

**South Carolina and Georgia: Attainment Demonstrations for the Appalachian, Catawba, Pee Dee, Waccamaw, Santee Lynches, Berkeley-Charleston-Dorchester, Low Country, Lower Savannah, Central Midlands, and Upper Savannah Early Action Compact Areas**

Effective Update Date: 10/26/05 (70 FR 50195, 08/26/05)

**Background of the Plan:** Ozone is formed by a series of chemical reactions involving nitrogen oxides (NO<sub>x</sub>), and volatile organic compounds (VOCs). Ozone and its precursors have many adverse effects on human health, and in order to mitigate these adverse health effects, EPA issued an 8-hour ozone standard on July 18, 1997, and revoked the previous 1-hour ozone standard. On April 30, 2004, EPA designated every county in the United States as unclassifiable/attainment or nonattainment based on the level of ozone present in those areas. Several areas of the United States were found to be very near the cutoff level between attainment and nonattainment, and were also within compliance with the previous 1-hour ozone standard. As a result, several of these communities entered into an agreement between State, local governments, and EPA to implement measures not necessarily required by the Clean Air Act (CAA) to achieve cleaner air as soon as possible, and sooner than required. These areas were designated nonattainment-deferred. This agreement is called an Early Action Compact (EAC), and requires communities who elect to participate, to develop and implement air pollution control strategies, account for emissions growth, and demonstrate attainment by 2007 and maintenance for at least five years of the 8-hour ozone standard. Greater details of the EAC program are provided in EPA's December 16, 2003, proposed Federal Register document entitle "Deferral of Effective Date of Nonattainment Designations for 8-hour Ozone National Ambient Air Quality Standards for Early Action Compact Areas. On December 31, 2004, the State of South Carolina and the State of Georgia submitted to EPA State Implementation Plan (SIP) revisions pursuant to the EAC protocol in order to attain and maintain the 8-hour ozone national ambient air quality standard (NAAQS) in the Appalachian, Catawba, Pee Dee, Waccamaw, Santee Lynches, Berkeley-Charleston-Dorchester, Low Country, Lower Savannah, Central Midlands, and Upper Savannah EAC areas. These areas consist of a total of 37 counties

**Summary of the Plan:** The revisions to the South Carolina and Georgia SIP rely on an attainment level of emissions of VOCs and NO<sub>x</sub> to maintain the 8-hour ozone standard through a combination of control measures, within the Appalachian, Catawba, Pee Dee, Waccamaw, Santee Lynches, Berkeley-Charleston-Dorchester, Low Country, Lower Savannah, Central Midlands, and Upper Savannah EAC areas by 2007, and incorporated the measures developed by these EACs into South Carolina and Georgia SIP. Specifically, these revisions provide the following items:

1. An attainment demonstration for the 2007-2017 period.
2. A commitment for an interim evaluation in 2012.
3. A commitment to develop the maintenance plan for a second 10-year period for 2017-2027 and a schedule for developing that plan including emission inventories and air quality modeling.
4. A commitment to update the EAC plan and submit to EPA in 2015

5. A commitment to annually track stationary and highway mobile source emissions.
6. Commitment to adopt and implement additional control measures, if needed, throughout the maintenance period.
7. A commitment to perform air quality analyses reviews and report each December.
8. Commitments for tracking and taking follow-up action are in force unless the 8-hour ozone standard is revoked in the future.
9. A commitment to evaluate in 2008, whether or not a full modeling update is needed for all EAC areas.
10. Provide the following timeline of actions and submittals for the maintenance plan from December 2004 to December 2027.

The South Carolina and Georgia submittals describe several control measures already in place or being implemented over the next few years that will contribute to attainment and maintenance of the 8-hour ozone standard. These control measures include both stationary and mobile source controls, and the attainment demonstrations were conducted and supported through photo-chemical modeling. A failure to meet any of the commitments or milestones agreed upon through the EAC process will result in EPA taking action to propose and promulgate a finding of failure to meet the milestone, and to withdraw the deferred effective date of the nonattainment designation.

