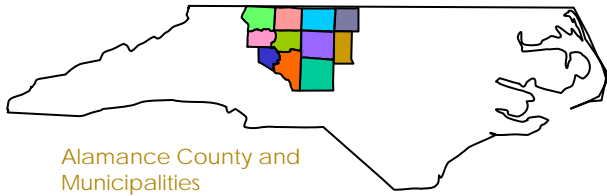


US EPA ARCHIVE DOCUMENT



## 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 30, 2005

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:

Enclosed is the December 30, 2005 Progress Report from the Triad Early Action Compact.

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

Sincerely,

*Virginia G. Booker*

Virginia G. Booker  
Assistant Director  
Piedmont Triad Council of Governments

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

## TABLE OF CONTENTS

<b><u>PART A</u></b>	<b><u>LOCAL AND REGIONAL STRATEGIES</u></b>
Section 1	Progress in Implementing Strategies .....1
Section 2	Meetings Conducted By Stakeholders .....10
<b><u>PART B</u></b>	<b><u>NORTH CAROLINA DIVISION OF AIR QUALITY STATUS REPORT</u></b>
Section 1	Clean Air Bill.....12
Section 2	NO <sub>x</sub> SIP Call Rule .....15
Section 3	Clean Smokestacks Act.....16
Section 4	Open Burning Bans.....17
Section 5	New Idling Policy .....18

## PART A. LOCAL AND REGIONAL STRATEGIES

### Section 1 Implementation of Strategies

The eleven counties and their municipalities in the Triad Early Action Compact are implementing all strategies in the Triad section of the State Implementation Plan. Some are complete; others are ongoing. Following are progress summaries on all strategies:

#### Numbers correspond to strategy numbers on EAC December Progress Summary Table

Strategies 1-3 are state measures.

1. Open burning ban - ozone action days
2. Emissions reductions at Belews Creek Power Plant and Marshall Power Plant
3. Expand vehicle I & M
  
4. **Purchase newer, less polluting vehicles and reduce fleet emissions** - Beginning in October 2004, EAC staff has met periodically with elected officials and fleet managers in the region to provide information and promote purchase of alternative fuel and lower emissions vehicles. As a part of the Emissions Reduction Clearinghouse (Strategy # 23), the Piedmont Triad Council of Governments, on behalf of the EAC, maintains information on public fleet vehicle purchases (and replacements) throughout the region. To summarize,
  - 85-90% of the public fleet vehicles purchased by local governments in the region in 2005 replace older higher emissions models
  - The city of Greensboro, using 1.5 million gallons per year of biodiesel, has been joined by Forsyth County in using B20 for its diesel vehicles.
  - Forsyth County purchased 2 hybrid vehicles in 2005(Information on numbers and types of vehicles purchased in 2005 is available from the Piedmont Triad Council of Governments [www.ptcog.org](http://www.ptcog.org)) --- Implementation is ongoing.
  
5. **Increase use of biodiesel in the region** - As noted above, the city of Greensboro is the leader in the region and a leader in the state in use of biodiesel. (1.5 million gallons per year.) In early 2005 the city began to sell B20 to two local universities, UNCG and NC A&T. Forsyth County, formerly a temporary user of B20 (grant from NC Solar Center), is now permanently purchasing biodiesel. The North Carolina Zoo (Randolph County) operates a biofuel processor capable of converting used vegetable oil from the zoo's food operations into a clean-burning, renewable B20 biodiesel. It provides 12,000 gallons per year of B20 to fuel a majority of the zoo's trams, buses and other equipment.

In October 2005, the Piedmont Triad Council of Governments, on behalf of the EAC, hosted a briefing and strategy session for petroleum marketers in the region. The event was co-hosted by the Alternative Fuels office of the NC Solar Center. The purpose was to provide information and to encourage retailers to exploit the potential for a biodiesel and ethanol market in the Triad. Dr. Richard Nelson, a biodiesel expert from Kansas State University was the presenter. Participants showed interest and asked many questions, but to date no retail outlet in the region has begun to carry biodiesel or ethanol. As a result of the

Petroleum Marketers Event, the Guilford County Community and Economic Development Office has produced and distributes printed information with facts and tips for potential ethanol and biodiesel retailers.

With regard to biodiesel production, a consortium of biology and chemistry professors at Wake Forest University (Winston-Salem, Forsyth County) is building a 300 gallon reactor to process 2000 gallons of fryer oil from the county fair. The resulting oil will be used in university vehicles. The purpose of the project is to develop protocols and standards that local small-scale producers could follow to assure well-made fuel. In the same vein, the Guilford County Community and Economic Development Office published in October user friendly standards for low volume production of biodiesel.

A disappointment is that the major biodiesel distributor in North Carolina has not yet located a wholesale distribution facility in the Triad. For over a year, this distributor has actively sought a site. The Guilford County Community and Economic Development Office is now working to assist with site identification, but none has been secured.

Implementation for this strategy is ongoing.

6. **Tax to support PART regional work program** - In 2003 Guilford and Forsyth counties granted PART ongoing legal authority to impose an automobile rental tax to support the agency's regional work program. In November 2005 Surry County became the third county to authorize a PART auto rental tax which will go into effect in April 2006. Significant state and federal grants support PART programs, and income from transportation services covers their costs. However, expanded support for the tax among PART's seven member counties will be necessary before a regional commuter mass transit system can be implemented. To date, PART's approach to seeking tax authorization has been deliberate. The next two to three years will be critical in building support. --- Implementation of this strategy is ongoing.
7. **Add 20 Park and Ride lots** – As of December 2004, the first four of the regional network of park and ride lots in were complete and in operation. The Triad portion of the State Implementation Plan (SIP) projected that six lots could be built between January 2005 and June 2007. As of December 30, 2005, three of the projected six are under construction and a long-term lease has been signed for a fourth additional site. The 20-year lease is for spaces in High Point's downtown parking deck. In addition, the number of spaces in the lot in downtown Winston-Salem has been expanded. In FY 2006, PART will be looking at potential sites in Alamance, Randolph, Rockingham and Forsyth counties and in the city of King in Stokes County. Commitments to locate, acquire, and maintain each location are difficult to obtain. Whether land is publicly or privately owned, owners are often reluctant to sell or lease land to PART, hoping to make greater profit, or believing the land should be retained for future public use. At this point, PART is on target in meeting its goals. --- Implementation of this strategy is ongoing.
8. **Add 5 vans/yr to ridesharing** - PART Ride Sharing and Vanpooling of the Piedmont (RSVP) provides vanpool and ride-match services to employers and employees. The

service began with 20 vans and less than a year later in December 2004, the program had 27 vans. RSVP initially served Guilford and Forsyth Counties, but it now has stops in Stokes, Surry, Davidson, and Alamance counties. The Triad portion of the SIP (December 2004) projected that 5 new vans could be added per year in 2005 and 2006. This estimate was 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. As of December 2005, RSVP has 30 vans, slightly under the five projected to add to the 27 vans a year ago. The difference is due to business closings. PART continues to work 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](http://www.sharetheridenc.com) -- Implementation of this strategy is ongoing.

- 9. Increase ridership on regional bus service (PART Express)** - 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. In 2004 monthly ridership (on average) was 800 boardings a day for an average 20 operating days per month, this equals 16,000 boardings a month. In 2005 through October, monthly boardings averaged 19,500, or 975 boardings per day. At the height of the gas price increase, boardings were 25,340 in September. Ridership on PART Express has increased every month since its beginning for a significant reduction in miles traveled on the region's road network. As will be noted in #26 below, PART heavily markets its Express service and offers incentives to encourage trial use. --- Implementation of this strategy is ongoing.
- 10. Expand carpooling through PART** – Interested riders learn about carpooling opportunities through PART's website, promotions, and advertisements. They can link up with other riders and drivers on the web. This strategy also benefits from PART's participation with other regional organizations in the statewide commuter information network [www.sharetheridenc.com](http://www.sharetheridenc.com) that connects riders with transportation options. PART facilitates this service but does not oversee or managing the carpooling. Participation rates for 2005 have not been calculated. --- Implementation of this strategy is ongoing.
- 11. RJ Reynolds Tobacoville Plant -eliminate use of coal fired boilers during ozone season** - 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. Emissions reductions have been calculated in state projections for the Triad region. --- Implementation complete.

- 12. Energizer Battery Company, Inc.-reduce vehicle fleet; power 90% of forklifts with batteries** – Energizer Battery Company’s plant in Randolph County: 1) reduced its fleet of vehicles by 57%; 2) switched to battery power for 90% of its fork lift trucks; 3) uses the smaller of two natural gas fired boilers during the months of June through October as the weather permits; and 4) tests diesel powered fire pumps and natural gas powered emergency generators during the cooler morning hours only. --- All measures have been implemented beginning in 2003, with completion in the summer of 2004.
- 13. Duke Power-reduce mobile meter reading trucks** – Adoption of the mobile meter reading program yielded a reduction of 56 pick-up trucks per day that would normally have been running or idling 6 out of 8 hours per day. --- This program was implemented in 2003.
- 14. Duke Power-idling reduction guidelines** – Duke Power instituted company-wide idling reduction guidelines for fleet vehicles in the summer of 2004. The company estimates that 133 diesel truck engines and 483 gasoline truck engines reduce 30 minutes per day of idling time. --- This strategy was implemented in the summer of 2004
- 15. Diesel retrofits-50-100 school buses** - School systems within the EAC have initiated programs to replace or retrofit old high emissions school buses. Guilford County is the only system to have received a retrofit grant (\$100,000 from the NC Division of Air Quality and State Energy Office). Significant savings were realized by training county mechanics who installed 123 diesel oxidation catalysts on 2002-2003 model buses. Guilford and Forsyth County both applied for but did not receive EPA retrofit grants in the summer of 2005. Despite lack of funding for retrofits, progress continues to be made in reducing school bus emissions. Local school systems order new buses through the N.C. Department of Public Instruction (DPI), and all new model buses purchased in the region have been Limited Emissions Vehicles, per DPI specifications. The combination of Guilford County retrofits and new Limited Emissions Vehicle purchases in all Triad counties exceeds stated goals. --- Implementation of this strategy is ongoing.
- 16. No idling-all school buses** – This was originally a regional strategy with Guilford County schools leading the way. However, the NC State School Board adopted a statewide no idling incentive policy in November 2005. This is described in Part B, N.C. Division of Air Quality Status Report. --- All Triad school systems have implemented the state policy.
- 17. Energy efficient public buildings** – Throughout the region local governments and school systems have adopted various strategies for energy efficiency in operation and design of facilities, purchase and use of equipment - Few major public buildings have been constructed, with the exception of the Guilford County Social Services building which was occupied early in 2005. For this facility as well as for retrofits, facility managers require high-E glass/thermopane windows, programmable thermostats and lighting, and high levels of insulation. In the urban school systems of Guilford and Forsyth, facilities managers can track energy use at individual sites from office computers and switch to “time of use” heating and cooling to save energy and money. Some jurisdictions have commissioned and implemented recommendations from energy savings assessments. These include High Point



municipal buildings, Davidson County office buildings, Rockingham County schools and City of Asheboro (Randolph County) municipal buildings.

With regard to private residences, the City of High Point has even installed a link to Energy Depot® on its web page [www.high-point.net/sustsrv/depot.cfm](http://www.high-point.net/sustsrv/depot.cfm). As explained on the city's web page, residents can use this resource to obtain personalized energy profiles with estimates of energy costs for each home energy system, complete a do-it-yourself home energy audit, learn specific things they can do to reduce energy use, and more.

Implementation of this strategy is ongoing.

- 18. E-government; increase available locations; provide direct deposit** - Local governments in the EAC region have made significant strides in providing web-based services for information and transactions. Greensboro, Winston-Salem, High Point and Thomasville all provide for on-line payment of city bills. A sampling of websites illustrates the extensive amount of information, application forms, and service requests that local governments offer to reduce trips to city or county offices. Guilford County has a "Form Download" section <http://gems0004.co.guilford.nc.us/forms>. Randolph County devotes significant space to Randolph County *Online Government* [www.co.randooph.nc.us](http://www.co.randooph.nc.us). One of the principal sections of Greensboro's homepage features a link to its E-Gov information and services [www.greensbobo-nc.gov/EGov](http://www.greensbobo-nc.gov/EGov). Winston-Salem lists hundreds of city services alphabetically; residents can click to obtain information or download forms or maps [www.cityofws.org/City\\_of\\_WS\\_Services](http://www.cityofws.org/City_of_WS_Services)

Most local governments in the EAC provide mandatory, or in some cases voluntary, direct deposit.

Implementation of this strategy was beginning at the time the EAC was formed and is ongoing.

- 19. ITS** - Greensboro, High Point and Winston-Salem (each in a separate MPO) have Intelligent Transportation Systems (ITS). Funding is state and federal, through MPO long-range transportation plans and updates, and also through CMAQ funds (Congestion, Mitigation and Air Quality.) These urban transportation departments use detection loops and other systems which monitor traffic and provide drivers with information such as lane closures and traffic delays. Greensboro has a new free-standing ITS center developed in conjunction with division offices of the N.C. Department of Transportation. ITS is a valuable tool in reducing non-recurring congestion and associated emissions.--- ITS is already implemented in Greensboro, Winston-Salem and High Point and incorporated into their MPO long-range transportation updates.
- 20. Encourage non-motorized transportation with sidewalks, greenways and bicycle routes** - Linear greenways and bicycle routes are being constructed throughout the region, and new master plans are in the works. In October 2005 Greensboro launched its "Greensboro Area Bicycle, Pedestrian & Greenways Master Plan" with a series of community meetings and



input sessions. Greenway development focuses on segments that 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.). Information on these greenway and bicycle transportation plans can be found on the city websites at [www.greensboro-nc.gov](http://www.greensboro-nc.gov), [www.high-point.net](http://www.high-point.net) and [www.cityofws.org](http://www.cityofws.org).

As stated in previous EAC reports, Greensboro, Winston-Salem and High Point allocate funds annually to construct sidewalks in existing neighborhoods and to establish or improve signed bicycle routes. These cities, along with most municipalities in the region, require sidewalks to be constructed along one or both sides of new subdivision streets. In November 2005 the Winston-Salem City Council adopted a new package of sidewalk and street ordinance revisions. The ordinance revisions improve internal and external street connectivity; promote more neighborhood-friendly and walkable streets by requiring installation of a basic sidewalk network and street trees; and provide greater design flexibility.

The region is well on-track to meet its SIP goals (December 2004) that between March 31 2004 and December 31, 2007 an additional 98 miles of public sidewalks will have been constructed; an additional 14.25 miles of public linear greenways suitable for pedestrian and bicycle transportation will have been built; and an additional 190 miles of signed bicycle routes will have been established or improved. 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. Progress in each jurisdiction can be tracked by contacting the local transportation department through the city web sites identified earlier in this section.

For the sake of brevity, specific greenway, sidewalk and bike route projects cited in the June 30, 2005 Triad EAC Progress Report will not be updated. These projects are in High Point, Winston-Salem/Forsyth County (including Kernersville, Lewisville, Walkertown and the Village of Clemmons), Greensboro, Reidsville, Lexington, and areas covered under the RPO (Rural Transportation Planning Organization). These and numerous other projects are being constructed and planned. ---- Implementation of this strategy is on-going.

21. **Smart growth policies** - 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. Excerpts from local government ordinances were contained in Attachment B submitted with the Triad EAC SIP submission in December 2004. By way of example, more information about smart growth principles in local ordinances can be found at:

- [www.greensboro-nc.gov](http://www.greensboro-nc.gov) Greensboro
- [www.high-point.net](http://www.high-point.net) High Point
- [www.cityofws.org](http://www.cityofws.org) Winston-Salem
- [www.lexingtonnc.net](http://www.lexingtonnc.net) Lexington
- [www.co.randolph.nc.us](http://www.co.randolph.nc.us) Randolph County
- [www.co.davidson.nc.us](http://www.co.davidson.nc.us) Davidson County

Implementation of this strategy is ongoing.

- 22. Truck Stop Electrification** - The Triad's first and only truck stop electrification site to date opened in July 2004 in the city of Mebane at Exit 157 off Interstate 85/40. The site has 58 electrified spaces. 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 was provided by IdleAire Technologies Corp., which installed and operates 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. 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 (NOx), 15 tons of carbon monoxide, 1.8 tons of hydrocarbons, and 1 ton of particulate matter emissions from reaching the air per year. IdleAire has learned that use of the spaces peaks in hot and cold weather when heat or air conditioning is necessary for driver comfort. The occupancy rate is about 30%, measured between the hours of 5:00 p.m. and 5:00 a.m., the hours in which most drivers fulfill their Hours of Sleep obligations. Based on experience within the company, occupancy is expected to increase as the TSE network grows. At TSE sites in destination locations such as Atlanta, occupancy is considerably higher.

IdleAire Technologies, site operator, reports the following results since September 2004:

<b>Emissions Reductions 09/02/2004 through 12/27/2005</b>	
CO	7.787 metric tons
CO <sub>2</sub>	1,442.021 metric tons
NO <sub>x</sub>	18.724 metric tons
PM	0.51 metric tons

VOC	0.949 metric tons
<b>Total Emissions Reductions</b>	<b>1,469.991 metric tons</b>
<b>Total Fuel Reductions</b>	<b>138,695.81 gals.</b>

**23. Emission reduction clearinghouse** - The EAC has implemented a central monitoring and reporting clearinghouse -- before the April 2005 goal identified in the SIP. It is housed within the Piedmont Triad COG, with additional staff support provided by the Northwest Piedmont COG, Forsyth Environmental Affairs Department, and PART. The clearinghouse develops and maintains databases and compiles information on public fleet vehicle purchases, with alternate/clean fuel vehicles noted; school bus purchases and retrofits; biodiesel and other alternate fuel use; smart growth ordinances and projects; pedestrian and greenway projects; public transit initiatives and commuter transit planning. This information is summarized in semi-annual reports to the Triad EAC Stakeholders Group and EPA and is available in further detail through [www.ptcog.org](http://www.ptcog.org).

In order to implement this strategy, the two councils of governments serving the Triad EAC, principally the Piedmont Triad Council of Governments (PTCOG), incorporated this strategy into their programs of work. PTCOG receives no MPO or other state or federal funds for its air quality initiatives. The function is entirely supported by *significant* expenditures of local government dues to the organization.--- Implementation of this strategy is ongoing.

**24. Hospital transportation shuttle** - PART Connections Express began operation in April 2004. Its purpose is to connect hospitals in the Triad and Triangle regions. The express shuttle service provides trips twice a day on a fixed schedule taking residents of any county in the EAC to hospitals in Durham and Chapel Hill (two university teaching and research hospitals and one veterans' hospital). 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. Originally, PART Connections Express was averaging 300 riders per month. By the end of 2004, the average was 450 a month. As of November 2005, average ridership is 556 per month. --- Implementation of this strategy is ongoing.

**25. Enhance mass transit facilities** - Greensboro, Winston-Salem, High Point and PART continue to improve their facilities, including central transportation centers, bus shelters and accessibility. 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 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.

Greensboro's central transit facility is a large and historic railroad station, newly renovated into a multi-modal transportation center for trains, city and PART buses, and taxicabs. High Point's central terminal (Hi Tran and PART buses) is in the process of renovation to become

a downtown transportation terminal which will also serve as the “nerve center” for moving tens of thousands of marketgoers on shuttles and buses during the semi-annual International Home Furnishings Market.

See strategy #26 below for updates on increased ridership linked to facilities, incentives and marketing. --- Implementation of this strategy is ongoing.

**26. Mass transit incentives** - All four of the EAC’s transit systems (Winston-Salem Transit, Greensboro Transit, High Point Transit and PART) offer incentives such as passes for senior citizens, special rates for multiple tickets, employer based transit passes, passes for special populations, and other successful outreach programs.

- High Point - Introduced a new bus fleet in 2004. New incentives include: reduced fares for seniors and disabled and a Bike 2 Bus program that allows passengers to bring bicycles on the bus. All routes are bicycle accessible. There was a 26% increase in Hi Tran bus ridership in the 6-month June - December 2004 period, compared to 2003, and 17% increase in eleven months of 2005 compared to 2004. The bulk of riders are people going to and from work.
- Greensboro - Bus ridership is up 18 percent over the past year - from 2.74 million to 3.2 million. That compares with growth of less than 10 percent per year over the past five years. The key to the higher ridership is more routes and a new central terminal at The Depot in downtown Greensboro. Rising gas prices and service to the Guilford Technical Community College campus in Jamestown are also prime reasons for the buses’ popularity, according to a recent Greensboro Transit Authority rider survey. Greensboro Transit has a variety of passes including 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; the Corporate Connection program that provides tax deductions, up to \$65 per employee, for passes purchased by employers for their employees.

In the fall of 2006 Greensboro Transit will launch HEAT - Helping Education Access Transit. The much anticipated system will be a dedicated service routes at a nominal fee for students at Greensboro’s 6 colleges and universities that will provide expanded options for getting to and from classes, shopping, off campus housing, and employment.

- Winston-Salem - Bus ridership in Winston-Salem has increased to 2.75 million trips in 2005 from 2.74 million in 2004. Winston-Salem has a marketing and outreach program targeting employers, the most successful of which is one for employees at the Veterans’ Hospital. .
- PART - As noted in strategy #9, ridership on PART Express has increased every month since its beginning. In 2005 monthly boardings averaged 19,500, or 975 boardings per day, up from 16,000 boarding a month and 800 boardings a day in 2004

These numbers demonstrate that the goal of increasing transit ridership in the region by 11% between December 31, 2003 and December 31, 2005 has been met. --- This strategy has been implemented and is ongoing.

27. **Commuter/intercity rail feasibility** - PART's Major Investment Study of feasibility of a regional mass transit system is 95% complete. It will be taken to the PART Board in the spring of 2006. Unlike the mass transit study for the Triangle region, PART's study for the Triad is based on a true travel demand model. PART and the four MPOs have been working on it for four years. This is not a central urban area transit study, as in Charlotte, N.C. Rather it is a study based on the high cross jurisdictional commuting within the EAC region. Costs and benefits are being calculated for multiple approaches to mass transit within the Triad, the primary ones being commuter rail and bus rapid transit. Following Board action to endorse the preferred option, the next step is to apply for federal funds for preliminary engineering. --- Implementation of this strategy is ongoing.
28. **Feasibility of HOV/HOT lanes - I-40** -PART partnered with NC A&T University and UNC Chapel to produce a study one component of which is to determine the feasibility a value pricing line along this major I-40 east-west artery. The study is now complete and has been submitted to the N.C. Department of Transportation. It is believed the implementation of such a line will be many years away. --- Implementation of the feasibility study is complete.
29. **Support Triad Air Awareness Program** - The June 2005 Status Report provided extensive documentation of the Air Awareness Program in North Carolina and the Triad. Refer to the Triad Air Awareness tab at [www.co.forsyth.nc.us/envaffairs](http://www.co.forsyth.nc.us/envaffairs) for current activities, programs, and the numerous resources this program makes available. Two examples of 2005 initiatives are: 1) The Triad Air Awareness program hosted one of the National Roll-out events for EPA's EnviroFlash air quality email alert program. The event included 53 public and private sector leaders and drew significant media attention, increasing awareness of air quality issues in both the public and private sector. This was followed-up by a week of local radio ads to promote air quality forecast email notification sign-ups and behavior changes that contribute to improved air quality. 2) The Triad chapter of the Air Awareness Program partnered this fall with the American Lung Association to produce the Triad's first "Blow the Whistle on Asthma" walk. A similar event is planned for 2006. The estimated outreach for the event including pre and post walk events is about 1000 people. --- Implementation of this strategy is ongoing.

