

US EPA ARCHIVE DOCUMENT

December 19, 2003

Mr. J. I. Palmer, Jr., Regional Administrator
USEPA, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Palmer:

As a requirement for continued participation in South Carolina's 8-Hour Ozone Early Action Compact, enclosed you will find the December 2003 Progress Report completed by participating counties and the South Carolina Department of Health and Environmental Control (DHEC). Enclosure 1 includes the report for DHEC and Enclosure 2 includes the report for each participating county, grouped by the following areas:

Appalachian: Anderson, Cherokee, Greenville, Oconee, Pickens, Spartanburg
Catawba: Chester, Lancaster, Union, York
Pee Dee: Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro
Waccamaw: Georgetown, Horry, Williamsburg
Santee Lynches: Clarendon, Kershaw, Lee, Sumter
Berkeley-Charleston-Dorchester: Berkeley, Charleston, Dorchester
Low Country: Beaufort, Colleton, Hampton, Jasper
Lower Savannah: Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg
Central Midlands: Fairfield, Lexington, Newberry, Richland
Upper Savannah: Abbeville, Edgefield, Greenwood, Laurens, Saluda

The modeling and emissions inventory components of the early action process remain on schedule. Meetings continue to be held with local stakeholder groups to assist in determining the emission reduction strategies that will be included in the final local Early Action Plans due to EPA in March 2004. DHEC has requested assistance from EPA, Region 4 in determining emission reductions from proposed strategies.

Thank you for the assistance and support EPA has provided in this process. We look forward to continuing to work with EPA as we implement measures to achieve cleaner air sooner for South Carolina and our neighboring states. Should you have questions or desire additional information, please do not hesitate to contact Jim Joy, Chief of DHEC's Bureau of Air Quality at (803) 898-4123 or Henry Phillips of his staff at (803) 898-3260.

Sincerely,

R. Lewis Shaw, P.E.
Deputy Commissioner
Environmental Quality Control

Enclosures: 1. South Carolina DHEC December 2003 Progress Report
2. December 2003 Progress Reports for Participating Local Areas

cc: Kay Prince, EPA Region 4
County Officials (no attachments*)
Ron Methier, GA Dept. of Natural Resources (no attachments*)
Keith Overcash, NC Dept. of Environmental and Natural Resources (no attachments*)
EQC District Directors (no attachments*)

*All those not receiving attachments will be notified when materials are placed on website.

Statewide Initiatives and Emission Reduction Strategies

Early Action Compact Milestone December, 2003
 List of Emission Reduction Strategies Under Consideration
 Bureau of Air Quality – DHEC
 State of South Carolina

