

Region 3 Plan Summary
Weirton, West Virginia Particulate Matter (PM₁₀) Limited Maintenance Plan

Title: Maintenance Plan for the Weirton, West Virginia Particulate Matter (PM₁₀) Area

Federal Register Dates: October 27, 2004, 69 FR 62591 (Direct final rule), 69 FR 62637 (Proposed rule); November 9, 2004, 69 FR 64860 (correcting amendment to Direct final rule) December 20, 2004, 69 FR 75847 (Withdrawal of Direct final rule); May 11, 2006, 71 FR 17440 (Proposed rule and withdrawal of October 27, 2004 Proposed rule); July 14, 2006, 71 FR 40023 (Final rule).

EPA Effective date: August 14, 2006

State Submittal Date: May 24, 2004

Affected Areas: City of Weirton (Portion of Hancock and Brooke Counties)

Summary of the Plan: West Virginia submitted a limited maintenance plan (LMP), entitled "PM-10 Maintenance Plan for the Weirton, West Virginia Area, May 24, 2004", for approval into the SIP. The City of Weirton is located in Hancock County which lies in the western foothills of the Appalachian Mountains. Weirton is part of the Steubenville, Ohio-West Virginia metropolitan statistical area.

To demonstrate that future emissions will not exceed the level of the attainment inventory, West Virginia determined the CDV. The CDV is a statistical technique based upon the average design value and its observed variability to estimate the probability of exceeding the national ambient air quality standards (NAAQS) in the future. When applied specifically to the Weirton Area 24-hour data for the years 2000 through 2004, the CDV is 137 ug/m³. The actual 5-year average design value for the Weirton Area is 96.8 ug/m³ which is below the level of 98 ug/m³ established for the LMP option. Furthermore, the maximum site average design value of 105.2 ug/m³ is less than the area-specific CDV of 137 ug/m³.

The Weirton area attained the standard with the emission represented 2001 inventory submitted as part of the plan. The requirement for a prevention of significant deterioration (PSD) review and permitting for any future major source construction or modification will ensure the air quality is not adversely affected by emissions growth.

The primary sources of PM₁₀ in the Weirton area are the steel manufacturing and processing facilities located in or near the area. Over the past six years, when the area has been monitoring attainment, facility shutdowns have substantially lowered PM-10 emissions. The shutdowns were made permanent and enforceable through a Consent Order (CO-SIP-C-2003-28) which was approved as part of the West Virginia SIP on May 5, 2004.

No new growth is anticipated to impact emissions in the area. There is a projected 3.69% decrease in population for the metropolitan area for the years 1990 - 2025, along with a 1.89% decrease in occupied households. West Virginia has provided data which estimates the average

daily traffic in the area has slightly decreased since 1990. The expected worst case impact of motor vehicles in the Weirton area is less than 5% of the total ambient concentrations.

The LMP includes a commitment to continue to monitor PM₁₀ in the Weirton Area throughout the 10-year term of the maintenance plan to verify continued attainment of the NAAQS. West Virginia will review the monitored PM₁₀ data annually to verify continued attainment in the area. West Virginia will also assess compliance of local targeted facilities to ensure compliance with applicable State regulations and Consent Agreements. The PM₁₀ emission inventory for the Weirton area will be reviewed at least every three years. The LMP option does not require air quality modeling estimates that attainment can be maintained, a projection of emissions into the future, or some of the standard analyses to determine conformity with the air quality standards.

Emissions Inventory: For the maintenance plan, an inventory of allowable emissions of sources in the nonattainment area was developed. The inventory is presented in Table M-1.

Table M-1
2001 Weirton PM10 Emission Inventory

Source	AFS ID	Enforceability	Allowable Emission Limit (lb/hr)
Foster Wheelers	029-00018		
FW#1		R13-515	11.00
FW#2		CO-SIP-C-2003-28	11.00
Weirton Steel	029-00001		
HP#1		CO-SIP-C-2003-28	0.00
HP#2		CO-SIP-C-2003-28	0.00
HP#3		CO-SIP-C-2003-28	34.51
HP#4		CO-SIP-C-2003-28	34.51
HP#5		CO-SIP-C-2003-28	38.34
LP#15		CO-SIP-C-2003-28	0.00
LP#1		CO-SIP-C-2003-28	0.00
LP#2		CO-SIP-C-2003-28	0.00
LP#3		CO-SIP-C-2003-28	0.00
LP#4		CO-SIP-C-2003-28	0.00

