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GOVERNOR

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SECRETARY

## ENERGY AND ENVIRONMENT CABINET

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December 20, 2021

Mr. Daniel Blackman  
Regional Administrator  
U.S. EPA, Region 4  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

RE: Request for approval of revision to the Kentucky State Implementation Plan addressing Clean Air Act Section 182(a)(1), Emissions Inventory requirements.

Dear Mr. Blackman:

On behalf of the Commonwealth of Kentucky, the Kentucky Energy and Environment Cabinet (Cabinet) respectfully submits a final revision to the Kentucky State Implementation Plan (SIP). Specifically, this SIP revision documents the Clean Air Act (CAA) requirements for Section 182(a)(1), Emissions Inventory, addressing the nonattainment areas classified as marginal for the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS). The Cabinet requests the U.S. Environmental Protection Agency (EPA) to approve this revision to the Kentucky SIP.

On June 4, 2018, EPA designated the Kentucky counties of Boone (partial), Kenton (partial), Campbell (partial), Bullitt, Jefferson, and Oldham as marginal nonattainment for the 2015 8-hour ozone NAAQS. CAA Section 182(a)(1) requires marginal nonattainment areas to submit a base year inventory as defined by 40 CFR 51.1300(p). The enclosed SIP revision provides a complete and accurate base year inventory of actual emissions of NO<sub>x</sub> and VOC from sources within the each of the counties designated as marginal nonattainment for the 2015 ozone NAAQS.

In accordance with 40 CFR 51.102, the proposed SIP revision was available for public review and comment from July 19, 2021 until August 26, 2021. If you have any questions or comments concerning this matter, please contact Ms. Melissa Duff, Director, Division for Air Quality, at (502) 782-6597, or [melissa.duff@ky.gov](mailto:melissa.duff@ky.gov).

Sincerely,

A handwritten signature in black ink that reads "Rebecca W. Goodman".

Rebecca W. Goodman  
Secretary

Enclosure

**Final**  
**2015 8-Hour Ozone Base Year Emissions Inventory**  
**State Implementation Plan for the**  
**Cincinnati, OH-KY and Louisville, KY-IN**  
**Nonattainment Areas**



Prepared by the  
Kentucky Division for Air Quality  
Submitted by the  
Kentucky Energy and Environment Cabinet

December 2021

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**I. NORTHERN KENTUCKY NONATTAINMENT  
AREA**

## 1. Introduction

The Clean Air Act (CAA) establishes a process for air quality management through the National Ambient Air Quality Standards (NAAQS). The United States Environmental Protection Agency (EPA) is required to perform area designations after it promulgates a new or revised NAAQS for any of the six criteria air pollutants. On October 26, 2015, EPA revised both the primary and secondary ozone standards to a level of 0.070 parts per million (ppm), measured over an 8-hour period with the fourth-highest daily maximum averaged across three consecutive years.

Ground-level (tropospheric) ozone is a secondary pollutant formed when two primary pollutants, nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs), react with sunlight, producing photochemical reactions. The majority of NO<sub>x</sub> emissions come from the burning of coal, gasoline and oil in motor vehicles, power plants, industries, and homes. VOCs from human activity mainly come from gasoline combustion, upstream oil and gas production, residential wood combustion, and liquid fuel and solvent evaporation. Ground-level ozone is typically of more concern during the summer season since sunlight and warmer weather may form concentrations harmful to human health.

Boone, Campbell, and Kenton counties were designated nonattainment for the 1997 and 2008 ozone NAAQS. The ozone levels in the Cincinnati, OH-KY-IN area have significantly improved since the area was first designated nonattainment for the 1997 ozone NAAQS. As a result, the area has been redesignated to attainment for both of the previous 1997 and 2008 standards.

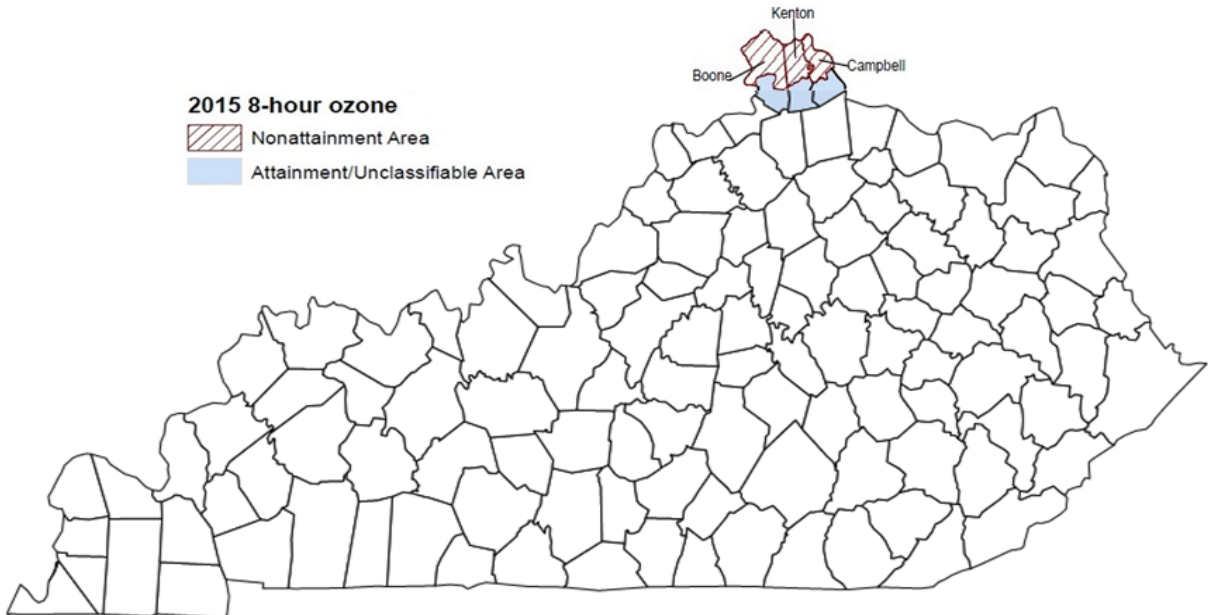
The revision of the 8-hour ozone standard in 2015 required EPA to reassess monitoring data throughout the country to evaluate whether areas were in attainment for the new standard (0.070 ppm). Monitors located in the Ohio portion of the Cincinnati, OH-KY-IN area were above the revised 2015 ozone NAAQS. The EPA determined that emissions from Boone, Campbell, and Kenton counties contributed to the violating monitors and, on June 4, 2018, EPA designated specific portions of these counties as marginal nonattainment.<sup>1</sup> Final designations were based on 2014 - 2016 monitoring data.<sup>2</sup> The EPA used the 2008 ozone nonattainment boundaries, configured by census tracts, when designating the portions of Boone, Campbell, and Kenton counties as nonattainment for the 2015 8-hour ozone NAAQS. Figure 1 highlights each of the three northern counties divided into nonattainment and attainment portions.

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<sup>1</sup> 83 FR 25776

<sup>2</sup> Technical Support Document, Cincinnati, OH-KY-IN Final Area Designations for the 2015 Ozone National Ambient Air Quality Standards.

**Figure 1: Nonattainment Portions of Boone, Campbell, and Kenton Counties**



Areas designated as marginal nonattainment are required to submit State Implementation Plan (SIP) revisions to address CAA Section 182(a). CAA section 182(a)(1) requires states to submit a comprehensive, accurate, and current inventory of actual emissions from all sources within two (2) years from the effective date of the designation. As shown in Section 2, the inventory will focus on NO<sub>x</sub> and VOC emissions from all sectors within the northern Kentucky nonattainment area.

On October 15, 2020, a certification letter was submitted to the EPA Region 4 administrator. This letter included the other required elements for ozone nonattainment areas, CAA section 182(a)(2)(C) – Nonattainment New Source Review and CAA section 182(a)(3)(B) – Emissions Statement. Kentucky’s regulations are certified for the 2015 8-hour ozone NAAQS and were also included with the letter.

## **2. EMISSIONS INVENTORY**

### **2.1 Base Year Emissions Inventory**

In accordance with CAA Section 182(a)(1), marginal nonattainment areas are required to provide the EPA with a baseline emissions inventory. The EPA completes a National Emissions Inventory (NEI) for all source sectors triennially. The NEI is a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air pollutants from emissions sources. The federal Air Emissions Reporting Requirements (AERR) rule requires states to develop and submit periodic emissions inventories to the EPA every three

years, which is included in the NEI.<sup>3</sup> The most current year for a complete NEI is 2017; therefore, it is the appropriate base year to fulfill the emission inventory requirements.

The 2017 base year emissions inventory for this SIP is divided into four source sectors: point sources, nonpoint sources, onroad sources, and nonroad sources. Point, nonpoint, and nonroad emissions were obtained from EPA’s 2017 NEI. Onroad mobile emissions data was obtained using the Motor Vehicle Emission Simulator (MOVES) modeling system provided by EPA.

The NO<sub>x</sub> and VOC emissions for the portions of Boone, Campbell, and Kenton counties that are designated as nonattainment for the 2015 ozone NAAQS are summarized in Tables 1 – 4. Tables 1 – 2 show the tons per year (tpy) and Tables 3 – 4 show the summer day data in tons per day (tpd). The Cabinet used census tract population data to determine an approximate percentage that accounts for sources in the nonattainment portion of each county.<sup>4</sup> The Division determined that the following percentages make up the nonattainment portion of each county – Boone: 95%; Campbell: 92%; and Kenton: 95%. The nonattainment area apportionment percentage was applied to the point, nonpoint, and nonroad sectors. Annual emission totals were converted to tons per summer day by taking the calculated annual emissions totals, multiplying them by 25% to account for the 4 seasons, and then dividing by the 92 days of the summer season.

The EPA does not give specific guidance on calculations that should be used to convert emissions from tons per year to tons per summer day. The Cabinet reached out to EPA for direction on the best method to use; however, no definitive method was provided. The Cabinet, through research, discovered the calculation that was used to convert annual emissions to tons per summer day. Kentucky’s internal Emissions Inventory System divides annual emissions quarterly. Therefore, the Cabinet used 25% as the annual throughput representing the June-August quarter. The annual emissions totals were multiplied by the 25% annual throughput and divided by the 92 days of the summer season to derive tons per ozone season day.

**Table 1: 2017 Annual NO<sub>x</sub> Emissions by Source Sector (tpy)**

	<b>Point</b>	<b>Nonpoint</b>	<b>Onroad</b>	<b>Nonroad</b>
<b>Boone</b>				
<b>Final Submittal Data</b>	<b>3484.50</b>	<b>587.55</b>	<b>1391.04</b>	<b>248.24</b>
<b>Campbell</b>				
<b>Final Submittal Data</b>	<b>116.55</b>	<b>397.5</b>	<b>655.04</b>	<b>125.39</b>
<b>Kenton</b>				
<b>Final Submittal Data</b>	<b>109.75</b>	<b>668.95</b>	<b>1387.36</b>	<b>214.96</b>

<sup>3</sup> 73 FR 76539

<sup>4</sup> Census Tract Data: <http://www.usboundary.com/Tools/Data%20On%20Map/>



**Table 2: 2017 Annual VOC Emissions by Source Sector (tpy)**

	Point	Nonpoint	Onroad	Nonroad
<b>Boone</b>				
<b>Final Submittal Data</b>	<b>946.90</b>	<b>5438.9</b>	<b>850.08</b>	<b>443.11</b>
<b>Campbell</b>				
<b>Final Submittal Data</b>	<b>150.33</b>	<b>2376.08</b>	<b>397.44</b>	<b>135.49</b>
<b>Kenton</b>				
<b>Final Submittal Data</b>	<b>242.53</b>	<b>2734.46</b>	<b>780.16</b>	<b>240.73</b>

**Table 3: 2017 Annual NO<sub>x</sub> Emissions by Source Sector (tpd)**

	Point	Nonpoint	Onroad	Nonroad
<b>Boone</b>				
<b>Final Submittal Data</b>	<b>9.47</b>	<b>1.60</b>	<b>3.78</b>	<b>0.67</b>
<b>Campbell</b>				
<b>Final Submittal Data</b>	<b>0.32</b>	<b>1.08</b>	<b>1.78</b>	<b>0.34</b>
<b>Kenton</b>				
<b>Final Submittal Data</b>	<b>0.30</b>	<b>1.82</b>	<b>3.77</b>	<b>0.58</b>

**Table 4: 2017 Annual VOC Emissions by Source Sector (tpd)**

	Point	Nonpoint	Onroad	Nonroad
<b>Boone</b>				
<b>Final Submittal Data</b>	<b>2.57</b>	<b>14.78</b>	<b>2.31</b>	<b>1.20</b>
<b>Campbell</b>				
<b>Final Submittal Data</b>	<b>0.41</b>	<b>6.46</b>	<b>1.08</b>	<b>0.37</b>
<b>Kenton</b>				
<b>Final Submittal Data</b>	<b>0.66</b>	<b>7.43</b>	<b>2.12</b>	<b>0.65</b>

## 2.2 Source Sectors

The following sections describe source sectors and summarize their emissions output in a separate format. As previously mentioned, the 2017 base year emissions inventory accounts for VOC and NO<sub>x</sub> emissions within the nonattainment portions of Boone, Campbell, and Kenton counties.

### *Point Sources*

Point sources are defined for the purpose of this inventory as stationary emissions sources that emit greater than 100 tpy of NO<sub>x</sub> and VOCs. These sources are required to obtain a permit in order to operate and their emissions are generally easier to characterize since they are typically released through stacks. Emissions data is collected annually from these sources, stored in the KYEIS database, and transmitted to EPA's NEI system.

Point source emissions within the Boone, Campbell, and Kenton nonattainment boundaries were obtained from EPA’s 2017 NEI. Since the three counties were designated as partial nonattainment, the nonattainment area apportionment percentage was applied to get an approximate count of the emissions in the nonattainment areas. Table 5 lists each county’s VOC and NO<sub>x</sub> emissions totals in tons per summer day. Appendix A provides detailed emissions data.

**Table 5**  
**2017 NO<sub>x</sub> and VOC Emissions for Point Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Boone</b>	9.47	3484.5	2.57	946.9
<b>Campbell</b>	0.32	116.55	0.41	150.33
<b>Kenton</b>	0.30	109.75	0.66	242.53

***Nonpoint Sources***

Nonpoint sources are stationary emissions sources that do not meet the reporting requirements for point sources. The nonpoint source category includes, but is not limited to, residential, commercial/institutional, and industrial fuel use; degreasing solvents; commercial cooking; aviation fuel use; dry cleaners; storage tanks; and consumer and industrial coatings. These emissions are resource-intensive to characterize. For this reason, the Division thoroughly reviews and relies upon the annual NEI estimates calculated by EPA.

The 2017 nonpoint emissions inventory data for the partial Kentucky counties in the 2015 8-hour ozone nonattainment area is displayed in Table 6. Appendix B provides detailed emissions data. The nonpoint sector accounts for a multitude of sources that are not easily pinpointed, therefore it is difficult to account for which ones are within the nonattainment boundaries. Since the three counties were designated as partial nonattainment, the nonattainment area apportionment percentage was applied to the nonpoint sector to get an approximate count of the emissions in the nonattainment areas.

**Table 6**  
**2017 NO<sub>x</sub> and VOC Emissions for Nonpoint Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Boone</b>	1.60	587.55	14.78	5438.90
<b>Campbell</b>	1.08	397.50	6.46	2376.08
<b>Kenton</b>	1.82	668.95	7.43	2734.46

***Onroad Sources***

Onroad mobile source emissions generally consist of vehicles traveling on public roadways; namely automobiles, motorcycles, trucks or other motor vehicles. The Division obtained emissions for these sources using the latest version of the mobile emissions model,

MOVES3. Data files used to run MOVES and estimate VOC and NO<sub>x</sub> emissions in the Northern Kentucky area were provided by the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) transportation planning modelers.

For Boone and Kenton Counties, vehicle miles traveled (VMT) and vehicle hours were estimated using the OKI Travel Demand Model. The OKI model is an Activity-Based Model (ABM). The OKI ABM utilizes the Coordinated Travel – Regional Activity Based Modeling Platform (CT-RAMP) from Citilabs to simulate the travel pattern of all individual travelers in the region. The ABM estimates a schedule and itinerary of daily activities for members of every household in the region based on detailed information for individuals, households, trips, and highway and transit systems. Truck trips are generated from two types of activities. One is the local delivery and services truck trips, which are estimated by OKI TAZs, land use, and employment. The other truck trips are generated from commodity flows. OKI truck model takes the truck trips converted from commodity flows in the Ohio statewide model, disaggregates them into OKI zones and scales them to the proper proportion relative to local truck trips. Travel behavior modeling at fine spatial-temporal resolution improves the accuracy of travel pattern estimates and enables the model to evaluate conventional highway and transit projects as well as to test a variety of policies and scenarios. OKI's Travel Demand Model has been validated to observed traffic volumes for the model base year.

During post-processing, the loaded highway network is used to generate VMT by time of day, VMT by speed distribution and VMT by road type. Two sets of VMT tables are generated, one for entire counties and the second for only the portion of counties in the nonattainment area. These tables are then included as inputs into MOVES. The VMT by time of day tables utilize hourly traffic distribution and directional split factors for different roadway types as developed by OKI. The main source of the data was the permanent traffic counting stations located throughout the OKI region. The program performs the appropriate summation by area and roadway type as well as regional totals. OKI has also developed seasonal conversion factors to adjust traffic volumes to summer conditions. The factors were derived for June, July and August from local data collected at permanent traffic counting stations.

OKI's process utilized EPA's emission model MOVES 3.0 to develop emission inventories for VOC's and NO<sub>x</sub>. The MOVES input files contain local parameters, developed through consultation with state partners, for temperature, fuel programs, fuel characteristics, and vehicle fleet composition. The vehicle fleet composition (source type population) was derived from motor registration data from the Kentucky Transportation Cabinet. The local parameters are combined with the VMT and speed data from the OKI ABM to produce the emissions inventory for the appropriate analysis year. The full explanation regarding the OKI Travel Demand Model can be found in Appendix C.3.

For Oldham County, MOVES 3.0 was run by the Cabinet. All data files were provided by the Louisville Metro Air Pollution Control District's (LMAPCD) MOVES modeler. The LMAPCD modeler received VMT data from the Kentuckiana Regional Planning and Development Agency (KIPDA). Detailed files and Run Specs are available in Appendix C. The 2017 onroad point emissions inventory data for the partial Kentucky counties in the 2015 8-hour ozone nonattainment area is presented in Table 7. The run specifications (run specs) selected within the MOVES emissions model are presented in Appendix C.

**Table 7**  
**2017 NO<sub>x</sub> and VOC Emissions for Onroad Mobile Sources**

County	Summer Day NO <sub>x</sub> (tpd)	Annual NO <sub>x</sub> (tpy)	Summer Day VOC (tpd)	Annual VOC (tpy)
<b>Boone</b>	3.78	1391.04	2.31	850.08
<b>Campbell</b>	1.78	655.04	1.08	397.44
<b>Kenton</b>	3.77	1387.36	2.12	780.16

*Nonroad Sources*

Nonroad mobile vehicles are often referred to as off-road or non-highway vehicles since they do not normally operate on roads or highways. Diesel engines power many of these nonroad vehicles. The nonroad mobile source category includes, but is not limited to, agricultural equipment; construction and mining equipment; locomotives; and aircraft and airport equipment. The Division does not have the necessary resources required to collect, develop, and house this type of emissions inventory. For this reason, the Division thoroughly reviews and relies upon the annual NEI estimates calculated by EPA.

The 2017 nonroad emissions inventory data for the partial Kentucky counties in the 2015 8-hour ozone nonattainment area is found in Table 8. Appendix D provides detailed emissions data.

**Table 8**  
**2017 NO<sub>x</sub> and VOC Emissions for Nonroad Mobile Sources**

County	Summer Day NO <sub>x</sub> (tpd)	Annual NO <sub>x</sub> (tpy)	Summer Day VOC (tpd)	Annual VOC (tpy)
<b>Boone</b>	0.67	248.24	1.20	443.11
<b>Campbell</b>	0.34	125.39	0.37	135.49
<b>Kenton</b>	0.58	214.96	0.65	240.73

**2.3 Periodic Emissions Inventories**

In accordance with CAA Section 182(a)(3)(A), marginal nonattainment areas are required to provide a periodic inventory no later than each 3-year period after the submission of the base year inventory. The periodic inventory must also be consistent with the base year inventory. EPA defines the required components within the AERR rule, of which the Cabinet intends to continue to follow.

In addition, the methods used to develop the base year inventory will also be applied to the periodic nonattainment area emissions inventory for point, nonpoint, onroad mobile, and nonroad mobile sources.

## **II. LOUISVILLE NONATTAINMENT AREA**

## **1. Introduction**

The Clean Air Act (CAA) establishes a process for air quality management through the National Ambient Air Quality Standards (NAAQS). The United States Environmental Protection Agency (EPA) is required to perform area designations after it promulgates a new or revised NAAQS for any of the six criteria air pollutants. On October 26, 2015, the EPA revised both the primary and secondary ozone standards to a level of 0.070 parts per million (ppm), measured over an 8-hour period with the fourth-highest daily maximum averaged across three consecutive years.

Ground-level (tropospheric) ozone is a secondary pollutant formed when two primary pollutants, nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs), react with sunlight producing photochemical reactions. The majority of NO<sub>x</sub> emissions come from the burning of coal, gasoline and oil in motor vehicles, power plants, industries, and homes. VOCs from human activity mainly come from gasoline combustion, upstream oil and gas production, residential wood combustion, and liquid fuel and solvent evaporation. Ground-level ozone is of more concern during the summer season since sunlight and warmer weather may form concentrations harmful to human health.

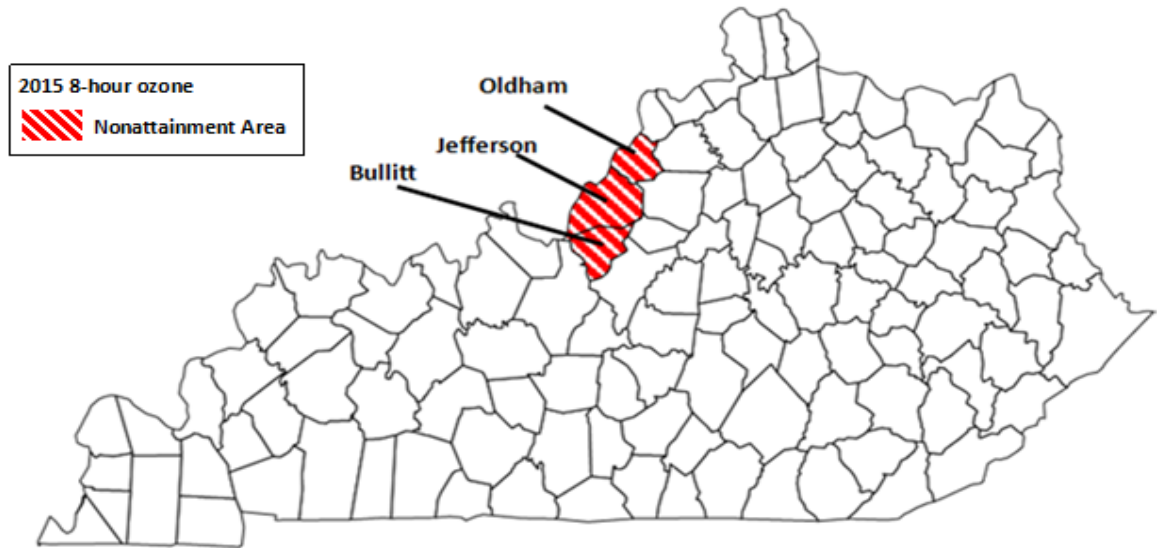
Bullitt, Jefferson, and Oldham counties were designated nonattainment for the 1997 ozone NAAQS. The ozone levels in the Louisville, KY-IN area have drastically improved since that time. As a result, the area has been redesignated to attainment for the 1997 standard. In accordance with section 107(d) of the CAA, on June 4, 2018, EPA designated Bullitt, Jefferson, and Oldham counties, located within the Louisville, KY-IN area, as marginal nonattainment for the 2015 8-hour ozone NAAQS of 0.070 ppm.<sup>5</sup> Figure 1 highlights the nonattainment areas of Bullitt, Jefferson, and Oldham counties.

The Cabinet is responsible for collecting data for Bullitt and Oldham Counties. Jefferson County falls within the Louisville Metro Air Pollution Control District's (District) jurisdiction. The District has the authority to regulate their permit, monitoring, and emissions inventory programs and has provided the Cabinet with all information specific to Jefferson County. Further documentation can be found in the appendices.

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<sup>5</sup> 83 FR 25776

**Figure 1: Nonattainment Areas of Bullitt, Jefferson, and Oldham Counties**



Areas designated as marginal nonattainment are required to submit State Implementation Plan (SIP) revisions to address CAA Section 182(a). CAA section 182(a)(1) requires states to submit a comprehensive, accurate, and current inventory of actual emissions from all sources within two (2) years from the effective date of the designation. As shown in Section 2, the inventory will focus on NO<sub>x</sub> and VOC emissions from all sectors within the Kentucky nonattainment area.

On October 15, 2020, the Energy and Environment Cabinet submitted a certification letter to the EPA Region 4 administrator. This letter included the other required elements for ozone nonattainment areas, CAA section 182(a)(2)(C) – Nonattainment New Source Review and CAA section 182(a)(3)(B) – Emissions Statement for both Bullitt and Oldham counties. Kentucky’s regulations are certified for the 2015 8-hour ozone NAAQS and were also included with the letter.

On August 11, 2020 the Cabinet, on behalf of the Louisville Metro Air Pollution Control District (District), submitted a final revision of the amendment to Regulation 1.06. This satisfies the requirement of Section 182(a)(3)(B) of the CAA for the Jefferson County portion of the SIP. On May 13, 2021, the Cabinet also submitted on the District’s behalf, a proposed certification that satisfies CAA Section 182(a)(2)(C).

## **2. EMISSIONS INVENTORY**

### **2.1 Base Year Emissions Inventory**

In accordance with CAA Section 182(a)(1), states with marginal nonattainment areas are required to provide the EPA with a baseline emissions inventory. The EPA completes a National Emissions Inventory (NEI) for all source sectors triennially. The NEI is a comprehensive and detailed estimate of air emissions of criteria pollutants, criteria precursors, and hazardous air

pollutants from emissions sources. The federal Air Emissions Reporting Requirements (AERR) rule requires states to develop and submit periodic emissions inventories to the EPA every three years, which is included in the NEI.<sup>6</sup> The most current year for a complete NEI is 2017; therefore, it is the appropriate base year to fulfill the emission inventory requirements.

The 2017 base year emissions inventory for this SIP is divided into four source sectors: point sources, nonpoint sources, onroad sources, and nonroad sources. The Louisville District has its own Emissions Inventory System (LEIS). The District collects point source emissions from large sources within Jefferson County on an annual basis. The District provided point source emissions data for Jefferson County, included in the tables below. The emissions inventory files for both the Cabinet and the Division can be found in Appendix A. Point, nonpoint, and nonroad VOC and NO<sub>x</sub> emissions within Bullitt and Oldham Counties were obtained from EPA’s 2017 NEI. Nonpoint and nonroad emissions for Jefferson County were downloaded from the 2017 NEI. Onroad emissions for Bullitt, Jefferson, and Oldham Counties were obtained using the latest version of the onroad emissions model, MOVES3.

The NO<sub>x</sub> and VOC emissions for Bullitt, Jefferson, and Oldham counties that are designated as nonattainment for the 2015 ozone NAAQS are summarized in Tables 1 – 4. Tables 1 – 2 show the tons per year (tpy) and Tables 3 – 4 show the summer day data in tons per day (tpd). Annual emission totals for Bullitt and Oldham were converted to tons per summer day by taking the calculated annual emissions totals, multiplying them by 25% to account for the 4 seasons, and then dividing by the 92 days of the summer season.

The EPA does not give specific guidance on calculations that should be used to convert emissions from tons per year to tons per summer day. The Cabinet reached out to EPA for direction on the best method to use; however, no definitive method was provided. The Cabinet, through research, discovered the calculation that was used to convert annual emissions to tons per summer day. Kentucky’s internal Emissions Inventory System divides annual emissions quarterly. Therefore, the Cabinet used 25% as the annual throughput representing the June-August quarter. The annual emissions totals were multiplied by the 25% annual throughput and divided by the 92 days of the summer season to derive tons per ozone season day.

**Table 1: 2017 Annual NO<sub>x</sub> Emissions by Source Sector (tpy)**

	<b>Point</b>	<b>Nonpoint</b>	<b>Onroad</b>	<b>Nonroad</b>
<b>Bullitt</b>				
<b>Final Submittal Data</b>	<b>312.71</b>	<b>307.72</b>	<b>1284.32</b>	<b>95.23</b>
<b>Jefferson</b>				
<b>Final Submittal Data</b>	<b>12051.28</b>	<b>3864.55</b>	<b>7198.91</b>	<b>1288.78</b>
<b>Oldham</b>				
<b>Final Submittal Data</b>	<b>46.73</b>	<b>320.20</b>	<b>680.80</b>	<b>109.24</b>

\*Jefferson County Point source emissions were updated using Louisville EIS data.

<sup>6</sup> 73 FR 76539



**Table 2: 2017 Annual VOC Emissions by Source Sector (tpy)**

	Point	Nonpoint	Onroad	Nonroad
<b>Bullitt</b>				
Final Submittal Data	3432.66	6673.46	437.92	156.31
<b>Jefferson</b>				
Final Submittal Data	7877.43	15447.73	2254.55	1118.76
<b>Oldham</b>				
Final Submittal Data	13.52	2202.44	253.92	151.28

\*Jefferson County Point source emissions were updated using Louisville EIS data.

**Table 3: 2017 NO<sub>x</sub> Emissions by Source Sector (tpd)**

	Point	Nonpoint	Onroad	Nonroad
<b>Bullitt</b>				
Final Submittal Data	0.85	0.84	3.49	0.26
<b>Jefferson</b>				
Final Submittal Data	34.81	6.66	20.97	4.32
<b>Oldham</b>				
Final Submittal Data	0.13	0.87	1.85	0.30

\*Jefferson County Point source emissions were updated using Louisville EIS data.