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist South Carolina in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Ozone Forecast/Outreach and Education	The Division of Emissions, Modeling and Support develops a forecast for the 8-hour ozone standard. The forecast is for four areas within South Carolina. These areas include the Upstate, Central Midlands, Central Savannah River and Pee Dee. The Catawba area, including Chester, Lancaster and York counties is included in North Carolina's forecast through a cooperative partnership. A link for the Catawba forecast is included on DHEC's website. This year, 2003, was the first year that South Carolina forecasted for the Pee Dee area. The Division of Air Planning, Development and Outreach is responsible for disseminating the ozone forecast to interested individuals and groups across the state, primarily during the summer months. The forecast serves as a public health advisory to protect those persons who are most at risk to the effects of ozone.	Directionally Sound	Ongoing	Forecast Areas: Upstate area - Anderson, Oconee, Pickens, Greenville, Abbeville, Laurens, Greenwood, Spartanburg, Cherokee, and, Union counties. Central Midlands area – Newberry, Fairfield, Kershaw, Lexington, Richland, Calhoun, Kershaw, and, Sumter. Central Savannah River area – Allendale, Barnwell, Aiken, Saluda, Edgefield, and, McCormick. Pee Dee area – Lee, Darlington, Florence, and, Chesterfield
Support activities implemented by local areas participating in the EAC	SC has been and will continue to work with EPA to assist local areas in determining the emission reduction strategies that will assist the area in achieving emission reductions needed for attaining and maintaining the 8-hour ozone standard within their respective area. The Division of Air Planning, Development and	Directionally Sound	Ongoing	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
	<p>Outreach continues to develop a Resource Guide for Air Quality Improvement that contains useful information to assist counties in planning for cleaner air sooner. This guide is a work-in-progress in which DHEC will continue to search for new information and ask that any information gathered and/or found by counties be shared so that it can be added and used for the benefit of everyone. This guide consists of informational text, pamphlets, hand-outs, useful websites, and other resources that will serve as a tool for county planning.</p> <p>Fact sheets have either been developed or revised to assist with understanding ozone, ozone monitoring and the ozone design value. Copies of these fact sheets were included in the June 2003 submittal.</p> <p>Forms for the milestones have been developed by the Division and provided to the participating areas to assist with the reporting aspect of the EAC. These forms were approved by EPA and were shared with other states involved in the EAP process.</p>			
Open Burning	<p>Revise the existing state regulation (R.61-62.2, Prohibition of Open Burning) to reduce statewide NOx/PM/CO emissions. The DHEC Board granted initial approval of the proposed regulation on October 9, 2003. An informational forum was held on November 24, 2003. Final approval by the DHEC Board will be requested January 8, 2004, for submittal to the state legislature.</p>	Currently Evaluating	<p>Promulgation should occur by June 2004. Implementation expected by 2005.</p>	Statewide
South Carolina NOx Control Regulation	<p>This proposed regulation is designed to help control the growth of NOx emissions statewide and focuses on sources currently not subject to NOx control requirements. This proposed regulation would apply to new NOx sources but would exempt units that are regulated by other NOx regulations with equivalent requirements. The DHEC Board granted initial approval of the proposed regulation on October 9, 2003. An informational forum was held on November 24, 2003.</p>	Currently Evaluating (See Attachment 1)	<p>Promulgation should occur by June 2004. Implementation expected by 2005.</p>	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
	Final approval by the DHEC Board will be requested January 8, 2004, for submittal to the state legislature.			
CAIGE	Develop, implement and market a plan for reducing ground-level ozone precursors by state government.	Voluntary efforts Directionally Sound	April 2005	Statewide
Smart Highways	A plan to ensure transportation plans, programs and projects consider statewide and local air quality goals. Certain aspects of the Transportation Conformity regulations may be incorporated into such a plan.	Not applicable		Statewide
Initiative to reduce NOx emissions from large facilities within South Carolina	Staff within the Bureau of Air Quality, have met with some of the "larger" facilities in South Carolina to negotiate NOx emissions through the permitting process. Those reductions will be made available once they are finalized.	Currently Evaluating	April 2005	Statewide
Tier 2 standards	Federal emission standard for passenger cars, light trucks, and larger passenger vehicles. Program designed to focus on reducing the emissions most responsible for the ozone and particulate matter impact from these vehicles, including NOx and VOCs.	Currently Evaluating (See Attachment 2)	Phase in period 2004-2007	Statewide
Low Sulfur	Program to reduce average gasoline sulfur levels nationwide	Currently Evaluating (See Attachment 2)	Phase in period 2004-2007	Statewide
NOx SIP Call	Federal Rule calling for SIP revision that requires sources in 17 states, including South Carolina to reduce summertime NOx emissions.	18 percent reduction in NOx (See Attachment 2)	2004	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Estimated Reductions Achieved by NOx Control Standards from Uncontrolled Levels

Source Type	Control Technology and/or Emission Limit	Percent Reduction from Uncontrolled
Boilers and Water Heaters		
Natural Gas Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 30ppmv @ 3% O2 Dry (0.036 lb/mmBTU)	50% ¹
≥100mmBTU/hr	Low NOx Burners + Flue Gas Recirculation or equivalent technology capable of achieving 30 ppmv @ 3% O2 Dry (0.036 lb/mmBTU)	50- 60% ¹
Distillate Oil Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 0.15 lb/mmBTU	50% ¹
≥100mmBTU/hr	Low NOx Burners + Flue Gas technology capable of achieving 0.14 Recirculation or equivalent lb/mmBTU	60% ¹
Residual Oil Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 0.3 lb/mmBTU	50% ¹
≥100mmBTU/hr	Low NOx Burners + Flue Gas Recirculation or equivalent technology capable of achieving 0.3 lb/mmBTU	60% ¹

