BOARD OF COUNTY COMMISSIONERS
OF WASHINGTON COUNTY, MARYLAND
Washington County Administration Building
100 West Washington Street, Room 226
Hagerstown, Maryland 21740-4735
Telephone: 240-313-2200
FAX: 240-313-2201
Deaf and Hard of Hearing call 7-1-1 for Maryland Relay

Gregory I. Snook, *President*
William J. Wivell, *Vice-President*
James F. Kercheval
John C. Munson
Doris J. Nipps

June 11, 2003

Ms. Judy Katz, Director
Air Protection Division (3AP00)
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Early Action Compact
Washington County, Maryland

Dear Ms. Katz:

In accordance with EPA Regulations and Guidance information, please accept the enclosed document as Washington County's Official Submittal to address the June 16, 2003 deadline, for continuation of implementation of an Early Action Compact. This submittal primarily identifies candidate strategies under consideration for implementation as well as public involvement efforts to date. The Board of Commissioners approved this document for submittal on June 10, 2003.

If you have any questions or need additional information, please contact Robert C. Arch, Planning Director for Washington County at 240-313-2430.

Sincerely,

Gregory I. Snook
President, Board of County Commissioners
for Washington County

Cc: Tad Aburn, MDE
Howard Simons, SHA
Jim Frazier, Michael Baker

RECEIVED
JUN 12 2003
Air Protection Division (3AP21)

THE EARLY ACTION COMPACT FOR WASHINGTON COUNTY, MARYLAND

June 16, 2003 Submission

DRAFT

Submitted by:

Washington County and the
Maryland Department of the Environment
Air and Radiation Management Administration

June 16, 2003

Washington County Early Action Compact

Table of Contents

I. **Background of EAC**

II. **Description of Program Area**

- a. Location Boundaries
- b. Demographics

III. **Background on Existing Control Measures**

- a. Existing Control Measures
  1. Area Sources
  2. Mobile Sources
  3. OTC Controls
- b. Ozone Transport

IV. **Technical Efforts**

- a. Status of Emissions Inventory
- b. Photochemical Modeling for Attainment Demonstration
- c. Meteorological Model
- d. Status of Modeling Activities

V. **Public Process**

- a. Public Participation Effort to-date
- b. Public Meetings

VI **Control Measures under Consideration**

- a. Mobile Sources (On Highway)
- b. Other Mobile Sources (Off-Road)
- c. Area Sources

d. Stationary Sources

VII Demonstration of Progress

VIII Geographic Area

IX Resource Constraints

Appendices

A. 8-Hour Ozone Concentration Maps for the Baltimore Area

B. Documentation of Public Meetings

C. Washington County EAC Control Measure Options

meeting was held to discuss EPA's air quality standards and the Washington County EAC program. Details of the meeting, advertisements, news articles and meeting attendees are located in Appendix B.

A number of conference calls were held between state and local agencies, EPA and with adjacent states within the modeling domain. Local strategy calls between Washington County, MDE and MDOT were held on Feb. 19 and 28. Modeling calls between MD, VA and WVA were held on Feb. 10, Mar. 24 and 26, Apr. 11, and May 16. EPA led conference call for the EAP were held on Mar. 17 and Apr. 16. The EAP was also discussed at the MPO meetings in Dec. and May.

Future meetings dates will be determined on a quarterly basis, unless the stakeholders request more frequent meetings.

VI. Control Measures under Consideration

Mobile Sources (On Highway)

VMT and Trip Reduction Measures

Description:

On-road vehicles are a significant source of ozone precursor emissions. Although significant improvements in vehicle emission control technology have been made, and continued improvements are expected in the future, economic and population growth of an affected area can often negate these technological advancements. Implementing programs that encourage the use of alternatives to single-occupant vehicle commuting and avoidance of vehicle trips are important strategies for overall emissions reductions. Commuters are encouraged to choose alternatives to the single-occupant vehicle commute, such as carpooling, vanpooling, transit, and telework. Employers may offer direct-deposit for payroll to eliminate the employees' need to make a dedicated trip to the bank each pay period. Flextime and alternative work schedules are also encouraged. May be work and non-work trip focused.

Control Measures Under Consideration:

- Car and Vanpool Programs / Incentives / Employer Participation
- Transit Programs (including bus pool) / Incentives / Employer Participation
- Transit Service Expansions (geographic, service frequency, other)
- Transit Oriented Development
- Park and Ride Lots and Improvements
- Flextime / Alternative Work Schedules (hours, days, or weeks)
- Clean Skies (voluntary clean air programs)
- Telework (part and full time)
- E-government / E-commerce Enhancements
- Land Use Alternatives
- Public Education Efforts

Speed, Flow, and Delay Improvements

Description:

Speed, flow, and delay improvement measures are designed to reduce overall emissions levels by producing reductions in vehicle usage, changing traffic flow patterns, or reducing congestion. These types of measures include traffic signal synchronization and/or improvements, bicycle and pedestrian facility improvements, high-occupancy vehicle (HOV) lanes, intersection improvements, park-and-ride lots, and transit projects.