**Table 4: 2017 VOC Emissions by Source Sector (tpd)**

	Point	Nonpoint	Onroad	Nonroad
<b>Bullitt</b>				
Final Submittal Data	9.33	18.13	1.19	0.42
<b>Jefferson</b>				
Final Submittal Data	21.56	41.57	7.85	4.02
<b>Oldham</b>				
Final Submittal Data	0.04	5.98	0.69	0.41

\*Jefferson County Point source emissions were updated using Louisville EIS data.

## 2.2 Source Sectors

The following sections describe source sectors and the methods for determining the emissions for each category.

### *Point Sources*

Point sources are defined for the purpose of this inventory as stationary emissions sources that emit greater than 100 tpy of NO<sub>x</sub> and VOCs. These sources are required to obtain a permit in order to operate and their emissions are generally easier to characterize since they are typically

released through stacks. Emissions data is annually collected from these sources, stored in the KYEIS database, and transmitted to the EPA’s NEI system.

The 2017 base year point source emissions for Bullitt and Oldham Counties are from EPA’s 2017 NEI. Point source emissions for Jefferson County are from the District’s internal emissions inventory system. This data is presented in Table 5. Appendix A provides detailed emissions data.

**Table 5**  
**2017 NO<sub>x</sub> and VOC Emissions for Point Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Bullitt</b>	0.85	312.71	9.33	3432.66
<b>Jefferson</b>	34.81	12051.28	21.56	7877.43
<b>Oldham</b>	0.13	46.73	0.04	13.52

***Nonpoint Sources***

Nonpoint sources are stationary emissions sources that do not meet the reporting requirements for point sources. The nonpoint source category includes, but is not limited to, residential, commercial/institutional, and industrial fuel use; degreasing solvents; commercial cooking; aviation fuel use; dry cleaners; storage tanks; and consumer and industrial coatings. These emissions are resource-intensive to characterize. For this reason, the Division thoroughly reviews and relies upon the annual NEI estimates calculated by EPA.

The 2017 nonpoint emissions inventory data for the Kentucky counties in the 2015 8-hour ozone nonattainment area is presented in Table 6. Appendix B provides detailed emissions data.

**Table 6**  
**2017 NO<sub>x</sub> and VOC Emissions for Nonpoint Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Bullitt</b>	0.84	307.72	18.13	6673.46
<b>Jefferson</b>	6.66	3864.55	41.57	15447.73
<b>Oldham</b>	0.87	320.20	5.98	2202.44

***Onroad Sources***

Onroad mobile source emissions generally consist of vehicles traveling on public roadways; namely automobiles, motorcycles, trucks or other motor vehicles. Emissions for the onroad sources were obtained by the Division using MOVES3. The 2017 onroad emissions inventory data for the Kentucky counties in the 2015 8-hour ozone nonattainment area is presented in Table 7. Data files used to run MOVES and estimate VOC and NO<sub>x</sub> emissions in the Louisville area were provided by KIPDA. The run specifications (run specs) selected within the MOVES emission model are available in Appendix C.

**Table 7**  
**2017 NO<sub>x</sub> and VOC Emissions for Onroad Mobile Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Bullitt</b>	3.49	1284.32	1.19	437.92
<b>Jefferson</b>	20.97	7198.91	7.85	2254.55
<b>Oldham</b>	1.85	680.80	0.69	253.92

***Nonroad Sources***

Nonroad mobile vehicles are often referred to as off-road or non-highway vehicles since they do not normally operate on roads or highways. Diesel engines power many of these nonroad vehicles. The nonroad mobile source category includes, but is not limited to, agricultural equipment; construction and mining equipment; locomotives; and aircraft and airport equipment. The Division does not have the necessary resources required to collect, develop, and house this type of emissions inventory. For this reason, the Division thoroughly reviews and relies upon the annual NEI estimates calculated by EPA. The 2017 nonroad emissions inventory data for the Kentucky counties in the 2015 8-hour ozone nonattainment area is presented in Table 8. Appendix D provides detailed information of this emissions data.

**Table 8**  
**2017 NO<sub>x</sub> and VOC Emissions for Nonroad Mobile Sources**

<b>County</b>	<b>Summer Day NO<sub>x</sub> (tpd)</b>	<b>Annual NO<sub>x</sub> (tpy)</b>	<b>Summer Day VOC (tpd)</b>	<b>Annual VOC (tpy)</b>
<b>Bullitt</b>	0.26	95.23	0.42	156.31
<b>Jefferson</b>	4.32	1288.78	4.02	1118.76
<b>Oldham</b>	0.30	109.24	0.41	151.28

**2.3 Periodic Emissions Inventories**

In accordance with CAA Section 182(a)(3)(A), marginal nonattainment areas are required to provide a periodic inventory no later than each 3-year period after the submission of the base year inventory. The periodic inventory must also be consistent with the base year inventory. EPA defines the required components within the AERR rule, of which the Cabinet intends to continue to follow.

In addition, the methods used to develop the base year inventory will also be applied to the periodic nonattainment area emissions inventory for point, nonpoint, onroad mobile, and nonroad mobile sources.

### **III. Public Hearing**

In accordance with 40 CFR 51.102, the SIP revision was available for public review and comment from July 19, 2021 through August 26, 2021. No request for a public hearing was received; therefore, the scheduled public hearing was cancelled. The Division received written comments from EPA and the Louisville Metro Air Pollution Control District. The Division's response to those comments is provided in Appendix E along with a copy of the public hearing notice.

# Appendix A

# **APPENDIX A.1**

## **Northern Kentucky Nonattainment Area**

Boone, Kenton, and Campbell

NEI 2017 Point Source Emissions Data

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	P	39999999	A	R	NOX	8.8237157	TON	2017NEI
KY	21	21015	Boone	P	20100202	A	R	NOX	0.04049629	TON	2017NEI
KY	21	21015	Boone	P	10200603	A	R	NOX	13.8303424	TON	2017NEI
KY	21	21015	Boone	P	2275020000	A	R	NOX	470.1482557	TON	2017NEI
KY	21	21015	Boone	P	20300201	A	R	NOX	0.930675	TON	2017NEI
KY	21	21015	Boone	P	30500255	A	R	NOX	2.783872	TON	2017NEI
KY	21	21015	Boone	P	10300602	A	R	NOX	3.09425	TON	2017NEI
KY	21	21015	Boone	P	10100501	A	R	NOX	0.00009756	TON	2017NEI
KY	21	21015	Boone	P	30500206	A	R	NOX	0.45122	TON	2017NEI
KY	21	21015	Boone	P	30500208	A	R	NOX	0	TON	2017NEI
KY	21	21015	Boone	P	30190013	A	R	NOX	1.15	TON	2017NEI
KY	21	21015	Boone	P	20200101	A	R	NOX	0.019728	TON	2017NEI
KY	21	21015	Boone	P	2275060012	A	R	NOX	32.25207783	TON	2017NEI
KY	21	21015	Boone	P	2275060011	A	R	NOX	0.5651226	TON	2017NEI
KY	21	21015	Boone	P	20100102	A	R	NOX	0.78479266	TON	2017NEI
KY	21	21015	Boone	P	20300101	A	R	NOX	1.16534431	TON	2017NEI
KY	21	21015	Boone	P	30500299	A	R	NOX	1.145638	TON	2017NEI
KY	21	21015	Boone	P	50600102	A	R	NOX	0.0625	TON	2017NEI
KY	21	21015	Boone	P	10201002	A	R	NOX	0.000429	TON	2017NEI
KY	21	21015	Boone	P	20200107	A	R	NOX	5.7005	TON	2017NEI
KY	21	21015	Boone	P	39001099	A	R	NOX	0.01151735	TON	2017NEI
KY	21	21015	Boone	P	2270008005	A	R	NOX	12.61524	TON	2017NEI
KY	21	21015	Boone	P	20201001	A	R	NOX	0.000108	TON	2017NEI
KY	21	21015	Boone	P	20200102	A	R	NOX	2.10766307	TON	2017NEI
KY	21	21015	Boone	P	39900601	A	R	NOX	0.272	TON	2017NEI
KY	21	21015	Boone	P	10300603	A	R	NOX	2.943675	TON	2017NEI
KY	21	21015	Boone	P	30490003	A	R	NOX	0.148	TON	2017NEI
KY	21	21015	Boone	P	40201001	A	R	NOX	16.21218	TON	2017NEI
KY	21	21015	Boone	P	2275050012	A	R	NOX	0.366234652	TON	2017NEI
KY	21	21015	Boone	P	10200602	A	R	NOX	22.1534036	TON	2017NEI
KY	21	21015	Boone	P	2275001000	A	R	NOX	0.5248309	TON	2017NEI
KY	21	21015	Boone	P	30290003	A	R	NOX	2.305	TON	2017NEI
KY	21	21015	Boone	P	10200502	A	R	NOX	0	TON	2017NEI

KY	21	21015	Boone	P	10500206	A	R	NOX	0.02225	TON	2017NEI
KY	21	21015	Boone	P	10301002	A	R	NOX	0.001066	TON	2017NEI
KY	21	21015	Boone	P	30500207	A	R	NOX	0	TON	2017NEI
KY	21	21015	Boone	P	20200253	A	R	NOX	0.78897	TON	2017NEI
KY	21	21015	Boone	P	2275070000	A	R	NOX	22.42252	TON	2017NEI
KY	21	21015	Boone	P	10500106	A	R	NOX	4.141288	TON	2017NEI
KY	21	21015	Boone	P	39000699	A	R	NOX	5.888495	TON	2017NEI
KY	21	21015	Boone	P	2275050011	A	R	NOX	0.07449217	TON	2017NEI
KY	21	21015	Boone	P	10200503	A	R	NOX	0.300283	TON	2017NEI
KY	21	21015	Boone	P	40290013	A	R	NOX	0.315	TON	2017NEI
KY	21	21015	Boone	P	39990003	A	R	NOX	1.3169	TON	2017NEI
KY	21	21015	Boone	P	2265008005	A	R	NOX	10.4311	TON	2017NEI
KY	21	21015	Boone	P	20100802	A	R	NOX	135.30834	TON	2017NEI
KY	21	21015	Boone	P	30990003	A	R	NOX	0	TON	2017NEI
KY	21	21015	Boone	P	10100202	A	R	NOX	2880.165	TON	2017NEI
KY	21	21015	Boone	P	20200401	A	R	NOX	0.1448884	TON	2017NEI
KY	21	21015	Boone	P	50300601	A	R	NOX	0.9895741	TON	2017NEI
KY	21	21015	Boone	P	20200254	A	R	NOX	0.020706	TON	2017NEI
KY	21	21015	Boone	P	10300501	A	R	NOX	0.0035	TON	2017NEI
KY	21	21015	Boone	P	30500250	A	R	NOX	2.947625	TON	2017NEI

3667.890907



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	P	30490003	A	R	VOC	0.00814	TON	2017NEI
KY	21	21015	Boone	P	30500206	A	R	VOC	0.0090244	TON	2017NEI
KY	21	21015	Boone	P	39990003	A	R	VOC	0.0724295	TON	2017NEI
KY	21	21015	Boone	P	50300601	A	R	VOC	0.00543161	TON	2017NEI
KY	21	21015	Boone	P	20200254	A	R	VOC	0.00059885	TON	2017NEI
KY	21	21015	Boone	P	40301016	A	R	VOC	0.0033	TON	2017NEI
KY	21	21015	Boone	P	40400301	A	R	VOC	0.7565	TON	2017NEI
KY	21	21015	Boone	P	2275060012	A	R	VOC	35.52073759	TON	2017NEI
KY	21	21015	Boone	P	30181003	A	R	VOC	0.00031766	TON	2017NEI
KY	21	21015	Boone	P	20100102	A	R	VOC	0.01555818	TON	2017NEI
KY	21	21015	Boone	P	30102099	A	R	VOC	6.67895915	TON	2017NEI
KY	21	21015	Boone	P	30180007	A	R	VOC	33.1437337	TON	2017NEI
KY	21	21015	Boone	P	10200603	A	R	VOC	0.76066884	TON	2017NEI
KY	21	21015	Boone	P	10200503	A	R	VOC	0.00390129	TON	2017NEI
KY	21	21015	Boone	P	40100296	A	R	VOC	1.052105	TON	2017NEI
KY	21	21015	Boone	P	49099998	A	R	VOC	2.355115	TON	2017NEI
KY	21	21015	Boone	P	40400414	A	R	VOC	0.38422261	TON	2017NEI
KY	21	21015	Boone	P	40704401	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	10100501	A	R	VOC	0.0813002	TON	2017NEI
KY	21	21015	Boone	P	10301002	A	R	VOC	0.0000656	TON	2017NEI
KY	21	21015	Boone	P	40200701	A	R	VOC	2.511355	TON	2017NEI
KY	21	21015	Boone	P	39000699	A	R	VOC	0.2380155	TON	2017NEI
KY	21	21015	Boone	P	2275050012	A	R	VOC	10.57657734	TON	2017NEI
KY	21	21015	Boone	P	10200602	A	R	VOC	1.7541922	TON	2017NEI
KY	21	21015	Boone	P	2275001000	A	R	VOC	0.2553403	TON	2017NEI
KY	21	21015	Boone	P	20300201	A	R	VOC	0.01213567	TON	2017NEI
KY	21	21015	Boone	P	30500255	A	R	VOC	3.426304	TON	2017NEI
KY	21	21015	Boone	P	30500214	A	R	VOC	0.601434	TON	2017NEI
KY	21	21015	Boone	P	30180006	A	R	VOC	26.2043721	TON	2017NEI
KY	21	21015	Boone	P	40704417	A	R	VOC	0.00009302	TON	2017NEI
KY	21	21015	Boone	P	30500208	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	2265008005	A	R	VOC	5.052215	TON	2017NEI
KY	21	21015	Boone	P	30190013	A	R	VOC	0.06325	TON	2017NEI

KY	21	21015	Boone	P	20200401	A	R	VOC	0.01149908	TON	2017NEI
KY	21	21015	Boone	P	40600139	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	20200101	A	R	VOC	0.00050491	TON	2017NEI
KY	21	21015	Boone	P	30500207	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	30188801	A	R	VOC	0.7683115	TON	2017NEI
KY	21	21015	Boone	P	40100299	A	R	VOC	2.128	TON	2017NEI
KY	21	21015	Boone	P	30101809	A	R	VOC	0.281034	TON	2017NEI
KY	21	21015	Boone	P	30180008	A	R	VOC	0.323176	TON	2017NEI
KY	21	21015	Boone	P	2275050011	A	R	VOC	0.172448202	TON	2017NEI
KY	21	21015	Boone	P	20200102	A	R	VOC	0.13143975	TON	2017NEI
KY	21	21015	Boone	P	39900601	A	R	VOC	0.01496	TON	2017NEI
KY	21	21015	Boone	P	30500299	A	R	VOC	0.3757691	TON	2017NEI
KY	21	21015	Boone	P	10300603	A	R	VOC	0.161953	TON	2017NEI
KY	21	21015	Boone	P	30101401	A	R	VOC	0.00673808	TON	2017NEI
KY	21	21015	Boone	P	10300602	A	R	VOC	0.1701838	TON	2017NEI
KY	21	21015	Boone	P	2270008005	A	R	VOC	1.987996	TON	2017NEI
KY	21	21015	Boone	P	50682099	A	R	VOC	0.2134995	TON	2017NEI
KY	21	21015	Boone	P	50600102	A	R	VOC	1.375	TON	2017NEI
KY	21	21015	Boone	P	10201002	A	R	VOC	0.0000264	TON	2017NEI
KY	21	21015	Boone	P	30500250	A	R	VOC	0.966821	TON	2017NEI
KY	21	21015	Boone	P	30299998	A	R	VOC	5.887306	TON	2017NEI
KY	21	21015	Boone	P	40201001	A	R	VOC	0.8916699	TON	2017NEI
KY	21	21015	Boone	P	20200107	A	R	VOC	0.1603251	TON	2017NEI
KY	21	21015	Boone	P	40600301	A	R	VOC	10.569512	TON	2017NEI
KY	21	21015	Boone	P	2275070000	A	R	VOC	2.87638	TON	2017NEI
KY	21	21015	Boone	P	30290003	A	R	VOC	0.124201	TON	2017NEI
KY	21	21015	Boone	P	40400498	A	R	VOC	0.00016522	TON	2017NEI
KY	21	21015	Boone	P	30801007	A	R	VOC	0.1124234	TON	2017NEI
KY	21	21015	Boone	P	30900198	A	R	VOC	2.49008	TON	2017NEI
KY	21	21015	Boone	P	40600140	A	R	VOC	0.00262627	TON	2017NEI
KY	21	21015	Boone	P	30203202	A	R	VOC	28.237962	TON	2017NEI
KY	21	21015	Boone	P	40400302	A	R	VOC	0.03557975	TON	2017NEI
KY	21	21015	Boone	P	30101822	A	R	VOC	0.3591	TON	2017NEI
KY	21	21015	Boone	P	40400402	A	R	VOC	0.279435	TON	2017NEI
KY	21	21015	Boone	P	20201001	A	R	VOC	0.000036	TON	2017NEI
KY	21	21015	Boone	P	20200253	A	R	VOC	0.0105672	TON	2017NEI

KY	21	21015	Boone	P	2275060011	A	R	VOC	0.6068933	TON	2017NEI
KY	21	21015	Boone	P	39999999	A	R	VOC	243.655508	TON	2017NEI
KY	21	21015	Boone	P	20300101	A	R	VOC	0.08023362	TON	2017NEI
KY	21	21015	Boone	P	40600307	A	R	VOC	30.64665	TON	2017NEI
KY	21	21015	Boone	P	30101817	A	R	VOC	9.0758005	TON	2017NEI
KY	21	21015	Boone	P	40704418	A	R	VOC	0.65243465	TON	2017NEI
KY	21	21015	Boone	P	40202607	A	R	VOC	25.90085	TON	2017NEI
KY	21	21015	Boone	P	40202605	A	R	VOC	0.00199583	TON	2017NEI
KY	21	21015	Boone	P	40301018	A	R	VOC	0.00072	TON	2017NEI
KY	21	21015	Boone	P	40200501	A	R	VOC	2.49711	TON	2017NEI
KY	21	21015	Boone	P	40600399	A	R	VOC	3.228639	TON	2017NEI
KY	21	21015	Boone	P	40202606	A	R	VOC	29.20280215	TON	2017NEI
KY	21	21015	Boone	P	40500309	A	R	VOC	12.866532	TON	2017NEI
KY	21	21015	Boone	P	10300501	A	R	VOC	0.000098	TON	2017NEI
KY	21	21015	Boone	P	40299998	A	R	VOC	7.57114102	TON	2017NEI
KY	21	21015	Boone	P	40500205	A	R	VOC	22.95656501	TON	2017NEI
KY	21	21015	Boone	P	30899999	A	R	VOC	2.00424131	TON	2017NEI
KY	21	21015	Boone	P	40200101	A	R	VOC	13.14415204	TON	2017NEI
KY	21	21015	Boone	P	40200401	A	R	VOC	3.657346	TON	2017NEI
KY	21	21015	Boone	P	40399999	A	R	VOC	0.0497815	TON	2017NEI
KY	21	21015	Boone	P	20100202	A	R	VOC	0.01159234	TON	2017NEI
KY	21	21015	Boone	P	40600402	A	R	VOC	20.2791975	TON	2017NEI
KY	21	21015	Boone	P	40714698	A	R	VOC	0.30140868	TON	2017NEI
KY	21	21015	Boone	P	40500804	A	R	VOC	13.7383349	TON	2017NEI
KY	21	21015	Boone	P	10500106	A	R	VOC	0.22777087	TON	2017NEI
KY	21	21015	Boone	P	40500403	A	R	VOC	0.46914724	TON	2017NEI
KY	21	21015	Boone	P	30180003	A	R	VOC	2.16328165	TON	2017NEI
KY	21	21015	Boone	P	40200901	A	R	VOC	0.88	TON	2017NEI
KY	21	21015	Boone	P	30199998	A	R	VOC	0.00065194	TON	2017NEI
KY	21	21015	Boone	P	30990003	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	39001099	A	R	VOC	0.00086075	TON	2017NEI
KY	21	21015	Boone	P	40600136	A	R	VOC	3.332314	TON	2017NEI
KY	21	21015	Boone	P	40714697	A	R	VOC	0.0007775	TON	2017NEI
KY	21	21015	Boone	P	40100198	A	R	VOC	7.5	TON	2017NEI
KY	21	21015	Boone	P	20100802	A	R	VOC	61.46349	TON	2017NEI
KY	21	21015	Boone	P	2275020000	A	R	VOC	153.0897619	TON	2017NEI

KY	21	21015	Boone	P	30800720	A	R	VOC	0.00068927	TON	2017NEI
KY	21	21015	Boone	P	40600401	A	R	VOC	69.113275	TON	2017NEI
KY	21	21015	Boone	P	40290013	A	R	VOC	0.017325	TON	2017NEI
KY	21	21015	Boone	P	30500213	A	R	VOC	1.6726504	TON	2017NEI
KY	21	21015	Boone	P	40200601	A	R	VOC	0.67914	TON	2017NEI
KY	21	21015	Boone	P	10200502	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	10500206	A	R	VOC	0.00122375	TON	2017NEI
KY	21	21015	Boone	P	40100205	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	P	40704404	A	R	VOC	0.014399	TON	2017NEI
KY	21	21015	Boone	P	10100202	A	R	VOC	56.0889	TON	2017NEI
KY	21	21015	Boone	P	30203205	A	R	VOC	4.69831	TON	2017NEI
KY	21	21015	Boone	P	30108001	A	R	VOC	0.02582102	TON	2017NEI
KY	21	21015	Boone	P	50400201	A	R	VOC	0.49192	TON	2017NEI

996.7358591

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	P	10200603	A	R	NOX	0.7067825	TON	2017NEI
KY	21	21037	Campbell	P	30299998	A	R	NOX	0.0003172	TON	2017NEI
KY	21	21037	Campbell	P	20300201	A	R	NOX	0.286977	TON	2017NEI
KY	21	21037	Campbell	P	30201304	A	R	NOX	0	TON	2017NEI
KY	21	21037	Campbell	P	20100102	A	R	NOX	0.3409602	TON	2017NEI
KY	21	21037	Campbell	P	10300502	A	R	NOX	0.0334	TON	2017NEI
KY	21	21037	Campbell	P	20100202	A	R	NOX	0.0416	TON	2017NEI
KY	21	21037	Campbell	P	30500205	A	R	NOX	0.778245	TON	2017NEI
KY	21	21037	Campbell	P	40201001	A	R	NOX	0.024	TON	2017NEI
KY	21	21037	Campbell	P	20200102	A	R	NOX	0.0302085	TON	2017NEI
KY	21	21037	Campbell	P	39000699	A	R	NOX	106.274149	TON	2017NEI
KY	21	21037	Campbell	P	2275050011	A	R	NOX	0.00117	TON	2017NEI
KY	21	21037	Campbell	P	10301002	A	R	NOX	0.026222	TON	2017NEI
KY	21	21037	Campbell	P	30500206	A	R	NOX	0.1249	TON	2017NEI
KY	21	21037	Campbell	P	10300602	A	R	NOX	11.3445638	TON	2017NEI
KY	21	21037	Campbell	P	30290003	A	R	NOX	4.75285	TON	2017NEI
KY	21	21037	Campbell	P	2275050012	A	R	NOX	0.010683592	TON	2017NEI
KY	21	21037	Campbell	P	10300603	A	R	NOX	0.59862745	TON	2017NEI
KY	21	21037	Campbell	P	10300503	A	R	NOX	0	TON	2017NEI
KY	21	21037	Campbell	P	10200503	A	R	NOX	0.0015	TON	2017NEI
KY	21	21037	Campbell	P	39999999	A	R	NOX	0.0375232	TON	2017NEI
KY	21	21037	Campbell	P	20200401	A	R	NOX	0.0585812	TON	2017NEI
KY	21	21037	Campbell	P	20300101	A	R	NOX	1.21823317	TON	2017NEI
KY	21	21037	Campbell	P	10300501	A	R	NOX	0.001586	TON	2017NEI
KY	21	21037	Campbell	P	20100201	A	R	NOX	0	TON	2017NEI

126.6930798

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	P	39999999	A	R	VOC	7.43103645	TON	2017NEI
KY	21	21037	Campbell	P	40200101	A	R	VOC	2.910459	TON	2017NEI
KY	21	21037	Campbell	P	10200503	A	R	VOC	0.000015	TON	2017NEI
KY	21	21037	Campbell	P	40600301	A	R	VOC	4.606394	TON	2017NEI
KY	21	21037	Campbell	P	38500110	A	R	VOC	0.0010944	TON	2017NEI
KY	21	21037	Campbell	P	10300503	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	P	40299998	A	R	VOC	5.960925	TON	2017NEI
KY	21	21037	Campbell	P	40399999	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	P	40500205	A	R	VOC	0.6356105	TON	2017NEI
KY	21	21037	Campbell	P	39000699	A	R	VOC	7.55499988	TON	2017NEI
KY	21	21037	Campbell	P	40100198	A	R	VOC	4.5	TON	2017NEI
KY	21	21037	Campbell	P	30201304	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	P	40400414	A	R	VOC	0.018315	TON	2017NEI
KY	21	21037	Campbell	P	40200401	A	R	VOC	26.6625	TON	2017NEI
KY	21	21037	Campbell	P	2275050012	A	R	VOC	0.02275308	TON	2017NEI
KY	21	21037	Campbell	P	10300603	A	R	VOC	0.03292451	TON	2017NEI
KY	21	21037	Campbell	P	30500206	A	R	VOC	0.0068695	TON	2017NEI
KY	21	21037	Campbell	P	20100201	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	P	30290003	A	R	VOC	0.26140675	TON	2017NEI
KY	21	21037	Campbell	P	40100296	A	R	VOC	4.865208	TON	2017NEI
KY	21	21037	Campbell	P	20300101	A	R	VOC	0.09268903	TON	2017NEI
KY	21	21037	Campbell	P	40600307	A	R	VOC	15.6105	TON	2017NEI
KY	21	21037	Campbell	P	40400412	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	P	10300502	A	R	VOC	0.0009185	TON	2017NEI
KY	21	21037	Campbell	P	40301018	A	R	VOC	0.00045	TON	2017NEI
KY	21	21037	Campbell	P	30299998	A	R	VOC	17.298328	TON	2017NEI
KY	21	21037	Campbell	P	40500403	A	R	VOC	5.6589435	TON	2017NEI
KY	21	21037	Campbell	P	20200401	A	R	VOC	0.00640732	TON	2017NEI
KY	21	21037	Campbell	P	30501599	A	R	VOC	30.97634	TON	2017NEI
KY	21	21037	Campbell	P	30500205	A	R	VOC	0.95784	TON	2017NEI
KY	21	21037	Campbell	P	40200601	A	R	VOC	0.1381605	TON	2017NEI
KY	21	21037	Campbell	P	10300602	A	R	VOC	0.62608581	TON	2017NEI
KY	21	21037	Campbell	P	20300201	A	R	VOC	0.00707472	TON	2017NEI

KY	21	21037	Campbell	P	40600401	A	R	VOC	15.536917	TON	2017NEI
KY	21	21037	Campbell	P	40600402	A	R	VOC	10.9369225	TON	2017NEI
KY	21	21037	Campbell	P	2275050011	A	R	VOC	0.002708532	TON	2017NEI
KY	21	21037	Campbell	P	10301002	A	R	VOC	0.00224	TON	2017NEI
KY	21	21037	Campbell	P	40201001	A	R	VOC	0.00132	TON	2017NEI
KY	21	21037	Campbell	P	20100202	A	R	VOC	0.0012	TON	2017NEI
KY	21	21037	Campbell	P	10200603	A	R	VOC	0.03887304	TON	2017NEI
KY	21	21037	Campbell	P	10300501	A	R	VOC	0.00004441	TON	2017NEI
KY	21	21037	Campbell	P	20100102	A	R	VOC	0.03449152	TON	2017NEI
KY	21	21037	Campbell	P	20200102	A	R	VOC	0.002466	TON	2017NEI

163.4014315

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	P	30600105	A	R	NOX	0.0005269	TON	2017NEI
KY	21	21117	Kenton	P	39000999	A	R	NOX	0.0842751	TON	2017NEI
KY	21	21117	Kenton	P	10300602	A	R	NOX	6.92522	TON	2017NEI
KY	21	21117	Kenton	P	20100102	A	R	NOX	0.876736	TON	2017NEI
KY	21	21117	Kenton	P	10300603	A	R	NOX	0.6730509	TON	2017NEI
KY	21	21117	Kenton	P	30290003	A	R	NOX	3.875	TON	2017NEI
KY	21	21117	Kenton	P	39000605	A	R	NOX	0.005775	TON	2017NEI
KY	21	21117	Kenton	P	20200102	A	R	NOX	4.754653	TON	2017NEI
KY	21	21117	Kenton	P	30501305	A	R	NOX	0.118442	TON	2017NEI
KY	21	21117	Kenton	P	20300101	A	R	NOX	0.0186669	TON	2017NEI
KY	21	21117	Kenton	P	20301001	A	R	NOX	0	TON	2017NEI
KY	21	21117	Kenton	P	40600131	A	R	NOX	0	TON	2017NEI
KY	21	21117	Kenton	P	2275050012	A	R	NOX	0.021367184	TON	2017NEI
KY	21	21117	Kenton	P	10300501	A	R	NOX	0.00054	TON	2017NEI
KY	21	21117	Kenton	P	40201001	A	R	NOX	0.53	TON	2017NEI
KY	21	21117	Kenton	P	30190013	A	R	NOX	0.0333	TON	2017NEI
KY	21	21117	Kenton	P	40600134	A	R	NOX	0	TON	2017NEI
KY	21	21117	Kenton	P	10200602	A	R	NOX	4.94331475	TON	2017NEI
KY	21	21117	Kenton	P	39999999	A	R	NOX	75.18953	TON	2017NEI
KY	21	21117	Kenton	P	10500206	A	R	NOX	0.32	TON	2017NEI
KY	21	21117	Kenton	P	10500210	A	R	NOX	0.0406	TON	2017NEI
KY	21	21117	Kenton	P	10200603	A	R	NOX	9.12206	TON	2017NEI
KY	21	21117	Kenton	P	39000699	A	R	NOX	5.4033855	TON	2017NEI
KY	21	21117	Kenton	P	20200252	A	R	NOX	0.4811298	TON	2017NEI
KY	21	21117	Kenton	P	2275050011	A	R	NOX	0.005120794	TON	2017NEI
KY	21	21117	Kenton	P	20200254	A	R	NOX	2.11191	TON	2017NEI
KY	21	21117	Kenton	P	10201002	A	R	NOX	0	TON	2017NEI

