
DRAFT Technical Support Document (TSD)

**Kentucky
Area Designations For the
2010 SO₂ Primary National Ambient Air Quality Standard**

Summary

Pursuant to section 107(d) of the Clean Air Act (CAA), EPA must initially designate areas as either “unclassifiable”, “attainment”, or “nonattainment” for the 2010 1-hour sulfur dioxide (SO₂) primary national ambient air quality standard (NAAQS). The CAA defines a nonattainment area as one that does not meet the NAAQS or that contributes to poor air quality in a nearby area that does not meet the NAAQS. Table 1 below identifies the counties or portions of counties (or areas of Indian Country) in Kentucky that EPA intends to initially designate “nonattainment” based on monitored violations.

Table 1. Nonattainment Area Designations for Kentucky

Area (listed alphabetically)	Kentucky Recommended Designation of Areas/Counties	EPA’s Intended Designation of Areas/Counties
Campbell, KY-OH* Campbell County, KY (partial) Clermont County, OH (partial)	Attainment/ Unclassifiable N/A	Nonattainment
Jefferson County, KY Jefferson County (partial)	Nonattainment	Nonattainment

* This is a multi-region nonattainment area. Additional information on boundary recommendations and analyses can be found in the State of Ohio’s and the State of Indiana’s draft technical support documents.

Background

On June 2, 2010, EPA revised the primary SO₂ NAAQS (75 FR 35520, June 22, 2010) by establishing a new 1-hour standard at a level of 75 parts per billion (ppb) which is attained when the 3-year average of the 99th percentile of the daily maximum 1-hour average concentration at each monitor in an area does not exceed 75 ppb. EPA has determined that this is the level necessary to provide protection of public health with an adequate margin of safety, especially for children, the elderly and those with asthma. These groups are particularly susceptible to the health effects associated with breathing SO₂. The Agency is revoking the two prior primary standards of 140 ppb evaluated over 24-hours, and 30 ppb evaluated over an entire year because the standards will not add additional public health protection given a 1-hour standard at 75 ppb. Accordingly, EPA is not designating areas in this process on the basis of either of these two prior primary standards. Similarly, the secondary standard for SO₂ has not been revised, so EPA is not designating areas in this process on the basis of the secondary standard.

EPA's SO₂ Designation Approach

Section 107(d) of the CAA requires that not later than 1 year after promulgation of a new or revised NAAQS, state Governors must submit their recommendations for designations and boundaries to EPA. This deadline was in June 2011. Section 107(d) also requires EPA to provide a notification to states of no less than 120-days prior to promulgating an initial area designation that is a modification of a state's recommendation. EPA has reviewed the State's recommendations and has notified the Governor through letter signed by the Regional Administrator of any intended modifications. While language in section 107 specifically addresses states, we intend to follow the same process for tribes, pursuant to section 301(d) of the CAA and Tribal Authority Rule (40 CFR Part 49). Therefore, we intend to designate areas of Indian Country, in consultation with the tribes, on the same schedule as state designations. If a State or Tribe did not submit designation recommendations, EPA will promulgate the designations that it deems appropriate. If a State or Tribe disagrees with EPA's intended area designations, it has an opportunity to demonstrate why any proposed modification is inappropriate. Kentucky does not have any tribes affected by this intended designation.

Designations guidance was issued by EPA through a March 24, 2011, memorandum from Stephen D. Page, Director, U.S. EPA, Office of Air Quality Planning and Standards, to Air Division Directors, U.S. EPA Regions I-X. This memorandum identifies factors EPA intends to evaluate in determining boundaries for areas designated nonattainment. These 5 factors include: 1) Air quality data; 2) Emissions and emissions-related data (location of sources and potential contribution to ambient SO₂ concentrations); 3) Meteorology (weather/transport patterns); 4) Geography/topography (mountain ranges or other air basin boundaries); and 5) Jurisdictional boundaries (e.g., counties, air districts, pre-existing nonattainment areas, reservations), among any other information deemed relevant to establishing appropriate area designations and boundaries for the 1-hour SO₂ NAAQS.

The March 24, 2011, memo recommended that area boundaries be defaulted to the county boundary unless additional information justifies a larger or smaller boundary than that of the county. EPA believes it is appropriate to evaluate each potential area on a case-by-case basis, and to recognize that area-specific analyses conducted by states, tribes and/or EPA may support a different boundary than a default county boundary.

In this TSD, EPA discusses its review and technical analysis of the recommendations regarding areas with violating monitors submitted by the states and/or tribes for designations of the 1-hour SO₂ standard and any modifications from these recommendations.

Definition of important terms used in this document:

1) **Designated "nonattainment" area** – an area which EPA has determined, based on a state recommendation and/or on the technical analysis included in this document, has violated the 2010 SO₂ NAAQS, based on the most recent three years of air quality monitoring data, or contributes to a violation in a nearby area.

2) **Recommended nonattainment area** – an area a State or Tribe has recommended to EPA be designated as nonattainment.

3) **Violating monitor** – an ambient air monitor meeting all methods, quality assurance and citing criteria and requirements whose valid design value exceeds 75 ppb, as described in Appendix T of 40 CFR part 50.

4) **2010 SO₂ NAAQS** - 75 ppb, national ambient air quality standard for SO₂ promulgated in 2010. Based on the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations

5) **Design Value** – a statistic that describes the air quality status of a given area relative to the level of the NAAQS.