## ***Section 2 Meetings Conducted by Triad EAC Stakeholders Group***

Between June and December 2005, the Triad EAC Stakeholders Group met five times and hosted a biofuels event for petroleum marketers. Principal topics of work and discussion were: (1) monitoring progress on SIP strategies; (2) discussion and feedback on proposed CMAQ projects in support of EAC strategies; (3) discussion and research regarding PM2.5 designation of two EAC counties; (4) monitoring proposed North Carolina legislation related to air quality and emissions reduction; (5) reporting and results of summer 2005 ozone levels and few ozone

alert days in the Triad; (6) participation in the Air Quality Leadership Event, sponsored by the Triad Air Awareness Program.



**PART B. NORTH CAROLINA DIVISION OF AIR QUALITY  
STATUS REPORT**

State Control Measures

North Carolina has adopted a number of regulations and legislation to address pollution issues across the State. These include the Clean Air Bill, the NOx SIP Call Rule, the Clean Smokestacks Act and Open Burning Rule.

***Section 1. Clean Air Bill***

The 1999 Clean Air Bill will expand the vehicle emissions inspection and maintenance program in North Carolina from 9 counties to 48 counties between July 1, 2002 and 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 the idle test inspection and maintenance program due to the 1-hour ozone nonattainment/maintenance status of those counties. The idle test only tested VOC and CO emissions, therefore, the NOx benefits from having the OBDII inspection and maintenance program in Forsyth and Guilford Counties is above and beyond what is federally mandated. Table 1 below lists the phase-in schedule for the expanded inspection and maintenance program. The bolded counties are EAC counties and counties with asterisks (\*) are located adjacent to an EAC area, which will contribute to additional NOx reductions in the EAC areas. As demonstrated in the table, implementation of the strategy in the EAC areas occurred on or before December 2005.

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 be without the expanded inspection and maintenance program. The second run simulated the 2007 mobile emissions with the expanded inspection and maintenance program in place. Table 2 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.

**Table 1 Phase-In Dates for the Expanded Inspection & Maintenance Program**

Phase-In Date: July 1, 2002		
Cabarrus Durham <b>Forsyth</b>	Gaston <b>Guilford</b> Mecklenburg	Orange* Union Wake
Phase-In Date: July 1, 2003		
<b>Catawba</b> <b>Cumberland</b>	<b>Davidson</b> Iredell*	Johnston Rowan*
Phase-In Date: January 1, 2004		
<b>Alamance</b> Chatham* Franklin	Lee Lincoln* Moore*	<b>Randolph</b> Stanly
Phase-In Date: July 1, 2004		
<b>Buncombe</b> Cleveland*	Granville Harnett*	<b>Rockingham</b>
Phase-In Date: January 1, 2005		
Edgecombe Lenoir Nash	Pitt Robeson* Wayne	Wilson
Phase-In Date: July 1, 2005		
<b>Burke</b> <b>Caldwell</b> <b>Haywood</b>	Henderson* Rutherford* <b>Stokes</b>	<b>Surry</b> Wilkes*
Phase-In Date: January 1, 2006		
Brunswick Carteret	Craven New Hanover	Onslow

**Table 2 MOBILE Model Parameters**

County	RVP	I/M program modeled (w/o expansion)	I/M program modeled (with expansion)	Maximum Temp	Minimum Temp	Met Station
<b>Cumberland County EAC Area</b>						
Cumberland	9.0	none	OBDII	88.9	70.4	FAY
<b>Hickory EAC Area</b>						
Burke	9.0	none	OBDII	84.8	67.7	HKY
Caldwell						
Catawba						
Alexander	No runs were done for this county since it will not have an I/M program.					
<b>Mountain Area EAC Area</b>						
Buncombe	9.0	none	OBDII	82.5	63.5	AVL
Haywood						
Madison	No runs were done for this county since it will not have an I/M program.					
<b>Triad EAC Area</b>						
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” expanded inspection and maintenance program were multiplied by the vehicle miles traveled (VMT) estimates for 2007. The Table 3 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.

**Table 3 Expected Emission Reductions from Expanded I/M Program**

County	VOC (tons/day)	NO <sub>x</sub> (tons/day)
<b>Cumberland County EAC Area</b>		
Cumberland	0.6	0.7
<b>Hickory EAC Area</b>		
Alexander*	N/A	N/A
Burke	0.2	0.3
Caldwell	0.2	0.2
Catawba	0.4	0.3
<b>Hickory Area</b>	<b>0.8</b>	<b>0.8</b>
<b>Mountain Area EAC Area</b>		
Buncombe	0.4	0.5
Haywood	0.2	0.2
Madison*	N/A	N/A
<b>Mountain Area</b>	<b>0.6</b>	<b>0.7</b>
<b>Triad EAC Area</b>		
Alamance	0.3	0.3
Caswell*	N/A	N/A
Davidson	0.4	0.5
Davie*	N/A	N/A
Forsyth <sup>†</sup>	0.0	0.9
Guildford <sup>†</sup>	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	N/A	N/A
<b>Triad Area</b>	<b>1.7</b>	<b>4.0</b>

\* Alexander, Caswell, Davie and Madison Counties are not part of the expanded I/M program due to the rural nature of these counties.

<sup>†</sup> Forsyth and Guilford Counties are already had the tailpipe I/M program and therefore there were no VOC benefits as a result of the expanded I/M program only NO<sub>x</sub> benefits.

**Section 2. NO<sub>x</sub> SIP Call Rule**

North Carolina's NO<sub>x</sub> SIP Call rule will reduce summertime NO<sub>x</sub> emissions from power plants and other industries by 68% by 2006 (from a 1996 baseline). The North Carolina Environmental Management Commission adopted rules in October 2000 requiring the reductions. In order to estimate the emission reductions in 2007, the projected energy demand for the utilities was multiplied by the emission rates before the NO<sub>x</sub> SIP Call Rule and the emission rates used in the

modeling. These emission estimates were then subtracted to determine the net reduction as a result of the rule. Table 4 shows the NOx emissions and reductions, in tons/day, from this rule by county. The bolded counties are EAC counties, however, it should be noted that emission reductions from the utility sector that occur outside of an EAC area may still help reduce the ozone levels in the EAC area, especially if the facility is located in an adjacent county.

**Table 4 Emission Reductions From NOx SIP Call Rule**

County	Facility	2007 NOx Emissions		
		without Rule	with Rule	Reductions
<b>Buncombe</b>	Progress Energy - Asheville	14.05	7.05	7.00
<b>Catawba</b>	Duke Energy - Marshall Steam	90.92	44.30	46.62
Chatham*	Progress Energy - Cape Fear	13.47	3.91	9.56
Gaston	Duke Energy - Allen Steam	53.09	24.41	28.68
	Duke Energy - Riverbend	23.05	15.01	8.04
New Hanover	Progress Energy - Sutton	36.78	23.51	13.27
Person*	Progress Energy - Mayo	27.60	5.97	21.63
	Progress Energy - Roxboro	90.87	20.32	70.55
Robeson*	Progress Energy - Weatherspoon	3.34	3.20	0.14
<b>Rockingham</b>	Duke Energy - Dan River	14.17	9.35	4.82
Rowan*	Duke Energy - Buck Steam	18.90	10.82	8.08
Rutherford*	Duke Energy - Cliffside	36.31	13.46	22.85
<b>Stokes</b>	Duke Energy - Belews Creek	172.20	25.32	146.88
<b>Total Emission</b>		<b>607.29</b>	<b>219.19</b>	<b>388.10</b>

\*Facilities located in a county adjacent to an EAC area.

**Section 3. Clean Smokestacks Act**

In June 2002, the N.C. General Assembly enacted the Clean Smokestacks Act, requiring coal-fired power plants to reduce annual NOx emissions by 78% by 2009 (from a 1998 baseline). These power plants must also reduce annual sulfur dioxide emissions by 49% by 2009 and by 74% in 2013. The Clean Smokestacks Act will reduce NOx emissions beyond the requirements of the NOx SIP Call Rule. One of the first state laws of its kind in the nation, this legislation provides a model for other states in controlling multiple air pollutants from old coal-fired power plants.

During the public hearing process, Duke Energy announced that they would move up the installation schedule for the controls on unit 4 at the Marshall Steam facility to aid in the EAC process. This unit was scheduled to have controls in place by 2008 and Duke Energy has committed to have the controls in place prior to the 2007 ozone season. NCDAQ modeled a sensitivity run with the controls in place for attainment year 2007, and additional reductions in the future year design values in the Triad EAC area were observed.

The additional reductions in NOx emissions are expected to be 4.95 tons/day. This was estimated by taking the emissions for that unit used in the modeling and adjusting them to reflect

the lower emission rate. The projected emissions for Marshall unit 4 were 16.98 tons/day NOx with an emission rate of 0.23 lb. NOx/MMBTU. The new rate will be 0.17 lb. NOx/MMBTU, resulting in 12.03 tons/day.

**Section 4. Open Burning Bans**

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 next day ozone levels. This is a mandatory no burn rule and became effective on June 1, 2004.

The emissions are calculated for open burning by multiplying the rural population by an emission factor provided by the U. S. Environmental Protection Agency. To model the open burning rule, a conservative 50% compliance/penetration/effective combined rate was assumed for only those counties in our ozone forecast areas. The 2007 Statewide emission reductions were 84.61 tons/day CO, 5.97 tons/day NOx and 8.52 tons/day 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.

**Table 5 Open Burning Rule Emission Reductions**

County	2007 Emissions Before Reduction			2007 Emission Reductions		
	VOC	NOx	CO	VOC	NOx	CO
<i>Cumberland County EAC Area</i>						
Cumberland	0.4	0.3	3.7	0.2	0.1	1.9
<i>Hickory EAC Area</i>						
Alexander	0.3	0.2	2.7	0.1	0.1	1.3
Burke	0.4	0.3	3.9	0.2	0.1	2.0
Caldwell	0.3	0.2	2.9	0.1	0.1	1.4
Catawba	0.5	0.3	4.8	0.2	0.2	2.4
<b>Hickory Area</b>	<b>1.4</b>	<b>1.0</b>	<b>14.3</b>	<b>0.7</b>	<b>0.5</b>	<b>7.1</b>
<i>Mountain Area EAC Area</i>						
Buncombe	0.6	0.4	5.8	0.3	0.2	2.9
Haywood	0.3	0.2	2.5	0.1	0.1	1.2
Madison	0.2	0.1	1.9	0.1	0.1	1.0
<b>Mountain Area</b>	<b>1.0</b>	<b>0.7</b>	<b>10.2</b>	<b>0.5</b>	<b>0.4</b>	<b>5.1</b>



**Table 5 Open Burning Rule Emission Reductions (continued)**

County	2007 Emissions Before Reduction			2007 Emission Reductions		
	VOC	NO <sub>x</sub>	CO	VOC	NO <sub>x</sub>	CO
<i>Triad EAC Area</i>						
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
<b>Triad Area</b>	<b>4.3</b>	<b>3.0</b>	<b>42.5</b>	<b>2.1</b>	<b>1.5</b>	<b>21.3</b>

**Section 5. New Idling Policy – NC State Board Adopts Reduced Idling Incentives**

In response to the rising cost of school bus transportation fuel in 2005, the NC State Board of Education revised the Allotment Policy Manual on November 3, 2005 to include an "Incentive to Adopt Local School Bus Idling Policies" as follows:

“In order to be eligible to receive any mid-year transportation allotment resulting from increased fuel prices, an Lead Education Authority (LEA) must have a reduced idling policy in place at the beginning of the school year. For the 2005-06 school year, the policy must be in place no later than January 10, 2006. The local policy must, at a minimum, prohibit all unnecessary school bus idling on school grounds and prohibit the warming up of buses longer than five minutes. As always, any increase in allotments will be subject to the availability of funds.”

Over \$280 million dollars is allotted for North Carolina’s school transportation operations for 2005-06 based on the average transportation budget rating of 94 percent. The allotment for 2005 had based fuel costs on an average statewide price of \$1.05 per gallon. As of December 2005, the annual average price of diesel fuel is \$2.04. Additional fuel allotments will now be issued to LEAs who have an adopted reduced idling policy in effect by January 10, 2006. County and City LEAs have been advised to work together to make sure that each LEA has an adopted policy to ensure that the complete fuel allotment is received.

The North Carolina School Boards Association provided a sample idle reduction policy and administrative procedures that meet the Board's requirements. The board prohibits all unnecessary school bus idling on school grounds as well as prohibits the warming up of buses for longer than 5 minutes, except in extraordinary circumstances. This policy applies to school

buses and activity buses when used to transport students to and from school, extracurricular activities, field trips and other school-related activities.

Training videos and a driver training PowerPoint are available to help inform school bus drivers, local boards of education and the general public on the importance of reduced school bus idling as a health message and an energy conservation measure. Outreach materials have been made available to these agencies online (<http://www.ncbussafety.org/Idling.html>).

## Early Action Compacts December Progress Summary Table

A. Control Measure	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information	
<b>7. Triad, NC (Effective date of nonattainment designation deferred)</b>								
1.	Open burning ban -ozone action days	Bans open burning on code orange and red days in ozone season in counties for which NC Div. of Air Quality forecasts next day ozone levels.	Mandatory statewide	June 2004	2.1 TPD	1.5 TPD		
2.	Reduce NOx emissions at Belews Creek Power Plant, Stokes County and Marshall Power Plant, Catawba County .	In June 2002, the N.C. General Assembly enacted the Clean Smokestacks Act, requiring coal-fired power plants to reduce annual NOx emissions by 78% by 2009 (from a 1998 baseline). These power plants must also reduce annual sulfur dioxide emissions by 49% by 2009 and by 74% in 2013.	As of December 2005, Belews Creek NOx emissions are 30 tons per summer day (5234 tons per year), compared to 330 tons per summer day in 2000 (32,500 tons per year). NOx emissions at the Marshall Plant have been reduced to 16.98 tons per day and will be reduced an additional 4.95 tons per day before the start of the 2007 ozone season. Both plants are ahead of schedule in meeting sulfur dioxide reductions.	2009 but initial goals already met		300 TPD Belews Creek		
3.	Expand vehicle I & M	NC will expand vehicle I & M from 9 counties to 48 counties between July 1, 2002 and January 1, 2006.	Schedule is complete and all 48 counties will be on board by January 1. 8 Triad counties are covered.	July 2002; July 2003; January 2004; July 2004; July 2005	1.7 TPD	4.0 TPD		
4.	Purchase newer, less polluting vehicles and reduce fleet emissions	Reduce aggregate fleet emissions in Triad EAC cities and counties as quickly as possible considering public budget constraints. A substantial part of this strategy includes purchase of alternative fuel and lower emission vehicles that are cleaner burning than the ones they replace. As a part of the Regional Clearinghouse function, the Triad EAC will maintain and track information on public fleet vehicle purchases and replacements.	The EAC provides information to local fleet managers and purchasing officers and maintains data from them on vehicle purchases. 85%-90% of the public fleet vehicles purchased by local governments in the region in 2005 replace older higher emissions models. The City of Greensboro, using 1.5 million gallons per year of biodiesel, has been joined by NC A&T University, UNC Greensboro, the NC Zoo and Forsyth County.	Began October 2004. Ongoing	1.1 TPY	0.9 TPY	Further information on local and regional strategies #4-#29 can be obtained from the Piedmont Triad Council of Governments <a href="http://www.ptcog.org">www.ptcog.org</a>	
5.	Increase use of biodiesel in the region. (Reworded from initial EPA language.)	Increase use of biodiesel in the region - At the time the SIP was submitted, the City of Greensboro had begun to use biodiesel in all its diesel vehicles, using 1.5 million gallons of B20 a year. The goal is to spread use of biodiesel to other jurisdictions in the region.	As of December 2005, 2 Greensboro universities now use biodiesel in all their diesel vehicles. Forsyth County has switched to biodiesel for 25 county vehicles. The North Carolina Zoo has designed and constructed a biofuel processor that will provide 12,000 gallons annually for the Zoo's trams, buses and other equipment. The EAC hosted an event for petroleum marketers to promote retail sale of biofuels in the region --- A major biofuel wholesaler is still looking for a suitable site in the Triad for a storage and distribution facility.	Implementation began in Spring 2003 and is ongoing.		Committed		
	<del>Contract incentives for low emission vehicles</del> DELETE Strategy was in an earlier submission but not in the Dec 04 SIP			Possible				
6.	Tax to support PART regional work program	Continue support for PART (Piedmont Authority for Regional Transportation) - PART obtains federal and state grants to fund specific projects. Income from transportation services contributes operating costs. But a rental car tax authorized by all counties that are members of PART will provide the financial basis for strong regional support.	In addition to Guilford and Forsyth counties, Stokes County has now authorized the rental car tax. Effective April 2006.	2003		2.5 million in 2003		
7.	Add 20 Park and Ride lots	Build a network of regional park and ride lots. PART was awarded a Federal Transit Administration grant that could fund up to 20 Park and Ride lots in the region. As of December 2004, 4 lots are complete. Between January 2005 and June 2007, the goal is to build 6 more lots	As of December 2005, 3 of the projected 6 lots are under construction and a long-term lease has been signed for a 4th lot. Under sites are under consideration for BY 2006.	2004-2007	1.8 TPY	3.2 TPY	Funds on hand	
8.	Add 5 vans/yr to ridesharing	Expand PART Ride Sharing and Vanpooling of the Piedmont (RSVP). RSVP provides vanpool and ride-match services to employers and employees. In December 2004, there were 27 vans. The goal is to add 5 new vans in 2005 and in 2006.	As of December 2005, PART's RSVP program has 27 vans. It has added stops in 4 more counties. However, it is short of its goal of adding 5 vans in 2005. Instead the net gain is 3, due to plant closings in the region.	Jan. 2004	0.7 TPY	0.7 TPY		
9.	Increase ridership on regional bus service	Increase ridership on PART Express, the regional bus service. The bus service travels from downtown transit centers in Winston-Salem, Greensboro and High Point to the PART regional transfer facility. From there shuttles travel to businesses and hotels in the urban core of the region.	Ridership on PART Express has increased every month since its beginning, for a significant reduction in miles traveled on the region's road network. In 2005 monthly ridership was 16,000 boardings for an average of 800 a day. In 2005 through October, monthly boardings average 19,500 or 975 boardings per day.	On-going	8.9 TPY	7.3 TPY	Committed	

## Early Action Compacts December Progress Summary Table

	A. Control Measure	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information	
10.	Expand carpooling - PART	Expand carpooling through PART website sign-ups, promotions and advertisements. PART participates with other regional organizations in the statewide commuter information network that connects riders with transportation options. While PART facilitates the service through its website, it does not manage or get involved in linking drivers and passengers.	Participation rates for 2005 have not been calculated.	Jan. 2004	23.2 TPY	19 TPY			
11.	RJ Reynolds-Tobaccoville-eliminate use of coal fired boilers during ozone season	Eliminate use of the 4 coal fired boilers during ozone season at the RJR plant in Tobaccoville.	Implemented before beginning of 2004 ozone season	2004		5.4 TPD			
12.	Energizer-reduce vehicle fleet; 90% of forklifts-battery	Energizer Battery Company - Reduce vehicle fleet by 57%. Power 90% of folk lifts with batteries. Use smaller natural gas fired boiler during ozone season. Test diesel powered fire pumps and natural gas powered emergency generators during cooler morning hours only.	Implementation complete by summer 2004.	June 2004					
13.	Duke-reduce mobile reading-56 trucks	Duke Energy - Initiate a mobile meter reading program and eliminate daily use of 56 pick-up trucks.	Implementation complete in 2003.	2003		1300 lb/ozone season			
14.	Duke-idling reduction guidelines	Duke Energy - Initiate company-wide idling reduction guidelines for all fleet vehicles.	Implementation complete in summer of 2004.	Summer 2004					
15.	Diesel retrofits-50-100school buses	School systems within the EAC will retrofit or replace at least 165 school buses with lower emissions equipment.	This goal has been exceeded and progress continues. Guilford County has retrofitted 123 of its older buses with diesel oxidation catalysts and has purchased 48 new lower emissions buses. While no other Triad EAC counties have retrofitted vehicles, all have purchased some lower emissions vehicles in 2004 and 2005.	2004	17 TPY	23 TPY	100,000 awarded		
	<del>Diesel retrofits other vehicles - DELETE. Not a strategy.</del>								
16.	No idling-all school buses	New statewide idling policy adopted by State Board of Education in November 2005. See write-up in text under State Control Measures	Implemented in all Triad EAC counties.	2003					
17.	Energy efficient public buildings	Implement energy efficiency in operation and design of facilities, purchase and use of equipment	New and energy-savings standards adopted for building retrofits and new construction for: High Point city buildings, Davidson County office buildings, Guilford County schools, City of Greensboro buildings, Rockingham County schools, and Asheboro city buildings. --- High Point also provides energy audit links on the city website for residents to improve energy consumption in their homes.	2003 and ongoing					
18.	<del>Flex. compress work schedule; telecommuting. E-government/increase available locations/provide direct deposit</del>	Provide telephone and web-based services, both for information and transactions and/or multiple locations for payments to save VMTs.	The 3 largest cities in the EAC, Greensboro, Winston-Salem, and High Point have now implemented on-line bill pay. Thomaville, in Davidson County, is the first smaller municipality to implement this measure. Cities and counties provide extensive access to information, applications and customer service on their websites. (See examples in text of report.)	On-going	189 TPY	155 TPY			
19.	ITS	Use intelligent transportation systems such as detection loops and other systems to monitor traffic and help reduce non-recurring congestions and associated emissions	3 largest cities in EAC, Greensboro, Winston-Salem and High Point use local and CMAQ funds for on-going development of ITS. Greensboro has a new state-of-the-art ITS center.	On-going					
20.	Encourage non-motorized transportation with sidewalks, greenways and bicycle routes	The Triad EAC goal is to construct an additional 98 miles of public sidewalks, 14.25 miles of public linear greenways suitable for pedestrian and bicycle transportation, and establish or improve 190 miles of signed bicycle routes by December 31, 2007.	This goal will be exceeded and progress continues. 3 MPOs in the region allocate local funds and receive CMAQ funds annually for greenway and sidewalk construction. Greenway construction, planning and development is thriving throughout the region. See Triad EAC December 2004 SIP submission for examples, as well as local government websites noted in accompanying report.	On-going	279 TPY	229 TPY			

