



TRIAD EARLY ACTION COMPACT

Alamance County and
Municipalities

Caswell County and
Municipalities

Davidson
County and Municipalities

Davie County and
Municipalities

Forsyth County and
Municipalities

Guilford County and
Municipalities

Randolph County and
Municipalities

Rockingham County and
Municipalities

Stokes County and
Municipalities

Surry County and
Municipalities

Yadkin County and
Municipalities

December 23, 2004

Ms. Kay T. Prince, Chief
Air Planning Branch
US Environmental Protection Agency, Region 4
61 Forsyth St. S.W.
Atlanta, GA 30303-8960

Dear Ms. Prince:

The December 2004 Progress Report from the Triad Early Action Compact is enclosed.

Please let me know if you or your staff have questions.

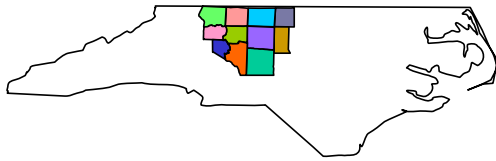
Sincerely,

Virginia G. Booker
Assistant Director
Piedmont Triad Council of Governments

Cc: Richard Schutt, Chief Regulatory Development Section, USEPA
Sheila Holman, Chief, Planning Section, NCDAQ

TRIAD EARLY ACTION
COMPACT
TRIAD EARLY ACTION
COMPACT

December 2004 Progress Report



TRIAD EARLY ACTION COMPACT – December, 2004 PROGRESS REPORT

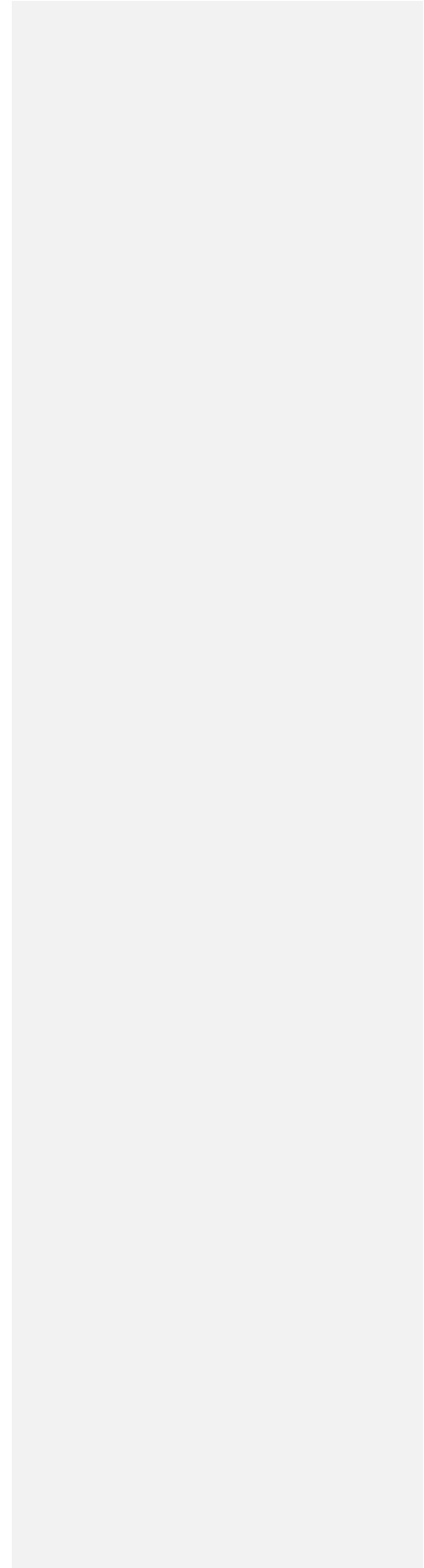
Table of Contents

	Page
<u>PART A</u>	<u>LOCAL AND REGIONAL PROGRESS</u>
Section 1	New and Revised Strategies Since June 2004 1
Section 2	Strategies Implemented Since June 2004..... 3
Section 3	Consideration of Recommendations for Improving Strategies 4
Section 4	Meetings Conducted By Stakeholders 5
<u>Part B</u>	<u>NEWS ARTICLES RELATED TO EAC, JUNE - DECEMBER 2004</u> 6
<u>PART C</u>	<u>TRIAD EAC SUBMISSION FOR STATE IMPLEMENTATION PLAN</u>
Section A	State Measures Enforceable in the Triad 25
Section B	Enforceable Local/Regional Initiatives 28
Section C	Voluntary Local/Regional Initiatives 31
Section D	Organizational Support and Public Education for Emission Reduction 43
Section E	Long-Term Planning for Emission Reduction 45
Appendix A	Letter from R. J. Reynolds..... 47
Appendix B	References and Citations to Planned Growth Ordinances from Selected Triad Communities That Promote Infill, Mixed Uses, Connectivity, Less Reliance on Automobiles and Green Communities..... Appendix 1

(NOTE: The North Carolina Division of Air Quality will submit the SIP attainment demonstration under separate cover.)

Part A

Local and Regional Progress



1. New and Revised Strategies Since June 30, 2004

The Triad EAC Stakeholders Group reviewed all strategies in our March 31, 2004 Early Action Plan in light of recent EPA guidance. In a continuing effort to improve these measures, we made a number of refinements that are incorporated into our December 2004 State Implementation Plan submission. We omitted strategies deemed to be too vague or unlikely to be achieved. We re-wrote many strategies in more concrete terms and added data, where available. We revised four strategies to include numerical goals and added six new ones. In addition, we reorganized our local/regional strategies into four categories:

- Enforceable
- Voluntary
- Organizational Support and Public Education for Emissions Reduction
- Long-Term Planning for Emissions Reduction

In November 2004 the revised strategies were sent to participating local governments for review and comment. No concerns or objections were expressed.

The most significant changes are:

- Revised Strategies #2 and #16, Build and Use Sidewalks, Greenways and Bicycle Routes - Strategy #2 refers to enforceable provisions, and Strategy #16 refers to voluntary provisions. **Set numerical mileage goals** for the period March 31, 2004 through December 31, 2007, based on local plans and budget commitments.
- Revised Strategies #4 and #25, Adopt Planned Growth Measures Including Pedestrian Friendly Communities and Transportation Strategies that Promote Connectivity and Less Reliance on Automobiles - Strategy #4 refers to enforceable provisions, and #25 refers to voluntary provisions. Several previous strategies were combined into this single measure. Significant new data was provided in the form of local ordinance excerpts, both enforceable and voluntary, that support this goal, (Appendix B). NOTE that in November the City of Greensboro was one of five EPA National Smart Growth Achievement Award winners. The award was for the Southside neighborhood, and it cited the city's Traditional Neighborhood District Ordinance as the catalyst for this 10-acre redeveloped area.
- Revised Strategy #6, Retrofit and/or Replace Diesel School Buses - **Set nationwide goal** of 165 buses with lower emissions between March 31, 2004 and December 31, 2005.
- Developed **two new strategies**: #8 Reduce Fleet Emissions and #9 Develop and Maintain a Regional Emissions Reduction Clearinghouse. Triad EAC is responsible for implementing both. Together, these strategies will provide a regional information and reporting system.

- Developed **new strategy # 13** Initiate and Grow a Hospital Transportation Shuttle that Connects Hospitals in the Triad and Triangle Regions.
- Established **new goal** of 11% ridership increase between December 31, 2003 and December 31, 2005 for Strategy #15 Provide Mass Transit Incentives and Passes.
- Established **new Strategy #26** Increase Use of Biodiesel in the Region. (Formerly, the strategy was “Purchase Lower Emission Fuel.”) Noted implementation of biodiesel purchase by two universities through city of Greensboro. Noted planned new wholesale distribution center for biodiesel fuel to be established in Triad by spring 2005.
- Established **new Strategy #27** Determine Potential and Value of Open-Burning and Lawnmower Buy-Back Policies. The Forsyth County Environmental Affairs Department will research feasibility and make recommendations to the EAC Stakeholders Group by December 31, 2005.

2. Strategies Implemented Since June 30, 2004

The Triad EAC SIP submission notes the following activities that have been implemented since June 2004:

- A letter from R.J. Reynolds (Appendix A) clarifies the implementation status regarding emissions trading of Strategy #3 Eliminate Coal Fired Boilers at R.J. Reynolds Tobaccoville Facility
- A new Appendix B identifies local ordinances, either enforceable or voluntary, that implement strategies #4 and #25, Adopt Planned Growth Measures.
- 123 diesel oxidation catalysts have been installed and 48 new school buses purchased as implementation measures for Strategy #6 Retrofit and/or Replace Diesel School Buses.
- The region's first electrified truck stop opened in Mebane, N.C. in July 2004, and emissions reductions are projected for Strategy #7, Provide Electrification Equipment at Truck Stops.
- New ridership data and implementation status is provided for Strategy #10, Increase Ridership of PART Express Bus Service and, Strategy 11, Expand PART Ride Sharing and Vanpooling, and Strategy #12 Carpool.
- Implementation updates are provided for strategies #14 Enhance Municipal Mass Transit Facilities and #15 Provide Mass Transit Incentives and Passes.
- Duke Power idling reduction guidelines were implemented in the summer 2004, Strategy #19.
- Idling reduction policies have been implemented for two additional county school systems Davidson County Schools and Alamance-Burlington School System, Strategy #20.

3. Consideration of Recommendations for Improving Strategies

The Triad EAC took into consideration guidance from EPA and feedback from the Southern Environmental Law Center in developing new strategies, revisions and additions.

From EPA, the Triad EAC referred to:

- the October 14, 2004 memorandum to Air Directors in Regions III, IV, VI and VIII from EPA's Ozone Strategies Group. The memorandum provided a critique of existing EAC strategies and recommendations for strengthening them.
- relevant comments in a November 10 letter from Kay Prince, Chief, Region IV Air Planning Branch to Keith Overcash, Director, NC Division of Air Quality. This letter recommended revisions to the pre-hearing draft version of North Carolina's 8-hour attainment demonstration for EAC areas.

The Southern Environmental Law Center (SELC) provided written comments and participated in four meetings with representatives of the Triad EAC. Written comments on EAC strategies were provided in a July 30, 2004 letter to Mr. Brock Nicholson and Ms. Sheila Holman, N.C. Division of Air Quality. This letter was followed by:

- two telephone conference calls with EAC representatives during the summer of 2004; and
- two meetings with the EAC chair, co-chair and other representatives on August 19 and September 28.

In each meeting, representatives of the Triad EAC and SELC were successful in clarifying strategies where success had been achieved and in identifying ways in which accountability could be increased.

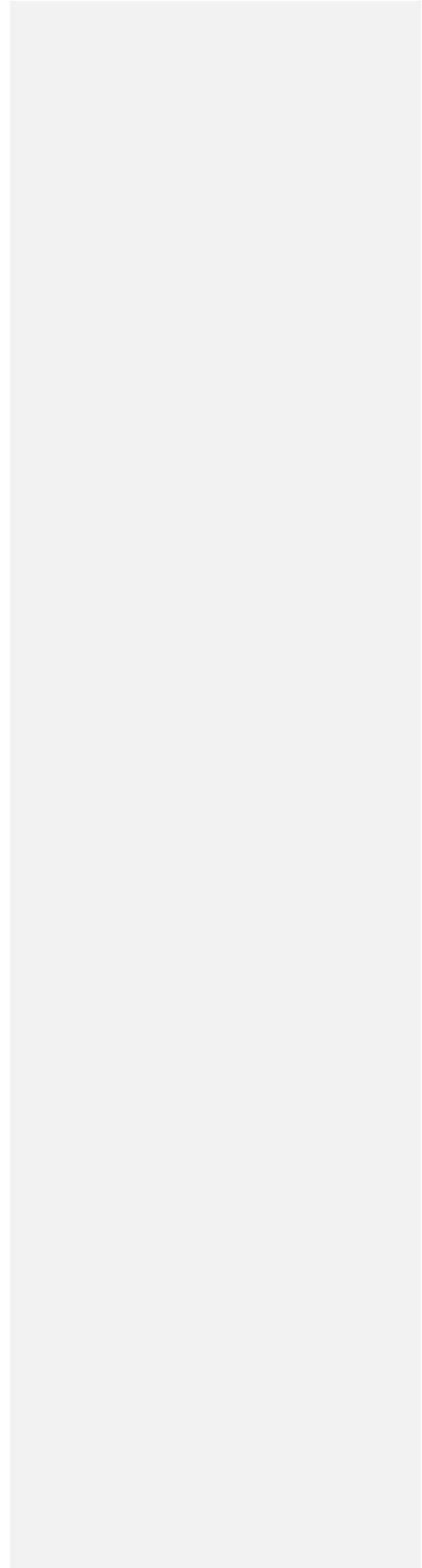
4. Meetings Conducted by Stakeholders Since June 30, 2004

Since the June 2004 Progress Report, the EAC Stakeholders Group has met five times:

- | | |
|--------------------|--|
| August 2, 2004 | To discuss transportation and conformity strategies, agree on communications with SELC, and to hear updates from the N.C. Division of Air Quality |
| September 13, 2004 | To review, in detail, revisions and improvements to strategies submitted to EPA March 31, 2004 |
| October 4, 2004 | To hear a briefing on emissions reduction strategies for fleets and biodiesel in the region; to plan for the October opening event for the region's first Truck Stop Electrification project; and to work further on new and revised ozone reduction strategies. |
| October 27, 2004 | To attend the Triad area public hearing seeking comments on North Carolina's 8-hour Ozone Attainment Demonstration |
| December 6, 2004 | To adopt revised strategies for inclusion in the SIP and to assign responsibilities for implementing strategies: <u>#8 Reduce Fleet Emissions</u> and <u>#9 Develop and Maintain a Regional Emissions Reduction Clearinghouse</u> . Together, these strategies will provide a regional information and reporting system. |

Part B

RELATED NEWS ARTICLES
JUNE 30, 2004 - DECEMBER 23, 2004



New emissions test begins July 1

By Kim Mitchell, Reidsville Review, Friday, June 11, 2004

Beginning July 1, Rockingham County joins other North Carolina counties in an effort to clean up the air by requiring emissions testing.

In an effort to curb pollution, North Carolina requires testing of automobile emissions, which create half of the ozone air pollution and nearly all carbon monoxide air pollution.

Emission counties require all 1996 and newer gasoline-powered vehicles registered within the county to undergo an On Board Diagnostics (OBD) emissions test.

Current-year model vehicles, motorcycles and motor homes are exempt from the inspection. A limited number of inspection stations in Rockingham County have the ability to provide the service now. But Capt. Tom Collins, of the N.C. Division of Motor Vehicle's License and Theft Bureau of the fourth district, expects 30 stations to be on board by July 1.

Collins said more than 75 technicians, inspectors and service station owners came to Rockingham Community College for an informational meeting. Since then, many have received eight hours of training on OBD testing, its components and how to properly administer the test.

Reggie Denny teaches vehicle inspection for RCC at night at his shop on Bridge Street. He trains the technicians to perform the OBD inspections and to use the machine to perform safety inspections as well.