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Nonattainment Designations

Technical analysis for Campbell County Area

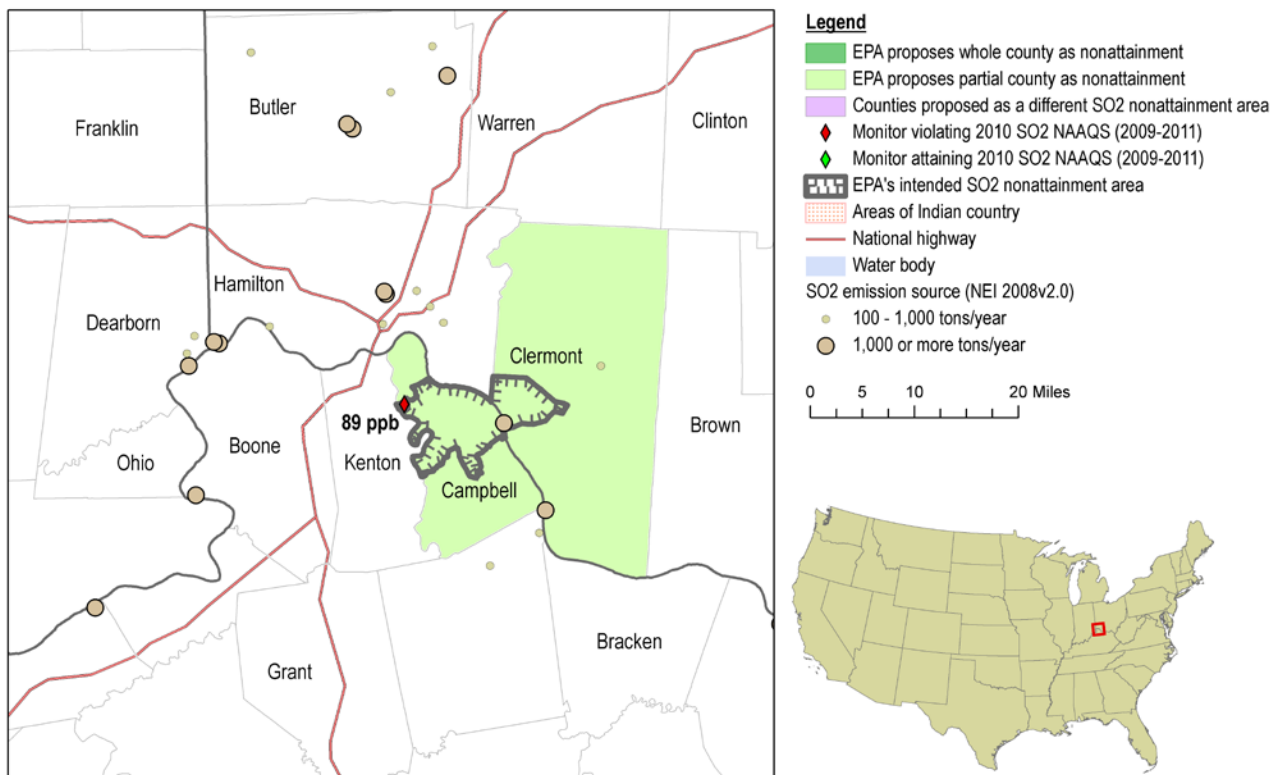
Introduction

This technical analysis for the Campbell County Area identifies the partial county with a monitor that violates the 2010 SO₂ NAAQS based on 2009-2011 data, and evaluates nearby counties for contributions to SO₂ concentrations in the area. EPA has evaluated this county and nearby counties based on the weight of evidence of the factors recommended in the March 24, 2011, issued EPA guidance.

Figure 1 is a map of the area analyzed showing the locations and design values of air quality monitors in the area, and the counties surrounding any violating air quality monitors.

Figure 1

Campbell County, KY-OH

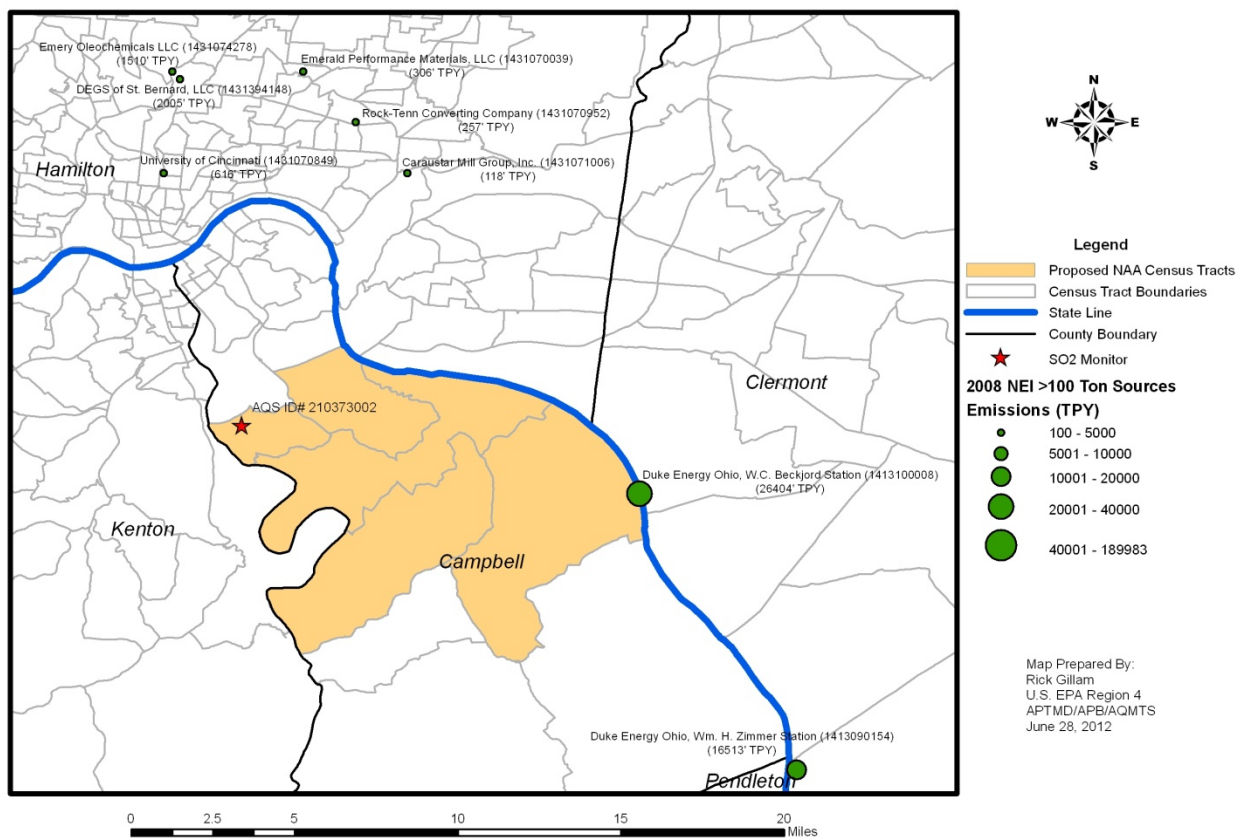


In June 2011, Secretary Leonard K. Peters recommended that 119 counties and one partial county be designated as “unclassifiable” or “attainment” for the 2010 SO₂ NAAQS based on monitored air quality data from 2008-2010. At that time, the monitor in Campbell County, Kentucky was attaining the SO₂

NAAQS and thus the Commonwealth of Kentucky did not provide a nonattainment boundary recommendation to EPA for Campbell County. Letter from Leonard K. Peters, Secretary, Kentucky Energy and Environment Cabinet, to Gwendolyn Keyes Fleming, Regional Administrator, USEPA, Region 4 (June 2, 2011) (on file with USEPA Region 4 Regulatory Development Section).

Figure 2. Proposed Nonattainment Area

Campbell County, Kentucky SO₂ Proposed Nonattainment Area Census Tracts



Based on EPA’s technical analysis described below, EPA is intending to initially designate Campbell County (partial) as nonattainment for the 2010 SO₂ NAAQS as the Campbell County nonattainment area, based upon currently available information. This county is listed above in Table 1. The partial county boundary for Campbell includes the following census tracts: 519.01; 519.03; 529.00; 531.00; and 533.01. Also in this Area, EPA intends to designate a portion of Clermont County, Ohio in association with Campbell County, Kentucky. Refer to EPA’s TSD for Ohio for more information on the Clermont County, Ohio portion of this Area.

Detailed Assessment

Air Quality Data

This factor considers the SO₂ air quality monitoring data from a Federal Equivalent Method (FEM) monitor, including the design values (in ppb) calculated for all air quality monitors in Campbell County and the surrounding area based on data for the 2009-2011 period.

The 2011 SO₂ NAAQS design values for Campbell County and the surrounding area are shown in Table 2.

Table 2. Air Quality Data for Nonattainment Designations in Kentucky

County	State Recommended Nonattainment?	Monitor Name	Monitor Air Quality System ID	Monitor Location	SO ₂ Design Value 2009-2011 (ppb)
Campbell County, KY	No	North Kentucky University (NKU)	210373002-42401-1	Highland Heights, KY Lat 39.021806 Long -84.474453	89

Monitors in **Bold** have the highest 2009-2011 design value in the respective county.

Campbell County shows a violation of the 2010 SO₂ NAAQS. Therefore, some area in this county and possibly additional areas in surrounding counties must be designated nonattainment. The absence of a violating monitor alone is not a sufficient reason to eliminate nearby counties as candidates for nonattainment status. Each area has been evaluated based on the weight of evidence of the five factors and other relevant information.