### Early Action Compacts December Progress Summary Table

A. Control Measure	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information	
21.. Smart growth policies	Adopt planned growth measures including pedestrian friendly communities and transportation strategies that promote connectivity and less reliance on automobiles.	Attachment B in the Triad EAC's SIP submission detailed numerous enforceable smart growth provisions contained in zoning and development ordinances throughout the region. Since then, local governments continue to adopt ordinances to implement smart growth measures, including the new Winston-Salem/Forsyth County sidewalk ordinance. See report accompanying this spreadsheet for local government websites where smart growth ordinances and policies can be found.	On-going			Committed		
22. Truck stop electrification	Provide electrification equipment at truck stops	The region's first truck stop electrification site opened in Mebane in July 2004. There are 58 berths which have an average annual occupancy rate of 30%. Emissions reductions are spelled out in the text.	July 2004; July 2005	1.8 TPY	35 TPY	Committed		
23. Emission reduction clearinghouse	The Triad EAC will develop and maintain a regional emissions reduction clearinghouse. This strategy is linked to compiling and disseminating information necessary for decision makers to reduce fleet emissions. (See #4 above.)	The clearinghouse function is in place. Feedback and reports from local governments are the source for information for for semi annual EPA reports	April 2005					
24. Hospital transportation shuttle	PART Connections Express is the shuttle system that connects hospitals in the Triad to 2 university/teaching hospitals and the veterans' hospital in the Triangle region.	PART Connections Express began in April 2004 with approximately riders per month. The number had increased to 450 by the end of the year. After 11 months in 2005, the monthly average ridership is 556.	April 2004					
25. Enhance mass transit facilities	Enhance municipal mass transit facilities, bus stops and accessibility as means of increasing ridership.	All 3 municipal transit systems in the EAC area add to their existing bus stops by request of riders or employers. Funds are budgeted annually for this purpose. Greensboro and Winston-Salem have web based scheduling. Greensboro has a newly renovated historic depot as its multi-modal transportation center, and High Point is in the process of renovating its downtown transportation terminal for moving tens of thousands of marketgoers on shuttles and buses during the semi-annual International Home Furnishings Market. High Point put a new fleet of buses into operation in the spring of 2004.						
26. Mass transit incentives	Provide mass transit incentives and passes as means of increasing ridership.	The 3 municipal bus systems as well as PART provide incentives, enumerated in the accompanying report, to increase ridership. High Point's ridership increased 26% in the last 6 months of 2004 and is up 17% in 11 months of 2005. In Greensboro, bus ridership is up 18% over last year. PART's ridership is up 21% in 2005 over 2004.	Dec. 2005					
27. Commuter/intercity rail	Proceed with plans for commuter transit or intercity rail - In the fall of 2004 PART contracted for Phase II of a Major Investment Study to determine feasibility of a regional mass transit system. Primary options are bus rapid transit and commuter rail. Several factors distinguish this study and the Triad region from the Triangle and Charlotte areas.	Study is 95% complete and will be presented to PART Board in spring 2006. Depending upon action of PART Board, the preferred option can be submitted to fund a preliminary engineering study.	Fall 2004					
28 Feasibility of HOV/HOT lanes - I-40	Determine feasibility of developing HOV / HOT lanes along I-40. A component of the study is to determine feasibility of a value pricing lane along the major I-40 east-west corridor in the region.	The study is complete and has been submitted to the PART Board and NC DOT. Implementation is many year away.	Summer 2005					
29 Support Air Awareness Program	Support Triad Air Awareness Program -This Triad chapter of a Division of Air Quality program is very active in the EAC Region. Numerous activities are cited in the June 2005 Progress Report and in the report with this submission.	Go to <a href="http://www.co.forsyth.nc.us/envaffairs">www.co.forsyth.nc.us/envaffairs</a> for information on current and recent activities.						
<b>Comments:</b> Added Strategy #2 re: impact of NC Clean Smokestacks Act in Triad								

### Early Action Compacts December Progress Summary Table

A.	B.	C.	D.	E.	F.	G.	H.	
Control Measure	Summary Description of Measure	Program/Measure Status	D. Specific Implementation Date	VOC Reduction	NOx Reduction	Resources (FTE's, \$\$)	Additional Information	
Strategy #4 is a combination of two strategies from EPA's initial Summary Table								
Strategy #5 is reworded from EPA's initial Summary Table								



**North Carolina  
Early Action Compact Area  
8-Hour Ozone Maintenance Plan  
Tracking Report**



**December 20, 2005**

## **Preface**

This document contains the 8-hour ozone maintenance plan tracking report for Early Action Compact Areas in North Carolina.

## Executive Summary

### **The Early Action Compact (EAC) Agreement**

Early Action Compact (EAC) areas were given the opportunity to develop local control strategies to meet the 8-hour ozone national ambient air quality standard (NAAQS) earlier than required by the Clean Air Act. In turn, the United States Environmental Protection Agency (USEPA) agreed to defer the effective date of the nonattainment designation for these areas. If an EAC area attains the 8-hour ozone NAAQS by December 31, 2007 and meets all of their EAC milestones, the USEPA will designate the area as attainment. The EAC areas in North Carolina (NC) include the Cumberland County EAC area; the Mountain EAC area (Buncombe, Haywood and Madison Counties); the Triad EAC area (Alamance, Caswell, Davidson, Davie, Forsyth, Guilford, Randolph, Rockingham, Stokes, Surry and Yadkin Counties); and, the Unifour EAC area (Alexander, Burke, Caldwell, and Catawba Counties).

### **Annual Review of Growth**

The annual review of stationary point source emissions shows NC EAC areas experienced decreases in NO<sub>x</sub> emissions for the period evaluated. Two individual counties within EAC areas, Haywood County and Yadkin County, reported NO<sub>x</sub> emissions from stationary point sources at levels high enough to meet one of two action triggers. However, there was no corresponding increase in ozone formation in those counties. Therefore, the North Carolina Division of Air Quality (NCDAQ) is not required and does not believe it is appropriate to take further action at this time.

Based on the annual vehicle miles traveled (VMT) growth rate from the EAC SIP and the latest data from the North Carolina Department of Transportation (NCDOT), all of the EAC areas meet the maintenance plan requirements. The only county whose annual VMT growth rate for 2000-2004 is greater than 10% of the annual VMT growth rate for 2000-2007 used in the attainment demonstration is Guilford County (11.77% increase). The 2003-2005 8-hour ozone design value for the ambient monitor (McLeansville) in Guilford County is 0.077 ppm which is below the 0.080 ppm threshold. Furthermore, the design values for the McLeansville monitor have steadily decreased over the past five years. Therefore, Guilford County currently meets the EAC maintenance plan criteria.

### **Impact on Ozone Formation**

For the period evaluated, all of the EAC areas experienced decreases in ozone concentrations. Even though the meteorological conditions during the 2005 ozone season were more conducive to ozone formation, the EAC areas observed few exceedances. Most areas observed far fewer exceedances than in 2002 (which also had a warm and dry ozone season similar to the conditions experienced in 2005) and were generally below the average number of exceedance days for 1994-2005.

### **Conclusion**

Neither the stationary point source nor mobile source action triggers detailed in the maintenance plan section of the EAC State Implementation Plan (SIP) were met. Therefore, the NCDAQ is not required to take further action at this time.

## Table of Contents

Executive Summary.....	3
I. Background.....	5
II. Annual Tracking for Growth.....	5
Stationary Point Source Emission Inventory Data Review .....	5
Mobile Source Emission Inventory Data Review.....	7
III. Air Quality Analysis .....	10
1-hour Design Value Trends.....	10
8-hour Design Value Trends.....	12
1-hour & 8-Hour Ozone Exceedance Trends.....	13
2005 Ozone Season Weather Patterns .....	14
IV. Overall Summary and Conclusions .....	15
Appendix A.....	16
Appendix B.....	34
Appendix C.....	51

## **I. Background**

On December 17, 2004, the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Air Quality (NCDAQ), submitted to the United States Environmental Protection Agency (USEPA) North Carolina's 8-hour ozone national ambient air quality standard (NAAQS) attainment demonstration for regions designated as Early Action Compact (EAC) areas. The EAC areas in North Carolina include the Cumberland County EAC area; the Mountain EAC area (Buncombe, Haywood and Madison Counties); the Triad EAC area (Alamance, Caswell, Davidson, Davie, Forsyth, Guilford, Randolph, Rockingham, Stokes, Surry and Yadkin Counties); and, the Unifour EAC area (Alexander, Burke, Caldwell, and Catawba Counties).

Early Action Compact areas were given the opportunity to develop local control strategies to meet the 8-hour ozone NAAQS earlier than required by the Clean Air Act. In turn, the USEPA agreed to defer the effective date of the nonattainment designation for these areas. If an EAC area attains the 8-hour ozone NAAQS by December 31, 2007 and meets all of their EAC milestones, the USEPA will designate the area as attainment. The Mountain EAC area in North Carolina was designated as attainment in April 2004; however, the three counties listed above decided to continue their EAC agreement because of the public health benefits of the program. The December 2004 attainment demonstration showed all of North Carolina's EAC areas meeting the 8-hour ozone NAAQS by December 31, 2007 and maintaining that standard through 2017. In fact, all areas are now attaining the 8-hour ozone NAAQS. The NCDAQ committed to annual tracking of stationary point and highway mobile sources emission inventories data to assess progress in meeting these attainment goals. This is the first annual tracking report submitted to meet that commitment.

## **II. Annual Tracking for Growth**

### *Stationary Point Source Emission Inventory Data Review*

In the December 2004 attainment demonstration submittal, NCDAQ committed to conduct an annual review of growth of stationary point sources by comparing the latest available annual stationary point source nitrogen oxides (NO<sub>x</sub>) emissions inventory to the 2000 base year NO<sub>x</sub> inventory used in the attainment demonstration air quality modeling analyses. For this report, the latest stationary point source inventory available is for 2003. NCDAQ committed to both a county-by-county comparison and a composite for the entire EAC area.

Tables 1 - 4 below show the total NO<sub>x</sub> emissions from all permitted stationary point sources (in tons per year) for 2000 and 2003. Only larger facilities with Title V permits are required to report emissions annually. Therefore, the NCDAQ "assumed" emissions for facilities that were not required to report in a specified year. Since these sources tend to be small and do not generally have significant emissions changes from year to year, the "assumed" emissions for these sources were based on data from the last year they were required to report. Facility-specific NO<sub>x</sub> emissions inventory data used to generate the following tables can be found in Appendix A (for calendar year 2000) and Appendix B (for calendar year 2003) of this report.

**Table 1: NOx Emissions from Permitted Stationary Sources  
Cumberland County EAC Area (tons/year)**

	2000	2003	Percent Change
<i>Cumberland County</i>	831.7	847.3	1.9%

**Table 2: NOx Emissions from Permitted Stationary Sources  
Mountain Area EAC Area (tons/year)**

	2000	2003	Percent Change
<i>Buncombe County</i>	6,931.4	5,389.1	(-) 22.3%
<i>Haywood County</i>	4,742.1	5,368	13.2%
<i>Madison County</i>	0	0	0%
<i>Total for Area</i>	11,673.5	10,757.1	(-) 7.9%

**Table 3: NOx Emissions from Permitted Stationary Sources  
Triad EAC Area (tons/year)**

	2000	2003	Percent Change
<i>Alamance County</i>	418.3	395.6	(-) 5.4%
<i>Caswell County</i>	8.3	0	(-) 100.0%
<i>Davidson County</i>	4,454.4	1,901.8	(-) 57.3%
<i>Davie County</i>	68.9	40.8	(-) 40.8%
<i>Forsyth County</i>	2493.7	2161.0	(-) 13.3%
<i>Guilford County</i>	657.5	554.9	(-) 15.6%
<i>Randolph County</i>	362	358.5	(-) 1.0%
<i>Rockingham County</i>	9,214.5	8,345.3	(-) 9.4%
<i>Stokes County</i>	32,513.1	26,874.4	(-) 17.3%
<i>Surry County</i>	475.5	426.1	(-) 10.4%
<i>Yadkin County</i>	0	2.9	Greater than 100%
<i>Total for Area</i>	50,666.2	41,061.3	(-) 19%

**Table 4: NOx Emissions from Permitted Stationary Sources  
Unifour EAC Area (tons/year)**

	2000	2003	Percent Change
<i>Alexander County</i>	19	16.5	(-)13.2%
<i>Burke County</i>	344.5	272.5	(-)20.9%
<i>Caldwell County</i>	473.3	478	1.0%
<i>Catawba County</i>	27,075	20,616.9	(-)23.9%
<i>Total for Area</i>	27,911.8	21,383.9	(-) 23.4%



North Carolina agreed to identify and implement additional controls on stationary sources sufficient to offset the growth in the stationary source NO<sub>x</sub> emissions if:

- actual stationary source NO<sub>x</sub> emissions are greater than 10 percent higher than those emissions used in the EAC State Implementation Plan (SIP) modeling analysis either for an individual county or for the entire EAC area, **and**
- there has also been a corresponding increase in ozone levels in the area such that the latest 3 year design value is greater than 0.080 ppm.

When looking at the EAC areas as a whole, the Cumberland County EAC area was the only area showing an increase in NO<sub>x</sub> emissions (1.9 %) for the time period evaluated. Based on the criteria above, this slight increase in emissions does not warrant further action by the NCDAQ.

Yadkin County and Haywood County both reported NO<sub>x</sub> emissions in 2003 greater than 10 percent higher than those emissions used in the 2000 EAC SIP modeling analysis. Yadkin County is in the Triad EAC area. The increase in NO<sub>x</sub> emissions in Yadkin County can be attributed to the fact that there were no NO<sub>x</sub> sources in Yadkin County in the 2000 base year. The 2.9 tons/year of NO<sub>x</sub> emissions reported in Yadkin County in 2003 represent only a very small portion of the total NO<sub>x</sub> emissions reported in the Triad EAC area. Therefore, NCDAQ does not believe further action is warranted to address this small emissions increase.

Haywood County is in the Mountain Area EAC area. Haywood County's stationary point source emissions growth (13.2% increase) was slightly higher than the action trigger criteria. The increase in NO<sub>x</sub> emissions in Haywood County can be attributed to one source, Blue Ridge Paper Products – Canton Mill. NCDAQ is currently evaluating Blue Ridge Paper Products to determine if they must install best available retrofit technology (BART) controls as part of North Carolina's strategy for meeting regional haze requirements to improve visibility. Even with this increase in stationary source NO<sub>x</sub> emissions in Haywood County, both the 1-hour and 8-hour ozone design value trends for the Mountain Area EAC area (1994-2005) have steadily decreased. Furthermore, North Carolina has recorded no exceedances of the 1-hour ozone NAAQS and only one exceedance of the 8-hour ozone NAAQS in the mountains in the past 3 years.

The air quality analysis in Section III of this report shows no corresponding increase in ozone levels in either Yadkin or Haywood Counties or in their corresponding EAC areas. Therefore, based on the criteria above, no further action is required by the NCDAQ at this time.

#### *Mobile Source Emission Inventory Data Review*

The NCDAQ also committed to conducting an annual review of growth in highway mobile sources. To meet the highway mobile EAC maintenance plan requirements:

- 2000-2004 annual Vehicle Miles Traveled (VMT) growth rate cannot exceed the 2000-2007 annual VMT growth rate by 10% for an individual county or the entire EAC area, **and**

- there cannot be a corresponding increase in ozone levels in the area such that the latest 3 year design value is greater than 0.080 ppm.

Table 5 below shows the comparison between the VMT from the EAC State Implementation Plan (SIP) and the VMT from the latest North Carolina Department of Transportation (NCDOT) data. Data used to generate Table 5, as well as further information on where this data was derived, can be found in Appendix C of this report.

**Table 5: Comparison Between the EAC SIP VMT and the latest NCDOT VMT Data**

	<b>Annual VMT Growth Rate from EAC SIP</b>	<b>Annual VMT Growth Rate from Latest NCDOT Data</b>	<b>% Change</b>
<b>Cumberland Co. EAC Area</b>			
Cumberland	1.66	0.96	-42.41
<b>Unifour EAC Area</b>			
Alexander	3.88	2.66	-31.42
Burke	2.01	0.58	-71.28
Caldwell	3.10	2.30	-25.77
Catawba	2.73	1.40	-48.74
<b>Total Area</b>	<b>2.67</b>	<b>1.42</b>	<b>-46.95</b>
<b>Mountain EAC Area</b>			
Buncombe	2.16	1.85	-14.15
Haywood	2.42	1.10	-54.67
Madison	2.29	1.78	-22.13
<b>Total Area</b>	<b>2.24</b>	<b>1.65</b>	<b>-26.25</b>
<b>Triad EAC Area</b>			
Alamance	2.29	0.58	-74.71
Caswell	2.40	-0.80	-133.34
Davidson	2.82	0.96	-66.14
Davie	2.51	1.76	-29.97
Forsyth	2.32	1.70	-26.59
Guilford	2.17	2.43	11.77
Randolph	2.87	0.68	-76.25
Rockingham	2.34	-0.26	-110.93
Stokes	2.20	1.65	-24.87
Surry	2.60	-0.14	-105.45
Yadkin	2.29	1.05	-54.42
<b>Total Area</b>	<b>2.38</b>	<b>1.32</b>	<b>-44.51</b>

All of the EAC areas as a whole showed lower VMT growth during the period analyzed compared to the VMT growth assumed in the EAC State Implementation Plan.

Guilford County, which is in the Triad EAC area, is the only individual county where the annual VMT growth rate for 2000-2004 is greater than 10% of the annual VMT growth rate for 2000-2007 (11.77 % increase). The VMT growth rate in Guilford County was dramatically impacted between 2003 and 2004 by two major road construction projects in the county. One impacting project was the widening of I-40/I-85 from 4 to 8 lanes and another was the construction of six additional lanes of the south to southeast section of the Greensboro Beltway Loop. The Triad area previously had two converging Interstates, I-40 and I-85, traveling through the central part of one of North Carolina’s largest urban areas. In the last ten years, significant construction has been initiated to relieve congestion between Burlington and Winston-Salem, North Carolina. The I-85 bypass construction allowed traffic to be redirected (around the heart of Greensboro) and connect with the I-85 business much further south to southwest toward High Point and eventually Charlotte.

Table 6 below shows the 2003-2004 annual VMT growth rate per road type in Guilford County.

**Table 6: 2003-2004 Guilford County Annual VMT Growth Rate per Road Type**

		2003 DVMT	2004 DVMT	Annual Growth Rate
<b>Rural</b>	Interstate	684.28	736.18	<b>7.58</b>
	Principal Arterial	469.5	469.3	<b>-0.04</b>
	Minor Arterial	228.53	228.53	<b>0.00</b>
	Major Collector	550.86	538.2	<b>-2.30</b>
	Minor Collector	23.41	23.41	<b>0.00</b>
	Local	369.81	369	<b>-0.22</b>
	Total Rural	2326.39	2364.62	<b>1.64</b>
<b>Urban</b>	Interstate	2578.55	2808.75	<b>8.93</b>
	Freeway	1137.74	1871.26	<b>64.47</b>
	Principal Arterial	1602.44	1587.82	<b>-0.91</b>
	Minor Arterial	1978.33	1955.78	<b>-1.14</b>
	Collector	310.15	310.76	<b>0.20</b>
	Local	881.53	885.26	<b>0.42</b>
	Total Urban	8488.74	9419.63	<b>10.97</b>
<b>Total Rural &amp; Urban</b>		<b>10815.13</b>	<b>11784.25</b>	<b>8.96</b>

As shown in Table 6, there was a 64.47% increase in VMT on urban freeways during the 2003-2004 timeframe that resulted in a total increase of 8.96% across all road types.

Traffic congestion has been an issue in Greensboro because of the converging of the I-40 and I-85 interstates. The completion of construction projects to help minimize this congestion are the primary reasons for the significant increase in VMT during 2003-2004. Now, with the equivalent of 10 additional lanes of capacity, this area has reduced congestion and delay. It should be noted that this additional lane capacity was included in the travel demand model VMT used in the attainment demonstration. The DAQ will continue to collaborate with the transportation planners in Guilford County to ensure VMT growth continues to stabilize through the Greensboro area.

### III. Air Quality Analysis

The NCDAQ is required to evaluate design value (DV) trends and ozone exceedance trends from 1994 to 2005 to determine if any of the EAC areas show increases in ozone formation. It should be noted, the 2005 ambient ozone data is currently being quality assured by NCDAQ staff and has not been officially submitted to the USEPA. Therefore, the 2005 values in the tables below may change.

Specifically, the NCDAQ evaluated the following data as part of the air quality analyses:

- 1-Hour Ozone Design Value Trends – Most recent 1-hour ozone design values compared to the trend in 1-hour ozone design values from the 1994-1996 timeframe to present.
- 8-hour Ozone Design Value Trends – Most recent design values (3 year average of the 4th highest 8-hour ozone average), compared to the trend in design values from the 1994-1996 timeframe to present.
- 1-Hour Ozone Exceedances – Number of exceedances of the 1-hour ozone standard at each monitor in the EAC areas for the most recent ozone season, compared to the number of exceedances at each monitor from 1994 to present.
- 8-Hour Ozone Exceedances – Number of exceedances of the 8-hour ozone standard at each monitor in the EAC areas for the most recent ozone season, compared to the number of exceedances at each monitor from 1994 to present.
- 4th Highest Value Trends – 4th Highest 1-hour ozone value compared to the 4th highest 1-hour ozone value from 1994 to present.

A summary of this analysis is provided below. A description of weather patterns and climatology for the 2005 ozone season is also included.

