



west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Earl Ray Tomblin, Governor
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www.wvdep.org

WVDEP 2016 Ambient Air Monitoring Annual Network Plan

On October 17, 2006, the US Environmental Protection Agency (EPA) published final amendments to 40CFR Part 53 and 58 "Revisions to Ambient Air Monitoring Regulations; Final Rule". This rule became effective on December 18, 2006.

Under Part 58, Subpart B-Monitoring Network, §58.10 Annual Monitoring Network Plan and Periodic Assessments (a)(1): "Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA. "

On March 28, 2016 (effective April 27, 2016) EPA finalized revisions to 40CFR Part 58 "Revision to Ambient Monitoring Quality Assurance and Other Requirements; Final Rule".

Under Part 58 §58.10 (a)(1) "Annual monitoring network plan and periodic network assessment" EPA amended the 2006 language to clarify the handling of any public comment received on the plan: "The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments."

The purpose of this document is to provide for the public inspection of and obtain comments on, the WV Department of Environmental Protection Division of Air Quality's (DAQ) ambient air monitoring Annual Network Plan (ANP) for 2016. This public inspection period is open for 30 days from the date of posting on our website at www.dep.wv.gov/daq/. Comments received during the 30 day public inspection period, and the DAQ response will be forwarded to USEPA Region 3. The ANP also documents any changes to the state's PM_{2.5} monitoring that would affect the location of a violating PM_{2.5} monitor. It should be noted that there are no PM_{2.5} monitors in WV that currently violate either the 24-hour or annual National Ambient Air Quality Standard (NAAQS). Except for circumstances not anticipated during this review period, such as inadequate federal or state funding, leasing issues, site maintenance

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issues, personnel resource issues or equipment failure no other *intentional* changes are expected to be made, at this time, to the PM_{2.5} monitoring network or the criteria pollutant monitoring network/stations during the next 12 months except those that are discussed within this document. All of the monitoring sites are leased and those leases are subject to periodic renewals which can affect the DAQ's ability to retain a monitoring site location. The proposed changes are listed under the air monitoring site so that the public may have an opportunity to comment on any possible network modifications.

In the pages that follow, each individual monitoring site and corresponding photograph, is listed by county along with a statement as to whether it meets the requirements of Part 58, the Air Quality Subsystem (AQ5) site ID number, site location information, sampling and analytical method for each parameter, the Metropolitan Statistical Area (MSA) that is represented by the site, proposed site changes and any other general comments regarding the site. Other pertinent information such as latitude/longitude, site purpose, the monitor's objective/site type and representative scale is also listed for each site.

Please send written comments to:

Tim J. Carroll, Assistant Director
Air Monitoring/Laboratory
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments may also be submitted via email to: tim.j.carroll@wv.gov.

For additional information and to view data publicly available from the AQ5 data system please visit www.epa.gov/airdata/. For a copy of the latest WVDEP-DAQ annual air monitoring report please visit www.dep.wv.gov/daq/.

To review the September 2006 and April 2016 Monitoring Regulations please visit <https://www3.epa.gov/ttn/amtic/monregs.html>.

SO₂ Data Requirement Rule (DRR)

On August 10, 2015, the USEPA finalized requirements for air agencies to monitor or model ambient sulfur dioxide (SO₂) levels in areas with large sources of SO₂ emissions to help implement the 1-hour SO₂ NAAQS. The rule establishes that, at a minimum, air agencies must characterize air quality around sources that emit 2,000 tons per year (tpy) or more of SO₂. The rule requires agencies to use either modeling of actual source emissions or appropriately sited ambient air quality monitors to assess SO₂ concentrations near the qualifying emission source.

In WV, none of the sources subject to the DRR rule will be monitoring for SO₂. There is a source in Maryland, the Verso Paper Corporation Luke paper mill that may submit a monitoring proposal to the Maryland Department of the Environment to conduct SO₂ monitoring. It is

possible that under that plan, some SO₂ monitors may be needed to be located in WV. Should that occur, then it may be necessary to publish an addendum to the DAQ ANP for a separate 30 day review and comment period specific to the Luke paper mill SO₂ monitoring plan under the DRR.

For more information on the SO₂ DRR please see

<https://www3.epa.gov/airquality/sulfur dioxide/implementation.html>.

Change in Ozone Season Monitoring in 2017

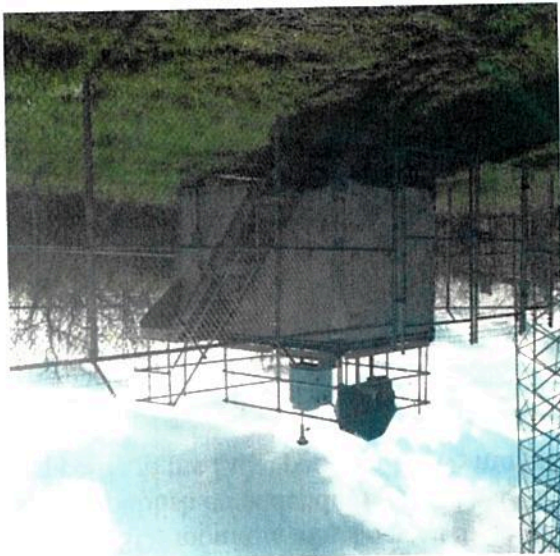
On October 1, 2015, USEPA revised the NAAQS for ozone to 70 parts per billion (ppb). USEPA also changed the ozone monitoring season for 32 states and the District of Columbia. The USEPA is requiring that WV monitor for ozone from March 1 to October 31 starting in calendar year 2017. Prior to the rule revision, the WV ozone monitoring season was April 1 through October 31. The rule also requires that beginning January 1, 2017 ozone is to be monitored year-round at NCORE sites. WV has one NCORE site located in Charleston, WV. The DAQ will implement these ozone monitoring season changes beginning January 1, 2017.