115.5346038



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	P	30180008	A	R	VOC	0.6176	TON	2017NEI
KY	21	21117	Kenton	P	20200102	A	R	VOC	0.385302	TON	2017NEI
KY	21	21117	Kenton	P	30180007	A	R	VOC	0.066177	TON	2017NEI
KY	21	21117	Kenton	P	30800899	A	R	VOC	19.015127	TON	2017NEI
KY	21	21117	Kenton	P	40400153	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	30106802	A	R	VOC	0.02835021	TON	2017NEI
KY	21	21117	Kenton	P	40299998	A	R	VOC	1.57596	TON	2017NEI
KY	21	21117	Kenton	P	40100198	A	R	VOC	9.5	TON	2017NEI
KY	21	21117	Kenton	P	30101817	A	R	VOC	3.237984	TON	2017NEI
KY	21	21117	Kenton	P	40400411	A	R	VOC	0.03070231	TON	2017NEI
KY	21	21117	Kenton	P	20300101	A	R	VOC	0.00151382	TON	2017NEI
KY	21	21117	Kenton	P	40600306	A	R	VOC	0.17145	TON	2017NEI
KY	21	21117	Kenton	P	40400150	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	20100102	A	R	VOC	0.02243896	TON	2017NEI
KY	21	21117	Kenton	P	40301019	A	R	VOC	0.00741	TON	2017NEI
KY	21	21117	Kenton	P	2275050012	A	R	VOC	0.04550616	TON	2017NEI
KY	21	21117	Kenton	P	40200101	A	R	VOC	9.94569373	TON	2017NEI
KY	21	21117	Kenton	P	30180003	A	R	VOC	0.2871641	TON	2017NEI
KY	21	21117	Kenton	P	30188801	A	R	VOC	8.488896	TON	2017NEI
KY	21	21117	Kenton	P	39000999	A	R	VOC	0.0029484	TON	2017NEI
KY	21	21117	Kenton	P	40600126	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40301021	A	R	VOC	0.000761	TON	2017NEI
KY	21	21117	Kenton	P	39000699	A	R	VOC	0.356455	TON	2017NEI
KY	21	21117	Kenton	P	30290003	A	R	VOC	0.213125	TON	2017NEI
KY	21	21117	Kenton	P	40388801	A	R	VOC	0.0376461	TON	2017NEI
KY	21	21117	Kenton	P	10500210	A	R	VOC	0.00087	TON	2017NEI
KY	21	21117	Kenton	P	40100251	A	R	VOC	0.0603	TON	2017NEI
KY	21	21117	Kenton	P	40301016	A	R	VOC	0.0036	TON	2017NEI
KY	21	21117	Kenton	P	39000605	A	R	VOC	0.009625	TON	2017NEI
KY	21	21117	Kenton	P	20301001	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	30201303	A	R	VOC	0.129115	TON	2017NEI
KY	21	21117	Kenton	P	2275050011	A	R	VOC	0.01185456	TON	2017NEI
KY	21	21117	Kenton	P	30600105	A	R	VOC	0.00002898	TON	2017NEI

KY	21	21117	Kenton	P	40600402	A	R	VOC	18.49881	TON	2017NEI
KY	21	21117	Kenton	P	40400414	A	R	VOC	0.01279038	TON	2017NEI
KY	21	21117	Kenton	P	30600816	A	R	VOC	0.23439332	TON	2017NEI
KY	21	21117	Kenton	P	30899999	A	R	VOC	0.00073186	TON	2017NEI
KY	21	21117	Kenton	P	40600131	A	R	VOC	0.5629156	TON	2017NEI
KY	21	21117	Kenton	P	40600135	A	R	VOC	0.02446015	TON	2017NEI
KY	21	21117	Kenton	P	30190013	A	R	VOC	0.0018315	TON	2017NEI
KY	21	21117	Kenton	P	40400412	A	R	VOC	0.00705162	TON	2017NEI
KY	21	21117	Kenton	P	40600301	A	R	VOC	11.8447355	TON	2017NEI
KY	21	21117	Kenton	P	40600401	A	R	VOC	37.351805	TON	2017NEI
KY	21	21117	Kenton	P	10500206	A	R	VOC	0.0176	TON	2017NEI
KY	21	21117	Kenton	P	40899999	A	R	VOC	0.00033982	TON	2017NEI
KY	21	21117	Kenton	P	40399999	A	R	VOC	0.03564645	TON	2017NEI
KY	21	21117	Kenton	P	40400122	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40600136	A	R	VOC	0.6095	TON	2017NEI
KY	21	21117	Kenton	P	10200603	A	R	VOC	0.50171332	TON	2017NEI
KY	21	21117	Kenton	P	10300603	A	R	VOC	0.0370178	TON	2017NEI
KY	21	21117	Kenton	P	10200602	A	R	VOC	0.2733032	TON	2017NEI
KY	21	21117	Kenton	P	40400199	A	R	VOC	13.74459971	TON	2017NEI
KY	21	21117	Kenton	P	30299998	A	R	VOC	4.09851123	TON	2017NEI
KY	21	21117	Kenton	P	10201002	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40400413	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40400148	A	R	VOC	1.07697878	TON	2017NEI
KY	21	21117	Kenton	P	40202503	A	R	VOC	0.14	TON	2017NEI
KY	21	21117	Kenton	P	49099998	A	R	VOC	1.3666	TON	2017NEI
KY	21	21117	Kenton	P	40600163	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40201001	A	R	VOC	0.02915	TON	2017NEI
KY	21	21117	Kenton	P	40301002	A	R	VOC	0.1645	TON	2017NEI
KY	21	21117	Kenton	P	40400149	A	R	VOC	1.2035279	TON	2017NEI
KY	21	21117	Kenton	P	40600134	A	R	VOC	1.46237551	TON	2017NEI
KY	21	21117	Kenton	P	40714698	A	R	VOC	0.00078525	TON	2017NEI
KY	21	21117	Kenton	P	30106807	A	R	VOC	0.03724732	TON	2017NEI
KY	21	21117	Kenton	P	39999999	A	R	VOC	59.16342577	TON	2017NEI
KY	21	21117	Kenton	P	20200254	A	R	VOC	0.06107975	TON	2017NEI
KY	21	21117	Kenton	P	30600812	A	R	VOC	0.09224518	TON	2017NEI
KY	21	21117	Kenton	P	40714697	A	R	VOC	0.004086	TON	2017NEI

KY	21	21117	Kenton	P	10300501	A	R	VOC	0.00001512	TON	2017NEI
KY	21	21117	Kenton	P	40301018	A	R	VOC	0.001845	TON	2017NEI
KY	21	21117	Kenton	P	40400121	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40400179	A	R	VOC	0.78866473	TON	2017NEI
KY	21	21117	Kenton	P	40301008	A	R	VOC	0.3689595	TON	2017NEI
KY	21	21117	Kenton	P	40200601	A	R	VOC	0.2432565	TON	2017NEI
KY	21	21117	Kenton	P	40600307	A	R	VOC	25.4967	TON	2017NEI
KY	21	21117	Kenton	P	10300602	A	R	VOC	0.38088715	TON	2017NEI
KY	21	21117	Kenton	P	30600817	A	R	VOC	0.04296986	TON	2017NEI
KY	21	21117	Kenton	P	20200252	A	R	VOC	0.01821312	TON	2017NEI
KY	21	21117	Kenton	P	40400141	A	R	VOC	0.01141571	TON	2017NEI
KY	21	21117	Kenton	P	40400151	A	R	VOC	0.4656992	TON	2017NEI
KY	21	21117	Kenton	P	40600251	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	P	40400498	A	R	VOC	0.00018	TON	2017NEI
KY	21	21117	Kenton	P	30203205	A	R	VOC	19.78776	TON	2017NEI
KY	21	21117	Kenton	P	40200201	A	R	VOC	0.03125	TON	2017NEI
KY	21	21117	Kenton	P	40400302	A	R	VOC	0.74175185	TON	2017NEI

255.29293

## **APPENDIX A.2**

### **Louisville Nonattainment Area**

Bullitt and Oldham

2017 NEI Point Source Emissions Data

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	P	2275050011	A	R	NOX	0.019570222	TON	2017NEI
KY	21	21029	Bullitt	P	39000699	A	R	NOX	5.67945	TON	2017NEI
KY	21	21029	Bullitt	P	20300101	A	R	NOX	0.98342025	TON	2017NEI
KY	21	21029	Bullitt	P	10200603	A	R	NOX	1.08	TON	2017NEI
KY	21	21029	Bullitt	P	39000289	A	R	NOX	127.963	TON	2017NEI
KY	21	21029	Bullitt	P	39001099	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	40201001	A	R	NOX	0.4	TON	2017NEI
KY	21	21029	Bullitt	P	50600110	A	R	NOX	0.167226	TON	2017NEI
KY	21	21029	Bullitt	P	20200102	A	R	NOX	0.19054828	TON	2017NEI
KY	21	21029	Bullitt	P	10200401	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	20200401	A	R	NOX	0.323008	TON	2017NEI
KY	21	21029	Bullitt	P	30502910	A	R	NOX	115.2255	TON	2017NEI
KY	21	21029	Bullitt	P	10201002	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	10500106	A	R	NOX	3.3825	TON	2017NEI
KY	21	21029	Bullitt	P	10200204	A	R	NOX	46.27997	TON	2017NEI
KY	21	21029	Bullitt	P	30500206	A	R	NOX	0.147	TON	2017NEI
KY	21	21029	Bullitt	P	30500205	A	R	NOX	1.416441	TON	2017NEI
KY	21	21029	Bullitt	P	20200253	A	R	NOX	0.0162078	TON	2017NEI
KY	21	21029	Bullitt	P	10500110	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	30890003	A	R	NOX	0.363105	TON	2017NEI
KY	21	21029	Bullitt	P	39000599	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	10200602	A	R	NOX	2.03905	TON	2017NEI
KY	21	21029	Bullitt	P	2275050012	A	R	NOX	0.02777491	TON	2017NEI
KY	21	21029	Bullitt	P	10200501	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	P	10500206	A	R	NOX	0.103	TON	2017NEI
KY	21	21029	Bullitt	P	20100102	A	R	NOX	6.9027324	TON	2017NEI

312.7095039

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	P	50600110	A	R	VOC	4.598715	TON	2017NEI
KY	21	21029	Bullitt	P	10200204	A	R	VOC	0.2945089	TON	2017NEI
KY	21	21029	Bullitt	P	40200301	A	R	VOC	0.0675	TON	2017NEI
KY	21	21029	Bullitt	P	10500110	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	2275050012	A	R	VOC	0.05915286	TON	2017NEI
KY	21	21029	Bullitt	P	30890003	A	R	VOC	0.01997078	TON	2017NEI
KY	21	21029	Bullitt	P	20100102	A	R	VOC	0.24991156	TON	2017NEI
KY	21	21029	Bullitt	P	40200101	A	R	VOC	7.842416	TON	2017NEI
KY	21	21029	Bullitt	P	39999999	A	R	VOC	147.7112233	TON	2017NEI
KY	21	21029	Bullitt	P	30502910	A	R	VOC	47.3031	TON	2017NEI
KY	21	21029	Bullitt	P	40201001	A	R	VOC	0.00088	TON	2017NEI
KY	21	21029	Bullitt	P	10200603	A	R	VOC	0.071445	TON	2017NEI
KY	21	21029	Bullitt	P	39000599	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	10200501	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	30201014	A	R	VOC	20.24991	TON	2017NEI
KY	21	21029	Bullitt	P	40200501	A	R	VOC	0.578875	TON	2017NEI
KY	21	21029	Bullitt	P	39001099	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	2275050011	A	R	VOC	0.045304752	TON	2017NEI
KY	21	21029	Bullitt	P	20300101	A	R	VOC	0.06590248	TON	2017NEI
KY	21	21029	Bullitt	P	10500106	A	R	VOC	0.1860375	TON	2017NEI
KY	21	21029	Bullitt	P	30500205	A	R	VOC	1.743312	TON	2017NEI
KY	21	21029	Bullitt	P	30500213	A	R	VOC	0.6639126	TON	2017NEI
KY	21	21029	Bullitt	P	10200602	A	R	VOC	0.11214775	TON	2017NEI
KY	21	21029	Bullitt	P	20200253	A	R	VOC	0.00021134	TON	2017NEI
KY	21	21029	Bullitt	P	40200921	A	R	VOC	0.0001878	TON	2017NEI
KY	21	21029	Bullitt	P	10200401	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	30201003	A	R	VOC	3139.538	TON	2017NEI
KY	21	21029	Bullitt	P	39000289	A	R	VOC	2.90825	TON	2017NEI
KY	21	21029	Bullitt	P	39000699	A	R	VOC	0.09856724	TON	2017NEI
KY	21	21029	Bullitt	P	20200102	A	R	VOC	0.01049991	TON	2017NEI
KY	21	21029	Bullitt	P	30901199	A	R	VOC	12.448398	TON	2017NEI
KY	21	21029	Bullitt	P	40500403	A	R	VOC	11.87215898	TON	2017NEI
KY	21	21029	Bullitt	P	40200601	A	R	VOC	1.39104	TON	2017NEI

KY	21	21029	Bullitt	P	10500206	A	R	VOC	0.0181918	TON	2017NEI
KY	21	21029	Bullitt	P	10201002	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	P	30201002	A	R	VOC	22.51724	TON	2017NEI
KY	21	21029	Bullitt	P	30500206	A	R	VOC	0.00294	TON	2017NEI
KY	21	21029	Bullitt	P	40299998	A	R	VOC	0.25375	TON	2017NEI
KY	21	21029	Bullitt	P	30900198	A	R	VOC	1.485135	TON	2017NEI
KY	21	21029	Bullitt	P	30801002	A	R	VOC	4.26493142	TON	2017NEI
KY	21	21029	Bullitt	P	30899999	A	R	VOC	0.04235484	TON	2017NEI
KY	21	21029	Bullitt	P	20200401	A	R	VOC	0.0090846	TON	2017NEI
KY	21	21029	Bullitt	P	40500309	A	R	VOC	3.71259947	TON	2017NEI
KY	21	21029	Bullitt	P	30500214	A	R	VOC	0.2265734	TON	2017NEI

3432.664339

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	P	10300602	A	R	NOX	5.299697	TON	2017NEI
KY	21	21185	Oldham	P	10200602	A	R	NOX	6.7913	TON	2017NEI
KY	21	21185	Oldham	P	10201002	A	R	NOX	0	TON	2017NEI
KY	21	21185	Oldham	P	20200401	A	R	NOX	0.51762726	TON	2017NEI
KY	21	21185	Oldham	P	2275050011	A	R	NOX	0.003018967	TON	2017NEI
KY	21	21185	Oldham	P	2275050012	A	R	NOX	0.005341796	TON	2017NEI
KY	21	21185	Oldham	P	10300603	A	R	NOX	0	TON	2017NEI
KY	21	21185	Oldham	P	10500206	A	R	NOX	0.07887224	TON	2017NEI
KY	21	21185	Oldham	P	20100102	A	R	NOX	0.54139484	TON	2017NEI
KY	21	21185	Oldham	P	10300501	A	R	NOX	0.00685152	TON	2017NEI
KY	21	21185	Oldham	P	30500201	A	R	NOX	0.340067	TON	2017NEI
KY	21	21185	Oldham	P	31000216	A	R	NOX	0.15	TON	2017NEI
KY	21	21185	Oldham	P	10200503	A	R	NOX	0.00355	TON	2017NEI
KY	21	21185	Oldham	P	20100201	A	R	NOX	32.9	TON	2017NEI
KY	21	21185	Oldham	P	39000797	A	R	NOX	0.063	TON	2017NEI
KY	21	21185	Oldham	P	20300101	A	R	NOX	0.03003236	TON	2017NEI

46.73075298



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	P	30500201	A	R	VOC	0.418544	TON	2017NEI
KY	21	21185	Oldham	P	31000216	A	R	VOC	0.00825	TON	2017NEI
KY	21	21185	Oldham	P	20300101	A	R	VOC	0.00243562	TON	2017NEI
KY	21	21185	Oldham	P	20100102	A	R	VOC	0.04406873	TON	2017NEI
KY	21	21185	Oldham	P	2275050012	A	R	VOC	0.01137654	TON	2017NEI
KY	21	21185	Oldham	P	10300501	A	R	VOC	0.00009706	TON	2017NEI
KY	21	21185	Oldham	P	2275050011	A	R	VOC	0.006988863	TON	2017NEI
KY	21	21185	Oldham	P	30500213	A	R	VOC	0.08510831	TON	2017NEI
KY	21	21185	Oldham	P	20100201	A	R	VOC	8.703949	TON	2017NEI
KY	21	21185	Oldham	P	10200602	A	R	VOC	0.6517775	TON	2017NEI
KY	21	21185	Oldham	P	39999999	A	R	VOC	2.8671065	TON	2017NEI
KY	21	21185	Oldham	P	20200401	A	R	VOC	0.04372001	TON	2017NEI
KY	21	21185	Oldham	P	30500214	A	R	VOC	0.02904957	TON	2017NEI
KY	21	21185	Oldham	P	39000797	A	R	VOC	0.003465	TON	2017NEI
KY	21	21185	Oldham	P	10300603	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	P	40200601	A	R	VOC	0.12110375	TON	2017NEI
KY	21	21185	Oldham	P	10300602	A	R	VOC	0.29148336	TON	2017NEI
KY	21	21185	Oldham	P	10201002	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	P	10500206	A	R	VOC	0.0922805	TON	2017NEI
KY	21	21185	Oldham	P	10200503	A	R	VOC	0.000017	TON	2017NEI
KY	21	21185	Oldham	P	40200401	A	R	VOC	0.1375	TON	2017NEI

13.51832131

## **APPENDIX A.3**

### **Louisville Nonattainment Area**

Louisville APCD Emissions Letter &  
Jefferson County 2017 Point Source Emissions Data

Louisville APCD July 2, 2020 Letter  
Proposed Point and Onroad Emissions Data



AIR POLLUTION CONTROL DISTRICT  
LOUISVILLE, KENTUCKY

GREG FISCHER  
MAYOR

KEITH TALLEY, Sr.  
DIRECTOR

July 2, 2020

Melissa Duff, Director  
Division for Air Quality  
300 Sower Blvd., 2<sup>nd</sup> Floor  
Frankfort, Kentucky 40601

Dear Ms. Duff:

Pursuant to discussions between our staff, I am submitting the point source and onroad mobile source portions of the emissions inventory for Louisville/Jefferson County for 2017. It is my understanding that this information will be incorporated into a full submission by the Division of Air Quality (DAQ) to satisfy the requirement of Section 182(a)(1) of the Clean Air Act (CAA), 42 U.S.C. §7511a(a)(1), for the Kentucky portion of the Louisville KY-IN Marginal Nonattainment Area for the 2015 ozone National Ambient Air Quality Standard (NAAQS). We appreciate the opportunity to submit this information, and look forward to reviewing the full submission.

With regard to the onroad inventory, it was created with MOVES run with interpolated summer season VMT data supplied by KIPDA for 2015 and 2020. MOVES defaults were used for fuel formulations and daily and hourly VMT fractions. Summer season worst-case meteorology was used (running for the month of July only), developed with Louisville Muhammad Ali International Airport meteorological data. Fleet inputs (vehicle population and age distribution) were developed from data supplied by KYTC for the year 2016. Both weekdays and weekend days were incorporated. Results are shown in the following table. Full inputs can be provided separately via File Transfer Protocol (FTP).

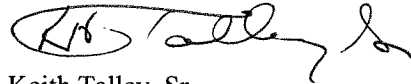
<b>Pollutant</b>	<b>Onroad Ozone Season Emissions (Tons per day)</b>
Nitrogen Oxides	21.82
Volatile Organic Compounds	10.07

For point sources, a full spreadsheet of emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs) from all facilities reporting to the Louisville Metro Air Pollution Control District (LMAPCD) in 2017 is attached. Ozone Season emissions were calculated by multiplying annual emissions by percent summer operations for each process and dividing by 92 days (for the days in the peak ozone season months of June through August). A summary is shown in the following table:

<b>Pollutant</b>	<b>Point Source Ozone Season Emissions (Tons per day)</b>
Nitrogen Oxides	30.76
Volatile Organic Compounds	20.73

Because this is to be incorporated into the larger submission for the Kentucky portion of the Louisville KY-IN Marginal Nonattainment Area, the requirements of 40 C.F.R. Part 51 Appendix V, particularly regarding public notice and hearing, have not been met for this submission. In addition, note that LMAPCD will continue to meet any additional State Implementation Plan (SIP) requirements independently, and submit to DAQ with a formal request for submission for incorporation into the Kentucky SIP. For example, amendments to Regulation 1.06 to satisfy the requirements of CAA §182(a)(3)(B), 42 U.S.C. §7511a(a)(3)(B), for emissions statements will be submitted via SPeCS for SIPs shortly.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Talley, Sr.", with a stylized flourish at the end.

Keith Talley, Sr.  
Director

Louisville APCD Airport and Railyard Sources  
NEI Extraction Methodology - R Code

```

library(tidyverse)    #load library with many functions used below

# point -----
# extract NEI -----

#first, read in large .csv with NEI point data
#working in chunks, because it is too big otherwise
#file was downloaded from https://www.epa.gov/air-emissions-inventories/2017-national-
emissions-inventory-nei-data
#and extracted and uploaded to RStudio Cloud in advance for this analysis
f <- function(x, pos) {    #function for filtering data as it is read in
  subset(
    x,
    `fips code` %in% c(21029, 21111, 21185) & #first filter is for FIPS codes for part of NAA
    `pollutant code` %in% c("NOX", "VOC")    #second filter for O3 precursors
  )
}

#now read it in, naming it 'nei17_pt_lounaa' (NEI, point, Louisville NAA)
nei17_pt_lounaa <- read_csv_chunked(
  "sheets/20210811-NEI2017-point_12345.csv", #this is the file for R1-5 from
  "2017neiJan_facility_process_byregions.zip"
  DataFrameCallback$new(f),                #callback the function created above for filtering
  chunk_size = 10000                       #reading through 10,000 rows at a time, and filtering
)

#filter for facilities not reporting to us
#calculate tpsd per DAQ draft SIP method
nei17_nonLEIpt <- nei17_pt_lounaa %>%
  filter(
    `fips code` != 21111 |                #grab non-Jefferson County
    is.na(`agency facility id`)          #or NA under facility ID (non-LEI facilities)
  ) %>%
  mutate(tpsd = `total emissions`/4/92)

# import LEI -----

#read in the sheet downloaded from SLEIS, as is
lei17 <- read_csv(
  "sheets/20210811_LEI_2017.csv",
  col_types = cols(                      #just make sure it reads these columns in same format as
  NEI, so they can be joined later
    `Facility Identifier` = col_character(),
    `Emission Unit Identifier` = col_character(),

```

```

  `Process Identifier` = col_character()
)
)

#add some columns to match NEI, rename some others
lei17_neiform <- lei17 %>%
  filter(`Pollutant: Code` %in% c("NOX", "VOC")) %>%
  mutate(
    "fips code" = 21111,
    "county" = "Jefferson",
    "naics code" = as.numeric(str_sub(NAICS, 1, 6)),           #the first 6 digits in
    "NAICS" are the code, convert to number to match NEI
    "naics description" = str_extract(NAICS, "(?<= -).*"),     #then everything after the
    dash is the description
    "tposd" = ifelse(
      !is.na(`Summer Operations (%)`),                         #if there's a value for percent
      `Summer Operations (%)` / 100 * `Estimated Emissions (Tons)` / 92,   #convert
      `Estimated Emissions (Tons)` / 92,                         #otherwise assume all emissions
      are summer (a very small portion of overall)
    )
  ) %>%
  select(
    `fips code`, `county`, `naics code`, `naics description`, tposd,       #start by keeping
    columns just created
    `agency facility id` = `Facility Identifier`,                       #then match some names up to
    NEI
    `site name` = `Facility Name`,
    `site latitude` = `Latitude (decimal degrees)`,
    `site longitude` = `Longitude (decimal degrees)`,
    `agency unit id` = `Emission Unit Identifier`,
    `unit description` = `Emission Unit Description`,
    `agency process id` = `Process Identifier`,
    `process description` = `Process Description`,
    `pollutant code` = `Pollutant: Code`,
    `pollutant desc` = `Pollutant: Description`,
    `total emissions` = `Estimated Emissions (Tons)`
  )

#check these totals for comments on EI SIP Draft
lei17_neiform %>%
  group_by(`pollutant desc`) %>%
  summarize(ems = sum (tposd))

#how much of that was those without %summer operations?

```



```

lei17 %>%
  filter(
    is.na(`Summer Operations (%)`),
    `Pollutant: Code` %in% c("NOX", "VOC")
  ) %>%
  group_by(`Pollutant: Description`) %>%
  summarize(ems = sum(`Estimated Emissions (Tons)`/92))

# join LEI & NEI -----

ei17_pt_lounaa <- nei17_nonLEIpt %>%
  select(
    LEI (above)
    `fips code`, `county`, `naics code`, `naics description`, tposd,
    `agency facility id`, `site name`, `site latitude`, `site longitude`,
    `agency unit id`, `unit description`, `agency process id`,
    `process description`, `pollutant code`, `pollutant desc`, `total emissions`
  ) %>%
  bind_rows(lei17_neiform)

#write results to CSV for sharing
write_csv(ei17_pt_lounaa, str_c("sheets/", Sys.Date(), "-EI-2017-pt-LouNAA.csv"))

#show results
ei17_pt_lounaa %>%
  group_by(`pollutant code`, `fips code`) %>%
  summarize(tposd = sum(tposd))

```

Louisville APCD Point Source Emissions Data  
Jefferson County

fips code	county	naics code	tposd	site name	agency unit id	agency process id	pollutant code	total emissions
21111	Jefferson	325180	0.00	Carbide Industries LLC	493	3491	NOX	0.01
21111	Jefferson	325180	0.00	Carbide Industries LLC	493	2860	NOX	0.15
21111	Jefferson	325180	0.03	Carbide Industries LLC	6	1704	NOX	12.06
21111	Jefferson	325180	0.00	Carbide Industries LLC	6	4195	NOX	0.02
21111	Jefferson	325180	0.00	Carbide Industries LLC	10	1708	NOX	0.13
21111	Jefferson	325180	0.00	Carbide Industries LLC	10	1710	NOX	0.02
21111	Jefferson	325180	0.00	Carbide Industries LLC	1	1698	NOX	0.21
21111	Jefferson	811310	0.00	Industrial Container Services	15	1717	NOX	0.49
21111	Jefferson	811310	0.00	Industrial Container Services	14	2749	NOX	0.11
21111	Jefferson	811310	0.00	Industrial Container Services	16	1718	NOX	0.43
21111	Jefferson	325212	0.01	American Synthetic Rubber Company	26	2090	NOX	2.81
21111	Jefferson	325212	0.06	American Synthetic Rubber Company	26	1732	NOX	25.56
21111	Jefferson	325212	0.92	American Synthetic Rubber Company	27	1733	NOX	337.32
21111	Jefferson	325212	0.03	American Synthetic Rubber Company	23	3411	NOX	12.11
21111	Jefferson	331315	0.01	LLFlex, LLC	36	1748	NOX	3.92
21111	Jefferson	331315	0.00	LLFlex, LLC	36	1747	NOX	0.52
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2109	NOX	0.50
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2108	NOX	1.44
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2111	NOX	0.03
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2110	NOX	0.70
21111	Jefferson	321920	0.11	Brown-Forman Cooperages	40	1755	NOX	39.95
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	40	3412	NOX	0.29
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	41	3551	NOX	1.31
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	41	1756	NOX	1.34
21111	Jefferson	325211	0.00	Hexion Inc.	387	4235	NOX	1.60
21111	Jefferson	325211	0.03	Hexion Inc.	389	2603	NOX	13.69
21111	Jefferson	325211	0.00	Hexion Inc.	389	4236	NOX	0.07
21111	Jefferson	325211	0.00	Hexion Inc.	390	3529	NOX	1.25
21111	Jefferson	325211	0.00	Hexion Inc.	393	3530	NOX	0.77
21111	Jefferson	325211	0.00	Hexion Inc.	398	3531	NOX	0.43
21111	Jefferson	325211	0.00	Hexion Inc.	399	3152	NOX	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	399	3151	NOX	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	399	2295	NOX	0.02

21111	Jefferson	325211	0.00	Hexion Inc.	399	2292	NOX	0.88
21111	Jefferson	325211	0.01	Hexion Inc.	399	2293	NOX	0.60
21111	Jefferson	332420	0.00	Caldwell Tanks	247	3320	NOX	0.70
21111	Jefferson	332420	0.00	Caldwell Tanks	247	3501	NOX	0.13
21111	Jefferson	332420	0.00	Caldwell Tanks	453	2822	NOX	0.02
21111	Jefferson	332420	0.00	Caldwell Tanks	58	1779	NOX	0.50
21111	Jefferson	325180	0.01	Clariant Corporation, Louisville West Plant	347	2313	NOX	1.80
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	361	3597	NOX	0.00
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	363	3183	NOX	0.03
21111	Jefferson	325180	0.02	Clariant Corporation, Louisville West Plant	376	2415	NOX	7.49
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	379	2435	NOX	0.23
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	380	2445	NOX	0.15
21111	Jefferson	325180	0.06	Clariant Corporation, Louisville West Plant	381	3198	NOX	21.09
21111	Jefferson	325180	0.01	Clariant Corporation, Louisville West Plant	381	2455	NOX	4.52
21111	Jefferson	325180	0.02	Clariant Corporation, Louisville West Plant	60	1782	NOX	8.00
21111	Jefferson	325180	0.01	Clariant Corporation, Louisville West Plant	60	3472	NOX	2.44
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	603	3601	NOX	0.04
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	603	3600	NOX	0.06
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	552	3206	NOX	0.03
21111	Jefferson	325180	0.01	Clariant Corporation, Louisville South Plant	63	1790	NOX	5.84
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	293	2161	NOX	1.05
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	295	2170	NOX	0.23
21111	Jefferson	325180	0.01	Clariant Corporation, Louisville South Plant	339	2482	NOX	3.42
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	340	2194	NOX	0.00
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	340	2186	NOX	0.41
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	326	2218	NOX	0.00
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	545	3165	NOX	0.30
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	546	3166	NOX	0.03
21111	Jefferson	332999	0.00	Conco Inc.	66	1793	NOX	0.20
21111	Jefferson	332999	0.00	Conco Inc.	66	3295	NOX	0.20
21111	Jefferson	332999	0.00	Conco Inc.	66	3569	NOX	0.31
21111	Jefferson	332999	0.00	Conco Inc.	66	3296	NOX	0.38
21111	Jefferson	332999	0.00	Conco Inc.	66	3298	NOX	0.02
21111	Jefferson	332999	0.00	Conco Inc.	66	3297	NOX	0.38
21111	Jefferson	332999	0.00	Conco Inc.	66	3487	NOX	0.17
21111	Jefferson	327310	6.51	Kosmos Cement Company	400	2278	NOX	1930.70