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Multiple Fuel Boilers		The emission limits for boilers burning multiple fuels are calculated in accordance with the formulas below. Additional fuels shall be addressed on a case-by-case basis.
≥10mmBTU/hr and < 100mmBTU/hr	$E_n = [(0.036 \text{ lb/mmBTU } H_{np}) + (0.15 \text{ lb/mmBTU } H_{do}) + (0.3 \text{ lb/mmBTU } H_{ro}) + (0.35 \text{ lb/mmBTU } H_c) + (0.2 \text{ lb/mmBTU } H_w)] / (H_{np} + H_{do} + H_{ro} + H_c + H_w)$ <p>where: E_n is the nitrogen oxides emission limit (expressed as NO₂), ng/J (lb/million Btu) H_{np} is the heat input from combustion of natural gas, H_{do} is the heat input from combustion of distillate oil H_{ro} is the heat input from combustion of residual oil, H_c is the heat input from combustion of coal, H_w is the heat input from combustion of wood residue.</p>	≈50% ¹
≥100mmBTU/hr	$E_n = [(0.036 \text{ lb/mmBTU } H_{np}) + (0.14 \text{ lb/mmBTU } H_{do}) + (0.3 \text{ lb/mmBTU } H_{ro}) + (0.25 \text{ lb/mmBTU } H_c) + (0.2 \text{ lb/mmBTU } H_w)] / (H_{np} + H_{do} + H_{ro} + H_c + H_w)$ <p>where: E_n is the nitrogen oxides emission limit (expressed as NO₂), ng/J (lb/million Btu) H_{np} is the heat input from combustion of natural gas, H_{do} is the heat input from combustion of distillate oil H_{ro} is the heat input from combustion of residual oil, H_c is the heat input from combustion of coal. H_w is the heat input from combustion of wood residue.</p>	≈60% ¹
<i>Wood Residue Boilers</i>		
All types	Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.20 lb/mmBTU	0-50% ²
Coal Fired Stoker Fed Boilers		
< 250 mmBTU/hr	Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.35 lb/mmBTU	34% ³

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

≥ 250 mmBTU/hr	Combustion controls to minimize NO _x emissions or equivalent technology capable of achieving 0.25 lb/mmBTU	53% ³
Pulverized Coal Fired Boilers		
< 250 mmBTU/hr	Low NO _x Burners + Combustion controls to minimize NO _x emissions or equivalent technology capable of achieving 0.35 lb/mmBTU	50% ¹
≥ 250 mmBTU/hr	Low NO _x Burners + Combustion controls to minimize NO _x emissions + SCR or equivalent technology capable of achieving 0.14 lb/mmBTU	70%+ ¹
Municipal refuse fired boilers		
< 250 mmBTU/hr	Combustion modifications to minimize NO _x emissions + Flue Gas Recirculation or equivalent technology capable of achieving 200 ppmv @12% CO ₂ (0.35 lb/mmBTU)	12% ³
≥ 250 mmBTU/hr	Staged Combustion and Automatic Combustion Air Control + SCR or equivalent technology capable of achieving 0.18 lb/mmBTU	55% ³
Internal Combustion Engines		
Compression Ignition	Timing Retard ≤ 4° + Turbocharger w/ Intercooler or equivalent technology capable of achieving 490 ppmv @ 15% O ₂ (7.64 gm/bhp-hr)	20-30% ¹
Spark Ignition	Lean Burn Technology or equivalent technology capable of achieving 1.0 gm/bhp-hr	87% ¹
Landfill or Digester Gas Fired	Lean Burn Technology or equivalent technology capable of achieving 1.25 gm/bhp-hr	≈50% ^{EST}

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Gas Turbines		
Simple Cycle – Natural Gas		
< 50 Megawatts	Combustion Modifications (e.g. dry low-NOx combustors) to minimize NOx emissions or equivalent technology capable of achieving 25 ppmv @ 15% O ₂ Dry (0.054 lb/mmBTU)	81% ⁴
≥ 50 Megawatts	Combustion Modifications (e.g. dry low-NOx combustors) to minimize NOx emissions or equivalent technology capable of achieving 9.0 ppmv @ 15% O ₂ Dry (0.033 lb/mmBTU)	84% ¹
<i>Combined Cycle – Natural Gas</i>		
< 50 Megawatts	Dry Low-NOx Combustors or equivalent technology capable of achieving 9.0 ppmv @ 15% O ₂ Dry (0.033 lb/mmBTU)	84% ¹
≥ 50 Megawatts	Dry Low-NOx Combustors + SCR or equivalent technology Capable of achieving 3.0 ppmv @ 15% O ₂ Dry (0.011lb/mmBTU)	94% ¹
<i>Simple Cycle - Distillate oil combustion</i>		
< 50 Megawatts	Combustion Modifications and water injection to minimize NOx emissions or equivalent technology capable of achieving 42 ppmv @ 15% O ₂ Dry Basis (0.16 lb/mmBTU)	68% ¹
≥ 50 Megawatts	Combustion Modifications and water injection to minimize NOx emissions or equivalent technology capable of achieving 42 ppmv @ 15% O ₂ Dry Basis (0.16 lb/mmBTU)	68% ¹
<i>Combined Cycle - Distillate oil combustion</i>		
< 50 Megawatts	Dry Low-NOx Combustors with water injection, or equivalent technology capable of achieving 42 ppmv @ 15% O ₂ Dry Basis (0.16 lb/mmBTU)	68% ¹