Air Toxics Monitoring

Historically, the DAQ monitored air toxics (Volatile Organic Compounds, carbonyls and metals) at three sites in WV; Charleston, Wheeling and Morgantown. In 2015, the analytical costs increased for these compounds. As a cost saving measure, DAQ ended toxics sampling at Morgantown. To further reduce analytical costs at the remaining two sites, Moundsville and Charleston, the sampling frequency was reduced from a 24 hour sample ran every 6th day to every 12th day.

Berkeley County

Site: Martinsburg Ball Field
Location: Martinsburg Ball Field, Martinsburg, Berkeley County, WV
AQIS ID: 54-003-0003
MSA: Hagerstown-Martinsburg, MD-WV
Latitude: 39.448001
Longitude: -77.96413



Comment: Site complies with Appendix A, C, D, and E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to provide air quality monitoring in Berkeley County and the Eastern Panhandle of WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 3/3/2015 and 10/7/2015

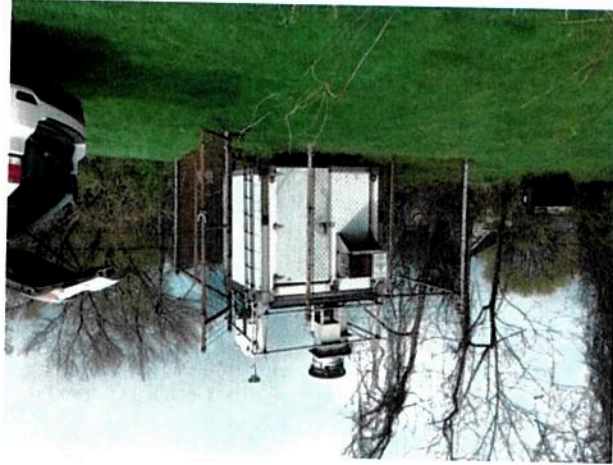
Gasous:

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 10/7/2015

Brooke County

Site: Mahan Lane

Location: Mahan Lane, Follansbee, Brooke County, WV
AQIS ID: 54-009-0005
MSA: Steubenville-Weirton OH-WV
Latitude 40.34102
Longitude -80.59664



Comment: Site complies with Appendix A, C, D but does not comply with Appendix E of Part 58. There continues to be infringement of tree growth that is outside of site area which is affecting the ideal monitor distance from the tree drip line. The DAQ is also experiencing leasing issues with this site. While the DAQ continues to explore alternate siting options, the availability of sites that are both leasable and meet all the siting criteria is very limited. Current site established in 1983 to provide air quality monitoring in an industrialized area of Brooke County.

Parameters monitored, sampling method, scale and purpose:

Particulates:

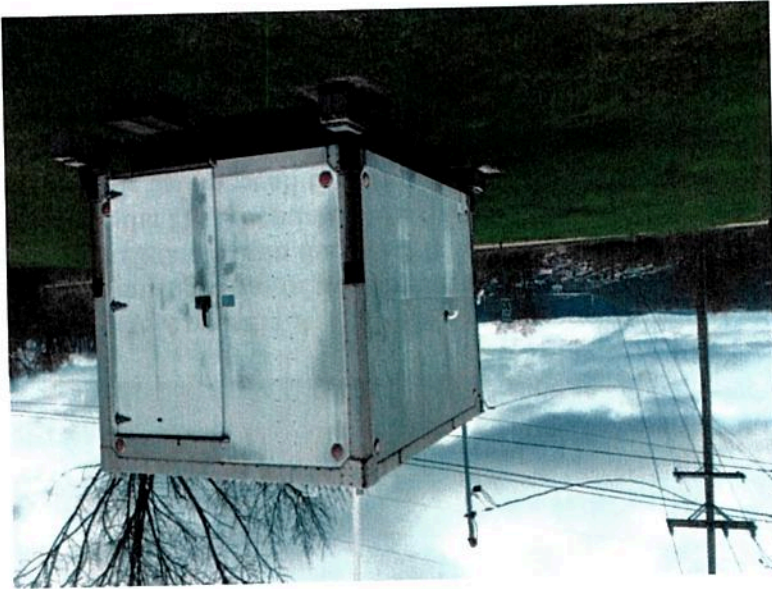
PM₁₀ Hi-Volume sampler, Size Selective Inlet, Federal Reference Method, utilizes 8"x10" quartz filters, samples once every six days. Collocated PM₁₀ Hi-Volume sampler runs once every 12 days. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 4/1/2015 and 10/26/2015

PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 4/28/2015 and 10/20/2015

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/21/2015
USEPA performance evaluation audit conducted 8/12/2015

Site: McKims Ridge
Location: McKims Ridge Road, Brooke County, WV
AQ5 ID: 54-009-0007
MSA: Steubenville-Weirton OH-WV
Latitude 40.38966
Longitude -80.58624