Emissions and Emissions-Related Data

Evidence of SO₂ emissions sources in the vicinity of a violating monitor is an important factor for determining whether a nearby area is contributing to a monitored violation. For this factor, EPA evaluated county level emissions data for SO₂ and any growth in SO₂ emitting activities since the date represented by those emissions data.

Emissions

EPA recognizes that there may be important new information on emissions levels for the period after 2008, and would consider more recent information if available. Kentucky did not provide updated emissions information, therefore EPA relied on the 2008 National Emissions Inventory (NEI) emissions data (NEI08V2).

Table 3 shows total emissions of SO₂ (given in tons per year (tpy)) for violating and potentially contributing counties in and around the Campbell County area, including sources emitting greater than 100 tons per year of SO₂ according to the 2008 NEI. The proposed Campbell County nonattainment area for the 2010 SO₂ NAAQS is wholly comprised within Campbell County and is therefore shown in **bold**.

Table 3. Annual SO₂ Emissions [NEI08V2]

County	Facility >100 tpy (EIS or State Facility ID)	Facility Emissions (tpy)	Total County SO ₂ Emissions (tpy)
Campbell County, KY*	Lafarge North America	0.916417	88.8
	Suez - Degs of Silver Grove LLC	0.385927	
	Northern Kentucky University	0.2439053	
	Barrett Paving Materials	0.176844	
	Sara Lee Foods - Claryville Facility	0.074461	
	Fischer Special Mfg Co	0.00061662	
	Wendling Printing	0.0001035	
	ADM Grain Co	0.0000135	
Clermont County, OH	Walter C. Beckjord Generating Station**	26,403.8	42,913.8

* There are no 100 tpy or greater SO₂ sources in Campbell County. Total 2008 Campbell County SO₂ emissions were 88.8 tpy.

** This facility is located in Clermont County, OH.

Since the 2008 NEI, EPA emissions inventory data shows that SO₂ emissions have been increasing at the Walter C. Beckjord Generating Station. See Table 4 below.

Table 4. SO₂ Emissions

	Walter C Beckjord Generating Station - Clermont County, OH				
Year	2008	2009	2010	2011	2012 (January through March)
Emissions tpy (EPA Clean Air Markets Division (CAMD) data)	26400.5	41964.5	69156.3	90834.5	18688.5

Emissions Controls

The emissions data used by EPA in this technical analysis and provided in Table 3 represent emissions levels taking into account any control strategies implemented on stationary sources in Campbell County, Kentucky and Clermont County, Ohio up to and including 2008. EPA has not received any additional information from the Commonwealth of Kentucky regarding emissions reductions resulting from controls put into place after 2008.

The Duke Energy W.C. Beckjord facility, located in Clermont County, Ohio, has six coal/steam units and is located 10 miles from the violating monitor. This is a 60 year old plant with no SO₂ controls. Duke Energy has indicated that it will not be able to meet the Utility Maximum Available Control Technology requirements for this plant and, therefore, may shut down the facility by January 1, 2015.

Meteorology (weather/transport patterns)

Evidence of source-receptor relationships between specific emissions sources and high SO₂ values at violating monitors is another important factor in determining the appropriate contributing areas and the appropriate extent of the nonattainment area boundary. For this factor, EPA considered recent hourly meteorological data from the National Weather Service (NWS) sites nearest to the violating monitor to determine which wind vectors were associated with 1-hour SO₂ exceedances. For the Campbell Area, 2009-2011 meteorological data from the Cincinnati Municipal Airport (ID #724297-93812) and data from the Cincinnati/Northern Kentucky International Airport (ID# 724210-93814) were evaluated. Figure 3 shows a map of the SO₂ monitor location, meteorological data locations, and the major emissions sources in the area. The Cincinnati Municipal Airport is approximately 10 kilometers northeast of the violating monitor. The Cincinnati/Northern Kentucky International Airport is approximately 17 kilometers west of the violating monitor. The primary SO₂ emissions source is the Duke Energy, Walter C. Beckjord Generating Station facility, which is located approximately 18 kilometers east of the violating monitor.

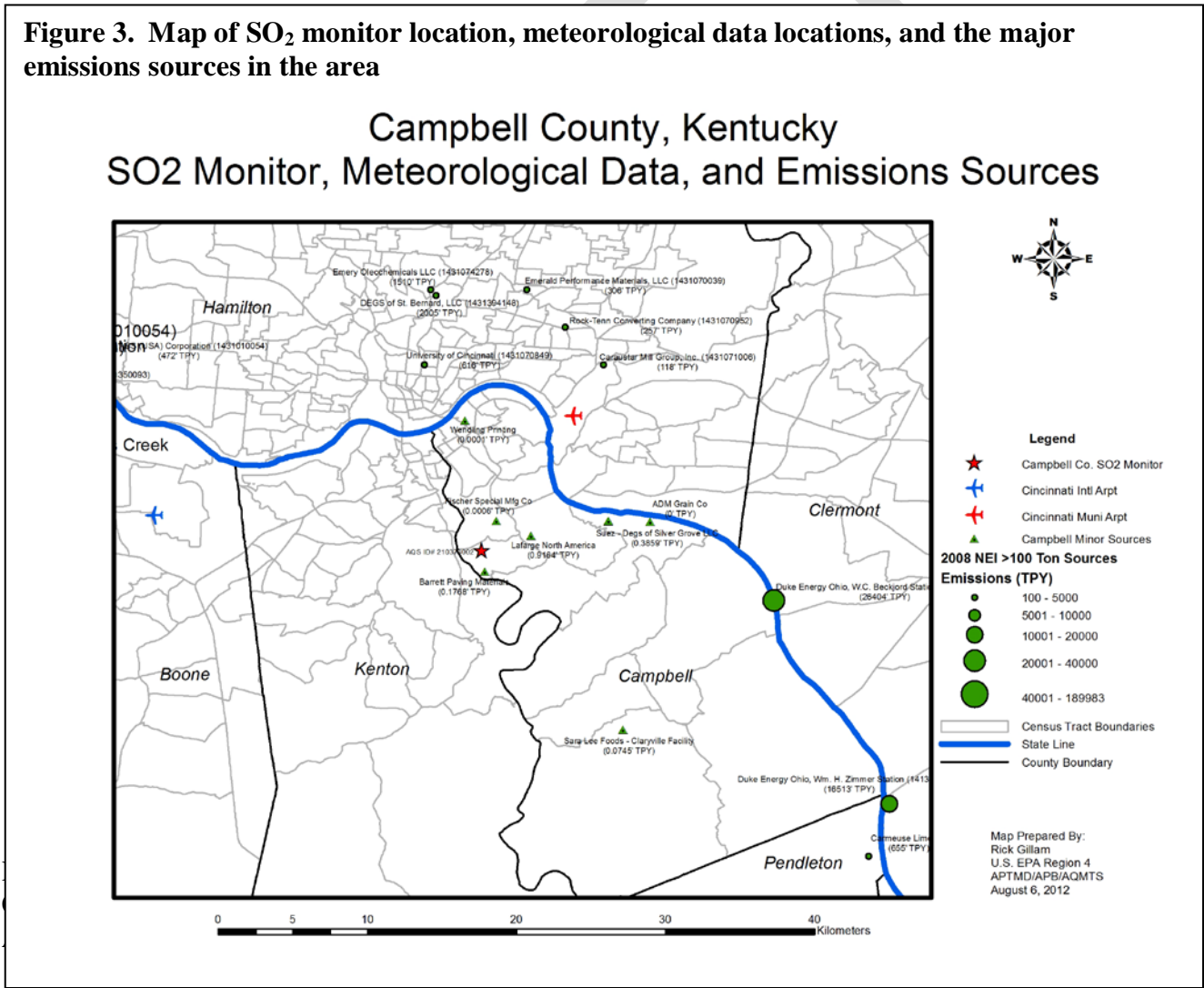
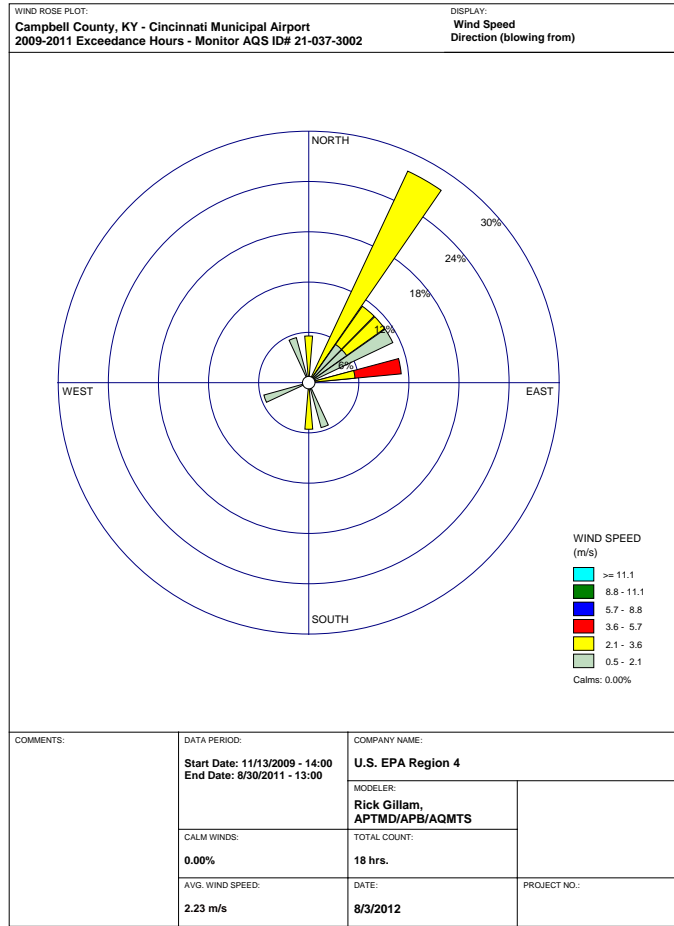