As of this week, Denny said 99 inspectors from Rockingham County have earned their certificate for administering the OBD testing. More than 240 technicians are certified to perform safety inspections in the county.

To prepare for the OBD inspection deadline, Denny has taught several classes each week for several weeks, on top of his regular Saturday class. Before stations can perform the inspections, each technician must pass a test and apply for a license.

According to the DMV website, in Eden, Ralph Barrow Automobiles, Inc., and Xpress Lube of Eden have licenses to offer the service. In Reidsville, Gunn Auto Parts & Service Center, Q M J Enterprises, Smith Stokes and Xpress Lube will provide the inspections on July 1.

The sticker fee is \$6.50, making the cost range from \$6.50 to \$30, depending on the station labor fee. The cost of a regular safety inspection in all counties remains \$9.10 – with a sticker fee of 85 cents.

North Carolina uses the increased sticker fee to better the state. Money is distributed between the emissions program, the telecommunication account, the Division of Air Quality, the highway trust fund, the volunteer rescue/EMS fund and the Rescue Squad Workers' Relief Fund.

Collins said that each service station decides testing costs, but most will charge \$30. The stations must pay the mechanics, and buy the software and equipment, which costs about \$6,000. With 35,459 cars registered in Rockingham County that require the testing, competition is driving most independents to get certified.

But, the equipment costs caused some independent stations to opt against performing the emission standards. "A comment I heard quite often is that a lot can't afford \$6,000," Denny

said. "I couldn't, I went out and borrowed the money because I knew I needed to be online." Denny said that many stations have a "wait and see attitude" and plan to see how their lack of testing affects their business.

The Clean Air Act requires that the most populated and polluted localities adopt an emission inspection program. Since July 1, 2002, more than 20 counties in North Carolina, which fall into the Clean Air Act standards, have begun emissions testing.

North Carolina's General Assembly extended the programs to other counties. Along with Rockingham County, Buncombe, Cleveland, Granville and Harnett counties begin OBD testing this July. By July 2006, North Carolina will add 20 more emissions counties.

EDITORIAL: Is the Triad heeding call for cleaner air?

6-15-04 News & Record

Go figure.

Just six weeks ago, the American Lung Association ranked the Triad's air quality among the worst in the nation. Only two weeks earlier, the EPA had warned: If the Triad continues to violate ozone-pollution laws, it will face severe penalties.

Yet, at least so far this summer, the Triad has yet to log a single ozone alert. No "code orange" days, when the air is unsafe for people with certain health problems. No "code red" days, when the air is so bad everybody is put on notice.

Last year, the Triad had only one bad ozone day by now, but in recent years it typically has logged several at this point. Even a code red by mid-June isn't unusual.

One likely factor is humidity. Hot, dry air fuels the ozone level. We've had plenty of heat, but the humidity has been high. We might gripe about sweating buckets on a stroll around the block, but this humidity could be helping the air quality. Of course, weather patterns can change in a minute.

Experts can only speculate as to other reasons for lower ozone levels, but the possibilities are promising. One might involve stricter requirements on automobile and smokestack emissions. In February, Duke Power Co. installed new cleaning equipment in its coal-fired power plant at Belews Creek that should reduce harmful nitrogen oxide emissions substantially. Such emissions contribute to ozone pollution, especially during hot weather.

Another possibility is that residents and businesses are heeding the EPA's call to use less energy. The Piedmont Authority for Regional Transportation reports that calls from commuters interested in its transit service are up considerably, as is ridership. PART officials say calls are up 15 to 20 percent, and they estimate that ridership in May rose about 10 percent from May of last year. The increased demand has led PART to add an extra bus and two new van pools.

At least some of the increase no doubt stems from sky-high gasoline prices. So, the question becomes, with gas prices back on a downward swing in the past few weeks, will commuters who parked their cars to save money turn fickle and revert to their old ways? Let's hope not.

Increasing PART ridership is among the strategies in the Piedmont Triad's plan to reduce pollution to acceptable levels or risk facing penalties such as restrictions on industry and the loss of federal road money. Private carpooling, which companies could help organize and support, is another. The region's governments also have agreed to replace old vehicles with newer, cleaner-burning ones.

The EPA has given the Triad until 2007 to reduce ozone to acceptable levels. Meeting that goal will require all of us to do our share.

What's up? No ozone alerts for Triad

News & Record, By Margaret Moffett Banks Staff Writer 7-13-04

We've had one as early as April 12.

We've had one as late as June 16.

But never -- at least not since people started measuring ozone levels in 1980 -- has the Triad made it to mid-July without an ozone alert day. That's when pollution combines with hot, dry air to cause potential breathing problems.

Although conditions can always change, the Triad could have ozone alert-free days at least through Thursday, said Lewis Weinstock, an ozone expert and air monitoring supervisor at the Forsyth County Environmental Affairs Department.

Based on Weinstock's research, the Triad hasn't had a better year, ozonewise, since -- well, ever. Here's the pressing question: Does this mean the Triad is breathing cleaner air? Factories are emitting fewer chemicals? Cars and trucks are burning cleaner? Or is it simply the moist, tropical weather?

The answer matters because the Environmental Protection Agency announced in April that the Triad's dirty air is violating ozone-pollution laws. The agency ordered area counties to clean up their act or expect penalties and stricter air regulations.

Ozone forms when sunlight meets exhaust from car tailpipes and industrial smokestacks. Both elements need to be present, which explains why readings are higher during summer. Dry air tends to make conditions more favorable for high ozone readings.

The air has been anything but dry this summer. Cloudy and sometimes rainy afternoons have elevated humidity levels statewide. Charlotte's two Code Orange days -- when the air is potentially dangerous for the sick and elderly -- are the only two so far this summer in North Carolina.

That's something that's never happened at this point in the summer, said Tom Mather, a spokesman for the N.C. Division of Air Quality.

Mather thinks the weather is only part of the story. He credits new state environmental regulations, including the N.C. Clean Smokestacks Agreement, which forces power plants to decrease pollution.

And he cites stricter testing of how much pollution blows from automobile tailpipes. About 30 counties are now requiring the tests with auto inspections, and another 18 soon will join them, he said.

The clean ozone readings we're experiencing are an outgrowth of that, Mather said.

"I don't think there's any doubt there are fewer emissions going in the air," he said. "It's hard to prove conclusively, but I think the evidence is pointing more and more in that direction."

But Weinstock said it's too early to reach that conclusion because it has been particularly humid this summer, he said.

If the air suddenly dries -- and the ozone stays low -- then Weinstock might start agreeing with Mather that the air is cleaner.

"I'll believe that our ozone problem is improving when we have an ozone conducive year from a weather perspective -- hot and dry -- and ozone remains within the standard," said Weinstock.

Truck stop helps environment with air pollution prevention

By Isaac Groves, Burlington Times-News July 23, 2004

MEBANE — Truck drivers traveling Interstate 85/40 are going to have a new option for rest at the Petro truck stop on Buckhorn Road — a big hose to pump cool air into their cabs.

Truck drivers have to stop for eight to 10 hours at a time to rest up when they are driving long distances. Their trucks can be seen at truck stops or highway exits with the engines idling to run the air conditioner or heater.

Running the motor keeps the driver comfortable, but it puts wear on the engine, burns a gallon to a gallon and a half of diesel fuel per hour, makes a lot of noise, annoys neighbors and puts lots of exhaust into the air.

Along the Interstate 85 corridor, exhaust fumes are causing real problems with air quality, according to a recent study from the Environmental Protection Agency.

Many counties, including Alamance, are in danger of not meeting federal clean air guidelines. Everyone agrees that idling semi trucks cannot help. A solution to that part of the problem will soon be available at Petro in Mebane — the IdleAire in-cab service.

IdleAire looks like a big yellow tube going into a truck window. It pumps climate-controlled air into the cab and also offers electrical outlets and attachments for Internet access, telephone and satellite TV. Some of the units provide electrical hookups for refrigerated trailers, too.

The company says power plants produce electricity far more efficiently than a diesel engine and the pollution is not as localized.

David McClure, spokesman for Petro truck stops, said the first phase of the facility in Mebane will provide 52 spaces beginning in early September. The service costs \$1.25 per hour, compared to \$1.68 per gallon of diesel fuel. According to the National Association of State Energy

Officials, it could save a trucker \$2 per eight-hour rest. That dollar figure is not dramatic, but Joe Workman, of Southeast Transport Inc. of Rutherfordton, says it could add up over the company's 175 trucks. The company has an account with IdleAire for its drivers.

The service is also popular with drivers because it makes less noise and vibration than idling truck engines.

"The interesting thing is when you talk to drivers they say it's the best night's sleep they've had since they've been truckers because they actually get to turn the engine off," McClure said. Mebane, Anderson, S.C., and Newnan, Ga., are the three cities on the Interstate 85 corridor getting the new service thanks in part to a federal grant that came through the South Carolina Energy Office.

The IdleAire system costs about \$8,000 per parking space, but the systems are financially self-supporting once they are operational. IdleAire has 14 sites around the country and another 19 under construction including Mebane.

New school buses roll out

Amanda Young , Staff Writer, 08/05/2004

In the next several weeks, Guilford County Schools will roll out a line of redesigned school buses straight from the newly expanded Thomas Built plant.

The Saf-T-Liner C2 is an improved model of the conventional school bus. Besides greater structural integrity, the buses will have a cleaner engine that should produce fewer emissions - and in effect less particle pollution.

So far, the district has received six of the new buses, with 42 more scheduled to arrive in increments over the next several weeks, said Jim Moen, director of transportation for Guilford County Schools.

The buses are manufactured in Thomas Built Buses' new plant at 715 W. Fairfield Road. The 275,000-square-foot, \$39.7 million facility has created at least 178 jobs for the area. The expansion was made possible with incentives worth more than \$14 million from High Point, Archdale and Guilford and Randolph counties.

High Point contributed its largest economic incentives package in the city's history. Many of the new buses coming off the line can be seen traveling on Interstate 85/Business Loop, marked for destinations all over the country.

The buses will be inspected by Guilford County Schools transportation staff before being put into service. The new models are part of a regular replacement schedule that is set by the state. For the older buses in the fleet, the district soon will be purchasing and installing about 100 diesel oxidation catalysts, a mechanism that can reduce particle pollution.

The burning of diesel and other fuels, smokestacks and industry emissions are the leading causes for particle pollution. In contrast to ozone, which occurs at ground level, particulate matter produces haze; on days with high levels it can aggravate respiratory problems.

In March, the district was awarded a \$100,000 grant from the N.C. Department of Environment and Natural Resources to purchase the catalysts. Moen said the contract will be sent out for bids in the next 10 days.

While the Durham school district is the first in the state to try environmentally friendly biodiesel, a federal mandate will take effect in the next two years requiring governments to purchase ultra-low-sulfur diesel. The regulation will drastically reduce the sulfur limit in diesel - from the current unregulated limit of 3,000 parts per million to 15 ppm in 2010.

Providing parking lots for Winston-Salem Amtrak customers may not seem that important to the city's day-to-day business.

High Point - October 14, 2004

But when it's part of a Triad plan to reduce air pollution, it's very important for an environmental group in Chapel Hill.

The Southern Environmental Law Center is monitoring the Triad's progress to clean the air. Making mass transit easier to use is part of a Triad plan to reduce ozone, one of the elements of smog.

Trustees of the Piedmont Authority for Regional Transportation agreed Wednesday to lease 20 downtown Winston-Salem parking spaces for Amtrak and PART Express customers. The goal is to make parking easier for mass transit riders.

"Air quality is important," said Brent McKinney, PART executive director. "We have to do what we can and do what we say we will do to encourage mass transit. If we can get just a few people to use these lots, it will save gas."

And less automobile traffic means cleaner air, said David Farren, senior lawyer in the Chapel Hill SELC office. "Most of the ozone in the Triad comes from trucks and cars," Farren said, "and it is important that the problem be addressed."

Eleven counties and 20 Triad cities and towns have created an Early Action Compact to avoid stricter federal ozone regulations. The Piedmont Triad Council of Governments is coordinating compact compliance.

SELC is monitoring the plan and is negotiating details with Triad officials, McKinney said.

"If local communities make these commitments, we see them as a trade off to see that we get healthy air," Farren said.

The group also wants Triad officials to add more miles of sidewalks, greenways and bicycle routes by the end of 2007, Farren said, to avoid EPA sanctions that could slow highway and industrial development.

"We want specifics in these plans so that the local groups will set a standard and maintain it for 20 years," Farren said.

PART is participating in a plan to build an average of five new Park and Ride lots a year.

"We must get the counties that have promised to build lots to live up to what they said they would do," McKinney said.

So far, it appears the Triad plan is on track, Farren said. But SELC believes that EPA could let local deadlines slip and not enforce ozone-cutting plans. "We want to avoid a lawsuit if that happens," Farren said. "But we did take action in Atlanta."

Rural areas slow to take PART

10-14-04, By Amy Dominello Staff Writer , News & Record

GREENSBORO -- The rural areas of the Piedmont Triad need to be more aggressive in establishing park-and-ride lots, the head of the region's transportation authority said Wednesday.

But many counties are not showing an aggressive interest in building or setting up the lots, said Brent McKinney, executive director of the Piedmont Authority for Regional Transportation. The lots allow commuters to use transit for part of their trip.

"We're just not getting a good response," McKinney told the PART board at its Wednesday meeting.

The region's outlying counties that send commuters into the Triad have not been as responsive to PART's desire to build lots there, in part because the idea of park-and-ride lots is a new concept for the region, McKinney said.

"What we have is a lack of vision as to how these park-and-ride lots in rural areas could be used as well as the benefits for the user," he said after the meeting.

PART received a \$3.5 million grant from the federal government to construct or establish 20 park-and-ride lots throughout the region. The grant covers most of the costs of the lots, but counties, cities and towns do have to contribute 10 percent of the total cost of lots or the leasing of space within their jurisdiction.

McKinney said drivers who use the lots would save thousands of dollars a year by carpooling or by using transit services. Drivers would be able to conserve fuel and diminish the wear and tear on their cars. Commuting would also ease congestion and reduce air pollution in the Piedmont Triad.

PART agreed Wednesday to enter into leases at two parking garages in Winston-Salem, bringing the total to six park-and-ride lots and garages where PART has parking spots. Ten spaces will be reserved at the garage at 1 W. Fourth St. for shuttle riders headed from Winston-Salem to the Amtrak station in High Point. Another 10 spaces will be reserved at the garage at Fourth and Church streets for PART Express bus riders.

A park-and-ride lot on Regional Road at the PART bus terminal on N.C. 68 is under construction and scheduled to open within the next few weeks, said Scott Rhine, a PART planner. Two other park-and-ride lots will also be built at the Reedy Fork Ranch development in northeast Greensboro and in Thomasville where N.C. 109 and Business 85 intersect. PART also leases spaces at the Greensboro Depot.

