



west virginia department of environmental protection

Appendix B: Emissions Inventory Data & Documentation

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

Promoting a healthy environment.

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Marshall, WV Nonattainment Area SO₂ Base Year (2011) Emission Inventory

May 6, 2015

**West Virginia Division of Air Quality
601 57th Street, SE
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Introduction

On June 2, 2010, EPA revised the primary Sulfur Dioxide National Ambient Air Quality Standard (SO₂ NAAQS) (75 FR 35520) by establishing a new 1-hour standard at a level of 75 parts per billion (ppb) which is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentrations does not exceed 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50 40 CFR 50.17(a)-(b). West Virginia submitted designation recommendations on May 23, 2011 and submitted supplemental information on January 22, 2013. On August 5, 2013, The United States Environmental Protection Agency (EPA) published final nonattainment area designations for the 2010 1-hour SO₂ NAAQS (78 FR 47191). The Marshall, WV area, comprised of the Clay, Franklin and Washington Tax Districts, was designated nonattainment based upon the 2009 - 2011 design value of 78 ppb.

Clean Air Act Section 172(c)(3) requires the submittal of a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in the nonattainment area. The relevant pollutant with respect to the 2010 1-hour SO₂ NAAQS is sulfur dioxide.

Request

The State of West Virginia is requesting that the United States Environmental Protection Agency (EPA) approve the 2011 SO₂ inventory for the Marshall, WV nonattainment area, comprising the Clay, Franklin and Washington Tax Districts as meeting the requirements of Clean Air Act Section 172(c)(3), as a required element of the State Implementation Plan.

Emission Inventory

The Clay, Franklin and Washington Tax districts in Marshall County were the only areas designated nonattainment, however the emission inventory data are for the entire county. Although the point source data includes the emissions for all point sources in the county, it should be noted that less than one ton of the SO₂ emissions from point sources are from sources not located in the three (3) tax districts that were designated nonattainment. (See map on the following page.)

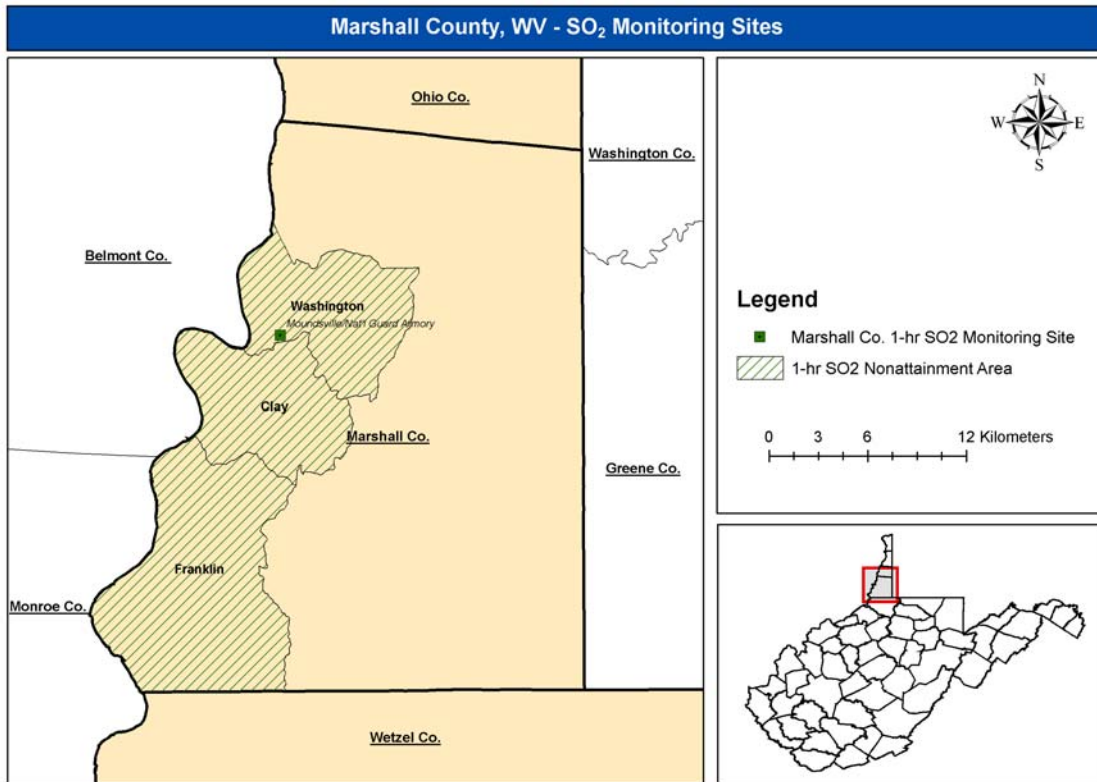


Figure1. Marshall, WV 1-hr SO₂ Nonattainment Area, includes Clay, Franklin and Washington Tax Districts

The following table provides a summary of the SO₂ emissions by source sector for Marshall County.

Category	SO ₂ Emissions (tons)	Notes
Fires	4	Prescribed forest burning
Nonpoint (Area)	129	Includes CMV and locomotives (3 tons). Also includes oil and gas well emissions (78 tons).
Nonroad	0	Includes railway maintenance.
Onroad	2	
Point EGU	21,231	
Point NonEGU	12,171	Includes airport emissions.
Total	34,157	Marshall County

The emissions inventory data provided here were extracted from U.S. EPA's National Emissions Inventory (NEI) version 2 current as of January 22, 2015. Emissions totals were prepared largely by EPA and their contractors and the West Virginia Division of Air Quality (DAQ) accepted them. However, all of the point source emissions and certain area source categories were prepared by DAQ staff.

Fires

There are two types of fires contained in the 2011 NEI v2: Prescribed forest burning and wildfires. There were no wildfires in Marshall county in 2011 although there were in other counties. The fires inventory was developed by U.S. EPA and the estimates were accepted by the DAQ.

Nonpoint (Area)

Area source emissions inventories address human activities that are too small to calculate individually but that can be significant collectively. Area source activities examples include residential wood burning in fireplaces, agricultural pesticide application, and auto body repair shops. Area source emissions are calculated at the county level. A significant new category, the Oil and Gas Exploration and Production sector, was included for the first time in the 2011 NEI.

Due to this category's rapid growth and expected significant impacts, EPA was required to prepare oil and gas inventories in a relatively short time. One of the western regional air organizations had already developed software to calculate emissions from the sector, so rather than developing an inventory from scratch, EPA adapted their tool to prepare a national inventory. EPA then invited states to either accept their estimates or to collaborate with them to improve the estimates.

With extensive collaboration and support provided from the Office of Air Quality Planning and Standards (OAQPS) Emissions Inventory and Analysis Group (EIAG) staff, DAQ used EPA's Oil and Gas Tool to estimate emissions from 24 process types. Using the updated data there were about 78 tons of SO₂ from this portion of the area source inventory of the 129 tons of SO₂ contained in the total Marshall County area source inventory. About 77 of the 78 tons were associated with one source classification (SCC 2310121700 - On-Shore Gas Exploration /Gas Well Completion: All Processes).

Nonroad

Nonroad sources, as the name implies, are mobile sources that operate off-road. Examples include construction equipment such as bulldozers and cranes, tractors, aircraft, marine vessels, and locomotives. Except for the air, rail and commercial marine vessel (CMV) categories, EPA uses their Nonroad Model to prepare emissions estimates for this sector. Total SO₂ emissions calculated by the Nonroad Model were less than a ton. Aircraft emissions were flagged in the 2011 NEI as point sources and totaled about 260 pounds. Emissions from the rail and marine vessel categories were flagged by EPA as being area sources and totaled about 3 tons, most of which came from SCC 2280002200 (CMVs, Diesel: Underway emissions). The rail and CMV totals were included in the nonpoint total above. All of the nonroad emissions estimates were prepared by EPA and DAQ accepted them.

Onroad

Onroad sources include all vehicles that are designed to operate on roadways. They include automobiles, trucks, busses, and motorcycles. EPA prepared these emissions estimates using their MOVES 2014 model and DAQ accepted them.

Point EGU and nonEGU

Point sources are those sources of air pollutants that, in contrast to area sources, are large enough to calculate emissions on a facility-by-facility basis. Electricity Generating Units (EGUs) are typically the largest source of emissions and their emissions are frequently broken out from the remainder of nonEGU point source categories. The largest sources of SO₂ emissions in Marshall County were the two EGUs. The point source data above was collected by DAQ, quality assured, and reported to U.S. EPA via its EIS Gateway.

The files were downloaded from U.S. EPA's EIS Gateway at <https://eis.epa.gov/eis-system-web/welcome.html>. The point, nonpoint, nonroad and event datasets were originally extracted in December, 2014 and at the time onroad mobile data were not available. On January 22, 2015 and the onroad data were available and downloaded. It was also verified at the time that emissions totals from the other sectors were unchanged. The emissions totals by sector were confirmed by applying filters to the original tables as downloaded and comparing them to the totals shown here.

The detailed emissions are provided in the Appendix.

Public Participation

West Virginia published notification for a public hearing and solicitation for public comment concerning the Proposed Marshall, WV Nonattainment Area SO₂ Base Year (2011) Emission Inventory in the *State Register* and the *Intelligencer*, Wheeling News-Register on March 27, 2015.

The public hearing to receive comments on the proposed SIP inventory was held at 6:00 pm on April 27, 2015 at the West Virginia Department of Environmental Protection's Northern Panhandle Regional Office located at 131A Peninsula Street, Wheeling, WV. Two DAQ employees and the court reporter attended the public hearing. The public comment period closed on April 27, 2015. No comments were received. The Appendix includes a copy of the public notice, copies of the published notifications and hearing sign-in sheet, and a transcript of the hearing.

The public notice inadvertently identified April 27, 2015 as Tuesday, rather than Monday. Due to this error, DEP staff were available at the hearing location at 6:00 pm on Tuesday, April 28, 2015 to accept public comments. No public comments were received.

Appendix

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Marshall County SO2 Emissions Contained in 2011 NEI v2
Point Facility-Level by SCC Totals

County Name	Facility Name	State County FIPS	WV Facility ID	SCC	SCC Description	SO2
Marshall	ADALINE 7C6600	54051	0100	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0
Marshall	ADALINE 7C6600	54051	0100	20200201	Industrial IC EnginesNatural Gas /Turbine	0
Marshall	ADALINE 7C6600	54051	0100	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	0
Marshall	ADALINE 7C6600	54051	0100	20200254	Industrial IC EnginesNatural Gas /4-cycle Lean Burn	0
Marshall	ADALINE 7C6600	54051	0100	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	0
Marshall	BAYER MATERIALSCIENCE	54051	0009	10200601	Industrial Boilers /Natural Gas /> 100 Million Btu/hr	0
Marshall	BAYER MATERIALSCIENCE	54051	0009	30190013	Chem Manuf /Fuel Fired Equipment /Natural Gas: Incinerators	0
Marshall	CERTAINTED MOUNDSVILLE FACILITY	54051	0113	30501501	Gypsum Manuf /Rotary Ore Dryer	0
Marshall	CERTAINTED MOUNDSVILLE FACILITY	54051	0113	30501511	Gypsum Manuf /Continuous Kettle: Calciner	0
Marshall	CERTAINTED MOUNDSVILLE FACILITY	54051	0113	30501599	Gypsum Manuf /See Comment **	0
Marshall	GLENDALÉ FOKKER FIELD	54051		2275050011	Point Aircraft, General Aviation: Piston	0
Marshall	KAMMER PLANT	54051	0006	10100203	EGU Boilers Bituminous Coal Cyclone Furnace	16,712
Marshall	MAJORSVILLE 7C5510/20	54051	0025	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	0
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200253	Industrial IC EnginesNatural Gas /4-cycle Rich Burn	0
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200254	Industrial IC EnginesNatural Gas /4-cycle Lean Burn	0
Marshall	MAJORSVILLE 7C5510/20	54051	0025	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	0
Marshall	Marshall County	54051		2275001000	Point Aircraft, Military Aircraft: Total	0
Marshall	Marshall County	54051		2275050011	Point Aircraft, General Aviation: Piston	0
Marshall	Marshall County	54051		2275050012	Point Aircraft, General Aviation: Turbine	0
Marshall	Marshall County	54051		2275060011	Point Aircraft, Air Taxi: Piston	0
Marshall	Marshall County	54051		2275060012	Point Aircraft, Air Taxi: Turbine	0
Marshall	MITCHELL PLANT	54051	0005	10100202	EGU Boilers Bituminous Coal Coal: Pulverized: Dry Bottom	4,519
Marshall	MITCHELL PLANT	54051	0005	10300501	Commercial, Institutional Boilers /Distillate Oil /Grades 1 and 2 Oil	0
Marshall	MITCHELL PLANT	54051	0005	20200102	Industrial IC EnginesDistillate Oil (Diesel) /Reciprocating	0
Marshall	PPG INDUSTRIES, INC., NATRIUM PLANT	54051	0002	10200202	Industrial Boilers /Bitum Coal /Pulverized Coal: Dry Bottom	6,729
Marshall	PPG INDUSTRIES, INC., NATRIUM PLANT	54051	0002	10200602	Industrial Boilers /Natural Gas /10-100 Million Btu/hr	0
Marshall	PPG INDUSTRIES, INC., NATRIUM PLANT	54051	0002	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0
Marshall	PPG INDUSTRIES, INC., NATRIUM PLANT	54051	0002	10201401	Industrial Boilers /CO Boiler /Natural Gas	0
Marshall	PPG INDUSTRIES, INC., NATRIUM PLANT	54051	0002	30190004	Chem Manuf /Fuel Fired Equipment /Process Gas: Process Heaters	30
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	30599999	Mineral Prods /Other Not Defined /Specify in Comments Field	14
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	30601401	Petrol Indus /Petroleum Coke Calcining /Coke Calciner	6,017
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	39000699	In-Process Fuel Use /Natural Gas /General	0
Marshall County 2011 SO2 Emissions from Point-Facility Level Total						34,022