21111	Jefferson	327310	0.01	Kosmos Cement Company	400	2281	NOX	5.17
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4326	NOX	0.70
21111	Jefferson	327310	0.03	Kosmos Cement Company	754	4327	NOX	9.29
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4328	NOX	0.09
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4329	NOX	0.36
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4330	NOX	0.08
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4331	NOX	0.22
21111	Jefferson	325199	0.07	Chemours Company	412	2399	NOX	25.40
21111	Jefferson	325199	0.00	Chemours Company	560	3303	NOX	0.55
21111	Jefferson	336211	0.08	Ford Motor Company, Louisville Assembly Plant	83	1816	NOX	56.56
21111	Jefferson	336211	0.07	Ford Motor Company, Kentucky Truck Plant	95	2585	NOX	53.89
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	587	3523	NOX	0.34
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	587	3524	NOX	0.17
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2977	NOX	0.08
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	2930	NOX	0.22
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	3337	NOX	0.10
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	3336	NOX	0.16
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	441	2544	NOX	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	441	2543	NOX	0.12
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	442	2546	NOX	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	442	2545	NOX	0.47
21111	Jefferson	221122	0.09	Louisville Gas & Electric Co., Paddy's Run Station	443	2547	NOX	34.09
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	756	4333	NOX	0.03
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	119	2125	NOX	0.34
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	119	2126	NOX	0.00
21111	Jefferson	221122	0.61	Louisville Gas & Electric Co., Cane Run Station	593	3540	NOX	159.10
21111	Jefferson	221122	0.57	Louisville Gas & Electric Co., Cane Run Station	593	3541	NOX	158.20
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	594	3542	NOX	0.29
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	595	3543	NOX	0.87
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	114	2120	NOX	0.33
21111	Jefferson	221122	7.47	Louisville Gas & Electric Co., Mill Creek Station	121	1871	NOX	2454.04
21111	Jefferson	221122	6.67	Louisville Gas & Electric Co., Mill Creek Station	122	1872	NOX	2455.76
21111	Jefferson	221122	2.59	Louisville Gas & Electric Co., Mill Creek Station	123	1873	NOX	951.87
21111	Jefferson	221122	3.29	Louisville Gas & Electric Co., Mill Creek Station	124	1874	NOX	1120.88
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	2428	NOX	0.01
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	2430	NOX	0.08

21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	4255	NOX	0.02
21111	Jefferson	221122	0.01	Louisville Gas & Electric Co., Mill Creek Station	125	3513	NOX	2.70
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	125	2132	NOX	0.79
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	125	2133	NOX	0.01
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	129	2493	NOX	1.42
21111	Jefferson	221330	0.03	Louisville Medical Center Steam & Chilled Water Plant	129	2526	NOX	8.32
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	129	3410	NOX	1.41
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	256	2496	NOX	31.68
21111	Jefferson	221330	0.23	Louisville Medical Center Steam & Chilled Water Plant	256	2531	NOX	67.41
21111	Jefferson	221330	0.07	Louisville Medical Center Steam & Chilled Water Plant	256	2533	NOX	39.55
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	530	2968	NOX	0.24
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	609	3642	NOX	0.16
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	616	3651	NOX	0.03
21111	Jefferson	325211	0.01	Allnex USA Inc. (was Nuplex Resins, LLC)	131	1884	NOX	2.63
21111	Jefferson	331315	0.03	Reynolds Consumer Products, Foil Plant	136	2962	NOX	10.94
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	448	2572	NOX	2.48
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	449	2575	NOX	0.42
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	455	2605	NOX	1.37
21111	Jefferson	331492	0.00	Eckart America L.P.	140	3167	NOX	0.72
21111	Jefferson	331492	0.00	Eckart America L.P.	140	1898	NOX	1.04
21111	Jefferson	331492	0.01	Eckart America L.P.	140	1899	NOX	2.18
21111	Jefferson	325211	0.02	Rohm & Haas Kentucky, Inc.	149	1926	NOX	7.23
21111	Jefferson	325211	0.01	Rohm & Haas Kentucky, Inc.	154	1931	NOX	5.98
21111	Jefferson	325211	0.34	Rohm & Haas Kentucky, Inc.	144	1916	NOX	165.35
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1917	NOX	5.41
21111	Jefferson	325211	0.02	Rohm & Haas Kentucky, Inc.	144	1921	NOX	6.58
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	543	3157	NOX	0.90
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	543	3596	NOX	0.93
21111	Jefferson	486210	0.01	Texas Gas Transmission LLC	269	3012	NOX	2.52
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	156	1933	NOX	0.05
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	156	1935	NOX	0.02
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	270	2153	NOX	0.16
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	744	4194	NOX	0.00
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	743	4192	NOX	0.34
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	743	4193	NOX	0.47
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	606	3637	NOX	1.02

21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	514	2929	NOX	0.21
21111	Jefferson	312140	0.04	Heaven Hill Distilleries, Inc.	514	3570	NOX	21.12
21111	Jefferson	312140	0.08	Brown-Forman Distillery Co., Early Times	161	1941	NOX	38.04
21111	Jefferson	312140	0.01	Brown-Forman Distillery Co., Early Times	161	3310	NOX	1.73
21111	Jefferson	312140	0.02	Brown-Forman Distillery Co., Early Times	161	1942	NOX	5.85
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	168	4335	NOX	0.03
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	168	4336	NOX	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	1990	NOX	1.18
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	2592	NOX	0.02
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	4368	NOX	0.13
21111	Jefferson	562212	0.09	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	183	1994	NOX	35.97
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3533	NOX	0.84
21111	Jefferson	562212	0.01	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	2190	NOX	5.36
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3545	NOX	0.38
21111	Jefferson	562212	0.01	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3511	NOX	1.98
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3550	NOX	0.06
21111	Jefferson	492110	0.02	United Parcel Service, WorldPort	190	4323	NOX	7.39
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	190	2014	NOX	0.02
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	189	3334	NOX	3.38
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	189	2013	NOX	0.90
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	444	2552	NOX	0.03
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	194	2021	NOX	0.20
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	196	2027	NOX	1.00
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	196	2839	NOX	0.92
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	404	2327	NOX	0.55
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	404	4341	NOX	0.05
21111	Jefferson	611310	0.01	University of Louisville, Belknap Campus	406	2332	NOX	3.53
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	2995	NOX	0.62
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	2894	NOX	1.47
21111	Jefferson	335220	0.01	GE Appliances (Haier US Appliance Solutions)	505	2895	NOX	1.53
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3459	NOX	0.04

21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3460	NOX	0.11
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3572	NOX	0.34
21111	Jefferson	335220	0.02	GE Appliances (Haier US Appliance Solutions)	203	2036	NOX	19.51
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	203	3047	NOX	2.02
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	216	2052	NOX	0.78
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	557	3471	NOX	0.14
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	557	3270	NOX	0.00
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	531	2973	NOX	1.54
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Zorn Station	219	2055	NOX	0.52
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Zorn Station	255	2468	NOX	0.00
21111	Jefferson	221330	0.15	Recast Energy Louisville, LLC	520	2941	NOX	84.83
21111	Jefferson	221330	0.00	Recast Energy Louisville, LLC	226	3494	NOX	0.21
21111	Jefferson	221330	0.00	Recast Energy Louisville, LLC	226	3495	NOX	0.29
21111	Jefferson	336212	0.00	Kentucky Trailer	490	2825	NOX	0.31
21111	Jefferson	336212	0.00	Kentucky Trailer	490	2831	NOX	0.36
21111	Jefferson	325180	0.01	E.I. du Pont	601	3564	NOX	2.01



<b>fips code</b>	<b>county</b>	<b>naics code</b>	<b>naics description</b>	<b>tposd</b>	<b>agency facility id</b>	<b>pollutant code</b>	<b>total emissions</b>
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.30
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	5.29
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.14
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.26
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	488210	Support Activities for Rail Transportation	0.02	1747	NOX	6.60
21111	Jefferson	488210	Support Activities for Rail Transportation	0.14	1446	NOX	52.81
21111	Jefferson	488210	Support Activities for Rail Transportation	0.89	723	NOX	326.22
21111	Jefferson	488210	Support Activities for Rail Transportation	0.02	NA	NOX	6.60
21111	Jefferson	488210	Support Activities for Rail Transportation	0.04	NA	NOX	13.20
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	4.12
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.03	NA	NOX	9.39
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.02
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	1.68
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.02
21111	Jefferson	48811	Airport Operations	0.06	NA	NOX	20.63
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.02
21111	Jefferson	48811	Airport Operations	0.83	NA	NOX	305.65
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.06
21111	Jefferson	48811	Airport Operations	0.59	NA	NOX	216.57
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.56
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.05
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	4.96
21111	Jefferson	48811	Airport Operations	0.04	NA	NOX	15.23
21111	Jefferson	48811	Airport Operations	0.02	NA	NOX	6.50
21111	Jefferson	48811	Airport Operations	0.03	NA	NOX	11.59
21111	Jefferson	48811	Airport Operations	0.37	NA	NOX	137.04
21111	Jefferson	48811	Airport Operations	0.04	NA	NOX	13.78

21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	3.37
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.05
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	2.89
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	1.54
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.03
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.04
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.19
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.79
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	1.61
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.21
21111	Jefferson	48811	Airport Operations	0.02	NA	NOX	8.78
21111	Jefferson	48811	Airport Operations	0.08	NA	NOX	30.92
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.12
21111	Jefferson	48811	Airport Operations	0.49	NA	NOX	179.96
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	3.21
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.40
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.29
21111	Jefferson	48811	Airport Operations	0.09	NA	NOX	34.07
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01

21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.04	NA	NOX	14.21
21111	Jefferson	48811	Airport Operations	0.06	NA	NOX	23.11
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.03
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.51
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.79
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	1.52
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.05	NA	NOX	17.53
21111	Jefferson	48811	Airport Operations	0.01	NA	NOX	4.20
21029	Bullitt	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.01
21185	Oldham	48811	Airport Operations	0.00	NA	NOX	0.00
21185	Oldham	48811	Airport Operations	0.00	NA	NOX	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	NOX	0.00
21029	Bullitt	48811	Airport Operations	0.00	NA	NOX	0.01
21029	Bullitt	48811	Airport Operations	0.00	NA	NOX	0.03
21185	Oldham	48811	Airport Operations	0.00	NA	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	0716H	NOX	0.00
21111	Jefferson	48811	Airport Operations	0.00	0716H	NOX	0.01
21029	Bullitt	48811	Airport Operations	0.00	NA	NOX	0.00

<b>fips code</b>	<b>county</b>	<b>naics code</b>	<b>tposd</b>	<b>site name</b>	<b>agency unit id</b>	<b>agency process id</b>	<b>pollutant code</b>	<b>total emissions</b>
21111	Jefferson	325180	0.00	Carbide Industries LLC	493	2860	VOC	0.02
21111	Jefferson	325180	0.00	Carbide Industries LLC	6	4195	VOC	0.00
21111	Jefferson	325180	0.00	Carbide Industries LLC	458	2609	VOC	0.02
21111	Jefferson	325180	0.03	Carbide Industries LLC	492	3517	VOC	11.86
21111	Jefferson	325180	0.47	Carbide Industries LLC	492	2838	VOC	189.83
21111	Jefferson	325180	0.36	Carbide Industries LLC	7	1705	VOC	126.47
21111	Jefferson	325180	0.04	Carbide Industries LLC	7	3518	VOC	14.78
21111	Jefferson	325180	0.02	Carbide Industries LLC	585	3519	VOC	6.82
21111	Jefferson	325180	0.00	Carbide Industries LLC	585	3520	VOC	0.50
21111	Jefferson	325180	0.01	Carbide Industries LLC	586	3521	VOC	4.89
21111	Jefferson	325180	0.00	Carbide Industries LLC	586	3522	VOC	0.36
21111	Jefferson	325180	0.01	Carbide Industries LLC	10	1708	VOC	4.79
21111	Jefferson	325180	0.00	Carbide Industries LLC	10	1710	VOC	0.86
21111	Jefferson	325180	0.00	Carbide Industries LLC	459	2610	VOC	0.06
21111	Jefferson	325180	0.00	Carbide Industries LLC	1	1698	VOC	0.02
21111	Jefferson	325180	0.00	Carbide Industries LLC	9	1707	VOC	1.05
21111	Jefferson	811310	0.00	Industrial Container Services	15	1717	VOC	0.35
21111	Jefferson	811310	0.06	Industrial Container Services	14	1715	VOC	20.88
21111	Jefferson	811310	0.00	Industrial Container Services	14	2749	VOC	0.01
21111	Jefferson	811310	0.00	Industrial Container Services	16	1718	VOC	0.02
21111	Jefferson	811310	0.00	Industrial Container Services	18	2814	VOC	0.00
21111	Jefferson	325212	0.07	American Synthetic Rubber Company	26	2090	VOC	27.28
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	26	1732	VOC	1.10
21111	Jefferson	325212	0.01	American Synthetic Rubber Company	27	1733	VOC	1.89
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	283	2097	VOC	0.01
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	562	3306	VOC	0.06
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	20	3307	VOC	0.43
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	20	3308	VOC	0.34
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	20	4351	VOC	0.27
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	576	3450	VOC	0.01
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	576	3449	VOC	0.02
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	23	3411	VOC	0.99
21111	Jefferson	325212	0.00	American Synthetic Rubber Company	575	3526	VOC	0.22

21111	Jefferson	325212	0.49	American Synthetic Rubber Company	284	3300	VOC	160.47
21111	Jefferson	325212	0.07	American Synthetic Rubber Company	282	3301	VOC	21.92
21111	Jefferson	325212	0.19	American Synthetic Rubber Company	282	4354	VOC	63.95
21111	Jefferson	331315	0.00	LLFlex, LLC	36	1748	VOC	0.22
21111	Jefferson	331315	0.00	LLFlex, LLC	36	1747	VOC	0.03
21111	Jefferson	331315	0.00	LLFlex, LLC	35	1743	VOC	7.05
21111	Jefferson	331315	0.03	LLFlex, LLC	35	1742	VOC	7.45
21111	Jefferson	331315	0.01	LLFlex, LLC	548	3186	VOC	3.91
21111	Jefferson	331315	0.01	LLFlex, LLC	548	3187	VOC	2.26
21111	Jefferson	331315	0.03	LLFlex, LLC	548	3188	VOC	8.24
21111	Jefferson	331315	0.04	LLFlex, LLC	548	3189	VOC	9.41
21111	Jefferson	331315	0.03	LLFlex, LLC	548	3190	VOC	9.11
21111	Jefferson	331315	0.01	LLFlex, LLC	548	3191	VOC	2.79
21111	Jefferson	331315	0.01	LLFlex, LLC	548	3192	VOC	5.36
21111	Jefferson	331315	0.01	LLFlex, LLC	548	4338	VOC	1.59
21111	Jefferson	331315	0.00	LLFlex, LLC	37	1752	VOC	0.07
21111	Jefferson	331315	0.00	LLFlex, LLC	38	1753	VOC	0.00
21111	Jefferson	321920	0.01	Brown-Forman Cooperages	43	1759	VOC	3.41
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2109	VOC	0.03
21111	Jefferson	321920	0.01	Brown-Forman Cooperages	384	2108	VOC	3.01
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2111	VOC	0.00
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	384	2110	VOC	1.46
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	450	2576	VOC	0.01
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	40	1755	VOC	1.39
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	40	3412	VOC	0.02
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	44	1762	VOC	0.73
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	547	3177	VOC	0.09
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	41	3551	VOC	0.07
21111	Jefferson	321920	0.00	Brown-Forman Cooperages	41	1756	VOC	0.07
21111	Jefferson	325211	0.00	Hexion Inc.	386	2116	VOC	0.39
21111	Jefferson	325211	0.00	Hexion Inc.	386	4234	VOC	0.03
21111	Jefferson	325211	0.01	Hexion Inc.	386	2134	VOC	2.19
21111	Jefferson	325211	0.00	Hexion Inc.	386	2137	VOC	0.16
21111	Jefferson	325211	0.00	Hexion Inc.	386	2138	VOC	0.43
21111	Jefferson	325211	0.00	Hexion Inc.	386	2139	VOC	0.19
21111	Jefferson	325211	0.00	Hexion Inc.	387	3037	VOC	0.01

21111	Jefferson	325211	0.00	Hexion Inc.	387	3040	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3038	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	387	3043	VOC	0.06
21111	Jefferson	325211	0.00	Hexion Inc.	387	3035	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3039	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	387	3048	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	387	3034	VOC	0.13
21111	Jefferson	325211	0.00	Hexion Inc.	387	3033	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3031	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	387	3030	VOC	0.10
21111	Jefferson	325211	0.00	Hexion Inc.	387	3029	VOC	0.10
21111	Jefferson	325211	0.00	Hexion Inc.	387	3027	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	387	3026	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	387	3025	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3024	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	387	4343	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	387	3022	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	387	3021	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3020	VOC	0.60
21111	Jefferson	325211	0.00	Hexion Inc.	387	3017	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	387	2865	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	3015	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	2866	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	387	3016	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	387	2595	VOC	1.55
21111	Jefferson	325211	0.00	Hexion Inc.	387	3019	VOC	0.21
21111	Jefferson	325211	0.00	Hexion Inc.	387	4233	VOC	0.24
21111	Jefferson	325211	0.00	Hexion Inc.	387	4235	VOC	0.09
21111	Jefferson	325211	0.00	Hexion Inc.	389	3103	VOC	0.16
21111	Jefferson	325211	0.00	Hexion Inc.	389	3104	VOC	0.16
21111	Jefferson	325211	0.00	Hexion Inc.	389	3105	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3106	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	3107	VOC	0.05
21111	Jefferson	325211	0.00	Hexion Inc.	389	3108	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	389	3109	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	3110	VOC	0.00

21111	Jefferson	325211	0.00	Hexion Inc.	389	3111	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3112	VOC	0.13
21111	Jefferson	325211	0.00	Hexion Inc.	389	3113	VOC	0.28
21111	Jefferson	325211	0.00	Hexion Inc.	389	3114	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	389	3115	VOC	0.08
21111	Jefferson	325211	0.00	Hexion Inc.	389	3116	VOC	0.13
21111	Jefferson	325211	0.00	Hexion Inc.	389	3074	VOC	0.12
21111	Jefferson	325211	0.00	Hexion Inc.	389	3077	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	389	3078	VOC	0.05
21111	Jefferson	325211	0.00	Hexion Inc.	389	3079	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	3080	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3081	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3082	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3083	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3084	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3085	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3086	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3087	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3088	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3092	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3093	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	2603	VOC	0.75
21111	Jefferson	325211	0.00	Hexion Inc.	389	3118	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	2180	VOC	0.36
21111	Jefferson	325211	0.00	Hexion Inc.	389	3119	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3120	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	389	3121	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3122	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	3072	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	389	3071	VOC	0.30
21111	Jefferson	325211	0.00	Hexion Inc.	389	3053	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	389	3054	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	2864	VOC	0.09
21111	Jefferson	325211	0.00	Hexion Inc.	389	3050	VOC	0.08
21111	Jefferson	325211	0.00	Hexion Inc.	389	3051	VOC	0.08
21111	Jefferson	325211	0.00	Hexion Inc.	389	3062	VOC	0.08

21111	Jefferson	325211	0.00	Hexion Inc.	389	3123	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	4236	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	389	3063	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	389	3064	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	389	3055	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	389	3069	VOC	0.05
21111	Jefferson	325211	0.00	Hexion Inc.	389	3070	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	389	3056	VOC	0.11
21111	Jefferson	325211	0.00	Hexion Inc.	389	3057	VOC	0.17
21111	Jefferson	325211	0.00	Hexion Inc.	389	2199	VOC	0.15
21111	Jefferson	325211	0.00	Hexion Inc.	389	3059	VOC	0.82
21111	Jefferson	325211	0.00	Hexion Inc.	389	3060	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	389	3061	VOC	0.26
21111	Jefferson	325211	0.00	Hexion Inc.	389	3528	VOC	0.08
21111	Jefferson	325211	0.00	Hexion Inc.	390	2207	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3129	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	390	3130	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	390	3131	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3132	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	390	3133	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3134	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	390	3126	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3127	VOC	0.03
21111	Jefferson	325211	0.00	Hexion Inc.	390	3135	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3128	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	3125	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	390	2867	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	390	2209	VOC	0.20
21111	Jefferson	325211	0.00	Hexion Inc.	390	4244	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	390	3529	VOC	0.07
21111	Jefferson	325211	0.00	Hexion Inc.	391	3136	VOC	0.50
21111	Jefferson	325211	0.00	Hexion Inc.	391	2210	VOC	0.21
21111	Jefferson	325211	0.00	Hexion Inc.	391	3137	VOC	0.07
21111	Jefferson	325211	0.00	Hexion Inc.	391	3138	VOC	0.20
21111	Jefferson	325211	0.00	Hexion Inc.	391	3139	VOC	0.14
21111	Jefferson	325211	0.00	Hexion Inc.	391	2213	VOC	0.75



21111	Jefferson	325211	0.01	Hexion Inc.	392	3141	VOC	3.21
21111	Jefferson	325211	0.00	Hexion Inc.	392	3142	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	392	2228	VOC	0.21
21111	Jefferson	325211	0.00	Hexion Inc.	392	2229	VOC	0.68
21111	Jefferson	325211	0.00	Hexion Inc.	392	4245	VOC	0.31
21111	Jefferson	325211	0.00	Hexion Inc.	393	3144	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	393	3145	VOC	0.39
21111	Jefferson	325211	0.00	Hexion Inc.	393	2242	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	393	2241	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	393	3147	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	393	3630	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	393	3148	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	393	3149	VOC	0.01
21111	Jefferson	325211	0.00	Hexion Inc.	393	3150	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	393	2254	VOC	0.51
21111	Jefferson	325211	0.00	Hexion Inc.	393	4246	VOC	0.53
21111	Jefferson	325211	0.00	Hexion Inc.	393	3530	VOC	0.04
21111	Jefferson	325211	0.00	Hexion Inc.	398	2255	VOC	0.96
21111	Jefferson	325211	0.00	Hexion Inc.	398	4247	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	398	3531	VOC	0.02
21111	Jefferson	325211	0.00	Hexion Inc.	399	3152	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	399	3151	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	399	2295	VOC	0.00
21111	Jefferson	325211	0.00	Hexion Inc.	399	2292	VOC	0.10
21111	Jefferson	325211	0.00	Hexion Inc.	399	2293	VOC	0.07
21111	Jefferson	325211	0.00	Hexion Inc.	399	2297	VOC	0.03
21111	Jefferson	332420	0.02	Caldwell Tanks	56	1776	VOC	8.29
21111	Jefferson	332420	0.00	Caldwell Tanks	249	2379	VOC	0.00
21111	Jefferson	332420	0.00	Caldwell Tanks	453	2822	VOC	0.03
21111	Jefferson	332420	0.00	Caldwell Tanks	453	2594	VOC	0.07
21111	Jefferson	332420	0.00	Caldwell Tanks	58	1779	VOC	0.03
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	350	2302	VOC	0.82
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	361	3597	VOC	0.00
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	363	2612	VOC	0.00
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	363	2346	VOC	0.01
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	376	2415	VOC	0.41

21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	60	1782	VOC	0.44
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	60	3472	VOC	0.13
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	603	3602	VOC	0.01
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	603	3603	VOC	0.54
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville West Plant	551	3205	VOC	0.02
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	63	1790	VOC	0.32
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	339	2482	VOC	0.19
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	305	2200	VOC	0.31
21111	Jefferson	325180	0.00	Clariant Corporation, Louisville South Plant	545	3165	VOC	0.02
21111	Jefferson	332999	0.00	Conco Inc.	66	1793	VOC	0.01
21111	Jefferson	332999	0.00	Conco Inc.	66	3295	VOC	0.01
21111	Jefferson	332999	0.00	Conco Inc.	66	3569	VOC	0.02
21111	Jefferson	332999	0.00	Conco Inc.	66	3296	VOC	0.02
21111	Jefferson	332999	0.00	Conco Inc.	66	3298	VOC	0.00
21111	Jefferson	332999	0.00	Conco Inc.	66	3297	VOC	0.02
21111	Jefferson	332999	0.00	Conco Inc.	66	3487	VOC	0.01
21111	Jefferson	332999	0.00	Conco Inc.	67	4369	VOC	0.76
21111	Jefferson	332999	0.01	Conco Inc.	67	3286	VOC	5.61
21111	Jefferson	332999	0.01	Conco Inc.	67	3287	VOC	4.08
21111	Jefferson	332999	0.00	Conco Inc.	67	3288	VOC	0.20
21111	Jefferson	332999	0.00	Conco Inc.	67	3289	VOC	1.44
21111	Jefferson	332999	0.00	Conco Inc.	67	1794	VOC	0.72
21111	Jefferson	332999	0.00	Conco Inc.	558	4370	VOC	0.76
21111	Jefferson	332999	0.05	Conco Inc.	558	3294	VOC	17.12
21111	Jefferson	332999	0.00	Conco Inc.	558	3291	VOC	0.30
21111	Jefferson	332999	0.00	Conco Inc.	558	3292	VOC	0.41
21111	Jefferson	332999	0.00	Conco Inc.	69	1796	VOC	0.39
21111	Jefferson	332999	0.00	Conco Inc.	559	3293	VOC	0.07
21111	Jefferson	327310	0.17	Kosmos Cement Company	400	2278	VOC	50.52
21111	Jefferson	327310	0.01	Kosmos Cement Company	400	2281	VOC	2.91
21111	Jefferson	327310	0.04	Kosmos Cement Company	409	2384	VOC	11.87
21111	Jefferson	327310	0.00	Kosmos Cement Company	435	2536	VOC	0.00
21111	Jefferson	327310	0.00	Kosmos Cement Company	435	2537	VOC	0.01
21111	Jefferson	327310	0.00	Kosmos Cement Company	435	2538	VOC	0.00
21111	Jefferson	327310	0.00	Kosmos Cement Company	435	2539	VOC	0.02
21111	Jefferson	327310	0.00	Kosmos Cement Company	437	2540	VOC	0.32

21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4326	VOC	0.06
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4327	VOC	0.74
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4328	VOC	0.01
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4329	VOC	0.03
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4330	VOC	0.01
21111	Jefferson	327310	0.00	Kosmos Cement Company	754	4331	VOC	0.02
21111	Jefferson	325199	0.00	Chemours Company	412	2399	VOC	1.38
21111	Jefferson	325199	0.00	Chemours Company	417	2426	VOC	0.15
21111	Jefferson	325199	0.00	Chemours Company	417	2432	VOC	0.00
21111	Jefferson	325199	0.00	Chemours Company	417	2434	VOC	0.00
21111	Jefferson	325199	0.00	Chemours Company	423	2443	VOC	0.06
21111	Jefferson	325199	0.00	Chemours Company	560	3303	VOC	0.04
21111	Jefferson	325199	0.00	Chemours Company	560	3304	VOC	0.01
21111	Jefferson	336211	0.00	Ford Motor Company, Louisville Assembly Plant	509	2911	VOC	0.05
21111	Jefferson	336211	0.00	Ford Motor Company, Louisville Assembly Plant	83	1816	VOC	3.11
21111	Jefferson	336211	0.00	Ford Motor Company, Louisville Assembly Plant	90	2897	VOC	0.41
21111	Jefferson	336211	0.02	Ford Motor Company, Louisville Assembly Plant	90	1823	VOC	7.76
21111	Jefferson	336211	0.01	Ford Motor Company, Louisville Assembly Plant	85	1818	VOC	2.12
21111	Jefferson	336211	0.49	Ford Motor Company, Louisville Assembly Plant	86	1819	VOC	172.30
21111	Jefferson	336211	0.32	Ford Motor Company, Louisville Assembly Plant	87	3329	VOC	109.72
21111	Jefferson	336211	0.38	Ford Motor Company, Louisville Assembly Plant	87	1820	VOC	130.03
21111	Jefferson	336211	0.00	Ford Motor Company, Louisville Assembly Plant	91	1825	VOC	1.45
21111	Jefferson	336211	0.20	Ford Motor Company, Louisville Assembly Plant	88	1821	VOC	67.11
21111	Jefferson	336211	0.26	Ford Motor Company, Louisville Assembly Plant	89	1822	VOC	89.05
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	95	2585	VOC	4.30
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	495	2868	VOC	0.55
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	97	1832	VOC	1.51
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	97	1833	VOC	1.60
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	496	2869	VOC	2.89
21111	Jefferson	336211	0.10	Ford Motor Company, Kentucky Truck Plant	497	2871	VOC	39.31
21111	Jefferson	336211	0.05	Ford Motor Company, Kentucky Truck Plant	498	2872	VOC	19.57
21111	Jefferson	336211	0.20	Ford Motor Company, Kentucky Truck Plant	498	2873	VOC	76.84
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	498	2874	VOC	5.20
21111	Jefferson	336211	0.76	Ford Motor Company, Kentucky Truck Plant	499	2876	VOC	290.52
21111	Jefferson	336211	0.54	Ford Motor Company, Kentucky Truck Plant	499	2877	VOC	205.11
21111	Jefferson	336211	0.31	Ford Motor Company, Kentucky Truck Plant	501	2880	VOC	113.67