Several board members said they would push for their counties to establish the lots or set aside parking spaces. The park-and-ride lots also need to be built as part of the region's agreement with the federal government to reduce ozone pollution.

In other business, the PART board agreed to:

- spend nearly \$72,000 to ensure a portion of a study on demand for regional transit services is completed by mid-2005. State funding will likely be used to pay for an additional \$163,000 needed to complete the study in time.
- increase the rate being paid to Charlotte-based American Charters, which operates PART's regional bus service. American Charters would receive an increase of 5.5 percent a year, or \$66,000. The increase was based on the rising cost of fuel and a raise in salary for American Charters employees. Board members did say they want to look into using cleaner burning fuels for PART vehicles when the contract with American Charters expires at the end of the year.
- invite the N.C. Turnpike Authority to meet in the Triad and receive public comments on the possibility of building a toll road in the region. PART has previously suggested that the state consider tolling a proposed "airport connector" linking Piedmont Triad International Airport and Winston-Salem. A meeting would likely occur in the spring.

More ozone controls considered

9-14-04, By Amy Dominello Staff Writer , News & Record

KERNERSVILLE -- The panel steering the Triad's plan to reduce ozone pollution may ask local governments to implement more pollution controls in an effort to avoid a potential legal challenge to the project.

Eleven counties and 20 cities and towns in the Piedmont Triad have entered into an ozone cleanup plan, called an Early Action Compact, to avoid stricter ozone regulations. A panel of environmental, transportation, business and government leaders from the region developed the plan, which the Environmental Protection Agency agreed to in April.

In exchange for the region reducing ozone by 2007, about three years sooner than required, the EPA agreed to defer additional regulations such as reviews of new road projects and new industries that could increase pollution.

But because of pressure from the Southern Environmental Law Center, an environmental legal organization, the panel is considering revisions to its plan. It already asks local governments to replace old government vehicles with newer, cleaner-burning ones; increase the number of buses and van pools; and reduce emissions from R.J. Reynolds Tobacco and Duke Power.

Nationally, environmental groups are considering moving forward with a lawsuit against the EPA, challenging the validity of Early Action Compacts throughout the nation, said David Farren, SELC's senior attorney. Those groups are concerned the compacts allow governments to defer the penalties associated with the new ozone laws.

"There are lots of good ideas, but they didn't have a level of specificity," Farren said Monday.

The region's ozone panel has been meeting with representatives of the SELC to look at what changes can be made to the area's plan to possibly avoid a lawsuit that could put the region's deferral of the ozone regulations in jeopardy. That may mean making changes to the plan, said Dan Besse, a Winston-Salem city councilman and environmental lawyer who leads the region's ozone panel.

"We're seeing if we can refine our way out of legal challenges," he said at the panel's Monday meeting.

Some of the new strategies the panel may ask local governments to consider include: implementing a clearinghouse at one of the regional council of governments to compile reports on whether local governments are meeting ozone standards; creating discount programs for a certain number government employees who use transit; and adding additional miles of sidewalks, greenways and bicycle routes for the region.

Some members of the panel questioned whether local governments would have the resources necessary to implement some of what SELC wants, particularly when ozone forecasts show pollution decreasing.

"It's going to be a hard sell to local governments," said Sandy Carmany, who serves as chairwoman of the Piedmont Authority for Regional Transportation and is on the Greensboro City Council.

Farren said the SELC would like the region's plan to be more specific. "We want to see a program overall that is robust so that it becomes an acceptable substitute," he said.

Any changes to the regional plan would have to be made before the state submits the document to the EPA, showing what is being done to reduce ozone pollution throughout the state. It will draw from strategies being implemented in the area, Besse said. Public hearings will be held on the document in October or November.

Ozone is a colorless gas created when pollutants are heated by the sun. The pollutants come from cars, power plants, airplanes, lawn mowers and other sources of burning fuel. The EPA says it can cause breathing problems.

The American Lung Association said in April that the region had the 16th-worst ozone problem in the country.

Group tweaks plan to reduce ozone in Triad

10-5-04, By Amy Dominello, Staff Writer , News & Record

KERNERSVILLE — With some tweaks made to its ozone reduction plan Monday, the Piedmont Triad may be able to avoid a possible legal challenge to the project.

A panel of local environmental, transportation, business and government leaders agreed Monday to make some changes under pressure from the Southern Environmental Law Center, an environmental legal organization.

Eleven counties and 20 cities and towns in the Piedmont Triad have entered an ozone cleanup plan, called an Early Action Compact, to avoid stricter federal ozone regulations. As long as the region cleans up its air by the end of 2007, the Environmental Protection Agency will allow area governments to defer regulations such as reviews of new road projects and new industries that could increase pollution.

The SELC, along with other environmental groups, has been considering moving forward with a lawsuit against the EPA and individual regions. The SELC says Early Action Compacts allow governments to skirt the new ozone laws and that the compacts don't offer enough specifics.

To avoid putting the Triad's deferral of ozone regulations in jeopardy, the regional panel has been negotiating with the SELC to see if a compromise could be reached.

Local leaders said they believe the SELC is pleased with the changes. "They're looking selectively at who's doing a good job and who's not," said Dan Besse, a Winston-Salem city councilman and environmental lawyer who leads the region's ozone panel. "We'll look like one of the good guys."

A senior attorney for SELC who's been meeting with Triad officials could not be reached for comment late Monday.

The changes to the plan include: allowing the Piedmont Triad Council of Governments to compile reports on whether local governments are meeting ozone standards; ensuring at least two governments create discount programs for government employees who use public transit; and more aggressively encouraging governments to reduce emissions from their vehicles.

The group is also specifying how many new miles of sidewalks, greenways and bicycle routes will be constructed by the end of 2007. It also said it will build an average of five new Park and Ride lots a year. Area governments will be alerted to the changes by letter, but won't have to formally approve them.

Report: Growth plan for city on track

11-2-04, By Matt Williams Staff Writer , News & Record

GREENSBORO — More than a year after a broad outline of the city's plan for growth was put into place, many of the details are beginning to be filled in.

The City Council accepted a report Tuesday night detailing progress made implementing the city's comprehensive growth plan, known as Connections 2025.

The plan was adopted by the council in May 2003 as a guide for the growth of the city during the next two decades. Former Councilman Cameron Cooke, who heads the committee that wrote the plan and is putting it into action, said the work already done was ambitious.

"We bit off a lot, but we were able to chew it," Cooke said.

Since the plan was passed, most of the attention has centered on its regulation of new development. But other goals identified in the document, such as improving parks, transit services and substandard housing, have been quietly advanced by city staffers and in small committees of residents.

Work has begun on 40 projects the plan designated to be achieved in its first year. The council has already reduced the number of parking spaces that developers are required to build, with the goal of shrinking wide-open expanses of pavement at shopping centers and offices. Work is nearly done on a plan for greenways and park land and a survey of historic buildings in downtown.

Next year, city planners hope to revamp development rules to improve design standards to make it easier to redevelop unused land inside the city. Planning Director Dick Hails said the city would also begin to work with Guilford County planners on development guidelines for land that is now in the county but is likely to be annexed into the city limits.

But that effort may be a larger hurdle. Recent efforts to synchronize planning efforts with the county have been unsuccessful, with each side unwilling to cede power over new building to the other.

"A lot of work has been done, but there's a lot of work to do," Hails said. The council voted unanimously to adopt the report with little discussion.

Southside redevelopment earns national award

11-18-04, By Amy Dominello, Staff Writer, News & Record

GREENSBORO — Fifteen years ago, the Southside neighborhood was a "run-down, forgotten neighborhood."

Drugs and prostitution were prevalent in the neighborhood and many of the buildings were used as boarding homes, says Sue Schwartz, the city's chief of neighborhood planning.

But today, the historic neighborhood on the southern edge of downtown is much different. And on Wednesday, the city received an award from the Environmental Protection Agency recognizing redevelopment of that 10-acre neighborhood roughly bordered by Arlington and Lee streets, Murrow Boulevard and railroad tracks.

The city was one of five communities to win the Smart Growth award, which honors innovative approaches to new development and the reuse of previously developed property. The awards, presented in Washington, drew 95 entries. The EPA cited Greensboro for capitalizing "on a rich stock of historic buildings and public spaces to bring residents and businesses back to the downtown area."

In Southside, getting the neighborhood to that point has been a challenge and the city had to approach redevelopment creatively, said Schwartz, who steered the Southside redevelopment plan.

The city assembled the land and made infrastructure improvements and Bowman Development Group developed the project, which was funded by public and private money, Schwartz said. City residents also offered input.

Today, the project is about 90 percent complete and includes 30 single-family homes, 10 two-family homes, 50 townhouses, 10 restored historic homes and 20 units where business owners live upstairs from their shop.

The developers are completing single-family and townhouse construction. Once it is complete, the properties will generate more than \$10 million in tax revenue annually. Before redevelopment began in 1995, those properties generated \$400,000 in tax revenue.

Once the city showed it was committed to the project, other private companies began making investments there, said Mayor Keith Holliday. That has also spilled over into other nearby communities, he said.

"Southside is going to be a catalyst," Holliday said.

EDITORIAL: Crossing Triad roads a perilous journey

12-6-04, News & Record

A new national study confirms what Triad pedestrians already know all too well: Getting across the street can be worth your life.

Put much of the blame on urban planning that has catered to the automobile. And although there's been re-thinking, the odds aren't encouraging, particularly if you live in the South or West.

Figures released by the Surface Transportation Policy Project show the Triad is the seventh most dangerous place in the nation for pedestrians, up from 13th just two years ago.

To its credit, Greensboro is making amends, but there's a lot of catching up to do. One critical area is sidewalk construction. For years, traffic flow and ample parking have held sway. As a result, commercial development has clustered along multilane streets. Malls and strip shopping centers thrive on vehicular traffic.

A river of onrushing vehicles bisecting shopping areas leaves pedestrians fending for themselves. Even at marked intersections, crossing Wendover, Battleground or High Point Road can be perilous. It's easier and safer to drive across a major thoroughfare than walk.

Last year, however, City Council acted to improve safety and accessibility both in residential and commercial areas. Seventeen sidewalk projects totalling more than five miles are under construction and will be completed by this time next year. Several are part of major road projects while others are the result of lobbying by neighborhood residents worried about kids playing or walking to schools.

Equally significant is council's decision requiring sidewalks in new residential subdivisions despite warnings from some builders that costs would be passed along to home buyers.

It's an admirable start, but the job isn't finished. Of particular concern is the lack of sidewalks leading to and from bus stops. Walking to one on a busy highway means plotting a circuitous path all the while keeping a wary eye on traffic whizzing by just feet away. Some riders pay an extra fare to backtrack so they won't have to navigate oncoming two-way traffic.

Other fixes could make walking a little less dangerous. Redesigning narrow traffic islands would give a pedestrian trapped midstream temporary safe haven. More designated crosswalks are needed on heavily traveled thoroughfares. Too many busy intersections outside the downtown area lack crossing signals. Countdown lights that show time left before a signal change are even better. And police should crack down on inconsiderate motorists who don't yield to pedestrians.

But major rethinking is in order. Urban planners must consider foot traffic as well as vehicular traffic. Auto-generated residential sprawl and highway-dominated commercialization are the problem, not the solution.

Pedestrians safety is part of the equation, and we're coming up short.

Greensboro makes steps toward new sidewalks

11-14-04, By Ellica Church, Staff Writer, News & Record

GREENSBORO -- Before long, the paths worn in the grass by pedestrians along parts of South Elm-Eugene Street will be replaced by sidewalks.

Parents will be able to walk their children to Claxton Elementary School on a new sidewalk along Pinetop Road. And new walkways will crop up along a stretch of Hilltop Road to tie in with a road construction project there.

They're part of 17 sidewalk projects across the city -- 5.6 miles worth -- slated for completion in early November 2005.

Some of those sidewalks fit into larger road construction projects. Neighborhood residents petitioned to have other areas added to the list. And the city identified other places where gaps could be filled in existing sidewalk systems, especially along public transportation routes.

That work represents part of the city's larger goal to make Greensboro more pedestrian-friendly by increasing access and safety, said Tyler Meyer, a planning manager with the Greensboro Department of Transportation.

"It represents a big change for the city over the last five to six years," he said. "The city has moved from being reactive to being aggressive in targeting sidewalk projects." Right now, Meyer said, 67 miles of new sidewalks are either in planning or construction. Some projects will be finished within a couple years, while others could extend over the next seven or eight years.

Projects move off that list when completed and new ones continue to be added on a rolling basis. Funding for the sidewalks comes from a variety of sources, Meyer said, including the 2000 Transportation Improvement Bond, federal highway funding and other city money. Work is already under way on several sidewalk projects in this round of construction, including a section of Willow Road in southeast Greensboro.

When possible, the city tries to group sidewalk projects in the same area together. The city's Engineering & Inspections Department will work with Sandhills Contractors Inc., which will complete those 17 sidewalk projects. Residents and businesses will receive letters shortly before work begins. Weather permitting, crews should finish the projects by next fall.

Last year, the city adopted an ordinance requiring sidewalks be built in new developments, and more sidewalks have been incorporated into the city's long-term comprehensive plan.

Residents also play an important role in working with the city by providing feedback on where new sidewalks are needed, Meyer said. And that involvement is sought throughout the planning process.

"These 17 projects won't improve the whole city overnight," Meyer said. "But it will improve the areas where they are located. And that's how improvements are made, step by step."

Bus route in works for college students

12-11-04, News & Record

Getting around Greensboro can be quite the chore for university students like Andrew Martinez, a sophomore at Guilford College. With a car parked at home in Maine, Martinez is one of countless college kids in the same predicament: Itching to see the Gate City but no wheels with which to travel.

"Right now my radius off of campus is (limited) to within walking distance," Martinez said. That rules out trips downtown, let alone to nearby campuses to socialize with like-minded individuals.

But it appears help is on the way.

Starting as early as next fall, students at Greensboro's six colleges might get a complimentary lift to and from various campuses -- not to mention downtown attractions -- courtesy of the city's public transportation agency.

The Greensboro Transit Authority is setting up a college bus route in cooperation with university officials at UNCG, N.C. A&T, Guilford College, Bennett College, Greensboro College and GTCC.

Show the driver your student ID. Hop aboard.

Tentative plans call for one route that loops buses through the city. Smaller vehicles would also act as "spokes" of a wheel, taking college kids directly from their respective schools to the downtown bus depot. Nonstudents could ride the buses for a small fee.

"I would definitely use that if it were free and there was good advertisement of the bus schedule," said Liz Cromwell, a freshman at Guilford College. "Chapel Hill has a free bus system, and that works well."

A final concept is still months away. Planners want to talk with students and campus leaders to decide where stops should be located, not to mention how often buses should run.

There's no guarantee the new route would be free.

And it's not that mass transit doesn't already reach campuses. Rather, routes and schedules are inconvenient, while students must pay fares.

A college route also would be in line with Mobility Greensboro, the city's long-range public transportation master plan.

The City Council holds final say over the concept. Governing boards at participating colleges must approve the measure, as well. Formal presentations to both groups will be made in the near future.

