

**Region 3 Plan Summary**  
**West Virginia Early Action Compact (EAC) Plan for the Eastern Panhandle Region**

**Title:** Attainment Demonstration for the Eastern Panhandle Region Ozone Early Action Compact Area

**Federal Register Dates:** May 17, 2005, 70 FR 28264 (Proposed rule); August 17, 2005, 70 FR 48287 (Final rule).

**EPA Effective date:** September 16, 2005

**State Submittal Date:** December 29, 2004

**Affected Areas:** Berkeley and Jefferson Counties

**Summary of the Plan:** On December 29, 2004, the State of West Virginia submitted a revision to its SIP. This revision consists of an Early Action Plan (EAP) for the Eastern Panhandle Region Ozone EAC Area. The Eastern Panhandle Region EAC Area consists of Berkeley and Jefferson Counties.

The Eastern Panhandle EAC Area in West Virginia includes the area of both Berkeley and Jefferson Counties. Both counties are relatively rural in character. Berkeley County covers 321 square miles and includes the City of Martinsburg, a city of roughly 15,000 people. The entire population of Berkeley County is approximately 76,000. Jefferson County is smaller, covering 212.4 square miles with a population of approximately 42,190. The three largest towns in Jefferson County are Charles Town (2,907), Ranson (2,951) and Bolivar (1,045). Historically, there had been little reason to site an air pollution monitor in the Area due to its relatively low population and largely rural nature. Subsequently, growth in Berkeley and Jefferson Counties has largely been residential in character with few new large air pollution sources. Nevertheless, an ozone monitor was set up in Martinsburg, West Virginia, that began operating in 2000 with complete quality assured ozone season data becoming available starting in 2001.

West Virginia developed an attainment demonstration supported by an ozone photochemical modeling study for the Eastern Panhandle Region EAC Area. The attainment demonstration identifies a set of measures that will result in emission reductions and provides analyses that predict that the measures result in ambient air quality concentrations that meet the 8-hour ozone standard in the Eastern Panhandle Region EAC Area. The modeling results predict the maximum 2007 8-hour ozone design value for this area to be 81.8 ppb, which is less than what is needed ( $\leq 84$  ppb) to show modeled attainment of the 8-hour ozone NAAQS.

**Control Measures/Regulations Included As Part of the Plan:** The Eastern Panhandle Region EAP provided a list of all the control measures for the Berkeley and Jefferson Counties. They are grouped into two main categories: local control measures and Federal control measures. West Virginia has submitted a suite of voluntary emission reduction measures that will provide

emission reductions in the Eastern Panhandle Region EAC Area. The measures were not included in the attainment demonstration for the Area, however, they provide significant additional air quality benefits to the Area. In addition to the local strategies, several Federal actions have or will produce substantial ozone precursor emissions reductions both inside and outside of the local EAC area. These reductions are aimed at reducing local emissions and transport of pollution into the area. These strategies, when combined with the local strategies, are expected to lower area ozone concentrations to the level at or below the ozone standard. West Virginia also submitted contingency measures which could be implemented in response to a shortfall in anticipated reductions. The local and contingency measures provided in the EAP are summarized in Table 1.

**Table 1. Summary of Control Measures for Eastern Panhandle Region EAC Area**

Control Measure Category	Control Measure Description	Emission Reductions (tons per day)		Measure Included in Attainment Demonstration
		VOC	NO <sub>x</sub>	
<b>Local Initiatives</b>	Ozone Action Days Programs	0.32	0.09	No
	Public Awareness Program	0.72	0.88	No
	Bicycle and Pedestrian Measures	0.20	0.12	No
	Reduce Engine Idling	0.01	0.17	No
	Voluntary Partnership with Ground Freight Industry	0.07	0.84	No
	Increased Compliance with Open Burning Restrictions	0.01	0.01	No
	School Bus Engine Retrofit	0.001	0.02	No
<b>Federal Measures</b>	Non-road Diesel Engine Standards	NI	NI	Yes
	On-road Motor Vehicle Standards	NI	NI	Yes
<b>Contingency Measures</b>	RACT and RACM	0.29	NA	No
	Alternative Fuels Program	NQ	NA	No
	Truck Stop Electrification	0.01	0.17	No
	Lower RVP Gasoline	0.94	NA	No

Note: NA - not applicable; NQ - not quantified; NI - not itemized; WVDEP did not discretely identify the anticipated emission reductions from these measures in their submittal - the modeling demonstration identifies anticipated emissions resulting from implementation of the stricter federal measures.

**Maintenance for Growth:** The EAP also contains components to ensure maintenance of the 8-hour ozone standard through 2012, five years beyond the 2007 attainment date. The Eastern Panhandle Region EAC Area has developed an emissions inventory for the year 2012, as well as

a continuing planning process to address this essential part of the plan. Due to the emission control measures identified in the EAP, the emissions inventory predicted an overall reduction in emissions through 2012. From 1999 to 2007, nominal increases in VOCs emissions are expected. By 2012, VOC emissions will be consistent with 1999 emission levels. For NO<sub>x</sub>, emissions are expected to decline from 1999 to 2007 by 7.9 percent. By 2012, emissions are predicted to be 3.2 percent less than those modeled in 2007 for NO<sub>x</sub>. Using air quality models to anticipate the impact of growth, as well as the Federal, state-assisted, and locally-implemented measures to reduce emissions, West Virginia has projected the Area will be in attainment of the 8-hour ozone standard in 2007 and will remain in attainment through 2012.

To fulfill the continuing planning process that will ensure that the Eastern Panhandle Region EAC Area will maintain the 8-hour ozone standard through 2012, the Eastern Panhandle Region EAP establishes a commitment and mechanism to work with local stakeholders to identify and require additional measures to further reduce ozone precursor emissions. In addition, the EAC signatories and implementing agencies will review all EAC activities and report on these results in semi-annual reports beginning in June 2006. The semi-annual reports will track and document, at a minimum, control strategy implementation and results, monitoring data, and future plans. Furthermore, as part of the SIP submittal, the Eastern Panhandle Region EAC Area commits to submit periodic updates to WVDEP and EPA on the implementation status and results of the local control program with sufficient details to make program sufficiency determinations.

The WVDEP will perform an annual evaluation beginning in 2007 and ending in 2012, of the emissions inventory for Berkeley and Jefferson Counties to determine if growth may endanger the attainment/maintenance of the standard. Part of the annual review process will be coordination with Virginia Department of Environmental Quality (VADEQ) on periodic updates of planning assumptions and modeled area. Modeling updates by WVDEP and VADEQ will consider: all relevant actual new point sources; impacts from potential new source growth; and future transportation patterns and their impact on air quality in a manner that is consistent with the most current Long Range Transportation Plan and most current trend and projections of local motor vehicle emissions.

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