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

≥ 50 Megawatts	Dry Low-NOx Combustors, water injection, and SCR or Equivalent technology capable of achieving 10.0 ppmv @ 15% O ₂ Dry Basis (0.038 lb/mmBTU)	90% ¹
Landfill Gas Fired	Water or steam injection or low NOx turbine design or equivalent technology capable of achieving 25 ppmv @ 15% O ₂ (0.097 lb/mmBTU)	48% ⁴
Cement Kilns		
All	Low NOx Burner or equivalent technology capable of achieving a 30% reduction from uncontrolled levels	30%
Fluidized Bed Combustion (FBC) Boiler:		
Coal Fired	SNCR- Urea (Selective Noncatalytic Reduction - Urea) capable of achieving 0.07 lbs/mmBTU (51.8 ppm @ 3% oxygen)	75% ¹
Wood Fired	SNCR- Urea (Selective Noncatalytic Reduction - Urea) capable of achieving 0.07 lbs/mmBTU (51.8 ppm @ 3% oxygen)	55% ¹
Recovery Furnaces		
All	4 th level or air to recovery furnace/good combustion practices or equivalent technology capable of achieving 100 ppm @8% oxygen	0-30% ⁵
Lime Kilns		
All	Combustion controls or equivalent technology capable of achieving 175 ppm @ 10% oxygen	25% ³
Fuel Combustion Sources Not Otherwise Specified: (Examples include but are not limited to process heaters, dryers, furnaces, ovens, duct burners, incinerators, and smelters)		

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

All	Low NOx Burners or equivalent technology capable of achieving 30 ppmv @ 3% O ₂ Dry (0.036 lb/mmBTU)	0-60% ¹
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- ¹ – EPA 456/F-99-066R “EPA Technical Bulletin – Nitrogen Oxides (NO_x), Why & How they are Controlled”, Nov. 1999.
- ² – EPA 453/R-94-022 “Alternative Control Techniques Document – NO_x Emissions from Industrial/Commercial/ Institutional Boilers”, March 1994
- ³ – Compared with emissions from EPA’s AP-42 “Compilation of Air Pollutant Emission Factors”
- ⁴ – EPA’s “Emission Factor Documentation for AP-42 Section 3.1 Stationary Gas Turbines”, April 2000
- ⁵ - Information found on EPA’s RACT/BACT/LAER Clearinghouse plus information found in the Willamette PSD permit review (SC).

Utility Reductions from EGUs in the NOx SIP Call

<i>Utility</i>	<i>1998 Emissions¹ (tons/day)</i>	<i>2007 Emissions (tons/day)</i>	<i>2012 Emissions (tons/day)</i>
Progress Energy	13.76	30.97	30.97
SCE&G	147.8	84.06	84.06
Santee Cooper	151.65	21.34	30.97
Duke Power	17.21	13.70	13.70
Total	330.42 tons/day	150.07	159.70
Reduction from 1998 Levels	-	54.6%	51.7%

¹ - Emission data represents modeling episode only.

Note: Data is for the EGU units under the NOx Trading Program Only.

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Reductions from Tier II and Low Sulfur Fuel Regulatory Changes
 (For May 1998 Episode & Future Years Using Mobile6 Model)

Year	Mobile On-Road Emissions (tons/day)	% Reduction from 1998 Levels
1998	345	-
2007	153	55.6%
2010	128	62.9%
2012	116	66.3%

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

These are the Draft Plans of Emission Reduction Strategies for the Catawba Region submitted for the December 10, 2003 Early Action Compact Milestone.