Mass transit officials expressed hope this week that the program's first three years will come at little cost to the city and colleges. GTA is pursuing federal and state funds to help with startup expenses, right now estimated to be around \$1 million.

Once the city obtains buses, operating the routes requires another \$500,000 a year. Officials say those cost estimates might change and are still being developed.

"We think the chances are extremely good that we will be able to use a portion of the (federal grant) funds to support this service," said Libby James, who oversees the city's public transportation system.

What happens after the grant expires is the bigger question. Colleges would ultimately foot most of the bill. How to do so? Student fees for starters, though colleges are examining several options.

A university's share of the annual bill would be determined through student population.

"It's something our students have for a couple of years said: 'We need more ways to get into town,' " said Leslie Moss, associate dean for student development at Guilford College. "It's going to be a great way for them to connect with the other campuses, whether it's for social reasons, to take classes or to use library resources."

As Martinez points out, a bus system would be good for local business as students travel farther from their schools.

"You'd go out to eat a lot more, you'd go to the movies, and you'd be able to shop a lot more," the Guilford College sophomore said.

Cleaner-air plan ready for EPA

12-13-04, By Elyse Ashburn Staff Writer, News & Record

GREENSBORO -- Dr. Clint Young knows it's summer when his patients start laboring to breathe, are feeling stuffy and inexplicably tired and just seem "off."

The symptoms tell the Greensboro physician that ozone season has descended on the Piedmont. It's a period, usually running from late May to mid-September, when ground-level ozone pollution often reaches unhealthy levels.

The colorless gas is formed when hot, still conditions cause emissions from power plants, vehicles and other fossil-fuel burners to react with the atmosphere.

Now, a coalition of 11 counties and 20 cities and towns in the Piedmont Triad has taken steps to reduce the severity and impact of that pollution. A panel of local government, environmental, transportation and business officials have spent months developing a plan to cut ozone levels and bring the region into compliance with federal regulations.

The group submitted its final plan, called an Early Action Compact, to the state Thursday and will send it to the U.S. Environmental Protection Agency later this month.

If approved, it will allow the region to delay until 2007 stringent federal regulations that could mire new industries in red-tape and require them to install expensive pollution controls.

To cut ozone in the next two years and beyond, the plan proposes a broad swath of actions. In 28 pages, it outlines initiatives ranging from building sidewalks and greenways to reducing fleet vehicle emissions and increasing bus ridership to promoting energy-efficient building design.

The largest cuts will come through two statewide initiatives: an expanded vehicle inspection and maintenance program and an open burning ban during ozone season.

Some of the actions are mandated by ordinances, but most are voluntary.

"When you get right down to it, there just aren't too many enforceable things we can do here in the Triad," said Ginger Booker, assistant director of the Piedmont Triad Council of Governments who drafted much of the compact.

That ambiguity was a sticking point for months for the Southern Environmental Law Center, which threatened to sue if the plan wasn't strengthened.

But the coalition agreed to beef up the plan -- and recent changes seem to have all but erased the threat of a lawsuit.

"There are still some gray areas we'd like to see cleared up," he said. "But I think the committee has gone a long way to address our concerns."

The whole process still could be derailed by a federal ruling on particle pollution, another health hazard that dogs the area. The small particles, emitted primarily by power plants and manufacturers, can irritate the airways and create a host of health problems.

If the EPA finds the Piedmont Triad in violation of its standards for particle pollution, the region would fall under essentially the same regulations the ozone compact aims to avoid.

"That's going to undercut the motivation for a lot of municipalities to participate in these initiatives to reduce ozone," said Dan Besse, a Winston-Salem council member and environmental lawyer who chairs the ozone panel.

The EPA is expected to make a decision on the particle pollution designation by the end of the year.

The revised ozone proposal also still must pass muster with the EPA, which is expected to rule on the compact sometime early next year.

If approved, the Piedmont Triad will have to begin charting progress to avoid the federal regulations that would limit growth and place restrictions on new industries.

Work on the compact has enabled the Piedmont Triad to delay restrictions until 2007, although the region remains in violation of a new law that measures ozone levels over an eight-hour period.

The steps outlined in the compact should allow the area to come in just under the eight-hour ozone allowance by 2007, according to state data.

That's good news for the region's economic development efforts. And it's also good news for those who breathe the region's air.

"In general, the symptoms and the effects (of ozone) will be subtle," Young said. "But it's not good for us, even if we can't put our finger on dramatic effects."

"Certainly, we don't want to make matters worse."

E-mail alert helps Triad breathe easy

12-21-04, By Elyse Ashburn Staff Writer, News & Record

GREENSBORO -- Asthma sufferers in the Triad rely on a host of Web sites, news reports and public health advisories to find out if the air is safe to breathe -- but on any given day, the information comes too late.

Now, they can sign up for a new e-mail service to deliver air quality warnings each morning before they begin their day.

Though targeted for those with breathing problems, anyone can sign up. Updates, with data approaching real-time, will be sent as the day progresses.

Just under 8 percent of Guilford County residents suffer from asthma, according to the most recent data from the N.C. State Center for Health Statistics.

That means more than 34,000 asthmatics in Guilford alone could benefit from the new service.

The Greensboro, High Point, Winston-Salem region is one of five metro areas nationwide that has joined the federal government in testing the EnviroFlash alert system.

If all goes well, the federal Environmental Protection Agency plans to expand the program to other regions of the country in May 2005.

About 65 people in the Triad have already signed up and are using the program, said Cary Gentry, an environmental specialist for the Forsyth County Environmental Affairs Department, which oversees EnviroFlash.

But he expects those numbers to multiply as people find out about the service. The alerts are available to all residents, Gentry noted, not just those suffering from asthma.

"We cover the entire Triad," he said. "And anybody in the region could sign up."

Forsyth's Environmental Affairs Department, which posts air quality data for the Triad, has offered e-mail alerts in the past.

But the new program is less of a hassle, is more reliable and is more tailored to individual needs, Gentry said.

"We've found this service to be a lot better," he said. "It's a little more reliable and you can cater the warnings."

For example, if poor air quality days get you wheezing, but moderate conditions don't seem to phase you -- just sign up for the more extreme alerts. Or if your child suffers on every sultry ozone day, you can choose to get a wider range of ozone updates.

Forsyth plans to begin switching people from the old e-mail alert to the new within the next few months.

Triad residents can register for the e-mail alerts now at www.co.forsyth.nc.us/EnvAffairs/EnviroFlash.htm.

Depending on the options you choose, you'll get EnviroFlash e-mails immediately. Winter is the low season for many air quality problems, so expect the alerts to be less frequent this time of year.

Guilford, Davidson Cited for Soot

12-18-04, By Elyse Ashburn Staff Writer, News & Record

GREENSBORO -- The Environmental Protection Agency on Friday found Guilford and Davidson counties in violation of air pollution standards -- a designation that could restrict development in the region.

In Guilford County, that means most new industries or industrial expansions will face stringent federal reviews and could be denied permits.

Major road projects in the county also will have to meet strict federal standards for years to come. County, city and regional officials on Friday couldn't say how far-reaching the economic impact may be. It's a development they said they'll be sorting out for weeks to come.

"It's too early to comment," said Mitchell Johnson, Greensboro's deputy city manager.

The state's air monitors show Guilford's soot concentrations under the allowable limit, but the EPA opted to cite it because its traffic volume and sheer population numbers contribute significantly to Davidson's air pollution.

Because of fine particles' ability to travel long distances by air, the EPA had the authority to cite the entire Triad or any portion of the region because of Davidson's violation.

"I'm definitely disappointed. ... But I don't see it as devastating. It's definitely something we can work through," said Sandy Carmany, a Greensboro councilwoman who has been active in addressing the Triad's pollution problems.

The Triad counties join Catawba County in North Carolina on a list of 225 counties nationwide with unacceptable particle pollution levels.

"This is not a story about air getting dirtier," EPA administrator Mike Leavitt said in a press conference announcing the list.

"It is a story about higher, more stringent standards and healthier air."

Fine particle pollution, or soot, has been on the decline across the Triad but has not retreated quickly enough to meet federal standards set in 1999.

Particle pollution consists of fine, dustlike particles emitted by cars, power plants and other fossil-fuel burners.

Traffic and the Duke Power plant in Stokes County are major contributors in the Triad, regional officials said.

The fine particles -- about 30 times smaller than the width of a human hair -- contribute to haze and pose a significant health risk because they can lodge deep in the lungs. They have been linked to premature death, cancer, chronic bronchitis and a host of other health problems.

"We think that there is a significant enough risk that we need to act now," said Stan Meiburg, deputy administrator for the southeastern EPA region in Atlanta.

"We believe it's more of a threat than ozone."

Guilford and Davidson area agencies now will have to work more aggressively over the coming years to combat that threat. They will have to develop plans that show they can meet federal standards by 2010.

Statewide provisions such as the Clean Smokestacks Act and heightened vehicle inspection standards should allow the region to meet the requirements well under the deadline, according to state officials.

"We've been very proactive. We're so close, we don't think those areas will really have to take additional measures," said Laura Boothe, a planning engineer in the N.C. Division of Air Quality in Raleigh.

Environmental advocates say that's because the designations don't go far enough.

New EPA research indicates particle pollution may be a significant health threat at levels below the current standard, and agency officials said they are looking into whether to lower the acceptable levels.

Charlotte and Raleigh were able to narrowly slide under the current standards.

"They're significant contributors to the problem in the Triad," said David Ferren, a Chapel Hill-based senior attorney for the Southern Environmental Law Center. "We don't think that it makes sense from a public policy or a public health standard that the Triad is going to have to bear the full brunt of this."

The EPA had been expected to rule a broad swath of the Triad and larger portions of the state out of compliance but narrowed its ruling in recent weeks.

Stan Meiburg, the deputy EPA administrator, said the decision was made in large part because North Carolina demonstrated it had taken significant measures -- such as the Clean Smokestacks Act -- to reduce particle pollution statewide in coming years.

Guilford, however, was cited despite the state's request to the contrary.

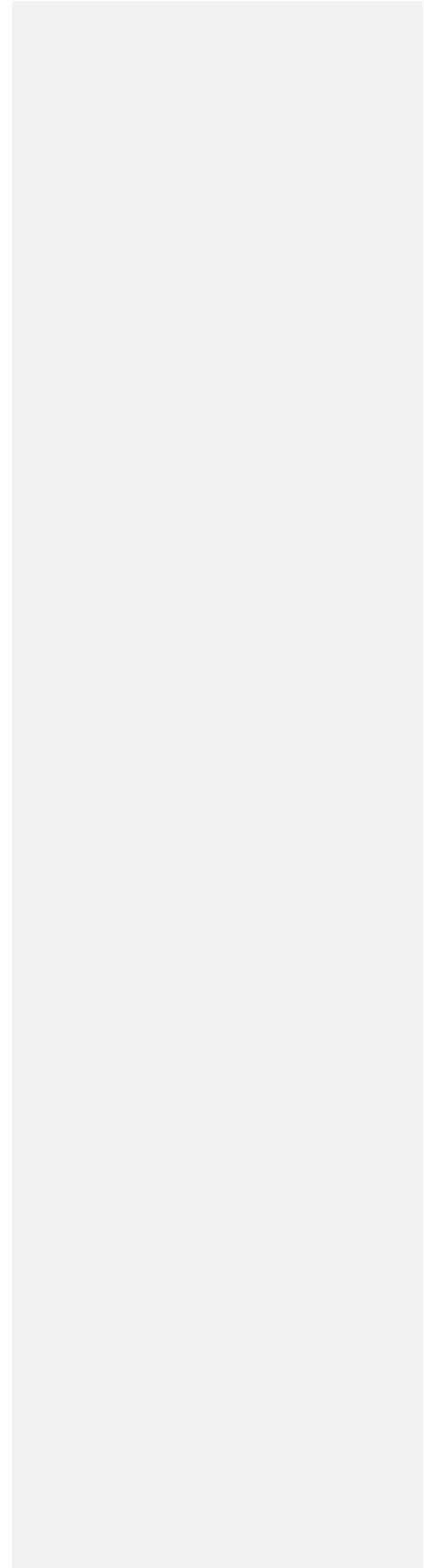
The Office of the State Attorney General is reviewing the EPA's decision and would not comment on whether the state plans to appeal.

"The governor should take a hard look at it when you have a county that's not in violation being penalized because of the next county over," said Allen Purser, the senior vice president of the Greensboro Chamber of Commerce who is active on environmental boards.

"We're being drug into it, even though we aren't in violation, and that's frustrating."

Part C

*TRIAD EAC STRATEGIES
FOR
STATE IMPLEMENTATION PLAN*



A. State Measures Enforceable in the Triad

• Emission Reductions from Expanded Inspection & Maintenance Program

The 1999 Clean Air Bill will expand the vehicle emissions inspection and maintenance program in North Carolina from 9 counties to 48 July 1, 2002 through January 1, 2006. Vehicles will be tested using the onboard diagnostic system (OBDII), an improved method of testing, which will indicate NOx emissions, among other pollutants. The previously used tailpipe test (i.e., idle test) did not measure NOx. For most of the counties in EACs, the inspection and maintenance program is above and beyond what is required federally for these areas. The exception is Forsyth and Guilford Counties which were required to have an inspection and maintenance program due to the 1-hour ozone nonattainment/maintenance status of those counties. The table below lists the phase-in schedule for the expanded inspection and maintenance program applicable to Triad EAC counties.

<i>Phase-In Date: July 1, 2002</i>
Guilford Forsyth
<i>Phase-In Date: July 1, 2003</i>
Davidson
<i>Phase-In Date: January 1, 2004</i>
Alamance Randolph
<i>Phase-In Date: July 1, 2004</i>
Rockingham
<i>Phase-In Date: January 1, 2005</i>
No EAC counties
<i>Phase-In Date: July 1, 2005</i>
Stokes Surry
<i>Phase-In Date: January 1, 2006</i>
No EAC counties

The amount of emission reductions associated with the expanded inspection and maintenance program were estimated in a series of MOBILE 6.2.03 model runs. The MOBILE runs were processed for only those Early Action Compact (EAC) counties in North Carolina that will have OBDII testing in 2007.

The study was designed to compare 2007 mobile emissions from 2 model runs. The intention of the first run was to simulate what 2007 mobile emissions would look like if the expanded inspection and maintenance program was not in place. The second run simulated the 2007 mobile emissions with the expanded inspection and maintenance program in place. The vehicle age distribution that was used for this comparison was the 2002 data since it is the most recent available data. This vehicle age distribution data is not what was used in the modeling demonstration for 2007, since the MOBILE model requires the vehicle age distribution remain constant through all of the simulations and the current year (2000) vehicle age distribution was used in the modeling. However, since these simulations were for purposes of estimating the expected reductions NCDAQ believes that using the most recent vehicle age distribution available is appropriate. The table below provides the specifics of the simulations. Please note that Guilford and Forsyth Counties' estimates included the idle test that was already in place prior to implementation of the expanded program.