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	E	2811015000	Prescribed Forest Burning - Unspecified	SO2	4
Marshall	54051	NP	2310121700	On-Shore Gas Exploration /Gas Well Completion: All Processes	SO2	77
Marshall	54051	NP	2102002000	Area Source Industrial Bituminous/SubBituminous Total: All Boiler Types	SO2	34
Marshall	54051	NP	2104004000	Area Source Residential Distillate Oil Total: All Combustor Types	SO2	5
Marshall	54051	NP	2280002200	CMVs, Diesel: Underway emissions	SO2	4
Marshall	54051	NP	2104011000	Area Source Residential Kerosene Total: All Heater Types	SO2	2
Marshall	54051	NP	2102004000	Area Source Industrial Distillate Oil Total: Boilers and IC Engines	SO2	2
Marshall	54051	NP	2102005000	Area Source Industrial Residual Oil Total: All Boiler Types	SO2	1
Marshall	54051	NP	2610030000	Open Burning /Residential /Household Waste (use 26-10-000-xxx for Yard Wastes)	SO2	1
Marshall	54051	NP	2104008610	Area Source Residential Wood Hydronic heater: outdoor	SO2	1
Marshall	54051	NP	2310111700	On-Shore Oil Exploration /Oil Well Completion: All Processes	SO2	0
Marshall	54051	NP	2285002006	Area Railroad Equipment, Diesel, Line Haul Locomotives: Class I Operations	SO2	0
Marshall	54051	NP	2103008000	Area Source Commercial Institutional Wood Total: All Boiler Types	SO2	0
Marshall	54051	NP	2310010200	Oil & Gas Expl & Prod /Crude Petroleum /Oil Well Tanks - Flashing & Standing/Working/Breathing	SO2	0
Marshall	54051	NP	2104006000	Area Source Residential Natural Gas Total: All Combustor Types	SO2	0
Marshall	54051	NP	2104008100	Area Source Residential Wood Fireplace: general	SO2	0
Marshall	54051	NP	2104008210	Area Source Residential Wood Woodstove: fireplace inserts; non-EPA certified	SO2	0
Marshall	54051	NP	2104008510	Area Source Residential Wood Furnace: Indoor, cordwood-fired, non-EPA certified	SO2	0
Marshall	54051	NP	2801500000	Agric - Crops /Field Burning - whole field set on fire /Unspecified	SO2	0
Marshall	54051	NP	2104008310	Area Source Residential Wood Woodstove: freestanding, non-EPA certified	SO2	0
Marshall	54051	NP	2610000400	Open Burning /All Categories /Yard Waste - Brush Species Unspecified	SO2	0
Marshall	54051	NP	2310000220	Oil & Gas Expl & Prod /All Processes /Drill Rigs	SO2	0
Marshall	54051	NP	2103004000	Area Source Commercial Institutional Distillate Oil Total: Boilers and IC Engines	SO2	0
Marshall	54051	NP	2104008220	Area Source Residential Wood Woodstove: fireplace inserts; EPA certified; non-catalytic	SO2	0
Marshall	54051	NP	2610000100	Open Burning /All Categories /Yard Waste - Leaf Species Unspecified	SO2	0
Marshall	54051	NP	2102006000	Area Source Industrial Natural Gas Total: Boilers and IC Engines	SO2	0
Marshall	54051	NP	2104008320	Area Source Residential Wood Woodstove: freestanding, EPA certified, non-catalytic	SO2	0
Marshall	54051	NP	2310000660	Oil and Gas Exploration and Production All Processes Hydraulic Fracturing Engines	SO2	0
Marshall	54051	NP	2810060100	Cremation /Humans	SO2	0
Marshall	54051	NP	2103006000	Area Source Commercial Institutional Natural Gas Total: Boilers and IC Engines	SO2	0
Marshall	54051	NP	2104007000	Area Source Residential Liquefied Petroleum Gas Total: All Combustor Types	SO2	0
Marshall	54051	NP	2310021400	On-Shore Gas Production /Gas Well Dehydrators	SO2	0
Marshall	54051	NP	2310021302	On-Shore Gas Production /Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	SO2	0
Marshall	54051	NP	2104008230	Area Source Residential Wood Woodstove: fireplace inserts; EPA certified; catalytic	SO2	0
Marshall	54051	NP	2285002007	Area Railroad Equipment, Diesel, Line Haul Locomotives: Class II / III Operations	SO2	0
Marshall	54051	NP	2310021351	Oil and Gas Exploration and Production On-Shore Gas Production Lateral Compressors 4 Cycle Rich Burn	SO2	0
Marshall	54051	NP	2310023302	Coal Bed Methane Natural Gas, CBM Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	SO2	0
Marshall	54051	NP	2104008330	Area Source Residential Wood Woodstove: freestanding, EPA certified, catalytic	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NP	2102011000	Area Source Industrial Kerosene Total: All Boiler Types	SO2	0
Marshall	54051	NP	2310021202	On-Shore Gas Production /Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	SO2	0
Marshall	54051	NP	2104008400	Area Source Residential Wood Woodstove: pellet-fired, general (freestanding or FP insert)	SO2	0
Marshall	54051	NP	2103011000	Area Source Commercial Institutional Kerosene Total: All Combustor Types	SO2	0
Marshall	54051	NP	2310023202	Coal Bed Methane Natural Gas, CBM Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	SO2	0
Marshall	54051	NP	2310023400	Coal Bed Methane NG / Dehydrators	SO2	0
Marshall	54051	NP	2310023351	Coal Bed Methane Natural Gas, Lateral Compressors 4 Cycle Rich Burn	SO2	0
Marshall	54051	NP	2310021251	Oil and Gas Exploration and Production On-Shore Gas Production Lateral Compressors 4 Cycle Lean Burn	SO2	0
Marshall	54051	NP	2104008700	Area Source Residential Wood Outdoor wood burning device, NEC (fire-pits, chimeas, etc)	SO2	0
Marshall	54051	NP	2310023251	Coal Bed Methane Natural Gas, Lateral Compressors 4 Cycle Lean Burn	SO2	0
Marshall	54051	NP	2310000330	Oil & Gas Expl & Prod /All Processes /Artificial Lift	SO2	0
Marshall	54051	NP	2310021100	On-Shore Gas Production /Gas Well Heaters	SO2	0
Marshall	54051	NP	2310011000	On-Shore Oil Production /Total: All Processes	SO2	0
Marshall	54051	NP	2310023603	Coal Bed Methane NG / Venting - Blowdowns	SO2	0
Marshall	54051	NP	2310021010	On-Shore Gas Production /Storage Tanks: Condensate	SO2	0
Marshall	54051	NP	2104001000	Area Source Residential Anthracite Total: All Combustor Types	SO2	0
Marshall	54051	NP	2302002200	Food & Kindred Products /Commercial Cooking - Charbroiling /Under-fired Charbroiling	SO2	0
Marshall	54051	NP	2310023600	Coal Bed Methane Natural Gas, CBM Well Completion: All Processes	SO2	0
Marshall	54051	NP	2310023010	Coal Bed Methane Natural Gas, Storage Tanks: Condensate	SO2	0
Marshall	54051	NP	2310021603	On-Shore Gas Production / Gas Well Venting - Blowdowns	SO2	0
Marshall	54051	NP	2104002000	Area Source Residential Bituminous/SubBituminous Total: All Combustor Types	SO2	0
Marshall	54051	NP	2103005000	Area Source Commercial Institutional Residual Oil Total: All Boiler Types	SO2	0
Marshall	54051	NP	2310023100	Coal Bed Methane Natural Gas, CBM Well Heaters	SO2	0
Marshall	54051	NR	2270005015	Nonroad Diesel, Agricultural Equip: Agricultural Tractors	SO2	0
Marshall	54051	NR	2270009010	Nonroad: Diesel, Underground Mining Equip: Other Underground Mining Equip	SO2	0
Marshall	54051	NR	2282005010	Pleasure Craft, Gasoline 2-Stroke: Outboard	SO2	0
Marshall	54051	NR	2265004055	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn & Garden Tractors (Residential)	SO2	0
Marshall	54051	NR	2282010005	Pleasure Craft, Gasoline 4-Stroke: Inboard/Sterndrive	SO2	0
Marshall	54051	NR	2282020005	Pleasure Craft, Diesel: Inboard/Sterndrive	SO2	0
Marshall	54051	NR	2270003060	Nonroad Diesel, Industrial Equip: AC\Refrigeration	SO2	0
Marshall	54051	NR	2267003020	Nonroad LPG, Industrial Equipment: Forklifts	SO2	0
Marshall	54051	NR	2282005015	Pleasure Craft, Gasoline 2-Stroke: Personal Water Craft	SO2	0
Marshall	54051	NR	2270005020	Nonroad Diesel, Agricultural Equip: Combines	SO2	0
Marshall	54051	NR	2265004010	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn Mowers (Residential)	SO2	0
Marshall	54051	NR	2265006005	Nonroad Gasoline, 4-Stroke Commercial Equipment Generator Sets	SO2	0
Marshall	54051	NR	2270002060	Nonroad Diesel, Construction & Mining Equip: Rubber Tire Loaders	SO2	0
Marshall	54051	NR	2270007015	Nonroad Diesel, Logging Equip: Forest Equip - Feller/Bunch/Skidder	SO2	0
Marshall	54051	NR	2270006005	Nonroad Diesel, Commercial Equip: Generator Sets	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NR	2270002036	Nonroad Diesel, Construction & Mining Equip: Excavators	SO2	0
Marshall	54051	NR	2270002069	Nonroad Diesel, Construction & Mining Equip: Crawler Tractor/Dozers	SO2	0
Marshall	54051	NR	2270003020	Nonroad Diesel, Industrial Equip: Forklifts	SO2	0
Marshall	54051	NR	2270002051	Nonroad Diesel, Construction & Mining Equip: Nonroad Trucks	SO2	0
Marshall	54051	NR	2270006015	Nonroad Diesel, Commercial Equip: Air Compressors	SO2	0
Marshall	54051	NR	2270002066	Nonroad Diesel, Construction & Mining Equip: Tractors/Loaders/Backhoes	SO2	0
Marshall	54051	NR	2265001050	Nonroad Gasoline, 4-Stroke Recreational Equipment Golf Carts	SO2	0
Marshall	54051	NR	2270010010	Nonroad: Diesel, Industrial Equip: Other Oil Field Equip	SO2	0
Marshall	54051	NR	2265006030	Nonroad Gasoline, 4-Stroke Commercial Equipment Pressure Washers	SO2	0
Marshall	54051	NR	2270003070	Nonroad Diesel, Industrial Equip: Terminal Tractors	SO2	0
Marshall	54051	NR	2265004071	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Turf Equipment (Commercial)	SO2	0
Marshall	54051	NR	2270002072	Nonroad Diesel, Construction & Mining Equip: Skid Steer Loaders	SO2	0
Marshall	54051	NR	2270005055	Nonroad Diesel, Agricultural Equip: Other Agricultural Equip	SO2	0
Marshall	54051	NR	2270003040	Nonroad Diesel, Industrial Equip: Other General Industrial Equip	SO2	0
Marshall	54051	NR	2270003030	Nonroad Diesel, Industrial Equip: Sweepers/Scrubbers	SO2	0
Marshall	54051	NR	2265004040	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rear Engine Riding Mowers (Residential)	SO2	0
Marshall	54051	NR	2265006025	Nonroad Gasoline, 4-Stroke Commercial Equipment Welders	SO2	0
Marshall	54051	NR	2270006025	Nonroad Diesel, Commercial Equip: Welders	SO2	0
Marshall	54051	NR	2270005060	Nonroad Diesel, Agricultural Equip: Irrigation Sets	SO2	0
Marshall	54051	NR	2265006010	Nonroad Gasoline, 4-Stroke Commercial Equipment Pumps	SO2	0
Marshall	54051	NR	2270002057	Nonroad Diesel, Construction & Mining Equip: Rough Terrain Forklifts	SO2	0
Marshall	54051	NR	2270002018	Nonroad Diesel, Construction & Mining Equip: Scrapers	SO2	0
Marshall	54051	NR	2270006010	Nonroad Diesel, Commercial Equip: Pumps	SO2	0
Marshall	54051	NR	2270002015	Nonroad Diesel, Construction & Mining Equip: Rollers	SO2	0
Marshall	54051	NR	2270002048	Nonroad Diesel, Construction & Mining Equip: Graders	SO2	0
Marshall	54051	NR	2268003020	NonroadCNG, Industrial Equip: Forklifts	SO2	0
Marshall	54051	NR	2270002045	Nonroad Diesel, Construction & Mining Equip: Cranes	SO2	0
Marshall	54051	NR	2265004035	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Snowblowers (Residential)	SO2	0
Marshall	54051	NR	2260004025	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Residential)	SO2	0
Marshall	54051	NR	2265004075	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Other Lawn & Garden Equipment (Residential)	SO2	0
Marshall	54051	NR	2267006005	Nonroad LPG, Commercial Equipment: Generator Sets	SO2	0
Marshall	54051	NR	2265010010	Nonroad Gasoline, 4-Stroke, Industrial: Other Oil Field Equipment	SO2	0
Marshall	54051	NR	2270005035	Nonroad Diesel, Agricultural Equip: Sprayers	SO2	0
Marshall	54051	NR	2265006015	Nonroad Gasoline, 4-Stroke Commercial Equipment Air Compressors	SO2	0
Marshall	54051	NR	2270005045	Nonroad Diesel, Agricultural Equip: Swathers	SO2	0
Marshall	54051	NR	2265004015	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Residential)	SO2	0
Marshall	54051	NR	2265004056	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn & Garden Tractors (Commercial)	SO2	0
Marshall	54051	NR	2260004020	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Chain Saws < 6 HP (Residential)	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NR	2268010010	NonroadCNG, Industrial Equip: Other Oil Field Equip	SO2	0
Marshall	54051	NR	2265005040	Nonroad Gasoline, 4-Stroke Agricultural Equipment Tillers : 6 HP	SO2	0
Marshall	54051	NR	2260004030	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Residential)	SO2	0
Marshall	54051	NR	2270004066	Nonroad Diesel, Lawn & Garden Equip: Chippers/Stump Grinders (Commercial)	SO2	0
Marshall	54051	NR	2270002030	Nonroad Diesel, Construction & Mining Equip: Trenchers	SO2	0
Marshall	54051	NR	2268006020	NonroadCNG, Commercial Equip: Gas Compressors	SO2	0
Marshall	54051	NR	2265004011	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn Mowers (Commercial)	SO2	0
Marshall	54051	NR	2270002075	Nonroad Diesel, Construction & Mining Equip: Nonroad Tractors	SO2	0
Marshall	54051	NR	2265004031	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Commercial)	SO2	0
Marshall	54051	NR	2285002015	Nonroad RailroadEquipment, Diesel: Railway Maintenance	SO2	0
Marshall	54051	NR	2270002081	Nonroad Diesel, Construction & Mining Equip: Other Construction Equip	SO2	0
Marshall	54051	NR	2270002033	Nonroad Diesel, Construction & Mining Equip: Bore/Drill Rigs	SO2	0
Marshall	54051	NR	2270002003	Nonroad Diesel, Construction & Mining Equip: Pavers	SO2	0
Marshall	54051	NR	2270004046	Nonroad Diesel, Lawn & Garden Equip: Front Mowers (Commercial)	SO2	0
Marshall	54051	NR	2265004036	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Snowblowers (Commercial)	SO2	0
Marshall	54051	NR	2265007010	Nonroad Gasoline, 4-Stroke Logging Equipment Shredders : 6 HP	SO2	0
Marshall	54051	NR	2265003020	Nonroad Gasoline, 4-Stroke Industrial Equipment Forklifts	SO2	0
Marshall	54051	NR	2260004035	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Snowblowers (Residential)	SO2	0
Marshall	54051	NR	2265005035	Nonroad Gasoline, 4-Stroke Agricultural Equipment Sprayers	SO2	0
Marshall	54051	NR	2270003010	Nonroad Diesel, Industrial Equip: Aerial Lifts	SO2	0
Marshall	54051	NR	2267006025	Nonroad LPG, Commercial Equipment: Welders	SO2	0
Marshall	54051	NR	2265004016	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Commercial)	SO2	0
Marshall	54051	NR	2265005060	Nonroad Gasoline, 4-Stroke Agricultural Equipment Irrigation Sets	SO2	0
Marshall	54051	NR	2267006015	Nonroad LPG, Commercial Equipment: Air Compressors	SO2	0
Marshall	54051	NR	2268006005	NonroadCNG, Commercial Equip: Generator Sets	SO2	0
Marshall	54051	NR	2265005055	Nonroad Gasoline, 4-Stroke Agricultural Equipment Other Agricultural Equipment	SO2	0
Marshall	54051	NR	2260006010	Nonroad Gasoline, 2-Stroke Commercial Equipment Pumps	SO2	0
Marshall	54051	NR	2267003010	Nonroad LPG, Industrial Equipment: Aerial Lifts	SO2	0
Marshall	54051	NR	2260004021	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Chain Saws < 6 HP (Commercial)	SO2	0
Marshall	54051	NR	2267006010	Nonroad LPG, Commercial Equipment: Pumps	SO2	0