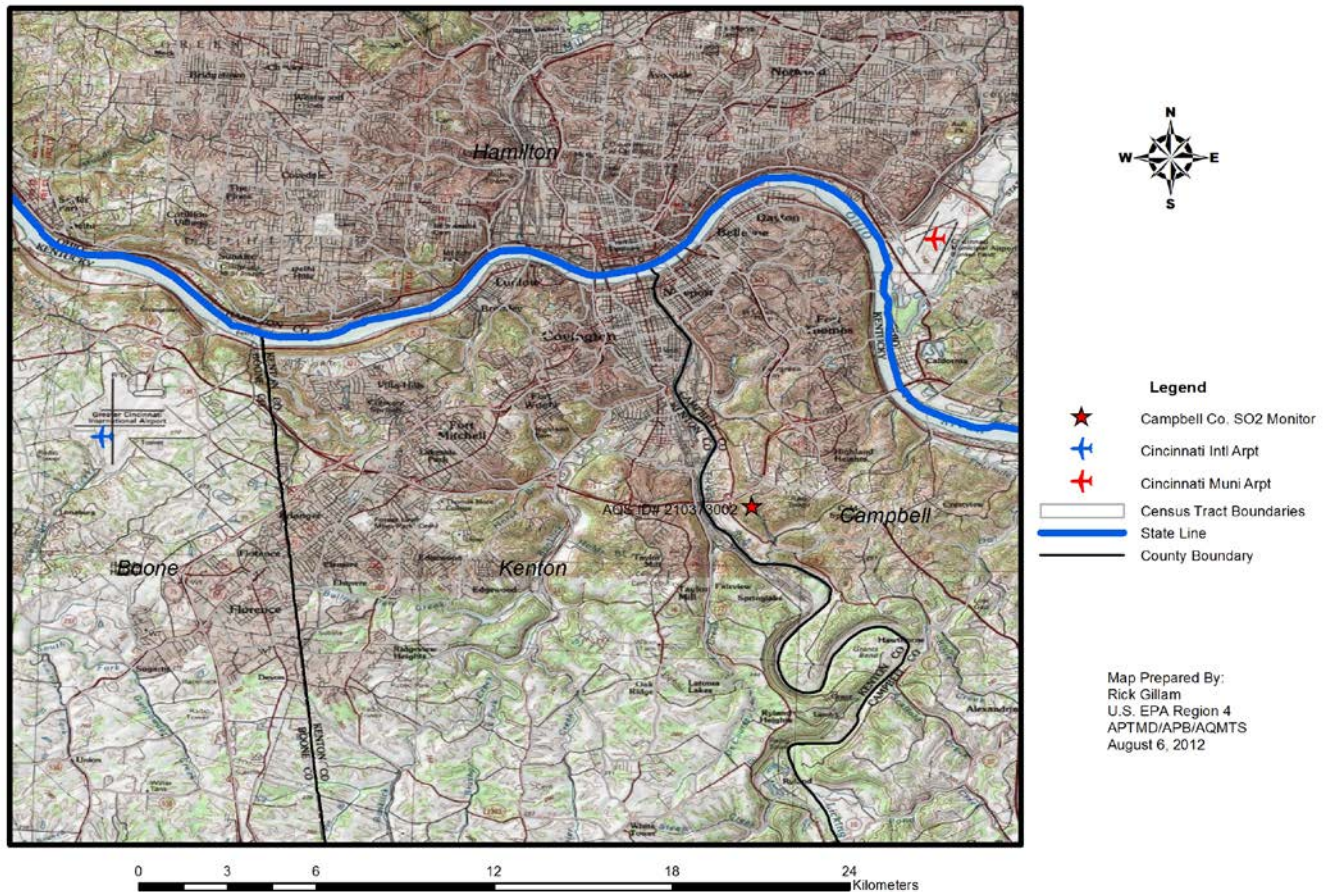
Figure 4. Wind Rose of 2009-2011 hours exceeding the 1-hr SO₂ NAAQS at the violating monitor with wind data from the Cincinnati Municipal Airport.



EPA has determined that the wind data from the Cincinnati municipal airport is not likely to be representative of winds at the monitor location in Campbell County. The reason is that the Municipal Airport is located in the Little Miami River valley, which is approximately 2 kilometers wide with steep hills approximately 300 feet high on both sides of the valley and oriented in Northeast to Southwest direction. See Figure 5 for a topographic map of the Area. The river valley is likely influencing the surface level winds measured at the airport by "channeling" them in the Northeast to Southwest direction.

Figure 5. Topographic Map showing the Cincinnati Municipal Airport in the Little Miami River Valley

Campbell County, Kentucky, Topographic Map



Since the Cincinnati Municipal Airport wind data is not likely representative of the winds at the violating monitor location, EPA evaluated wind data from the Cincinnati/Northern Kentucky Airport. As can be seen in Figure 5, the relatively flat terrain near the Cincinnati/Northern Kentucky Airport makes it likely to be generally representative of the wind patterns in the area. Figure 6 provides a wind rose of the 2009-2011 hours exceeding the 1-hr SO₂ NAAQS at the violating monitor with wind data from the Cincinnati/Northern Kentucky Airport site.