Control Measures Under Consideration:

- Intersection Improvements (may be TIP or Plan now)
- Signalization Improvements (coordination, ITS, other)
- Bike / Pedestrian Facilities (improvements and/or new facilities)
- Grade Separation of Congested Intersections
- Traffic Engineering (left turn bays, striping, arrows on signals, etc.)
- Speed Limit Restrictions – All vehicles, Selected Highways
- Speed Limit Restrictions – Heavy Trucks Only, Selected Roadways

Vehicle Fuels

Description:

Alternative fuels reduce NOx and VOCs at varying levels. They are an appropriate strategy for reducing or even eliminating emissions.

Control Measures Under Consideration:

- Alternative Fuels (CNG, LNG, LPG, biodiesel, electric, methane, etc.) for Fleet Vehicles (public and private fleets).
- Alternative Fuels for General Public Access / Encourage Influx into General Public's Vehicles
- Early Implementation of ultra low sulfur diesel (ULSD) fuels
- Reformulated gasoline or low RVP gasoline
- Early Implementation of Low Sulfur Gasolines
- Additives for Diesel Fuels (cetane enhancement, other)

Fleet Operations

Description:

Changes to fleet vehicle use by governments and other large organizations can have an impact on local emissions. Due to the number of vehicles affected by decisions of large organizations, these programs can aid in reducing mobile source emissions within the region. There are several types of programs that are possible for vehicle fleet operators, such as changing the average vehicle size, maximizing vehicle occupancy, refueling in

evening hours, requiring delivery times outside of peak travel and/or ozone formation times, reducing fuel consumption, or using shaded parking areas.

Control Measures Under Consideration:

- Vehicle Idling Policies/Restrictions (e.g. fleet and location restrictions)
- Delivery Times Outside Peak Travel Time Periods
- Refueling in Evening Hours
- Staff Travel Time and Delivery Streamlining
- Shaded Parking Areas (reduce A/C use and cool-down idle times)
- Maximize Vehicle Occupancy / Minimize Vehicles at Worksites
- Stage II Technologies to Fueling Stations
- Reduce Fuel Consumption by X%
- Specify Vendor Delivery Hours in Contracts (e.g. away from peak ozone formation time periods)

Vehicle Acquisitions

Description:

Similar to changes in fleet vehicle usage, changed in fleet vehicle types used by large organizations can have an impact on local emissions. Changes in fleet make-up can help reduce mobile source emissions within the region. There are several types of programs possible, such as replacing higher emitting aging vehicles with newer ULEV or SULEV vehicles and accelerating current vehicle replacement schedules.

Control Measures Under Consideration:

- ULEV and SULEV Vehicles as Replacements for Existing Standard Vehicles or Fleet Expansions
- Accelerated Fleet Replacement Cycles
- Staff Travel Time and Delivery Streamlining
- Resizing future vehicles
- Also See Vehicle Fuels Above

Other

Description:

In addition to all of the other control measures already stated, there are several other programs that can possibly aid in reducing emissions within the Washington Co. region, including providing vehicle emissions repair assistance and encouraging scrapping older high emitting vehicles.

Control Measures Under Consideration:

- Vehicle Scrappage
- Vehicle Emissions Repair Assistance

Other Mobile Source (Off-Road)

Description:
Nonroad mobile sources include those vehicles and equipment which are powered by internal combustion engines, but which are not normally operated on public highways. They include a variety of equipment, such as construction, industry, farm, lawn and garden and recreation as well as aircraft and airport vehicles, railroads and marine vessels. EPA regulates the engine standards of the equipment, but opportunities may exist for voluntary or mandatory time of day restrictions of equipment, replacements, and fuel alternatives.

Control Measures Under Consideration:

- Airport Landside and Other Off-road Site Vehicles – technologies, fuels, use (similar approaches for highway vehicles)
- Limits on Construction Activities (time of day, vehicles and fuels)
- Clean Skies / Clean Air Programs activity restrictions (Ozone Action)
- Fuel Alternatives
- Engine Retrofits/Replacements (off-road fleets, aircraft, railroad, etc.)
- Vehicle Replacements
- Contract Enhancements for clean (emissions) equipment

Area Sources

Description:
Area sources are classified as sources too numerous to quantify on an individual basis. Usually each source is small, but collectively may represent a sizable portion of an inventory. As part of the OTC and federal regulations, Washington County implemented numerous controls as listed in *"Section III, Existing Control Measures in Washington County."* However, additional controls or early implementation of controls may provide additional emissions benefits.

Control Measures Under Consideration:

- OTC Portable Fuel Containers Regulations
- OTC Consumer Products Regulations
- OTC Architectural and Industrial Maintenance Coating
- Landside conditioned vehicles – (in lieu of running aircraft engines, using on-board auxiliary power units)
- Reduced or reschedules training, operations, vehicle maintenance, construction and other activities during ozone season, peak days or other time periods.
- Clear Skies Program components (e.g. mowing restrictions)
- Fuel Alternatives for stationary equipment (pumps, generators, etc.)
- Lawn and Garden equipment scrappage or replacement with electric

Stationary Sources

Emissions from stationary sources emissions (over the minimum threshold – see CAA and OTR criteria) are regulated through permits from MDE. Within the OTC, reasonably available control technology (RACT) applies to industry and commercial fuel burning equipment. RACT regulations are site specific and allow several compliance options to meet the applicable standard depending on age of equipment, fuel characteristics, burners and operational techniques.