Marshall	54051	NR	2270002054	Nonroad Diesel, Construction & Mining Equip: Crushing/Processing Equip	SO2	0
Marshall	54051	NR	2260004026	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Commercial)	SO2	0
Marshall	54051	NR	2260004031	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Commercial)	SO2	0
Marshall	54051	NR	2270006030	Nonroad Diesel, Commercial Equip: Pressure Washers	SO2	0
Marshall	54051	NR	2260007005	Nonroad Gasoline, 2-Stroke Logging Equipment Chain Saws : 6 HP	SO2	0
Marshall	54051	NR	2265003040	Nonroad Gasoline, 4-Stroke Industrial Equipment Other General Industrial Equipment	SO2	0
Marshall	54051	NR	2265005045	Nonroad Gasoline, 4-Stroke Agricultural Equipment Swathers	SO2	0
Marshall	54051	NR	2260004036	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Snowblowers (Commercial)	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NR	2270006035	Nonroad Diesel, Commercial Equipt: Hydro-power Units	SO2	0
Marshall	54051	NR	2265005015	Nonroad Gasoline, 4-Stroke Agricultural Equipment Agricultural Tractors	SO2	0
Marshall	54051	NR	2265006035	Nonroad Gasoline, 4-Stroke Commercial Equipment Hydro-power Units	SO2	0
Marshall	54051	NR	2267003030	Nonroad LPG, Industrial Equipment: Sweepers/Scrubbers	SO2	0
Marshall	54051	NR	2270002027	Nonroad Diesel, Construction & Mining Equipt: Signal Boards/Light Plants	SO2	0
Marshall	54051	NR	2265004066	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Chippers/Stump Grinders (Commercial)	SO2	0
Marshall	54051	NR	2265003010	Nonroad Gasoline, 4-Stroke Industrial Equipment Aerial Lifts	SO2	0
Marshall	54051	NR	2265002039	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Concrete/Industrial Saws	SO2	0
Marshall	54051	NR	2265004030	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Residential)	SO2	0
Marshall	54051	NR	2270004056	Nonroad Diesel, Lawn & Garden Equipt: Lawn & Garden Tractors (Commercial)	SO2	0
Marshall	54051	NR	2265005025	Nonroad Gasoline, 4-Stroke Agricultural Equipment Balers	SO2	0
Marshall	54051	NR	2282020010	Pleasure Craft, Diesel: Outboard	SO2	0
Marshall	54051	NR	2265003030	Nonroad Gasoline, 4-Stroke Industrial Equipment Sweepers/Scrubbers	SO2	0
Marshall	54051	NR	2267003070	Nonroad LPG, Industrial Equipment: Terminal Tractors	SO2	0
Marshall	54051	NR	2265004076	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Other Lawn & Garden Equipment (Commercial)	SO2	0
Marshall	54051	NR	2270003050	Nonroad Diesel, Industrial Equipt: Other Material H&ling Equipt	SO2	0
Marshall	54051	NR	2270004071	Nonroad Diesel, Lawn & Garden Equipt: Turf Equipt (Commercial)	SO2	0
Marshall	54051	NR	2270002021	Nonroad Diesel, Construction & Mining Equipt: Paving Equipt	SO2	0
Marshall	54051	NR	2265004046	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Front Mowers (Commercial)	SO2	0
Marshall	54051	NR	2265004041	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rear Engine Riding Mowers (Commercial)	SO2	0
Marshall	54051	NR	2270005025	Nonroad Diesel, Agricultural Equipt: Balers	SO2	0
Marshall	54051	NR	2260004015	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Residential)	SO2	0
Marshall	54051	NR	2265002021	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Paving Equipment	SO2	0
Marshall	54051	NR	2265004025	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Residential)	SO2	0
Marshall	54051	NR	2265002042	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Cement & Mortar Mixers	SO2	0
Marshall	54051	NR	2270004036	Nonroad Diesel, Lawn & Garden Equipt: Snowblowers (Commercial)	SO2	0
Marshall	54051	NR	2265002030	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Trenchers	SO2	0
Marshall	54051	NR	2267004066	Nonroad LPG, Lawn & Garden Equipment: Chippers/Stump Grinders (Commercial)	SO2	0
Marshall	54051	NR	2270002024	Nonroad Diesel, Construction & Mining Equipt: Surfacing Equipt	SO2	0
Marshall	54051	NR	2260002039	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Concrete/Industrial Saws	SO2	0
Marshall	54051	NR	2267003040	Nonroad LPG, Industrial Equipment: Other General Industrial Equipment	SO2	0
Marshall	54051	NR	2270002039	Nonroad Diesel, Construction & Mining Equipt: Concrete/Industrial Saws	SO2	0
Marshall	54051	NR	2265005010	Nonroad Gasoline, 4-Stroke Agricultural Equipment 2-Wheel Tractors	SO2	0
Marshall	54051	NR	2265002066	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Tractors/Loaders/Backhoes	SO2	0
Marshall	54051	NR	2265003070	Nonroad Gasoline, 4-Stroke Industrial Equipment Terminal Tractors	SO2	0
Marshall	54051	NR	2260006005	Nonroad Gasoline, 2-Stroke Commercial Equipment Generator Sets	SO2	0
Marshall	54051	NR	2265004051	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Shredders < 6 HP (Commercial)	SO2	0
Marshall	54051	NR	2265005030	Nonroad Gasoline, 4-Stroke Agricultural Equipment Agricultural Mowers	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NR	2265002009	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Plate Compactors	SO2	0
Marshall	54051	NR	2265002015	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rollers	SO2	0
Marshall	54051	NR	2265002072	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Skid Steer Loaders	SO2	0
Marshall	54051	NR	2265002024	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Surfacing Equipment	SO2	0
Marshall	54051	NR	2285004015	Nonroad Railroad Equipment, Gasoline, 4-Stroke: Railway Maintenance	SO2	0
Marshall	54051	NR	2270002042	Nonroad Diesel, Construction & Mining Equip: Cement & Mortar Mixers	SO2	0
Marshall	54051	NR	2260004016	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Commercial)	SO2	0
Marshall	54051	NR	2260002006	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Tampers/Rammers	SO2	0
Marshall	54051	NR	2268006015	Nonroad CNG, Commercial Equip: Air Compressors	SO2	0
Marshall	54051	NR	2265002033	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Bore/Drill Rigs	SO2	0
Marshall	54051	NR	2265002003	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Pavers	SO2	0
Marshall	54051	NR	2267002060	Nonroad LPG, Construction & Mining Equipment: Rubber Tire Loaders	SO2	0
Marshall	54051	NR	2265002060	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rubber Tire Loaders	SO2	0
Marshall	54051	NR	2260005035	Nonroad Gasoline, 2-Stroke Agricultural Equipment Sprayers	SO2	0
Marshall	54051	NR	2267002072	Nonroad LPG, Construction & Mining Equipment: Skid Steer Loaders	SO2	0
Marshall	54051	NR	2270002009	Nonroad Diesel, Construction & Mining Equip: Plate Compactors	SO2	0
Marshall	54051	NR	2265003060	Nonroad Gasoline, 4-Stroke Industrial Equipment AC\Refrigeration	SO2	0
Marshall	54051	NR	2265004026	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Commercial)	SO2	0
Marshall	54051	NR	2268006010	Nonroad CNG, Commercial Equip: Pumps	SO2	0
Marshall	54051	NR	2267003050	Nonroad LPG, Industrial Equipment: Other Material H&ling Equipment	SO2	0
Marshall	54051	NR	2270005030	Nonroad Diesel, Agricultural Equip: Agricultural Mowers	SO2	0
Marshall	54051	NR	2268003060	Nonroad CNG, Industrial Equip: AC\Refrigeration	SO2	0
Marshall	54051	NR	2267002030	Nonroad LPG, Construction & Mining Equipment: Trenchers	SO2	0
Marshall	54051	NR	2267002039	Nonroad LPG, Construction & Mining Equipment: Concrete/Industrial Saws	SO2	0
Marshall	54051	NR	2265002078	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Dumpers/Tenders	SO2	0
Marshall	54051	NR	2265003050	Nonroad Gasoline, 4-Stroke Industrial Equipment Other Material H&ling Equipment	SO2	0
Marshall	54051	NR	2270002078	Nonroad Diesel, Construction & Mining Equip: Dumpers/Tenders	SO2	0
Marshall	54051	NR	2265002054	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Crushing/Processing Equipment	SO2	0
Marshall	54051	NR	2267002057	Nonroad LPG, Construction & Mining Equipment: Rough Terrain Forklifts	SO2	0
Marshall	54051	NR	2265002057	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rough Terrain Forklifts	SO2	0
Marshall	54051	NR	2265002081	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Other Construction Equipment	SO2	0
Marshall	54051	NR	2267002081	Nonroad LPG, Construction & Mining Equipment: Other Construction Equipment	SO2	0
Marshall	54051	NR	2267002015	Nonroad LPG, Construction & Mining Equipment: Rollers	SO2	0
Marshall	54051	NR	2267006030	Nonroad LPG, Commercial Equipment: Pressure Washers	SO2	0
Marshall	54051	NR	2267006035	Nonroad LPG, Commercial Equipment: Hydro-power Units	SO2	0
Marshall	54051	NR	2265002045	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Cranes	SO2	0
Marshall	54051	NR	2265007015	Nonroad Gasoline, 4-Stroke Logging Equipment Forest Equipment Feller/Bunch/Skidder	SO2	0
Marshall	54051	NR	2267002045	Nonroad LPG, Construction & Mining Equipment: Cranes	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	NR	2267002033	Nonroad LPG, Construction & Mining Equipment: Bore/Drill Rigs	SO2	0
Marshall	54051	NR	2268003070	NonroadCNG, Industrial Equipt: Terminal Tractors	SO2	0
Marshall	54051	NR	2267002003	Nonroad LPG, Construction & Mining Equipment: Pavers	SO2	0
Marshall	54051	NR	2268005060	NonroadCNG, Agricultural Equipt: Irrigation Sets	SO2	0
Marshall	54051	NR	2270005010	Nonroad Diesel, Agricultural Equipt: 2-Wheel Tractors	SO2	0
Marshall	54051	NR	2267005055	Nonroad LPG, Agricultural Equipment: Other Agricultural Equipment	SO2	0
Marshall	54051	NR	2267002066	Nonroad LPG, Construction & Mining Equipment: Tractors/Loaders/Backhoes	SO2	0
Marshall	54051	NR	2270004076	Nonroad Diesel, Lawn & Garden Equipt: Other Lawn & Garden Equipt (Commercial)	SO2	0
Marshall	54051	NR	2268003030	NonroadCNG, Industrial Equipt: Sweepers/Scrubbers	SO2	0
Marshall	54051	NR	2260002021	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Paving Equipment	SO2	0
Marshall	54051	NR	2260006035	Nonroad Gasoline, 2-Stroke Commercial Equipment Hydro-power Units	SO2	0
Marshall	54051	NR	2265002027	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Signal Boards/Light Plants	SO2	0
Marshall	54051	NR	2260002009	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Plate Compactors	SO2	0
Marshall	54051	NR	2260003030	Nonroad Gasoline, 2-Stroke Industrial Equipment Sweepers/Scrubbers	SO2	0
Marshall	54051	NR	2267002021	Nonroad LPG, Construction & Mining Equipment: Paving Equipment	SO2	0
Marshall	54051	NR	2270002006	Nonroad Diesel, Construction & Mining Equipt: Tampers/Rammers	SO2	0
Marshall	54051	NR	2285006015	Nonroad RailroadEquipment, LPG: Railway Maintenance	SO2	0
Marshall	54051	NR	2268003040	NonroadCNG, Industrial Equipt: Other General Industrial Equipt	SO2	0
Marshall	54051	NR	2268005055	NonroadCNG, Agricultural Equipt: Other Agricultural Equipt	SO2	0
Marshall	54051	NR	2267002054	Nonroad LPG, Construction & Mining Equipment: Crushing/Processing Equipment	SO2	0
Marshall	54051	NR	2267002024	Nonroad LPG, Construction & Mining Equipment: Surfacing Equipment	SO2	0
Marshall	54051	NR	2260002054	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Crushing/Processing Equipment	SO2	0
Marshall	54051	NR	2268002081	NonroadCNG, Construction & Mining Equipt: Other Construction Equipt	SO2	0
Marshall	54051	NR	2265002006	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Tampers/Rammers	SO2	0
Marshall	54051	NR	2260003040	Nonroad Gasoline, 2-Stroke Industrial Equipment Other General Industrial Equipment	SO2	0
Marshall	54051	NR	2260004071	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Turf Equipment (Commercial)	SO2	0
Marshall	54051	NR	2260006015	Nonroad Gasoline, 2-Stroke Commercial Equipment Air Compressors	SO2	0
Marshall	54051	NR	2270005040	Nonroad Diesel, Agricultural Equipt: Tillers : 6 HP	SO2	0
Marshall	54051	NR	2270004031	Nonroad Diesel, Lawn & Garden Equipt: Leafblowers/Vacuums (Commercial)	SO2	0
Marshall	54051	NR	2260002027	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Signal Boards/Light Plants	SO2	0
Marshall	54051	ON	2201210080		SO2	1
Marshall	54051	ON	2201310080		SO2	0
Marshall	54051	ON	2202610080		SO2	0
Marshall	54051	ON	2201320080		SO2	0
Marshall	54051	ON	2202620080		SO2	0
Marshall	54051	ON	2202520080		SO2	0
Marshall	54051	ON	2201110080		SO2	0
Marshall	54051	ON	2201520080		SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	ON	2202310080		SO2	0
Marshall	54051	ON	2202210080		SO2	0
Marshall	54051	ON	2202320080		SO2	0
Marshall	54051	ON	2202430080		SO2	0
Marshall	54051	ON	2202410080		SO2	0
Marshall	54051	ON	2201540080		SO2	0
Marshall	54051	ON	2202530080		SO2	0
Marshall	54051	ON	2201530080		SO2	0
Marshall	54051	ON	2202510080		SO2	0
Marshall	54051	ON	2201430080		SO2	0
Marshall	54051	ON	2202420080		SO2	0
Marshall	54051	ON	2202540080		SO2	0
Marshall	54051	ON	2201510080		SO2	0
Marshall	54051	ON	2201610080		SO2	0
Marshall	54051	ON	2203420080		SO2	0
Marshall	54051	ON	2201420080		SO2	0
Marshall	54051	P	10100203	EGU Boilers Bituminous Coal Cyclone Furnace	SO2	16,712
Marshall	54051	P	10200202	Industrial Boilers /Bitum Coal /Pulverized Coal: Dry Bottom	SO2	6,729
Marshall	54051	P	30601401	Petrol Indus /Petroleum Coke Calcining /Coke Calciner	SO2	6,017
Marshall	54051	P	10100202	EGU Boilers Bituminous Coal Coal: Pulverized: Dry Bottom	SO2	4,519
Marshall	54051	P	30190004	Chem Manuf /Fuel Fired Equipment /Process Gas: Process Heaters	SO2	30
Marshall	54051	P	30599999	Mineral Prods /Other Not Defined /Specify in Comments Field	SO2	14
Marshall	54051	P	30501599	Gypsum Manuf /See Comment **	SO2	0
Marshall	54051	P	10300501	Commercial, Institutional Boilers /Distillate Oil /Grades 1 and 2 Oil	SO2	0
Marshall	54051	P	10200601	Industrial Boilers /Natural Gas /> 100 Million Btu/hr	SO2	0
Marshall	54051	P	30501511	Gypsum Manuf /Continuous Kettle: Calciner	SO2	0
Marshall	54051	P	2275050012	Point Aircraft, General Aviation: Turbine	SO2	0
Marshall	54051	P	30190013	Chem Manuf /Fuel Fired Equipment /Natural Gas: Incinerators	SO2	0
Marshall	54051	P	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	SO2	0
Marshall	54051	P	20200254	Industrial IC EnginesNatural Gas /4-cycle Lean Burn	SO2	0
Marshall	54051	P	30501501	Gypsum Manuf /Rotary Ore Dryer	SO2	0
Marshall	54051	P	2275050011	Point Aircraft, General Aviation: Piston	SO2	0
Marshall	54051	P	10200602	Industrial Boilers /Natural Gas /10-100 Million Btu/hr	SO2	0
Marshall	54051	P	39000699	In-Process Fuel Use /Natural Gas /General	SO2	0
Marshall	54051	P	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	SO2	0
Marshall	54051	P	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	SO2	0
Marshall	54051	P	10201401	Industrial Boilers /CO Boiler /Natural Gas	SO2	0
Marshall	54051	P	20200102	Industrial IC EnginesDistillate Oil (Diesel) /Reciprocating	SO2	0