Figure 6. Wind Rose of 2009-2011 hours exceeding the 1-hr SO₂ NAAQS at the violating monitor with wind data from the Cincinnati/Northern Kentucky Airport site.

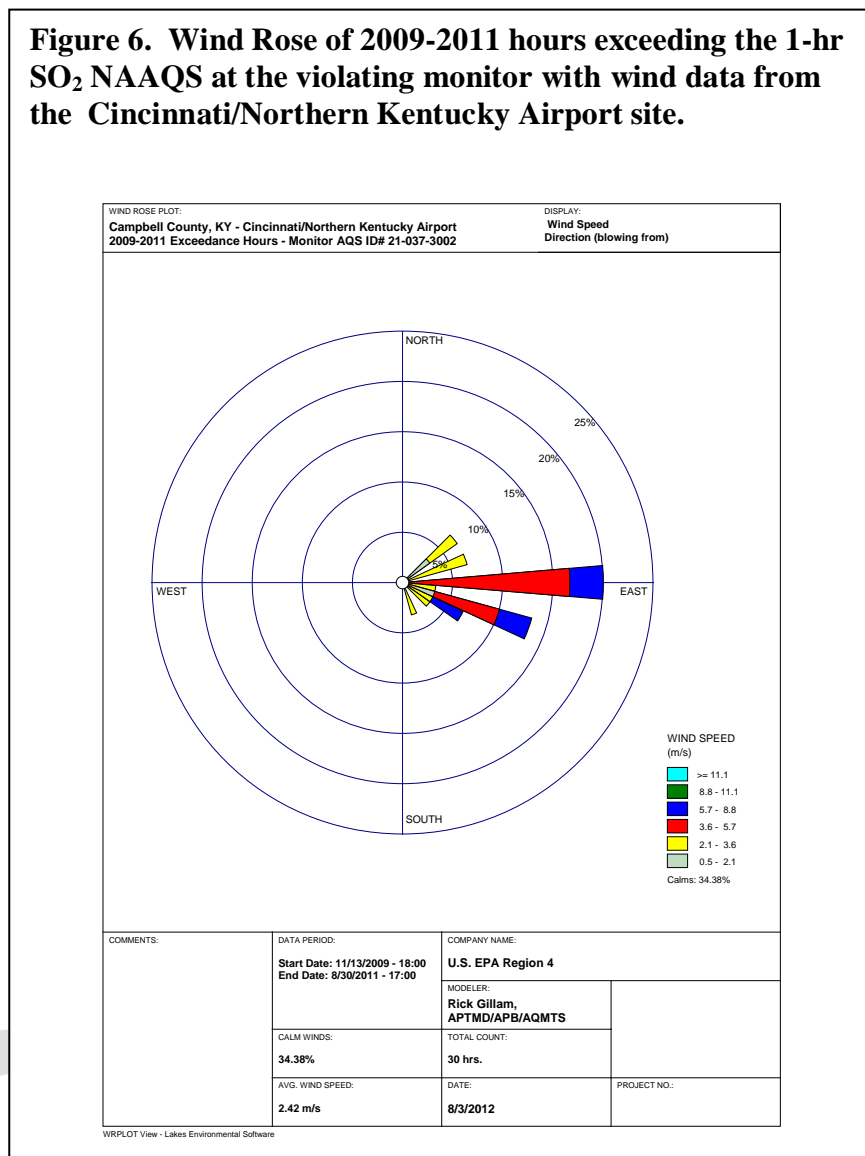


Figure 6 shows that the majority of the exceeding hours have winds blowing from the east with generally moderate wind speeds. As can be seen in Figure 3, the Duke Energy Beckjord facility is located approximately 18 kilometers east of the monitor. No other major sources are located near the violating monitor in the east direction. Therefore, the Duke Energy Beckjord facility is likely the major contributor to the violations at the monitor.

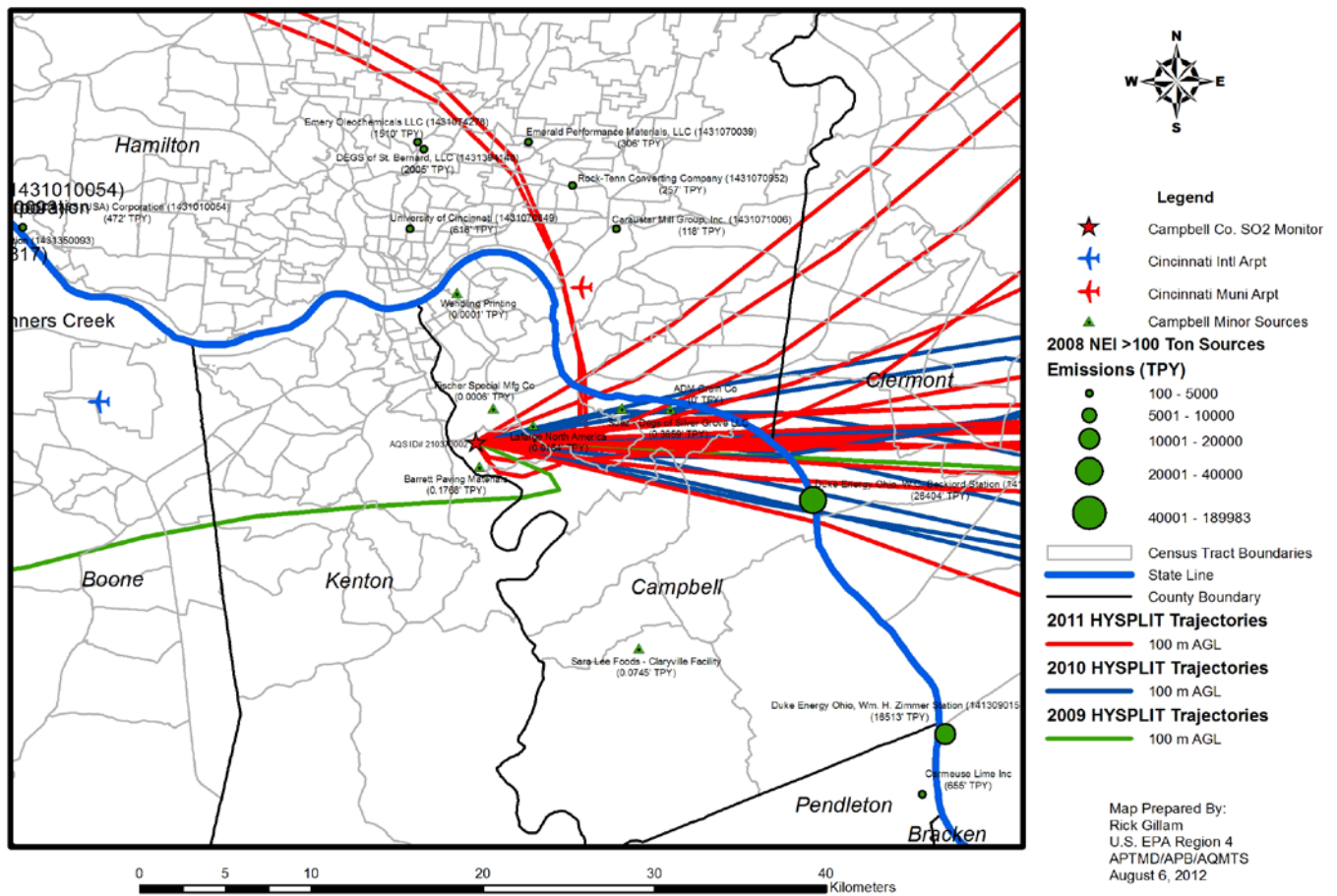
In order to further evaluate potential contribution to the violating monitor, EPA performed a wind back-trajectory analysis using the National Oceanic and Atmospheric Administration (NOAA) Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT)¹ model. The HYSPLIT back-trajectories were created using NOAA's archived Eta Data Assimilation System, 40 kilometer grid resolution meteorological dataset (EDAS 40 kilometers). The back trajectories originated at the violating monitor