21111	Jefferson	336211	0.02	Ford Motor Company, Kentucky Truck Plant	502	2881	VOC	6.25
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	588	3534	VOC	0.30
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	589	3535	VOC	0.48
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	590	3536	VOC	1.12
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	591	3537	VOC	5.53
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	591	3538	VOC	7.32
21111	Jefferson	336211	0.01	Ford Motor Company, Kentucky Truck Plant	746	4205	VOC	3.31
21111	Jefferson	336211	0.07	Ford Motor Company, Kentucky Truck Plant	592	3539	VOC	43.12
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	460	2613	VOC	1.60
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	587	3523	VOC	0.03
21111	Jefferson	336211	0.00	Ford Motor Company, Kentucky Truck Plant	587	3524	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	2976	VOC	0.37
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	3340	VOC	0.75
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	3341	VOC	1.10
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	4260	VOC	0.75
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	3342	VOC	0.06
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	507	3343	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3362	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3346	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3586	VOC	0.15
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3348	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	2978	VOC	0.16
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3349	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3582	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3350	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3351	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	4265	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3583	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3585	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3584	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3353	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3354	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3355	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3356	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3359	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	1851	VOC	0.00

21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3360	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3361	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3363	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3588	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	103	3587	VOC	0.07
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2977	VOC	0.07
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2975	VOC	0.14
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	4377	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3591	VOC	0.05
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2982	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2987	VOC	0.22
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2984	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2985	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2986	VOC	0.05
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2979	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2980	VOC	0.04
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	2981	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3590	VOC	0.02
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3593	VOC	0.02
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3589	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	4261	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3594	VOC	0.01
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	102	3485	VOC	0.00
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	3338	VOC	0.04
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	2930	VOC	0.04
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	3337	VOC	0.05
21111	Jefferson	325211	0.00	Lubrizol Advanced Materials	516	3336	VOC	0.01
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	441	2544	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	441	2543	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	442	2546	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	442	2545	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	443	2547	VOC	0.75
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Paddy's Run Station	756	4333	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	119	2125	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	119	2126	VOC	0.00
21111	Jefferson	221122	0.05	Louisville Gas & Electric Co., Cane Run Station	593	3540	VOC	12.37

21111	Jefferson	221122	0.04	Louisville Gas & Electric Co., Cane Run Station	593	3541	VOC	12.20
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	594	3542	VOC	0.03
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	595	3543	VOC	0.02
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Cane Run Station	114	2120	VOC	0.02
21111	Jefferson	221122	0.01	Louisville Gas & Electric Co., Cane Run Station	568	3383	VOC	2.63
21111	Jefferson	221122	0.07	Louisville Gas & Electric Co., Mill Creek Station	121	1871	VOC	22.75
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	121	2127	VOC	0.07
21111	Jefferson	221122	0.06	Louisville Gas & Electric Co., Mill Creek Station	122	1872	VOC	23.37
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	122	2128	VOC	0.05
21111	Jefferson	221122	0.10	Louisville Gas & Electric Co., Mill Creek Station	123	1873	VOC	35.64
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	123	2129	VOC	0.36
21111	Jefferson	221122	0.12	Louisville Gas & Electric Co., Mill Creek Station	124	1874	VOC	39.26
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	124	2130	VOC	0.45
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	415	2414	VOC	0.11
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	416	2416	VOC	1.62
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	2428	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	2430	VOC	0.01
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	419	4255	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	125	3513	VOC	0.15
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	125	2132	VOC	0.04
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Mill Creek Station	125	2133	VOC	0.00
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	129	2493	VOC	0.15
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	129	2526	VOC	0.32
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	129	3410	VOC	0.12
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	256	2496	VOC	0.15
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	256	2531	VOC	0.32
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	256	2533	VOC	0.23
21111	Jefferson	221330	0.00	Louisville Medical Center Steam & Chilled Water Plant	530	2968	VOC	0.01
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	609	3642	VOC	0.01
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	615	3650	VOC	0.01
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	614	3648	VOC	0.01
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	613	3647	VOC	0.20
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	616	3651	VOC	0.00
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	617	3653	VOC	0.00
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	2971	VOC	0.47
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	3403	VOC	0.54

21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	3402	VOC	0.11
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	3486	VOC	0.35
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	2965	VOC	0.03
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	4198	VOC	0.45
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	529	2966	VOC	0.02
21111	Jefferson	312140	1.86	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	527	2963	VOC	684.98
21111	Jefferson	312140	0.00	The Bulleit Distilling Co. (Diageo Americas Supply, Inc.)	528	2964	VOC	0.10
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	132	2256	VOC	1.20
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	132	2258	VOC	1.58
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	132	2259	VOC	1.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	132	2260	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	4355	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3238	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3239	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3240	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3502	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3237	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3248	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3249	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3428	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3251	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3252	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3503	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3253	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3254	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3255	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3256	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3257	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3504	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3259	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3260	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3261	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3262	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3505	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3263	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3264	VOC	0.00

21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3265	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3266	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3267	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3268	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3435	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3436	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3437	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3438	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3226	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3227	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3228	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3229	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3429	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3439	VOC	0.04
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3230	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3231	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3506	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3232	VOC	0.02
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3233	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3234	VOC	0.06
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3507	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3440	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3430	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3431	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3432	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3433	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3434	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	556	3236	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	555	3224	VOC	0.00
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	555	3604	VOC	0.01
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	555	3223	VOC	0.20
21111	Jefferson	325211	0.00	Allnex USA Inc. (was Nuplex Resins, LLC)	131	1884	VOC	0.14
21111	Jefferson	331315	2.03	Reynolds Consumer Products, Foil Plant	135	1890	VOC	717.41
21111	Jefferson	331315	0.13	Reynolds Consumer Products, Foil Plant	135	1891	VOC	46.04
21111	Jefferson	331315	0.01	Reynolds Consumer Products, Foil Plant	136	1893	VOC	4.02
21111	Jefferson	331315	0.17	Reynolds Consumer Products, Foil Plant	136	1892	VOC	61.63



21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	136	2962	VOC	0.60
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	448	2572	VOC	0.14
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	137	1894	VOC	0.01
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	137	2938	VOC	0.00
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	519	2957	VOC	0.19
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	522	2950	VOC	0.01
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	522	2953	VOC	0.00
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	449	2574	VOC	1.09
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	449	2575	VOC	0.02
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	455	2605	VOC	0.11
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	525	2960	VOC	0.21
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	525	2958	VOC	0.25
21111	Jefferson	331315	0.00	Reynolds Consumer Products, Foil Plant	563	3309	VOC	0.03
21111	Jefferson	331315	0.01	Reynolds Consumer Products, Foil Plant	456	2606	VOC	2.40
21111	Jefferson	331492	0.00	Eckart America L.P.	140	3167	VOC	0.04
21111	Jefferson	331492	0.00	Eckart America L.P.	140	1898	VOC	0.06
21111	Jefferson	331492	0.00	Eckart America L.P.	140	1899	VOC	0.12
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1902	VOC	0.18
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3606	VOC	0.13
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1904	VOC	0.01
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3655	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1908	VOC	0.20
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1909	VOC	0.02
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3172	VOC	1.03
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4199	VOC	0.08
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3656	VOC	0.36
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3171	VOC	0.10
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3614	VOC	0.10
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3615	VOC	0.10
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3616	VOC	0.09
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3617	VOC	0.14
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3446	VOC	0.87
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3443	VOC	0.29
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3282	VOC	1.82
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3444	VOC	0.21
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1907	VOC	1.37

21111	Jefferson	331492	0.00	Eckart America L.P.	141	3618	VOC	0.11
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3447	VOC	0.07
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3619	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4374	VOC	0.00
21111	Jefferson	331492	0.01	Eckart America L.P.	141	4356	VOC	3.48
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4357	VOC	0.75
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4358	VOC	0.45
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3527	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1901	VOC	0.02
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3620	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4359	VOC	0.08
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4360	VOC	0.09
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3285	VOC	0.01
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4361	VOC	0.17
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3624	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3621	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3623	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1903	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3622	VOC	0.04
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3626	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1906	VOC	0.02
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3173	VOC	0.21
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4362	VOC	0.20
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3625	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1905	VOC	0.05
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3629	VOC	0.01
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3168	VOC	0.31
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3445	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3628	VOC	0.32
21111	Jefferson	331492	0.00	Eckart America L.P.	141	3627	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	1900	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4363	VOC	0.38
21111	Jefferson	331492	0.01	Eckart America L.P.	141	4364	VOC	3.17
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4365	VOC	1.24
21111	Jefferson	331492	0.00	Eckart America L.P.	141	4366	VOC	0.00
21111	Jefferson	331492	0.00	Eckart America L.P.	574	3441	VOC	0.91

21111	Jefferson	325211	0.01	Rohm & Haas Kentucky, Inc.	521	2946	VOC	1.88
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	521	3317	VOC	0.04
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	145	2902	VOC	1.59
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	145	1922	VOC	1.21
21111	Jefferson	325211	0.01	Rohm & Haas Kentucky, Inc.	146	1923	VOC	1.99
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	146	2904	VOC	1.35
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	151	1928	VOC	1.33
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	148	1925	VOC	0.00
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	149	1926	VOC	0.28
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	149	2906	VOC	1.14
21111	Jefferson	325211	0.01	Rohm & Haas Kentucky, Inc.	153	1930	VOC	2.06
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	154	1931	VOC	0.24
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	154	2907	VOC	0.94
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	508	2909	VOC	0.06
21111	Jefferson	325211	0.01	Rohm & Haas Kentucky, Inc.	144	2944	VOC	2.25
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1918	VOC	0.38
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1916	VOC	0.89
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1919	VOC	0.05
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1917	VOC	0.33
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	144	1921	VOC	0.26
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	543	3157	VOC	0.03
21111	Jefferson	325211	0.00	Rohm & Haas Kentucky, Inc.	543	3596	VOC	0.07
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	269	2154	VOC	0.94
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	269	3012	VOC	0.11
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	269	3011	VOC	0.18
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	156	1933	VOC	0.04
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	156	1935	VOC	0.02
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	270	2153	VOC	0.05
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	744	4194	VOC	0.00
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	743	4192	VOC	0.02
21111	Jefferson	486210	0.00	Texas Gas Transmission LLC	743	4193	VOC	0.03
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	753	4309	VOC	0.22
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	753	4310	VOC	0.23
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	753	4311	VOC	0.23
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	753	4312	VOC	0.22
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	604	3608	VOC	0.08

21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	604	3636	VOC	0.01
21111	Jefferson	312140	0.01	Angel's Envy Distillery (Louisville Distilling Co.)	605	3610	VOC	2.71
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	606	3637	VOC	0.06
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	607	3611	VOC	0.53
21111	Jefferson	312140	0.15	Angel's Envy Distillery (Louisville Distilling Co.)	608	3612	VOC	50.36
21111	Jefferson	312140	0.01	Angel's Envy Distillery (Louisville Distilling Co.)	608	4301	VOC	1.69
21111	Jefferson	312140	0.00	Angel's Envy Distillery (Louisville Distilling Co.)	757	4340	VOC	0.36
21111	Jefferson	312140	0.05	Heaven Hill Distilleries, Inc.	518	2955	VOC	27.56
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2952	VOC	0.14
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2956	VOC	0.97
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2951	VOC	1.48
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2942	VOC	0.30
21111	Jefferson	312140	4.40	Heaven Hill Distilleries, Inc.	518	2940	VOC	1617.92
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2948	VOC	0.23
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2949	VOC	0.65
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	518	2943	VOC	0.04
21111	Jefferson	312140	0.03	Heaven Hill Distilleries, Inc.	518	2947	VOC	15.54
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	514	2929	VOC	0.01
21111	Jefferson	312140	0.00	Heaven Hill Distilleries, Inc.	514	3570	VOC	1.16
21111	Jefferson	312140	0.03	Brown-Forman Distillery Co., Early Times	165	1946	VOC	10.95
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	165	3638	VOC	0.14
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	165	3475	VOC	0.00
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	251	2257	VOC	0.56
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	564	3312	VOC	0.19
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	564	3640	VOC	0.08
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	564	3641	VOC	0.15
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	166	1947	VOC	1.00
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	161	1941	VOC	0.22
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	161	3310	VOC	0.10
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	161	1942	VOC	0.32
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	167	2828	VOC	0.16
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	167	2829	VOC	0.05
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	167	2826	VOC	0.11
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	167	2827	VOC	0.11
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	167	1948	VOC	0.65
21111	Jefferson	312140	4.45	Brown-Forman Distillery Co., Early Times	162	1943	VOC	1637.13

21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	168	4335	VOC	0.00
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	168	4336	VOC	0.00
21111	Jefferson	312140	0.00	Brown-Forman Distillery Co., Early Times	168	4334	VOC	0.61
21111	Jefferson	325212	0.00	Zeon Chemicals LP	170	1951	VOC	0.20
21111	Jefferson	325212	0.00	Zeon Chemicals LP	171	1956	VOC	0.04
21111	Jefferson	325212	0.00	Zeon Chemicals LP	171	1959	VOC	0.19
21111	Jefferson	325212	0.00	Zeon Chemicals LP	171	1960	VOC	0.04
21111	Jefferson	325212	0.03	Zeon Chemicals LP	172	1962	VOC	11.10
21111	Jefferson	325212	0.01	Zeon Chemicals LP	172	3209	VOC	3.85
21111	Jefferson	325212	0.01	Zeon Chemicals LP	172	3211	VOC	3.29
21111	Jefferson	325212	0.00	Zeon Chemicals LP	174	1976	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	174	1977	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	174	1978	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	174	1979	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1981	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1980	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	4367	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1982	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1983	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1985	VOC	0.02
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	2583	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	2584	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	175	1986	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	176	1987	VOC	0.36
21111	Jefferson	325212	0.00	Zeon Chemicals LP	178	1989	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	1990	VOC	0.06
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	2592	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	179	4368	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3215	VOC	0.40
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3220	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3219	VOC	0.05
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3218	VOC	0.02
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3221	VOC	0.01
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3222	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	3216	VOC	0.00
21111	Jefferson	325212	0.00	Zeon Chemicals LP	553	4202	VOC	0.35

21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	183	1994	VOC	1.08
21111	Jefferson	562212	0.04	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	183	1995	VOC	15.82
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	260	2181	VOC	0.29
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	262	2185	VOC	0.19
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	263	2184	VOC	0.08
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	264	2189	VOC	0.53
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3533	VOC	1.66
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	2190	VOC	0.44
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3545	VOC	0.01
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3511	VOC	0.11
21111	Jefferson	562212	0.00	Outer Loop Recycling & Disposal Facility (Waste Management of KY)	265	3550	VOC	0.00
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	187	2005	VOC	0.20
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	187	2007	VOC	0.31
21111	Jefferson	492110	0.02	United Parcel Service, WorldPort	187	2009	VOC	6.33
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	187	2004	VOC	0.17
21111	Jefferson	492110	0.01	United Parcel Service, WorldPort	274	2509	VOC	1.97
21111	Jefferson	492110	0.02	United Parcel Service, WorldPort	274	3331	VOC	8.68
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	274	3332	VOC	0.05
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	188	2505	VOC	0.00
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	188	2010	VOC	0.43
21111	Jefferson	492110	0.01	United Parcel Service, WorldPort	188	2012	VOC	4.53
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	188	2011	VOC	0.03
21111	Jefferson	492110	0.01	United Parcel Service, WorldPort	188	3330	VOC	2.79
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	190	4323	VOC	0.25
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	190	2014	VOC	0.00
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	272	2507	VOC	0.47
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	189	3334	VOC	0.19

21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	189	2013	VOC	0.05
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	192	2016	VOC	0.09
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	271	2506	VOC	0.01
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	275	2511	VOC	0.01
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	275	4262	VOC	1.59
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	275	3333	VOC	0.17
21111	Jefferson	492110	0.00	United Parcel Service, WorldPort	275	4324	VOC	0.02
21111	Jefferson	424710	0.07	MPLX Terminals LLC - Algonquin Terminal	445	2559	VOC	29.46
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	445	2564	VOC	0.50
21111	Jefferson	424710	0.02	MPLX Terminals LLC - Algonquin Terminal	445	2563	VOC	8.07
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	445	2566	VOC	0.00
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	445	2567	VOC	0.14
21111	Jefferson	424710	0.03	MPLX Terminals LLC - Algonquin Terminal	444	2552	VOC	10.84
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	444	2553	VOC	0.02
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	444	2554	VOC	0.04
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	444	3335	VOC	0.11
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	444	4337	VOC	0.00
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	194	2021	VOC	0.22
21111	Jefferson	424710	0.00	MPLX Terminals LLC - Algonquin Terminal	194	2023	VOC	0.05
21111	Jefferson	424710	0.01	MPLX Terminals LLC - Algonquin Terminal	457	2607	VOC	2.53
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	747	4223	VOC	0.48
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	196	2027	VOC	0.17
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	196	2839	VOC	0.16
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	197	2029	VOC	0.03
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	402	2324	VOC	0.10
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	404	2327	VOC	0.02
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	404	4341	VOC	0.00
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	406	2332	VOC	0.19
21111	Jefferson	611310	0.00	University of Louisville, Belknap Campus	748	4224	VOC	0.00
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	2037	VOC	1.33
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	2038	VOC	0.45
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	4242	VOC	0.00
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	3094	VOC	0.93
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	3098	VOC	0.03
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	3577	VOC	0.06
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	204	2995	VOC	0.02

21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	2886	VOC	0.34
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	3018	VOC	0.02
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	4243	VOC	0.00
21111	Jefferson	335220	0.01	GE Appliances (Haier US Appliance Solutions)	208	3571	VOC	1.94
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	3456	VOC	0.06
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	3099	VOC	0.01
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	208	3578	VOC	0.24
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	2888	VOC	0.65
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	2040	VOC	0.01
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	2039	VOC	1.26
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	3036	VOC	0.67
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	3041	VOC	0.25
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	3455	VOC	1.52
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	3095	VOC	0.97
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	205	3100	VOC	0.02
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	4350	VOC	0.25
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	3096	VOC	0.81
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	3573	VOC	0.18
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	2894	VOC	0.04
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	505	2895	VOC	0.04
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	206	3044	VOC	1.51
21111	Jefferson	335220	0.01	GE Appliances (Haier US Appliance Solutions)	206	3042	VOC	4.26
21111	Jefferson	335220	0.01	GE Appliances (Haier US Appliance Solutions)	206	3046	VOC	1.92
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	206	4241	VOC	0.08
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	206	3457	VOC	0.60
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	206	3097	VOC	0.08
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	206	3101	VOC	0.14
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	759	4372	VOC	0.00
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	759	4371	VOC	0.16
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	542	3102	VOC	0.45
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	578	3463	VOC	0.10
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	583	3510	VOC	0.03
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3459	VOC	0.00
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3460	VOC	0.01
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	577	3572	VOC	0.02
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	203	2036	VOC	1.07



21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	203	3047	VOC	0.22
21111	Jefferson	335220	0.00	GE Appliances (Haier US Appliance Solutions)	209	2044	VOC	0.00
21111	Jefferson	812320	0.00	Sam Meyers Formal Wear	212	3302	VOC	0.42
21111	Jefferson	812320	0.00	Sam Meyers Formal Wear	212	2047	VOC	0.02
21111	Jefferson	332994	0.01	BAE Systems Land & Armaments LLC	214	2049	VOC	2.02
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	214	3469	VOC	1.24
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	554	3225	VOC	0.00
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	512	2916	VOC	0.13
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	512	2917	VOC	0.10
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	216	2052	VOC	0.04
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	557	3269	VOC	0.21
21111	Jefferson	332994	0.01	BAE Systems Land & Armaments LLC	557	3280	VOC	1.56
21111	Jefferson	332994	0.00	BAE Systems Land & Armaments LLC	557	3471	VOC	0.01
21111	Jefferson	332994	0.01	BAE Systems Land & Armaments LLC	557	3270	VOC	4.54
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	531	2973	VOC	0.08
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	536	2994	VOC	0.06
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	537	2996	VOC	0.03
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	537	3408	VOC	0.03
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	537	3497	VOC	0.00
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	537	3407	VOC	0.00
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	581	3499	VOC	0.00
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	539	2999	VOC	0.10
21111	Jefferson	325130	0.00	Forth Technologies, Inc.	538	2998	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Zorn Station	219	2055	VOC	0.00
21111	Jefferson	221122	0.00	Louisville Gas & Electric Co., Zorn Station	255	2468	VOC	0.00
21111	Jefferson	221330	0.01	Recast Energy Louisville, LLC	520	2941	VOC	5.96
21111	Jefferson	221330	0.00	Recast Energy Louisville, LLC	226	3494	VOC	0.02
21111	Jefferson	221330	0.00	Recast Energy Louisville, LLC	226	3495	VOC	0.03
21111	Jefferson	221330	0.00	Recast Energy Louisville, LLC	253	2388	VOC	0.00
21111	Jefferson	336212	0.00	Kentucky Trailer	490	2825	VOC	0.02
21111	Jefferson	336212	0.00	Kentucky Trailer	490	2831	VOC	0.02
21111	Jefferson	336212	0.02	Kentucky Trailer	567	3323	VOC	6.62
21111	Jefferson	336212	0.06	Kentucky Trailer	567	3324	VOC	17.05
21111	Jefferson	336212	0.00	Kentucky Trailer	567	3325	VOC	0.34
21111	Jefferson	336212	0.02	Kentucky Trailer	567	3326	VOC	9.14
21111	Jefferson	336212	0.00	Kentucky Trailer	489	2823	VOC	0.16

21111	Jefferson	325180	0.00	E.I. du Pont	601	3559	VOC	0.36
21111	Jefferson	325180	0.00	E.I. du Pont	601	3564	VOC	0.11
21111	Jefferson	325180	0.00	E.I. du Pont	601	3560	VOC	0.07
21111	Jefferson	325180	0.00	E.I. du Pont	601	3565	VOC	0.40
21111	Jefferson	325180	0.00	E.I. du Pont	601	3562	VOC	1.66
21111	Jefferson	325180	0.00	E.I. du Pont	601	4349	VOC	1.00

<b>fips code</b>	<b>county</b>	<b>naics code</b>	<b>naics description</b>	<b>tposd</b>	<b>agency facility id</b>	<b>pollutant code</b>	<b>total emissions</b>
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.33
21111	Jefferson	48811	Airport Operations	0.02	NA	VOC	6.86
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.33
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.55
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	488210	Support Activities for Rail Transportation	0.00	1747	VOC	0.43
21111	Jefferson	488210	Support Activities for Rail Transportation	0.01	1446	VOC	3.46
21111	Jefferson	488210	Support Activities for Rail Transportation	0.06	723	VOC	21.36
21111	Jefferson	488210	Support Activities for Rail Transportation	0.00	NA	VOC	0.43
21111	Jefferson	488210	Support Activities for Rail Transportation	0.00	NA	VOC	0.86
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	4.98
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.03
21111	Jefferson	48811	Airport Operations	0.02	NA	VOC	5.78
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.14
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.04
21111	Jefferson	48811	Airport Operations	0.03	NA	VOC	9.29
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.22	NA	VOC	81.48
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.04
21111	Jefferson	48811	Airport Operations	0.13	NA	VOC	47.20
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.44
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.44
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	1.48
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.65
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	1.17
21111	Jefferson	48811	Airport Operations	0.07	NA	VOC	27.18
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.66

21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.18
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.17
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.31
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.31
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.04
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.16
21111	Jefferson	48811	Airport Operations	0.03	NA	VOC	9.49
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.06
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.37
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.67
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.06
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	1.93
21111	Jefferson	48811	Airport Operations	0.02	NA	VOC	6.23
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.10	NA	VOC	36.94
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	1.61
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.74
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.16
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	2.74
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01

21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.02	NA	VOC	6.96
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	3.70
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.03
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.66
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	1.83
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	3.24
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.02	NA	VOC	8.53
21111	Jefferson	48811	Airport Operations	0.01	NA	VOC	2.04
21029	Bullitt	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21185	Oldham	48811	Airport Operations	0.00	NA	VOC	0.00
21185	Oldham	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	NA	VOC	0.01
21029	Bullitt	48811	Airport Operations	0.00	NA	VOC	0.03
21029	Bullitt	48811	Airport Operations	0.00	NA	VOC	0.06
21185	Oldham	48811	Airport Operations	0.00	NA	VOC	0.01
21111	Jefferson	48811	Airport Operations	0.00	0716H	VOC	0.00
21111	Jefferson	48811	Airport Operations	0.00	0716H	VOC	0.01
21029	Bullitt	48811	Airport Operations	0.00	NA	VOC	0.01

# Appendix B

# **APPENDIX B.1**

## **Northern Kentucky Nonattainment Area**

Boone, Campbell, and Kenton  
2017 NEI Nonpoint Source  
Emissions Data

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	NP	2280002202	A	R	NOX	86.37248	TON	2017NEI
KY	21	21015	Boone	NP	2285002006	A	R	NOX	153.3551	TON	2017NEI
KY	21	21015	Boone	NP	2104001000	A	R	NOX	0	TON	2017NEI
KY	21	21015	Boone	NP	2104008210	A	R	NOX	0.9368228	TON	2017NEI
KY	21	21015	Boone	NP	2104007000	A	R	NOX	9.999236	TON	2017NEI
KY	21	21015	Boone	NP	2104008220	A	R	NOX	0.7463945	TON	2017NEI
KY	21	21015	Boone	NP	2104008400	A	R	NOX	1.261289	TON	2017NEI
KY	21	21015	Boone	NP	2104008630	A	R	NOX	0.02832682	TON	2017NEI
KY	21	21015	Boone	NP	2104008530	A	R	NOX	1.048092	TON	2017NEI
KY	21	21015	Boone	NP	2810025000	A	R	NOX	0.6893293	TON	2017NEI
KY	21	21015	Boone	NP	2104008100	A	R	NOX	2.771489	TON	2017NEI
KY	21	21015	Boone	NP	2104008700	A	R	NOX	3.004213	TON	2017NEI
KY	21	21015	Boone	NP	2104009000	A	R	NOX	0.5161765	TON	2017NEI
KY	21	21015	Boone	NP	2104008310	A	R	NOX	2.298306	TON	2017NEI
KY	21	21015	Boone	NP	2104008330	A	R	NOX	1.104815	TON	2017NEI
KY	21	21015	Boone	NP	2810060200	A	R	NOX	2.32831E-05	TON	2017NEI
KY	21	21015	Boone	NP	2610000500	A	R	NOX	16.56051	TON	2017NEI
KY	21	21015	Boone	NP	2610000100	A	R	NOX	0.1875879	TON	2017NEI
KY	21	21015	Boone	NP	2810060100	A	R	NOX	0.04237898	TON	2017NEI
KY	21	21015	Boone	NP	2104008230	A	R	NOX	0.4503386	TON	2017NEI
KY	21	21015	Boone	NP	2104008320	A	R	NOX	1.831128	TON	2017NEI
KY	21	21015	Boone	NP	2104006000	A	R	NOX	65.4648	TON	2017NEI
KY	21	21015	Boone	NP	2610030000	A	R	NOX	4.762409	TON	2017NEI
KY	21	21015	Boone	NP	2280002201	A	R	NOX	151.2832	TON	2017NEI
KY	21	21015	Boone	NP	2610000400	A	R	NOX	0.1875879	TON	2017NEI
KY	21	21015	Boone	NP	2104011000	A	R	NOX	0.7440504	TON	2017NEI
KY	21	21015	Boone	NP	2104004000	A	R	NOX	2.391984	TON	2017NEI
KY	21	21015	Boone	NP	2104002000	A	R	NOX	0	TON	2017NEI
KY	21	21015	Boone	NP	2701220000	A	R	NOX	109.0544	TON	2017NEI
KY	21	21015	Boone	NP	2104008510	A	R	NOX	0.4964648	TON	2017NEI
KY	21	21015	Boone	NP	2104008620	A	R	NOX	0.3429036	TON	2017NEI
KY	21	21015	Boone	NP	2104008610	A	R	NOX	0.5367187	TON	2017NEI

618.4685551



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	NP	2425000000	A	R	VOC	1737.517	TON	2017NEI
KY	21	21015	Boone	NP	2461850000	A	R	VOC	4.477502	TON	2017NEI
KY	21	21015	Boone	NP	2401055000	A	R	VOC	3.797798	TON	2017NEI
KY	21	21015	Boone	NP	2805025000	A	R	VOC	0.06689133	TON	2017NEI
KY	21	21015	Boone	NP	2610030000	A	R	VOC	4.964742	TON	2017NEI
KY	21	21015	Boone	NP	2501080050	A	R	VOC	9.621632	TON	2017NEI
KY	21	21015	Boone	NP	2501060053	A	R	VOC	10.37773	TON	2017NEI
KY	21	21015	Boone	NP	2680003000	A	R	VOC	115.319	TON	2017NEI
KY	21	21015	Boone	NP	2104006000	A	R	VOC	3.830387	TON	2017NEI
KY	21	21015	Boone	NP	2610000100	A	R	VOC	0.847171	TON	2017NEI
KY	21	21015	Boone	NP	2104008630	A	R	VOC	0.01638483	TON	2017NEI
KY	21	21015	Boone	NP	2401015000	A	R	VOC	0.8941773	TON	2017NEI
KY	21	21015	Boone	NP	2460600000	A	R	VOC	119.2246	TON	2017NEI
KY	21	21015	Boone	NP	2501011014	A	R	VOC	1.460176	TON	2017NEI
KY	21	21015	Boone	NP	2501060201	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2401200000	A	R	VOC	0.3843241	TON	2017NEI
KY	21	21015	Boone	NP	2401005000	A	R	VOC	39.41749	TON	2017NEI
KY	21	21015	Boone	NP	2104008610	A	R	VOC	18.08742	TON	2017NEI
KY	21	21015	Boone	NP	2401090000	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2501050120	A	R	VOC	140.9838	TON	2017NEI
KY	21	21015	Boone	NP	2810060100	A	R	VOC	0.003559358	TON	2017NEI
KY	21	21015	Boone	NP	2501055120	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2501060052	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2104008220	A	R	VOC	3.928392	TON	2017NEI
KY	21	21015	Boone	NP	2104008320	A	R	VOC	9.637516	TON	2017NEI
KY	21	21015	Boone	NP	2401001000	A	R	VOC	154.2929	TON	2017NEI
KY	21	21015	Boone	NP	2401025000	A	R	VOC	1.854202	TON	2017NEI
KY	21	21015	Boone	NP	2460400000	A	R	VOC	12.35138	TON	2017NEI
KY	21	21015	Boone	NP	2280002202	A	R	VOC	2.538465	TON	2017NEI
KY	21	21015	Boone	NP	2501012012	A	R	VOC	0.2771166	TON	2017NEI
KY	21	21015	Boone	NP	2805010100	A	R	VOC	0.002892645	TON	2017NEI
KY	21	21015	Boone	NP	2805035000	A	R	VOC	1.554882	TON	2017NEI
KY	21	21015	Boone	NP	2810025000	A	R	VOC	1.827641	TON	2017NEI

