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

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

**Federal Register Dates:** December 11, 2012, 77 FR 73560 (Proposed Rule); July 8, 2013 (Supplemental Proposed Rule); September 12, 2013, 78 FR 56168 (Final Rule)

**EPA Effective date:** September 12, 2013

**State Submittal Date:** March 5, 2012

**Affected Areas:** Wood County and Tax District of Grant in Pleasants County

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

The Parkersburg-Marietta 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 Parkersburg-Marietta through the year 2022.

**Monitoring Network:** West Virginia will continue to operate its current air quality monitor (located in Wood 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 the Wood County monitor.

**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 the Wood County monitor):

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 Parkersburg-Marietta Area. The emissions inventories show that between 2008 and 2022, the Area is projected to reduce $SO_2$ emissions by 111,095 tpy, NOx emissions by 22,426 tpy, and $PM_{2.5}$ by 130 tpy. Thus the projected emissions inventories show that the Area will continue to maintain the 1997 annual $PM_{2.5}$ NAAQS during the 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. First Energy's Pleasants Power Station, located in Pleasants County, is covered by a State consent decree that requires the operation of selective catalytic reduction (SCR) controls on the EGU, beginning January 9, 2009.

- West Virginia has committed to maintaining all of the control measures upon which it relies in its March 5, 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. Further, the transportation conformity analysis of historical trends and growth patterns indicates that this determination should not change, out to 2030.

- 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 Parkersburg-Marietta Area WV-OH**

| | 2008 | 2015 | 2022 | Decrease from 2008 to 2022 |
|---|---|---|---|---|
| SO2 (tpy) | 159,535 | 77,294 | 3,686 | 111,095 |
| NOx (tpy) | 35,412 | 18,509 | 3,648 | 22,426 |
| $PM_{2.5}$ (tpy) | 3,686 | 12,985 | 3,557 | 130 |

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