#### *1-hour Design Value Trends*

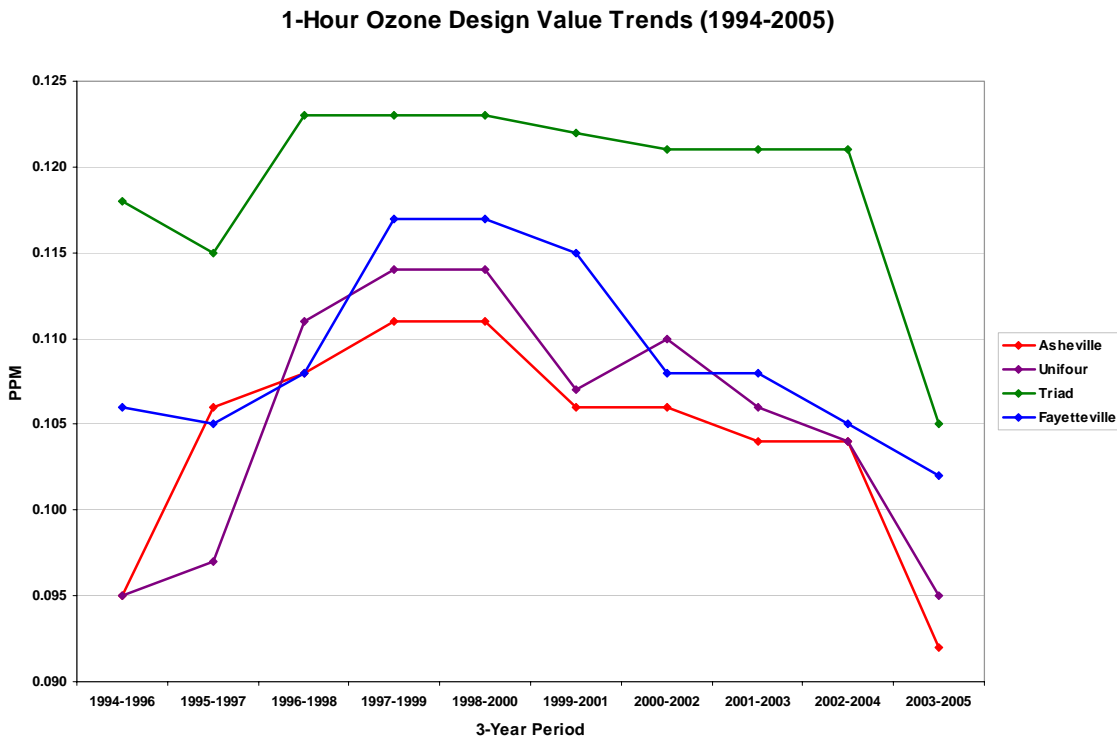
Across all EAC areas, 1-hour ozone design values peaked during the 1997-1999 and 1998-2000 periods (see Table 7 below). Since this period, design values have steadily declined and have remained below the 0.124 ppm ozone NAAQS.

Region	Monitoring Sites	AIRS ID	1-hour Design Value Summary (ppm)									
			94-96	95-97	96-98	97-99	98-00	99-01	00-02	01-03	02-04	03-05
Asheville	Bent Creek	37-021-0030	0.085	0.086	0.108	0.111	0.111	0.106	0.106	0.103	0.103	0.092
	Frying Pan	37-087-0035	0.095	0.095	0.106	0.107	0.104	0.098	0.098	0.098	0.098	0.091
	Purchase Knob	37-087-0036	0.094	0.106	0.103	0.105	0.103	0.102	0.104	0.104	0.104	0.091
	Waynesville	37-087-0004				0.090	0.094	0.094	0.095	0.091	0.091	0.084
Unifour (Hickory)	Taylorsville (Waggin Trail)	37-003-0004	0.094	0.094	0.110	0.110	0.111	0.106	0.110	0.106	0.104	0.095
	Lenoir / Caldwell Co.	37-027-0003	0.095	0.097	0.111	0.114	0.114	0.107	0.099	0.105	0.098	0.094
Triad	Coolemees	37-069-0002	0.103	0.105	0.113	0.123	0.123	0.122	0.118	0.119	0.116	0.105
	Hattie Ave.	37-067-0022	0.108	0.115	0.115	0.117	0.113	0.112	0.116	0.116	0.116	0.102
	Union Cross	37-067-1008	0.109	0.115	0.120	0.119	0.118	0.110	0.110	0.109	0.108	0.097
	Shiloh Church	37-067-0028	0.118	0.110	0.112	0.112	0.112	0.113	0.115	0.115	0.113	0.088
	Cherry Grove	37-033-0001	0.109	0.111	0.118	0.118	0.119	0.112	0.119	0.114	0.112	0.099
	McLeansville	37-081-0011	0.111	0.109	0.112	0.112	0.115	0.112	0.121	0.121	0.121	0.103
	Mendenhall	37-081-0013										
	Bethany	37-157-0099	0.111	0.113	0.123	0.112	0.112	0.105	0.109	0.109	0.109	0.092
	Sophia	37-151-0004						0.102	0.104	0.104	0.104	0.095
	Pollirosa	37-067-0027	0.096	0.096	0.107	0.111	0.111	0.107	0.107	0.107	0.103	0.086
Clemmons	37-067-0030											
Fayetteville	Wade	37-051-0008	0.100	0.100	0.108	0.117	0.117	0.115	0.108	0.108	0.105	0.096
	Golfview (Hope Mills)	37-051-1003	0.106	0.105	0.108	0.109	0.109	0.106	0.106	0.105	0.105	0.102

Light Shading = No Data Available      Underline = Fewer Than Three Years Or Previous Site Data In DV Calculation

**Table 7: 1-hour design values for each monitor in the EAC areas in North Carolina. Design values are presented in parts per million (ppm), with design values exceeding the standard highlighted in orange. Light shading indicates that no data was available while an underlined value indicates fewer than three years or previous site data was used in the DV calculation.**

Figure 1 below shows the trend in 1-hour DVs for the different EAC areas. The graph shows the peak in the 1997-1999 and 1998-2000 design values in the Asheville, Unifour, and Fayetteville areas. After this period in the late 1990s, the design values for the areas decrease consistently. The Triad area is the exception in the 1-hour values and follows a different trend. After the 1996-1998 DV period, values roughly plateau until a significant drop is seen in the 2003-2005 DV period.



**Figure 1: The graph displays the trend in the area-wide 1-hour design values (in parts per million) for each EAC area from 1994 to 2005.**

8-hour Design Value Trends

Much like the 1-hour values, 8-hour design values peaked in 1997-1999 and 1998-2000, with a steady decline in DVs in following years (see Figure 2 below). For the 2002-2004 DVs, only the Triad EAC area had a DV in excess of 0.085 ppm. As for the 2003-2005 DVs, all EAC areas had DVs of 0.082 ppm or less.

Figure 2 below shows the trend in 8-hour DVs for the different EAC areas. The graph shows the peak in the 1997-1999 and 1998-2000 design values, as seen in Table 8 below. Design values decrease through the rest of the graph, with the exception of Unifour, which show a slight increase in the 2000-2003 DVs. All areas do drop below the 8-hour standard by the 2003-2005 period.

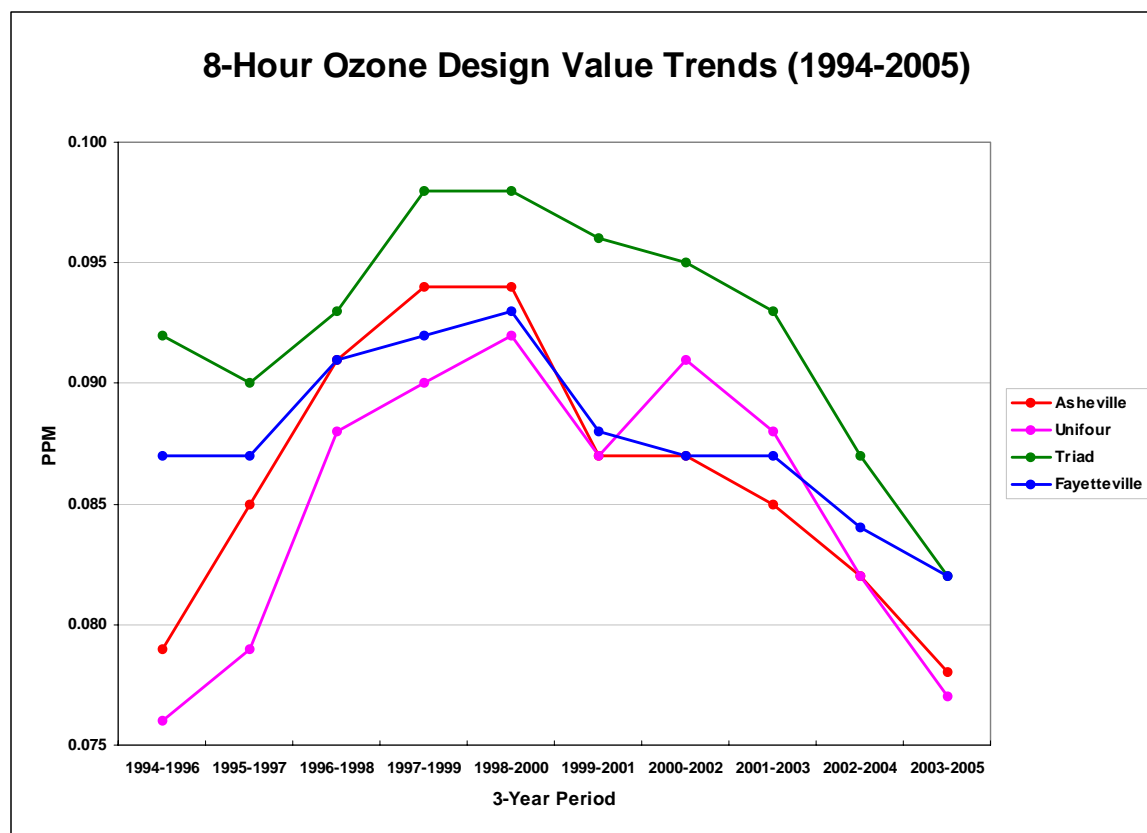


Figure 2: The graph displays the trend in the area-wide 8-hour design values (in parts per million) for each EAC area from 1994 to 2005.

Region	Monitoring Sites	AIRS ID	8-Hour Design Value Summary (ppm)									
			94-96	95-97	96-98	97-99	98-00	99-01	00-02	01-03	02-04	03-05
Asheville	Bent Creek	37-021-0030	0.073	0.075	0.079	0.083	0.088	0.083	0.085	0.078	0.077	0.074
	Frying Pan	37-087-0035	0.079	0.085	0.091	0.094	0.094	0.087	0.085	0.082	0.080	0.075
	Purchase Knob	37-087-0036		0.083	0.085	0.090	0.090	0.087	0.087	0.085	0.082	0.078
	Waynesville	37-087-0004						0.080	0.080	0.079	0.076	0.073
Unifour (Hickory)	Waggin Trail	37-003-0004	0.076	0.079	0.084	0.086	0.089	0.087	0.091	0.088	0.082	0.077
	Lenoir / Caldwell Co.	37-027-0003		0.079	0.088	0.090	0.092	0.087	0.086	0.084	0.080	0.074
Triad	Cooleemee	37-059-0002			0.092	0.098	0.098	0.096	0.095	0.093	0.086	0.082
	Hattie Ave.	37-067-0022	0.083	0.087	0.091	0.097	0.096	0.094	0.094	0.093	0.087	0.079
	Union Cross	37-067-1008	0.088	0.089	0.092	0.094	0.093	0.093	0.092	0.089	0.084	0.079
	Shiloh Church	37-067-0028			0.087	0.086	0.088	0.089	0.092	0.088	0.079	0.074
	Cherry Grove	37-033-0001	0.085	0.089	0.093	0.094	0.093	0.090	0.091	0.088	0.084	0.077
	McLeansville	37-081-0011	0.086	0.085	0.088	0.092	0.094	0.090	0.093	0.089	0.084	0.077
	Mendenhall	37-081-0013										
	Bethany	37-157-0099	0.092	0.090	0.089	0.085	0.083	0.085	0.090	0.091	0.084	0.078
	Sophia	37-151-0004								0.085	0.082	
	Pollirosa	37-067-0027	0.078	0.081	0.084	0.084	0.083	0.082	0.084	0.082	0.079	
	Clemmons	37-067-0030										
Fayetteville	Wade	37-051-0008	0.083	0.084	0.088	0.092	0.093	0.088	0.086	0.086	0.084	0.080
	Golfview (Hope Mills)	37-051-1003	0.087	0.087	0.091	0.092	0.091	0.086	0.087	0.087	0.084	0.082

Light Shading = No Data Available      Underline = Fewer Than Three Years Or Previous Site Data In DV Calculation

**Table 8: 8-hour design values for each monitor in the EAC areas in North Carolina. Design values are presented in parts per million (ppm), with design values exceeding the standard highlighted in orange. Light shading indicates that no data was available while an underlined value indicates fewer than three years or previous site data was used in the DV calculation.**

*1-hour & 8-Hour Ozone Exceedance Trends*

The number of 1-hour ozone exceedance peaked during the 1998 season, in which nine exceedances were observed in the EAC areas. Since 1998, exceedances of the 1-hour standard have decreased dramatically; as there have been no exceedances in the last 3 years in any EAC area (see Table 9 below).

Region	Monitoring Sites	AIRS ID	Number Of 1-Hour Exceedances Per Year												
			1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Asheville	Bent Creek	37-021-0030	0	0	0	0	1	0	0	0	0	0	0	0	
	Frying Pan	37-087-0035	0	0	0	0	0	0	0	0	0	0	0		
	Purchase Knob	37-087-0036		0	0	0	0	0	0	0	0	0	0		
	Waynesville	37-087-0004						0	0	0	0	0	0		
Unifour (Hickory)	Taylorville (Waggin T)	37-003-0003	0		0	0	2	0	0	0	0	0	0		
	Lenoir / Caldwell Co.	37-027-0003		0		0	0	0	0	0	0	0	0		
Triad	Cooleemee	37-059-0002			0	0	1	2	0	1	0	0	0		
	Hattie Ave.	37-067-0022	0	1	0	0	1	1	0	0	0	0	0		
	Union Cross	37-067-1008	0	0	0	0	1	0	0	1	0	0	0		
	Shiloh Church	37-067-0028			1	0	1	1	0	0	0	0	0		
	Cherry Grove	37-033-0001	0	0	0	0	0	0	0	0	0	0	0		
	McLeansville	37-081-0011	0	0	1	0	0	0	0	2	0	0	0		
	Bethany	37-157-0099	0	0	0	0	1	0	0	2	0	0	0		
	Sophia	37-151-0004							0	0	0	0			
	Pollirosa	37-067-0027	0	0	0	0	1	0	0	0	0	0	0		
	Fayetteville	Wade	37-051-0008	0	0	0	0	0	0	0	0	0	0	0	
		Golfview (Hope Mills)	37-051-1003	0	0	0	0	0	0	0	0	0	0	0	

Light Shading = No Data Available

**Table 9: The table shows the number of exceedances of the 1-hour standard at each monitoring site within an EAC area. Light shading indicates that no data was available for the period.**

The number of 8-hour ozone exceedances has shown a downward trend since peaking in 1998 and 1999 for all EAC areas. In the mountains, there has been only one exceedance in the past 3 years. In the Unifour region, there have been no exceedances in the past 2 years, and in 2003, the maximum number of exceedances at any monitor was three. In the Triad in 2003, the Hattie



Avenue monitor had five exceedances, and the Cooleemee monitor had four exceedances, with less than four exceedances elsewhere in the Triad. In both 2004 and 2005, no monitor has had more than three exceedances. In the Fayetteville region, the maximum number of exceedances at a monitor in 2003 was four. In 2004, no exceedances were recorded. In 2005, the maximum number of ozone exceedances at any monitor rose to six (see Table 10 below).

Region	Monitoring Sites	AIRS ID	Number Of 8-Hour Exceedances Per Year											
			1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Mountains	Bent Creek	37-021-0030	0	0	0	0	5	2	7	1	7	0	0	1
	Frying Pan	37-087-0035	0	5	5	4	23	24	4	1	13	0	0	0
	Purchase Knob	37-087-0036		4	1	7	12	19	5	0	18	0	0	0
	Waynesville	37-087-0004						1	3	0	2	0	0	0
Unifour (Hickory)	Taylorsville	37-003-0003	1		0	3	15	2	7	5	17	1	0	0
	Lenoir	37-027-0003		1		1	10	18	4	2	10	3	0	0
Triad	Cooleemee	37-059-0002			3	11	18	24	17	11	22	4	0	3
	Hattie Ave.	37-067-0022	2	8	3	9	15	16	6	10	15	5	0	0
	Union Cross	37-067-1008	4	4	5	12	18	11	9	8	15	3	0	0
	Shiloh Church	37-067-0028			4	1	9	6	5	10	8	0	0	0
	Cherry Grove	37-033-0001	3	4	7	17	19	7	9	6	15	3	0	0
	McLeansville	37-081-0011	5	5	3	3	18	18	8	4	20	2	0	3
	Bethany	37-157-0099	8	0	6	11	5	2	3	9	15	3	0	0
	Sophia	37-151-0004								7	10	2	1	
	Pollirosa	37-067-0027	1	1	3	1	6	3	1	2	6	0	0	0
	Fayetteville	Wade	37-051-0008	3	3	4	5	13	17	4	2	17	4	0
Golfview		37-051-1003	4	4	9	4	24	14	3	3	14	3	0	6

Light Shading = No Data Available      Orange - 4 Or More Exceedances

**Table 10: The table shows the number of exceedances of the 1-hour standard at each monitoring site with in an EAC area. Light shading indicates that no data was available for the period. Orange highlighting indicates a monitor with four or more exceedances for that year.**

### 2005 Ozone Season Weather Patterns

The conditions during the 2005 ozone season were more conducive to ozone formation than the past two seasons. After a cool and wet ozone season in 2004, 2005 had near normal to above normal temperatures and below normal levels of precipitation. Over the past decade, ozone seasons which were warmer and drier than normal generally had more frequent exceedances of the NAAQS.

While the warmer and drier conditions would be conducive to ozone formation, there were periods when the winds became less favorable. Toward the middle of the season, there were a few periods when the wind would take on a more northeasterly component instead of North Carolina’s normal summertime wind flow which is predominately from the southwest.

Even though the meteorological conditions during the 2005 ozone season were more conducive to ozone formation, the EAC areas observed few exceedances. Most areas observed far fewer exceedances than in 2002 (which also had a warm and dry ozone season similar to the conditions experienced in 2005) and were generally below the average number of exceedance days for 1994-2005.



#### **IV. Overall Summary and Conclusions**

The annual review of stationary point source emissions shows North Carolina EAC areas generally experienced decreases in NO<sub>x</sub> emissions for the period evaluated. The Cumberland County EAC area was the only area experiencing an increase in NO<sub>x</sub> emissions (1.9%); however, this increase was well below the action trigger. Two individual counties within EAC areas, Haywood County and Yadkin County, reported NO<sub>x</sub> emissions from stationary point sources at levels high enough to meet one of two action triggers. However, there was no corresponding increase in ozone formation in those counties. Therefore, the NCDAQ is not required and does not believe it is appropriate to take further action at this time.

Based on the annual VMT growth rate from the EAC SIP and the latest NCDOT VMT data, all of the EAC areas meet the maintenance plan requirements. The only individual county whose annual VMT growth rate for 2000-2004 is greater than 10% of the annual VMT growth rate for 2000-2007 used in the attainment demonstration is Guilford County (11.77% increase). This increase can be attributed to the completion of the I-85/I-40 widening project in 2003-2004. The NCDAQ will continue to collaborate with the transportation planners in Guilford County to ensure the VMT through the Greensboro area continues to stabilize. The 2003-2005 8-hour ozone design value for the ambient monitor (McLeansville) in Guilford County is 0.077 ppm which is below the 0.080 ppm threshold. Furthermore, the design values for the McLeansville monitor have steadily decreased over the past five years. Therefore, Guilford County currently meets the EAC maintenance plan criteria.

Since no corresponding increases in ozone were recorded in any of the EAC areas for the period evaluated and since neither the stationary point source nor mobile source action triggers detailed in the EAC SIP were met, the NCDAQ is not required to take further action at this time.

# Appendix A

## Facility-Specific NO<sub>x</sub> Emissions Inventory Data Calendar Year 2000

Note 1: The tables that follow are in **alphabetical order by county name**

Note 2: The following data are emissions from permitted point sources only, as reported by the facility to the North Carolina Department of Environment and Natural Resources, Division of Air Quality (NCDAQ) and reviewed by NCDAQ staff during the calendar year following the year emitted. With the exception of 1999, when all permitted facilities were required to report their NO<sub>x</sub> emissions, only larger facilities with Title V permits are required to report emissions annually. Therefore, the tables that follow show actual reported emissions for the selected year as well as “assumed” emissions for facilities that were not required to report in that year. The “assumed” emissions were taken from the latest year the source was required to report NO<sub>x</sub> emissions (year reported is in parentheses).