Marshall County SO2 Emissions Contained in 2011 NEI v2
Data Category by SCC Totals

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011
Marshall	54051	P	2275001000	Point Aircraft, Military Aircraft: Total	SO2	0
Marshall	54051	P	2275060012	Point Aircraft, Air Taxi: Turbine	SO2	0
Marshall	54051	P	2275060011	Point Aircraft, Air Taxi: Piston	SO2	0
Marshall	54051	P	20200201	Industrial IC EnginesNatural Gas /Turbine	SO2	0
Marshall	54051	P	20200253	Industrial IC EnginesNatural Gas /4-cycle Rich Burn	SO2	0
Marshall County 2011 SO2 Emissions from all Data Categories Total						34,157

Version: this is v2 as of January 22, 2015. The following notice appeared on the CHIEF webpage at the time these data were compiled.

In order to re-create some summary files for the 2011 NEI v2 and to create a 2012 point modeling file, USEPA is temporarily *rolling back any recent revisions to the Facility Inventory* (SCCs, stack parameters, Lat-Lons, NAICs, facility names) to reflect how those items appeared in EIS as of Sept 2014. Edits made as part of State submittals for the 2013 point emissions cycle will therefore not be available either via Gateway viewing or via downloaded report requests. Emissions values for 2011, 2012, and 2013 will remain "as is", but the above-listed facility inventory items associated with these emissions *will show the Sept 2014 information, not the Jan 2015 information*. By end of March 2015 we hope to restore the facility information back to reflect all S/L/T updates received thru Jan 1, 2015.

Data generated from EIS Gateway as advised by Sally Dombrowski on 9/22/2014

From: Dombrowski, Sally [mailto:Dombrowski.Sally@epa.gov]

Sent: Monday, September 22, 2014 11:45 AM

Subject: 2011 v2 Now Available in EIS

The Point, Nonpoint, Nonroad and Event data categories for Version 2 of the 2011 National Emissions Inventory (2011 NEI v2 with Biogenics) are now available in the Emission Inventory System.

National or multi-region reports

Use Large File Download link under reports in EIS and look for reports with an agency identifier of "2011 NEI v2 with Biogenics" Reports available are County Level by SCC for Nonpoint, Nonroad and Events; Facility Level summary; and, Process Level with Data Source. These are National files and are very large.

Modeling Files The SMOKE Flat File for the above data categories is also available under the Large File Download section.

Other Reports

Point – Facility level summaries: Request Reports → Emissions Summaries → By Facility → Select level of report → Select Data Set "2011 NEI v2 with Biogenics" → and filter for your pollutants, geographic area, and source categories/facility types of interest.

Requesting a Process level summary instead of facility level will show the Data Source of the emissions shown.

Nonpoint or Event – County level summaries: Request Reports → Emissions Summaries → By Geography → Select level of report → Select Data Set "2011 NEI v2 with Biogenics" → and filter for your pollutants, geographic area, source classification or sectors of interest.

Event – Obtain day specific location-specific emissions: Request Reports → Emissions Summaries → By Event → Data Set "2011 NEI v2 with Biogenics" → and filter for pollutants, geographic area, source classification or sector of interest.

Onroad was not contained in original pull in December

When I did the pull in December onroad did not make it. when I did the QA check on January 22, 2015 it was included. So the onroad data in "Marshall County 2011 NEI SO2 Emissions" did not come from the original download contained in "4 Area, NR OR, Point, Event SCC by County 2011 NEI v2.acddb." instead it came from the query contained in "Confirm Final Totals.acddb" located in QA – Final.

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ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 52**

[EPA-R03-OAR-2015-0411; FRL-9931-56-Region 3]

Approval and Promulgation of Air Quality Implementation Plans; West Virginia; 2011 Base Year Emissions Inventory for the Marshall, West Virginia Nonattainment Area for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking direct final action to approve the 2011 base year emissions inventory submitted by the State of West Virginia for the 2010 1-hour sulfur dioxide (SO₂) National Ambient Air Quality Standard (NAAQS). The emissions inventory was submitted to meet one of the nonattainment requirements for the Marshall, West Virginia nonattainment area (Marshall Area or Area) for the 2010 1-hour SO₂ NAAQS. EPA is approving the 2011 base year emissions inventory for the 2010 1-hour SO₂ NAAQS for the Marshall Area in accordance with the requirements of the Clean Air Act (CAA).