KY	21	21015	Boone	NP	2501011011	A	R	VOC	7.732422	TON	2017NEI
KY	21	21015	Boone	NP	2501012013	A	R	VOC	12.4037	TON	2017NEI
KY	21	21015	Boone	NP	2501011013	A	R	VOC	9.09256	TON	2017NEI
KY	21	21015	Boone	NP	2302003100	A	R	VOC	0.7467013	TON	2017NEI
KY	21	21015	Boone	NP	2302002200	A	R	VOC	5.595776	TON	2017NEI
KY	21	21015	Boone	NP	2460800000	A	R	VOC	116.3479	TON	2017NEI
KY	21	21015	Boone	NP	2461022000	A	R	VOC	90.51835	TON	2017NEI
KY	21	21015	Boone	NP	2104007000	A	R	VOC	0.3892737	TON	2017NEI
KY	21	21015	Boone	NP	2415000000	A	R	VOC	207.6735	TON	2017NEI
KY	21	21015	Boone	NP	2420000000	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2401008000	A	R	VOC	24.03465	TON	2017NEI
KY	21	21015	Boone	NP	2805018000	A	R	VOC	0.441663	TON	2017NEI
KY	21	21015	Boone	NP	2104009000	A	R	VOC	2.657463	TON	2017NEI
KY	21	21015	Boone	NP	2104004000	A	R	VOC	0.09474915	TON	2017NEI
KY	21	21015	Boone	NP	2401070000	A	R	VOC	241.0283	TON	2017NEI
KY	21	21015	Boone	NP	2401075000	A	R	VOC	5.661131	TON	2017NEI
KY	21	21015	Boone	NP	2505040120	A	R	VOC	44.16069	TON	2017NEI
KY	21	21015	Boone	NP	2610000400	A	R	VOC	0.847171	TON	2017NEI
KY	21	21015	Boone	NP	2810060200	A	R	VOC	1.95552E-06	TON	2017NEI
KY	21	21015	Boone	NP	2501080100	A	R	VOC	0.01667884	TON	2017NEI
KY	21	21015	Boone	NP	2461021000	A	R	VOC	10.6491	TON	2017NEI
KY	21	21015	Boone	NP	2501060051	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2104008700	A	R	VOC	21.83832	TON	2017NEI
KY	21	21015	Boone	NP	2501012011	A	R	VOC	0.3378557	TON	2017NEI
KY	21	21015	Boone	NP	2104008620	A	R	VOC	11.55585	TON	2017NEI
KY	21	21015	Boone	NP	2401020000	A	R	VOC	0.6820423	TON	2017NEI
KY	21	21015	Boone	NP	2285002006	A	R	VOC	7.07095	TON	2017NEI
KY	21	21015	Boone	NP	2302002100	A	R	VOC	2.026184	TON	2017NEI
KY	21	21015	Boone	NP	2805040000	A	R	VOC	0.2284918	TON	2017NEI
KY	21	21015	Boone	NP	2401100000	A	R	VOC	23.82764	TON	2017NEI
KY	21	21015	Boone	NP	2460100000	A	R	VOC	128.0413	TON	2017NEI
KY	21	21015	Boone	NP	2460900000	A	R	VOC	4.57548	TON	2017NEI
KY	21	21015	Boone	NP	2401080000	A	R	VOC	0.6637847	TON	2017NEI
KY	21	21015	Boone	NP	2805045000	A	R	VOC	0.1918424	TON	2017NEI
KY	21	21015	Boone	NP	2280002201	A	R	VOC	10.34183	TON	2017NEI
KY	21	21015	Boone	NP	2505030120	A	R	VOC	1.02101	TON	2017NEI

KY	21	21015	Boone	NP	2805002000	A	R	VOC	2.183861	TON	2017NEI
KY	21	21015	Boone	NP	2104008230	A	R	VOC	3.377539	TON	2017NEI
KY	21	21015	Boone	NP	2104008400	A	R	VOC	0.7295558	TON	2017NEI
KY	21	21015	Boone	NP	2501012015	A	R	VOC	0.471058	TON	2017NEI
KY	21	21015	Boone	NP	2701200000	A	R	VOC	1799.494	TON	2017NEI
KY	21	21015	Boone	NP	2401040000	A	R	VOC	46.28164	TON	2017NEI
KY	21	21015	Boone	NP	2501012014	A	R	VOC	4.206516	TON	2017NEI
KY	21	21015	Boone	NP	2460200000	A	R	VOC	130.3845	TON	2017NEI
KY	21	21015	Boone	NP	2302003200	A	R	VOC	0.04372094	TON	2017NEI
KY	21	21015	Boone	NP	2501011012	A	R	VOC	8.676102	TON	2017NEI
KY	21	21015	Boone	NP	2610000500	A	R	VOC	46.78344	TON	2017NEI
KY	21	21015	Boone	NP	2104008310	A	R	VOC	43.50364	TON	2017NEI
KY	21	21015	Boone	NP	2501011015	A	R	VOC	0.244822	TON	2017NEI
KY	21	21015	Boone	NP	2104008530	A	R	VOC	0.6062386	TON	2017NEI
KY	21	21015	Boone	NP	2805009100	A	R	VOC	0.05944455	TON	2017NEI
KY	21	21015	Boone	NP	2104011000	A	R	VOC	0.02898633	TON	2017NEI
KY	21	21015	Boone	NP	2401030000	A	R	VOC	132.893	TON	2017NEI
KY	21	21015	Boone	NP	2302003000	A	R	VOC	1.339765	TON	2017NEI
KY	21	21015	Boone	NP	2805007100	A	R	VOC	0.2367599	TON	2017NEI
KY	21	21015	Boone	NP	2104001000	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2104002000	A	R	VOC	0	TON	2017NEI
KY	21	21015	Boone	NP	2104008330	A	R	VOC	8.286111	TON	2017NEI
KY	21	21015	Boone	NP	2104008210	A	R	VOC	17.73272	TON	2017NEI
KY	21	21015	Boone	NP	2630020000	A	R	VOC	0.071825	TON	2017NEI
KY	21	21015	Boone	NP	2104008100	A	R	VOC	20.14659	TON	2017NEI
KY	21	21015	Boone	NP	2104008510	A	R	VOC	3.227021	TON	2017NEI
KY	21	21015	Boone	NP	2460500000	A	R	VOC	62.0958	TON	2017NEI

5725.15619

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	NP	2104004000	A	R	NOX	1.568208	TON	2017NEI
KY	21	21037	Campbell	NP	2610000500	A	R	NOX	16.06503	TON	2017NEI
KY	21	21037	Campbell	NP	2104006000	A	R	NOX	58.1755	TON	2017NEI
KY	21	21037	Campbell	NP	2810060100	A	R	NOX	0.03695521	TON	2017NEI
KY	21	21037	Campbell	NP	2104008330	A	R	NOX	0.8352748	TON	2017NEI
KY	21	21037	Campbell	NP	2104008620	A	R	NOX	0.262418	TON	2017NEI
KY	21	21037	Campbell	NP	2104008220	A	R	NOX	0.6005085	TON	2017NEI
KY	21	21037	Campbell	NP	2610000100	A	R	NOX	0.1643788	TON	2017NEI
KY	21	21037	Campbell	NP	2104008310	A	R	NOX	1.737592	TON	2017NEI
KY	21	21037	Campbell	NP	2104008320	A	R	NOX	1.384391	TON	2017NEI
KY	21	21037	Campbell	NP	2104009000	A	R	NOX	0.3040687	TON	2017NEI
KY	21	21037	Campbell	NP	2104008100	A	R	NOX	2.37676	TON	2017NEI
KY	21	21037	Campbell	NP	2104007000	A	R	NOX	6.656806	TON	2017NEI
KY	21	21037	Campbell	NP	2610000400	A	R	NOX	0.1643788	TON	2017NEI
KY	21	21037	Campbell	NP	2104001000	A	R	NOX	0	TON	2017NEI
KY	21	21037	Campbell	NP	2285002006	A	R	NOX	63.98799	TON	2017NEI
KY	21	21037	Campbell	NP	2280002201	A	R	NOX	91.9758	TON	2017NEI
KY	21	21037	Campbell	NP	2280002202	A	R	NOX	72.54285	TON	2017NEI
KY	21	21037	Campbell	NP	2104008510	A	R	NOX	0.3799357	TON	2017NEI
KY	21	21037	Campbell	NP	2104008630	A	R	NOX	0.02167801	TON	2017NEI
KY	21	21037	Campbell	NP	2104008530	A	R	NOX	0.8020864	TON	2017NEI
KY	21	21037	Campbell	NP	2104011000	A	R	NOX	0.4878067	TON	2017NEI
KY	21	21037	Campbell	NP	2810025000	A	R	NOX	0.5308457	TON	2017NEI
KY	21	21037	Campbell	NP	2701220000	A	R	NOX	87.91822	TON	2017NEI
KY	21	21037	Campbell	NP	2104008230	A	R	NOX	0.362318	TON	2017NEI
KY	21	21037	Campbell	NP	2104008610	A	R	NOX	0.4107413	TON	2017NEI
KY	21	21037	Campbell	NP	2104002000	A	R	NOX	0	TON	2017NEI
KY	21	21037	Campbell	NP	2810060200	A	R	NOX	1.64724E-05	TON	2017NEI
KY	21	21037	Campbell	NP	2285002008	A	R	NOX	14.06695	TON	2017NEI
KY	21	21037	Campbell	NP	2610030000	A	R	NOX	4.173186	TON	2017NEI
KY	21	21037	Campbell	NP	2104008210	A	R	NOX	0.7537168	TON	2017NEI
KY	21	21037	Campbell	NP	2104008400	A	R	NOX	0.9954204	TON	2017NEI
KY	21	21037	Campbell	NP	2104008700	A	R	NOX	2.317529	TON	2017NEI

432.0593603

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	NP	2401075000	A	R	VOC	1.021981	TON	2017NEI
KY	21	21037	Campbell	NP	2104008100	A	R	VOC	17.27722	TON	2017NEI
KY	21	21037	Campbell	NP	2104006000	A	R	VOC	3.403886	TON	2017NEI
KY	21	21037	Campbell	NP	2461022000	A	R	VOC	44.19771	TON	2017NEI
KY	21	21037	Campbell	NP	2701200000	A	R	VOC	1497.687	TON	2017NEI
KY	21	21037	Campbell	NP	2104008700	A	R	VOC	16.84665	TON	2017NEI
KY	21	21037	Campbell	NP	2401100000	A	R	VOC	16.85768	TON	2017NEI
KY	21	21037	Campbell	NP	2501012011	A	R	VOC	0.1047993	TON	2017NEI
KY	21	21037	Campbell	NP	2501011013	A	R	VOC	2.82042	TON	2017NEI
KY	21	21037	Campbell	NP	2501080100	A	R	VOC	6.35686E-05	TON	2017NEI
KY	21	21037	Campbell	NP	2680003000	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2280002202	A	R	VOC	2.171646	TON	2017NEI
KY	21	21037	Campbell	NP	2805009100	A	R	VOC	0.003707295	TON	2017NEI
KY	21	21037	Campbell	NP	2610000400	A	R	VOC	0.7423558	TON	2017NEI
KY	21	21037	Campbell	NP	2104008210	A	R	VOC	14.26678	TON	2017NEI
KY	21	21037	Campbell	NP	2420000000	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2610000100	A	R	VOC	0.7423558	TON	2017NEI
KY	21	21037	Campbell	NP	2805040000	A	R	VOC	0.01932388	TON	2017NEI
KY	21	21037	Campbell	NP	2461021000	A	R	VOC	5.19967	TON	2017NEI
KY	21	21037	Campbell	NP	2501011012	A	R	VOC	2.691237	TON	2017NEI
KY	21	21037	Campbell	NP	2501012012	A	R	VOC	0.08595869	TON	2017NEI
KY	21	21037	Campbell	NP	2810060200	A	R	VOC	1.3835E-06	TON	2017NEI
KY	21	21037	Campbell	NP	2501080050	A	R	VOC	0.03667123	TON	2017NEI
KY	21	21037	Campbell	NP	2285002008	A	R	VOC	0.7846458	TON	2017NEI
KY	21	21037	Campbell	NP	2104008630	A	R	VOC	0.01253902	TON	2017NEI
KY	21	21037	Campbell	NP	2501011011	A	R	VOC	2.398517	TON	2017NEI
KY	21	21037	Campbell	NP	2501011015	A	R	VOC	0.0759412	TON	2017NEI
KY	21	21037	Campbell	NP	2104008530	A	R	VOC	0.4639437	TON	2017NEI
KY	21	21037	Campbell	NP	2501012015	A	R	VOC	0.146117	TON	2017NEI
KY	21	21037	Campbell	NP	2302003100	A	R	VOC	0.4775651	TON	2017NEI
KY	21	21037	Campbell	NP	2280002201	A	R	VOC	5.995851	TON	2017NEI
KY	21	21037	Campbell	NP	2805018000	A	R	VOC	0.4939783	TON	2017NEI
KY	21	21037	Campbell	NP	2401001000	A	R	VOC	109.1598	TON	2017NEI

KY	21	21037	Campbell	NP	2104008230	A	R	VOC	2.717385	TON	2017NEI
KY	21	21037	Campbell	NP	2104008620	A	R	VOC	8.843487	TON	2017NEI
KY	21	21037	Campbell	NP	2104009000	A	R	VOC	1.565455	TON	2017NEI
KY	21	21037	Campbell	NP	2460600000	A	R	VOC	84.34949	TON	2017NEI
KY	21	21037	Campbell	NP	2401015000	A	R	VOC	0.194673	TON	2017NEI
KY	21	21037	Campbell	NP	2401200000	A	R	VOC	0.2719033	TON	2017NEI
KY	21	21037	Campbell	NP	2805035000	A	R	VOC	0.8968432	TON	2017NEI
KY	21	21037	Campbell	NP	2805007100	A	R	VOC	0.05234765	TON	2017NEI
KY	21	21037	Campbell	NP	2805010100	A	R	VOC	0.001257672	TON	2017NEI
KY	21	21037	Campbell	NP	2302002100	A	R	VOC	1.336859	TON	2017NEI
KY	21	21037	Campbell	NP	2461850000	A	R	VOC	1.411723	TON	2017NEI
KY	21	21037	Campbell	NP	2501060052	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2610030000	A	R	VOC	4.350485	TON	2017NEI
KY	21	21037	Campbell	NP	2460400000	A	R	VOC	8.738405	TON	2017NEI
KY	21	21037	Campbell	NP	2401090000	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2501012013	A	R	VOC	3.84749	TON	2017NEI
KY	21	21037	Campbell	NP	2104004000	A	R	VOC	0.06211847	TON	2017NEI
KY	21	21037	Campbell	NP	2104008610	A	R	VOC	13.84198	TON	2017NEI
KY	21	21037	Campbell	NP	2104011000	A	R	VOC	0.01900372	TON	2017NEI
KY	21	21037	Campbell	NP	2285002006	A	R	VOC	2.950381	TON	2017NEI
KY	21	21037	Campbell	NP	2810025000	A	R	VOC	1.407448	TON	2017NEI
KY	21	21037	Campbell	NP	2805025000	A	R	VOC	0.1981012	TON	2017NEI
KY	21	21037	Campbell	NP	2104002000	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2460200000	A	R	VOC	92.24496	TON	2017NEI
KY	21	21037	Campbell	NP	2415000000	A	R	VOC	27.06521	TON	2017NEI
KY	21	21037	Campbell	NP	2104007000	A	R	VOC	0.2591518	TON	2017NEI
KY	21	21037	Campbell	NP	2302003200	A	R	VOC	0.02760107	TON	2017NEI
KY	21	21037	Campbell	NP	2501060201	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2104008400	A	R	VOC	0.5757721	TON	2017NEI
KY	21	21037	Campbell	NP	2460900000	A	R	VOC	3.23708	TON	2017NEI
KY	21	21037	Campbell	NP	2460100000	A	R	VOC	90.5872	TON	2017NEI
KY	21	21037	Campbell	NP	2805045000	A	R	VOC	0.1133614	TON	2017NEI
KY	21	21037	Campbell	NP	2425000000	A	R	VOC	217.7919	TON	2017NEI
KY	21	21037	Campbell	NP	2610000500	A	R	VOC	45.38372	TON	2017NEI
KY	21	21037	Campbell	NP	2302003000	A	R	VOC	0.8493678	TON	2017NEI
KY	21	21037	Campbell	NP	2401005000	A	R	VOC	12.10656	TON	2017NEI

KY	21	21037	Campbell	NP	2505030120	A	R	VOC	0.3899103	TON	2017NEI
KY	21	21037	Campbell	NP	2630020000	A	R	VOC	0.1326	TON	2017NEI
KY	21	21037	Campbell	NP	2501060053	A	R	VOC	5.342323	TON	2017NEI
KY	21	21037	Campbell	NP	2104008220	A	R	VOC	3.160571	TON	2017NEI
KY	21	21037	Campbell	NP	2104008330	A	R	VOC	6.264561	TON	2017NEI
KY	21	21037	Campbell	NP	2104008510	A	R	VOC	2.469582	TON	2017NEI
KY	21	21037	Campbell	NP	2460800000	A	R	VOC	82.31432	TON	2017NEI
KY	21	21037	Campbell	NP	2501011014	A	R	VOC	0.4529315	TON	2017NEI
KY	21	21037	Campbell	NP	2501012014	A	R	VOC	1.304818	TON	2017NEI
KY	21	21037	Campbell	NP	2401070000	A	R	VOC	0.6630649	TON	2017NEI
KY	21	21037	Campbell	NP	2501060051	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2104008310	A	R	VOC	32.89013	TON	2017NEI
KY	21	21037	Campbell	NP	2302002200	A	R	VOC	3.494067	TON	2017NEI
KY	21	21037	Campbell	NP	2805002000	A	R	VOC	2.104913	TON	2017NEI
KY	21	21037	Campbell	NP	2810060100	A	R	VOC	0.003103823	TON	2017NEI
KY	21	21037	Campbell	NP	2104001000	A	R	VOC	0	TON	2017NEI
KY	21	21037	Campbell	NP	2104008320	A	R	VOC	7.286266	TON	2017NEI
KY	21	21037	Campbell	NP	2460500000	A	R	VOC	43.9318	TON	2017NEI
KY	21	21037	Campbell	NP	2401008000	A	R	VOC	17.00414	TON	2017NEI

2582.693837



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	NP	2285002008	A	R	NOX	1.313179	TON	2017NEI
KY	21	21117	Kenton	NP	2104008510	A	R	NOX	0.4845396	TON	2017NEI
KY	21	21117	Kenton	NP	2104007000	A	R	NOX	7.694803	TON	2017NEI
KY	21	21117	Kenton	NP	2104008620	A	R	NOX	0.334667	TON	2017NEI
KY	21	21117	Kenton	NP	2104008220	A	R	NOX	0.9837041	TON	2017NEI
KY	21	21117	Kenton	NP	2610000100	A	R	NOX	0.1325451	TON	2017NEI
KY	21	21117	Kenton	NP	2104001000	A	R	NOX	0	TON	2017NEI
KY	21	21117	Kenton	NP	2810060100	A	R	NOX	0.06637048	TON	2017NEI
KY	21	21117	Kenton	NP	2810060200	A	R	NOX	2.94581E-05	TON	2017NEI
KY	21	21117	Kenton	NP	2104008310	A	R	NOX	2.591767	TON	2017NEI
KY	21	21117	Kenton	NP	2280002201	A	R	NOX	45.73175	TON	2017NEI
KY	21	21117	Kenton	NP	2104008700	A	R	NOX	4.155776	TON	2017NEI
KY	21	21117	Kenton	NP	2104006000	A	R	NOX	104.3137	TON	2017NEI
KY	21	21117	Kenton	NP	2610000500	A	R	NOX	11.83919	TON	2017NEI
KY	21	21117	Kenton	NP	2104008320	A	R	NOX	2.064937	TON	2017NEI
KY	21	21117	Kenton	NP	2104004000	A	R	NOX	3.502798	TON	2017NEI
KY	21	21117	Kenton	NP	2104008330	A	R	NOX	1.245884	TON	2017NEI
KY	21	21117	Kenton	NP	2104008610	A	R	NOX	0.5238266	TON	2017NEI
KY	21	21117	Kenton	NP	2280002202	A	R	NOX	59.40402	TON	2017NEI
KY	21	21117	Kenton	NP	2104002000	A	R	NOX	0	TON	2017NEI
KY	21	21117	Kenton	NP	2104009000	A	R	NOX	0.7046854	TON	2017NEI
KY	21	21117	Kenton	NP	2104008630	A	R	NOX	0.0276464	TON	2017NEI
KY	21	21117	Kenton	NP	2104008530	A	R	NOX	1.022917	TON	2017NEI
KY	21	21117	Kenton	NP	2104008100	A	R	NOX	3.744253	TON	2017NEI
KY	21	21117	Kenton	NP	2610030000	A	R	NOX	3.365005	TON	2017NEI
KY	21	21117	Kenton	NP	2104011000	A	R	NOX	1.08958	TON	2017NEI
KY	21	21117	Kenton	NP	2610000400	A	R	NOX	0.1325451	TON	2017NEI
KY	21	21117	Kenton	NP	2701220000	A	R	NOX	89.14111	TON	2017NEI
KY	21	21117	Kenton	NP	2810025000	A	R	NOX	0.977082	TON	2017NEI
KY	21	21117	Kenton	NP	2104008210	A	R	NOX	1.234677	TON	2017NEI
KY	21	21117	Kenton	NP	2104008230	A	R	NOX	0.5935198	TON	2017NEI
KY	21	21117	Kenton	NP	2285002006	A	R	NOX	353.8481	TON	2017NEI
KY	21	21117	Kenton	NP	2104008400	A	R	NOX	1.894827	TON	2017NEI

704.159434

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	NP	2104008530	A	R	VOC	0.5916767	TON	2017NEI
KY	21	21117	Kenton	NP	2104008230	A	R	VOC	4.451398	TON	2017NEI
KY	21	21117	Kenton	NP	2805018000	A	R	VOC	0.373677	TON	2017NEI
KY	21	21117	Kenton	NP	2415000000	A	R	VOC	69.39088	TON	2017NEI
KY	21	21117	Kenton	NP	2501012013	A	R	VOC	9.81173	TON	2017NEI
KY	21	21117	Kenton	NP	2104002000	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2805040000	A	R	VOC	0.02271861	TON	2017NEI
KY	21	21117	Kenton	NP	2610000500	A	R	VOC	33.44572	TON	2017NEI
KY	21	21117	Kenton	NP	2104001000	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2401085000	A	R	VOC	15.88316	TON	2017NEI
KY	21	21117	Kenton	NP	2501011011	A	R	VOC	6.116618	TON	2017NEI
KY	21	21117	Kenton	NP	2460400000	A	R	VOC	15.62715	TON	2017NEI
KY	21	21117	Kenton	NP	2460600000	A	R	VOC	150.8447	TON	2017NEI
KY	21	21117	Kenton	NP	2501012014	A	R	VOC	3.327502	TON	2017NEI
KY	21	21117	Kenton	NP	2460800000	A	R	VOC	147.2051	TON	2017NEI
KY	21	21117	Kenton	NP	2401200000	A	R	VOC	0.4862526	TON	2017NEI
KY	21	21117	Kenton	NP	2505040120	A	R	VOC	5.681493	TON	2017NEI
KY	21	21117	Kenton	NP	2425000000	A	R	VOC	109.3589	TON	2017NEI
KY	21	21117	Kenton	NP	2501011012	A	R	VOC	6.863102	TON	2017NEI
KY	21	21117	Kenton	NP	2302003100	A	R	VOC	0.8418959	TON	2017NEI
KY	21	21117	Kenton	NP	2401065000	A	R	VOC	0.06104854	TON	2017NEI
KY	21	21117	Kenton	NP	2501011014	A	R	VOC	1.155051	TON	2017NEI
KY	21	21117	Kenton	NP	2701200000	A	R	VOC	1211.59	TON	2017NEI
KY	21	21117	Kenton	NP	2302003000	A	R	VOC	1.401022	TON	2017NEI
KY	21	21117	Kenton	NP	2501012011	A	R	VOC	0.2672558	TON	2017NEI
KY	21	21117	Kenton	NP	2401080000	A	R	VOC	0.6637847	TON	2017NEI
KY	21	21117	Kenton	NP	2401070000	A	R	VOC	4.748934	TON	2017NEI
KY	21	21117	Kenton	NP	2501080050	A	R	VOC	0.1605007	TON	2017NEI
KY	21	21117	Kenton	NP	2501060052	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2810060200	A	R	VOC	2.47415E-06	TON	2017NEI
KY	21	21117	Kenton	NP	2104008610	A	R	VOC	17.65296	TON	2017NEI
KY	21	21117	Kenton	NP	2805010100	A	R	VOC	0.06690813	TON	2017NEI
KY	21	21117	Kenton	NP	2805009100	A	R	VOC	0.3821303	TON	2017NEI

KY	21	21117	Kenton	NP	2501050120	A	R	VOC	16.58418	TON	2017NEI
KY	21	21117	Kenton	NP	2104006000	A	R	VOC	6.103462	TON	2017NEI
KY	21	21117	Kenton	NP	2610000100	A	R	VOC	0.5985909	TON	2017NEI
KY	21	21117	Kenton	NP	2104011000	A	R	VOC	0.04244729	TON	2017NEI
KY	21	21117	Kenton	NP	2104008510	A	R	VOC	3.149507	TON	2017NEI
KY	21	21117	Kenton	NP	2104008320	A	R	VOC	10.86809	TON	2017NEI
KY	21	21117	Kenton	NP	2104004000	A	R	VOC	0.1387497	TON	2017NEI
KY	21	21117	Kenton	NP	2461022000	A	R	VOC	99.06845	TON	2017NEI
KY	21	21117	Kenton	NP	2680003000	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2104008310	A	R	VOC	49.05844	TON	2017NEI
KY	21	21117	Kenton	NP	2104008630	A	R	VOC	0.01599126	TON	2017NEI
KY	21	21117	Kenton	NP	2501011015	A	R	VOC	0.193663	TON	2017NEI
KY	21	21117	Kenton	NP	2501011013	A	R	VOC	7.19254	TON	2017NEI
KY	21	21117	Kenton	NP	2302003200	A	R	VOC	0.04408023	TON	2017NEI
KY	21	21117	Kenton	NP	2401020000	A	R	VOC	0.9782749	TON	2017NEI
KY	21	21117	Kenton	NP	2285002008	A	R	VOC	0.07324833	TON	2017NEI
KY	21	21117	Kenton	NP	2630020000	A	R	VOC	5.15185	TON	2017NEI
KY	21	21117	Kenton	NP	2460500000	A	R	VOC	78.56452	TON	2017NEI
KY	21	21117	Kenton	NP	2401055000	A	R	VOC	3.003523	TON	2017NEI
KY	21	21117	Kenton	NP	2285002006	A	R	VOC	16.31535	TON	2017NEI
KY	21	21117	Kenton	NP	2805007100	A	R	VOC	0.02780969	TON	2017NEI
KY	21	21117	Kenton	NP	2501060201	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2501060053	A	R	VOC	11.5748	TON	2017NEI
KY	21	21117	Kenton	NP	2460100000	A	R	VOC	161.9997	TON	2017NEI
KY	21	21117	Kenton	NP	2810025000	A	R	VOC	2.590568	TON	2017NEI
KY	21	21117	Kenton	NP	2302002200	A	R	VOC	6.217723	TON	2017NEI
KY	21	21117	Kenton	NP	2104008330	A	R	VOC	9.34413	TON	2017NEI
KY	21	21117	Kenton	NP	2401090000	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2104008100	A	R	VOC	27.21784	TON	2017NEI
KY	21	21117	Kenton	NP	2501080100	A	R	VOC	0.000278224	TON	2017NEI
KY	21	21117	Kenton	NP	2501012015	A	R	VOC	0.372624	TON	2017NEI
KY	21	21117	Kenton	NP	2104007000	A	R	VOC	0.2995614	TON	2017NEI
KY	21	21117	Kenton	NP	2104008620	A	R	VOC	11.27828	TON	2017NEI
KY	21	21117	Kenton	NP	2460900000	A	R	VOC	5.788965	TON	2017NEI
KY	21	21117	Kenton	NP	2460200000	A	R	VOC	164.9644	TON	2017NEI
KY	21	21117	Kenton	NP	2401001000	A	R	VOC	195.2137	TON	2017NEI

KY	21	21117	Kenton	NP	2104008210	A	R	VOC	23.37068	TON	2017NEI
KY	21	21117	Kenton	NP	2104008220	A	R	VOC	5.177389	TON	2017NEI
KY	21	21117	Kenton	NP	2501060051	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2104008700	A	R	VOC	30.2093	TON	2017NEI
KY	21	21117	Kenton	NP	2401030000	A	R	VOC	1.771906	TON	2017NEI
KY	21	21117	Kenton	NP	2401008000	A	R	VOC	30.409	TON	2017NEI
KY	21	21117	Kenton	NP	2505030120	A	R	VOC	0.8579231	TON	2017NEI
KY	21	21117	Kenton	NP	2302002100	A	R	VOC	2.139626	TON	2017NEI
KY	21	21117	Kenton	NP	2104008400	A	R	VOC	1.096008	TON	2017NEI
KY	21	21117	Kenton	NP	2501055120	A	R	VOC	0	TON	2017NEI
KY	21	21117	Kenton	NP	2805002000	A	R	VOC	1.918563	TON	2017NEI
KY	21	21117	Kenton	NP	2280002201	A	R	VOC	2.861134	TON	2017NEI
KY	21	21117	Kenton	NP	2280002202	A	R	VOC	1.715624	TON	2017NEI
KY	21	21117	Kenton	NP	2401015000	A	R	VOC	1.168038	TON	2017NEI
KY	21	21117	Kenton	NP	2805035000	A	R	VOC	0.5156104	TON	2017NEI
KY	21	21117	Kenton	NP	2805045000	A	R	VOC	0.1133614	TON	2017NEI
KY	21	21117	Kenton	NP	2401005000	A	R	VOC	10.35756	TON	2017NEI
KY	21	21117	Kenton	NP	2461850000	A	R	VOC	2.385984	TON	2017NEI
KY	21	21117	Kenton	NP	2810060100	A	R	VOC	0.005574375	TON	2017NEI
KY	21	21117	Kenton	NP	2501012012	A	R	VOC	0.219209	TON	2017NEI
KY	21	21117	Kenton	NP	2805025000	A	R	VOC	0.04630938	TON	2017NEI
KY	21	21117	Kenton	NP	2610030000	A	R	VOC	3.507968	TON	2017NEI
KY	21	21117	Kenton	NP	2104009000	A	R	VOC	3.627974	TON	2017NEI
KY	21	21117	Kenton	NP	2610000400	A	R	VOC	0.5985909	TON	2017NEI
KY	21	21117	Kenton	NP	2461021000	A	R	VOC	11.65498	TON	2017NEI
KY	21	21117	Kenton	NP	2401100000	A	R	VOC	30.14708	TON	2017NEI
KY	21	21117	Kenton	NP	2420000000	A	R	VOC	0	TON	2017NEI

