribute to ozone pollution and fine particle pollution in nonattainment areas within the region.

Therefore, it is an important responsibility of both EPA and the MANE-VU states to determine whether additional emissions reductions at power plants should be a part of a reasonably available strategy to improve visibility in the MANE-VU region.

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ROOSEVELT CAMPOBELLO INTERNATIONAL PARK ME/NB, CANADA MANE-VU sponsored additional modeling using the Integrated Planning Model (IPM[®]). Results of this modeling indicate that an additional 18% emissions reduction in SO2 emissions beyond CAIR levels could be achieved by 2018 at a reasonable cost.

The MANE-VU states and tribes request that EPA work with the eastern Regional Planning Organizations to develop a proposal for tightening the CAIR program to achieve an additional 18% reduction in SO2 by no later than 2018.

Adopted by the MANE-VU States and Tribes on June 20, 2007