Lancaster County Early Action Compact
List of Emission Reduction Strategies

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Lancaster County in achieving and/or maintaining the 8-hour ozone standard by 2007.

Measure under Consideration	Description of measure <i>(A more detailed description will be included in the Early Action Plan.)</i>	Estimate of emission reductions (if available)	Proposed date for implementation	Geographic area and/or local government
<i>Early Action Plan Organization Meeting</i>	<i>County officials met with department heads, citizens, education, and corporate officials to begin organizing an Early Action Plan. Attended by 25 individuals.</i>	<i>Not Available</i>	<i>May, 2003</i>	<i>County wide</i>
<i>Ozone Action Coordinator</i>	<i>County staff person responsible for ozone education/outreach and dissemination of ozone forecast.</i>	<i>Not available</i>	<i>July, 2003</i>	<i>County wide</i>
<i>Park and Ride Facilities</i>	<i>County staff will evaluate the number of workers commuting to other counties within South Carolina and work with local businesses willing to allow park and ride opportunities at their place of business. The county has set a goal of 20 percent of the workforce carpooling by the year 2007.</i>		<i>July, 2003 (On-going effort)</i>	<i>County wide</i>
<i>Web Site</i>	<i>Lancaster County is in the process of developing a web site devoted to educating the public about ozone emissions and ways the public can assist in lowering airborne pollutants</i>	<i>Not Available</i>	<i>July, 2003</i>	<i>County Wide</i>
<i>Public Service Announcements, Learn TV Cable, Education TV</i>	<i>Lancaster County will produce public service announcements that will be shown on local cable television outlets and the County's education TV channel promoting ways the public can improve air quality.</i>	<i>Not Available</i>	<i>July, 2003</i>	<i>County Wide.</i>
<i>Community Meetings</i>	<i>Lancaster County officials will be meeting with the Chamber of Commerce, Rotary, and other community groups in order to explain the Early Action Plan and steps that can be taken by individuals and companies to improve air quality.</i>	<i>Not Available</i>	<i>June -July 2003</i>	<i>County Wide</i>

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.

	<i>Plan also includes creating stakeholder agreements with individuals, companies, and civic groups in order to implement air quality measures that improve the community.</i>			
<i>Alternate Work Schedule</i>	<i>Policy will be developed for implementing AWS for employees of area business and industry</i>	<i>Not Available</i>	<i>April 2004</i>	<i>County Government and Local Companies</i>
<i>Education</i>	<i>Educate the public through web sites, education TV, education TV slides, PSAs, school group meetings, web sites, radio and print ads, etc. about the EAP and ways individuals and businesses can improve air quality (i.e. vehicles, home appliances, boats, heavy machinery, alternative fuels, agriculture, etc.)</i>	<i>Not Available</i>	<i>2003-2007 On-going</i>	<i>County Government, School System, Learn TV, Education/Government TV</i>
<i>Recycling Programs</i>	<i>Continue to implement and improve education about County's recycling programs</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government</i>
<i>Car Fleets Using Alternative Energy Sources</i>	<i>Begin planning to implement alternative fuel sources for County fleets and encouraging alternative fuel fleets at local industry.</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government, Local Industry</i>
<i>Heavy Machinery</i>	<i>Implement educational efforts and possibly provide tax breaks to companies that utilize emission control systems on heavy machinery</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government, Local Industry</i>
<i>Traffic Synchronization</i>	<i>Continue to implement synchronization of all traffic lights in municipal areas to decrease stop and go traffic.</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government, Municipal Governments, State DOT</i>
<i>School Buses</i>	<i>Improve routes to decrease stop-and-go. Implement steps to purchase alternative fuel buses for fleets</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government, State Department of Education</i>
<i>Planning</i>	<i>Continue proper planning of communities to decrease urban sprawl and limit the amount of driving in communities. Density restrictions. Implementation of walking/bike trails in residential areas that connect to shopping and retail centers</i>	<i>Not Available</i>	<i>2003 Ongoing</i>	<i>County Government</i>

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.