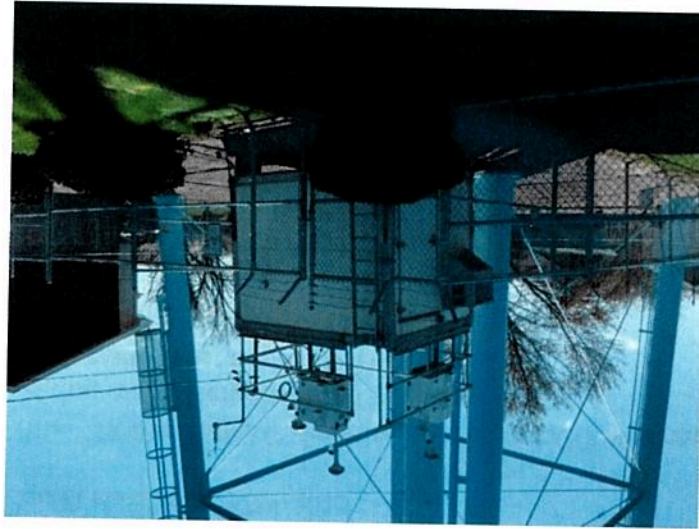


Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1997 as part of a dispersion model evaluation study and to provide additional air quality monitoring in Brooke and Hancock Counties in WV.

Parameters monitored, sampling method, scale and purpose:

Gasous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 12/2/2015

Site: Marland Heights
Location: Marland Heights, Weirton, Brooke County, WV
AQ5 ID: 54-009-0011
MSA: Steubenville-Weirton, OH-WV
Latitude 40.394583
Longitude -80.612017



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1992 to provide air quality monitoring in an industrial area of Brooke and Hancock Counties in WV.

Proposed change: The CO monitor is old and is not required to be operated under the CO NAAQS revision of August 15, 2011. The DAQ may discontinue operation of this monitor if it fails or if resources are required for higher priority monitoring. The CO monitor was originally installed in 1992 to measure CO point source emissions from a blast furnace across the river. The facility installed a flare which significantly reduced measured CO at this site. In 2005 the blast furnace was shut down and subsequently demolished around 2013.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous
PM₁₀ monitor.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State flow rate audit conducted 5/21/2015 and 11/2/2015

PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated PM_{2.5} monitor samples every 12th day. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 4/28/2015 and 10/22/2015

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

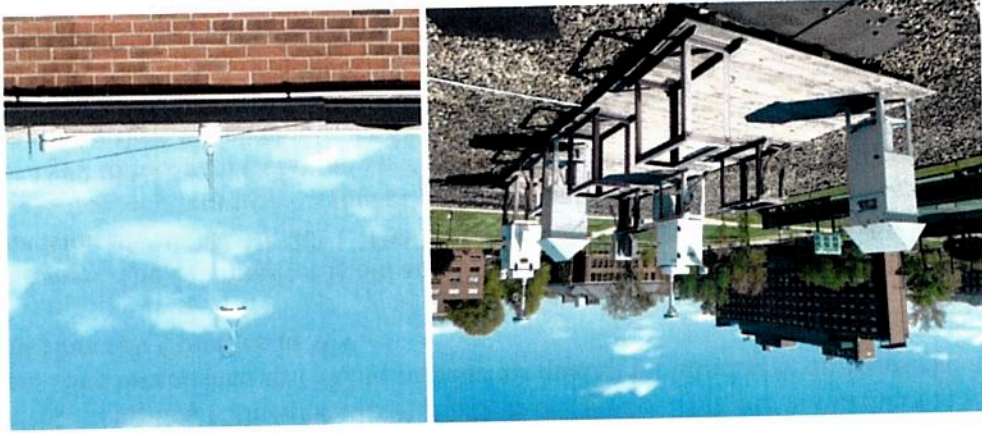
State accuracy audit conducted 3/24/2015

Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 3/24/2015

Cabell County

Site: Huntington

Location: Marshall University, Henderson Center, Huntington, Cabell County, WV
AQ5 ID: 54-011-0006
MSA: Huntington-Ashland
Latitude 38.424133
Longitude -82.425900



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1982 to provide air quality monitoring in an industrial area of Cabell County and the state's second most populous city in WV.
Proposed change: As stated in the 2014 Annual Network Plan, due to operator safety and site access difficulties, the DAQ will be working to relocate this site to a nearby USEPA approved location in 2016. All but the Pb samplers would be moved. The PM2.5 monitor is in compliance with the both the 24 hour and annual NAAQS.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM2.5 sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated sequential PM2.5 monitor samples every 12th day. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/8/2015 and 11/24/2015

Gasous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 8/12/2015

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 8/12/2015

Lead (Pb):
A Total Suspended Particulate (TSP) lead monitor was installed at this site and the first sample was collected in February 2012.

A TSP Pb Tisch Hi-Volume TSP sampler collects samples once every six days on an 8"x10" glass fiber filter. A collocated Pb Hi-Volume TSP sampler runs once every twelve days. Samples analyzed for Pb using USEPA Region 9 Federal Equivalent Method for ICP-MS.
Representative siting scale: Middle scale
Monitoring objective/site type: Source oriented
State audit conducted 6/24/2015 and 12/9/2015
USEPA performance evaluation audit conducted 10/26/2015

Greenbrier County

Site: Sam Black Church

Location: Department of Highway Garage, Sam Black Church, Greenbrier County, WV
AQS ID: 54-025-0003
MSA: NA
Latitude 37.908533
Longitude -80.632633



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to continue historical background ozone air quality monitoring that started in 1984 in Greenbrier County, a rural area of WV.