¹ Draxler, R.R. and Rolph, G.D., 2012. HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) Model access via NOAA ARL READY Website (<http://ready.arl.noaa.gov/HYSPLIT.php>). NOAA Air Resources Laboratory, Silver Spring, MD.

location on each hour that corresponds to a measured exceedance of the 1-hr SO₂ NAAQS and were initialized at 100 meters above ground level with the “Model Vertical Velocity” model option. Figure 7 shows the results of the back-trajectory analysis.

Figure 7. HYSPLIT Back-trajectory analysis of 2009-2011 hours exceeding the 1-hr SO₂ NAAQS at the violating monitor

Campbell County, Kentucky, HYSPLIT Back-Trajectories



As can be seen in Figure 7, the results of the back-trajectory analysis generally agree with the surface-level wind analysis shown in the wind rose in Figure 6. The trajectory analysis shows that winds blow primarily from the east during hours exceeding the 1-hr SO₂ NAAQS. This analysis supports the conclusion presented above that the Duke Energy Beckjord facility is likely the major contributor to the violations at the monitor.

Geography/Topography (mountain ranges or other air basin boundaries)

Campbell County does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in determining the nonattainment boundary.

Jurisdictional Boundaries

Once EPA identified the general areas that the Agency anticipated would be included in the nonattainment area, EPA then considered existing jurisdictional boundaries for the purposes of providing a clearly defined legal boundary and to help identify the areas appropriate for carrying out the air quality planning and enforcement functions for nonattainment areas. With regard to the 2010 SO₂ NAAQS, EPA has determined that the appropriate jurisdictional boundaries to be considered to include counties, air districts, pre-existing nonattainment areas, reservations, among any other information deemed relevant to establishing appropriate area designations and boundaries for the 1-hour SO₂ NAAQS.

No area in Campbell County has been or is currently nonattainment for a SO₂ NAAQS, so EPA had no boundary related to a previous nonattainment designation to consider for this area. Additionally, this area does not include Indian Country. Therefore, this factor did not play a significant role in determining the nonattainment boundary.

The violating monitor is located in Campbell County, Kentucky; however, the largest nearby source of the SO₂ is located across state lines in Clermont County, Ohio.

Other Relevant Information

EPA did not receive additional information, relevant to establishing a nonattainment area boundary for this Area.

Conclusion

After considering the factors described above, EPA intends to find that it is appropriate to initially include the portions of counties listed in Table 1 in the Campbell County area as nonattainment area for the 2010 SO₂ NAAQS, based on the violating monitor. The partial county boundary for Campbell includes the following census tracks: 519.01; 519.03; 529.00; 531.00; and 533.01.

The air quality monitor in Campbell County shows a violation of the 2010 SO₂ NAAQS, based on 2009-2011 air quality data. Based on the consideration of all the relevant and available information, as described above, EPA believes that the boundaries described herein, in conjunction with portions of Clermont County, Ohio, encompass a sufficient area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the 2010 SO₂ NAAQS, based on the violating monitor information.

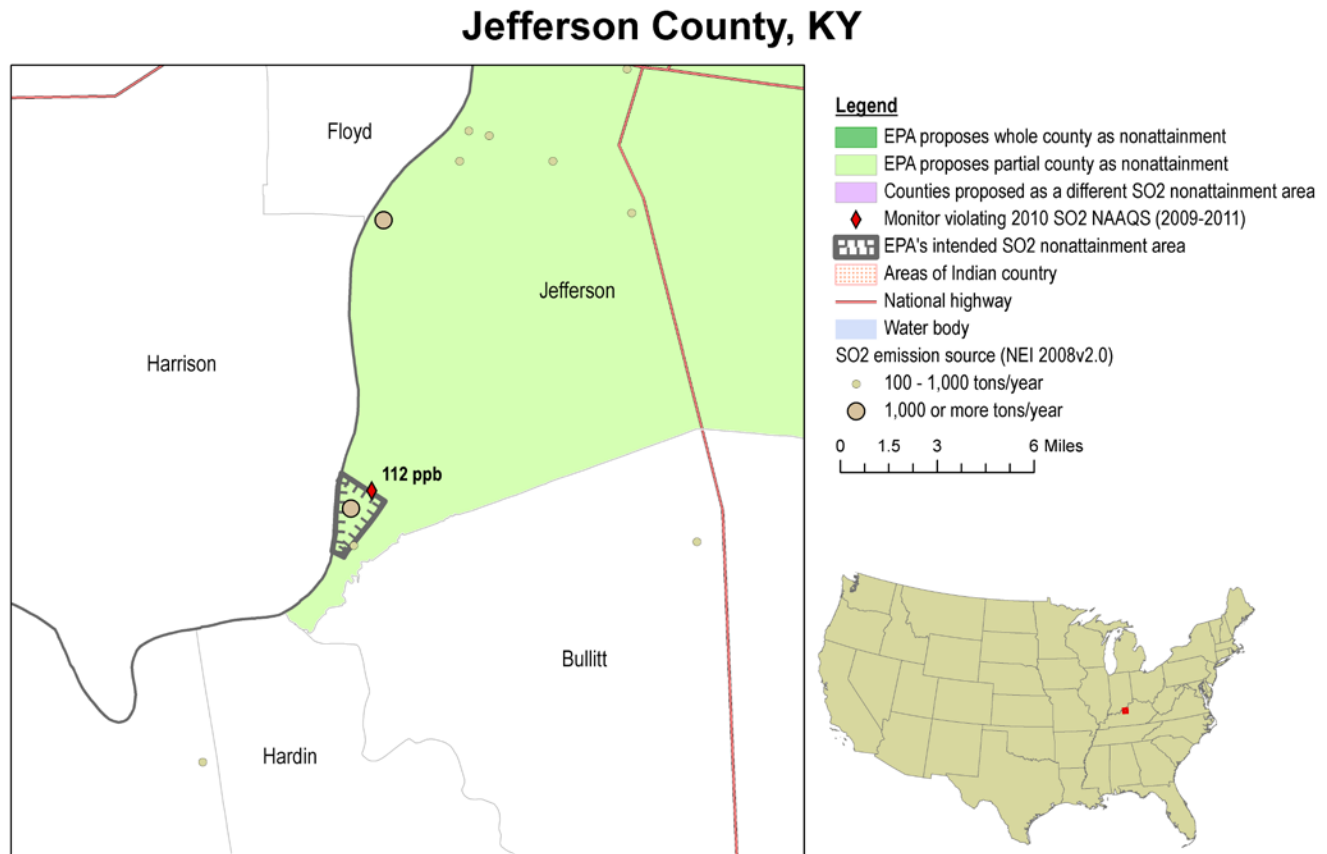
Technical analysis for Jefferson County

Introduction

This technical analysis for Jefferson County identifies the monitor that violates the 2010 SO₂ NAAQS based on 2009-2011 data, and evaluates nearby counties for contributions to SO₂ concentrations in the area. EPA has evaluated this county and nearby counties based on the weight of evidence of the factors recommended in the March 24, 2011, issued EPA guidance.