**Table A1: Facilities in Alamance County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
A.O. Smith Corporation	3.5 Tons	
Braxton Sawmill, Inc.	3.7 Tons	
Cherokee Sanford Group, LLC ** INACTIVE **	11.2 Tons	
Stericycle, Inc.	24.5 Tons	
A.M.P. Division of Central Paving Company, Inc.	25 Tons	
National Spinning Co., Inc. - Alamance Co. Dyeing Operation	27 Tons	
New South Inc	33.6 Tons	
Carolina Finishing of North Carolina LLC - Elmira Street	49.8 Tons	
Burlington Industries LLC -BHF & Pioneer Plant	64.4 Tons	
Nello L. Teer Company	86.8 Tons	
Flynt Fabrics Inc ** INACTIVE **		0 Tons (1999)
City of Burlington - South Burlington WWTP		0.1 Tons (2003)
City of Graham Wastewater Treatment Plant		0.2 Tons (2003)
Cone Mills Corp - Granite Plant ** INACTIVE **		0.3 Tons (1999)
Kayser-Roth Corporation - Ladies Finishing ** INACTIVE **		0.4 Tons (1999)
City of Burlington - East Burlington WWTP		0.6 Tons (2002)
Glen Raven Mills Glen Touch Division ** INACTIVE **		1 Ton (1999)
Carolina Finishing of North Carolina, LLC ** INACTIVE **		1 Ton (1999)
Tower Mills Inc. ** INACTIVE **		1 Ton (1999)
Burlington Chemical Company Inc		1 Ton (1999)
NovaFlex Hose Inc.		1.1 Ton (2003)
Walter Kidde Portable Equipment Inc		1.7 Tons (1999)
Honda Power Equip **Inactive**		2 Tons (1999)
Luxfer Gas Cylinders		2 Tons (1999)
Burlington Industries, LLC - Pioneer Plant ** INACTIVE **		3 Tons (1999)
Glen Raven Technical Fabrics, LLC		3 Tons (1999)
Cortina Fabrics, Inc.		3.2 Tons (2002)
Culp Weaving Inc		3.6 Tons (1999)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #8		3.9 Tons (1999)
Craftique LLC		4 Tons (1999)
Texfi Industries Inc Haw River Dyeing ** INACTIVE **		4 Tons (1999)
GKN Driveline - Alamance Facility		4.1 Tons (2002)
Kayser-Roth Corporation - Mens Finishing		4.4 Tons (1999)
Culp, Inc. -Upholstery Prints Division		5 Tons (1999)
Alamance Regional Medical Center, Inc.		5 Tons (1999)
Riley Paving, Inc.		6 Tons (1999)
Culp, Inc. - Culp Finishing		6.9 Tons (2003)
Alexander Fabrics, LLLP		7.2 Tons (2003)
Copland Industries, Inc.		13.1 Tons (2002)
<b>Total Reported Emissions</b>	<b>329.5</b>	
<b>Total Assumed Emissions</b>		<b>88.8</b>
<b>Grand Total</b>		<b>418.3</b>

**Table A2: Facilities in Alexander County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Shurtape Technologies Inc	0.4 Tons	
Mitchell Gold	0.5 Tons	
Century Furniture Industries Plant #9	3 Tons	
Daniels Woodcarving Company, Inc.		0 Tons (2002)
Piedmont Wood Products		0 Tons (2004)
Nu-Mode Manufacturing Company		0 Tons (2002)
Vintage Editions, Inc.		0.1 Tons (2002)
Clayton Marcus Plant No. 1		0.3 Tons (1999)
Hancock & Moore Plt 2		4 Tons (1999)
Brushy Mountain Enterprises		4.5 Tons (2002)
Schneider Mills Inc		6.2 Tons (1999)
<b>Total Reported Emissions</b>	<b>3.9</b>	
<b>Total Assumed Emissions</b>		<b>15.1</b>
<b>Grand Total</b>		<b>19.0</b>

**Table A3: Facilities in Buncombe County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Anvil Knitwear, Inc.		12.89 Tons (1999)
APAC Enka Plant		4.3 Tons (1999)
APAC Grove Stone		2.5 Tons (1999)
APAC Weatherville		4.3 Tons (1999)
Asheville Metal Finishing		0.4 Tons (1999)
Asheville MICA		0.41 Tons (1999)
Asheville Mortuary		0.1375 Tons (1999)
Asheville Water Authority		1.99 Tons (1999)
BASF	833.00 Tons	
Beacon		9.37 Tons (1999)
Buncombe Co. Landfill		2.7 Tons (1999)
Bussman Corp.		0.33 Tons (1999)
Carolina Power and Light	5909.00 Tons	
Colbond, Inc.		6.33 Tons (1999)
Cremation Services		0.01 Tons (1999)
Day International	8.73 Tons	
Diagnostic Lab		0.1685 Tons (1999)
Dodge Rockwell		0.0451 Tons (1999)
Drexel Heritage		17.10 Tons (1999)
Eaton Cutler-Hammer		0.86 Tons (1999)
Ethan Allen		3.8 Tons (1999)
Girmes		0.84 Tons (1999)
International Aggreg.		0.96 Tons (1999)
Kearfott		0.19 Tons (1999)
Lustar		19.4 Tons (1999)
Mission St. Joe Hospital		11.36 Tons (1999)
Metromont Materials		1.15 Tons (1999)

**Table A3: Facilities in Buncombe County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Milkco		1.7 Tons (1999)
Morris Funeral Home		0.086 Tons (1999)
MSD		37.22 Tons (1999)
Norfolk Southern		0.01 Tons (1999)
Owen Manufacturing		9.8 Tons (1999)
PPPi	3.79 Tons	
Square D Company		3.09 Tons (1999)
Thantex Specialty Inc.		0.092 Tons (1999)
Tultex Corporation		17.061 Tons (1999)
VA Medical Center		4.33 Tons (1999)
Volvo Construction		1.99 Tons (1999)
<b>Total Reported Emissions</b>	<b>6754.52</b>	
<b>Total Assumed Emissions</b>		<b>176.9201</b>
<b>Grand Total</b>		<b>6931.4401</b>

**Table A4: Facilities in Burke County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
SpartaCraft Inc	0 Tons	
Lexington Furniture Plant 10	0.3 Tons	
Kohler Co., DBA Baker Furniture	2 Tons	
Molded Fiberglass Co/North Carolina	2.6 Tons	
Leviton - Southern Devices Div	5 Tons	
Borden Chemical Inc	7.5 Tons	
Burke Mills Inc	8.2 Tons	
Drexel Heritage Furnishings, Inc. - Plant 43	15.4 Tons	
Drexel Heritage Furn Industries Inc - Furn Pl ** INACTIVE **	18.7 Tons	
Henredon Furniture Industries, Inc.	32.8 Tons	
Drexel Herit Furn Plt 3-5 ** INACTIVE **	34 Tons	
Valdese Manufacturing Company	41.4 Tons	
SGL Carbon LLC	50.8 Tons	
RMC Mid-Atlantic, dba RMC Metromont Materials - Morganton		0 Tons (2002)
Drexel Herit Furn Plt 33		0 Tons (1999)
Robert Bergelin Company		0 Tons (2002)
E J Victor Upholstery Division		0.1 Tons (2003)
Ferguson Copeland, LLC d/b/a Ferguson Copeland Ltd Reep Driv		0.2 Tons (1999)
Synthron Inc		0.3 Tons (2002)
Drexel Heritage Plant No 71 ** INACTIVE **		0.4 Tons (1999)
Basf Corp		0.9 Tons (2003)
Packaging Corporation Of America		1 Ton (2002)
Boggs HMA, LLC - Plant 5		1 Ton (1999)
Valdese Textiles Inc		1 Ton (2002)
NC School for the Deaf		1.1 Tons (1999)
NC DOC Western Youth Institution		1.5 Tons (1999)

**Table A4: Facilities in Burke County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Burke Grading & Paving Inc - East Burke Asphalt		2 Tons (1999)
Rexnord Corporation ** INACTIVE **		2 Tons (1999)
Summitville Carolina Inc ** INACTIVE **		3 Tons (1999)
Case Farms of NC, Inc. - Rand St.		3.2 Tons (1999)
WNC Dry Kiln, Inc		4 Tons (1999)
Earthgrains Baking Companies Inc		4.1 Tons (2004)
Drexel Heritage Furniture Industries, Inc. Plt. 60		5.6 Tons (2003)
Valdese Weavers Inc Plant #1		5.8 Tons (1999)
Alba-Waldensian P&W Plt ** INACTIVE **		6.3 Tons (1999)
VNC Fabrics Inc ** INACTIVE **		7.8 Tons (1999)
Drexel Herit Furn Plt 6		8.7 Tons (1999)
Hickory Hill Furniture Corp		10.3 Tons (1999)
W M Cramer Lumber Co		10.7 Tons (2003)
APAC-Atlantic, Inc. - Morganton Plant		11.3 Tons (1999)
Broughton Hospital		15.6 Tons (2003)
Carolina Mills Plt 9		18 Tons (2003)
<b>Total Reported Emissions</b>	<b>218.7</b>	
<b>Total Assumed Emissions</b>		<b>125.89</b>
<b>Grand Total</b>		<b>344.5</b>

**Table A5: Facilities in Caldwell County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Shurtape Technologies Inc - Plt No 24	0.6 Tons	
Sealed Air Corp	0.7 Tons	
Pactiv Corporation	2 Tons	
NEPTCO Inc	3.6 Tons	
Meridian Automotive Systems Inc	4 Tons	
Broyhill Miller Hill Complex	4.1 Tons	
Hammary Furniture Company Plant 14 ** INACTIVE **	8.4 Tons	
Fairfield Chair Plt 2	10.5 Tons	
Kincaid Furn Plt 8 ** INACTIVE **	10.6 Tons	
Kincaid Furniture Company Plant No 5 ** INACTIVE **	12.7 Tons	
Broyhill Harper Furniture Co	18.2 Tons	
Bernhardt Furn Plts 2 and 5	22.8 Tons	
Broyhill Virginia Street Complex	25.9 Tons	
Thomasville Furniture Industries Inc - Lenoir Plt	31.7 Tons	
Bernhardt Furn Plts 1 3 & 7	46.2 Tons	
Kincaid Furn Plt 1	50 Tons	
Trigen Biopower Inc - Lenoir	143 Tons	
J & M Woodworking Plt 2		0 Tons (2002)
McCreary Modern Inc - Frame Plant		0 Tons (2002)
ECMD Inc dba Crown Heritage		0.1 Tons (1999)
Schwarz & Schwarz Inc		0.2 Tons (1999)
M & S Warehouse Inc		0.4 Tons (2003)
Lenoir Mirror Plnts 1 & 3		0.7 Tons (1999)

**Table A5: Facilities in Caldwell County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Midstate Contractors Inc		2 Tons (1999)
Paxar Corporation - Printed Label Group		4.3 Tons (1999)
Omni Supply Inc		5 Tons (1999)
Martin Marietta Materials Inc		5.7 Tons (2003)
Mat NuWood LLC		5.7 Tons (1999)
Sealed Air Corp - Hudson		6.3 Tons (2002)
Fairfield Chair Plt 1		7.8 Tons (1999)
Granite Hardwoods Inc		9 Tons (1999)
Shuford Mills Inc Hudson Cloth		14.1 Tons (1996)
Associated Hardwood Products, Inc.		17 Tons (1999)
<b>Total Reported Emissions</b>	<b>395.0</b>	
<b>Total Assumed Emissions</b>		<b>78.3</b>
<b>Grand Total</b>		<b>473.3</b>

**Table A6: Facilities in Caswell County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
International Aggregate, Inc.	6 Tons	
APAC		2.3 Tons (1999)
<b>Total Reported Emissions</b>	<b>6.0</b>	
<b>Total Assumed Emissions</b>		<b>2.3</b>
<b>Grand Total</b>		<b>8.3</b>

**Table A7: Facilities in Catawba County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Null Industries Inc ** INACTIVE **	0 Tons	
Carolina Glove Company, Plant #8	0.2 Tons	
Century Furniture Industries, Plt 40 Technical Center	0.2 Tons	
Laneventure, Plant No. 14	0.2 Tons	
Hickory Springs Manufacturing - Conover Complex	0.3 Tons	
Lackawanna Leather Co **Inactive**	0.6 Tons	
Meridian Automotive Systems, Inc. -Newton Operations	0.6 Tons	
Progressive Furniture Inc	0.9 Tons	
Carpenter Company Conover	1.5 Tons	
Ethan Allen Operations, Inc. Maiden Division	1.6 Tons	
Synthetics Finishing Hickory	1.7 Tons	
Synthetics Finishing Longview	2.6 Tons	
Commscope Inc Catawba Plant	3.3 Tons	
Hickory Springs Manufacturing Company	4.4 Tons	
Spectrum Textured Yarns Inc-Hickory Plant ** INACTIVE **	5 Tons	
Broyhill Furniture Newton Plant ** INACTIVE **	6.5 Tons	
HB Mellott Estate Inc., Maiden Plant	7.9 Tons	
Hooker Furniture Corporation ** INACTIVE **	8.2 Tons	
Broyhill Furniture Conover Plant ** INACTIVE **	10.3 Tons	
Shurtape Technologies - Hickory/Highland Plt	10.4 Tons	



**Table A7: Facilities in Catawba County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Blackburn Sanitary Landfill	10.5 Tons	
Southern Furn Co of Conover Catawba Plt	11.2 Tons	
Hickory Chair Company, Plant 7	11.3 Tons	
HWS Company Inc. dba Hickory White	19.1 Tons	
Hickory Chair Company Plant #20 ** INACTIVE **	19.2 Tons	
Century Furniture Industries Plant #1	19.3 Tons	
Claremont NA Cable, LLC	132.5 Tons	
Duke Energy Corporation - Marshall Steam Station	26,670 Tons	
Carolina House Furniture Inc		0 Tons (2002)
Ramsey's Finishing, Inc.		0 Tons (2003)
Thomasville Furniture Industries, Inc., Upholstery Plant 5		0 Tons (2002)
Commscope**inactive**		0 Tons (1999)
Carolina Solvents, Inc.		0.1 Tons (2002)
Cranford Woodcarving Finishing Plant No 3		0.1 Tons (2003)
Alcatel Cable Manuf Plt**inactive**		0.1 Tons (1999)
Vanguard Furniture Company, Inc., Plant No. 2		0.2 Tons (1999)
Synthetics Finishing Conover		0.2 Tons (2002)
Sherrill Furniture Company, Inc., CTH-Sherrill Occasional		0.3 Tons (2003)
Unifour Finishers, Inc., Division I		0.4 Tons (2002)
Appalachian Hardwood Flooring		0.4 Tons (2002)
Unifour Finishers, Inc., Division II		0.4 Tons (2002)
Special Metals Welding Products Company		0.5 Tons (2002)
Karolina Polymers, Inc. ** INACTIVE **		0.6 Tons (2002)
City of Hickory, Henry Fork WWTP ** INACTIVE **		0.6 Tons (2002)
City of Newton - Casa Christina Site		0.8 Tons (2003)
Jackson Lea ** INACTIVE **		1 Ton (1999)
GKN Sinter Metals, Inc.		1 Ton (1999)
Combeau Industries **Exempt**		1 Ton (1999)
Chelsea House-Port Royal Inc		1 Ton (1999)
Newton Sanitary Landfill		1 Ton (2002)
Joan Fabrics Corporation-Newton		1.1 Tons (2003)
Midstate Contractors, Inc.		1.4 Tons (2003)
Commscope Network Cable Division		1.6 Tons (2003)
Weyerhaeuser Company - Newton		2 Tons (1999)
Carolina Paving of Hickory Inc		2 Tons (1999)
Thomasville Furniture Industries, Inc., Upholstery Plant 9		2 Tons (1999)
Conover Lumber Co Inc		2 Tons (1999)
Midstate Mills Inc		2 Tons (1999)
Carolina Container Corporation		2.1 Tons (1999)
Frye Regional Medical Center		2.5 Tons (2003)
Tradewinds International, Inc.		2.7 Tons (2002)
Classic Leather Inc		2.9 Tons (1999)
Technibilt Ltd **Inactive**		3 Tons (1999)
City of Newton - Sarstedt Site		3.1 Tons (2003)

**Table A7: Facilities in Catawba County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Bassett Upholstery Division		3.3 Tons (1999)
Southern Furniture Company of Conover, Inc., Plant No. 2		3.3 Tons (1999)
City of Newton Inno - Therm Products Site		3.4 Tons (2003)
City of Newton - Polymask Corp Site		3.5 Tons (2003)
City of Newton - Moretz Inc. Site		3.6 Tons (2003)
Inno-Therm Products LLC		3.6 Tons (2003)
Terra-Mulch Products, LLC		4.8 Tons (1999)
City of Newton, Clark Creek Wastewater Treatment Plant		6 Tons (1999)
C Nelson Sigmon Paving Inc		6 Tons (1999)
Southern Furn Co of Conover #1		10.1 Tons (1999)
APAC-Atlantic, Inc. - Hickory Plant		10.8 Tons (2002)
Delta Apparel, Inc.		17 Tons (1999)
<b>Total Reported Emissions</b>	<b>26,959.5</b>	
<b>Total Assumed Emissions</b>		<b>115.49</b>
<b>Grand Total</b>		<b>27,075.0</b>

**Table A8: Facilities in Cumberland County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Black & Decker (US) Inc.	0.9 Tons	
Purolator Products Inc	7.2 Tons	
Dupont Teijin Films	10.1 Tons	
DAK Resins Cedar Creek Site	10.6 Tons	
Carolina By-Products Fayetteville Division	71.8 Tons	
The Goodyear Tire & Rubber Company	81 Tons	
HQ XVIII ABN Corps & Fort Bragg	89 Tons	
DAK Resins, LLC	101 Tons	
Public Works Commission Butler-Warner Generation Plant	148.5 Tons	
Cargill Inc - Fayetteville	208 Tons	
Cumberland Co - Ann Street Landfill		1 Ton (2003)
Rankin Brothers Company		2 Tons (1999)
National Linen Service		2 Tons (1999)
Fayetteville Gas Producers Inc ** INACTIVE **		2 Tons (1999)
Veterans Affairs Medical Center - Fayetteville		3 Tons (1999)
Highland Paving Company, LLC		3.6 Tons (2004)
M J Soffe Co		6 Tons (1999)
Pope Air Force Base		7.5 Tons (2003)
Cape Fear Valley Med Center		8.4 Tons (2003)
Barnhill Contracting - Fayetteville Plant		8.9 Tons (2002)
Texfi Blends Inc**Inactive**		15.6 Tons (1999)
APAC Atlantic, Inc - Shaw Plant		17.8 Tons (2003)
Hexion Specialty Chemicals, Inc.		25.8 Tons (2003)
<b>Total Reported Emissions</b>	<b>728.1</b>	
<b>Total Assumed Emissions</b>		<b>103.6</b>
<b>Grand Total</b>		<b>831.7</b>

**Table A9: Facilities in Davidson County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Vitafoam Incorporated	0.1 Tons	
Exopack - Thomasville, LLC	0.1 Tons	
Councill Company, LLC - Plant #1	3.1 Tons	
T I Industries	3.3 Tons	
Kurz Transfer Products, LLC	3.4 Tons	
StrideMark, LLC	8.7 Tons	
Thomasville Furniture Plant D	9.4 Tons	
Lexington Furniture Plant 12 ** INACTIVE **	11.3 Tons	
Thomasville Furniture Plant B ** INACTIVE **	11.3 Tons	
NC Municipal Power Agency No. 1 Lexington, Plant No. 1	11.4 Tons	
Lexington Furniture Industries Plant 2	12.3 Tons	
NC Municipal Power Agency No. 1- Lexington Plant No. 2	13.5 Tons	
Lexington Furniture Inc., Plant 5	17.8 Tons	
Cunningham Brick Company Inc	19.6 Tons	
Thomasville Furniture Plant C/M/W/SB	21.4 Tons	
Stanley Furniture Company - Lexington Mfg	24 Tons	
Thomasville Furniture Plant A/X/V Face	26.3 Tons	
Lexington Furniture Plants 7 8 9 ** INACTIVE **	31.3 Tons	
Thomasville Furniture Industries, Inc. - Plant SFD/SFLP	37.2 Tons	
Thomasville Furniture Plant E/CDF/CDK/NV	42.5 Tons	
Lexington Furniture Plant 1	47 Tons	
PPG Industries Fiber Glass Products, Inc.	227 Tons	
Owens-Brockway Glass Container Plt 6	578.8 Tons	
Transcontinental Gas Pipeline Corp	3,222.2 Tons	
Superior Wood Products, Inc.		0 Tons (2002)
Dell Inc		0.1 Tons (2003)
Tomlinson/Erwin-Lambeth, Inc.		0.1 Tons (2003)
Leggett & Platt, Incorporated - Metal Bed Rail		0.1 Tons (2002)
LKF Inc		0.1 Tons (2002)
Georgia - Pacific Resins Inc		0.2 Tons (1999)
Diebold Southeast Manufacturing, Inc.		0.2 Tons (1999)
Acme Face Veneer Company		0.2 Tons (2002)
Cardinal Container Services Inc **INACTIVE**		0.3 Tons (1996)
Thomasville Veneer Company		0.5 Tons (2002)
Burlington Ind - Denton Plant ** INACTIVE **		0.6 Tons (1999)
Central Lumber Company, Inc.		0.6 Tons (2002)
Thomas Manufacturing Co Of Thomasville		0.6 Tons (2002)
Carolina Veneer of Thomasville Inc ** INACTIVE **		1 Ton (1999)
Commercial Carving Company		1 Ton (1999)
Hekman Furniture Company		1 Ton (1999)
Leonard Block Company		1 Ton (1999)
Leggett & Platt - Metal Bed Rail		1 Ton (1999)
Councill Company, LLC - Plant #3		1 Ton (1999)
RMC Mid-Atlantic, LLC - Thomasville Plant		1 Ton (1999)

**Table A9: Facilities in Davidson County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Councill Company, LLC - Plant #2		1 Ton (1999)
Santaro Construction Co <b>**inactive**</b>		1 Ton (1999)
Conner Carving and Turning Co Inc <b>** INACTIVE **</b>		1 Ton (1999)
Southern Veneer Company, Inc.		1.2 Tons (2002)
Lexington Furniture Plt 3 <b>**INACTIVE**</b>		1.7 Tons (1999)
Finch Industries Inc		1.8 Tons (1999)
Celand Yarn Dyers Inc		1.8 Tons (2003)
The North Carolina Moulding Company		2 Tons (1999)
Green Printing and Packaging Company		2 Tons (1999)
Davidson Water Inc		2 Tons (1999)
Stone Container Corporation d/b/a Smurfit-Stone Container		2.5 Tons (2003)
Duracell Global Business Management Group		3 Tons (1999)
Moll Industries, Inc. - Lexington Division		3 Tons (1999)
Hanes Construction Company		4.4 Tons (2003)
Kimberly Clark Corporation		6.4 Tons (2003)
Dimension Milling Company, Inc.		7.3 Tons (2002)
Pallet Resource of NC, Inc.		18.7 Tons (2003)
<b>Total Reported Emissions</b>	<b>4,383.0</b>	
<b>Total Assumed Emissions</b>		<b>71.39</b>
<b>Grand Total</b>		<b>4,454.4</b>

**Table A10: Facilities in Davie County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Panels, Services & Components, Inc.	8.6 Tons	
Thomson Crown Wood Products Company <b>** INACTIVE **</b>	27.8 Tons	
Kohler Co. - Baker Furniture		0.8 Tons (2002)
Funder America, Inc		12.7 Tons (2002)
Ingersoll - Rand Company		19 Tons (1999)
<b>Total Reported Emissions</b>	<b>36.4</b>	
<b>Total Assumed Emissions</b>		<b>32.5</b>
<b>Grand Total</b>		<b>68.9</b>

**Table A11: Facilities in Forsyth County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Microfibres, Inc.	19 Tons	
Hanes Dye & Finishing	135 Tons	
R.J. Reynolds Tobacco Company (00339)	365.6 Tons	
Thomasville Furniture	26.9 Tons	
R.J. Reynolds Tobacco Company (00405)	9 Tons	
Brady Furniture	1.3 Tons	
Seimens Westinghouse Power Corporation	25.9 Tons	
Highland Industries, Inc.	12 Tons	
Hooker Furniture Corporation	0.3 Tons	

**Table A11: Facilities in Forsyth County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
R.J. Reynolds Packaging Division (00465)	20.2 Tons	
R.J. Reynolds Packaging Division (00466)	9.5 Tons	
Rexam Beverage Can	8.7 Tons	
Corn Products International, Inc.	402.1 Tons	
R.J. Reynolds Tobacco Company (00745)	1258.7 Tons	
Sun Chemical Corp. – Specialty Inks	0.8 Tons	
Classic Packaging	0.1 Tons	
Archie Elledge Plant	3.8 Tons	
Bids, Inc.	3.3 Tons	
Americraft Carton Group, Inc.	0.1 Tons	
Muddy Creek POTW	17.1 Tons	
Salem Energy Systems, LLC	27.7 Tons	
The Encore Group Inc. DBA Xpres	2.3 Tons	
Cloverleaf Mixing, Inc.	2.4 Tons	
Piedmont Landfill & Recycling Center	1.6 Tons	
Wake Forest University		23 Tons (1999)
Winston Weaver Company, Inc.		1.1 Tons (1999)
Royster-Clark, Inc.		8.4 Tons (1999)
Southern Tool Manufacturing Co.		0.2 Tons (1999)
NC Baptist Hospital		13.8 Tons (1999)
Forsyth Technical Community College		0.1 Tons (1999)
Sara Lee Underwear		15.7 Tons (1999)
Sara Lee Hosiery		7.1 Tons (1999)
Associated Posters, Inc.		3.3 Tons (1999)
Douglas Battery Manufacturing Co.		3.7 Tons (1999)
RMC Carolina Materials, Inc.		0.2 Tons (1999)
Brown & Williamson Tobacco		1.6 Tons (1999)
Ilco Unican Corporation		2.7 Tons (1999)
Jefferson Smurfit Container Corp. of America		3.5 Tons (1999)
Larco Construction (00464)		2.5 Tons (1999)
Winston-Salem State University		4.5 Tons (1999)
Vogler Funeral Home		0.1 Tons (1999)
Colliers Pinkard		0.4 Tons (1999)
Taylor Brothers, Inc.		2.2 Tons (1999)
Johnson Controls, Inc.		5 Tons (1999)
Santaro Industries, Inc. (00753)		2.1 Tons (1999)
Forsyth Memorial Hospital		5.3 Tons (1999)
Corrflex Display and Packaging		3.4 Tons (1999)
Thompson Arthur Paving		3.9 Tons (1999)
Santaro Industries, Inc. (00770)		1.4 Tons (1999)
Corilam Fabricating Company		0.2 Tons (1999)
Deere-Hitachi Construction Machinery		1.1 Tons (1999)
Larco Construction (00791)		4 Tons (1999)
Modern Machine & Metal Fabricators, Inc.		0.5 Tons (1999)
Textilease Corporation		2.8 Tons (1999)