Parameters monitored, sampling method, scale and purpose:

Gasous: Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 7/24/2015
USEPA performance evaluation audit conducted 10/27/2015

Hancock County

Site: New Manchester

Location: New Manchester Elementary School, New Manchester, Hancock County, WV
AQIS ID: 54-029-0005
MSA: Steubenville-Weirton, OH-WV
Latitude 40.529021
Longitude -80.576067



Comment: Site complies with Appendix A, C, D, of Part 58. Due to infringement of tree growth outside of leased area, the site does not comply with Appendix E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1972 to provide air quality monitoring in Hancock County, WV.

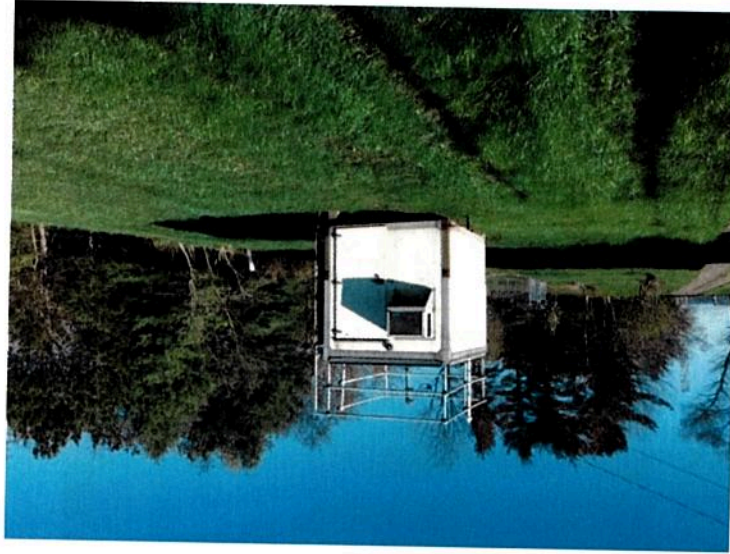
Parameters monitored, sampling method, scale and purpose:

Gasous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 3/24/2015

Site: New Cumberland

Location: RD#1, Carothers Road, New Cumberland, Hancock County, WV
AQ5 ID: 54-029-0007
MSA: Steubenville-Weirton, OH-WV
Latitude 40.460138
Longitude -80.576567



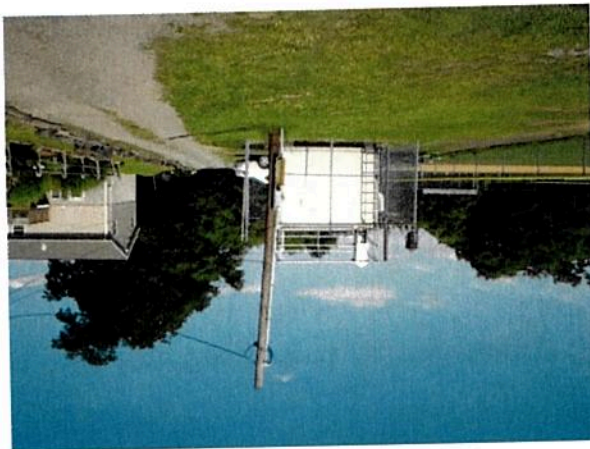
Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1990 as part of a multi-state SO₂ study (PA-WV-OH) and to provide air quality monitoring in Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gasous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 3/24/2015

Site: Chester
Location: Allison Elementary School, 647 Railroad Street, Chester, Hancock County, WV
AQ5 ID: 54-029-0008
MSA: Steubenville-Weirton, OH-WV
Latitude 40.615720
Longitude -80.560000



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1991 to provide air quality monitoring in northern Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 12/10/2015
USEPA performance evaluation audit conducted 8/13/2015

Periodic special project state discretionary collection of samples for TSP metals also takes place at this site.

Site: Summit Circle
Location: Summit Circle, Weirton, Hancock County, WV
AQ5 ID: 54-029-0009
MSA: Steubenville-Weirton, OH-WV
Latitude 40.427372
Longitude -80.592318



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1992 provide air quality monitoring in an industrial area of Hancock County, WV. With the closure of the Oak Street site at the end of 2014, PM_{2.5} and ozone monitoring was established at the existing Summit Circle site effective January 1, 2015 and April 1, 2015 respectively. The site retained the existing monitors for continuous PM₁₀, SO₂ and CO.

Proposed change: The CO monitor is old and is not required to be operated under the CO NAAQS revision of August 15, 2011. The DAQ may discontinue operation of this monitor if it fails or if resources are required for higher priority monitoring. The CO monitor was originally installed in 1992 to measure CO point source emissions from a nearby blast furnace in Weirton, WV. In 2005 the blast furnace was permanently idled and subsequently most of the steel mill has been demolished.

Parameters monitored, sampling method, scale and purpose:

Particulates:

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/21/2015 and 11/2/2015

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
Note: Sampler began operation at this in 2015.