Triad EAC Area						
County	RVP	I/M program modeled (w/o expansion)	I/M program modeled (with expansion)	Maximum Temp	Minimum Temp	Met Station
Forsyth	7.8	Idle test	OBDII	85.4	67.7	GSO
Guilford						
Davidson	7.8	none	OBDII	85.4	67.7	GSO
Alamance	9.0	none	OBDII	85.4	67.7	GSO
Randolph						
Rockingham						
Stokes						
Surry						
Davie	No runs were done for these counties since they will not have an I/M program.					
Caswell						
Yadkin						

The resulting emission factors for the with and without the expanded inspection and maintenance program were multiplied by the vehicle miles traveled (VMT) estimates for 2007. The table below shows the volatile organic compounds (VOCs) and nitrogen oxides (NOx) reductions resulting from the expanded inspection and maintenance program in each of the EAC counties.

Triad EAC Area		
County	VOC (tons/day)	NOx (tons/day)
Alamance	0.3	0.3
Caswell	0.0	0.0
Davidson	0.4	0.5
Davie	0.0	0.0
Forsyth	0.0	0.9
Guildford	0.0	1.3
Randolph	0.3	0.4
Rockingham	0.2	0.3
Stokes	0.1	0.1
Surry	0.4	0.2
Yadkin	0.0	0.0
Triad Area	1.7	4.0

- **Emission Reductions from Open Burning Rule**

The Environmental Management Commission approved a new rule that would ban open burning during the ozone season on code orange and code red ozone action days for those counties that NCDAQ forecasts ozone. This is a mandatory no burn rule and became effective in June 2004.

The way the emissions are calculated for open burning is multiplying the rural population by an emission factor provided by the U. S. Environmental Protection Agency. To model the open burning rule, a 50% compliance/penetration/effective combined rate was assumed for only those counties in our ozone forecast areas. Statewide the reductions were 84.61 tpd CO, 5.97 tpd NOx and 8.52 tpd VOC. For the purpose of modeling, the emissions for 2007 were all reduced by 50% since there was no way in the emission model to turn this control on or off for any given day. For the 2012 and 2017 modeling runs, it was assumed that all of the days would be below a code orange day, so no reductions were taken. The EAC counties emission reductions are listed in the table below. These emissions are in tons/day since it would be difficult to adjust these numbers to an annual number due to the ban only occurring on ozone action days. The annual emission reductions would then be dependent on the number of predicted code orange and red days, which would vary from ozone season to ozone season.

Triad EAC Area						
County	2007 Emissions Before Reduction			2007 Emissions After Reductions		
	VOC	NOx	CO	VOC	NOx	CO
Alamance	0.4	0.3	3.9	0.2	0.1	1.9
Caswell	0.2	0.2	2.3	0.1	0.1	1.1

Davidson	0.8	0.6	8.1	0.4	0.3	4.1
Davie	0.3	0.2	2.6	0.1	0.1	1.3
Forsyth	0.3	0.2	2.7	0.1	0.1	1.3
Guilford	0.7	0.5	6.6	0.3	0.2	3.3
Randolph	0.8	0.5	7.6	0.4	0.3	3.8
Rockingham	0.5	0.4	5.3	0.3	0.2	2.6
Stokes	0.3	0.2	3.5	0.2	0.1	1.7
Triad Area	4.3	3.0	42.5	2.1	1.5	21.3

B. Enforceable Local/Regional Initiatives

1. Continue support for PART (Piedmont Authority for Regional Transportation) the regional transportation service and planning entity - In 2003 Guilford and Forsyth counties granted PART ongoing legal authority to impose an automobile rental tax to support PART's regional work program. Newly authorized funding provided about \$2.5 million in 2003. In addition, PART secured nearly \$7 million in state and federal funds. Begun as an urban core MPO-based organization, PART's membership has now expanded to 7 Triad counties.

Implementation Dates - 2003 - Ongoing

Geographic Area - 7 counties

Responsible Party - PART and Guilford, Forsyth, Alamance, Davidson, Randolph, Rockingham and Surry counties

Reductions - Nonquantifiable. However, PART is the central connecting transportation element in linking the counties and cities in the Triad's urban core as well as planning and financing regional mass transit. In addition, PART's transportation strategies are based on land use principles in the Triad Coordinated Land Use and Transportation Policies adopted by PART and endorsed by the governing boards of 27 jurisdictions. Support for PART is further evidenced by increasing ridership on PART's transportation options, thereby reducing commuter miles and VMTs.

2. Build and Use Sidewalks, Greenways and Bicycle Routes - (See also Strategy # 16. *This strategy is partially enforceable because local government funds for many of these projects are already budgeted. Other sidewalk, greenway and bicycle routes are in capital improvements plans but not yet budgeted.*) Between March 31 2004 and December 31, 2007 local governments within the EAC will have constructed an additional 98 miles of public sidewalks, constructed an additional 14.25 miles of public linear greenways suitable for pedestrian and bicycle transportation, and established or improved an additional 190 miles of signed bicycle routes. Greenway development will focus on segments which will extend connectivity of pedestrian and bicycle transportation routes to additional neighborhoods, institutions and activity centers (e.g. in Winston-Salem extending the Salem Creek Trail to the N.C. School of the Arts, Forsyth Technical College and the Winston Lake area.). The

above figures are derived primarily from transportation plans in Greensboro, Winston-Salem and High Point.

Implementation Dates - Ongoing between March 31, 2004 and December 31, 2007.

Geographic Area - 11 county EAC area, most mileage concentrated in urban core.

Responsible Party - Each jurisdiction. These figures are derived primarily from transportation plans from Greensboro, Winston-Salem and High Point for which funding is already allocated or anticipated. (Greensboro: [2030 Greensboro Urban Area Long Range Transportation Plan](#). Actual amount to be built by 2007 is available from Greensboro Engineering & Inspection ProTrack Project Status Tracking System. Winston-Salem, page 26 2015 Greenway Plan for Winston-Salem and Forsyth County; document available on the City County Planning Board's webpage. The bicycle route estimate, from consultant recommendation for comprehensive bicycle plan, completion date Spring 2005. The sidewalk estimate, from the City's Sidewalk Bond Projects listed to be built by 2007, the Rural Hall Bicycle and Ped Plan sidewalk projects to be built by 2007, and the capital improvement funds of the other municipalities within the MPO.)

Reductions - Reductions are not quantifiable but definitely decrease VMTs, promote a healthy lifestyle and contribute toward more pedestrian friendly communities. (The Triad EAC's December 2004 report to EPA will include information on the Triad's pedestrian friendly ranking in a Surface Transportation Policy Project, along with news articles and editorials in response.)

3. Eliminate Coal Fired Boilers at R. J. Reynolds Tobaccoville facility in Forsyth County - RJR has eliminated use of coal-fired boilers identified in Title 15A, North Carolina Administrative Code Chapter 2D, Section 1416 during ozone season. For purposes of determining attainment the implementation period is defined as 2004 through 2007. The "ozone season" shall be those defined in Title 15A of the North Carolina Administrative Code Chapter 2D Section 1401(a)(18) as "the period beginning May 31 and ending September 30 for 2004 and beginning May 1 and ending September 30 for all other years." The Facility's NOx allocations listed in Title 15A of the NC Administrative Code, Chapter 2D, Section 1417 that will not be needed for compliance purposes may be traded in the NOx trading program in accordance with requirements of Section 1419. This strategy was implemented in 2004 before the ozone season began. This measure will reduce NOx emissions. The attached letter from RJR, dated November 24, 2004, addresses emissions trading and net emissions as a result of retiring the Tobaccoville coal-fired units. (See **Attachment A** to Triad EAC submission.)

Reduction: The reduction from this strategy has already been included in State calculations.

4. Adopt Planned Growth Measures Including Pedestrian Friendly Communities and Transportation Strategies that Promote Connectivity and Less Reliance on

Automobiles (See also Strategy #25 and **Appendix B**) Some local planned growth measures are enforceable ordinances. Other ordinances provide a mechanism or incentives; they are optional and do not include penalties. **Appendix B** contains examples from selected local government ordinances, categorized as "enforceable" or "voluntary.")

5. Build A Network of Regional Park and Ride Lots - Between January 2005 and June 2007, PART and local governments within the EAC will create an average of four additional park and ride lots per year. This is a conservative estimate. Four are currently completed, and design has been completed for a fifth lot. PART was awarded \$3.5 million in Federal Transit Administration grants which cover site location and design, conducting environmental and other required approvals, construction and maintenance of lots, signage and marketing of the Park and Ride program. Commitments for the new lots do not exist at this time, but sites in Alamance, Rockingham, Davidson, Randolph and Surry counties are under active consideration. Like any kind of property development, commitments to locate, acquire, and maintain each location are negotiable. Based on experience and interest in the program, all parties believe the goal of an average of four new lots a year is reasonable.

Implementation Dates - Implementation of this strategy began in 2003 and will continue through June 2007, the end of the grant period (assuming an extension.)

Geographic Area - This strategy will be implemented in the urban core first in Guilford, Forsyth and Alamance Counties, moving then to the adjacent counties of Davidson, Rockingham and Randolph.

Responsible Party - Piedmont Authority for Regional Transportation is responsible for expenditures as required by the grant. Local governments are responsible for matching funds.

Reductions - Forsyth County Environmental Affairs Department estimates if the projected number of lots are built, 3.2 tons of NOx per year for 2007 and 1.8 tons per year of VOCs for 2007. This is based on 15 VMT/trip and a 10% increase / 5 years. The source is PART and NCDOT. Calculation method is DOT Spreadsheet.

6. Retrofit and/or Replace Diesel School Busses – School systems within the EAC will initiate programs to retrofit or replace at least 165 school busses with lower emissions equipment between March 31, 2004 and December 31 2005.

Implementation Dates - Implementation has begun in many school systems, and results will be assessed annually.

Geographic Area - 11 county EAC region.

Responsible Party - The 14 school systems within the EAC are primarily responsible. EAC also has responsibility to provide grant information and provide progress and comparative information to all school systems.

Reductions - These reductions can be quantified once information is obtained on how many of the 165 or more will be retrofits or new lower emissions buses. Figures from Guilford County schools show that: (a) Funds were awarded,

contract let and approximately 123 diesel oxidation catalysts are now being installed on Guilford County school buses model year 2000-2003. (b) August 2004 48 new lower emissions buses delivered. Similar information will be gathered from the region's other school systems

7. Provide Electrification Equipment at Truck Stops - The first truck stop electrification site opened in the Triad in July 2004 in the city of Mebane at Exit 157 off Interstate 85/40.

Phase I of this project has 52 electrified spaces. The in-cab service offers electrical outlets and attachments for internet, telephone and satellite TV. Funding to purchase and install the equipment was provided by a grant from the National Association of State Energy Offices to the NC Division of Air Quality. Remaining costs for installing the electrified parking spaces will be provided by IdleAire Technologies Corp., which has installed and will operate the Advanced Travel Center Electrification system. The service costs \$1.25 per hour compared to \$1.68 or more per gallon of diesel fuel. The IdleAire system costs about \$8000 per parking space but is financially self-supporting once operational

Implementation Dates - July 2004. Installation date for Phase II additional units not known at this time.

Geographic Area - Mebane, eastern portion of Triad, I-85/40 corridor

Responsible Party - IdleAire Technologies

Reductions - By not idling diesel engines 8-10 hours at a time, each electrified truck stop is projected to save 263,000 gallons of fuel annually. Each stop will prevent about 2,732 tons of carbon dioxide, 35 tons of nitrogen oxides (NO_x), 15 tons of carbon monoxide, 1.8 tons of hydrocarbons, and 1 ton of particulate matter emissions from reaching the air per year.

C. Voluntary Local/Regional Initiatives

8. Reduce Fleet Emissions - Reduce aggregate fleet emissions in Triad EAC cities and counties as quickly as possible, considering public budget constraints.

- a. EAC staff will meet with fleet managers at least 3 times between October 2004 and August 2005 to develop a process and assign responsibilities for:
- Collecting scientific data on emissions reductions approaches and products including: (a) replacing vehicles with new lower emission models, (b) retrofits, (c) alternative fuels, and (d) retiring old high emission vehicles
 - Collecting cost information
 - Comparing costs and benefits of the various approaches and products
- b. EAC will use this data to develop an analytical tool by March 2005 for local government use in purchasing and decision-making to achieve maximum feasible emissions reductions by considering fleet emissions in the decision making process.

Comment [HB1]: Is this enough time for this process?

Comment [HB2]: If the first phase runs through March, I think this phase will take longer especially if an MIS department is involved

Comment [HB3]: Without some sort of limiting clause, this may imply that emission reduction is the only decision criteria - otherwise it would not be maximum. A qualifying clause may make clear that reductions are achieved by formally considering them in the process.

- c. The tool will be made available to local governments before December 31, 2005.
- d. Feed results from local purchasing into the central strategic monitoring and reporting clearinghouse described in Strategy # 9.
- e. Results will be reported to EPA annually as a part of the Clearinghouse, Strategy #9.

Comment [HB4]: This would need some more time after the tool is finally developed. Are we able to specify a certain number of governments?

Evidence of local government commitment is demonstrated by endorsement resolutions approved by local governments in 11 counties. The reporting mechanism described in this strategy, and the specified time and number of deadlines demonstrate local buy-in.

Implementation Dates - The implementation date for this strategy began in October 2004 and will be completed by December 31, 2005.

Geographic Area - Strategy will be implemented in the 11 county area.

Responsible Party - Triad EAC

Reductions - Reductions are not quantifiable but are directionally strong because: they verify and assimilate accurate information on emissions reductions methods and products; they provide information to local governments; they motivate action by giving local governments a basis for decision-making and a benchmark to compare their own with the progress of other governments in the region.

9. Develop and Maintain a Regional Emissions Reduction Clearinghouse - The EAC will develop and implement a central strategic monitoring and reporting clearinghouse function by April 2005. This function will be housed within the Piedmont Triad COG, with additional staff support provided by the Northwest Piedmont COG, Forsyth Environmental Affairs Department, and PART. The clearinghouse function will include, at a minimum, the following elements:
 - (a) Receive and compile implementation reports from local governments participating in the EAC, on the following matters:
 - (i) Public fleet vehicle purchases, with alternate/clean fuel vehicles noted.
 - (ii) Program developments intended to boost availability or utilization of public transit, including public and private employer transit pass programs, transit route extensions, transit use promotional activities, incorporation of transit stop requirements into development/zoning ordinances, and other transit promotional incentives for employers and developers.
 - (iii) Development/zoning ordinance modifications to increase sidewalk, bike path, bike route, and greenway requirements or incentives.
 - (iv) Construction and funding commitments for additional public sidewalks, bike paths, bike route improvements, and greenways, by estimated length and population served.
 - (b) Publish cumulative results for the region on at least a semi-annual basis to local media, participating governments, EPA and monitoring agencies.

- (c) Compile and circulate model and innovative strategies and programs in the above areas to participating local governments on at least an annual basis. The initial distribution of these materials will be made by July 2005.