Source	AFS ID	Enforceability	Allowable Emission Limit (lb/hr)
BOP Boiler		CO-SIP-C-2003-28	N/A
BF#1		Reg 7	3.48
BF#2		CO-SIP-C-2003-28	0.00
BF#3		CO-SIP-C-2003-28	0.00
BF#4		Reg 7	3.48
BF#1 Stoves		Reg 7	38.07
BF#2 Stoves		CO-SIP-C-2003-28	0.00
BF#3 Stoves		CO-SIP-C-2003-28	0.00
Weirton Steel (Cont.)			
BF#4 Stoves		Reg 7	38.07
BF#1, #2, #3 Flares		Reg 7	0.17
BF#4 Flare		Reg 7	0.17
Desulf Baghouse		Reg 7	6.73
BOF Scrubber		Reg 7	36.19
Hot metal transfer BH		Reg 7	5.72
Sinter Plant		CO-SIP-C-2003-28	0.00
Reheat #1		R13-1310	60.70
Reheat #2		R13-1317	60.70
HCL Plant		Reg 7	3.20
Blooming Mill Scarfer		Reg 7	0.00
CAS-OB		R13-1433	0.42

Control Measures/Regulations Contained in the Plan: The control measures for the area, which were responsible for bringing the area into attainment, are contained in a consent order (CO) between the State of West Virginia and the Weirton Steel Corporation (CO-SIP-C-2003-28). These control measures resulted in a reduction of 1345.5 tons per year of allowable PM-10

emissions and a reduction of 886 tons per year of actual PM-10 emissions. These measures adequately satisfy the reasonably available control measures/ reasonably available control technology (RACM/RACT) requirements.

The primary control measures to achieve attainment include implementing reasonably available control measures (RACM) to reduce fugitive dust emissions from unpaved roads, parking lots, and cleared construction areas in addition to the permanent shutdown of specified steel manufacturing and processing facilities.

Subsequent to redesignation of the area to attainment, any major construction or modification will be required to obtain a Prevention of Significant Deterioration (PSD) permit through State Regulation 45CSR14. The PSD review would require a modeling demonstration to ensure maintenance of the NAAQS as well as compliance with applicable PSD increments.

Conformity Process/Motor Vehicle Emissions Budget (MVEB): EPA's LMP policy does not exempt an area from the need to demonstrate conformity, but it explains that the area may demonstrate conformity without submitting an emissions budget. For transportation conformity purposes, EPA concludes that mobile source emissions in these areas need not be capped at any level for the maintenance period, and therefore the requirement for a regional emissions analysis would be considered to be met. Similarly, West Virginia has chosen not to include specific emissions allocations for federal projects that would be subject to the provisions of general conformity.

While areas with maintenance plans approved under the LMP option are essentially not subject to the budget test, the areas remain subject to other Federal transportation conformity requirements. Thus, the metropolitan planning organization (MPO) in the area or the State will still need to document and ensure that: (a) transportation plans and projects provide for timely implementation of SIP transportation control measures; (b) transportation plans and projects comply with the fiscal constraint element; (c) the MPO's interagency consultation procedures meet applicable Federal requirements; (d) conformity of transportation plans is determined no less frequently than every four years, and conformity of plan amendments and transportation projects is demonstrated in accordance with the applicable Federal requirements;(e) the latest planning assumptions and emissions model are used; (6) projects do not cause or contribute to any new localized carbon monoxide or particulate matter violations; and (7) project sponsors and/or operators provide appropriate written commitments.

Contingency Measures: In the event of a monitored exceedance of the PM₁₀ standard, West Virginia will review the monitored data, the local meteorological data, and the compliance of certain local facilities identified in the maintenance plan. If all such facilities are in compliance with applicable SIP and permit emission limits, West Virginia will then determine the additional control measures West Virginia will need to impose on the area's stationary sources in order to continue to maintain the NAAQS. In the event of three exceedances of the 24-hour PM₁₀ standard within a three-year period, West Virginia will notify the stationary sources in the Weirton Area that the potential exists for a NAAQS violation, and that if a violation occurs,

these sources will need to implement the measures previously identified. Within six months of receiving notice from West Virginia, the stationary sources must submit a detailed plan of action to West Virginia to implement the identified additional control measures within 18 months after West Virginia notifies the source of an actual violation of the NAAQS. The sources' additional control measure plans will be submitted to EPA for approval and incorporation into the SIP.

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