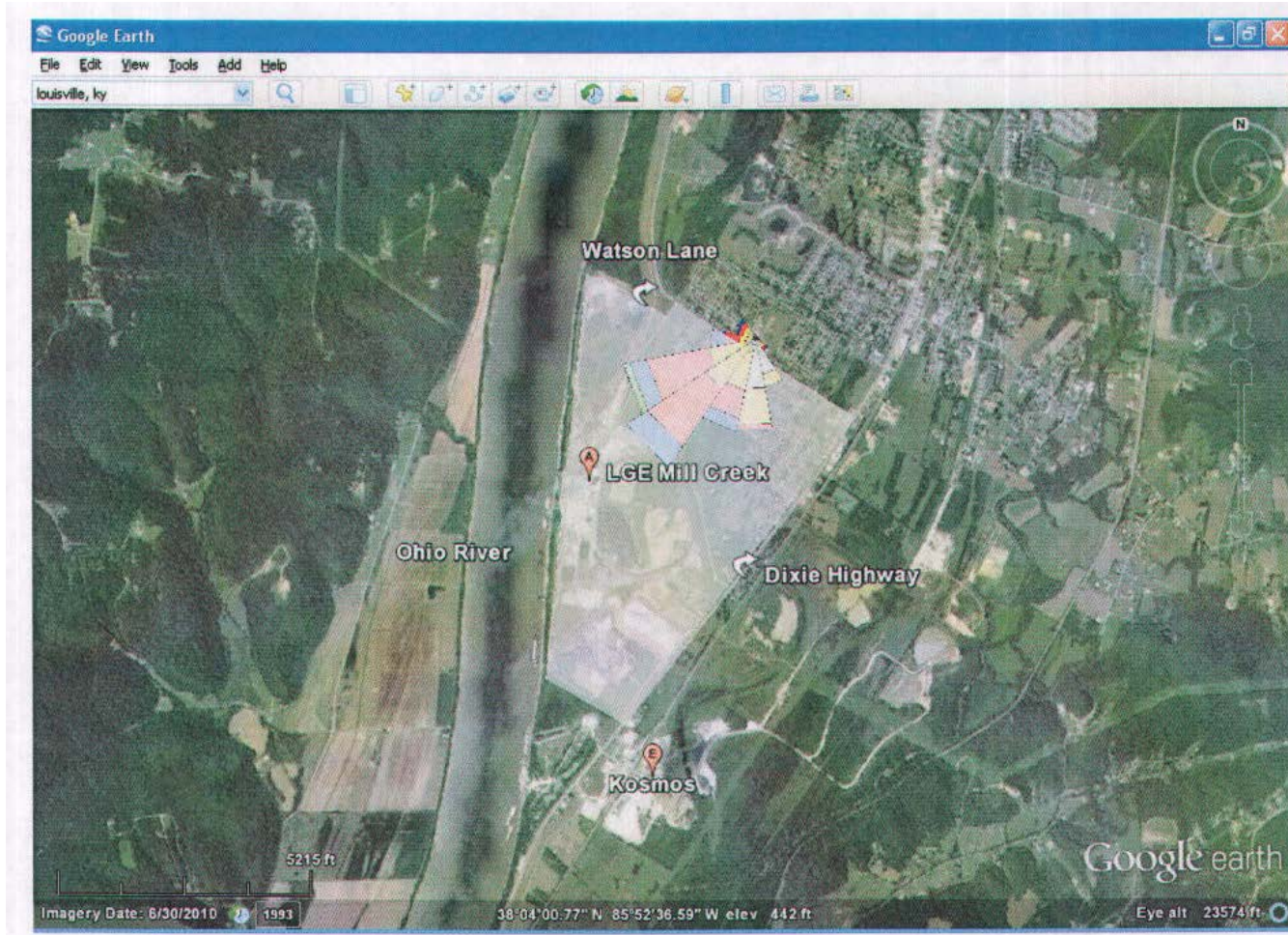
Figure 8 is a map of the area analyzed showing the location and design value of air quality monitors in the areas, and the counties surrounding any violating air quality monitors.

Figure 8



In June 2011, Secretary Leonard K. Peters recommended that Jefferson County (in its entirety) be designated as nonattainment for the 2010 SO₂ NAAQS based on monitored air quality data from 2008-2010. Secretary Leonard K. Peters provided an update to the original recommendation on December 20, 2011, and January 15, 2013. In its updated recommendation, Kentucky recommended a partial boundary around the Jefferson County monitor. See Figure 9.

Figure 9. Kentucky's Proposed Nonattainment Area for Jefferson County



Based on EPA's technical analysis described below, EPA is intending to initially designate Jefferson County as partial nonattainment for the 2010 SO₂ NAAQS based upon currently available information. The preliminary boundary for the Jefferson County Area is the same as recommended by Kentucky as identified in Figure 9 above.

Detailed Assessment

Air Quality Data

This factor considers the SO₂ air quality monitoring data, including the design values (in ppb) calculated for the air quality monitor in Jefferson County based on data for the 2009-2011 period. The Secretary's recommendation was based on data from two FEM monitors located in the Commonwealth. Letter from Leonard K. Peters, Secretary, Kentucky Energy and Environment Cabinet, to Gwendolyn Keyes Fleming, Regional Administrator, USEPA, Region 4 (June 2, 2011, and updated

on December 20, 2011, and January 15, 2013) (on file with USEPA Region 4 Regulatory Development Section).

The 2010 SO₂ NAAQS design values for Jefferson County and the surrounding area are shown in Table 5.

Table 5. Air Quality Data for Nonattainment Designations in Commonwealth

County	Commonwealth Recommended Nonattainment?	Monitor Name	Monitor Air Quality System ID	Monitor Location	SO ₂ Design Value, 2007 - 2009 (ppb)	SO ₂ Design Value, 2008-2010 (ppb)	SO ₂ Design Value, 2009-2011 (ppb)
Jefferson	N/A	Jefferson	211110051		117	112	112

Monitors in Bold have the highest 2009-2011 design value in the respective county.

Jefferson County shows a violation of the 2010 SO₂ NAAQS. Therefore, some area in this county and possibly additional areas in surrounding counties must be designated nonattainment. The absence of a violating monitor alone is not a sufficient reason to eliminate nearby counties as candidates for nonattainment status. Each area has been evaluated based on the weight of evidence of the five factors and other relevant information.

Emissions and Emissions-Related Data

Evidence of SO₂ emissions sources in the vicinity of a violating monitor is an important factor for determining whether a nearby area is contributing to a monitored violation. For this factor, EPA evaluated county level emission data for SO₂ and any growth in SO₂ emitting activities since the date represented by those emissions data.

Emissions

EPA recognizes that there may be important new information on emissions levels for the period 2008, and would consider more recent years if available. Kentucky provided emissions information which is included in Table 6 below.

Table 6 shows total emissions of SO₂ (given in tpy) for violating and potentially contributing counties in and around Jefferson County and sources emitting (or anticipated to contribute) greater than 100 tons per year of SO₂ according to the 2008 NEI.