Implementation Dates - The implementation date for this strategy began in October 2004 and will be completed by December 31, 2005.

Geographic Area - Strategy will be implemented in the 11 county region

Responsible Party - The Triad EAC and participating local governments are responsible for implementation and will be accountable if not implemented by 12/31/2005. Evidence of local government commitment is demonstrated by a specific provision in each endorsement resolution approved by local governments in 11 counties in December 2002:

“[The Triad] Early Action Plan will include a process to monitor and maintain long-term compliance with the standards [established by EPA]”

Then in May 2003 each local government approved a resolution adopting our strategies which committed each city and county to:

“Use applicable strategies as policy guidelines in decisions affecting purchasing, workplace practices, evaluation and implementation of capital projects, transportation and land use planning, and communications with its citizens.”

In order to follow through on these commitments, the councils of governments, Piedmont Triad COG and Northwest Piedmont COG, incorporated this strategy into their programs of work. In the Triad region, there are no grants, MPO or other outside funds for this initiative. Thus, it is entirely supported by *significant* expenditures of local government dues to their COGs. Well over \$100,000 in unreimbursed staff time has been devoted to the EAC. This strategy falls into the “voluntary” rather than the “enforceable” category. However, as long as the incentive remains to pursue this and other strategies, local government and COG commitment can be counted on.

Reductions - Reductions are not quantifiable but are directionally strong. The purpose of this strategy is to create an information system that, although not enforceable, builds in local government accountability for emission reduction commitments made by their governing boards.

10. Increase ridership on regional (PART Express) bus services– The regional bus service travels from downtown transit centers in Greensboro, Winston-Salem and High Point to the PART regional transfer facility. There, shuttles travel to businesses and hotels in the airport area and to the airport itself. During the one year this strategy has been in effect PART has had a 52% increase in ridership over 2003. The goal was a 50% increase. Monthly ridership (on average) is 800 boardings a day for an average 20 operating days per month, this equals 16,000 boardings a month and a significant monthly reduction in miles traveled on the region’s road network. Ridership goals for 2005 and 2006 have not yet been adopted; the PART staff will establish these goals in January.

Implementation Dates -Implementation for 50% ridership increase in 2004 began January 2004 and has been exceeded.

Geographic Area - Primarily Guilford and Forsyth counties

Responsible Party - PART

Reductions (2004) -

NOx reduction	7060 pounds
SOx reduction	303 pounds
CO reduction	102,053 pounds
VOC reduction	9929 pounds
PM10 reduction	-95 pounds

Assumptions:15 VMT/trip with 16,000 trip/month = 2,880,000 VMT/yr; PART vehicles operate 205 Trips/day @ 15 VMT/trip = 738 VMT/yr; Assume NO INCREASE in ridership
Source: Forsyth County Environmental Affairs Department using STAPP/ALAPCO and ICLEI's Clean Air and Climate Protection Software developed by Tonie Smith Associates Inc.

11. Expand PART Ride Sharing and Vanpooling of the Piedmont (RSVP) –RSVP provides vanpool and ride-match services to employers and employees. Less than a year ago when this strategy was first developed, the program had 20 vans. Now it has 27. RSVP now principally serves Guilford and Forsyth Counties, but it is ready to expand and will do so depending upon employee recruitment in outlying counties. Projections are that 5 new vans will be added per year in 2005 and 2006. This estimate is based on population projections, new business openings such as Dell Computer which will hire 1300 workers, and the need for increased employee recruitment in outlying counties. In addition, PART has worked in concert with other regional organizations to create of a statewide commuter information network that connects riders with transportation options. The web site is www.sharetheridenc.com

Implementation Dates - Beginning 2004 through 2007

Geographic Area - Principally Guilford and Forsyth counties with expansion on demand into Rockingham, Surry, and Davidson counties

Responsible Party - PART

Reductions - Currently, 27 vans at 14 persons per van, two trips a day, 21 days a month = 15,876 passenger trips per month. Assuming 5 new vans per year transporting 12 persons/van and 30 VMT per person per day, reductions will be 0.7 tons per year NOx and 0.7 tons per year for VOC for 2007. Calculation method: CACPS

12. Carpool – Expand carpooling through PART website sign-ups, promotions, and advertisements. This strategy also benefits from PART's participation with other regional organizations in the statewide commuter information network that connects riders with transportation options (see above). PART will work to a 1% increase per year beginning January 2004 in Guilford and Forsyth counties.

Implementation Dates - Beginning January 2004 through December 2007

Geographic Area - Triad urban core - Guilford and Forsyth counties

Responsible Party - PART

Reductions - A conservative assumption based on 5.73% carpool population, approximately 30 VMT/person/day and 1% annual increase yields 19 tons per year NOx for 2007 and 23.2 tons per year VOC for 2007. Source: 2000 census. Calculation method: CACPS

13. Initiate and Grow a Hospital Transportation Shuttle That Connects Hospitals in the Triad and Triangle Regions - This new strategy, PART Connections Express, began operation in April 2004. The express shuttle service provides trips twice a day on a fixed schedule taking residents of any Triad county to hospitals in Durham and Chapel Hill (university and veterans hospitals). Trips originate in Winston-Salem (Forsyth County) and make three stops in Guilford and Alamance counties. Families and human services transportation agencies from other counties bring riders to the collection points. Formerly, county human services transportation agencies were making multiple trips to Durham and Chapel Hill per week. Since April, passenger trips have increased from 300 to 450 a month.

Implementation Dates - Beginning 2004 and continuing through 2007

Geographic Area - 11 county region

Responsible Party - PART

Reductions - Nonquantified at this point. However, this strategy yields a savings of numerous trips per week (VMTs) by county agency vans to Durham and Chapel Hill. Now they need only link with PART Connections Express at convenient collection points, and they can remain in their counties to serve residents needing local transportation. A study, to be completed December 31, 2004, by the Transportation Institute of North Carolina A&T University will quantify the financial and miles saved value of this new regional transportation service. The study will develop a method for analyzing out-of-county transportation and its benefits. The information derived will help PART and county human services agencies attract more riders to PART Connections Express.

14. Enhance Municipal Mass Transit Facilities, Bus Stops and Accessibility - Improve existing transit systems with bus shelters, web based schedules, etc. Add bus stops for municipal bus systems at employers. Greensboro Transit Authority (GTA), Winston-Salem Transit Authority (WSTA), and High Point Transit Authority (HiTran) purchase and erect shelters and add bus stops by request - either of riders or employers. They will continue to budget funds for this purpose annually. Greensboro has a Riders' Advisory Panel that meets monthly to identify customer service needs. Greensboro and Winston-Salem have web based scheduling.

Implementation Dates - Ongoing

Geographic Area - Greensboro, Winston-Salem, High Point in Guilford and Forsyth counties.

Responsible Party - Three individual transit systems

Reductions - No quantifiable reductions. These are all efforts to increase the comfort and convenience of mass transit riders thereby increasing ridership and decrease VMTs in the three municipalities. See more in “Reductions” following Strategy #15.

15. Provide Mass Transit Incentives and Passes - By December 31, 2005, at least two of the EAC’s four transit systems (Winston-Salem Transit, Greensboro Transit, High Point Transit and PART) will have initiated incentives such as employer based transit passes, passes for special populations, or other successful outreach programs with the goal of increasing transit ridership in the region by 11% between December 31, 2003 and December 31, 2005. Following are examples of current pass and incentive programs:

- High Point does not have any employer based programs or public transit pass programs.
- Winston-Salem does have a marketing and outreach program targeting employers. The notable success is one offered by the Veterans’ Hospital which has resulted in a 2% increase in employee ridership since 2003
- Greensboro Transit has a variety of passes:
 - a 31 day rolling pass for unlimited rides at \$35 for adult fare.
 - a summer ozone season “buses to books” pass for students who can ride free on any route by showing their local library card.
 - GTA’s Corporate Connection program provides tax deductions, up to \$65 per employee, for passes employers purchase for their employees. (No data on participation.)
 - a 180-day rolling pass, the equivalent of a semester, at a nominal fee of \$75 for college students.
 - Plans are in the works for dedicated service routes at a nominal fee for students at Greensboro’s 5 colleges and universities that will provide expanded options for getting to and from classes, shopping, off campus housing, and employment.

Implementation Dates - This strategy has already begun through marketing and outreach programs at Winston-Salem Transit Authority, PART and Greensboro Transit Authority. By December 31, 2005 the EAC will verify that the overall regional goal of an 11% increase in ridership has been accomplished.

Geographic Area - Greensboro, Winston-Salem, High Point, Guilford and Forsyth counties.

Responsible Party - Each transit authority is responsible for its own outreach efforts. Consistent with Strategy # 9, the Regional Clearinghouse, the Triad EAC will obtain reports and verification of each system’s progress.

Reductions - Increasing bus ridership provides many community benefits including a decrease in VMTs, promoting a healthy lifestyle and access to employment and medical services. Expanding bus ridership also goes

hand-in-hand with smart growth development patterns which call for transportation services to town centers, employment centers and other densely populated areas.

NOTE: Results for Strategies #14 and #15 will be measured against ridership data. Following are partially complete numbers:

HITran - 23% increase from June 2004 - October 2004

WSTA - Total annual ridership June 2002-May 2003 2.65 million.

Total annual ridership June 2003- May 2004 2.74 million.

PART - 52 % increase in ridership from January 2004-October 2004. Average ridership September 2002 200/day; October 2003 575/day; October 2004 810/day

GTA - 2004 ridership grew 17% systemwide compared to 2003. Ridership continues to increase. Between July 2004 and October/November 2004 weekday ridership has increased 9%. Sunday service has increased 45%. In 2003 total annual ridership exceeded 2.2 million riders, a first in history of GTA.

- 16. Build and Use Sidewalks, Greenways and Bicycle Routes** - Between March 31 2004 and December 31, 2007 local governments within the EAC will have constructed an additional 98 miles of public sidewalks, constructed an additional 14.25 miles of public linear greenways suitable for pedestrian and bicycle transportation, and established or improved an additional 190 miles of signed bicycle routes. The new or improved bicycle routes will include repair of roadway hazards specific to nonmotorized transport. Greenway and bicycle route improvements will also address security concerns of pedestrians and cyclists. Greenway development will focus on segments which will extend connectivity of pedestrian and bicycle transportation routes to additional neighborhoods, institutions and activity centers (e.g. in Winston-Salem extending the Salem Creek Trail to the N.C. School of the Arts, Forsyth Technical College and the Winston Lake area.). The above figures are derived primarily from transportation plans in Greensboro, Winston-Salem and High Point. However, projects outside the urban core have already been identified by rural transportation planners and the goal will likely be exceeded.

Implementation Dates - Ongoing between March 31, 2004 and December 31, 2007.

Geographic Area - 11 county EAC area, most mileage concentrated in urban core.

Responsible Party - Each jurisdiction. These figures are derived primarily from transportation plans from Greensboro, Winston-Salem and High Point for which funding is already allocated or anticipated. (Greensboro: [2030 Greensboro Urban Area](#) Long Range Transportation Plan. Actual amount to be built by 2007 is available from Greensboro Engineering & Inspection ProTrack Project Status Tracking System. Winston-Salem, page 26 2015 Greenway Plan for Winston-Salem and Forsyth County; document available on the City County Planning

Board's webpage. The bicycle route estimate, from consultant recommendation for comprehensive bicycle plan, completion date Spring 2005. The sidewalk estimate, from the City's Sidewalk Bond Projects listed to be built by 2007, the Rural Hall Bicycle and Ped Plan sidewalk projects to be built by 2007, and the capital improvement funds of the other municipalities within the MPO.)

Reductions - Reductions are not quantifiable but definitely decrease VMTs, promote a healthy lifestyle and contribute toward more pedestrian friendly communities. (The Triad EAC's December 2004 report to EPA will include information on the Triad's pedestrian friendly ranking in a Surface Transportation Policy Project, along with news articles and editorials in response.)

17. Syngenta Crop Protection: 1) Delivery vehicles are not allowed to idle in shipping and receiving area during deliveries or during pick ups. 2) Instituted temperature adjustments to reduce operations of the boilers since 2001. Temperatures are raised in the buildings after hours during the summer months. Temperatures are lowered in the buildings after hours during the winter months. 3) Improved the efficiency of boiler operations and removed one of the boilers from one of the buildings in 2001. 4) Boilers go through annual tunings as part of the preventive maintenance program to increase the efficiency of operations.

Implementation Dates - Already implemented in 2002 and 2003.

Geographic Area - Guilford County

Responsible Party -Syngenta Crop Protection

Reductions - Strategy is considered voluntary since it is not associated with an enforcement mechanism or permit status. Reductions have not been quantified. They are ongoing and do not add a new emissions reduction benefit. However, the EAC believes these actions should be acknowledged. They represent long-range corporate policy and in some cases financial investment. A return to pre-implementation status is highly improbable.

18. Energizer Battery Company, Inc. 1) Reduced fleet of vehicles by 57%. 2) 90% of fork lift trucks are now battery powered. 3) Use the smaller of two natural gas fired boilers during the months of June through October as the weather permits. 4) Test diesel powered fire pumps and natural gas powered emergency generators during the cooler morning hours only.

Implementation Dates - Implemented in 2003 and summer of 2004.

Geographic Area - Randolph County

Responsible Party -Energizer Battery

Reductions - Strategy is considered voluntary since it is not associated with an enforcement mechanism or permit status. Reductions have not been quantified. They are ongoing and do not add a new emissions reduction benefit. However, the EAC believes these actions should be acknowledged. They represent long-range corporate policy and in some cases financial investment. A return to pre-implementation status is highly improbable.

19. Duke Energy. 1) Mobile meter reading program will yield a reduction of 56 pick-up trucks per day that would normally be running or idling 6 out of 8 hours per day.
2) Instituted company-wide idling reduction guidelines for fleet vehicles in addition to the mobile meter reading program.

Implementation Dates - Mobile meter reading program implemented 2003
Idling reduction guidelines implemented summer 2004

Geographic Area - 11 counties

Responsible Party - Duke Energy

Reductions - This strategy is considered voluntary since it is not associated with an enforcement mechanism or permit status. The reductions have been quantified but are not considered to add new emissions reductions benefits. Reductions are:

- a. Mobile Meter Reading - 1308 pounds of NOx per ozone season (56 routes eliminated @ 90 miles per day. NOx emissions per vehicle = 1.1 grams per mile. Ozone Season May 1-September 30 = 153 days. Week days = $153 \times 5/7 = 109$ days. NOx reduced = 12 pounds per day x 109 days = 1308 pounds
- b. Estimate 133 diesel truck engines and 483 gasoline truck engines reduce 30 minutes per day of idling. Reduced idling is assumed to produce an overall benefit in the form of lower NOx emissions but the extent can not be quantified based on information available at this time. DAQ does not have a reliable emissions factor but does recommend idling reduction as directionally correct for attaining ozone standards.