**Projected Design EAC Design Values:**

South Carolina/Georgia EAC Future Design Values (Parts Per Billion)

| Area/County                                     | 2007 | 2012 | 2017 |
|---|------|------|------|
| <b>Aiken/Augusta EAC Area</b>                   |      |      |      |
| Aiken   | 72   | 72   | 70   |
| Barnwell  | 71   | 71   | 69   |
| Edgefield                                       | 72   | 69   | 67   |
| Richmond, GA                                    | 77   | 75   | 74   |
| <b>Anderson/Greenville/Spartanburg EAC Area</b> |      |      |      |
| Abbeville                                       | 78   | 69   | 66   |
| Anderson  | 84   | 80   | 78   |
| Cherokee  | 80   | 78   | 76   |
| Oconee  | 74   | 72   | 71   |
| Pickens   | 80   | 77   | 75   |
| Spartanburg                                     | 81   | 80   | 79   |
| Union   | 73   | 67   | 64   |
| <b>Columbia EAC Area</b>                        |      |      |      |
| Richland  | 79   | 77   | 76   |
| Richland  | 80   | 77   | 75   |
| Richland  | 61   | 59   | 58   |
| <b>Darlington/Florence EAC Area</b>             |      |      |      |
| Darlington                                      | 77   | 74   | 73   |

|                       |    |    |    |
|-----------------------|----|----|----|
| Rock Hill EAC Area    |    |    |    |
| Chester               | 82 | 77 | 75 |
| York                  | 78 | 74 | 73 |
| Costal Sites EAC Area |    |    |    |
| Berkeley              | 69 | 67 | 66 |
| Charleston            | 66 | 64 | 63 |
| Charleston            | 71 | 68 | 69 |
| Colleton              | 68 | 66 | 64 |
| Williamsburg          | 61 | 61 | 60 |

**Control Measures:** The submittals describe several control measures already in place or being implemented over the next few years that will contribute to attainment and maintenance of the 8-hour ozone standard. These measures include controls on both stationary and mobile emission sources. These control measures include but are not limited to the following:

- New State Regulation to Control NOx
- Prohibition of Open Burning
- Smart Highways – Modified version of Transportation Conformity
- Voluntary permit limit by SEC &G –Wateree
- Voluntary permit reduction of 1,000 tons by International Paper
- Voluntary control equipment installation at Duke Power
- Voluntary early installation of control equipment at Transco Pipeline
- Truck Stop Electrification Project
- School Bus Retrofit Project
- Gas can Exchange Events
- Improvements to Park and Ride lot at Highway 378 and I-20
- Conversion of Commercial Vehicle Fleet to Propane
- Biodiesel Buses at University of South Carolina
- University of South Carolina Ethanol Project
- Take a Break from the Exhaust program
- SC DHEC E85 flex fuel vehicle fleet
- Ethanol refueling station for public
- Smart Ride – Mass Transit Programs

**Federal Register:** (70 FR 50195, 08/26/05), South Carolina and Georgia: Attainment Demonstrations for the Appalachian, Catawba, Pee Dee, Waccamaw, Santee Lynches, Berkeley-Charleston-Dorchester, Low Country, Lower Savannah, Central Midlands, and Upper Savannah Early Action Compact Areas – Final Rule; (70 FR Page 50195, 08/26/05), South Carolina and Georgia: Attainment Demonstrations for the Appalachian, Catawba, Pee Dee, Waccamaw, Santee Lynches, Berkeley-Charleston-Dorchester, Low Country, Lower Savannah, Central Midlands, and Upper Savannah Early Action Compact Areas – Proposed Rule.

**Contact:** Nacosta Ward, U.S. EPA, Region 4  
61 Forsyth Street, SW, Atlanta, Georgia 30303  
Telephone: (404) 562-9140; email: [ward.nacosta@epa.gov](mailto:ward.nacosta@epa.gov)