2878.384001

## **APPENDIX B.2**

### **Louisville Nonattainment Area**

Bullitt, Jefferson, and Oldham

2017 NEI Nonpoint Source Emissions Data

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	NP	2810025000	A	R	NOX	0.4770902	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008530	A	R	NOX	0.9999292	TON	2017NEI
KY	21	21029	Bullitt	NP	2104002000	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008310	A	R	NOX	2.18928	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008510	A	R	NOX	0.4736507	TON	2017NEI
KY	21	21029	Bullitt	NP	2104001000	A	R	NOX	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2610030000	A	R	NOX	6.826351	TON	2017NEI
KY	21	21029	Bullitt	NP	2810060100	A	R	NOX	0.02950482	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008230	A	R	NOX	0.4578929	TON	2017NEI
KY	21	21029	Bullitt	NP	2104009000	A	R	NOX	0.2241493	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000500	A	R	NOX	20.04013	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000400	A	R	NOX	0.2688851	TON	2017NEI
KY	21	21029	Bullitt	NP	2104006000	A	R	NOX	44.30089	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008630	A	R	NOX	0.02702511	TON	2017NEI
KY	21	21029	Bullitt	NP	2285002007	A	R	NOX	5.081192	TON	2017NEI
KY	21	21029	Bullitt	NP	2104007000	A	R	NOX	6.400313	TON	2017NEI
KY	21	21029	Bullitt	NP	2104011000	A	R	NOX	0.09872278	TON	2017NEI
KY	21	21029	Bullitt	NP	2701220000	A	R	NOX	120.4432	TON	2017NEI
KY	21	21029	Bullitt	NP	2104004000	A	R	NOX	0.3173755	TON	2017NEI
KY	21	21029	Bullitt	NP	2810060200	A	R	NOX	1.42921E-05	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008330	A	R	NOX	1.052405	TON	2017NEI
KY	21	21029	Bullitt	NP	2801500000	A	R	NOX	0.139	TON	2017NEI
KY	21	21029	Bullitt	NP	2285002006	A	R	NOX	87.07273	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000100	A	R	NOX	0.2688851	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008620	A	R	NOX	0.3271461	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008100	A	R	NOX	2.79392	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008220	A	R	NOX	0.7589152	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008320	A	R	NOX	1.744264	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008400	A	R	NOX	1.087379	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008610	A	R	NOX	0.5120548	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008210	A	R	NOX	0.9525379	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008700	A	R	NOX	2.356185	TON	2017NEI
									307.721018		

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	NP	2501011011	A	R	VOC	2.021623	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008210	A	R	VOC	18.03018	TON	2017NEI
KY	21	21029	Bullitt	NP	2461850000	A	R	VOC	3.928823	TON	2017NEI
KY	21	21029	Bullitt	NP	2805002000	A	R	VOC	1.866677	TON	2017NEI
KY	21	21029	Bullitt	NP	2501060052	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2401200000	A	R	VOC	0.2359133	TON	2017NEI
KY	21	21029	Bullitt	NP	2401070000	A	R	VOC	62.6169	TON	2017NEI
KY	21	21029	Bullitt	NP	2104009000	A	R	VOC	1.154001	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008320	A	R	VOC	9.180336	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008610	A	R	VOC	17.25625	TON	2017NEI
KY	21	21029	Bullitt	NP	2460500000	A	R	VOC	38.11685	TON	2017NEI
KY	21	21029	Bullitt	NP	2401100000	A	R	VOC	14.62634	TON	2017NEI
KY	21	21029	Bullitt	NP	2805009100	A	R	VOC	0.000708918	TON	2017NEI
KY	21	21029	Bullitt	NP	2302002200	A	R	VOC	1.482177	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008700	A	R	VOC	17.12765	TON	2017NEI
KY	21	21029	Bullitt	NP	2805025000	A	R	VOC	1.902544	TON	2017NEI
KY	21	21029	Bullitt	NP	2425000000	A	R	VOC	1176.257	TON	2017NEI
KY	21	21029	Bullitt	NP	2104001000	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2285002006	A	R	VOC	4.01478	TON	2017NEI
KY	21	21029	Bullitt	NP	2801500000	A	R	VOC	0.597	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008530	A	R	VOC	0.5783801	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008400	A	R	VOC	0.6289631	TON	2017NEI
KY	21	21029	Bullitt	NP	2460600000	A	R	VOC	73.18473	TON	2017NEI
KY	21	21029	Bullitt	NP	2805035000	A	R	VOC	0.9533662	TON	2017NEI
KY	21	21029	Bullitt	NP	2501012013	A	R	VOC	3.24291	TON	2017NEI
KY	21	21029	Bullitt	NP	2104007000	A	R	VOC	0.2491664	TON	2017NEI
KY	21	21029	Bullitt	NP	2501012014	A	R	VOC	1.099784	TON	2017NEI
KY	21	21029	Bullitt	NP	2810025000	A	R	VOC	1.264924	TON	2017NEI
KY	21	21029	Bullitt	NP	2630020000	A	R	VOC	0.84745	TON	2017NEI
KY	21	21029	Bullitt	NP	2401015000	A	R	VOC	1.168038	TON	2017NEI
KY	21	21029	Bullitt	NP	2302003000	A	R	VOC	0.3650808	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008100	A	R	VOC	20.30965	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008230	A	R	VOC	3.434197	TON	2017NEI



KY	21	21029	Bullitt	NP	2501012012	A	R	VOC	0.07245148	TON	2017NEI
KY	21	21029	Bullitt	NP	2401008000	A	R	VOC	14.75342	TON	2017NEI
KY	21	21029	Bullitt	NP	2501012011	A	R	VOC	0.08833158	TON	2017NEI
KY	21	21029	Bullitt	NP	2501060051	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2501060053	A	R	VOC	9.362114	TON	2017NEI
KY	21	21029	Bullitt	NP	2302003200	A	R	VOC	0.0119408	TON	2017NEI
KY	21	21029	Bullitt	NP	2805007100	A	R	VOC	0.04615024	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008310	A	R	VOC	41.43994	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008620	A	R	VOC	11.02482	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008630	A	R	VOC	0.01563189	TON	2017NEI
KY	21	21029	Bullitt	NP	2460100000	A	R	VOC	78.59679	TON	2017NEI
KY	21	21029	Bullitt	NP	2501011012	A	R	VOC	2.268346	TON	2017NEI
KY	21	21029	Bullitt	NP	2285002007	A	R	VOC	0.2350526	TON	2017NEI
KY	21	21029	Bullitt	NP	2805040000	A	R	VOC	0.06293317	TON	2017NEI
KY	21	21029	Bullitt	NP	2104002000	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2460800000	A	R	VOC	71.41894	TON	2017NEI
KY	21	21029	Bullitt	NP	2401090000	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2415000000	A	R	VOC	41.99705	TON	2017NEI
KY	21	21029	Bullitt	NP	2810060200	A	R	VOC	1.20038E-06	TON	2017NEI
KY	21	21029	Bullitt	NP	2805045000	A	R	VOC	0.02616032	TON	2017NEI
KY	21	21029	Bullitt	NP	2501080100	A	R	VOC	0.001063292	TON	2017NEI
KY	21	21029	Bullitt	NP	2501011015	A	R	VOC	0.0640081	TON	2017NEI
KY	21	21029	Bullitt	NP	2501011014	A	R	VOC	0.3817596	TON	2017NEI
KY	21	21029	Bullitt	NP	2505030120	A	R	VOC	0.6840498	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000500	A	R	VOC	56.61338	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000100	A	R	VOC	1.21432	TON	2017NEI
KY	21	21029	Bullitt	NP	2104004000	A	R	VOC	0.01257159	TON	2017NEI
KY	21	21029	Bullitt	NP	2460900000	A	R	VOC	2.80861	TON	2017NEI
KY	21	21029	Bullitt	NP	2501080050	A	R	VOC	0.6133881	TON	2017NEI
KY	21	21029	Bullitt	NP	2501012015	A	R	VOC	0.123157	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008330	A	R	VOC	7.893038	TON	2017NEI
KY	21	21029	Bullitt	NP	2104011000	A	R	VOC	0.00384599	TON	2017NEI
KY	21	21029	Bullitt	NP	2805010100	A	R	VOC	0.000817487	TON	2017NEI
KY	21	21029	Bullitt	NP	2805018000	A	R	VOC	1.826542	TON	2017NEI
KY	21	21029	Bullitt	NP	2501060201	A	R	VOC	10.45948	TON	2017NEI
KY	21	21029	Bullitt	NP	2104006000	A	R	VOC	2.592073	TON	2017NEI

KY	21	21029	Bullitt	NP	2104008220	A	R	VOC	3.99429	TON	2017NEI
KY	21	21029	Bullitt	NP	2401001000	A	R	VOC	94.71108	TON	2017NEI
KY	21	21029	Bullitt	NP	2501011013	A	R	VOC	2.37723	TON	2017NEI
KY	21	21029	Bullitt	NP	2302003100	A	R	VOC	0.1974923	TON	2017NEI
KY	21	21029	Bullitt	NP	2460200000	A	R	VOC	80.03513	TON	2017NEI
KY	21	21029	Bullitt	NP	2461022000	A	R	VOC	44.80004	TON	2017NEI
KY	21	21029	Bullitt	NP	2610030000	A	R	VOC	7.116371	TON	2017NEI
KY	21	21029	Bullitt	NP	2302002100	A	R	VOC	0.5529062	TON	2017NEI
KY	21	21029	Bullitt	NP	2461021000	A	R	VOC	5.270535	TON	2017NEI
KY	21	21029	Bullitt	NP	2810060100	A	R	VOC	0.002478073	TON	2017NEI
KY	21	21029	Bullitt	NP	2701200000	A	R	VOC	4581.997	TON	2017NEI
KY	21	21029	Bullitt	NP	2680003000	A	R	VOC	0	TON	2017NEI
KY	21	21029	Bullitt	NP	2610000400	A	R	VOC	1.21432	TON	2017NEI
KY	21	21029	Bullitt	NP	2104008510	A	R	VOC	3.078729	TON	2017NEI
KY	21	21029	Bullitt	NP	2401005000	A	R	VOC	5.101976	TON	2017NEI
KY	21	21029	Bullitt	NP	2401020000	A	R	VOC	0.9782749	TON	2017NEI
KY	21	21029	Bullitt	NP	2460400000	A	R	VOC	7.581762	TON	2017NEI

6673.464185

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	NP	2104004000	A	R	NOX	0.3570474	TON	2017NEI
KY	21	21185	Oldham	NP	2610000500	A	R	NOX	7.786263	TON	2017NEI
KY	21	21185	Oldham	NP	2104007000	A	R	NOX	5.125861	TON	2017NEI
KY	21	21185	Oldham	NP	2104002000	A	R	NOX	0	TON	2017NEI
KY	21	21185	Oldham	NP	2810025000	A	R	NOX	0.362741	TON	2017NEI
KY	21	21185	Oldham	NP	2104008220	A	R	NOX	0.3607435	TON	2017NEI
KY	21	21185	Oldham	NP	2280002202	A	R	NOX	23.2772	TON	2017NEI
KY	21	21185	Oldham	NP	2610030000	A	R	NOX	3.702955	TON	2017NEI
KY	21	21185	Oldham	NP	2104008320	A	R	NOX	1.084219	TON	2017NEI
KY	21	21185	Oldham	NP	2104008700	A	R	NOX	1.653338	TON	2017NEI
KY	21	21185	Oldham	NP	2104006000	A	R	NOX	29.38766	TON	2017NEI
KY	21	21185	Oldham	NP	2104008610	A	R	NOX	0.3157139	TON	2017NEI
KY	21	21185	Oldham	NP	2104008100	A	R	NOX	1.435232	TON	2017NEI
KY	21	21185	Oldham	NP	2610000400	A	R	NOX	0.07292837	TON	2017NEI
KY	21	21185	Oldham	NP	2104008330	A	R	NOX	0.6541654	TON	2017NEI
KY	21	21185	Oldham	NP	2810060200	A	R	NOX	1.18287E-05	TON	2017NEI
KY	21	21185	Oldham	NP	2104008530	A	R	NOX	0.6165192	TON	2017NEI
KY	21	21185	Oldham	NP	2104008620	A	R	NOX	0.2017061	TON	2017NEI
KY	21	21185	Oldham	NP	2104008510	A	R	NOX	0.2920354	TON	2017NEI
KY	21	21185	Oldham	NP	2701220000	A	R	NOX	132.8049	TON	2017NEI
KY	21	21185	Oldham	NP	2280002201	A	R	NOX	50.01861	TON	2017NEI
KY	21	21185	Oldham	NP	2285002006	A	R	NOX	57.48504	TON	2017NEI
KY	21	21185	Oldham	NP	2104008230	A	R	NOX	0.2176553	TON	2017NEI
KY	21	21185	Oldham	NP	2104008310	A	R	NOX	1.360836	TON	2017NEI
KY	21	21185	Oldham	NP	2104009000	A	R	NOX	0.1581035	TON	2017NEI
KY	21	21185	Oldham	NP	2104008630	A	R	NOX	0.01666268	TON	2017NEI
KY	21	21185	Oldham	NP	2104008400	A	R	NOX	0.6621438	TON	2017NEI
KY	21	21185	Oldham	NP	2801500000	A	R	NOX	0.139	TON	2017NEI
KY	21	21185	Oldham	NP	2104011000	A	R	NOX	0.1110631	TON	2017NEI
KY	21	21185	Oldham	NP	2610000100	A	R	NOX	0.07292837	TON	2017NEI
KY	21	21185	Oldham	NP	2810060100	A	R	NOX	0.01845016	TON	2017NEI
KY	21	21185	Oldham	NP	2104001000	A	R	NOX	0	TON	2017NEI
KY	21	21185	Oldham	NP	2104008210	A	R	NOX	0.4527803	TON	2017NEI

320.2045133

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	NP	2461850000	A	R	VOC	4.238955	TON	2017NEI
KY	21	21185	Oldham	NP	2805035000	A	R	VOC	1.47521	TON	2017NEI
KY	21	21185	Oldham	NP	2104001000	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	NP	2501012012	A	R	VOC	0.08880657	TON	2017NEI
KY	21	21185	Oldham	NP	2501012011	A	R	VOC	0.1082714	TON	2017NEI
KY	21	21185	Oldham	NP	2805009100	A	R	VOC	0.3821303	TON	2017NEI
KY	21	21185	Oldham	NP	2680003000	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	NP	2401025000	A	R	VOC	1.153536	TON	2017NEI
KY	21	21185	Oldham	NP	2805002000	A	R	VOC	2.062688	TON	2017NEI
KY	21	21185	Oldham	NP	2104008220	A	R	VOC	1.89865	TON	2017NEI
KY	21	21185	Oldham	NP	2104008610	A	R	VOC	10.63956	TON	2017NEI
KY	21	21185	Oldham	NP	2104008310	A	R	VOC	25.75869	TON	2017NEI
KY	21	21185	Oldham	NP	2460600000	A	R	VOC	60.57079	TON	2017NEI
KY	21	21185	Oldham	NP	2401055000	A	R	VOC	0.250981	TON	2017NEI
KY	21	21185	Oldham	NP	2104004000	A	R	VOC	0.01414304	TON	2017NEI
KY	21	21185	Oldham	NP	2401070000	A	R	VOC	4.623268	TON	2017NEI
KY	21	21185	Oldham	NP	2104008400	A	R	VOC	0.3829979	TON	2017NEI
KY	21	21185	Oldham	NP	2805010100	A	R	VOC	0.06690813	TON	2017NEI
KY	21	21185	Oldham	NP	2501011015	A	R	VOC	0.0784572	TON	2017NEI
KY	21	21185	Oldham	NP	2801500000	A	R	VOC	0.597	TON	2017NEI
KY	21	21185	Oldham	NP	2302003100	A	R	VOC	0.1529092	TON	2017NEI
KY	21	21185	Oldham	NP	2104007000	A	R	VOC	0.1995516	TON	2017NEI
KY	21	21185	Oldham	NP	2401015000	A	R	VOC	1.168038	TON	2017NEI
KY	21	21185	Oldham	NP	2420000000	A	R	VOC	0.05958947	TON	2017NEI
KY	21	21185	Oldham	NP	2610030000	A	R	VOC	3.860276	TON	2017NEI
KY	21	21185	Oldham	NP	2501060052	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	NP	2285002006	A	R	VOC	2.650541	TON	2017NEI
KY	21	21185	Oldham	NP	2810060200	A	R	VOC	9.93481E-07	TON	2017NEI
KY	21	21185	Oldham	NP	2104008320	A	R	VOC	5.706413	TON	2017NEI
KY	21	21185	Oldham	NP	2461021000	A	R	VOC	3.5656845	TON	2017NEI
KY	21	21185	Oldham	NP	2505030120	A	R	VOC	0.3426715	TON	2017NEI
KY	21	21185	Oldham	NP	2460400000	A	R	VOC	6.274989	TON	2017NEI
KY	21	21185	Oldham	NP	2104008330	A	R	VOC	4.90624	TON	2017NEI

KY	21	21185	Oldham	NP	2104008230	A	R	VOC	1.632415	TON	2017NEI
KY	21	21185	Oldham	NP	2401005000	A	R	VOC	7.306928	TON	2017NEI
KY	21	21185	Oldham	NP	2630020000	A	R	VOC	0.4403	TON	2017NEI
KY	21	21185	Oldham	NP	2501060051	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	NP	2104006000	A	R	VOC	1.719491	TON	2017NEI
KY	21	21185	Oldham	NP	2810060100	A	R	VOC	0.001549606	TON	2017NEI
KY	21	21185	Oldham	NP	2460900000	A	R	VOC	2.324525	TON	2017NEI
KY	21	21185	Oldham	NP	2805045000	A	R	VOC	0.06104075	TON	2017NEI
KY	21	21185	Oldham	NP	2401100000	A	R	VOC	12.10538	TON	2017NEI
KY	21	21185	Oldham	NP	2501060201	A	R	VOC	5.239625	TON	2017NEI
KY	21	21185	Oldham	NP	2401008000	A	R	VOC	12.21056	TON	2017NEI
KY	21	21185	Oldham	NP	2104011000	A	R	VOC	0.004326739	TON	2017NEI
KY	21	21185	Oldham	NP	2501011011	A	R	VOC	2.477982	TON	2017NEI
KY	21	21185	Oldham	NP	2460500000	A	R	VOC	31.54712	TON	2017NEI
KY	21	21185	Oldham	NP	2401001000	A	R	VOC	78.38692	TON	2017NEI
KY	21	21185	Oldham	NP	2501011012	A	R	VOC	2.780399	TON	2017NEI
KY	21	21185	Oldham	NP	2501011014	A	R	VOC	0.4679375	TON	2017NEI
KY	21	21185	Oldham	NP	2501060053	A	R	VOC	4.695683	TON	2017NEI
KY	21	21185	Oldham	NP	2610000100	A	R	VOC	0.3293539	TON	2017NEI
KY	21	21185	Oldham	NP	2610000500	A	R	VOC	21.99619	TON	2017NEI
KY	21	21185	Oldham	NP	2302003200	A	R	VOC	0.0107936	TON	2017NEI
KY	21	21185	Oldham	NP	2501012013	A	R	VOC	3.97496	TON	2017NEI
KY	21	21185	Oldham	NP	2302002100	A	R	VOC	0.4610614	TON	2017NEI
KY	21	21185	Oldham	NP	2501080050	A	R	VOC	0.09462329	TON	2017NEI
KY	21	21185	Oldham	NP	2280002202	A	R	VOC	0.6821514	TON	2017NEI
KY	21	21185	Oldham	NP	2104008700	A	R	VOC	12.01849	TON	2017NEI
KY	21	21185	Oldham	NP	2460100000	A	R	VOC	65.05005	TON	2017NEI
KY	21	21185	Oldham	NP	2501012014	A	R	VOC	1.348047	TON	2017NEI
KY	21	21185	Oldham	NP	2425000000	A	R	VOC	4.750949	TON	2017NEI
KY	21	21185	Oldham	NP	2302002200	A	R	VOC	1.167663	TON	2017NEI
KY	21	21185	Oldham	NP	2501012015	A	R	VOC	0.150958	TON	2017NEI
KY	21	21185	Oldham	NP	2805007100	A	R	VOC	0.03473065	TON	2017NEI
KY	21	21185	Oldham	NP	2401200000	A	R	VOC	0.1952519	TON	2017NEI
KY	21	21185	Oldham	NP	2280002201	A	R	VOC	3.41112	TON	2017NEI
KY	21	21185	Oldham	NP	2104008210	A	R	VOC	8.570484	TON	2017NEI
KY	21	21185	Oldham	NP	2104008510	A	R	VOC	1.89823	TON	2017NEI

KY	21	21185	Oldham	NP	2104008620	A	R	VOC	6.797496	TON	2017NEI
KY	21	21185	Oldham	NP	2401020000	A	R	VOC	1.924778	TON	2017NEI
KY	21	21185	Oldham	NP	2610000400	A	R	VOC	0.3293539	TON	2017NEI
KY	21	21185	Oldham	NP	2501080100	A	R	VOC	0.000164027	TON	2017NEI
KY	21	21185	Oldham	NP	2805040000	A	R	VOC	0.07834005	TON	2017NEI
KY	21	21185	Oldham	NP	2805025000	A	R	VOC	0.02058195	TON	2017NEI
KY	21	21185	Oldham	NP	2104002000	A	R	VOC	0	TON	2017NEI
KY	21	21185	Oldham	NP	2104008100	A	R	VOC	10.43303	TON	2017NEI
KY	21	21185	Oldham	NP	2460200000	A	R	VOC	66.24048	TON	2017NEI
KY	21	21185	Oldham	NP	2460800000	A	R	VOC	59.10935	TON	2017NEI
KY	21	21185	Oldham	NP	2104008630	A	R	VOC	0.009638045	TON	2017NEI
KY	21	21185	Oldham	NP	2810025000	A	R	VOC	0.9617468	TON	2017NEI
KY	21	21185	Oldham	NP	2302003000	A	R	VOC	0.3038688	TON	2017NEI
KY	21	21185	Oldham	NP	2701200000	A	R	VOC	1575.415	TON	2017NEI
KY	21	21185	Oldham	NP	2805018000	A	R	VOC	0.4022932	TON	2017NEI
KY	21	21185	Oldham	NP	2461022000	A	R	VOC	30.308665	TON	2017NEI
KY	21	21185	Oldham	NP	2501011013	A	R	VOC	2.91386	TON	2017NEI
KY	21	21185	Oldham	NP	2104008530	A	R	VOC	0.3566077	TON	2017NEI
KY	21	21185	Oldham	NP	2104009000	A	R	VOC	0.8139737	TON	2017NEI
KY	21	21185	Oldham	NP	2401090000	A	R	VOC	0.3149401	TON	2017NEI
KY	21	21185	Oldham	NP	2415000000	A	R	VOC	12.88177	TON	2017NEI

2202.441174

LMAPCD Nonpoint Sources  
NEI Extraction Methodology - R Code



```

library(tidyverse)

# nonpoint -----
# extract -----

#first, read in large .csv with NEI nonpoint data
#working in chunks, because it is too big otherwise
#file was downloaded from https://www.epa.gov/air-emissions-inventories/2017-national-
emissions-inventory-nei-data
#and extracted and uploaded to RStudio Cloud in advance for this analysis
#now read it in, naming it 'nei17_nonpt_lounaa' (NEI nonpoint, Louisville NAA)
f<- function(x, pos) { #function for filtering data as it is read in
  subset(
    x,
    `fips code` %in% c(21029, 21111, 21185) & #first filter is for FIPS codes for part of NAA
    `pollutant code` %in% c("NOX", "VOC") #second filter for O3 precursors
  )
}
nei17_nonpt_lounaa <- read_csv_chunked(
  "sheets/20210811-NEI2017-esg_cty_scc_12961.csv", #this is the file for R1-5 from
  "2017neiApr_nonpoint.zip"
  DataFrameCallback$new(f), #callback the function created above for filtering
  (same as point)
  chunk_size = 10000 #reading through 10,000 rows at a time, and filtering
)

#but that doesn't have anything other than annual emissions
#but the 2016v1 modeling platform has a nifty report with monthly
#downloaded from
https://gaftp.epa.gov/Air/emismod/2016/v1/reports/county_monthly/2016fh_county_monthly_re
port_06jan2020_v0.csv.zip
mod16_moly <- read_csv("sheets/2016fh_county_monthly_report_06jan2020_v0.csv", comment
= "#")

#pull out O3 precursors for the KY portion of NAA
mod16_moly_lounaa <- mod16_moly %>%
  mutate(
    `fips code` = str_sub(region_cd, 2,6), #fips codes have a leading 0 that needs to
    be dropped
    `pollutant code` = ifelse(poll == "VOC_INV", "VOC", poll) #VOCs are called "VOC_INV"
  ) %>%
  filter(
    `fips code` %in% c("21111", "21029", "21185"),
    `pollutant code` %in% c("NOX", "VOC")
  )

```

```

)

#calculate ozone season percent of emissions ("os_pct")
mod16_nonpt_os_pct <- mod16_moly_lounaa %>%
  filter(shape_id == "nonpoint") %>% #filter for the nonpoint
category ("shape_id" = category for some reason)
  mutate(os_pct = (jun_value + jul_value + aug_value)/ann_value) %>% #calculate ozone
season percent of emissions (os_pct)
  group_by(`pollutant code`, `fips code`) %>% #group together by
pollutant and county
  summarize(os_pct = sum(os_pct*ann_value)/sum(ann_value)) #for each county
and pollutant calculate weighted ozone season percent,
#giving greater weight for sectors with higher
emissions by multiplying percents by annual emissions,
#then summing, and the dividing that total by
the total annual emissions

#join with the NEI data, and use the os_pct to calculate tposd
nei17_nonpt_lounaa <- nei17_nonpt_lounaa %>%
  left_join(mod16_nonpt_os_pct) %>%
  mutate(tposd = `total emissions` * os_pct/92)

#write results to CSV
write_csv(nei17_nonpt_lounaa, str_c("sheets/", Sys.Date(), "-EI-2017-nonpt-LouNAA.csv"))

#print results
nei17_nonpt_lounaa %>%
  group_by(`pollutant code`, `fips code`) %>%
  summarize(tposd = sum(tposd))

```

county	data category	scc	sector	reporting period	pollutant code	total emissions	emissions uom	data set
Jefferson	NP	2102005000	Fuel Comb - Industrial Boilers, ICEs - Oil	A	NOX	0.26	TON	2017NEI_Apr2020
Jefferson	NP	2310023603	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104007000	Fuel Comb - Residential - Other	A	NOX	9.75	TON	2017NEI_Apr2020
Jefferson	NP	2104008610	Fuel Comb - Residential - Wood	A	NOX	0.11	TON	2017NEI_Apr2020
Jefferson	NP	2610000400	Waste Disposal	A	NOX	0.06	TON	2017NEI_Apr2020
Jefferson	NP	2310010200	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2103001000	Fuel Comb - Comm/Institutional - Coal	A	NOX	0.03	TON	2017NEI_Apr2020
Jefferson	NP	2310023100	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023102	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102002000	Fuel Comb - Industrial Boilers, ICEs - Coal	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2285002006	Mobile - Locomotives	A	NOX	268.12	TON	2017NEI_Apr2020
Jefferson	NP	2610000500	Waste Disposal	A	NOX	29.40	TON	2017NEI_Apr2020
Jefferson	NP	2104008210	Fuel Comb - Residential - Wood	A	NOX	4.31	TON	2017NEI_Apr2020
Jefferson	NP	2104008320	Fuel Comb - Residential - Wood	A	NOX	6.31	TON	2017NEI_Apr2020
Jefferson	NP	2104008330	Fuel Comb - Residential - Wood	A	NOX	3.81	TON	2017NEI_Apr2020
Jefferson	NP	2104009000	Fuel Comb - Residential - Wood	A	NOX	2.39	TON	2017NEI_Apr2020
Jefferson	NP	2810060100	Miscellaneous Non-Industrial NEC	A	NOX	0.35	TON	2017NEI_Apr2020
Jefferson	NP	2310021102	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102006000	Fuel Comb - Industrial Boilers, ICEs - Natural Gas	A	NOX	895.56	TON	2017NEI_Apr2020
Jefferson	NP	2103006000	Fuel Comb - Comm/Institutional - Natural Gas	A	NOX	435.38	TON	2017NEI_Apr2020
Jefferson	NP	2103008000	Fuel Comb - Comm/Institutional - Biomass	A	NOX	66.59	TON	2017NEI_Apr2020
Jefferson	NP	2104008620	Fuel Comb - Residential - Wood	A	NOX	0.07	TON	2017NEI_Apr2020
Jefferson	NP	2310010100	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023000	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023010	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2280002102	Mobile - Commercial Marine Vessels	A	NOX	0.15	TON	2017NEI_Apr2020
Jefferson	NP	2104008400	Fuel Comb - Residential - Wood	A	NOX	10.02	TON	2017NEI_Apr2020
Jefferson	NP	2102004002	Fuel Comb - Industrial Boilers, ICEs - Oil	A	NOX	298.81	TON	2017NEI_Apr2020
Jefferson	NP	2104008220	Fuel Comb - Residential - Wood	A	NOX	3.44	TON	2017NEI_Apr2020
Jefferson	NP	2610030000	Waste Disposal	A	NOX	3.07	TON	2017NEI_Apr2020
Jefferson	NP	2310021251	Industrial Processes - Oil & Gas Production	A	NOX	0.04	TON	2017NEI_Apr2020
Jefferson	NP	2280002201	Mobile - Commercial Marine Vessels	A	NOX	185.64	TON	2017NEI_Apr2020
Jefferson	NP	2103007000	Fuel Comb - Comm/Institutional - Other	A	NOX	26.46	TON	2017NEI_Apr2020