Table 6. SO₂ Emissions [NEI08V2]

County	Facility Located in Commonwealth Recommended Nonattainment Area?	Facility – Total SO ₂ Air Emissions [2008 NEI] (tons per year)	Facility Location	Total County SO ₂ Emissions (tons per year)
Jefferson	Yes	LGE, MCS 28,581	38.0531, -85.91	41,452
Jefferson	No	LGE, CRS 10,103	38.1828, -85.8894	
Jefferson	No	Oxy Vinyls 573	38.22022, -85.82885	
Jefferson	No	Louisville Med 482	38.24937, -85.74983	
Jefferson	No	Kosmos Cement 304	38.03634, -85.90869	
Jefferson	No	B-F Dist 252	38.20832, -85.79272	
Jefferson	No	Carbide 150	38.22251, -85.84046	
Jefferson	No	McAlpine 145	38.27884, -85.79078	
Jefferson	No	American Rubber 120	38.20892, -85.8458	
Jefferson	No	Airport 112	38.1846, -85.7484	

Emissions Controls

The emissions data used by EPA in this technical analysis and provided in Table 6 represent emissions levels taking into account any control strategies implemented on stationary sources in Jefferson County up to and including 2008. EPA has not received any additional information from the Commonwealth of Kentucky regarding emissions reductions resulting from controls put into place after 2008.

Meteorology (weather/transport patterns)

Evidence of source-receptor relationships between specific emissions sources and high SO₂ values at violating monitors is another important factor in determining the appropriate contributing areas and the appropriate extent of the nonattainment area boundary. For this factor, EPA considered recent hourly meteorological data from the NWS site nearest to the violating monitor to determine which wind vectors were associated with 1-hour SO₂ exceedances. For the Jefferson County Area, the meteorological data used in this analysis is for 2009-2011 from the Louisville Standiford Field Airport site (ID # 724230-93821). The Louisville Standiford Field site is approximately 10 kilometers southeast of the northern violating monitor (AQS ID # 21-111-0041) and approximately 19 kilometers northeast of the southern violating monitor (AQS ID # 21-111-0051). The primary SO₂ emissions source nearby the monitor is the Louisville Gas & Electric, Mill Creek Station facility, located approximately 1.5 kilometers southwest from the southern violating monitor.

Figure 10 shows a wind rose of the hours exceeding the 1-hr SO₂ NAAQS (75 ppb) at the Jefferson County violating monitor (AQS ID # 21-111-0051). The wind rose was developed using wind data from the Louisville Standiford Field Airport site.

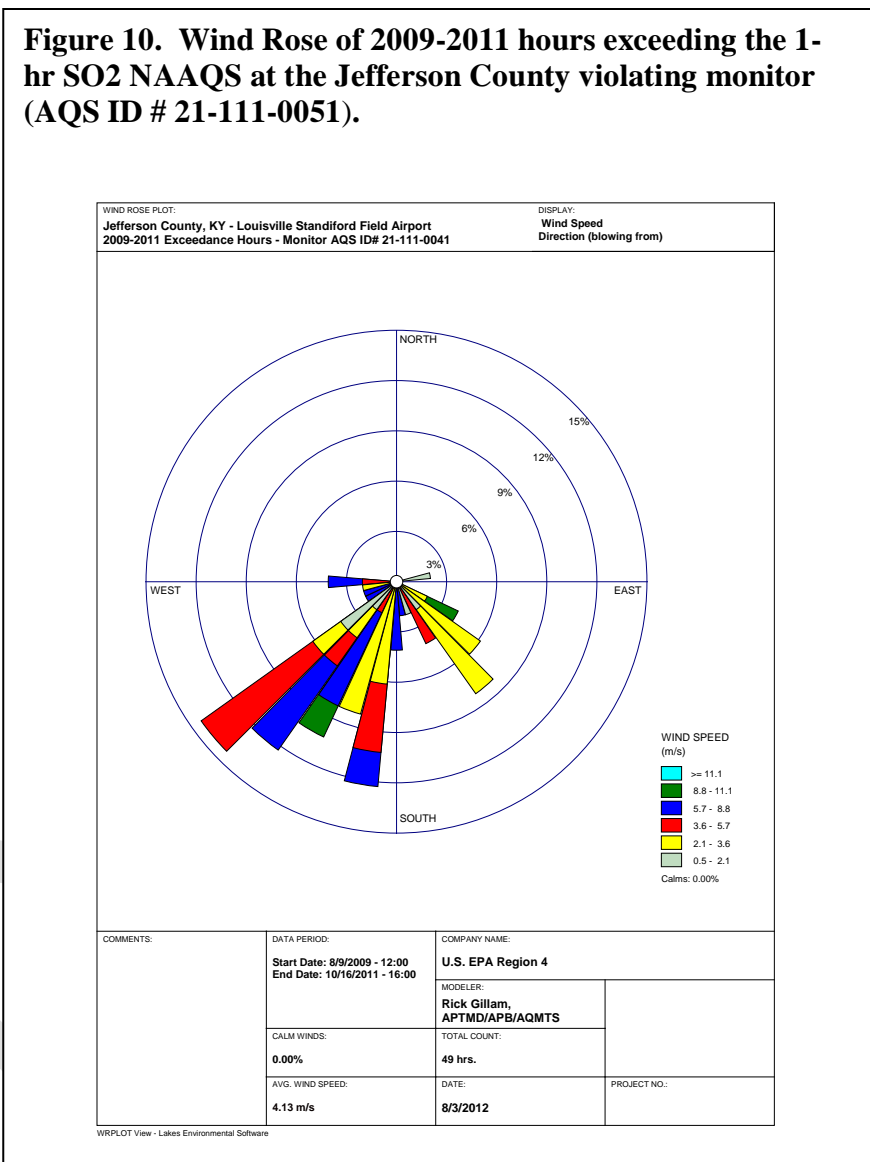


Figure 10 shows that the majority of the exceeding hours have winds blowing from the southwest quadrant with moderate to high wind speeds. As can be seen in Figure 9 the Louisville Gas & Electric, Mill Creek Station facility is located approximately 1.5 kilometers southwest of the southern monitor. Therefore, the Louisville Gas & Electric, Mill Creek Station facility is likely the major contributor to the violations at the southern monitor.

As can be seen in Figure 15, the results of the back-trajectory analysis generally agree with the surface-level wind analysis shown in the wind rose in Figure 15. The trajectory analysis shows that winds blow primarily from the southwest during hours exceeding the 1-hr SO₂ NAAQS. This analysis supports the

conclusion presented above that the Louisville Gas & Electric, Mill Creek Station facility is likely the major contributor to the violations at the monitor.

Geography/topography (mountain ranges or other air basin boundaries)

Jefferson County does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in determining the nonattainment boundary.

Jurisdictional boundaries

The violating monitor is located in Jefferson County, Kentucky.

Other Relevant Information

EPA did not receive additional information, including modeling results, relevant to establishing a nonattainment area boundary for this area.

Conclusion

After considering the factors described above, EPA intends to find that it is appropriate to initially include the portion of Jefferson County listed in Table 1 as nonattainment area for the 2010 SO₂ NAAQS, based on the violating monitor information.

The air quality monitor in Jefferson County shows a violation of the 2010 SO₂ NAAQS, based on 2009-2011 air quality data. Based on the consideration of all the relevant and available information, as described above, EPA believes that the boundary described herein encompasses a sufficient area that does not meet (or that contribute to ambient air quality in nearby areas that do not meet) the 2010 SO₂ NAAQS, based on the violating monitor information. EPA proposes the boundary that borders the LGE Mill Creek Power Plant in the southern portion of Jefferson County as prescribed by the Commonwealth, encompassing the Watson Lane Monitor as shown in Figure 9.