20. Idling Reduction Efforts - By December 31, 2005 three additional school systems will adopt anti-idling policies for school buses in their fleet. School systems are leaders in the Triad with anti-idling policies. Also, Duke Energy instituted an idling reduction policy for all fleet vehicles in the summer of 2004. See strategy #19.

Examples of newly adopted school system anti-idling policies:

- Guilford County Schools - "When the temperature is 50 degrees or higher, upon arrival at school sites while awaiting afternoon boarding, school bus engines will be turned off and not restarted until loading is completed and buses are ready to begin the routes." As of November 2004 Guilford County Schools transportation department has downloaded software that allows tracking of each bus to determine over use of fuel and identify violators.
- Davidson County Schools and Alamance-Burlington School System - similar policies "Five minute maximum on idling; no idling while loading or unloading on school grounds; buses should not park "nose to tail" when avoidable; buses should not park on school grounds near building air-intake systems; no bus to run without the driver being within three feet of the bus."

Implementation Dates - 2004. At least three additional school systems by December 2005.

Geographic Area - County by county in Triad region. Three counties to date.

Responsible Party - Triad EAC to monitor and promote. Individual county school systems to adopt and monitor.

Reductions - This is a potentially quantifiable reduction but no calculations have been run to date. Reduced idling results directly in reduced diesel emissions.

21. Implement energy efficiency in operation and design of facilities, purchase and use of equipment - Principles include: a) use of design and construction standards for energy efficient buildings, b) retrofitting public buildings and schools for energy efficiency, c) seeking out and purchasing energy efficient products, d) using programmable thermostats and lighting to lessen use when the office is closed, e) rescheduling nonessential operations (lawn maintenance, outdoor painting, paving) to non-peak ozone times.

Implementation Dates - Implemented 2003 - 2004 in High Point municipal buildings, Davidson County office buildings, Guilford County schools, Rockingham County schools and City of Asheboro (Randolph County) municipal buildings.

Geographic Area - Selectively in Guilford, Davidson, Rockingham and Randolph counties

Responsible Party - Individual jurisdictions

Reductions - Reductions in fuel, electricity and other energy costs have been identified by local governments and their vendors, such as Johnson Controls, and their architects and engineers. This has not been quantified as emissions reductions. This strategy is directionally strong because of the linkage between reduced energy use and emissions. There is no vehicle to make this an enforceable or mandatory strategy for local governments. However, the EAC, through the COGs, will continue to advocate this strategy with local government managers

22. E-government / increase available locations. Provide telephone and web-based services, both for information and transactions and/or multiple locations for payments, etc. Implemented in City of Thomasville in Davidson County. Others with telephone and electronic e-bill pay will be identified.

Implementation Dates - 2003 in City of Thomasville, Davidson County

Geographic Area - Thomasville, Davidson County

Responsible Party - EAC and COGs will advocate

Reductions - A directionally strong strategy because it saves VMTs for those who often pay in person at the municipal or county building.

23. Use Intelligent Transportation Systems (ITS) – Local transportation departments to use detection loops and other systems which monitor traffic. The system provides drivers with information such as lane closures, traffic delays and is used to reduce non-recurring congestion and associated emissions.

Implementation Dates - Already implemented in Greensboro, Winston-Salem and High Point; incorporated into their long-range transportation updates. Funding to expand these systems will be forthcoming and is based on each MPOs Long-Range Transportation Plan.

Geographic Area - MPO area for Greensboro, Winston-Salem, and High Point.

Responsible Party - Each MPO

Reductions - Nonquantified but these measures reduce congestion and vehicle idling, leading to lower emissions.

24. Direct Deposit - Offer employees direct deposit of pay checks. A sampling of local governments in the region shows 3 of 4 counties contacted and 3 of 5 larger cities have mandatory direct deposit. The remaining 3 governments in the contact group have voluntary direct deposit; 2 have 90% participation and 1 has 60% participation.

Implementation Dates - Implemented in various jurisdictions in 2002, 2003 and 2004

Geographic Area - Various jurisdictions in Guilford, Forsyth, Randolph, and Davidson counties

Responsible Party - Each jurisdiction. EAC and COGs will advocate for increased implementation.

Reductions - Nonquantifiable but this saves each employee at least one vehicle errand per pay period.

25. Adopt Planned Growth Measures Including Pedestrian Friendly Communities and Transportation Strategies that Promote Connectivity and Less Reliance on Automobiles -

Throughout the region Triad local governments have adopted and are formulating new comprehensive development plans and unified development ordinances that incorporate smart growth principles. The development ordinances, typically zoning and subdivision ordinances, implement principles in their communities' comprehensive plans. The ordinances provide for street connectivity, more sidewalks, traditional neighborhood developments (TNDs), mixed use and infill development, and landscaping. Some of these provisions are required (enforceable), and others are optional (voluntary). The same smart growth principles found in the comprehensive plans and zoning and subdivision provision are integrated into the region's four MPO multi modal transportation plan updates. In addition, 27 local governments have adopted PART's Land Use and Transportation Principles. These principles serve as a regional guide to link land use and transportation planning.

By way of example, **Attachment B** to this submission responds to requests for details, demonstrations of commitment, and ordinances that either require or provide incentives for smart growth principles.

NOTE: On November 17, Greensboro's Southside neighborhood was announced as one of EPA's five winners of the 2004 National Awards for Smart Growth Achievement. Greensboro's Department of Housing and Community Development

developed a Traditional Neighborhood District Ordinance to assist redevelopment of this 10 acre project. Southside is a five- to ten-minute walk from the central business district and includes single-family homes, two-family homes, townhouses, restored historic homes, and live/work units.

Implementation Dates - Ordinances cited in **Attachment B** have been adopted in 2003 and 2004 by the jurisdictions identified.

Geographic Area - Ordinances with provisions similar to those cited below are found in 8 of the 11 Triad counties.

Responsible Party - Individual jurisdictions

Reductions - As recommended in the EPA guidance, these measures reduce reliance on automobiles, make walking to destination points more convenient, promote infill and mixed uses and reduce sprawl, and require tree planting and preservation. These are long-term strategies to reduce emissions and provide a greener environment.

26. Increase Use of Biodiesel Fuel in the Region -

- a) The City of Greensboro's use of up to 1.5 million gallons of B20 has been noted in previous submissions. As of November 2004, two local universities (UNCG and NC A&T University) have agreed to start using biodiesel in their refuse trucks.

UNCG has designed a logo to be applied to city and university vehicles. Local media will be contacted once the logo is finalized. In addition, both universities are working on educational materials. These efforts will provide another avenue for advertising the benefits of biodiesel.

- b) In October the Forsyth Environmental Affairs and General Services departments received a \$5000 grant from the NC Solar Center to offset the cost of using biodiesel in Forsyth County vehicles.
- (c1) One of North Carolina's major distributors of biodiesel will secure property in the Triad by the Spring of 2005 as a wholesale distribution facility.
- (c2) Assuming this wholesale outlet for biodiesel is established, it is likely that a major corporation with an extensive fleet in the region will work with the EAC to purchase biodiesel for its Triad based fleet, as it has done elsewhere in the state. Demand numbers have already been developed. The EAC acknowledges that use of biodiesel by this corporate fleet depends on financial and other considerations and is only a potential strategy.

Implementation Dates - Greensboro biodiesel, November 2002. Universities and biodiesel, November 2004; Forsyth biodiesel October 2004.

Geographic Area - Guilford County, to date

Responsible Party - City of Greensboro and universities

Reductions - Not quantified at this time. However, in general the following reductions result from use of biodiesel:

-30% total unburned hydrocarbons	-20% sulfates
-20% carbon monoxide	-13% PAH
-22% particulate matter	-50% nPAH
+2% NOx	

27. Determine Potential and Value of Open Burning and Lawnmower Buy-Back Policies-
 The Forsyth County Environmental Affairs Department will study the potential and value of additional open burning restrictions and a lawn mower buy-back program for one or more jurisdictions and make recommendations on both of these issues to the EAC by December 31, 2005.

Implementation Dates - The implementation date for this strategy will begin January 2005 and will be completed on or before December 5, 2005, the date of the December meeting of the Triad EAC.

Geographic Area - The entire 11 county region will be studied; however the likelihood of implementing one or both programs is stronger in the urban core counties of Guilford and Forsyth.

Responsible Party - The Triad EAC and the Forsyth County Environmental Affairs Department are responsible for implementation and will be accountable if not implemented by 12/31/2005.

Reductions- This strategy is directionally strong because it will identify the most feasible policies to restrict open burning beyond the statewide ban on code orange and red days. It will also provide a lead agency, Forsyth County Environmental Affairs, to assemble key elements of a lawn mower buy-back program. The EAC will identify jurisdictions for potential implementation

D. Organizational Support and Public Education for Emissions Reduction

28. Support Our Regional Consortium - Continue the Triad EAC as a regional air quality consortium involving county and municipal governments, environmental interests, business and industry to develop and carry out initiatives to reduce ozone emissions in the region. See also comments in Strategy #9 re: local government and COG commitment.

Implementation Dates - December 2002 and continuing

Geographic Area - 11 counties

Responsible Party - local governments, Piedmont Triad COG and Northwest Piedmont COG

Reductions - This is not an emissions reduction measure. However, if it were not for the Triad EAC, many of these strategies would not be adopted or implemented, and emissions reduction would not be receiving its current level of support in the region.

29. Continue Existing Air Awareness Programs – Continue regional education and outreach services provided through the N.C. Division of Air Quality and the Triad Air Awareness Program. Implement outreach programs with added emphasis on ozone season (May – September) and ozone episodes. Activities of the Triad Air Awareness program include:

- Ads and Special Events - Placing radio and TV ads, which can be used free of charge by organizations and local government/business. The “Breathing” TV spot just won an international award. Cost of airtime is a barrier to more frequent airing of these spots. Running the radio spots as public service announcements is an option but not widely accepted by radio stations. To view the TV spots and listen to some of the radio spots go to the triad air web site. www.co.forsyth.nc.us/envaffairs/triadair

The two major special events consist of a big family Air Awareness day at SciWorks in Winston-Salem and an event in collaboration with the Greensboro Children’s Museum. as well.

- Targeted Outreach - The Triad Air Awareness Program uses communications designed for special populations developed by various national organizations. This information is distributed in a variety of settings such as special events at public libraries and school visits.
- Go into the Schools – Develop school-based outreach to educate children, who, in turn can inform their families. This strategy is similar to the approach that worked when children educated their families about recycling. The NC Air Awareness program has been successful in getting the topic of air quality included in the 7th grade science curriculum. Seventh graders in North Carolina study atmosphere, and air quality fits in nicely.. For younger grades there are coloring books called “Air Pollution From A To Z.”
- Media Reports - Support Air Quality reports on TV, radio, newspaper, and web sites with advocacy and information. A few TV stations in the Triad and one or two newspapers provide strong coverage of air quality episodes, but it tends to be sporadic. Coverage is, however, much improved from 2002 and previous years. This is in large part a result of personal appeals and information from the Triad Air Awareness Program.

Implementation Dates - Beginning in 2001. New techniques implemented frequently. Note, funding of the Triad and other regional Air Awareness program through NC Division of Air Quality will be under discussion at NCDAQ this month.

Geographic Area - 11 counties

Responsible Party - Triad Air Awareness Program, N.C. Division of Air Quality

Reductions - Nonquantifiable. Public education and exposure are critical to making air quality an issue of public concern, as water quality has become. Also,

as children are educated, they can impact the habits of their families for healthier living, walking, mowing lawns after 6:00 p.m. etc.

30. Partner with Triangle area in a two-region Clean Cities program - First joint venture was an AFV road show conducted in Greensboro and Winston-Salem on April 21, 2004. Programming and outreach provided by Triangle Clean Cities program, City of Greensboro and City of Winston-Salem. Subsequent joint ventures include publicizing grant opportunities and eliciting applications for Mobile Source Emissions Reduction Grants, and creating a user group of local governments for Clean Cities Webcasts.

Implementation Dates - February 2004 and ongoing.

Geographic Area - 11 county Triad region and eastward to Raleigh-Durham-Chapel Hill area of N.C.

Responsible Party - Triad EAC, Piedmont Triad COG, Northwest Piedmont COG, NC Solar Center, Triangle Clean Cities program

Reductions - No emissions reductions. Provides opportunity for information sharing and air quality program development.

E. Long-Term Planning for Emission Reductions

31. Proceed with Plans for Commuter and Intercity Rail – In the fall of 2004 PART signed a contract for phase II of the Major Investment Study a regional mass transit system. Under this phase, costs and benefits will be calculated for multiple approaches to providing mass transit within the Triad. Options include monorail, commuter rail, and bus rapid transit. The study will recommend the option that will work best. This phase II study will include a public travel demand model being developed by PART. It will help consultants forecast demand and use of the mass transit options. Phase I of the study identified the mass transit corridor from western Winston-Salem to eastern Greensboro. The corridor will later be lengthened to go into western Forsyth County and Alamance County. This Study incorporates land use policies of activity centers, village centers and infill in designated centers along the corridor.

Implementation Date - Phase II of the study began in the fall of 2004 and will be complete by the summer of 2005.

Geographic Area - Initially Guilford and Forsyth counties

Responsible Party - PART

Reductions - This strategy does not affect near-term air quality improvement, but it demonstrates progress in a positive direction.

32. Determine feasibility of developing HOV / HOT lanes along I-40 (main east-west corridor through the Triad.) - PART is partnering with NC A&T University and UNC Chapel Hill on this study which began in February 2004 and will be completed by the summer of 2005. This is a value pricing study and only one component of the process to determine the feasibility a value pricing line along this major east-west artery. Even if it is determined that the Triad is not ready for a value travel lane,

study results may be useful. As traffic increases, there could be a need for this information in the future.

Implementation Dates - Study began in 2004; to be completed by summer 2005

Geographic Area - Forsyth, Guilford and Alamance counties

Responsible Party - PART

Reductions - To be determined. Long-term

November 24, 2004

RJReynolds

Ms. Laura Boothe
Chief of Attainment Planning
Division of Air Quality
North Carolina Department of Environment & Natural Resources
1641 MAIL SERVICE CENTER
RALEIGH, NC 27699-1641
Laura.Boothe@ncmail.net

Subject: EAC (Triad) SIP

Dear Ms. Boothe:

R. J. Reynolds Tobacco Company is pleased to have the opportunity to respond to a question on NOx allowances at our Tobaccoville facility.

R.J. Reynolds retired the coal-fired units at Tobaccoville prior to the start of the 2004 ozone season. The NOx SIP Call (effective May 2004) resulted in massive NOx emissions reductions across a multi-state (22 states and DC) area in the Southeast and Midwest. The program was designed to enable the reductions to be made in a cost-efficient manner through the use of an emissions allocations trading program. Allocations for the Tobaccoville facility noted in NCAC 15A were traded as allowed by the code.