DATES: This rule is effective on September 29, 2015 without further notice, unless EPA receives adverse written comment by August 31, 2015. If EPA receives such comments, it will publish a timely withdrawal of the direct final rule in the **Federal Register** and inform the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID Number EPA-R03-OAR-2015-0411 by one of the following methods:

A. *www.regulations.gov*. Follow the on-line instructions for submitting comments.

B. *Email: fernandez.cristina@epa.gov*.

C. *Mail: EPA-R03-OAR-2015-0411, Cristina Fernandez, Associate Director, Office of Air Program Planning, Mailcode 3AP30, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.*

D. *Hand Delivery:* At the previously-listed EPA Region III address. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R03-OAR-2015-0411. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at *www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or email. The *www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *www.regulations.gov*, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the electronic docket are listed in the *www.regulations.gov* index. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. Copies of the State submittal is available at the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street SE., Charleston, West Virginia 25304.

FOR FURTHER INFORMATION CONTACT: Marilyn Powers, (215) 814-2308, or by email at *powers.marilyn@epa.gov*.

SUPPLEMENTARY INFORMATION:

- I. Background
- II. Summary of West Virginia's Submittal
- III. Final Action
- IV. Statutory and Executive Order Reviews

I. Background

In June 2010, EPA promulgated a new 1-hour primary SO₂ NAAQS of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50. *See* 40 CFR 50.17(a)-(b). On August 5, 2013, the EPA designated 29 areas of the country, including the Marshall Area, as nonattainment for the 2010 SO₂ NAAQS (77 FR 47191). The Marshall Area is comprised of Clay, Franklin, and Washington Tax Districts in Marshall County, West Virginia.

An area designated as nonattainment for the 2010 1-hour SO₂ NAAQS is required to submit a nonattainment SIP to EPA meeting the requirements of subparts 1 and 5 of part D, of Title I of the CAA, providing for attainment of the NAAQS by the applicable statutory attainment date. *See* CAA sections 172 and 191-192. These SIPs are required to provide for future attainment of the 2010 1-hour SO₂ NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of designation as nonattainment. One of the requirements for states with an SO₂ nonattainment area is the submission of an emissions inventory. Section 172(c)(3) requires the submission of a comprehensive, accurate, current accounting of actual emissions from all sources of the relevant pollutant in the nonattainment area.

II. Summary of West Virginia's Submittal

On May 6, 2015, the West Virginia Department of Environmental Protection (WVDEP) submitted the 2011 base year emissions inventory for the Marshall Area for the 2010 1-hour SO₂ NAAQS to meet the requirements of CAA section 172(c)(3). The base year inventory includes actual annual emissions of SO₂ that cover the general source categories of stationary point sources, stationary nonpoint sources, nonroad mobile sources, and onroad mobile sources. For the purpose of the base year inventory, emissions from the entire county were submitted. WVDEP used emissions from EPA's 2011 National Emissions Inventory (NEI) version 2 for the base

year inventory. EPA reviewed the results, procedures, and methodologies for the base year inventory and found them to be acceptable. EPA's technical support document (TSD) for the base year inventory, dated June 8, 2015, is available in the docket for this proposed rulemaking action at Docket ID number EPA-R03-OAR-2015-0411.

III. Final Action

Pursuant to section 172(c) of the CAA, EPA is approving the 2011 base year emissions inventory submitted by the State of West Virginia for the 2010 1-hour SO₂ NAAQS as a revision to the West Virginia SIP. EPA is publishing this rule without prior proposal because EPA views this as a noncontroversial amendment and anticipates no adverse comment. However, in the "Proposed Rules" section of today's **Federal Register**, EPA is publishing a separate document that will serve as the proposal to approve the SIP revisions if adverse comments are filed. This rule will be effective on September 29, 2015 without further notice unless EPA receives adverse comment by August 31, 2015. If EPA receives adverse comment, EPA will publish a timely withdrawal in the **Federal Register** informing the public that the rule will not take effect. EPA will address all public comments in a subsequent final rule based on the proposed rule. EPA will not institute a second comment period on this action. Any parties interested in commenting must do so at this time.

IV. Statutory and Executive Order Reviews

A. General Requirements

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions

of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);

- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

B. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**.

This action is not a "major rule" as defined by 5 U.S.C. 804(2).

C. Petitions for Judicial Review

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by September 29, 2015. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of today's **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking action.

This action approving the 2011 base year emissions inventory for the Marshall, West Virginia nonattainment area for the 2010 1-hour SO₂ NAAQS may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Reporting and recordkeeping requirements, Sulfur dioxide.

Dated: July 20, 2015.

William C. Early,

Acting, Regional Administrator, Region III.

40 CFR part 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

- 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart XX—West Virginia

- 2. In § 52.2520, the table in paragraph (e) is amended by adding the entry "2011 Base Year Emissions Inventory for the 2010 1-hour SO₂ standard" at the end of the table to read as follows:

§ 52.2520 Identification of plan.

* * * * *
(e) * * *

Name of non-regulatory SIP revision	Applicable geographic area	State submittal date	EPA approval date	Additional explanation
* * * * * 2011 Base Year Emissions Inven- tory for the 2010 1-hour SO ₂ standard.	* * * * * Marshall, West Virginia 2010 1-hour SO ₂ nonattainment area.	* * * * * 5/6/2015	* * * * * 7/31/2015 [Insert Federal Register citation].	* * * * * § 52.2531(i)

■ 3. In § 52.2531, paragraph (i) is added to read as follows:

§ 52.2531 Base year emissions inventory.
 * * * * *

(i) EPA approves as a revision to the West Virginia State Implementation

Plan the 2011 base year emissions inventory for the Marshall, West Virginia 2010 1-hour SO₂ nonattainment area submitted by the West Virginia Department of Environmental Protection on May 6, 2015. The 2011 base year emissions inventory for SO₂ includes

emissions estimates that cover the general source categories of point sources, nonpoint sources, on road sources, and non-road sources.

[FR Doc. 2015-18760 Filed 7-30-15; 8:45 am]

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west virginia department of environmental protection

**Marshall, WV Nonattainment Area
2011, 2104 and 2017
SO₂ Emission Inventories**

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

Promoting a healthy environment.

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Development of the 2011 (actual), 2014 (actual) and 2017 (projected) SO₂ Emission Inventories

The 2011 emissions inventory data was extracted from the EPA's National Emissions Inventory (NEI) version 2 current as of January 22, 2015. Emission data for 2104 was extracted from the NEI version 1. With the exception of Point source emissions, category emission totals were largely estimated by the EPA and their contractors. The West Virginia Division of Air Quality (DAQ) has accepted these emission estimates for the 2011 inventory. The 2014 emission data has not been finalized or yet accept by the DAQ. Point source emissions and certain area source categories factors were prepared by the DAQ staff. Emission projections for 2017 are based on EPA projections, known shutdowns and fuel conversions, and conservative assumptions regarding operations.

Fires

The fires inventory is developed by the EPA and the emission estimates were accepted by the DAQ for 2011 and 2014. Emissions for 2017 are based on the EPA projections included in the Notice of Data Availability (NODA) for the 2008 Ozone NAAQS released in August 2015.

Nonpoint (Area)

Area source emissions inventories address human activities that are too small to estimate individually, but that can be significant collectively. Example activities include residential wood burning in fireplaces, agricultural pesticide application, auto body repair shops, etc. These source emissions are estimated at the county level. A significant new sector, the Oil and Gas Exploration and Production sector, was included for the first time in the 2011 NEI to the Nonpoint category. Due to this sector's rapid growth and expected significant impacts, EPA was required to prepare oil and gas inventories in a relatively short time. A western regional air organization had already developed software to estimate emissions from this sector, which the EPA adapted as their tool to prepare a national inventory. EPA then invited states to either accept their estimates or to collaborate with them to improve the estimates. Many of the assumptions and factors used in this tool were based on a CenSARA study, which did not represent the shale plays in West Virginia. For 2014, the DAQ provided the EPA updated information for the Oil and Gas Tool based on analytical data and performance specification specific to West Virginia shale plays. These updates resulted in a decrease in SO₂ emissions from Oil and Gas production and exploration operations in 2014.

With collaboration and support provided from the Office of Air Quality Planning and Standards (OAQPS) and the Emissions Inventory and Analysis Group (EIAG) staff, the DAQ used EPA's Oil and Gas Tool to estimate SO₂ emissions for both the 2011 and 2014 inventories. For the 2011 reporting year, 129 tons of SO₂ emissions were associated with this source category in Marshall County. Of this total, approximately 77 tons were associated with one SCC (2310121700 - On-Shore Gas Exploration /Gas Well Completion: All Processes). The other significant SO₂ emissions came from SCC 2102002000 Area Source Industrial Bituminous/Sub-Bituminous Total: All Boiler Types, which represented approximately 34 tons.

For 2014, Marshall County total area source SO₂ emissions were reduced to approximately 16 tons. This reduction was the result of using the EPA's Oil and Gas Tool with the DAQ updates. The Oil and Gas Tool's estimated SO₂ emissions for SCC 2310121700 were reduced to approximately 6 tons. Sulfur dioxide emissions from SCC 2102002000 were reduced to zero tons since West Virginia does not have any operational area source industrial coal-fired boilers.

Emission projections for 2017 area sources are largely the same as the EPA's 2017 projections provided in the August 2015 NODA for the 2008 Ozone NAAQS; with the exception for the Oil and Gas related SCCs and SCC 2102002000. For the Oil and Gas SCCs, the DAQ projected 2014 NEI version 1 emission data to 2017 using annual natural gas production data provided in the EPA's 2015 Annual Energy Outlook (AEO2015) for Eastern States. The AEO2015 natural gas production rate for 2014 was approximately 5.78 tcf and approximately 7.33 tcf in 2017. Using the ratio of these production rates equates to an emission factor of 1.27. Therefore, 2014 emissions for these SCCs were scaled-up by this factor to project 2017 emissions.

For SCC 2102002000, 2017 projected emissions are zero. This is the same reason as the 2014 emission rate since there are no coal-fired industrial boilers currently operating in Marshall County.

Nonroad

Nonroad sources are mobile sources that operate off-road. Examples include construction equipment such as bulldozers and cranes, tractors, aircraft, marine vessels, locomotives, etc. Except for the air, rail and commercial marine vessel (CMV) sectors, EPA uses their Nonroad Model to prepare emissions estimates for this category. Total SO₂ emissions calculated by the Nonroad Model were less than a ton in 2011. Aircraft emissions were flagged in the 2011 NEI as point sources and totaled about 260 pounds. Emissions from the rail and marine vessel categories were flagged by EPA as being area sources and totaled about 3 tons, most of which came from SCC 2280002200 (CMVs, Diesel: Underway emissions). The rail and CMV totals were included in the Nonpoint total above. All the nonroad emissions estimates were prepared by the EPA. Estimates for 2011 were accepted by the DAQ. Nonroad emissions for 2014 were taken from the EPA's 2014 version 1 data.

Projected Nonroad 2017 emissions are the same as those provided the EPA's August 2015 NODA for the 2008 NAAQS.

Onroad

Onroad sources include all vehicles that are designed to operate on roadways. They include automobiles, trucks, busses, and motorcycles. In 2011, the EPA prepared these SO₂ emission estimates using their MOVES2010b model with West Virginia Department of Motor Vehicle registration data and West Virginia Department of Transportation vehicle miles traveled data provided by the DAQ. The DAQ accepted EPA's 2011 SO₂ estimates.

In 2014, SO₂ emissions were again estimated by the EPA using their most recent emissions model MOVES2014a. The DAQ once again provided West Virginia related registration and vehicle miles traveled data used in estimating the 2014 SO₂ emissions. Emissions provided for 2014 are from the EPA's 2014 version 1 data.

Emission projections for 2017 were taken from the EPA's August 2015 NODA for the 2008 NAAQS data.

Point EGU and nonEGU

The Point category represents air pollution sources large enough to estimate emissions on a facility-by-facility basis. Electricity Generating Units (EGUs) are typically the largest emission sources and are frequently broken out from the remainder of nonEGU point sources. The largest sources of SO₂ emissions in Marshall County were two EGUs. Both the EGU and nonEGU point source SO₂ emissions for reporting years 2011 and 2014 were collected by the DAQ, quality assured, and reported to the EPA via the EIS Gateway. From 2011 to 2014, SO₂ emissions have been reduced in this category by approximately 7,348 tons. This reduction is due to shutdowns and a facility converting from coal-fired to natural-fired boilers.

Emission projections for 2017 are based on these known shutdowns and fuel conversions. Major facility SO₂ emissions for 2017 are based on maximum allowable permit limitations. To be conservative, facilities in Marshall County with SO₂ emissions typically less than one ton were projected to 2017 using the largest of the either the 2011 or 2014 emissions.

Where available, SO₂ emission inventory files were downloaded from the EPA's EIS Gateway at <https://eis.epa.gov/eis-systemweb/welcome.html>. The detailed emissions are provided below.

