Region III Plan Summary
West Virginia Portion of the Wheeling, WV-OH 1997 Annual $PM_{2.5}$ Nonattainment Area

Title: Maintenance Plan for the West Virginia Portion of the Wheeling, West Virginia 1997 Annual Fine Particulate Matter ($PM_{2.5}$) Nonattainment Area

Federal Register Dates: December 11, 2012, 77 FR 73575 (Proposed Rule); July 24, 2013 (Supplemental Proposed Rule); September 30, 2013, 78 FR 59841 (Final Rule)

EPA Effective date: September 30, 2013

State Submittal Dates: March 8, 2012 and June 24, 2013

Affected Areas: Marshall and Ohio Counties

Key Features: 2008 attainment year; projections to 2015 and 2022

The Wheeling plan shows maintenance of the 1997 annual $PM_{2.5}$ national ambient air quality standard (NAAQS) by demonstrating that current and future emissions of $PM_{2.5}$, nitrogen oxides (NOx), sulfur dioxide (SO_2) remain at or below the attainment year 2008 emissions throughout the Wheeling Area through the year 2022.

Monitoring Network: West Virginia will continue to operate its current air quality monitors (one located in Marshall County and the other in Ohio County) in accordance with 40 CFR part 58.

Contingency Plan Triggers:

1. If $PM_{2.5}$, NOx, and SO_2 emissions exceed specified predetermined level.
2. In the event future violations of the standard occur at both the two monitors.

Contingency Measures:

Contingency measures for trigger 1 (if $PM_{2.5}$, NOx, and SO_2 emissions exceed specified predetermined level): The West Virginia Department of Environmental Protection (WVDEP) will evaluate existing control measures to ascertain if additional regulatory revisions are necessary to maintain the $PM_{2.5}$ NAAQS.

Contingency measures for trigger 2 (in the event future violations of the standard occur at both the monitors):

1. Diesel reduction emission strategies.
2. Alternative fuel and diesel retrofit programs for fleet vehicle operations.
3. Tighter $PM_{2.5}$, NOx and SO_2 emissions offsets for new and modified major sources.
4. Concrete manufacturing – upgrade wet suppression.
5. Additional NOx reasonably available control technology (RACT) statewide.

6. List of sources that could potentially be controlled: Industrial, commercial and institutional (ICI) boilers for SO_2 and NOx controls, electric generating units (EGUs), process heaters, internal combustion engines, combustion turbines, other sources greater than 100 tons per year (tpy), fleet vehicles, and aggregate processing plants.

Schedule: Expeditious contingency measures can be implemented at the beginning of a calendar year through issuance of an emergency rule. The regular legislative rule process can produce enforceable contingency measures within a 12 to 18 month time frame.

Additional Provision: The State's maintenance plan submission expressly documents that the Area's emissions inventories will remain below the attainment year inventories through 2022. Table 1 shows the emissions inventories for the 2008 attainment base year, the 2015 interim year, and the 2022 maintenance plan end year for the Wheeling Area. The emissions inventories show that between 2008 and 2022, the Area is projected to reduce SO_2 emissions by 35,616 tpy, NOx emissions by 20,581 tpy, and $PM_{2.5}$ by 2,529 tpy. Thus the projected emissions inventories show that the Area will continue to maintain the 1997 annual $PM_{2.5}$ NAAQS during the 10-year maintenance period.

In addition, for the reasons set forth below, the State's maintenance plan submission further demonstrates that the Area will continue to maintain the 1997 annual $PM_{2.5}$ NAAQS at least through 2023:

- Significant emissions controls remain in place, and will continue to provide reductions that keep the Area in attainment. As part of a Federally enforceable consent decree with the American Electric Power (AEP), the Ohio Power Mitchell Plant in Marshall County was required, staring in January 2009, to operate its selective catalytic reduction (SCR) continuously to control emissions of NOx and to operate continuously its flue gas desulfurization (FDG) to reduce SO_2 starting in December 2007. In addition, AEP is required by the Federally enforceable consent decree to retire, retrofit, or repower additional units such as Kammer Units 1-3 by the end of December 2018.

- West Virginia has committed to maintaining all of the control measures upon which it relies in its March 8, 2012 submittal, and will submit any changes to EPA for approval as a SIP revision.

- Emissions inventory levels for SO_2 and NOx in 2022 are well below the attainment year inventory levels (see Table 1), and it is highly improbable that sudden increases would occur that could exceed the attainment year inventory levels in 2023.

- The mobile source contribution has been determined to be insignificant, and is expected to remain insignificant in 2023 with fleet turnover in upcoming years that will result in cleaner vehicles and cleaner fuels.

- Air quality concentrations, which are well below the standard, coupled with the emission inventory projections through 2022, demonstrate that it would be very unlikely for a violation to occur in 2023. The 2009-2011 design value of 12.3 $\mu g/m^3$ provides a sufficient margin in the event emissions increase. In addition, the 2009-2011 design value shows the continued downward trend of monitored data in this Area for the last several years.

Table 1. Comparison of 2008, 2015, 2022 SO_2, NOx, and Direct $PM_{2.5}$ Emission Totals, in tons per year for the Wheeling Area WV-OH

	2008	**2015**	**2022**	**Decrease from 2008 to 2022**
SO2 (tpy)	67,103	36,843	31,487	35,616
NOx (tpy)	35,971	16,204	15,390	20,581
$PM_{2.5}$ (tpy)	6,001	3,436	3,472	2,529

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