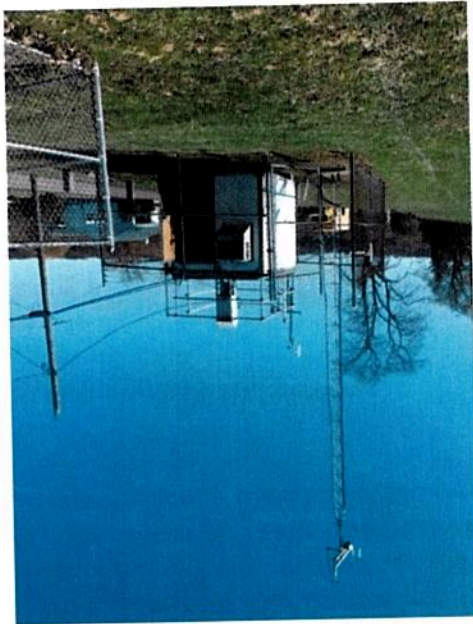
State accuracy audit conducted 5/21/2015 and 11/2/2015
USEPA performance evaluation audit conducted 8/13/2015

Gasous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

State accuracy audit conducted 9/21/2015
Ozone – UV absorption continuous gas monitor operated during ozone season April –
October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
Note: Monitor began operation at this in 2015.
State accuracy audit conducted 5/21/2015
Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/21/2015

Site: Lawrenceville
Location: Community Park and Tyrone Road, Lawrenceville, Hancock County, WV
AQ5 ID: 54-029-0015
MSA: Steubenville-Weirton, OH-WV
Latitude 40.618353
Longitude -80.540618



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site also has a 10 meter meteorological tower. Site established in 1995 in response to the 1992 installation of Waste Technology Industries (WTI), now known as Heritage Thermal Services, and to provide air monitoring in upper Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban

Monitoring objective/site type: Population oriented

State accuracy audit conducted 9/24/2015

Periodic special project for the collection of discretionary TSP metals also take place at this site.

Harrison County

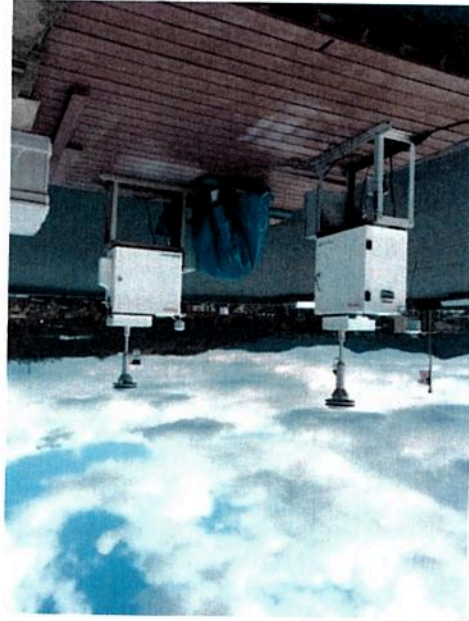
Site: Clarksburg

Location: Washington Irving Junior High School, Clarksburg, Harrison County, WV
AQIS ID: 54-033-0003

MSA: NA

Latitude 39.278117

Longitude -80.342250



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1997 to monitor PM_{2.5} in Harrison County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban

Monitoring objective/site type: Population oriented
State audit conducted 4/20/2015 and 10/13/2015

Kanawha County

Site: Charleston
Location: 209 Morris Street, Charleston, Kanawha County, WV
AQIS ID: 54-039-0010
MSA: Charleston, WV
Latitude 38.345600
Longitude -81.628317



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to provide air quality monitoring in Kanawha County (the state's largest county) and the largest city (Charleston) in WV.

Proposed change: In order to accommodate the significant increase in resources necessary to operate the NCore site, the Baptist Temple site was combined with the NCore beginning January 1, 2016. The Baptist Temple site will be decommissioned when the lease expires on April 30, 2016. In addition to the monitoring that will be performed at the NCore site (ozone, SO₂, CO, PM), the RadNet monitoring has been moved from Baptist Temple to the NCore site. The relocation of the air toxics monitoring system will be completed in April 2016.

Parameters monitored in 2015, sampling method, scale and purpose:

Particulates:
Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM₁₀ monitor. Data used primarily for Air Quality Index purposes.
Representative siting scale: Urban

Monitoring objective/site type: Population oriented
State audit conducted 4/29/2015 and 10/29/2015

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/29/2015 and 10/29/2015
USEPA performance evaluation audit conducted 10/27/2015

Gasous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban

Monitoring objective/site type: Population oriented
State accuracy audit conducted 12/8/2015

Ozone – UV absorption continuous gas monitor operated during ozone season April –
October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 7/27/2015

Toxics

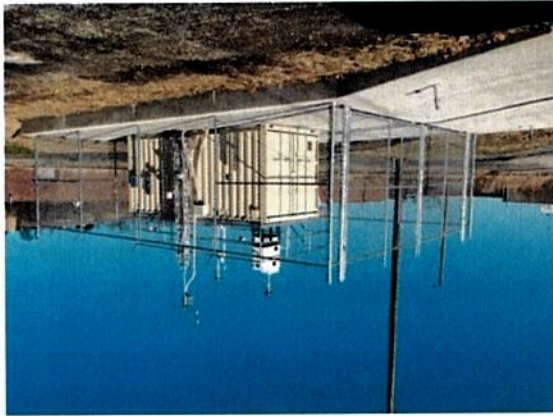
TSP metals, certain Volatile Organic Compounds and Carbonyls
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Other

USEPA RadNet Monitor

Site: NCORE

Location: 1436 Dixie St., Charleston, Kanawha County, WV
AQ5 ID: 54-039-0020
MSA: Charleston, WV
Latitude 38.346258
Longitude -81.621161



Comment: Site complies with Appendix A, C, D, E of Part 58. Site required to be established by USEPA as part of the national NCore multi-pollutant monitoring network.