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County Name	Data Category Code	2011 SO2	2011 Notes	2014 SO2	2014 Notes	2017 SO2	2017 Notes
Marshall	Event	4	Prescribed Forest Burning	4	Assumed same as 2011.	4	Assumed same as 2011.
Marshall	Nonpoint	129	Includes CMV, Locomotives. Also includes oil and gas well emissions for the first time (78 tons from O&G)	16	WV specific H2S data used in O&G tool. Much lower than EPA default factor. No area source coal-fired boilers in WV.	19	Same note as 2014 with slightly higher natural gas production in 2017 as compared to 2014. 2017 to 2014 ratio used to scale-up Oil and Gas SCCS. EPA 2017 NODA projections used for other SCCs.
Marshall	Nonroad	0	Includes Railway Maintenance.	0	NEI V1 data.	0	EPA 2017 NODA projections used.
Marshall	Onroad	2		0	NEI V1 data.	0	Coal-fire boiler converted to natural gas. EPA 2017 NODA projections used for other SCCs.
Marshall	Point EGU	21,231		19,239		6,175	WV projection base on known facility shutdowns, fuel conversions, and maximum allowable permit limits.
Marshall	Point NonEGU	12,791	Includes airport emissions.	7,435	Includes airport emissions.	34	Includes airport emissions and WV known conversion industrial boiler conversion from coal to natural gas.
Total:		34,157		26,695		6,232	

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County Name	Facility Name	State County FIPS	WV Facility ID	SCC	SCC Description	2011 SO2 Emissions (tons)	2014 SO2 Emissions (tons)	Projected 2017 SO2 Emissions (tons)	Comments for 2017 projections
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10200202	Industrial Boilers /Bitum Coal /Pulverized Coal: Dry Bottom	6729.00	7413.09	0	switched to NG
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10200601	Industrial Boilers /Natural Gas /> 100 Million Btu/hr	0.00	0.00	2.63	permitted limit
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10200602	Industrial Boilers /Natural Gas /10-100 Million Btu/hr	0.02	0.02	0.02	Max of 2011 or 2014
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0.00	0.01	0.01	Max of 2011 or 2014
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10201401	Industrial Boilers /CO Boiler /Natural Gas	0.00	0.02	0.02	Max of 2011 or 2014
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	10500106	Ext Comb /Space Heater /Industrial /Natural Gas		0.01	0.01	Max of 2011 or 2014
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	20200102	Int Comb /Industrial /Distillate Oil (Diesel) /Reciprocating		0.02	0.02	Max of 2011 or 2014
Marshall	AXIALL CORPORATION, NATRIUM PLANT	54051	0002	30190004	Chem Manuf /Fuel Fired Equipment /Process Gas: Process Heaters	30.11	20.21	30.11	Max of 2011 or 2014
Marshall	MITCHELL PLANT	54051	0005	10100202	EGU Boilers Bituminous Coal Coal: Pulverized: Dry Bottom	4519.00	4457.90	6175	permitted limit
Marshall	MITCHELL PLANT	54051	0005	10300501	Commercial, Institutional Boilers /Distillate Oil /Grades 1 and 2 Oil	0.20	0.19	0.20	Max of 2011 or 2014
Marshall	MITCHELL PLANT	54051	0005	20200102	Industrial IC EnginesDistillate Oil (Diesel) /Reciprocating	0.00	0.00	0.00	Max of 2011 or 2014
Marshall	KAMMER PLANT	54051	0006	10100203	EGU Boilers Bituminous Coal Cyclone Furnace	16712.00	14780.80	0	Shutdown

County Name	Facility Name	State County FIPS	WV Facility ID	SCC	SCC Description	2011 SO2 Emissions (tons)	2014 SO2 Emissions (tons)	Projected 2017 SO2 Emissions (tons)	Comments for 2017 projections
Marshall	BAYER MATERIALSCIENCE	54051	0009	10200601	Industrial Boilers /Natural Gas /> 100 Million Btu/hr	0.15	0.15	0.15	Max of 2011 or 2014
Marshall	BAYER MATERIALSCIENCE	54051	0009	30190013	Chem Manuf /Fuel Fired Equipment /Natural Gas: Incinerators	0.07	0.05	0.07	Max of 2011 or 2014
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	30599999	Mineral Prods /Other Not Defined /Specify in Comments Field	13.86		0	Shutdown
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	30601401	Petrol Indus /Petroleum Coke Calcining /Coke Calciner	6017.00		0	Shutdown
Marshall	Rain CII Carbon LLC - Moundsville Calcining Plant	54051	0011	39000699	In-Process Fuel Use /Natural Gas /General	0.02		0	Shutdown
Marshall	MAJORSVILLE 7C5510/20	54051	0025	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0.00		0	Shutdown
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	0.00		0	Shutdown
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200253	Industrial IC EnginesNatural Gas /4-cycle Rich Burn	0.00		0	Shutdown
Marshall	MAJORSVILLE 7C5510/20	54051	0025	20200254	Industrial IC EnginesNatural Gas /4-cycle Lean Burn	0.05		0	Shutdown
Marshall	MAJORSVILLE 7C5510/20	54051	0025	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	0.00		0	Shutdown
Marshall	ADALINE 7C6600	54051	0100	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	0.01	0.01	0.01	Max of 2011 or 2014
Marshall	ADALINE 7C6600	54051	0100	20200201	Industrial IC EnginesNatural Gas /Turbine	0.00		0	Shutdown
Marshall	ADALINE 7C6600	54051	0100	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	0.06	0.09	0.09	Max of 2011 or 2014

County Name	Facility Name	State County FIPS	WV Facility ID	SCC	SCC Description	2011 SO2 Emissions (tons)	2014 SO2 Emissions (tons)	Projected 2017 SO2 Emissions (tons)	Comments for 2017 projections
Marshall	ADALINE 7C6600	54051	0100	20200254	Industrial IC Engines/Natural Gas /4-cycle Lean Burn	0.00	0.00	0.00	Max of 2011 or 2014
Marshall	ADALINE 7C6600	54051	0100	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	0.01	0.00	0.01	Max of 2011 or 2014
Marshall	CERTAINTELD MOUNDSVILLE FACILITY	54051	0113	20300201	Int Comb /Comm-Inst /Natural Gas /Reciprocating		0.00	0.00	Max of 2011 or 2014
Marshall	CERTAINTELD MOUNDSVILLE FACILITY	54051	0113	30501501	Gypsum Manuf /Rotary Ore Dryer	0.04	0.03	0.04	Max of 2011 or 2014
Marshall	CERTAINTELD MOUNDSVILLE FACILITY	54051	0113	30501511	Gypsum Manuf /Continuous Kettle: Calciner	0.11	0.11	0.11	Max of 2011 or 2014
Marshall	CERTAINTELD MOUNDSVILLE FACILITY	54051	0113	30501599	Gypsum Manuf	0.21	0.20	0.21	Max of 2011 or 2014
Marshall	Williams - Moundsville Fractionation	54051	0141	10200602	Ext Comb /Industrial /Natural Gas /10-100 Million Btu/hr		0.12	0.12	Max of 2011 or 2014
Marshall	Marshall County	54051		2275001000	Point Aircraft, Military Aircraft: Total	0.00	0.26	0.00	EPA estimated
Marshall	Marshall County	54051		2275050011	Point Aircraft, General Aviation: Piston	0.00	0.00	0.00	EPA estimated
Marshall	Marshall County	54051		2275050011	Point Aircraft, General Aviation: Piston	0.03	0.03	0.00	EPA estimated
Marshall	Marshall County	54051		2275050012	Point Aircraft, General Aviation: Turbine	0.10	0.10	0.00	EPA estimated
Marshall	Marshall County	54051		2275060011	Point Aircraft, Air Taxi: Piston	0.00	0.00	0.00	EPA estimated
Marshall	Marshall County	54051		2275060012	Point Aircraft, Air Taxi: Turbine	0.00	0.00	0.00	EPA estimated
Marshall County SO2 Emissions from Point-Facility Level Total:						34,022.07	26,673.42	6,208.84	

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County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	P	10100202	EGU Boilers Bituminous Coal Coal: Pulverized: Dry Bottom	SO2	4519.00	4457.90	6175.00
Marshall	54051	P	10100203	EGU Boilers Bituminous Coal Cyclone Furnace	SO2	16712.00	14780.80	0.00
Marshall	54051	P	10200202	Industrial Boilers /Bitum Coal /Pulverized Coal: Dry Bottom	SO2	6729.00	7413.09	0.00
Marshall	54051	P	10200601	Industrial Boilers /Natural Gas /> 100 Million Btu/hr	SO2	0.15	0.15	2.78
Marshall	54051	P	10200602	Industrial Boilers /Natural Gas /10-100 Million Btu/hr	SO2	0.02	0.14	0.02
Marshall	54051	P	10200603	Industrial Boilers /Natural Gas /< 10 Million Btu/hr	SO2	0.01	0.01	0.01
Marshall	54051	P	10201401	Industrial Boilers /CO Boiler /Natural Gas	SO2	0.00	0.02	0.02
Marshall	54051	P	10300501	Commercial, Institutional Boilers /Distillate Oil /Grades 1 and 2 Oil	SO2	0.20	0.19	0.20
Marshall	54051	P	10500106	Ext Comb /Space Heater /Industrial /Natural Gas	SO2	NA	0.01	0.01
Marshall	54051	P	20200102	Industrial IC EnginesDistillate Oil (Diesel) /Reciprocating	SO2	0.00	0.02	0.02
Marshall	54051	P	20200201	Industrial IC EnginesNatural Gas /Turbine	SO2	0.00	NA	0.00
Marshall	54051	P	20200252	Industrial IC EnginesNatural Gas /2-cycle Lean Burn	SO2	0.06	0.09	0.09
Marshall	54051	P	20200253	Industrial IC EnginesNatural Gas /4-cycle Rich Burn	SO2	0.00	NA	0.00
Marshall	54051	P	20200254	Industrial IC EnginesNatural Gas /4-cycle Lean Burn	SO2	0.05	0.00	0.00
Marshall	54051	P	20300201	Int Comb /Comm-Inst /Natural Gas /Reciprocating	SO2	NA	0.00	0.00
Marshall	54051	P	30190004	Chem Manuf /Fuel Fired Equipment /Process Gas: Process Heaters	SO2	30.11	20.21	30.11
Marshall	54051	P	30190013	Chem Manuf /Fuel Fired Equipment /Natural Gas: Incinerators	SO2	0.07	0.05	0.07
Marshall	54051	P	30501501	Gypsum Manuf /Rotary Ore Dryer	SO2	0.04	0.03	0.04
Marshall	54051	P	30501511	Gypsum Manuf /Continuous Kettle: Calciner	SO2	0.11	0.11	0.11
Marshall	54051	P	30501599	Gypsum Manuf /See Comment **	SO2	0.21	0.20	0.21
Marshall	54051	P	30599999	Mineral Prods /Other Not Defined /Specify in Comments Field	SO2	13.86	NA	0.00
Marshall	54051	P	30601401	Petrol Indus /Petroleum Coke Calcining /Coke Calciner	SO2	6017.00	NA	0.00
Marshall	54051	P	31000404	Oil&Gas Prod /Process Heaters /Natural Gas	SO2	0.01	0.00	0.01
Marshall	54051	P	39000699	In-Process Fuel Use /Natural Gas /General	SO2	0.02	NA	0.00
Marshall	54051	P	2275001000	Point Aircraft, Military Aircraft: Total	SO2	0.00	0.26	0.00
Marshall	54051	P	2275050011	Point Aircraft, General Aviation: Piston	SO2	0.03	0.03	0.00
Marshall	54051	P	2275050012	Point Aircraft, General Aviation: Turbine	SO2	0.10	0.10	0.00
Marshall	54051	P	2275060011	Point Aircraft, Air Taxi: Piston	SO2	0.00	0.00	0.00
Marshall	54051	P	2275060012	Point Aircraft, Air Taxi: Turbine	SO2	0.00	0.00	0.00
Marshall	54051	ON	2201110080	Highway Veh - Gasoline - Motorcycles (MC) - All on and off-network processes except refueling	SO2	0.02	0.02	0.02
Marshall	54051	ON	2201210080	Highway Veh - Gasoline - Passenger Car - All on and off-network processes except refueling	SO2	1.23	0.02	0.00
Marshall	54051	ON	2201310080	Highway Veh - Gasoline - Passenger Truck - All on and off-network processes except refueling	SO2	0.48	0.02	0.18
Marshall	54051	ON	2201320080	Highway Veh - Gasoline - Light Commerical Truck - All on and off-network processes except refueling	SO2	0.08		0.05
Marshall	54051	ON	2201420080	Highway Veh - Gasoline - Transit Bus - All on and off-network processes except refueling	SO2	0.00	0.02	0.01
Marshall	54051	ON	2201430080	Highway Veh - Gasoline - School Bus - All on and off-network processes except refueling	SO2	0.00	0.02	0.00
Marshall	54051	ON	2201510080	Highway Veh - Gasoline -Refuse Truck - All on and off-network processes except refueling	SO2	0.00	0.02	0.00
Marshall	54051	ON	2201520080	Highway Veh - Gasoline -Single Unit Short-Haul Truck - All on and off-network processes except refueling	SO2	0.01		0.00
Marshall	54051	ON	2201530080	Highway Veh - Gasoline -Single Unit Long Haul Truck - All on and off-network processes except refueling	SO2	0.00		0.00
Marshall	54051	ON	2201540080	Highway Veh - Gasoline - Motor Home - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2201610080	Highway Veh - Gasoline -Combination Short-Haul Truck - All on and off-network processes except refueling	SO2	0.00		0.00
Marshall	54051	ON	2202210080	Highway Veh - Diesel - Passenger Car - All on and off-network processes except refueling	SO2	0.00	0.00	0.00