The question of what other sources in the Triad may emit is not germane to the reductions achieved by R.J. Reynolds. Other sources in the Triad regulated by the NOx SIP Call may emit more or less than allocated by the rule, but in the end, must own sufficient allocations for every ton emitted. Those allocations are traded across a multi-state area. Retirement of a limited number of allocations (256 allocated to R.J. Reynolds in 2006) would not prevent or hinder any source from buying more on the open market (approximately 1,185,000 allocations¹ in the multi-state area).

The analysis of emissions in small geographic areas uses best estimates of future emissions. In the case of R.J. Reynolds boilers, the emissions estimates are zero. This reduction is certain and is appropriate for inclusion in the model as an emissions reduction measure in the Triad Early Action Compact.

Sincerely,

Stephen C. Curl, PE, Director - Environmental, Health and Safety

**References and Citations to Planned Growth Ordinances
From Selected Triad Communities
That
Promote Infill, Mixed Uses, Connectivity, Less Reliance on Automobiles
and Green Communities**

A. Ordinances That Are Enforceable (Penalties for Nonperformance)

1. Sidewalks required in new developments

High Point - Section 9-6-16 (e) of the High Point Development Ordinance requires sidewalks to be installed in most new subdivisions on one or both sides of streets depending on street classification and use conditions.

Lexington - Sidewalks required on one side of the street. Land Development Ordinance (Section 5.7.3.F). In addition, all new streets are required to have a bike path. (Section 5.7.4.2)

Elon - Sidewalks are required on both sides of the street – see Section 5.7.3.F. All new streets within Town limits are required to have a bike lane, a minimum of four feet in width. New streets outside of town limits (within the extra-territorial zoning jurisdiction) are required to have a bike path, a minimum of eight feet in width and separated from vehicular traffic – see Section 5.7.4.2.

Greensboro - Sidewalk Ordinance 30-6-13.5. Sidewalks required on both side of streets for new and existing major and minor thoroughfare streets. Required on one side of the street for new and existing collector and subcollector streets.

2. Sidewalks required in front of redeveloped properties

High Point - Section 9-6-16 (e) of the Development Ordinance also requires sidewalks when property is redeveloped unless exempted by the Technical Review Committee. One specific exemption listed is in primarily industrial areas where there are no existing sidewalks and sidewalks are deemed unnecessary or unfeasible.

Lexington - Within each planning district, development and redevelopment must support the pedestrian environment, so pedestrian access and/or sidewalks may be required depending upon the location. Land Development Ordinance, Section 3.2.3.J, 3.4.3.L, 3.5.3.K, 3.6.2.I, 3.7.3.I, and 3.9.3.E

Elon - Within each planning district, development and redevelopment must support the pedestrian environment, so pedestrian access and/or sidewalks may be required depending upon the location - see Sections 3.2.3.L., 3.3.3.L.,

3.4.3.L., 3.6.3.K., 3.7.2.E., 3.8.3.I, 3.9.3.G., 3.10.3.G., 3.11.3.I, 3.12.3.D., and 3.13.3.H.

Greensboro - Sidewalk Ordinance 30-5-1.5. Sidewalks required for redeveloped property subject to a site plan. Conditions specified in ordinance.

3. Require street connectivity

Winston-Salem/Forsyth County - Subdivision Regulations require stub streets to be built to property lines and those streets to be connected and extended as more property is developed. This creates a connected street pattern. Uniform development Ordinance Chapter D.

4. Planting new trees or preservation of specimen trees required

High Point - Section 9-5-11, Landscaping Requirements, of the Development Ordinance covers development city-wide. Section 9-4-4 (c) (4) c contains more extensive requirements for the Eastchester Scenic Corridor District.

Lexington - All development and substantial redevelopment requires planting of new trees as well as preservation of existing trees. Parking lots containing more than 36 spaces are required to have trees as well. Street trees are required along all new streets. (Land Development Ordinance, Sections 5.6.3, 5.7.3 and 5.8)

Elon - All development and substantial redevelopment requires planting of new trees as well as preservation of existing trees. Parking lots containing more than 36 spaces are required to have trees as well. Street trees are required along all new streets – see Sections 5.6.3. and 5.7.6.

Greensboro - 30-5-4 Landscaping and Tree Preservation Requirements
30-5-4.1 Applicability

30-5-4.2 Tree Conservation Plan Procedures

30-5-4.3 Tree Conservation

30-5-4.4 Tree Conservation Area Determination

30-5-4.5 Tree Conservation Flexibility Standards

30-5-4.6 Landscape Plan Procedures

30-5-4.7 Planting Areas

30-5-4.8 Planting Yard Determination

30-5-4.9 Planting Yard Design and Maintenance Standards

Winston-Salem/Forsyth County - The Uniform Development Ordinance requires both buffer yards and street yards with tree plantings. UDO Sections 3-4 and 3-5.

4. Greenways Required (used as bicycle or pedestrian transportation elements - not primarily recreation)

High Point - When development occurs that includes a stream corridor identified on the Land Use Plan for the High Point Planning Area, the city obtains a greenway easement for future greenway construction. The city's highest greenway priority at the present time is to connect the central city with Piedmont Environmental Center and the Bicentennial Trail and thus, eventually, Greensboro. A trail connecting the greenway to Montlieu Elementary School was recently constructed.

Greensboro - Between March 31 2004 and December 31, 2007 Greensboro will construct an additional six to seven miles of new greenways for bicycle and pedestrian transportation. This commitment is enforceable, not as a zoning provision, but as part of Greensboro long-range transportation plan and budget. The actual amount to be built by 2007 is available from Greensboro Engineering & Inspection ProTrack Project Status Tracking System. Greenway development will focus on segments which will extend connectivity of pedestrian and bicycle transportation routes to additional neighborhoods, institutions and activity centers.

Winston-Salem/Forsyth County - Any plan reviewed by the Planning Board that has an adopted greenway trail on the site is required to dedicate and easement. City-County Greenway Plan.

See B.6 below for additional greenway provisions from other jurisdictions that are voluntary.

B. Ordinances That Are Voluntary (Encourage or Provide Incentives for Smart Growth)

1. Urban infill such as allowing residences in downtown areas

High Point - Sections 9-4-2 (c) (1) and 9-4-3 (a) of the Development Ordinance will be amended in early 2005 to provide incentives for infill with Planned Unit Developments including a mix of residential uses, or a mix of residential and non-residential uses, on small infill or redevelopment sites. In addition, the High Point Development Ordinance (Table 4-5-1, Permitted Use Schedule) has a use called "Mixed Developments," which is permitted in the Neighborhood Business, General Business, Highway Business, Central Business, Shopping Center, Corporate Park and Light Industrial zoning districts with development standards. The use is allowed as of right in the Traditional Neighborhood District. This use

is defined as a mix of residential uses along with whatever non-residential uses are allowed in the particular district.

Lexington - Residences are permitted and encouraged in the upper story of the Uptown businesses. Section 3.5.2 In addition, a variety of housing types (detached, duplexes, attached, mixed-use) and lot sizes (no minimum lot size and a requirement for variation) are permitted in the Traditional Neighborhood Development, which is a permitted use with additional requirements. (Land Development Ordinance, Chapter 4)

Elon - Residences are permitted and encouraged in the upper story of businesses and live/work units located within the Neighborhood and Urban Residential Planning Districts – see Sections 3.3.2 and 3.4.2.; within the Neighborhood, Village, and Town Center Planning Districts – see Sections 3.6.2 and 3.7.2; within the Commercial, Office & Institutional, Public Institutional Planning Districts – see Sections 3.8.2., 3.9.2., and 3.10.2.; and within the Traditional Neighborhood Development Overlay District – see Section 3.12.2. In addition, a variety of housing types (detached, duplexes, attached, mixed-use) and lot sizes (no minimum lot size and a requirement for variation) are permitted in the Traditional Neighborhood Development Overlay District, which is a use permitted with additional requirements in several planning districts – see Section 3.12.

Greensboro - Planned Unit Development - Infill - permits innovative developments with small lots, unconventional lot size and setbacks and mixed housing and commercial uses on small parcels in inner-city and other developed areas Zoning Ordinance 30-4-3.3(E)
See also Traditional Neighborhood Development Ordinance , 30-4-2 and note 2004 EPA award to Greensboro’s Southside neighborhood as one of five winners of EPA’s National Awards for Smart Growth Achievement.

Winston-Salem - The Central Business District allows residential as well as combined uses in the downtown area. Uniform Development Ordinance Section 2-1.3.

2. Permit or encourage traditional neighborhood developments

High Point - Section 9-4-2 (c) (2) and 9-4-3 (b) provide for a Traditional Neighborhood District, which “is intended to allow for the development of land consistent with the design principles of ‘traditional’ neighborhoods that were widely used in the United States prior to World War II.” The regulations establish several use categories, including single-family detached, single-family attached, multi-family, mixed use, commercial, civic and open space. Depending in part on the size of the development, one, two, or more of these use categories can be included.

Lexington - In order to encourage Traditional Neighborhood Developments, we created it as a use and it is permitted with additional requirements. (Land Development Ordinance, Chapter 4) The majority of the City's land is designated as Traditional Neighborhood Planning District with a variety of housing types permitted. Land Development Ordinance Map

Elon - Traditional Neighborhood Developments are encouraged as an Overlay District permitted in all residential planning districts – see Sections 3.1., 3.2., 3.3., and 3.4.; and within the Neighborhood, Village, and Town Center Planning Districts – see Sections 3.6. and 3.7.

Greensboro - Zoning Ordinance 30-4-2 The intent of Traditional Neighborhood Developments is to adhere to a higher standard of design, placing a premium on long-term livability, and full use of land to discourage sprawl. NOTE: On November 17, Greensboro's Southside neighborhood was announced as one of EPA's five winners of the 2004 National Awards for Smart Growth Achievement. Greensboro's Department of Housing and Community Development developed a Traditional Neighborhood District Ordinance to assist redevelopment of this 10 acre project. Southside is a five- to ten-minute walk from the central business district and includes single-family homes, two-family homes, townhouses, restored historic homes, and live/work units.

Winston-Salem - The Uniform Development ordinance permits TNDs. Also the Mixed Use Zoning District (MU-S) was amended to allow for many TND elements. Uniform Development Ordinance 2-1.5.

3. Provide for density bonuses/clustering provisions

High Point - Section 9-4-11 (a) (2) provides for single-family detached cluster development.

Lexington - All residential developments containing more than 10 units are required to provide 15% open space. (Section 5.5.2) In exchange for this, Traditional Neighborhood Developments have no minimum lot size requirements, enabling the developer to increase density. (Chapter 4, Traditional Neighborhood Development additional requirements)

Elon - All residential developments containing 10 or more units are required to provide 15% open space – see Section 5.5.3. Density bonuses are provided when the rural cluster development option is used within the Rural Residential Planning District – see Section 3.1.

Greensboro - See 30-4-1.1(C) Planned Unit Development districts

Winston-Salem/Forsyth County - The Planned Residential Development (PDR) regulations allow for residential densities to be clustered on the most developable

land, and credit is given for preserving floodplains and steep slopes. UDO Section 2-5.58.

4. Provide for mixed use development with a residential component

High Point - Sections 9-4-2 (c) (1) and 9-4-3 (a) of the High Point Development Ordinance provide for Planned Unit development including a mix of residential uses, or a mix of residential and non-residential uses.

Lexington - Mixed-use development with a residential component is permitted within the Traditional Neighborhood Development, which is permitted in the SN District (Section 3.2.2).

Mixed-use development with a residential component is permitted within the TN District (Section 3.3.2), the Neighborhood and Village Center Districts (Section 3.4.2), the Uptown Center Planning District (Section 3.5.2), and the Commerce Center Planning District (Section 3.6.3).

Elon - Mixed-use development with a residential component is permitted within the Traditional Neighborhood Development Overlay District, which is permitted in all residential planning districts – see Sections 3.1., 3.2., 3.3., and 3.4.; and within the Neighborhood, Village, and Town Center Planning Districts – see Sections 3.6. and 3.7.

Greensboro - Pedestrian Scale Overlay District - A new provision of the Zoning Ordinance with development credits for street connectivity and park and walk features. Has already been used in the East Market Street Redevelopment Area at A & T University. Zoning Ordinance 30-4-4.7

Winston-Salem/Forsyth County - See No. 3 above.

5. Provide for multi modal / transit oriented development

High Point - Several plans adopted by City Council discuss the desirability accommodating multi-modal transit into new development, including the Johnson Street/Sandy Ridge Road Area Plan, the Northeast Davidson Area Plan and the PART Master Plan.

Lexington - Multi-modal / transit oriented development is encouraged in the Uptown District (Section 3.5) and permitted in the Traditional Neighborhood Planning District (Section 3.2).

Elon - Multi-modal / transit oriented development is especially encouraged within the Town Center Planning District – see Section 3.7; and within the Traditional Neighborhood Development Overlay District – see Section 3.12. Transit shelters are allowed as a use with additional requirements within all planning districts – see Sections 3.1 through 3.12.

Greensboro - Multi-modal transit oriented development is considered at length in Greensboro's 2020 Comprehensive Plan. Provisions are being worked on for inclusion in the Zoning ordinance.

Winston-Salem - Visions 2005 the Winston-Salem Forsyth County comprehensive plan promotes transit oriented development, but the UDO has not been amended to promote such development.

6. Greenways that can be used as bicycle or pedestrian transportation elements (not primarily recreation)

See A4 above for greenway provisions that are enforceable in some jurisdictions.

Lexington - Higher densities are permitted within walking distance of community destination points such as schools, shopping areas, etc. This development may be required to provide pedestrian access to these locations by greenway or sidewalk. The primary objective of greenways in the ordinance is to create a secondary transportation network connecting people to destinations. (Section)

Elon - Higher densities are permitted within walking distance of community destination points such as schools, shopping areas, etc. This development may be required to provide pedestrian access to these locations by greenway or sidewalk. The primary objective of greenways in the ordinance is to create a secondary transportation network connecting people to destinations. All new residential developments containing 10 or more units are required to provide 15% open space, which may be in the form of greenways. Greenway design principles, specifications and acceptance policies are provided to help insure the multi-modal functionality of new greenways – see Sections 5.7.7., 5.7.8., and 5.7.9.

7. Other provisions that aim to reduce automobile traffic or promote smart growth?

Lexington - Traditional Neighborhood development with a strong emphasis on mixed-use and pedestrian support is the overriding objective found throughout the Land Development Ordinance. (Introduction and Community Building Principles) Cul-de-sacs are strongly discouraged and sidewalks, open space, greenways and bike paths are required (Chapter 5).

Elon - Smart growth principles emphasizing mixed-use, pedestrian-friendly development are an overriding objective integrated throughout the Town of Elon Land Development Ordinance – see *Community Building Principles* within the ordinance Introduction Chapter. Cul-de-sacs are strongly discouraged and an integrated network of sidewalks, open space, greenways and bike paths are required – see Chapter 5 – Design Regulations.

Greensboro - Pedestrian Scale Overlay District - A new provision of the Zoning Ordinance with development credits for street connectivity and park and walk features. Has already been used in the East Market Street Redevelopment Area at A & T University. Zoning Ordinance 30-4-4.7