Proposed change: Site became operational for ozone, SO₂, CO, PM₁₀ and PM_{2.5} on January 1, 2016. RadNet was relocated during the first quarter of 2016. The PM_{2.5} speciation trends network monitors were relocated from Guthrie and began collecting samples at NCore on March 16, 2016. The relocation of the air toxics monitoring system will be completed in April 2016. This site replaces Baptist Temple site that will be decommissioned April 30, 2016 when the lease expires.

Due to increased analytical cost it was necessary to reduce toxics sampling to a once every twelve day schedule beginning January 1, 2016.

Because this is a new site established in 2016 no state or federal accuracy audits were conducted in 2015.

Parameters monitored, sampling method, scale and purpose:

Particulates:

MetOne BAM 1020 continuous PM_{2.5} monitor

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

PM_{2.5} sequential sampler, Federal Reference Method, will sample once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

PM₁₀ sequential sampler, Federal Reference Method, will sample once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

Gaseous:
Sulfur Dioxide – UV fluorescent continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

NO/NO_y – Chemiluminescence continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Carbon Monoxide – Gas filter correlation continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

PM_{2.5} Speciation

Speciation Trends Network (STN) site equipped with Met One Super SASS and URG 3000N Carbon sampler. Both sample on an every three day schedule.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Toxics
TSP metals, certain Volatile Organic Compounds and Carbonyls
Representative siting scale: Neighborhood
Samples once every 12 days
Monitoring objective/site type: Population oriented

Other
Ultra-Sonic meteorological sensor

Site: Guthrie
Location: Guthrie Agricultural Center, Charleston, Kanawha County, WV
AQ5 ID: 54-039-0011
MSA: Charleston, WV
Latitude 38.448833
Longitude -81.684717



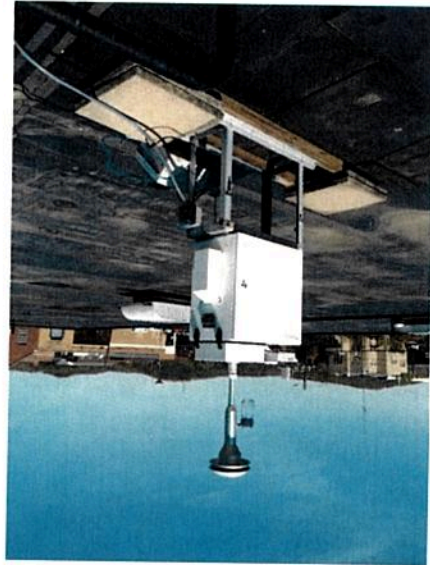
Comment: Site complies with Appendix A, C, D, E of Part 58. This site is not suitable for NAAQS comparisons since it only consists of a speciation trends network (STN) monitor; criteria pollutant monitoring is not conducted at this site. Site established in 2003 as part of the national Speciation Trends Network.

Proposed change: STN was relocated to the Charleston NCore site and began sampling March 16, 2016. The Guthrie site was decommissioned in April 2016.
Parameters monitored, sampling method, scale and purpose:

PM_{2.5} Speciation

Speciation Trends Network (STN) site equipped with Met One Super SASS and URG 3000N Carbon sampler. Both sample on an every three day schedule.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 3/17/2015, 6/9/2015, 9/17/2015 and 12/3/2015

Site: South Charleston
Location: South Charleston Public Library 312 4th Ave., South Charleston, Kanawha County, WV
AQIS ID: 54-039-1005
MSA: Charleston, WV
Latitude 38.366183
Longitude -81.69372717



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1974 to provide air quality monitoring in Kanawha County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates

PM_{2.5} sequential Low-Volume sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/7/2015 and 12/9/2015
USEPA performance evaluation audit conducted 10/27/2015
PM_{2.5} Speciation
As part of a national cost savings analysis, speciation monitoring at this site was defunded by USEPA and discontinued in 2015.

Marion County

Site: Fairmont

Location: 401 Guffey Street, Fairmont, Marion County, WV
AQIS ID: 54-049-0006
MSA: NA
Latitude 39.481483
Longitude -80.134667



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 2000 to monitor PM_{2.5} in Marion County, WV.

Proposed change: A new roof is expected to be installed during 2016. It may be required that the site may be shut down for an indeterminate period to allow for roof installation. The PM_{2.5} monitor is in compliance with the both the 24 hour and annual NAAQS.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.

Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented

State audit conducted 4/2/2015 and 10/13/82014

USEPA performance evaluation audit conducted 4/2/2015

Marshall County

Site: Moundsville

Location: Moundsville National Guard Armory, Moundsville, Marshall County, WV

AQS ID: 54-051-1002

MSA: Wheeling, WV-OH

Latitude 39.915961

Longitude -80.733858



Comment: Site complies with Appendix A, C, D, E of Part. This site is suitable for NAAQS comparisons with the exception of the $PM_{2.5}$ continuous FDMS TEOM which is not an FRM or FEM sampler. Site established in 1983 to provide air quality monitoring in Marshall County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:

$PM_{2.5}$ sequential sampler, Federal Reference Method. Samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/28/2015 and 10/22/2015
USEPA performance evaluation audit conducted 8/13/2015