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	ON	2202310080	Highway Veh - Diesel - Passenger Truck - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2202320080	Highway Veh - Diesel - Light Commerical Truck - All on and off-network processes except refueling	SO2	0.00		0.01
Marshall	54051	ON	2202410080	Highway Veh - Diesel - Intercity Bus - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2202420080	Highway Veh - Diesel - Transit Bus - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2202430080	Highway Veh - Diesel - School Bus - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2202510080	Highway Veh - Diesel -Refuse Truck - All on and off-network processes except refueling	SO2	0.00	0.00	0.00
Marshall	54051	ON	2202520080	Highway Veh - Diesel -Single Unit Short-Haul Truck - All on and off-network processes except refueling	SO2	0.02		
Marshall	54051	ON	2202530080	Highway Veh - Diesel -Single Unit Long Haul Truck - All on and off-network processes except refueling	SO2	0.00		
Marshall	54051	ON	2202540080	Highway Veh - Diesel - Motor Home - All on and off-network processes except refueling	SO2	0.00	0.04	0.01
Marshall	54051	ON	2202610080	Highway Veh - Diesel -Combination Short-Haul Truck - All on and off-network processes except refueling	SO2	0.09		
Marshall	54051	ON	2202620080	Highway Veh - Diesel -Combination Long-Haul Truck - All on and off-network processes except refueling	SO2	0.04		
Marshall	54051	ON	2203420080	Highway Veh - Diesel - Transit Bus - All on and off-network processes except refueling	SO2	0.00	0.07	0.03
Marshall	54051	NR	2260002006	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Tampers/Rammers	SO2	0.00	0.00	0.01
Marshall	54051	NR	2260002009	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Plate Compactors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260002021	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Paving Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260002027	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Signal Boards/Light Plants	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260002039	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Concrete/Industrial Saws	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260002054	Nonroad Gasoline, 2-Stroke Construction & Mining Equipment Crushing/Processing Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260003030	Nonroad Gasoline, 2-Stroke Industrial Equipment Sweepers/Scrubbers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260003040	Nonroad Gasoline, 2-Stroke Industrial Equipment Other General Industrial Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004015	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004016	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004020	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Chain Saws < 6 HP (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004021	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Chain Saws < 6 HP (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004025	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Residential)	SO2	0.00		
Marshall	54051	NR	2260004026	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Commercial)	SO2	0.00		
Marshall	54051	NR	2260004030	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004031	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004035	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Snowblowers (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004036	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Snowblowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260004071	Nonroad Gasoline, 2-Stroke Lawn & Garden Equipment Turf Equipment (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260005035	Nonroad Gasoline, 2-Stroke Agricultural Equipment Sprayers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260006005	Nonroad Gasoline, 2-Stroke Commercial Equipment Generator Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260006010	Nonroad Gasoline, 2-Stroke Commercial Equipment Pumps	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260006015	Nonroad Gasoline, 2-Stroke Commercial Equipment Air Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260006035	Nonroad Gasoline, 2-Stroke Commercial Equipment Hydro-power Units	SO2	0.00	0.00	0.00
Marshall	54051	NR	2260007005	Nonroad Gasoline, 2-Stroke Logging Equipment Chain Saws : 6 HP	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265001050	Nonroad Gasoline, 4-Stroke Recreational Equipment Golf Carts	SO2	0.00	0.00	0.00

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NR	2265002003	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Pavers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002006	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Tampers/Rammers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002009	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Plate Compactors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002015	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rollers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002021	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Paving Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002024	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Surfacing Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002027	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Signal Boards/Light Plants	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002030	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Trenchers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002033	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Bore/Drill Rigs	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002039	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Concrete/Industrial Saws	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002042	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Cement & Mortar Mixers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002045	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Cranes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002054	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Crushing/Processing Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002057	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rough Terrain Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002060	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Rubber Tire Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002066	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Tractors/Loaders/Backhoes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002072	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Skid Steer Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002078	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Dumpers/Tenders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265002081	Nonroad Gasoline, 4-Stroke Construction & Mining Equipment Other Construction Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003010	Nonroad Gasoline, 4-Stroke Industrial Equipment Aerial Lifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003020	Nonroad Gasoline, 4-Stroke Industrial Equipment Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003030	Nonroad Gasoline, 4-Stroke Industrial Equipment Sweepers/Scrubbers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003040	Nonroad Gasoline, 4-Stroke Industrial Equipment Other General Industrial Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003050	Nonroad Gasoline, 4-Stroke Industrial Equipment Other Material H&ling Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003060	Nonroad Gasoline, 4-Stroke Industrial Equipment AC/Refrigeration	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265003070	Nonroad Gasoline, 4-Stroke Industrial Equipment Terminal Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004010	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn Mowers (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004011	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn Mowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004015	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004016	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rotary Tillers < 6 HP (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004025	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004026	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Trimmers/Edgers/Brush Cutters (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004030	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004031	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Leafblowers/Vacuums (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004035	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Snowblowers (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004036	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Snowblowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004040	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rear Engine Riding Mowers (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004041	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Rear Engine Riding Mowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004046	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Front Mowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004051	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Shredders < 6 HP (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004055	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn & Garden Tractors (Residential)	SO2	0.01	0.01	0.01

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NR	2265004056	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Lawn & Garden Tractors (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004066	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Chippers/Stump Grinders (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004071	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Turf Equipment (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004075	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Other Lawn & Garden Equipment (Residential)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265004076	Nonroad Gasoline, 4-Stroke Lawn & Garden Equipment Other Lawn & Garden Equipment (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005010	Nonroad Gasoline, 4-Stroke Agricultural Equipment 2-Wheel Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005015	Nonroad Gasoline, 4-Stroke Agricultural Equipment Agricultural Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005025	Nonroad Gasoline, 4-Stroke Agricultural Equipment Balers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005030	Nonroad Gasoline, 4-Stroke Agricultural Equipment Agricultural Mowers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005035	Nonroad Gasoline, 4-Stroke Agricultural Equipment Sprayers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005040	Nonroad Gasoline, 4-Stroke Agricultural Equipment Tillers : 6 HP	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005045	Nonroad Gasoline, 4-Stroke Agricultural Equipment Swathers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005055	Nonroad Gasoline, 4-Stroke Agricultural Equipment Other Agricultural Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265005060	Nonroad Gasoline, 4-Stroke Agricultural Equipment Irrigation Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006005	Nonroad Gasoline, 4-Stroke Commercial Equipment Generator Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006010	Nonroad Gasoline, 4-Stroke Commercial Equipment Pumps	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006015	Nonroad Gasoline, 4-Stroke Commercial Equipment Air Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006025	Nonroad Gasoline, 4-Stroke Commercial Equipment Welders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006030	Nonroad Gasoline, 4-Stroke Commercial Equipment Pressure Washers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265006035	Nonroad Gasoline, 4-Stroke Commercial Equipment Hydro-power Units	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265007010	Nonroad Gasoline, 4-Stroke Logging Equipment Shredders : 6 HP	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265007015	Nonroad Gasoline, 4-Stroke Logging Equipment Forest Equipment Feller/Bunch/Skidder	SO2	0.00	0.00	0.00
Marshall	54051	NR	2265010010	Nonroad Gasoline, 4-Stroke, Industrial: Other Oil Field Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002003	Nonroad LPG, Construction & Mining Equipment: Pavers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002015	Nonroad LPG, Construction & Mining Equipment: Rollers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002021	Nonroad LPG, Construction & Mining Equipment: Paving Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002024	Nonroad LPG, Construction & Mining Equipment: Surfacing Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002030	Nonroad LPG, Construction & Mining Equipment: Trenchers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002033	Nonroad LPG, Construction & Mining Equipment: Bore/Drill Rigs	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002039	Nonroad LPG, Construction & Mining Equipment: Concrete/Industrial Saws	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002045	Nonroad LPG, Construction & Mining Equipment: Cranes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002054	Nonroad LPG, Construction & Mining Equipment: Crushing/Processing Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002057	Nonroad LPG, Construction & Mining Equipment: Rough Terrain Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002060	Nonroad LPG, Construction & Mining Equipment: Rubber Tire Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002066	Nonroad LPG, Construction & Mining Equipment: Tractors/Loaders/Backhoes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002072	Nonroad LPG, Construction & Mining Equipment: Skid Steer Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267002081	Nonroad LPG, Construction & Mining Equipment: Other Construction Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267003010	Nonroad LPG, Industrial Equipment: Aerial Lifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267003020	Nonroad LPG, Industrial Equipment: Forklifts	SO2	0.01	0.00	0.01
Marshall	54051	NR	2267003030	Nonroad LPG, Industrial Equipment: Sweepers/Scrubbers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267003040	Nonroad LPG, Industrial Equipment: Other General Industrial Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267003050	Nonroad LPG, Industrial Equipment: Other Material H&ling Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267003070	Nonroad LPG, Industrial Equipment: Terminal Tractors	SO2	0.00	0.00	0.00

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NR	2267004066	Nonroad LPG, Lawn & Garden Equipment: Chippers/Stump Grinders (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267005055	Nonroad LPG, Agricultural Equipment: Other Agricultural Equipment	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006005	Nonroad LPG, Commercial Equipment: Generator Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006010	Nonroad LPG, Commercial Equipment: Pumps	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006015	Nonroad LPG, Commercial Equipment: Air Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006025	Nonroad LPG, Commercial Equipment: Welders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006030	Nonroad LPG, Commercial Equipment: Pressure Washers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2267006035	Nonroad LPG, Commercial Equipment: Hydro-power Units	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268002081	NonroadCNG, Construction & Mining Equipt: Other Construction Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268003020	NonroadCNG, Industrial Equipt: Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268003030	NonroadCNG, Industrial Equipt: Sweepers/Scrubbers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268003040	NonroadCNG, Industrial Equipt: Other General Industrial Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268003060	NonroadCNG, Industrial Equipt: AC/Refrigeration	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268003070	NonroadCNG, Industrial Equipt: Terminal Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268005055	NonroadCNG, Agricultural Equipt: Other Agricultural Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268005060	NonroadCNG, Agricultural Equipt: Irrigation Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268006005	NonroadCNG, Commercial Equipt: Generator Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268006010	NonroadCNG, Commercial Equipt: Pumps	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268006015	NonroadCNG, Commercial Equipt: Air Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268006020	NonroadCNG, Commercial Equipt: Gas Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2268010010	NonroadCNG, Industrial Equipt: Other Oil Field Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002003	Nonroad Diesel, Construction & Mining Equipt: Pavers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002006	Nonroad Diesel, Construction & Mining Equipt: Tampers/Rammers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002009	Nonroad Diesel, Construction & Mining Equipt: Plate Compactors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002015	Nonroad Diesel, Construction & Mining Equipt: Rollers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002018	Nonroad Diesel, Construction & Mining Equipt: Scrapers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002021	Nonroad Diesel, Construction & Mining Equipt: Paving Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002024	Nonroad Diesel, Construction & Mining Equipt: Surfacing Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002027	Nonroad Diesel, Construction & Mining Equipt: Signal Boards/Light Plants	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002030	Nonroad Diesel, Construction & Mining Equipt: Trenchers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002033	Nonroad Diesel, Construction & Mining Equipt: Bore/Drill Rigs	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002036	Nonroad Diesel, Construction & Mining Equipt: Excavators	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002039	Nonroad Diesel, Construction & Mining Equipt: Concrete/Industrial Saws	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002042	Nonroad Diesel, Construction & Mining Equipt: Cement & Mortar Mixers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002045	Nonroad Diesel, Construction & Mining Equipt: Cranes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002048	Nonroad Diesel, Construction & Mining Equipt: Graders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002051	Nonroad Diesel, Construction & Mining Equipt: Nonroad Trucks	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002054	Nonroad Diesel, Construction & Mining Equipt: Crushing/Processing Equipt	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002057	Nonroad Diesel, Construction & Mining Equipt: Rough Terrain Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002060	Nonroad Diesel, Construction & Mining Equipt: Rubber Tire Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002066	Nonroad Diesel, Construction & Mining Equipt: Tractors/Loaders/Backhoes	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002069	Nonroad Diesel, Construction & Mining Equipt: Crawler Tractor/Dozers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002072	Nonroad Diesel, Construction & Mining Equipt: Skid Steer Loaders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002075	Nonroad Diesel, Construction & Mining Equipt: Nonroad Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270002078	Nonroad Diesel, Construction & Mining Equipt: Dumpers/Tenders	SO2	0.00	0.00	0.00