**Table A11: Facilities in Forsyth County Reporting NOx Emissions for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
The Lee Apparel Company, Inc.		8.7 Tons (1999)
Bepeco, Inc.		0.3 Tons (1999)
Wilson-Cook Medical, Inc.		0.1 Tons (1999)
Cres Tobacco Company, Inc.		3.4 Tons (1999)
Powerlab, Inc.		0.1 Tons (1999)
APAC-Carolina, Inc.		3.9 Tons (1999)
<b>Total Reported Emissions</b>	<b>2353.4</b>	
<b>Total Assumed Emissions</b>		<b>140.3</b>
<b>Grand Total</b>		<b>2493.7</b>

**Table A12: Facilities in Guilford County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Madison Hill Funeral Service & Cremation Center	0 Tons	
Shamrock Corporation Tipping Division	0.1 Tons	
The Valspar Corporation	0.1 Tons	
Custom Finishers Inc	0.2 Tons	
Miller Desk Inc	0.2 Tons	
Lane Furniture Industries Inc. Royal Development Co Division	0.2 Tons	
Mickey Truck Bodies Inc	0.3 Tons	
Greensboro Flexible Packaging LLC dba North State Flexibles	0.3 Tons	
Shamrock Corp - Bruce St	0.4 Tons	
Shamrock Corporation - Chimney Rock Printing	0.5 Tons	
Engineered Polymer Solutions, Inc. dba Valspar Coatings	0.7 Tons	
The Sherwin - Williams Co, Consumer Group	0.9 Tons	
Akzo Nobel Coatings Inc	0.9 Tons	
Engineered Polymer Solutions Inc d.b.a. Valspar Coatings	1 Ton	
Vitafoam Inc - Pleasant Garden	1.1 Tons	
Thomas Built Buses - Fairfield Road	1.4 Tons	
Flowers Baking Company of Jamestown, Inc.	2.7 Tons	
Unitex Chemical Corporation	3.6 Tons	
Resco Products Inc	4.2 Tons	
Thomas Built Buses - Courtesy Road	5.3 Tons	
Hooker Furniture Corporation	8.1 Tons	
Konica Minolta Manufacturing USA Inc	8.7 Tons	
NC Municipal Power Agency No. 1 - High Point Plant 1	11.4 Tons	
NC Municipal Power Agency No. 1 - High Point Plant 2	11.4 Tons	
City of Greensboro - White Street Landfill	12.4 Tons	
City of Greensboro - Thomas Z. Osborne POTW	12.6 Tons	
The University of North Carolina at Greensboro - Physical pl	12.8 Tons	
Marsh Furniture Company	15.2 Tons	
Carolina By-Products (Greensboro) ** INACTIVE **	16 Tons	
Hanson Brick - Pleasant Garden Plant #1	16.8 Tons	
Lorillard Tobacco Company	20.2 Tons	

**Table A12: Facilities in Guilford County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Guilford Mills - George Greenberg Plant ** INACTIVE **	40.7 Tons	
Cone Denim LLC - White Oak Plant	127.4 Tons	
Brayton International Inc		1.5 Tons (2002)
Jefferson-Pilot Life Insurance Company **Inactive**		0 Tons (1999)
Wysong & Miles Machinery ** INACTIVE **		0 Tons (1999)
Bolection Door, A Division of Marshfield DoorSystems, Inc.		0 Tons (1999)
Snyder Paper Corporation - Synder Cushion of High Point		0 Tons (2002)
Smurfit-Stone Container Enterprises, Inc.		0 Tons (1999)
Patrician Furniture, Inc. d/b/a Patrician Furniture Company		0 Tons (2002)
Oldcastle Precast, Inc.		0.1 Tons (2003)
Chemcentral Atlantic Corporation		0.1 Tons (2003)
Guilford Mills, Inc. - Hornaday Plant ** INACTIVE **		0.1 Tons (2003)
First Line Activewear Inc **Inactive**		0.1 Tons (1996)
Davis Furniture Industries, Inc. - Plant 2		0.1 Tons (2003)
Leggett & Platt, Inc.		0.1 Tons (2003)
Associated Asphalt Greensboro, Inc.		0.2 Tons (1999)
DaimlerChrysler Commercial Buses North Carolina, LLC		0.2 Tons (2003)
High Point Fibers, Inc.		0.2 Tons (2002)
Swaim Metals, Inc.		0.3 Tons (2003)
RMC Mid Atlantic, LLC d/b/a RMC Metromont Materials		0.3 Tons (2002)
Drexel Heritage Furnishings Inc		0.3 Tons (2002)
United Metal Finishing Inc		0.3 Tons (2002)
Carpenter Co.		0.4 Tons (2002)
Dow Corning Corporation		0.4 Tons (1999)
Future Foam, Inc.		0.4 Tons (2002)
Jefferson-Pilot Life Insurance Company		0.4 Tons (2003)
Metal Creations Inc		0.4 Tons (2002)
Greensboro News & Record, Inc.		0.5 Tons (2002)
Degussa Corporation		0.5 Tons (1999)
High Point Furniture Industries, Inc.		0.5 Tons (2003)
Mannington Mills, Inc. dba Mannington Laminate Floors		0.5 Tons (2003)
Prochem Chemicals Inc		0.6 Tons (1999)
Banner Pharmacaps, Inc. a subsidiary of Sobel USA		0.7 Tons (1999)
Haworth Myrtle & Muller **INACTIVE**		0.7 Tons (1996)
HM Real Estate Co. No. 1 dba Woodmark Originals, Inc.		0.8 Tons (2003)
Bush Industries, Inc. d/b/a The Color Works, Inc.		0.8 Tons (2003)
RF Micro Devices, Inc. - Fab. 2		0.9 Tons (2002)
Goria Enterprises, Inc.		1 Ton (1999)
Thomasville - Dexel Incorporated		1 Ton (1999)
Oakdale Cotton Mills, Inc.		1 Ton (1999)
Thomasville - Dexel Incorporated ** INACTIVE **		1 Ton (1999)
Leggett & Platt Inc - Guilford Fibers ** INACTIVE **		1 Ton (1999)
City of Greensboro - N Buffalo WWTP		1 Ton (1999)



**Table A12: Facilities in Guilford County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Brenntag Southeast, Inc.		1 Ton (1999)
Royal Carolina Corporation		1 Ton (1999)
Ritch Face Veneer Company & Faces South, Inc.		1 Ton (1999)
Magellan Terminals Holdings, L.P.		1 Ton (1999)
Haworth, Inc. - Haworth Wood Seating		1.1 Tons (1999)
Henredon Furniture Industries, Inc. - Ward Plant		1.2 Tons (2003)
City of Greensboro - Kenneth Lift Station		1.3 Tons (2003)
North Carolina Agricultural and Technical State University		1.5 Tons (1999)
Henredon Furniture Industries, Inc. - Brevard Plant		1.6 Tons (2003)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #15		1.7 Tons (2003)
Piedmont Chemical Industries I, LLC		1.7 Tons (1999)
Harvin Reaction Technology, Inc.		1.7 Tons (2002)
Tyco Electronics Corporation		1.9 Tons (1999)
RF Micro Devices, Inc. - FAB 1, FAB 3 and Packaging		1.9 Tons (2002)
Piedmont Hardwood Dry Kiln Company		2 Tons (1999)
Claude Gable Company Inc		2 Tons (1999)
Lin Pac Corrugated Inc		2 Tons (1999)
Highland Containers, Inc.		2 Tons (1999)
Guilford Mills - Friendship Facility		2 Tons (1999)
Guilford College - Main Campus		2.1 Tons (2002)
Shionogi Qualicaps Inc		2.5 Tons (2002)
Santaro Manufacturing Company Inc**INACTIVE**		2.6 Tons (1999)
Carolina Container Company		2.8 Tons (2003)
Mannington Mills, Inc. - Mannington Wood Floors Company		2.8 Tons (2003)
OMNOVA Solutions Inc ** INACTIVE **		2.8 Tons (1999)
Chemol Inc		2.9 Tons (1999)
Culp Inc - Ticking		3 Tons (1999)
Syngenta Crop Protection Inc		3.4 Tons (1999)
Motiva Enterprises LLC - Greensboro		3.4 Tons (2003)
TransMontaigne Product Services, Inc.		3.7 Tons (2002)
Cascade Die Casting Group, Inc. - Atlantic Division		3.8 Tons (2003)
Gilbarco, Inc.		4 Tons (1999)
Fiber Dynamics, Inc.		4 Tons (2002)
City of High Point - Eastside Wastewater Treatment Plant		4.1 Tons (2003)
Pine Needle LNG Company LLC		4.9 Tons (1999)
Slane Hosiery Mills Inc		5.1 Tons (1999)
International Aggregate, Inc. ** INACTIVE **		6 Tons (1999)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #10		6.1 Tons (1999)
Nello L. Teer Company		6.3 Tons (1999)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #11		6.5 Tons (2003)
Procter & Gamble Manufacturing Company		6.5 Tons (1999)
Blythe Construction, Inc - Plant #1		8.1 Tons (2003)
The Moses H Cone Memorial Hospital		8.8 Tons (2002)

**Table A12: Facilities in Guilford County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
CDR Holdings, L.L.C. dba Charles D. Roberts Company		9.9 Tons (2003)
Kao Specialties Americas, LLC		10.4 Tons (1999)
Elastic Fabrics of America		12.4 Tons (1999)
Guilford Mills - Maurice Fishman Plt <b>**INACTIVE**</b>		13.8 Tons (1999)
Precision Fabrics Group Inc		16 Tons (1999)
The Procter & Gamble Manufacturing Company - Brown Summit		25.1 Tons (1999)
Hayworth Roll & Panel Company Inc		30.3 Tons (1999)
Morflex Chemical Company Inc		47.6 Tons (2003)
<b>Total Reported Emissions</b>	<b>337.79</b>	
<b>Total Assumed Emissions</b>		<b>319.7</b>
<b>Grand Total</b>		<b>657.5</b>

**Table A13: Facilities in Haywood County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Lea Industries Incorporated <b>** INACTIVE **</b>	37.6 Tons	
Blue Ridge Paper Products - Canton Mill	4,694.9 Tons	
Waynesville Waste Water Treatment Plant		0.2 Tons (1999)
Airboss Rubber Compounding Inc.		0.2 Tons (1999)
Oaks Unlimited - Division of Fiber Fuels Inc		1 Tons (1999)
APAC-Tennessee Harrison Construction - Waynesville Asphalt		1.5 Tons (1999)
Giles Chemical		1.6 Tons (1999)
Blue Ridge Paper Products - Waynesville		5.1 Tons (1999)
<b>Total Reported Emissions</b>	<b>4732.5</b>	
<b>Total Assumed Emissions</b>		<b>9.6</b>
<b>Grand Total</b>		<b>4742.1</b>

**Table A14: Facilities in Stokes County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
KobeWieland Copper Products, LLC	3 Tons	
Charah Environmental, Inc. <b>** INACTIVE **</b>	9 Tons	
Duke Energy Corp - Belews Creek Steam Station	32,500 Tons	
Bill Hanks Lumber Company		0.2 Tons (2002)
JPS Elastomerics Corporation		0.9 Tons (2003)
<b>Total Reported Emissions</b>	<b>32,512.0</b>	
<b>Total Assumed Emissions</b>		<b>1.1</b>
<b>Grand Total</b>		<b>32,513.1</b>

**Table A15: Facilities in Surry County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Barnhardt Manufacturing Company	3.7 Tons	
Bassett Furniture, Inc.	29 Tons	
Vaughan-Bassett Furn Co - Elkin Furniture	34.4 Tons	
Interface Fabrics Group South, Inc.	78 Tons	
Weyerhaeuser Company - Elkin Plant	98 Tons	
RMC Mid-Atlantic, LLC - DBA- RMC Metromont Materials		0 Tons (2003)
Wayne Farms- Elkin		0.1 Tons (1999)
The North Carolina Granite Corporation		0.1 Tons (2002)
Henredon Furniture Industries, Inc.		0.1 Tons (2003)
Rack Works Inc <b>**INACTIVE**</b>		0.4 Tons (1996)
Kentucky Derby Hosiery Co., Inc.		0.6 Tons (2002)
Surry Community College		1 Ton (1999)
Perdue Farms Incorporated		1 Ton (1999)
LS Starrett Company		1 Ton (1999)
Hamlin Casting Corp.		1 Ton (2002)
Wayne Farms, LLC		1.6 Tons (2003)
Brown Wooten Mills Inc-1546 Carter St <b>**INACTIVE**</b>		3 Tons (1999)
Candle Corporation of America		3.1 Tons (2002)
Spencers Inc Plant No 4		5.2 Tons (1999)
APAC-Atlantic, Inc. - Thompson Arthur Divisio <b>** INACTIVE **</b>		5.5 Tons (2003)
Intex Corporation <b>** INACTIVE **</b>		6 Tons (1999)
Sara Lee Sock Company		6.7 Tons (2002)
Carl Rose & Sons, Inc. - Elkin Asphalt Plant		7.6 Tons (2002)
Hamilton Beach/Proctor-Silex Inc <b>**INACTIVE**</b>		8.8 Tons (1999)
Pine State Knitwear Company Inc <b>** INACTIVE **</b>		11.3 Tons (1999)
Wayne Farms LLC		11.5 Tons (2002)
Spencers Inc Plant No 1		11.8 Tons (1999)
Renfro Corporation		15 Tons (1999)
Cross Creek Apparel, LLC		31 Tons (1999)
City of Mount Airy WWTP		99 Tons (1999)
<b>Total Reported Emissions</b>	<b>243.1</b>	
<b>Total Assumed Emissions</b>		<b>232.39</b>
<b>Grand Total</b>		<b>475.5</b>

**Table A16: Facilities in Randolph County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Vitafoam Inc	0.3 Tons	
DAR/RAN Furniture Industries	0.5 Tons	
Prestige Fabricators Inc - Foam Plant	0.8 Tons	
Confluence Holding Corp.	1.9 Tons	
Oliver Rubber Company	2.8 Tons	
Component Fabricators, Inc.	10.8 Tons	
City of Asheboro Lake Lucas PS	99 Tons	
Jowat Corporation		0 Tons (2002)
The P. & P. Chair Company		0.1 Tons (2002)

**Table A16: Facilities in Randolph County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Swaim, Inc. - Wagner Division		0.1 Tons (2003)
Carolina Business Furniture LLC		0.1 Tons (2003)
Carolina Custom Finishing, LLC		0.1 Tons (2002)
Miller Desk, Inc. - South Road Plant		0.2 Tons (2003)
Matlab, Inc. - Ramseur Plant		0.2 Tons (2003)
Liberty Veneer Company Inc <b>**INACTIVE**</b>		0.2 Tons (1996)
Ultracraft Company, Division of Norcraft Holdings, LP		0.2 Tons (1999)
Sapona Manufacturing Company Inc		0.3 Tons (2002)
Collier-Keyworth, Inc.		0.5 Tons (2002)
Riley Paving, Inc. - Liberty Plant		0.6 Tons (1999)
Household Products Inc <b>**INACTIVE**</b>		0.6 Tons (1998)
Matlab, Inc. - Plants 1-4, 5, 7, 8 and 11		0.9 Tons (2002)
Moll Industries, Inc., Mid-State Plastics Division		0.9 Tons (2003)
Miller Office Seating		1 Tons (1999)
Miller Desk Finishing <b>**INACTIVE**</b>		1 Tons (1999)
Elkhart Industries, LLC <b>**INACTIVE**</b>		1 Tons (1999)
Georgia - Pacific Corp Asheboro Plant		1 Tons (1999)
Commonwealth Hosiery Mills Inc		1.6 Tons (2002)
Gold Kist Inc		2 Tons (1999)
APAC-Atlantic, Inc., Thompson Arthur Division - Plant #6		2.2 Tons (2002)
Acme McCrary Corp Pritchard St Plant		2.3 Tons (1999)
Acme McCrary Corp North St Finishing Plt		2.5 Tons (1999)
Kayser-Roth Balfour Division		2.8 Tons (1999)
Liberty Lumber Company		3 Tons (1999)
Quality Veneer Company		3.1 Tons (2002)
Bossong Hosiery Mills Inc		3.2 Tons (1999)
Hardin's Wholesale Florist, Inc.		3.3 Tons (1999)
Energizer Battery Manufacturing, Inc.		3.5 Tons (1999)
Galey & Lord Industries Inc <b>** INACTIVE **</b>		3.6 Tons (1999)
Arrow International Inc		4.2 Tons (1999)
North Carolina Zoological Park <b>** INACTIVE **</b>		4.4 Tons (2002)
Nylon Dye Works, LLC.		5.1 Tons (1999)
Gilbert Hardwood Centers Inc		7 Tons (1999)
The Goodyear Tire & Rubber Company		7.7 Tons (1999)
APAC-Atlantic, Inc. - Thompson-Arthur Div. - Plant # 9		8.5 Tons (1999)
Ramtex Inc		8.7 Tons (1999)
Starpet, Inc.		9.5 Tons (2003)
Sara Lee Corporation, Underwear Division <b>** INACTIVE **</b>		11.5 Tons (2003)
Seagroves Foods, Inc. <b>** INACTIVE **</b>		16.4 Tons (1999)
Deep River Dyeing Company Inc		20.9 Tons (1999)
City of Asheboro Brown WTP		99.9 Tons (1999)
<b>Total Reported Emissions</b>	<b>116.1</b>	
<b>Total Assumed Emissions</b>		<b>245.9</b>
<b>Grand Total</b>		<b>362.0</b>

**Table A17: Facilities in Rockingham County Reporting NOx for Calendar Year 2000**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
The Southern Finishing Company, Inc.- Plant 10	1 Ton	
NPC, Inc. - 770 East #1	2.7 Tons	
Morehead Memorial Hospital ** INACTIVE **	4.3 Tons	
Ball Metal Beverage Container Corp	6.4 Tons	
Mohawk Carpet Corp Karastan Rug Mill	6.5 Tons	
Loparex, Inc.	7.3 Tons	
Metzeler Automotive Profile Systems North Carolina Inc	7.4 Tons	
Rockingham Power LLC	35 Tons	
Trigen Biopower Inc - Eden	70.7 Tons	
Pine Hall Brick Company Incorporated	82.9 Tons	
Miller Brewing Company - Eden Plant	540.6 Tons	
Duke Energy Corp - Dan River Steam Station	2,500 Tons	
Transcontinental Gas Pipeline Corp	5,900.3 Tons	
Southern Finishing Company Inc - Plant 7 **INACTIVE**		0.2 Tons (1999)
Fieldcrest Cannon Blanket Manufacturing ** INACTIVE **		0.2 Tons (2003)
Ensley Corporation **INACTIVE**		0.4 Tons (1996)
AMI Doduco (NC), Inc.		0.8 Tons (1999)
New Filcas of America Inc		1 Ton (1999)
Beacon Manuf **Inactive**		1.3 Tons (1996)
Glen Raven Inc Springwood Fabrics Plant ** INACTIVE **		2 Tons (1999)
APAC-Atlantic, Inc. - Thompson-Arthur Division - Plant #7		2.9 Tons (1999)
Pillowtex / Hollingsworth GP		3.1 Tons (2002)
Stoneville Furniture Company Inc ** INACTIVE **		4.6 Tons (1999)
Commonwealth Brands, Inc		5.8 Tons (2002)
Unifi, Inc. - Plant 15		8 Tons (2003)
Unifi Manufacturing, Inc. Dyeing Business Unit - Plant 2		8.6 Tons (2003)
The Equity Group, Inc. - NC Division		10.5 Tons (2002)
<b>Total Reported Emissions</b>	<b>9,165.1</b>	
<b>Total Assumed Emissions</b>		<b>49.4</b>
<b>Grand Total</b>		<b>9,214.5</b>

# Appendix B

## Facility-Specific NO<sub>x</sub> Emissions Inventory Data Calendar Year 2003

Note 1: The tables that follow are in **alphabetical order by county name**

Note 2: The following data are emissions from permitted point sources only, as reported by the facility to the North Carolina Department of Environment and Natural Resources, Division of Air Quality (NCDAQ) and reviewed by NCDAQ staff during the calendar year following the year emitted. With the exception of 1999, when all permitted facilities were required to report their NO<sub>x</sub> emissions, only larger facilities with Title V permits are required to report emissions annually. Therefore, the tables that follow show actual reported emissions for the selected year as well as “assumed” emissions for facilities that were not required to report in that year. The “assumed” emissions were taken from the latest year the source was required to report NO<sub>x</sub> emissions (year reported is in parentheses).