Maryland also signed a memorandum of agreement (MOU) with EPA and other states in the OTR that further reduces NOx emissions from power plants and other major stationary sources. The agreement is also referred to the NOx SIP Call, which in intended to reduce emissions from upwind sources of the northeast states.

Control strategies beyond what is already in place require a review of MDE inventory of permitted and non-permitted sources for potential emissions reductions through either voluntary and/or mandatory measures.

VII. Demonstration of Progress

The EAC protocol requires areas to assess and report progress every 6 months. The June 30, 2003 Progress Report of the EAC for Washington County requires documented progress on the following:

- Developing the stakeholder process, including roles and responsibilities
- Evaluating and selecting emission reduction measures for local control strategies
- Public outreach activities
- Modeling and technical planning activities.

The data collection effort to evaluate the potential control measures is under way. Using the tables in Appendix C to track the progress, updates will be recorded based on the data availability, tools, stakeholders and public progress. The process will lead to the final evaluation and selection of control measures needed to reach attainment for Washington County.

VIII. Geographic Area

The geographic coverage for the EAP includes Washington County. For potential control measures, the coverage includes Washington County, but also upwind sources in adjacent EAP areas (Virginia and West Virginia).

Existing businesses have enjoyed growth, joining new companies in Washington County's commercial family. Both public and private sectors make up the top employers in the county. The top 10 employers are provided in Table 2.

Table 2: Top 10 Employers in Washington County

Number	Employer	Employees
1	Washington County Health System	3,000
2	State of Maryland	2,591
3	Washington County Public Schools	2,563
4	Citicorp Credit Services, Inc.	2,500
5	First Data Merchants Services	2,081
6	Garden State Tanning	1,140
7	Mack Trucks, Inc.	1,133
8	Washington County Government	830
9	Phoenix Color Corporation	725
10	Federal Government	655

*Source: Economic Development Commission 2002 Annual Report, Hagerstown-Washington County.

III. Existing Control Measures in Washington County

Existing Control Measures

The existing air pollution controls being implemented in Washington County are already much more stringent than the existing pollution controls in neighboring states. AS such, Washington County commences work on its Early Action Plan (EAP) from a much higher rate of controls, and therefore has fewer and possibly less efficient control measures to choose from. Because Maryland is part of the Ozone Transport Region, Washington County is already subject to New Source Review, Enhanced Vehicle Emissions Inspection Program, VOC and NOx RACT and many other control programs. Below is a detailed list of other control measures already being implemented in Washington County.

Area Sources

1. Automotive and light-duty truck coating
2. Can coating
3. Coil coating
4. Large appliance coating
5. Paper, fabric, vinyl and other plastic parts coating
6. Control of VOC emissions from solid resin decorative surface manufacturing
7. Metal furniture coating

8. Flexographic and rotogravure printing
9. Lithographic printing
10. Dry cleaning installations
11. Miscellaneous metal coating
12. Aerospace coating operations
13. Brake shoe coating operations
14. Control of VOC from structural steel coating operations
15. Manufacture of synthesized pharmaceutical products
16. Paint, resin and adhesive manufacturing and adhesive application
17. Control of VOC equipment leaks
18. Control of VOC emissions from yeast manufacturing
19. Control of VOC emissions from screen printing and digital imaging
20. Control of VOC emissions from expandable polystyrene operations
21. Control of landfill gas emissions from municipal solid waste landfills
22. Control of VOC emissions from commercial bakery ovens
23. Control of VOC from vinegar generators
24. Control of VOC emissions from leather coating
25. Control of VOC from explosives and propellant manufacturing
26. Control of VOC emissions from reinforced plastic manufacturing
27. Control of VOC from marine vessel coating operations
28. Control of VOC from bread and snack food drying operations
29. Control of VOC from distilled spirits facilities
30. Control of VOC from organic chemical production
31. Control of VOC from asphalt paving
32. Control of gasoline and VOC storage and handling (Stage I)

Mobile Sources

1. Motor vehicle emission control devices (federal mandates, Tier I, etc.)
2. Maryland Enhanced Vehicle Emissions Inspection Program (high enhanced I/M)
3. Diesel vehicle emissions control program
4. National Low Emissions Vehicle (NLEV)

OTC Control Regulations

1. Control of VOC from vehicle refinishing-mobile equipment repair and refinishing
2. Control of VOC emissions from cold and vapor degreasing

In addition, many federal controls are scheduled for implementation by 2007, providing substantial VOC and NOx reductions. They include Tier 2 vehicles and low sulfur gasoline starting in 2004, the 2004 heavy-duty engine standards, and low sulfur diesel scheduled for 2007.