<i>Student Driving</i>	<i>Restrict lower grades in high school from operating and driving cars to school</i>	<i>Not Available</i>	<i>August, 2003</i>	<i>County Government</i>
<i>Legislation</i>	<i>Implement legislation to control outdoor burning and educate the public about hazards</i>	<i>Not Available</i>	<i>August, 2003</i>	<i>County Government</i>

Early Action Compact Milestone - December 2003
 List of Emission Reduction Strategies Under Consideration

Chester County

According to the latest 8-hour ozone monitoring data, Chester County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Chester County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. Chester County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Establish Community Stakeholder Group	CAIR (Chester Air) group to be established which will allow citizens, local business, and local industry to collaborate in efforts to clean and protect the air. The group will focus on the prevention of ground level ozone formation.	N/A	November 2003	County-wide
Establish outreach website	CAIR will establish a web site to provide information about how to join the clean air group, and information on a few things citizens can do to help prevent ground-level ozone.	N/A	November 2003	County-wide
Eat- Lunch- In Area	The County will improve a pic-nic area to encourage county employees to Eat-Lunch-In	N/A	April 2005	County government
Take A Break From The Exhaust	Chester County government will encourage the TABFTE program to encourage its employees to carpool, walk to work, and eat-lunch-in during ozone season	N/A	April 2005	County government
Reduce Electricity Use	The Chester County Government will sponsor a program to encourage its employees to reduce their electricity use.	N/A	August 2003	County Government
Revised Purchasing Policy	The Chester County Government will update their purchasing policy to encourage buying in bulk, buying recycled and recyclable products, and buying energy efficient products including fleet vehicles.	N/A	May 2004	County Government

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.

Ozone Forecast	The ozone forecast during ozone season will be announced over the local radio station along with a tip of the day to reduce the ozone forming pollution.	N/A	April 2004	County-wide
Open Burning Ordinance	The County will pass a more stringent rule against the open burning of household garbage.	N/A	May 2004	County-Wide
Nature Based Tourism	The County will encourage a nature based tourism approach to encourage the preservation green spaces.	N/A	May 2004	

Union County Early Action Compact
List of Emission Reduction Strategies

Emission Reduction Strategy	Description and analysis of how strategy will be implemented	Estimate of emission reductions (if available)	Date for implementation	Resource Concerns/ Constraints	Geographic area and/or local government
Air Quality Contact	One person will be identified as the Air Quality Contact. At a minimum, this contact will be responsible for ozone education/outreach and dissemination of ozone forecast.	Not available		County wide	
Support state-wide efforts	Union County will support the efforts of SC DHEC regarding state-wide emission reduction strategies.	Not available		County wide	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

York County

According to the latest 8-hour ozone monitoring data, York County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, York County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. York County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
<i>Local Option Sales Tax Road Improvements</i>	<i>\$174 million sales tax referendum approved by York County voters in November 2003. Projects emphasize intersection improvements, paved shoulders, sidewalks, and improving traffic choke points.</i>	<i>Not available</i>	<i>2004-2012</i>	<i>Countywide</i>
<i>Peak hour bus service to Charlotte</i>	<i>Current Rock Hill Express bus service to Charlotte CBD from four Park-and-Ride facilities in York County.</i>	<i>Not available</i>	<i>Current</i>	<i>I-77 corridor</i>
<i>Update Development Regulations</i>	<i>York County staff is presently updating zoning and subdivision regulations to require sidewalks and lower thresholds for requiring deceleration and left-hand turn lanes into developments.</i>	<i>Not available</i>	<i>2004-2006</i>	<i>Countywide (requires County Council approval)</i>
<i>Ban open burning</i>	<i>York County currently prohibits all open burning during high ozone days.</i>	<i>Not available</i>	<i>Current</i>	<i>Countywide</i>
<i>MPO activities</i>	<i>Adoption of Long Range Transportation Plan with 30 percent of revenue targeted for congestion management projects, Major Investment Study ongoing to study feasibility of extending transit from Charlotte into York County, and ongoing Congestion Management Study to manage transportation network in urban areas.</i>	<i>Not available</i>	<i>2003-2025</i>	<i>MPO Study Area (Eastern portion of York County)</i>
<i>SEQL Resolution</i>	<i>York County will work with local Council of Government (COG) to identify practical measures to address air quality in accordance with the Sustainable Environment for Quality Life (SEQL) project administered by the Catawba COG.</i>	<i>Not available</i>	<i>2004-</i>	<i>Countywide</i>

Refer to the June 2003 Progress Report submitted by SCDHEC for statewide activities.