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NR	2270002081	Nonroad Diesel, Construction & Mining Equip: Other Construction Equip	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003010	Nonroad Diesel, Industrial Equip: Aerial Lifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003020	Nonroad Diesel, Industrial Equip: Forklifts	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003030	Nonroad Diesel, Industrial Equip: Sweepers/Scrubbers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003040	Nonroad Diesel, Industrial Equip: Other General Industrial Equip	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003050	Nonroad Diesel, Industrial Equip: Other Material H&ling Equip	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270003060	Nonroad Diesel, Industrial Equip: AC\Refrigeration	SO2	0.01	0.01	0.01
Marshall	54051	NR	2270003070	Nonroad Diesel, Industrial Equip: Terminal Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004031	Nonroad Diesel, Lawn & Garden Equip: Leafblowers/Vacuums (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004036	Nonroad Diesel, Lawn & Garden Equip: Snowblowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004046	Nonroad Diesel, Lawn & Garden Equip: Front Mowers (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004056	Nonroad Diesel, Lawn & Garden Equip: Lawn & Garden Tractors (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004066	Nonroad Diesel, Lawn & Garden Equip: Chippers/Stump Grinders (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004071	Nonroad Diesel, Lawn & Garden Equip: Turf Equip (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270004076	Nonroad Diesel, Lawn & Garden Equip: Other Lawn & Garden Equip (Commercial)	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005010	Nonroad Diesel, Agricultural Equip: 2-Wheel Tractors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005015	Nonroad Diesel, Agricultural Equip: Agricultural Tractors	SO2	0.05	0.04	0.05
Marshall	54051	NR	2270005020	Nonroad Diesel, Agricultural Equip: Combines	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005025	Nonroad Diesel, Agricultural Equip: Balers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005030	Nonroad Diesel, Agricultural Equip: Agricultural Mowers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005035	Nonroad Diesel, Agricultural Equip: Sprayers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005040	Nonroad Diesel, Agricultural Equip: Tillers : 6 HP	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005045	Nonroad Diesel, Agricultural Equip: Swathers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005055	Nonroad Diesel, Agricultural Equip: Other Agricultural Equip	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270005060	Nonroad Diesel, Agricultural Equip: Irrigation Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006005	Nonroad Diesel, Commercial Equip: Generator Sets	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006010	Nonroad Diesel, Commercial Equip: Pumps	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006015	Nonroad Diesel, Commercial Equip: Air Compressors	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006025	Nonroad Diesel, Commercial Equip: Welders	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006030	Nonroad Diesel, Commercial Equip: Pressure Washers	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270006035	Nonroad Diesel, Commercial Equip: Hydro-power Units	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270007015	Nonroad Diesel, Logging Equip: Forest Equip - Feller/Bunch/Skidder	SO2	0.00	0.00	0.00
Marshall	54051	NR	2270009010	Nonroad: Diesel, Underground Mining Equip: Other Underground Mining Equip	SO2	0.04	0.03	0.04
Marshall	54051	NR	2270010010	Nonroad: Diesel, Industrial Equip: Other Oil Field Equip	SO2	0.00	0.00	0.00
Marshall	54051	NR	2282005010	Pleasure Craft, Gasoline 2-Stroke: Outboard	SO2	0.02	0.02	0.02
Marshall	54051	NR	2282005015	Pleasure Craft, Gasoline 2-Stroke: Personal Water Craft	SO2	0.01	0.01	0.01
Marshall	54051	NR	2282010005	Pleasure Craft, Gasoline 4-Stroke: Inboard/Stern-drive	SO2	0.01	0.01	0.01
Marshall	54051	NR	2282020005	Pleasure Craft, Diesel: Inboard/Stern-drive	SO2	0.01	0.02	0.01
Marshall	54051	NR	2282020010	Pleasure Craft, Diesel: Outboard	SO2	0.00	0.00	0.00
Marshall	54051	NR	2285002015	Nonroad RailroadEquipment, Diesel: Railway Maintenance	SO2	0.00	0.00	0.00
Marshall	54051	NR	2285004015	Nonroad RailroadEquipment, Gasoline, 4-Stroke: Railway Maintenance	SO2	0.00	0.00	0.00
Marshall	54051	NR	2285006015	Nonroad RailroadEquipment, LPG: Railway Maintenance	SO2	0.00	0.00	0.00
Marshall	54051	NP	2102002000	Area Source Industrial Bituminous/SubBituminous Total: All Boiler Types	SO2	34.17	0.00	0.00
Marshall	54051	NP	2102004000	Area Source Industrial Distillate Oil Total: Boilers and IC Engines	SO2	1.96	0.49	0.00
Marshall	54051	NP	2102005000	Area Source Industrial Residual Oil Total: All Boiler Types	SO2	0.90	0.00	0.03

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NP	2102006000	Area Source Industrial Natural Gas Total: Boilers and IC Engines	SO2	0.03	0.00	0.03
Marshall	54051	NP	2102011000	Area Source Industrial Kerosene Total: All Boiler Types	SO2	0.01	0.03	0.01
Marshall	54051	NP	2103004000	Area Source Commercial Institutional Distillate Oil Total: Boilers and IC Engines	SO2	0.05	0.00	0.00
Marshall	54051	NP	2103005000	Area Source Commercial Institutional Residual Oil Total: All Boiler Types	SO2	0.00	0.00	0.00
Marshall	54051	NP	2103006000	Area Source Commercial Institutional Natural Gas Total: Boilers and IC Engines	SO2	0.02	0.05	0.02
Marshall	54051	NP	2103008000	Area Source Commercial Institutional Wood Total: All Boiler Types	SO2	0.25	0.38	0.25
Marshall	54051	NP	2103011000	Area Source Commercial Institutional Kerosene Total: All Combustor Types	SO2	0.01	0.03	0.01
Marshall	54051	NP	2104001000	Area Source Residential Anthracite Total: All Combustor Types	SO2	0.00	0.00	0.00
Marshall	54051	NP	2104002000	Area Source Residential Bituminous/SubBituminous Total: All Combustor Types	SO2	0.00	0.00	0.00
Marshall	54051	NP	2104004000	Area Source Residential Distillate Oil Total: All Combustor Types	SO2	4.91	5.56	4.91
Marshall	54051	NP	2104006000	Area Source Residential Natural Gas Total: All Combustor Types	SO2	0.19	0.19	0.19
Marshall	54051	NP	2104007000	Area Source Residential Liquified Petroleum Gas Total: All Combustor Types	SO2	0.02	0.02	0.02
Marshall	54051	NP	2104008100	Area Source Residential Wood Fireplace: general	SO2	0.15	0.09	0.16
Marshall	54051	NP	2104008210	Area Source Residential Wood Woodstove: fireplace inserts; non-EPA certified	SO2	0.13	0.03	0.12
Marshall	54051	NP	2104008220	Area Source Residential Wood Woodstove: fireplace inserts; EPA certified; non-catalytic	SO2	0.04	0.02	0.05
Marshall	54051	NP	2104008230	Area Source Residential Wood Woodstove: fireplace inserts; EPA certified; catalytic	SO2	0.01	0.01	0.02
Marshall	54051	NP	2104008310	Area Source Residential Wood Woodstove: freestanding, non-EPA certified	SO2	0.09	0.23	0.08
Marshall	54051	NP	2104008320	Area Source Residential Wood Woodstove: freestanding, EPA certified, non-catalytic	SO2	0.03	0.28	0.03
Marshall	54051	NP	2104008330	Area Source Residential Wood Woodstove: freestanding, EPA certified, catalytic	SO2	0.01	0.19	0.01
Marshall	54051	NP	2104008400	Area Source Residential Wood Woodstove: pellet-fired, general (freestanding or FP insert)	SO2	0.01	0.08	0.01
Marshall	54051	NP	2104008510	Area Source Residential Wood Furnace: Indoor, cordwood-fired, non-EPA certified	SO2	0.12	0.06	0.09
Marshall	54051	NP	2104008610	Area Source Residential Wood Hydronic heater: outdoor	SO2	0.69	0.27	0.74
Marshall	54051	NP	2104008700	Area Source Residential Wood Outdoor wood burning device, NEC (fire-pits, chimeas, etc)	SO2	0.00	0.00	0.00
Marshall	54051	NP	2104011000	Area Source Residential Kerosene Total: All Heater Types	SO2	2.34	0.37	2.34
Marshall	54051	NP	2280002200	CMVs, Diesel: Underway emissions	SO2	3.65	0.16	0.57
Marshall	54051	NP	2285002006	Area Railroad Equipment, Diesel, Line Haul Locomotives: Class I Operations	SO2	0.33	0.33	0.01
Marshall	54051	NP	2285002007	Area Railroad Equipment, Diesel, Line Haul Locomotives: Class II / III Operations	SO2	0.01	0.01	0.00
Marshall	54051	NP	2302002200	Food & Kindred Products /Commercial Cooking - Charbroiling /Under-fired Charbroiling	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310000220	Oil & Gas Expl & Prod /All Processes /Drill Rigs	SO2	0.06	0.18	0.22
Marshall	54051	NP	2310000330	Oil & Gas Expl & Prod /All Processes /Artificial Lift	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310000660	Oil and Gas Exploration and Production All Processes Hydraulic Fracturing Engines	SO2	0.02	0.01	0.01
Marshall	54051	NP	2310010200	Oil & Gas Expl & Prod /Crude Petroleum /Oil Well Tanks - Flashing & Standing/Working/Breathing	SO2	0.20		
Marshall	54051	NP					0.00	0.00
Marshall	54051	NP	2310011000	On-Shore Oil Production /Total: All Processes	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310021010	On-Shore Gas Production /Storage Tanks: Condensate	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310021100	On-Shore Gas Production /Gas Well Heaters	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310021202	On-Shore Gas Production /Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	SO2	0.01		
Marshall	54051	NP					0.02	0.02
Marshall	54051	NP	2310021251	Oil and Gas Exploration and Production On-Shore Gas Production Lateral Compressors 4 Cycle Lean Burn	SO2	0.00		
Marshall	54051	NP					0.00	0.00
Marshall	54051	NP	2310021302	On-Shore Gas Production /Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	SO2	0.01		
Marshall	54051	NP					0.04	0.05
Marshall	54051	NP	2310021351	Oil and Gas Exploration and Production On-Shore Gas Production Lateral Compressors 4 Cycle Rich Burn	SO2	0.01		
Marshall	54051	NP					0.01	0.02
Marshall	54051	NP	2310021400	On-Shore Gas Production /Gas Well Dehydrators	SO2	0.02	0.02	0.02

County Name	State County FIPS	Data Category Code	SCC	SCC Description	Pollutant Code	SO2 Emissions in 2011 (tons)	SO2 Emissions in 2014 (tons)	Projected SO2 Emissions in 2017 (tons)
Marshall	54051	NP	2310021603	On-Shore Gas Production / Gas Well Venting - Blowdowns	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023010	Coal Bed Methane Natural Gas, Storage Tanks: Condensate	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023100	Coal Bed Methane Natural Gas, CBM Well Heaters	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023202	Coal Bed Methane Natural Gas, CBM Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	SO2	0.00	0.00	0.01
Marshall	54051	NP	2310023251	Coal Bed Methane Natural Gas, Lateral Compressors 4 Cycle Lean Burn	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023302	Coal Bed Methane Natural Gas, CBM Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	SO2	0.01	0.01	0.01
Marshall	54051	NP	2310023351	Coal Bed Methane Natural Gas, Lateral Compressors 4 Cycle Rich Burn	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023400	Coal Bed Methane NG / Dehydrators	SO2	0.00	0.00	0.01
Marshall	54051	NP	2310023600	Coal Bed Methane Natural Gas, CBM Well Completion: All Processes	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310023603	Coal Bed Methane NG / Venting - Blowdowns	SO2	0.00	0.00	0.00
Marshall	54051	NP	2310111700	On-Shore Oil Exploration /Oil Well Completion: All Processes	SO2	0.42	0.00	0.00
Marshall	54051	NP	2310121700	On-Shore Gas Exploration /Gas Well Completion: All Processes	SO2	77.05	5.80	7.37
Marshall	54051	NP	2610000100	Open Burning /All Categories /Yard Waste - Leaf Species Unspecified	SO2	0.03	0.03	0.03
Marshall	54051	NP	2610000400	Open Burning /All Categories /Yard Waste - Brush Species Unspecified	SO2	0.06	0.06	0.06
Marshall	54051	NP	2610030000	Open Burning /Residential /Household Waste (use 26-10-000-xxx for Yard Wastes)	SO2	0.86	0.78	0.86
Marshall	54051	NP	2801500000	Agric - Crops /Field Burning - whole field set on fire /Unspecified	SO2	0.10	NA	0.86
Marshall	54051	NP	2810060100	Cremation /Humans	SO2	0.02	NA	0.02
Marshall	54051	E	2811015000	Prescribed Forest Burning - Unspecified	SO2	3.65	3.65	3.65
Marshall County 2011 SO2 Emissions from all Data Categories Total:						34,156.97	26,693.48	6,232.17