**Table B1: Facilities in Alamance County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
City of Burlington - South Burlington WWTP	0.1 Tons	
City of Graham Wastewater Treatment Plant	0.2 Tons	
NovaFlex Hose Inc.	1.1 Tons	
Riley Paving, Inc.	2.4 Tons	
Liggett Group - Alamance	2.9 Tons	
A.O. Smith Corporation	3 Tons	
Culp, Inc. - Culp Finishing	6.9 Tons	
Alexander Fabrics, LLLP	7.2 Tons	
Stericycle, Inc.	23.1 Tons	
New South Inc	47.9 Tons	
Burlington Industries LLC -BHF & Pioneer Plant	48.9 Tons	
Flynt Fabrics Inc ** INACTIVE **		0 Tons (1999)
City of Burlington - East Burlington WWTP		0.6 Tons (2002)
Glen Raven Mills Glen Touch Division ** INACTIVE **		1 Ton (1999)
Burlington Chemical Company Inc		1 Ton (1999)
Tower Mills Inc. ** INACTIVE **		1 Ton (1999)
Walter Kidde Portable Equipment Inc		1.7 Tons (1999)
Luxfer Gas Cylinders		2 Tons (1999)
Burlington Industries, LLC - Pioneer Plant ** INACTIVE **		3 Tons (1999)
Glen Raven Technical Fabrics, LLC		3 Tons (1999)
Cortina Fabrics, Inc.		3.2 Tons (2002)
Culp Weaving Inc		3.6 Tons (1999)
Braxton Sawmill, Inc.		3.7 Tons (2000)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #8		3.9 Tons (1999)
Craftique LLC		4 Tons (1999)
GKN Driveline - Alamance Facility		4.1 Tons (2002)
Kayser-Roth Corporation - Mens Finishing		4.4 Tons (1999)
Culp, Inc. -Upholstery Prints Division		5 Tons (1999)
Alamance Regional Medical Center, Inc.		5 Tons (1999)
Copland Industries, Inc.		13.1 Tons (2002)
A.M.P. Division of Central Paving Company, Inc.		25 Tons (2000)
National Spinning Co., Inc. - Alamance Co. Dyeing Operation		27 Tons (2000)
Carolina Finishing of North Carolina LLC - Elmira Street		49.8 Tons (2000)
Nello L. Teer Company		86.8 Tons (2000)
<b>Total Reported Emissions</b>	<b>143.7</b>	
<b>Total Assumed Emissions</b>		<b>251.89</b>
<b>Grand Total</b>		<b>395.6</b>



**Table B2: Facilities in Alexander County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Chase Coating & Laminating	0 Tons	
Shurtape Technologies Inc	0.4 Tons	
Century Furniture Industries Plant #9	0.4 Tons	
Mitchell Gold	0.6 Tons	
Daniels Woodcarving Company, Inc.		0 Tons (2002)
Piedmont Wood Products		0 Tons (2004)
Nu-Mode Manufacturing Company		0 Tons (2002)
Vintage Editions, Inc.		0.1 Tons (2002)
Clayton Marcus Plant No. 1		0.3 Tons (1999)
Hancock & Moore Plt 2		4 Tons (1999)
Brushy Mountain Enterprises		4.5 Tons (2002)
Schneider Mills Inc		6.2 Tons (1999)
<b>Total Reported Emissions</b>	<b>1.4</b>	
<b>Total Assumed Emissions</b>		<b>15.1</b>
<b>Grand Total</b>		<b>16.5</b>

**Table B3: Facilities in Buncombe County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Anvil Knitwear, Inc.	39.1 Tons	
APAC Enka	9.15 Tons	
APAC Grove Stone	4.25 Tons	
APAC Weaverville	13.9 Tons	
Asheville Area Alternative Funeral and Crematory	0.07 Tons	
Asheville Mortuary Services	0.3 Tons	
Asheville Velour, Inc. (formerly Girmes)	0.337 Tons	
BASF Enka	239 Tons	
Basofil Fibers, LLC	0.304 Tons	
BorgWarner Turbo Systems	11.0 Tons	
Buncombe Co. Landfill	3.2 Tons	
Colbond, Inc.	5.75 Tons	
Cremation Services of WNC	0.32 Tons	
Day International, Inc.	10.2 Tons	
Eaton Cutler – Hammer	0.566 Tons	
Forever Faithful Pet Memorial	0.22 Tons	
Interstate Custom Crushing	1.88 Tons	
Lustar	16.5 Tons	
Metropolitan Sewerage District	4.53 Tons	
Milkco, Inc.	2.53 Tons	
Mission St. Joseph's	17.5 Tons	
Morris Funeral Home	0.12 Tons	
Owen Manufacturing	9.5 Tons	
Pechiney Plastic Packaging, Inc.	9.55 Tons	
Progress Energy Carolinas (formerly CP&L)	4980 Tons	

**Table B3: Facilities in Buncombe County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Regional Water Authority (formerly Asheville Water Authority)	0.09 Tons	
Riverside Stump Dump	3.94 Tons	
Sensible Alternatives	0.03 Tons	
US Dept. of Veterans Affairs	5.07 Tons	
Western Animal Disease Diag (formerly Diagnostic Lab)	0.22 Tons	
<b>Total Reported Emissions</b>	<b>5,389.127</b>	
<b>Total Assumed Emissions</b>		<b>0</b>
<b>Grand Total</b>		<b>5,389.127</b>

**Table B4: Facilities in Burke County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
E J Victor Upholstery Division	0.1 Tons	
Lexington Furniture Plant 10	0.4 Tons	
E J Victor Inc	0.6 Tons	
Saft America Inc	0.7 Tons	
Basf Corp	0.9 Tons	
Molded Fiberglass Co/North Carolina	1.9 Tons	
Kohler Co., DBA Baker Furniture	2.8 Tons	
Leviton - Southern Devices Div	3.3 Tons	
Drexel Heritage Furniture Industries, Inc. Plt. 60	5.6 Tons	
Earthgrains Baking Companies Inc	7.3 Tons	
W M Cramer Lumber Co	10.7 Tons	
Broughton Hospital	15.6 Tons	
Drexel Heritage Furnishings, Inc. - Plant 43	15.7 Tons	
Carolina Mills Plt 9	18 Tons	
Burke Mills Inc	23.5 Tons	
SGL Carbon LLC	29.9 Tons	
Henredon Furniture Industries, Inc.	30.1 Tons	
Valdese Manufacturing Company	40.2 Tons	
RMC Mid-Atlantic, dba RMC Metromont Materials - Morganton		0 Tons (2002)
Robert Bergelin Company		0 Tons (2002)
SpartaCraft Inc		0 Tons (2000)
Ferguson Copeland, LLC d/b/a Ferguson Copeland Ltd Reep Driv		0.2 Tons (1999)
Synthron Inc		0.3 Tons (2002)
Packaging Corporation Of America		1 Ton (2002)
Boggs HMA, LLC - Plant 5		1 Ton (1999)
Valdese Textiles Inc		1 Ton (2002)
NC School for the Deaf		1.1 Tons (1999)
NC DOC Western Youth Institution		1.5 Tons (1999)
Burke Grading & Paving Inc - East Burke Asphalt		2 Tons (1999)
Case Farms of NC, Inc. - Rand St.		3.2 Tons (1999)

**Table B4: Facilities in Burke County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
WNC Dry Kiln, Inc		4 Tons (1999)
Valdese Weavers Inc Plant #1		5.8 Tons (1999)
Alba-Waldensian P&W Plt ** INACTIVE **		6.3 Tons (1999)
Borden Chemical Inc		7.5 Tons (2000)
Drexel Heritage Furn Industries Inc - Furn Plt ** INACTIVE **		8.7 Tons (2002)
Hickory Hill Furniture Corp		10.3 Tons (1999)
APAC-Atlantic, Inc. - Morganton Plant		11.3 Tons (1999)
<b>Total Reported Emissions</b>	<b>207.3</b>	
<b>Total Assumed Emissions</b>		<b>65.2</b>
<b>Grand Total</b>		<b>272.5</b>

**Table B5: Facilities in Caldwell County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
M & S Warehouse Inc	0.4 Tons	
Sealed Air Corp	0.6 Tons	
Shurtape Technologies Inc - Plt No 24	0.6 Tons	
Pactiv Corporation	1.4 Tons	
Kincaid Furn Plt 8 ** INACTIVE **	3.2 Tons	
Broyhill Miller Hill Complex	4 Tons	
Meridian Automotive Systems Inc	4.1 Tons	
Kincaid Furniture Company Plant No 5 ** INACTIVE **	4.1 Tons	
NEPTCO Inc	5 Tons	
Martin Marietta Materials Inc	5.7 Tons	
Fairfield Chair Plt 2	7.3 Tons	
Bernhardt Furn Plts 2 and 5	17.8 Tons	
Broyhill Harper Furniture Co	23.9 Tons	
Thomasville Furniture Industries Inc - Lenoir Plt	27.3 Tons	
Broyhill Virginia Street Complex	37.9 Tons	
Bernhardt Furn Plts 1 3 & 7	39.8 Tons	
Kincaid Furn Plt 1	54.3 Tons	
Trigen Biopower Inc - Lenoir	182.5 Tons	
J & M Woodworking Plt 2		0 Tons (2002)
McCreary Modern Inc - Frame Plant		0 Tons (2002)
ECMD Inc dba Crown Heritage		0.1 Tons (1999)
Schwarz & Schwarz Inc		0.2 Tons (1999)
Lenoir Mirror Plnts 1 & 3		0.7 Tons (1999)
Midstate Contractors Inc		2 Tons (1999)
Paxar Corporation - Printed Label Group		4.3 Tons (1999)
Omni Supply Inc		5 Tons (1999)
Mat NuWood LLC		5.7 Tons (1999)
Sealed Air Corp - Hudson		6.3 Tons (2002)
Fairfield Chair Plt 1		7.8 Tons (1999)

**Table B5: Facilities in Caldwell County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Granite Hardwoods Inc		9 Tons (1999)
Associated Hardwood Products, Inc.		17 Tons (1999)
<b>Total Reported Emissions</b>	<b>419.9</b>	
<b>Total Assumed Emissions</b>		<b>58.1</b>
<b>Grand Total</b>		<b>478.0</b>

**Table B6: Facilities in Catawba county reporting NOx(CAS: NOx) for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Null Industries Inc ** INACTIVE **	0 Tons	
Ramsey's Finishing, Inc.	0 Tons	
Cranford Woodcarving Finishing Plant No 3	0.1 Tons	
Sherrill Furniture Company, Inc., CTH-Sherrill Occasional	0.3 Tons	
Plastic Packaging Inc	0.3 Tons	
Claremont NA Cable, LLC	0.3 Tons	
Laneventure, Plant No. 14	0.4 Tons	
Hickory Springs Manufacturing - Conover Complex	0.4 Tons	
City of Newton - Casa Christina Site	0.8 Tons	
Synthetics Finishing Hickory	0.9 Tons	
Progressive Furniture Inc	1 Ton	
Joan Fabrics Corporation-Newton	1.1 Tons	
Midstate Contractors, Inc.	1.4 Tons	
Commscope Network Cable Division	1.6 Tons	
Carpenter Company Conover	1.6 Tons	
Synthetics Finishing Longview	2.1 Tons	
Frye Regional Medical Center	2.5 Tons	
City of Newton - Sarstedt Site	3.1 Tons	
Hooker Furniture Corporation ** INACTIVE **	3.1 Tons	
Ethan Allen Operations, Inc. Maiden Division	3.3 Tons	
City of Newton Inno - Therm Products Site	3.4 Tons	
City of Newton - Polymask Corp Site	3.5 Tons	
City of Newton - Moretz Inc. Site	3.6 Tons	
Inno-Therm Products LLC	3.6 Tons	
Hickory Chair Company, Plant 7	4.2 Tons	
Hickory Springs Manufacturing Company	5.5 Tons	
Blackburn Sanitary Landfill	6.9 Tons	
Century Furniture Industries, Inc., Plants #3 and #7	8.4 Tons	
Hickory Chair Company Plant #20 ** INACTIVE **	8.6 Tons	
Shurtape Technologies - Hickory/Highland Plt	10.2 Tons	
HWS Company Inc. dba Hickory White	12.1 Tons	
Broyhill Furniture Conover Plant ** INACTIVE **	12.2 Tons	
Century Furniture Industries Plant #1	16.4 Tons	
Duke Energy Corporation - Marshall Steam Station	20,397.7 Tons	
Carolina House Furniture Inc		0 Tons (2002)
Thomasville Furniture Industries, Inc., Upholstery Plant 5		0 Tons (2002)

**Table B6: Facilities in Catawba county reporting NOx(CAS: NOx) for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Carolina Glove Company, Plant #8		0 Tons (2002)
Carolina Solvents, Inc.		0.1 Tons (2002)
Century Furniture Industries, Plt 40 Technical Center		0.1 Tons (2002)
Vanguard Furniture Company, Inc., Plant No. 2		0.2 Tons (1999)
Synthetics Finishing Conover		0.2 Tons (2002)
Unifour Finishers, Inc., Division I		0.4 Tons (2002)
Appalachian Hardwood Flooring		0.4 Tons (2002)
Unifour Finishers, Inc., Division II		0.4 Tons (2002)
Special Metals Welding Products Company		0.5 Tons (2002)
Karolina Polymers, Inc. ** INACTIVE **		0.6 Tons (2002)
City of Hickory, Henry Fork WWTP ** INACTIVE **		0.6 Tons (2002)
Jackson Lea ** INACTIVE **		1 Tons (1999)
GKN Sinter Metals, Inc.		1 Tons (1999)
Chelsea House-Port Royal Inc		1 Tons (1999)
Newton Sanitary Landfill		1 Tons (2002)
Southern Furn Co of Conover Catawba Plt		1.5 Tons (2002)
Weyerhaeuser Company - Newton		2 Tons (1999)
Carolina Paving of Hickory Inc		2 Tons (1999)
Conover Lumber Co Inc		2 Tons (1999)
Thomasville Furniture Industries, Inc., Upholstery Plant 9		2 Tons (1999)
Midstate Mills Inc		2 Tons (1999)
Carolina Container Corporation		2.1 Tons (1999)
Tradewinds International, Inc.		2.7 Tons (2002)
Classic Leather Inc		2.9 Tons (1999)
Commscope Inc Catawba Plant		3.3 Tons (2000)
Bassett Upholstery Division		3.3 Tons (1999)
Southern Furniture Company of Conover, Inc., Plant No. 2		3.3 Tons (1999)
Terra-Mulch Products, LLC		4.8 Tons (1999)
Spectrum Textured Yarns Inc-Hickory Plant ** INACTIVE **		5 Tons (2000)
City of Newton, Clark Creek Wastewater Treatment Plant		6 Tons (1999)
C Nelson Sigmon Paving Inc		6 Tons (1999)
Southern Furn Co of Conover #1		10.1 Tons (1999)
APAC-Atlantic, Inc. - Hickory Plant		10.8 Tons (2002)
Delta Apparel, Inc.		17 Tons (1999)
<b>Total Reported Emissions</b>	<b>20520.6</b>	
<b>Total Assumed Emissions</b>		<b>96.29</b>
<b>Grand Total</b>		<b>20616.9</b>

**Table B7: Facilities in Cumberland County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Black & Decker (US) Inc.	0.8 Tons	
Cumberland Co - Ann Street Landfill	1 Tons	
Purolator Products Inc	5.9 Tons	
Pope Air Force Base	7.5 Tons	
Cape Fear Valley Med Center	8.4 Tons	

**Table B7: Facilities in Cumberland County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
APAC Atlantic, Inc - Shaw Plant	17.8 Tons	
Hexion Specialty Chemicals, Inc.	25.8 Tons	
DAK Resins, LLC	74.7 Tons	
Carolina By-Products Fayetteville Division	76.7 Tons	
HQ XVIII ABN Corps & Fort Bragg	91 Tons	
Public Works Commission Butler-Warner Generation Plant	113.3 Tons	
The Goodyear Tire & Rubber Company	157.6 Tons	
Cargill Inc - Fayetteville	219 Tons	
Rankin Brothers Company		2 Tons (1999)
National Linen Service		2 Tons (1999)
Veterans Affairs Medical Center - Fayetteville		3 Tons (1999)
Highland Paving Company, LLC		3.6 Tons (2004)
M J Soffe Co		6 Tons (1999)
Barnhill Contracting - Fayetteville Plant		8.9 Tons (2002)
DAK Resins Cedar Creek Site		10.6 Tons (2002)
Dupont Teijin Films		11.7 Tons (2001)
<b>Total Reported Emissions</b>	<b>799.5</b>	
<b>Total Assumed Emissions</b>		<b>47.8</b>
<b>Grand Total</b>		<b>847.3</b>

**Table B8: Facilities in Davidson County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Dell, Inc	0.1 Tons	
Tomlinson/Erwin-Lambeth, Inc.	0.1 Tons	
Exopack - Thomasville, LLC	0.1 Tons	
Green Printing and Packaging Company	0.1 Tons	
Kurz Transfer Products, LLC	0.5 Tons	
Thomasville Furniture Plant B ** INACTIVE **	0.6 Tons	
Celand Yarn Dyers Inc	1.8 Tons	
Stone Container Corporation d/b/a Smurfit-Stone Container	2.5 Tons	
T I Industries	3 Tons	
Hanes Construction Company	4.4 Tons	
Shaw Industries Group, Inc. - Plant LP	4.5 Tons	
Thomasville Furniture Plant D	4.6 Tons	
Kimberly Clark Corporation	6.4 Tons	
StrideMark, LLC	6.6 Tons	
Lexington Furniture Plant 12 ** INACTIVE **	6.8 Tons	
Lexington Furniture Inc., Plant 5	12.6 Tons	
Lexington Furniture Plant 1	14.4 Tons	
Stanley Furniture Company - Lexington Mfg	15.9 Tons	
Cunningham Brick Company Inc	16.7 Tons	
Thomasville Furniture Plant C/M/W/SB	17.8 Tons	
Pallet Resource of NC, Inc.	18.7 Tons	
Lexington Furniture Industries Plant 2	21.1 Tons	
Thomasville Furniture Plant A/X/V Face	22.3 Tons	

**Table B8: Facilities in Davidson County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
PPG Industries Fiber Glass Products, Inc.	88.4 Tons	
Owens-Brockway Glass Container Plt 6	576.6 Tons	
Transcontinental Gas Pipeline Corp	915.4 Tons	
Vitafoam Incorporated		0 Tons (2002)
Superior Wood Products, Inc.		0 Tons (2002)
Leggett & Platt, Incorporated - Metal Bed Rail		0.1 Ton (2002)
LKF Inc		0.1 Ton (2002)
Georgia - Pacific Resins Inc		0.2 Tons (1999)
Diebold Southeast Manufacturing, Inc.		0.2 Tons (1999)
Acme Face Veneer Company		0.2 Tons (2002)
Thomasville Veneer Company		0.5 Tons (2002)
Burlington Ind - Denton Plant ** INACTIVE **		0.6 Tons (1999)
Central Lumber Company, Inc.		0.6 Tons (2002)
Thomas Manufacturing Co Of Thomasville		0.6 Tons (2002)
Commercial Carving Company		1 Ton (1999)
Conner Carving and Turning Co Inc ** INACTIVE **		1 Ton (1999)
Hekman Furniture Company		1 Ton (1999)
Leonard Block Company		1 Ton (1999)
Santaro Construction Co **inactive**		1 Ton (1999)
Councill Company, LLC - Plant #3		1 Ton (1999)
RMC Mid-Atlantic, LLC - Thomasville Plant		1 Ton (1999)
Councill Company, LLC - Plant #2		1 Ton (1999)
Leggett & Platt - Metal Bed Rail		1 Ton (1999)
Southern Veneer Company, Inc.		1.2 Tons (2002)
Finch Industries Inc		1.8 Tons (1999)
The North Carolina Moulding Company		2 Tons (1999)
Davidson Water Inc		2 Tons (1999)
Councill Company, LLC - Plant #1		2.8 Tons (2002)
Duracell Global Business Management Group		3 Tons (1999)
Moll Industries, Inc. - Lexington Division		3 Tons (1999)
Dimension Milling Company, Inc.		7.3 Tons (2002)
NC Municipal Power Agency No. 1 Lexington, Plant No. 1		11.4 Tons (2000)
NC Municipal Power Agency No. 1- Lexington Plant No. 2		13.5 Tons (2000)
Thomasville Furniture Industries, Inc. - Plant SFD/SFLP		37.2 Tons (2000)
Thomasville Furniture Plant E/CDF/CDK/NV		42.5 Tons (2000)
<b>Total Reported Emissions</b>	<b>1,762.0</b>	
<b>Total Assumed Emissions</b>		<b>139.8</b>
<b>Grand Total</b>		<b>1,901.8</b>



**Table B9: Facilities in Davie County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Thomson Crown Wood Products Company ** INACTIVE **	8.3 Tons	
Kohler Co. - Baker Furniture		0.8 Tons (2002)
Funder America, Inc		12.7 Tons (2002)
Ingersoll - Rand Company		19 Tons (1999)
<b>Total Reported Emissions</b>	<b>8.3</b>	
<b>Total Assumed Emissions</b>		<b>32.5</b>
<b>Grand Total</b>		<b>40.8</b>

**Table B10: Facilities in Forsyth County Reporting NOx Emissions for Calendar Year 2003**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
Microfibres, Inc.	12.9 Tons	
Hanes Dye & Finishing	86.6 Tons	
R.J. Reynolds Tobacco Company (00339)	316 Tons	
Javic Properties, LLC	22.5 Tons	
Sara Lee Underwear	15.7 Tons	
R.J. Reynolds Tobacco Company (00405)	6.4 Tons	
Highland Industries, Inc.	10.3 Tons	
Hooker Furniture Corporation	0.3 Tons	
R.J. Reynolds Packaging Division (00465)	17.5 Tons	
R.J. Reynolds Packaging Division (00466)	7.9 Tons	
Rexam Beverage Can	10.4Tons	
Corn Products International, Inc.	501.4 Tons	
R.J. Reynolds Tobacco Company (00745)	972 Tons	
Sun Chemical Corp. – Specialty Inks	0.8 Tons	
Powerlab, Inc.	0.2 Tons	
Carolina Art and Frame	3.4 Tons	
Wake Forest University		0.9 Tons (2002)
NC Baptist Hospital		18.7 Tons (2002)
Sara Lee Hosiery		7.1 Tons (2002)
Kaba Ilco Corporation		2.7 Tons (2002)
Vogler & Son's Funeral Home		0.2 Tons (2002)
Taylor Brothers, Inc.		3.7 Tons (2002)
Johnson Controls, Inc.		4.8 Tons (2002)
APAC-Carolina, Inc. Thompson-Arthur Division		2.1 Tons (2002)
VF Jeanswear, Inc.		8 Tons (2002)
City of Winston-Salem – Archie Elledge WWTP		15.1 Tons (2002)
Salem Energy Systems, LLC		32.5 Tons (2002)
Piedmont Landfill & Recycling Cneter		1.7 Tons (2002)
Royster-Clark, Inc.		0.6 Tons (2001)
Advanced Turbine Components		17 Tons (2001)
Winston-Salem State University		4.5 Tons (2001)
Americraft Carton Group, Inc.		0.2 Tons (2001)
Cremation Services, Inc.		0.2 Tons (2001)
City of Winston-Salem Muddy Creek		17.1 Tons (2001)