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400ab continuous $PM_{2.5}$
Non-FRM/FEM monitor with Filter Dynamic Measurement System (FDMS).
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State flow rate audit conducted 4/21/2015 and 11/2/2015

$PM_{2.5}$ Speciation

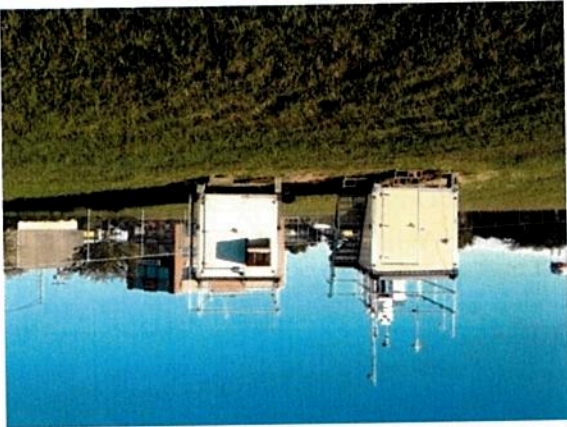
Chemical Speciation Network site. Met One Super SASS and URG 3000N Carbon
sampler. Both sample on an every six day schedule
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State flow rate audit conducted 3/9/2015, 4/21/2015, 8/21/2015 and 11/13/2015

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 4/21/2015

Monongalia County

Site: Morgantown
Location: Morgantown Airport, Monongalia County, WV
AQIS ID: 54-061-0003
MSA: NA
Latitude 39.649367
Longitude -79.920897



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1983 to provide air quality monitoring in Monongalia County, WV.

Due to personnel shortages and increased analytical cost increases, toxics monitoring was discontinued April 27, 2015.

Parameters monitored, sampling method, scale and purpose:

Particulates:
PM_{2.5} sequential sampler, Federal Reference Method. Samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/2/2015 and 10/7/2015
USEPA performance evaluation audit conducted 4/9/2015

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 4/29/2015

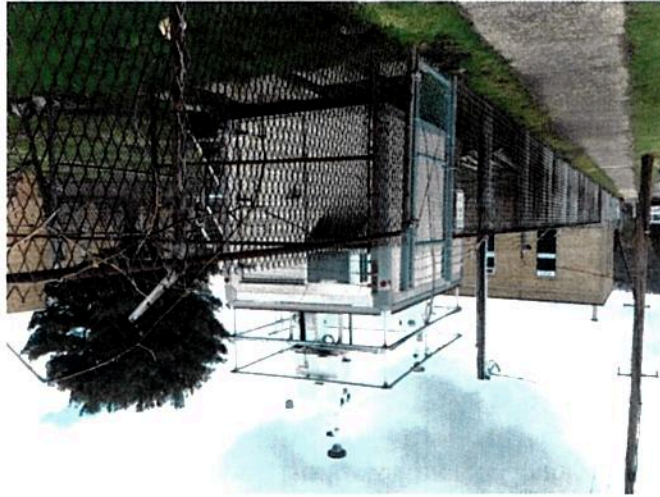
Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 4/29/2015

Ohio County

Site: Wheeling

Location: Warwood Water Treatment Plant, Wheeling, Ohio County, WV
AQIS ID: 54-069-0010
MSA: Wheeling, WV-OH
Latitude 40.11476
Longitude -80.700972



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 2005 to continue to provide air quality monitoring in Ohio County, WV.

Due to increased analytical cost it was necessary to reduce toxics sampling frequency to a once every twelve day schedule beginning January 1, 2016.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.

Representative siting scale: Urban

Monitoring objective/site type: Population oriented
State audit conducted 4/28/2015 and 10/20/2015

Gaseous:

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/29/2015

Toxics

TSP metals, certain Volatile Organic Compounds and Carbonyls.
Representative siting scale: Neighborhood
Samples once every 12 days
Monitoring objective/site type: Population oriented

Raleigh County

Site: Beckley
Location: Maxwell Hill Elementary School, Beckley, Raleigh County, WV
AQIS ID: 54-081-0002
MSA: NA
Latitude 37.807767
Longitude -81.197433



Comment: Site complies with Appendix A, C, D, E of Part 58. This site may not be suitable for NAAQS comparisons. Site established in 1998 to provide PM_{2.5} monitoring in Raleigh County, WV.

Proposed change: Due to significant personnel resource shortages, operation of this site had been suspended in April 2015 and for a large part of 2014. The most recent 2 years of data may not be sufficient for NAAQS comparisons. Based on prior years of data, the PM_{2.5} sampler at this site has always been well below the 24-hour and annual NAAQS. This site has not operated during the first quarter of 2016 and is not expected to be operation for most, if not all, of 2016. The operating status of this site will continue to be evaluated.

Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 3/2/2015

Wood County

Site: Vienna

Location: Neale Elementary School, Wood County, WV
AQ5 ID: 54-069-0010
MSA: Parkersburg-Marietta, WV-OH
Latitude 39.323553
Longitude -81.552367



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1975 to provide air quality monitoring in Wood County, WV.
Parameters monitored, sampling method, scale and purpose:

Particulates:

PM_{2.5} sequential sampler, Federal Reference Method. Samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 5/1/2015 and 12/3/2015
USEPA performance evaluation audit conducted 4/9/2015

Gaseous:

Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 8/6/2015

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 8/16/2015

Executive Office
601 57th Street, SE
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Fax: (304) 926-0466

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

west virginia department of environmental protection



EPA REGION III
OFFICE OF REGIONAL ADMINISTRATOR

DEC 15 2016

RECEIVED

December 14, 2016

Mr. Shawn M. Garvin, Regional Administrator
U.S. Environmental Protection Agency (3RA00)
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

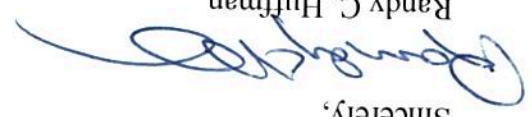
Dear Mr. Garvin:
Re: Addendum to the 2016 WV Air Monitoring Network Design

Enclosed is an addendum to the 2016 Ambient Air Monitoring Network Design for the West Virginia Department of Environmental Protection Division of Air Quality (DAQ). The purpose of this addendum was to provide for public inspection and comment on two proposed SO₂ air monitoring sites to be placed in West Virginia by Maryland and Ohio sources as a result of the SO₂ Data Requirements Rule.

As required by 40 CFR Part 58, Subpart B, the network design was made available for public inspection and comment on our website for a 30-day period beginning November 2, 2016. The DAQ did not receive any comments in response to the network design.

Should you have any question or comments regarding this matter please feel free to contact William F. Durham, Director, at 304-926-0499, ext. 1966.

Sincerely,


Randy C. Huffman
Cabinet Secretary

Enclosure

cc: William F. Durham, Director



west virginia department of environmental protection

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Addendum to the WVDOP 2016 Ambient Air Monitoring Annual Network Plan

On October 17, 2006, the US Environmental Protection Agency (EPA) published final amendments to 40CFR Part 53 and 58 "Revisions to Ambient Air Monitoring Regulations; Final Rule". This rule became effective on December 18, 2006.

Under Part 58, Subpart B-Monitoring Network, §58.10 Annual Monitoring Network Plan and Periodic Assessments (a)(1): "Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCORE stations, STN stations, State specification stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA. "

On March 28, 2016 (effective April 27, 2016) EPA finalized revisions to 40CFR Part 58 "Revision to Ambient Monitoring Quality Assurance and Other Requirements; Final Rule".

Under Part 58 §58.10 (a)(1) "Annual monitoring network plan and periodic network assessment" EPA amended the 2006 language to clarify the handling of any public comment received on the plan: "The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments."

On May 3, 2016 the WV Department of Environmental Protection Division of Air Quality's (DAQ) posted the ambient air monitoring Annual Network Plan (ANP) for 2016 to provide for the public inspection of, and obtain comments on, the ANP. The DAQ did not receive any comments and submitted the ANP to USEPA Region 3 on June 22, 2016. The 2016 ANP is available at:
<http://www.dep.wv.gov/daq/Documents/2016%20Ambient%20Air%20Monitoring%20Network%20Plan.pdf>.

Promoting a healthy environment.

SO₂ Data Requirement Rule (DRR)

On August 10, 2015, the USEPA finalized requirements for air agencies to monitor or model ambient sulfur dioxide (SO₂) levels in areas with large sources of SO₂ emissions to help implement the 1-hour SO₂ NAAQS. The rule establishes that, at a minimum, air agencies must characterize air quality around sources that emit 2,000 tons per year (tpy) or more of SO₂. The rule requires agencies to use either modeling of actual source emissions or appropriately sited ambient air quality monitors to assess SO₂ concentrations near the qualifying emission source.

As stated in the DAQ's 2016 ANP, no WV sources subject to the DRR rule have elected to conduct ambient air monitoring for SO₂. However, the Verso Paper Corporation Luke Mill, an SO₂ source in Maryland, has submitted a monitoring proposal to the Maryland Department of the Environment to conduct SO₂ monitoring. One of the SO₂ monitoring sites will be located in WV. There are also two SO₂ sources in Ohio; American Electric Power's James M. Gavin and the Ohio Valley Electric Corporation Kyger Creek power plants. Both facilities are electric generating utilities that are located within two miles of each other along the Ohio River in Gallia County. These facilities have proposed to conduct SO₂ air monitoring under the SO₂ DRR. More information on the SO₂ DRR may be found at: <https://www.epa.gov/so2-pollution>.

The Verso Luke Mill, located in Alleghany County, MD has elected to perform air monitoring under the SO₂ DRR. One of the facilities SO₂ air monitoring sites will be located in Mineral County, WV. Additional site details may be found in Addendum 1 to Maryland's Air Monitoring Network Plan 2017 Monitoring to meet SO₂ Data Requirements Rule located at: <http://www.mde.maryland.gov/programs/Air/AirQualityMonitoring/Pages/Network.aspx>.

The James M. Gavin and Kyger Creek electric generating utilities located in Gallia County, Ohio have also elected to perform air monitoring under the SO₂ DRR. As proposed, one of the facilities SO₂ air monitoring sites will be located in Lakin, Mason County, WV.

The purpose of this addendum to the 2016 WV ANP is to provide for a public inspection and a comment period on the two SO₂ air monitoring sites proposed to be sited in WV by the aforementioned MD and OH facilities under the SO₂ DRR. Public comments will be received for a 30-day period from the date of posting on our website at www.dep.wv.gov/dag/. Comments received during the public inspection period, and the DAQ response will be forwarded to USEPA Region 3.

Please send written comments to:

Tim J. Carroll, Assistant Director
Air Monitoring/Laboratory
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments may also be submitted via email to: tim.j.carroll@wv.gov.