**Table B10: Facilities in Forsyth County Reporting NOx Emissions for Calendar Year 2003**

Facility Name	Reported Amount (2000)	Additional Assumed Amount (year)
WWTP		
Central Carolina Pet Services, Inc.		0.1 Tons (2001)
Southern Tool Manufacturing Co.		0.2 Tons (2000)
Brady Furniture		1.3 Tons (2000)
Transflo Terminal Services, Inc.		3.3 Tons (2000)
The Encore Group Inc. DBA Xpres		2.3 Tons (2000)
Cloverleaf Mixing, Inc.		2.4 Tons (2000)
Winston Weaver Company, Inc.		1.1 Tons (1999)
Forsyth Technical Community College		0.1 Tons (1999)
Douglas Battery Manufacturing Co.		3.7 Tons (1999)
RMC Carolina Materials, Inc.		0.2 Tons (1999)
Jefferson Smurfit Container Corp. of America		3.5 Tons (1999)
Larco Construction		2.5 Tons (1999)
Winston Tower Main, LLC		0.4 Tons (1999)
Forsyth Memorial Hospital		5.3 Tons (1999)
Sonoco Corfflex		3.4 Tons (1999)
APAC – Carolina, Inc. Thompson-Arthur Division (00770)		1.4 Tons (1999)
Corilam Fabricating Company		0.2 Tons (1999)
Deere-Hitachi Construction Machinery		1.1 Tons (1999)
Unifirst		2.8 Tons (1999)
Bepco, Inc.		0.3 Tons (1999)
Wilson-Cook Medical, Inc.		0.1 Tons (1999)
APAC Atlantic, Inc. Thompson Arthur Division (00909)		3.9 Tons (1999)
<b>Total Reported Emissions</b>	<b>1984.3</b>	
<b>Total Assumed Emissions</b>		<b>176.7</b>
<b>Grand Total</b>		<b>2161.0</b>

**Table B11: Facilities in Guilford County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Banknote Corporation of America, Inc.	0 Tons	
Oldcastle Precast, Inc.	0.1 Tons	
Chemcentral Atlantic Corporation	0.1 Tons	
Guilford Mills, Inc. - Hornaday Plant ** INACTIVE **	0.1 Tons	
Davis Furniture Industries, Inc. - Plant 2	0.1 Tons	
Leggett & Platt, Inc.	0.1 Tons	
Shamrock Corporation Tipping Division	0.1 Tons	
Custom Finishers Inc	0.1 Tons	
DaimlerChrysler Commercial Buses North Carolina, LLC	0.2 Tons	
Shamrock Corp - Bruce St	0.2 Tons	
Miller Desk Inc	0.2 Tons	
Swaim Metals, Inc.	0.3 Tons	
The Sherwin - Williams Company - Stagecoach Trail	0.3 Tons	

**Table B11: Facilities in Guilford County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Greensboro Flexible Packaging LLC dba North State Flexibles	0.3 Tons	
Mickey Truck Bodies Inc	0.4 Tons	
Jefferson-Pilot Life Insurance Company	0.4 Tons	
High Point Furniture Industries, Inc.	0.5 Tons	
Mannington Mills, Inc. dba Mannington Laminate Floors	0.5 Tons	
Engineered Polymer Solutions Inc d.b.a. Valspar Coatings	0.7 Tons	
Engineered Polymer Solutions, Inc. dba Valspar Coatings	0.8 Tons	
HM Real Estate Co. No. 1 dba Woodmark Originals, Inc.	0.8 Tons	
City of Greensboro - White Street Landfill	0.8 Tons	
Bush Industries, Inc. d/b/a The Color Works, Inc.	0.8 Tons	
The Sherwin - Williams Co, Consumer Group	0.9 Tons	
Thomas Built Buses - Fairfield Road	1 Ton	
Henredon Furniture Industries, Inc. - Ward Plant	1.2 Tons	
City of Greensboro - Kenneth Lift Station	1.3 Tons	
Henredon Furniture Industries, Inc. - Brevard Plant	1.6 Tons	
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #15	1.7 Tons	
Carolina Container Company	2.8 Tons	
Mannington Mills, Inc. - Mannington Wood Floors Company	2.8 Tons	
Flowers Baking Company of Jamestown, Inc.	2.9 Tons	
Colonial Pipeline Company	2.9 Tons	
Motiva Enterprises LLC - Greensboro	3.4 Tons	
Cascade Die Casting Group, Inc. - Atlantic Division	3.8 Tons	
Thomas Built Buses - Courtesy Road	4.1 Tons	
City of High Point - Eastside Wastewater Treatment Plant	4.1 Tons	
High Point Regional Health System	5 Tons	
Hooker Furniture Corporation	5.2 Tons	
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #11	6.5 Tons	
Blythe Construction, Inc - Plant #1	8.1 Tons	
Resco Products Inc	8.3 Tons	
CDR Holdings, L.L.C. dba Charles D. Roberts Company	9.9 Tons	
Konica Minolta Manufacturing USA Inc	12.7 Tons	
Hanson Brick - Pleasant Garden Plant #1	13.5 Tons	
Marsh Furniture Company	19.8 Tons	
Lorillard Tobacco Company	41.7 Tons	
Morflex Chemical Company Inc	47.6 Tons	
Cone Denim LLC - White Oak Plant	73.8 Tons	
Brayton International Inc		1.5 Tons (2002)
Lane Furniture Industries Inc. Royal Development Co Division		0 Tons (2002)
Wysong & Miles Machinery ** INACTIVE **		0 Tons (1999)
Madison Hill Funeral Service & Cremation Center		0 Tons (2000)
Bolection Door, A Division of Marshfield DoorSystems, Inc.		0 Tons (1999)
Snyder Paper Corporation - Synder Cushion of High Point		0 Tons (2002)
Smurfit-Stone Container Enterprises, Inc.		0 Tons (1999)
Patrician Furniture, Inc. d/b/a Patrician Furniture Company		0 Tons (2002)
Associated Asphalt Greensboro, Inc.		0.2 Tons (1999)

**Table B11: Facilities in Guilford County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
High Point Fibers, Inc.		0.2 Tons (2002)
RMC Mid Atlantic, LLC d/b/a RMC Metromont Materials		0.3 Tons (2002)
Drexel Heritage Furnishings Inc		0.3 Tons (2002)
United Metal Finishing Inc		0.3 Tons (2002)
Carpenter Co.		0.4 Tons (2002)
Future Foam, Inc.		0.4 Tons (2002)
Metal Creations Inc		0.4 Tons (2002)
Shamrock Corporation - Chimney Rock Printing		0.5 Tons (2000)
Greensboro News & Record, Inc.		0.5 Tons (2002)
Degussa Corporation		0.5 Tons (1999)
Prochem Chemicals Inc		0.6 Tons (1999)
Banner Pharmacaps, Inc. a subsidiary of Sobel USA		0.7 Tons (1999)
Akzo Nobel Coatings Inc		0.9 Tons (2000)
RF Micro Devices, Inc. - Fab. 2		0.9 Tons (2002)
Goria Enterprises, Inc.		1 Ton (1999)
Magellan Terminals Holdings, L.P.		1 Ton (1999)
Ritch Face Veneer Company & Faces South, Inc.		1 Ton (1999)
Thomasville - Dexel Incorporated		1 Ton (1999)
City of Greensboro - N Buffalo WWTP		1 Ton (1999)
Brenntag Southeast, Inc.		1 Ton (1999)
Royal Carolina Corporation		1 Ton (1999)
Haworth, Inc. - Haworth Wood Seating		1.1 Tons (1999)
Vitafoam Inc - Pleasant Garden		1.2 Tons (2001)
North Carolina Agricultural and Technical State University		1.5 Tons (1999)
Piedmont Chemical Industries I, LLC		1.7 Tons (1999)
Harvin Reaction Technology, Inc.		1.7 Tons (2002)
Tyco Electronics Corporation		1.9 Tons (1999)
RF Micro Devices, Inc. - FAB 1, FAB 3 and Packaging		1.9 Tons (2002)
Piedmont Hardwood Dry Kiln Company		2 Tons (1999)
Lin Pac Corrugated Inc		2 Tons (1999)
Claude Gable Company Inc		2 Tons (1999)
Highland Containers, Inc.		2 Tons (1999)
Guilford Mills - Friendship Facility		2 Tons (1999)
Guilford College - Main Campus		2.1 Tons (2002)
Shionogi Qualicaps Inc		2.5 Tons (2002)
Unitex Chemical Corporation		2.6 Tons (2002)
Santaro Manufacturing Company Inc**INACTIVE**		2.6 Tons (1999)
Chemol Inc		2.9 Tons (1999)
Culp Inc - Ticking		3 Tons (1999)
Syngenta Crop Protection Inc		3.4 Tons (1999)
TransMontaigne Product Services, Inc.		3.7 Tons (2002)
Gilbarco, Inc.		4 Tons (1999)
Fiber Dynamics, Inc.		4 Tons (2002)

**Table B11: Facilities in Guilford County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Pine Needle LNG Company LLC		4.9 Tons (1999)
Slane Hosiery Mills Inc		5.1 Tons (1999)
International Aggregate, Inc. ** INACTIVE **		6 Tons (1999)
APAC-Atlantic, Inc. - Thompson Arthur Division - Plant #10		6.1 Tons (1999)
Nello L. Teer Company		6.3 Tons (1999)
Procter & Gamble Manufacturing Company		6.5 Tons (1999)
The Moses H Cone Memorial Hospital		8.8 Tons (2002)
Kao Specialties Americas, LLC		10.4 Tons (1999)
NC Municipal Power Agency No. 1 - High Point Plant 1		11.4 Tons (2000)
NC Municipal Power Agency No. 1 - High Point Plant 2		11.4 Tons (2000)
Elastic Fabrics of America		12.4 Tons (1999)
The University of North Carolina at Greensboro - Physical pl		12.8 Tons (2000)
Precision Fabrics Group Inc		16 Tons (1999)
City of Greensboro - Thomas Z. Osborne POTW		19.5 Tons (2002)
The Procter & Gamble Manufacturing Company - Brown Summit		25.1 Tons (1999)
Hayworth Roll & Panel Company Inc		30.3 Tons (1999)
<b>Total Reported Emissions</b>	<b>294.5</b>	
<b>Total Assumed Emissions</b>		<b>260.4</b>
<b>Grand Total</b>		<b>554.9</b>

**Table B12: Facilities in Haywood County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Blue Ridge Paper Products - Canton Mill	5,358.4 Tons	
Waynesville Waste Water Treatment Plant		0.2 Tons (1999)
Airboss Rubber Compounding Inc.		0.2 Tons (1999)
Oaks Unlimited - Division of Fiber Fuels Inc		1 Tons (1999)
APAC-Tennessee Harrison Construction - Waynesville Asphalt		1.5 Tons (1999)
Giles Chemical		1.6 Tons (1999)
Blue Ridge Paper Products - Waynesville		5.1 Tons (1999)
<b>Total Reported Emissions</b>	<b>5358.4</b>	
<b>Total Assumed Emissions</b>		<b>9.6</b>
<b>Grand Total</b>		<b>5368.0</b>

**Table B13: Facilities in Stokes County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
JPS Elastomerics Corporation	0.9 Tons	
KobeWieland Copper Products, LLC	3.1 Tons	
Duke Energy Corp - Belews Creek Steam Station	26,861.2 Tons	
Bill Hanks Lumber Company		0.2 Tons (2002)
Charah Environmental, Inc. ** INACTIVE **		9 Tons (2000)
<b>Total Reported Emissions</b>	<b>26,865.2</b>	
<b>Total Assumed Emissions</b>		<b>9.2</b>
<b>Grand Total</b>		<b>26,874.4</b>

**Table B14: Facilities in Surry County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
RMC Mid-Atlantic, LLC - DBA- RMC Metromont Materials	0 Tons	
Henredon Furniture Industries, Inc.	0.1 Tons	
Wayne Farms, LLC	1.6 Tons	
APAC-Atlantic, Inc. - Thompson Arthur Divisio ** INACTIVE **	5.5 Tons	
Bassett Furniture, Inc.	30.3 Tons	
Vaughan-Bassett Furn Co - Elkin Furniture	32.7 Tons	
Weyerhaeuser Company - Elkin Plant	41 Tons	
Interface Fabrics Group South, Inc.	98.2 Tons	
Wayne Farms- Elkin		0.1 Tons (1999)
The North Carolina Granite Corporation		0.1 Tons (2002)
Kentucky Derby Hosiery Co., Inc.		0.6 Tons (2002)
Surry Community College		1 Ton (1999)
Perdue Farms Incorporated		1 Ton (1999)
LS Starrett Company		1 Ton (1999)
Hamlin Casting Corp.		1 Ton (2002)
Candle Corporation of America		3.1 Tons (2002)
Barnhardt Manufacturing Company		3.7 Tons (2000)
Spencers Inc Plant No 4		5.2 Tons (1999)
Intex Corporation ** INACTIVE **		6 Tons (1999)
Sara Lee Sock Company		6.7 Tons (2002)
Carl Rose & Sons, Inc. - Elkin Asphalt Plant		7.6 Tons (2002)
Pine State Knitwear Company Inc ** INACTIVE **		11.3 Tons (1999)
Wayne Farms LLC		11.5 Tons (2002)
Spencers Inc Plant No 1		11.8 Tons (1999)
Renfro Corporation		15 Tons (1999)
Cross Creek Apparel, LLC		31 Tons (1999)
City of Mount Airy WWTP		99 Tons (1999)
<b>Total Reported Emissions</b>	<b>209.4</b>	
<b>Total Assumed Emissions</b>		<b>216.7</b>
<b>Grand Total</b>		<b>426.1</b>

**Table B15: Facilities in Randolph County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Swaim, Inc. - Wagner Division	0.1 Tons	
Carolina Business Furniture LLC	0.1 Tons	
Miller Desk, Inc. - South Road Plant	0.2 Tons	
Matlab, Inc. - Ramseur Plant	0.2 Tons	
DAR/RAN Furniture Industries	0.5 Tons	
Moll Industries, Inc., Mid-State Plastics Division	0.9 Tons	
B & H Panel Company	2.2 Tons	
Oliver Rubber Company	2.7 Tons	
Starpet, Inc.	9.5 Tons	
Sara Lee Corporation, Underwear Division ** INACTIVE **	11.5 Tons	
Jowat Corporation		0 Tons (2002)
The P. & P. Chair Company		0.1 Tons (2002)

**Table B15: Facilities in Randolph County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Carolina Custom Finishing, LLC		0.1 Tons (2002)
Ultracraft Company, Division of Norcraft Holdings, LP		0.2 Tons (1999)
Vitafoam Inc		0.3 Tons (2000)
Sapona Manufacturing Company Inc		0.3 Tons (2002)
Collier-Keyworth, Inc.		0.5 Tons (2002)
Riley Paving, Inc. - Liberty Plant		0.6 Tons (1999)
Prestige Fabricators Inc - Foam Plant		0.6 Tons (2001)
Matlab, Inc. - Plants 1-4, 5, 7, 8 and 11		0.9 Tons (2002)
Miller Office Seating		1 Ton (1999)
Elkhart Industries, LLC **INACTIVE**		1 Ton (1999)
Georgia - Pacific Corp Asheboro Plant		1 Ton (1999)
Commonwealth Hosiery Mills Inc		1.6 Tons (2002)
Confluence Holding Corp.		1.9 Tons (2000)
Gold Kist Inc		2 Tons (1999)
APAC-Atlantic, Inc., Thompson Arthur Division - Plant #6		2.2 Tons (2002)
Acme McCrary Corp Pritchard St Plant		2.3 Tons (1999)
Acme McCrary Corp North St Finishing Plt		2.5 Tons (1999)
Kayser-Roth Balfour Division		2.8 Tons (1999)
Liberty Lumber Company		3 Tons (1999)
Quality Veneer Company		3.1 Tons (2002)
Bossong Hosiery Mills Inc		3.2 Tons (1999)
Hardin's Wholesale Florist, Inc.		3.3 Tons (1999)
Energizer Battery Manufacturing, Inc.		3.5 Tons (1999)
Arrow International Inc		4.2 Tons (1999)
North Carolina Zoological Park ** INACTIVE **		4.4 Tons (2002)
Nylon Dye Works, LLC.		5.1 Tons (1999)
Gilbert Hardwood Centers Inc		7 Tons (1999)
The Goodyear Tire & Rubber Company		7.7 Tons (1999)
APAC-Atlantic, Inc. - Thompson-Arthur Div. - Plant # 9		8.5 Tons (1999)
Ramtex Inc		8.7 Tons (1999)
Component Fabricators, Inc.		10.8 Tons (2000)
Seagrove Foods, Inc. ** INACTIVE **		16.4 Tons (1999)
Deep River Dyeing Company Inc		20.9 Tons (1999)
City of Asheboro Lake Lucas PS		99 Tons (2000)
City of Asheboro Brown WTP		99.9 Tons (1999)
<b>Total Reported Emissions</b>	<b>27.9</b>	
<b>Total Assumed Emissions</b>		<b>330.6</b>
<b>Grand Total</b>		<b>358.5</b>

**Table B16: Facilities in Rockingham County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Fieldcrest Cannon Blanket Manufacturing ** INACTIVE **	0.2 Tons	
The Southern Finishing Company, Inc.- Plant 10	0.6 Tons	
Loparex, Inc.	5.6 Tons	
Ball Metal Beverage Container Corp	6.8 Tons	



**Table B16: Facilities in Rockingham County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Metzeler Automotive Profile Systems North Carolina Inc	7.2 Tons	
Unifi, Inc. - Plant 15	8 Tons	
Unifi Manufacturing, Inc. Dyeing Business Unit - Plant 2	8.6 Tons	
Rockingham Power LLC	22 Tons	
Trigen Biopower Inc - Eden	81.1 Tons	
Pine Hall Brick Company Incorporated	81.4 Tons	
Miller Brewing Company - Eden Plant	529.3 Tons	
Duke Energy Corp - Dan River Steam Station	2,963.9 Tons	
Transcontinental Gas Pipeline Corp	4,590.7 Tons	
AMI Doduco (NC), Inc.		0.8 Tons (1999)
New Filcas of America Inc		1 Ton (1999)
Glen Raven Inc Springwood Fabrics Plant ** INACTIVE **		2 Tons (1999)
NPC, Inc. - 770 East #1		2.7 Tons (2000)
APAC-Atlantic, Inc. - Thompson-Arthur Division - Plant #7		2.9 Tons (1999)
Pillowtex / Hollingsworth GP		3.1 Tons (2002)
Stoneville Furniture Company Inc ** INACTIVE **		4.6 Tons (1999)
Commonwealth Brands, Inc		5.8 Tons (2002)
Mohawk Carpet Corp Karastan Rug Mill		6.5 Tons (2000)
The Equity Group, Inc. - NC Division		10.5 Tons (2002)
<b>Total Reported Emissions</b>	<b>8305.4</b>	
<b>Total Assumed Emissions</b>		<b>39.9</b>
<b>Grand Total</b>		<b>8345.3</b>

**Table B17: Facilities in Yadkin County Reporting NOx for Calendar Year 2003**

Facility Name	Reported Amount (2003)	Additional Assumed Amount (year)
Ferrellgas, LP d.b.a. Blue Rhino of N.C.- Hamptonville Plant	1.8 Tons	
67 Acquisition Company, Inc. - 21C Retail Arts		0 Tons (2002)
Lydall Thermal/Acoustical, Inc. - Westex Divi ** INACTIVE **		1.1 Tons (2002)
<b>Total Reported Emissions</b>	<b>1.8</b>	
<b>Total Assumed Emissions</b>		<b>1.1</b>
<b>Grand Total</b>		<b>2.9</b>

## Appendix C

### Vehicle Miles Traveled (VMT) Grow Data

Note: The following VMT data was generated by the NCDOT based on vehicles registered with the North Carolina Division of Motor Vehicles. Travel demand models are used by metropolitan planning organizations to calculate speeds and VMT for their local coverage area. The VMT used in the EAC SIP modeling demonstration was derived from the travel demand model for Davidson, Forsyth and Guilford Counties. The VMT for the remaining counties is from NCDOT data that is reported to the Federal Highway Administration to estimate lane miles and VMT for national highway systems. On average, VMT derived from the EAC SIP travel demand models are 25%-40% higher than NCDOT VMT data.

**Table C1: Annual VMT Growth Rate Based on 2000 - 2007 EAC SIP**

	2000 VMT	2007 VMT	Annual VMT Growth Rate
--	----------	----------	------------------------

**Fayetteville Area**

Cumberland	7,578,450	8,460,602	1.66
------------	-----------	-----------	------

**Hickory Area**

Alexander	594,210	755,500	3.88
Burke	2,518,540	2,873,401	2.01
Caldwell	1,651,220	2,010,100	3.10
Catawba	4,314,040	5,138,099	2.73
<b>Total Area</b>	<b>9,078,010</b>	<b>10,777,100</b>	<b>2.67</b>

**Mountain Area**

Buncombe	5,736,440	6,603,801	2.16
Haywood	2,244,520	2,625,298	2.42
Madison	492,930	571,879	2.29
<b>Total Area</b>	<b>8,473,890</b>	<b>9,800,978</b>	<b>2.24</b>

**Triad Area**

Alamance	3,598,930	4,176,499	2.29
Caswell	619,580	723,600	2.40
Davidson	4,112,280	4,924,498	2.82
Davie	1,245,080	1,464,200	2.51
Forsyth	9,595,433	11,153,970	2.32
Guilford	14,349,184	16,533,141	2.17
Randolph	3,675,570	4,414,300	2.87
Rockingham	2,469,390	2,874,500	2.34
Stokes	924,340	1,066,800	2.20
Surry	2,485,200	2,937,501	2.60
Yadkin	1,330,380	1,544,000	2.29
<b>Total Area</b>	<b>44,405,367</b>	<b>51,813,009</b>	<b>2.38</b>

**Table C2: Annual VMT Growth Rate Based on 2000-2004 Universe Data**

	2000 VMT	2004 VMT	Annual VMT Growth Rate
--	----------	----------	------------------------

**Fayetteville Area**

Cumberland	7,578,450	7,868,760	0.96
------------	-----------	-----------	------

**Hickory Area**

Alexander	594,210	657,420	2.66
Burke	2,518,540	2,576,770	0.58
Caldwell	1,651,220	1,803,450	2.30
Catawba	4,314,040	4,555,400	1.40
<b>Total Area</b>	<b>9,078,010</b>	<b>9,593,040</b>	<b>1.42</b>

**Mountain Area**

Buncombe	5,736,440	6,161,940	1.85
Haywood	2,244,520	2,343,160	1.10
Madison	492,930	528,060	1.78
<b>Total Area</b>	<b>8,473,890</b>	<b>9,033,160</b>	<b>1.65</b>

**Triad Area**

Alamance	3,598,930	3,682,400	0.58
Caswell	619,580	599,760	-0.80
Davidson	4,112,280	4,269,430	0.96
Davie	1,245,080	1,332,770	1.76
Forsyth	7,882,840	8,419,940	1.70
Guilford	10,740,240	11,784,250	2.43
Randolph	3,675,570	3,775,820	0.68
Rockingham	2,469,390	2,444,080	-0.26
Stokes	924,340	985,500	1.65
Surry	2,485,200	2,471,110	-0.14
Yadkin	1,330,380	1,386,020	1.05
<b>Total Area</b>	<b>39,083,830</b>	<b>41,151,080</b>	<b>1.32</b>