Jefferson	NP	2104008530	Fuel Comb - Residential - Wood	A	NOX	0.21	TON	2017NEI_Apr2020
Jefferson	NP	2102004001	Fuel Comb - Industrial Boilers, ICEs - Oil	A	NOX	14.84	TON	2017NEI_Apr2020
Jefferson	NP	2102001000	Fuel Comb - Industrial Boilers, ICEs - Coal	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104006000	Fuel Comb - Residential - Natural Gas	A	NOX	633.52	TON	2017NEI_Apr2020
Jefferson	NP	2310023251	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2103005000	Fuel Comb - Comm/Institutional - Oil	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104008310	Fuel Comb - Residential - Wood	A	NOX	7.92	TON	2017NEI_Apr2020
Jefferson	NP	2104008700	Fuel Comb - Residential - Wood	A	NOX	0.70	TON	2017NEI_Apr2020
Jefferson	NP	2310011001	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310011600	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021202	Industrial Processes - Oil & Gas Production	A	NOX	0.13	TON	2017NEI_Apr2020
Jefferson	NP	2104004000	Fuel Comb - Residential - Oil	A	NOX	1.38	TON	2017NEI_Apr2020
Jefferson	NP	2701220000	Biogenics - Vegetation and Soil	A	NOX	155.58	TON	2017NEI_Apr2020
Jefferson	NP	2310023202	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023351	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2280002202	Mobile - Commercial Marine Vessels	A	NOX	217.16	TON	2017NEI_Apr2020
Jefferson	NP	2610000100	Waste Disposal	A	NOX	0.06	TON	2017NEI_Apr2020
Jefferson	NP	2103011000	Fuel Comb - Comm/Institutional - Oil	A	NOX	1.04	TON	2017NEI_Apr2020
Jefferson	NP	2103004002	Fuel Comb - Comm/Institutional - Oil	A	NOX	0.89	TON	2017NEI_Apr2020
Jefferson	NP	2310021010	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021400	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104011000	Fuel Comb - Residential - Oil	A	NOX	0.43	TON	2017NEI_Apr2020
Jefferson	NP	2310021302	Industrial Processes - Oil & Gas Production	A	NOX	0.51	TON	2017NEI_Apr2020
Jefferson	NP	2104001000	Fuel Comb - Residential - Other	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021351	Industrial Processes - Oil & Gas Production	A	NOX	0.30	TON	2017NEI_Apr2020
Jefferson	NP	2104008630	Fuel Comb - Residential - Wood	A	NOX	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2310023400	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021100	Industrial Processes - Oil & Gas Production	A	NOX	0.05	TON	2017NEI_Apr2020
Jefferson	NP	2280002101	Mobile - Commercial Marine Vessels	A	NOX	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2285002007	Mobile - Locomotives	A	NOX	42.01	TON	2017NEI_Apr2020
Jefferson	NP	2104008510	Fuel Comb - Residential - Wood	A	NOX	0.10	TON	2017NEI_Apr2020
Jefferson	NP	2810025000	Miscellaneous Non-Industrial NEC	A	NOX	4.66	TON	2017NEI_Apr2020
Jefferson	NP	2104002000	Fuel Comb - Residential - Other	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2810060200	Miscellaneous Non-Industrial NEC	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102008000	Fuel Comb - Industrial Boilers, ICEs - Biomass	A	NOX	487.34	TON	2017NEI_Apr2020
Jefferson	NP	2103004001	Fuel Comb - Comm/Institutional - Oil	A	NOX	0.56	TON	2017NEI_Apr2020

Jefferson	NP	2310023302	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102011000	Fuel Comb - Industrial Boilers, ICEs - Oil	A	NOX	2.31	TON	2017NEI_Apr2020
Jefferson	NP	2104008230	Fuel Comb - Residential - Wood	A	NOX	2.07	TON	2017NEI_Apr2020
Jefferson	NP	2104008100	Fuel Comb - Residential - Wood	A	NOX	14.72	TON	2017NEI_Apr2020
Jefferson	NP	2310021603	Industrial Processes - Oil & Gas Production	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102007000	Fuel Comb - Industrial Boilers, ICEs - Other	A	NOX	4.67	TON	2017NEI_Apr2020
Jefferson	NP	2103002000	Fuel Comb - Comm/Institutional - Coal	A	NOX	21.24	TON	2017NEI_Apr2020

county	data category	scc	sector	reporting period	pollutant code	total emissions	emissions uom	data set
Jefferson	NP	2460200000	Solvent - Consumer & Commercial Solvent Use	A	VOC	769.13	TON	2017NEI_Apr2020
Jefferson	NP	2310021503	Industrial Processes - Oil & Gas Production	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2805018000	Agriculture - Livestock Waste	A	VOC	0.47	TON	2017NEI_Apr2020
Jefferson	NP	2302002100	Commercial Cooking	A	VOC	11.47	TON	2017NEI_Apr2020
Jefferson	NP	2102004001	Fuel Comb - Industrial Boilers, ICEs - Oil	A	VOC	0.15	TON	2017NEI_Apr2020
Jefferson	NP	2501012012	Miscellaneous Non-Industrial NEC	A	VOC	0.98	TON	2017NEI_Apr2020
Jefferson	NP	2310011201	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023512	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310011502	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104008400	Fuel Comb - Residential - Wood	A	VOC	5.79	TON	2017NEI_Apr2020
Jefferson	NP	2805009100	Agriculture - Livestock Waste	A	VOC	0.38	TON	2017NEI_Apr2020
Jefferson	NP	2501080050	Gas Stations	A	VOC	33.92	TON	2017NEI_Apr2020
Jefferson	NP	2104008610	Fuel Comb - Residential - Wood	A	VOC	3.58	TON	2017NEI_Apr2020
Jefferson	NP	2104008700	Fuel Comb - Residential - Wood	A	VOC	5.10	TON	2017NEI_Apr2020
Jefferson	NP	2104009000	Fuel Comb - Residential - Wood	A	VOC	12.33	TON	2017NEI_Apr2020
Jefferson	NP	2302003200	Commercial Cooking	A	VOC	0.26	TON	2017NEI_Apr2020
Jefferson	NP	2302003000	Commercial Cooking	A	VOC	8.02	TON	2017NEI_Apr2020
Jefferson	NP	2401080000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	0.59	TON	2017NEI_Apr2020
Jefferson	NP	2460900000	Solvent - Consumer & Commercial Solvent Use	A	VOC	26.99	TON	2017NEI_Apr2020
Jefferson	NP	2401001000	Solvent - Non-Industrial Surface Coating	A	VOC	910.17	TON	2017NEI_Apr2020
Jefferson	NP	2310021506	Industrial Processes - Oil & Gas Production	A	VOC	0.07	TON	2017NEI_Apr2020
Jefferson	NP	2501011012	Miscellaneous Non-Industrial NEC	A	VOC	30.83	TON	2017NEI_Apr2020
Jefferson	NP	2302002200	Commercial Cooking	A	VOC	34.88	TON	2017NEI_Apr2020
Jefferson	NP	2310121401	Industrial Processes - Oil & Gas Production	A	VOC	0.34	TON	2017NEI_Apr2020
Jefferson	NP	2401025000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	136.02	TON	2017NEI_Apr2020
Jefferson	NP	2104011000	Fuel Comb - Residential - Oil	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2805045000	Agriculture - Livestock Waste	A	VOC	0.03	TON	2017NEI_Apr2020
Jefferson	NP	2104004000	Fuel Comb - Residential - Oil	A	VOC	0.05	TON	2017NEI_Apr2020
Jefferson	NP	2501011013	Miscellaneous Non-Industrial NEC	A	VOC	32.31	TON	2017NEI_Apr2020
Jefferson	NP	2310023202	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2401060000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	251.40	TON	2017NEI_Apr2020
Jefferson	NP	2102004002	Fuel Comb - Industrial Boilers, ICEs - Oil	A	VOC	20.78	TON	2017NEI_Apr2020
Jefferson	NP	2401020000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	86.09	TON	2017NEI_Apr2020

Jefferson	NP	2401040000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	134.99	TON	2017NEI_Apr2020
Jefferson	NP	2460500000	Solvent - Consumer & Commercial Solvent Use	A	VOC	366.30	TON	2017NEI_Apr2020
Jefferson	NP	2805010100	Agriculture - Livestock Waste	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501050120	Bulk Gasoline Terminals	A	VOC	456.51	TON	2017NEI_Apr2020
Jefferson	NP	2310000552	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310011001	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021251	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102008000	Fuel Comb - Industrial Boilers, ICEs - Biomass	A	VOC	37.66	TON	2017NEI_Apr2020
Jefferson	NP	2103001000	Fuel Comb - Comm/Institutional - Coal	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2103002000	Fuel Comb - Comm/Institutional - Coal	A	VOC	0.10	TON	2017NEI_Apr2020
Jefferson	NP	2104008620	Fuel Comb - Residential - Wood	A	VOC	2.28	TON	2017NEI_Apr2020
Jefferson	NP	2310023310	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023511	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501060052	Gas Stations	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021501	Industrial Processes - Oil & Gas Production	A	VOC	0.04	TON	2017NEI_Apr2020
Jefferson	NP	2501060051	Gas Stations	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104008100	Fuel Comb - Residential - Wood	A	VOC	107.02	TON	2017NEI_Apr2020
Jefferson	NP	2505030120	Industrial Processes - Storage and Transfer	A	VOC	2.47	TON	2017NEI_Apr2020
Jefferson	NP	2401100000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	140.56	TON	2017NEI_Apr2020
Jefferson	NP	2461850000	Solvent - Consumer & Commercial Solvent Use	A	VOC	1.96	TON	2017NEI_Apr2020
Jefferson	NP	2103004002	Fuel Comb - Comm/Institutional - Oil	A	VOC	0.06	TON	2017NEI_Apr2020
Jefferson	NP	2310010200	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102007000	Fuel Comb - Industrial Boilers, ICEs - Other	A	VOC	0.17	TON	2017NEI_Apr2020
Jefferson	NP	2104008630	Fuel Comb - Residential - Wood	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501012015	Miscellaneous Non-Industrial NEC	A	VOC	1.67	TON	2017NEI_Apr2020
Jefferson	NP	2103004001	Fuel Comb - Comm/Institutional - Oil	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2310011505	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2701200000	Biogenics - Vegetation and Soil	A	VOC	2741.69	TON	2017NEI_Apr2020
Jefferson	NP	2310021302	Industrial Processes - Oil & Gas Production	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2310000551	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023400	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104007000	Fuel Comb - Residential - Other	A	VOC	0.38	TON	2017NEI_Apr2020
Jefferson	NP	2102002000	Fuel Comb - Industrial Boilers, ICEs - Coal	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2610000100	Waste Disposal	A	VOC	0.27	TON	2017NEI_Apr2020
Jefferson	NP	2104008230	Fuel Comb - Residential - Wood	A	VOC	15.55	TON	2017NEI_Apr2020
Jefferson	NP	2630020000	Waste Disposal	A	VOC	22.45	TON	2017NEI_Apr2020

Jefferson	NP	2610030000	Waste Disposal	A	VOC	3.20	TON	2017NEI_Apr2020
Jefferson	NP	2461022000	Solvent - Consumer & Commercial Solvent Use	A	VOC	458.91	TON	2017NEI_Apr2020
Jefferson	NP	2310021400	Industrial Processes - Oil & Gas Production	A	VOC	3.53	TON	2017NEI_Apr2020
Jefferson	NP	2310021603	Industrial Processes - Oil & Gas Production	A	VOC	0.08	TON	2017NEI_Apr2020
Jefferson	NP	2280002201	Mobile - Commercial Marine Vessels	A	VOC	15.97	TON	2017NEI_Apr2020
Jefferson	NP	2501055120	Bulk Gasoline Terminals	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501011014	Miscellaneous Non-Industrial NEC	A	VOC	5.19	TON	2017NEI_Apr2020
Jefferson	NP	2501012011	Miscellaneous Non-Industrial NEC	A	VOC	1.20	TON	2017NEI_Apr2020
Jefferson	NP	2805035000	Agriculture - Livestock Waste	A	VOC	1.17	TON	2017NEI_Apr2020
Jefferson	NP	2104006000	Fuel Comb - Residential - Natural Gas	A	VOC	37.07	TON	2017NEI_Apr2020
Jefferson	NP	2310023100	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023513	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021100	Industrial Processes - Oil & Gas Production	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2501080100	Gas Stations	A	VOC	0.06	TON	2017NEI_Apr2020
Jefferson	NP	2310021300	Industrial Processes - Oil & Gas Production	A	VOC	0.80	TON	2017NEI_Apr2020
Jefferson	NP	2280002102	Mobile - Commercial Marine Vessels	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501011011	Miscellaneous Non-Industrial NEC	A	VOC	27.48	TON	2017NEI_Apr2020
Jefferson	NP	2401090000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	37.15	TON	2017NEI_Apr2020
Jefferson	NP	2610000500	Waste Disposal	A	VOC	83.05	TON	2017NEI_Apr2020
Jefferson	NP	2501060201	Gas Stations	A	VOC	37.75	TON	2017NEI_Apr2020
Jefferson	NP	2805007100	Agriculture - Livestock Waste	A	VOC	0.04	TON	2017NEI_Apr2020
Jefferson	NP	2104008310	Fuel Comb - Residential - Wood	A	VOC	149.85	TON	2017NEI_Apr2020
Jefferson	NP	2460100000	Solvent - Consumer & Commercial Solvent Use	A	VOC	755.31	TON	2017NEI_Apr2020
Jefferson	NP	2501012013	Miscellaneous Non-Industrial NEC	A	VOC	44.08	TON	2017NEI_Apr2020
Jefferson	NP	2310000553	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104002000	Fuel Comb - Residential - Other	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2810060100	Miscellaneous Non-Industrial NEC	A	VOC	0.03	TON	2017NEI_Apr2020
Jefferson	NP	2680003000	Waste Disposal	A	VOC	116.00	TON	2017NEI_Apr2020
Jefferson	NP	2302003100	Commercial Cooking	A	VOC	4.52	TON	2017NEI_Apr2020
Jefferson	NP	2310010300	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021010	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2103007000	Fuel Comb - Comm/Institutional - Other	A	VOC	0.97	TON	2017NEI_Apr2020
Jefferson	NP	2104008530	Fuel Comb - Residential - Wood	A	VOC	0.12	TON	2017NEI_Apr2020
Jefferson	NP	2401005000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	192.21	TON	2017NEI_Apr2020
Jefferson	NP	2501011015	Miscellaneous Non-Industrial NEC	A	VOC	0.87	TON	2017NEI_Apr2020
Jefferson	NP	2805040000	Agriculture - Livestock Waste	A	VOC	0.07	TON	2017NEI_Apr2020



Jefferson	NP	2102001000	Fuel Comb - Industrial Boilers, ICEs - Coal	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2401065000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	2.50	TON	2017NEI_Apr2020
Jefferson	NP	2805025000	Agriculture - Livestock Waste	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NP	2310023302	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023351	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2401030000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	254.23	TON	2017NEI_Apr2020
Jefferson	NP	2401015000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	9.01	TON	2017NEI_Apr2020
Jefferson	NP	2460800000	Solvent - Consumer & Commercial Solvent Use	A	VOC	686.33	TON	2017NEI_Apr2020
Jefferson	NP	2401200000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	2.27	TON	2017NEI_Apr2020
Jefferson	NP	2285002007	Mobile - Locomotives	A	VOC	1.94	TON	2017NEI_Apr2020
Jefferson	NP	2401085000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	5.45	TON	2017NEI_Apr2020
Jefferson	NP	2103011000	Fuel Comb - Comm/Institutional - Oil	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2401075000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	2.10	TON	2017NEI_Apr2020
Jefferson	NP	2501012014	Miscellaneous Non-Industrial NEC	A	VOC	14.95	TON	2017NEI_Apr2020
Jefferson	NP	2810060200	Miscellaneous Non-Industrial NEC	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310011503	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021351	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2415000000	Solvent - Degreasing	A	VOC	728.79	TON	2017NEI_Apr2020
Jefferson	NP	2103008000	Fuel Comb - Comm/Institutional - Biomass	A	VOC	5.15	TON	2017NEI_Apr2020
Jefferson	NP	2420000000	Solvent - Dry Cleaning	A	VOC	3.64	TON	2017NEI_Apr2020
Jefferson	NP	2310021202	Industrial Processes - Oil & Gas Production	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2461021000	Solvent - Consumer & Commercial Solvent Use	A	VOC	53.99	TON	2017NEI_Apr2020
Jefferson	NP	2425000000	Solvent - Graphic Arts	A	VOC	3789.32	TON	2017NEI_Apr2020
Jefferson	NP	2310023000	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023030	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023102	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023515	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2104001000	Fuel Comb - Residential - Other	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021502	Industrial Processes - Oil & Gas Production	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2460400000	Solvent - Consumer & Commercial Solvent Use	A	VOC	72.86	TON	2017NEI_Apr2020
Jefferson	NP	2280002101	Mobile - Commercial Marine Vessels	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2285002006	Mobile - Locomotives	A	VOC	12.36	TON	2017NEI_Apr2020
Jefferson	NP	2102011000	Fuel Comb - Industrial Boilers, ICEs - Oil	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NP	2104008210	Fuel Comb - Residential - Wood	A	VOC	81.64	TON	2017NEI_Apr2020
Jefferson	NP	2104008510	Fuel Comb - Residential - Wood	A	VOC	0.64	TON	2017NEI_Apr2020
Jefferson	NP	2505040120	Industrial Processes - Storage and Transfer	A	VOC	154.95	TON	2017NEI_Apr2020

Jefferson	NP	2810025000	Miscellaneous Non-Industrial NEC	A	VOC	12.37	TON	2017NEI_Apr2020
Jefferson	NP	2310111401	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310011501	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021102	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2102006000	Fuel Comb - Industrial Boilers, ICEs - Natural Gas	A	VOC	49.26	TON	2017NEI_Apr2020
Jefferson	NP	2102005000	Fuel Comb - Industrial Boilers, ICEs - Oil	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310010100	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310021030	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023010	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023251	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023300	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023516	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2310023603	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2103005000	Fuel Comb - Comm/Institutional - Oil	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2280002202	Mobile - Commercial Marine Vessels	A	VOC	6.35	TON	2017NEI_Apr2020
Jefferson	NP	2401070000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	124.46	TON	2017NEI_Apr2020
Jefferson	NP	2310021505	Industrial Processes - Oil & Gas Production	A	VOC	0.28	TON	2017NEI_Apr2020
Jefferson	NP	2104008220	Fuel Comb - Residential - Wood	A	VOC	18.09	TON	2017NEI_Apr2020
Jefferson	NP	2104008320	Fuel Comb - Residential - Wood	A	VOC	33.20	TON	2017NEI_Apr2020
Jefferson	NP	2104008330	Fuel Comb - Residential - Wood	A	VOC	28.54	TON	2017NEI_Apr2020
Jefferson	NP	2401055000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2501060053	Gas Stations	A	VOC	32.37	TON	2017NEI_Apr2020
Jefferson	NP	2401008000	Solvent - Industrial Surface Coating & Solvent Use	A	VOC	141.78	TON	2017NEI_Apr2020
Jefferson	NP	2610000400	Waste Disposal	A	VOC	0.27	TON	2017NEI_Apr2020
Jefferson	NP	2805002000	Agriculture - Livestock Waste	A	VOC	0.76	TON	2017NEI_Apr2020
Jefferson	NP	2310011600	Industrial Processes - Oil & Gas Production	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NP	2460600000	Solvent - Consumer & Commercial Solvent Use	A	VOC	702.83	TON	2017NEI_Apr2020
Jefferson	NP	2103006000	Fuel Comb - Comm/Institutional - Natural Gas	A	VOC	23.95	TON	2017NEI_Apr2020

# Appendix C

# **APPENDIX C.1**

## **Northern Kentucky Nonattainment Area**

**Boone, Campbell, and Kenton**

MOVES3 Run Specs

### **BOONE, CAMPBELL, & KENTON MOVES3 RUN SPECS**

Scale : Model, Domain/Scale, Calculation Type	Onroad, County, Inventory
Time Spans: Years, Days, Months, Hours	2017, Weekdays, July, All Hours
Geographic Bounds: State, Counties	Kentucky, Boone (Campbell & Kenton)
On Road Vehicle Equipment: Fuels, Source Use Types	All
Road Types	All
Pollutants and Processes	VOC, NOx, select prerequisites
General Output: Units, Activity	Pounds, Joules, Miles; Activity: none
Output Emissions Aggregation: Always, for All Vehicle/Equipment Categories, Onroad/Nonroad	Time: Hour, Geographic: County; All Vehicle Categories: None; Onroad: none; Nonroad: none

Above are the run spec selections that were made by the Division in performing the MOVES onroad emissions model runs for the VOC and NOx emissions for Boone County, KY. Emissions for Campbell and Kenton Counties were also modeled with the same run spec arrangements, with respect to the county.

The purpose of the MOVES modeling that the Division performed was to provide onroad VOC and NOx 2017 base year emissions for a typical day during ozone season for Boone, Campbell, and Kenton Counties for the 2015 ozone NAAQS nonattainment emissions inventory.

The Division used inventory inputs developed by the Ohio-Kentucky-Indiana Council of Regional Governments (OKI) travel demand model. Default fuel files, average speed distribution files and meteorology files were used for Boone, Campbell, and Kenton Counties in the onroad emissions modeling.

## Poff, Leslie M (EEC)

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**Subject:** FW: Quick VMT Question

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**From:** Brett Porter <[BPorter@oki.org](mailto:BPorter@oki.org)>

**Sent:** Friday, August 20, 2021 1:52 PM

**To:** Davis, Kevin D (EEC) <[Kevin.Davis@ky.gov](mailto:Kevin.Davis@ky.gov)>

**Subject:** RE: Quick VMT Question

Hi Kevin,

Vehicle miles traveled and vehicle hours were estimated using the OKI Travel Demand Model. The OKI model is an Activity-Based Model (ABM). The OKI ABM utilizes the Coordinated Travel – Regional Activity Based Modeling Platform (CT-RAMP) from Citilabs to simulate the travel pattern of all individual travelers in the region. The ABM estimates a schedule and itinerary of daily activities for members of every household in the region based on detailed information for individuals, households, trips, and highway and transit systems. Truck trips are generated from two types of activities. One is the local delivery and services truck trips, which are estimated by OKI TAZs, land use, and employment. The other truck trips are generated from commodity flows. OKI truck model takes the truck trips converted from commodity flows in the Ohio statewide model, disaggregates them into OKI zones and scales them to the proper proportion relative to local truck trips. Travel behavior modeling at fine spatial-temporal resolution improves the accuracy of travel pattern estimates and enables the model to evaluate conventional highway and transit projects as well as to test a variety of policies and scenarios. OKI's Travel Demand Model has been validated to observed traffic volumes for the model base year.

During post-processing, the loaded highway network is used to generate VMT by time of day, VMT by speed distribution and VMT by road type. Two sets of VMT tables are generated, one for entire counties and the second for only the portion of counties in the nonattainment area. These tables are then included as input into MOVES. The VMT by time of day tables utilize hourly traffic distribution and directional split factors for different roadway types as developed by OKI. The main source of the data was the permanent traffic counting stations located throughout the OKI region. The program performs the appropriate summation by area and roadway type as well as regional totals. OKI has also developed seasonal conversion factors to adjust traffic volumes to summer conditions. The factors were derived for June, July and August from local data collected at permanent traffic counting stations.

OKI's process utilized U.S.EPA's emission model MOVES3 to develop emission inventories for VOC's and NOx. The MOVES input files contain local parameters, developed through consultation with state partners, for temperature, fuel programs, fuel characteristics, and vehicle fleet composition. The vehicle fleet composition (source type population) was derived from motor vehicle registration data from KYTC. The local parameters are combined with the VMT and speed data from the OKI ABM to produce the emissions inventory for the appropriate analysis year.

Let me know if you have any additional questions.

**Brett Porter, AICP**

*Senior Transportation Planner – Model Applications*

OKI Regional Council of Governments

720 E. Pete Rose Way, Suite 420 Cincinnati, OH 45202

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**From:** Davis, Kevin D (EEC) <[Kevin.Davis@ky.gov](mailto:Kevin.Davis@ky.gov)>

**Sent:** Thursday, August 19, 2021 5:31 PM

**To:** Brett Porter <[BPorter@oki.org](mailto:BPorter@oki.org)>

**Subject:** FW: Quick VMT Question

Hello Brett,

The Division has received comments, from the EPA, on the 2015 8-hour Ozone NAAQS demonstration (2017 on road ozone VOC and NOx). Would it be possible to supply a short narrative on how the supplied 2017 data was derived (especially, VMT and Source Type Distribution)? I believe items of interest revolve around partial and/or complete county data and VMT from long haul trucks. So as much detail as possible would be appreciated!

I believe we received this information form OKI:

- VMT
- Source type population
- Road type distribution
- Age distribution
- Average speed distribution

Please let me know if additional clarification is needed.

Thank you,

***Kevin Davis***

KY Division for Air Quality

Program Planning – Evaluation Section

300 Sower, 2<sup>nd</sup> Floor, Frankfort, KY 40601

E:[kevin.davis@ky.gov](mailto:kevin.davis@ky.gov)

T: 502-782-6593 |M:502-219-2699

## **APPENDIX C.2**

### **Louisville Nonattainment Area**

**Jefferson, Bullitt, and Oldham**

MOVES3 Run Specs



### **Jefferson, Bullitt, & Oldham MOVES3 Run Specs**

Scale : Model, Domain/Scale, Calculation Type	Onroad, County, Inventory
Time Spans: Years, Days, Months, Hours	2017, Weekdays, July, All Hours
Geographic Bounds: State, Counties	Kentucky, Jefferson (Bullitt, Oldham)
On Road Vehicle Equipment: Fuels, Source Use Types	All
Road Types	All
Pollutants and Processes	VOC, NOx, select prerequisites
General Output: Units, Activity	Pounds, Joules, Miles; Activity: none
Output Emissions Aggregation: Always, for All Vehicle/Equipment Categories, Onroad/Nonroad	Time: Hour, Geographic: County; All Vehicle Categories: None; Onroad: none; Nonroad: none

Above are the run spec selections that were made by the Division in performing the MOVES onroad emissions model runs for the VOC and NOx emissions for Jefferson County, KY. Emissions for Bullitt and Oldham Counties were also modeled with the same run spec arrangements.

The purpose of the MOVES modeling that the Division performed was to provide onroad VOC and NOx 2017 base year emissions for a typical day during ozone season for Jefferson, Bullitt and Oldham Counties for the 2015 ozone NAAQS nonattainment emissions inventory.

The Division utilized Jefferson, Bullitt and Oldham county specific files, provided by the Louisville Metro Air Pollution Control District, in the onroad emissions modeling.

# Appendix D

**APPENDIX D.1**  
**Northern Kentucky Nonattainment**  
**Area**  
Boone, Campbell, and Kenton  
2017 NEI Nonroad Source Emissions Data

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	NR	2260003022	A	R	NOX	0.003739411	TON	2017NEI
KY	21	21015	Boone	NR	2260007022	A	R	NOX	0.000178123	TON	2017NEI
KY	21	21015	Boone	NR	2265003022	A	R	NOX	3.156476	TON	2017NEI
KY	21	21015	Boone	NR	2265006022	A	R	NOX	5.863552	TON	2017NEI
KY	21	21015	Boone	NR	2267004044	A	R	NOX	0.2073372	TON	2017NEI
KY	21	21015	Boone	NR	2268002022	A	R	NOX	0.001196158	TON	2017NEI
KY	21	21015	Boone	NR	2270001060	A	R	NOX	0.5325175	TON	2017NEI
KY	21	21015	Boone	NR	2285002015	A	R	NOX	0.6340106	TON	2017NEI
KY	21	21015	Boone	NR	2282020022	A	R	NOX	8.214389	TON	2017NEI
KY	21	21015	Boone	NR	2265001050	A	R	NOX	0.5523802	TON	2017NEI
KY	21	21015	Boone	NR	2260004036	A	R	NOX	0.2163602	TON	2017NEI
KY	21	21015	Boone	NR	2265001022	A	R	NOX	3.349585	TON	2017NEI
KY	21	21015	Boone	NR	2267005022	A	R	NOX	0.00042007	TON	2017NEI
KY	21	21015	Boone	NR	2267006022	A	R	NOX	1.330455	TON	2017NEI
KY	21	21015	Boone	NR	2270003022	A	R	NOX	21.33656	TON	2017NEI
KY	21	21015	Boone	NR	2285004015	A	R	NOX	0.01061995	TON	2017NEI
KY	21	21015	Boone	NR	2260002022	A	R	NOX	0.1120657	TON	2017NEI
KY	21	21015	Boone	NR	2265004035	A	R	NOX	0.204734	TON	2017NEI
KY	21	21015	Boone	NR	2265002022	A	R	NOX	0.8826575	TON	2017NEI
KY	21	21015	Boone	NR	2260004033	A	R	NOX	0.2162194	TON	2017NEI
KY	21	21015	Boone	NR	2260004044	A	R	NOX	1.973857	TON	2017NEI
KY	21	21015	Boone	NR	2260005022	A	R	NOX	0.000522424	TON	2017NEI
KY	21	21015	Boone	NR	2260006022	A	R	NOX	0.102564	TON	2017NEI
KY	21	21015	Boone	NR	2270004044	A	R	NOX	15.73722	TON	2017NEI
KY	21	21015	Boone	NR	2260004022	A	R	NOX	0.000422189	TON	2017NEI
KY	21	21015	Boone	NR	2267001060	A	R	NOX	0.04481173	TON	2017NEI
KY	21	21015	Boone	NR	2268003060	A	R	NOX	0.001356616	TON	2017NEI
KY	21	21015	Boone	NR	2260001022	A	R	NOX	0.8393984	TON	2017NEI
KY	21	21015	Boone	NR	2260004035	A	R	NOX	0.03012902	TON	2017NEI
KY	21	21015	Boone	NR	2265003060	A	R	NOX	0.005204461	TON	2017NEI
KY	21	21015	Boone	NR	2265004033	A	R	NOX	4.636973	TON	2017NEI
KY	21	21015	Boone	NR	2265004044	A	R	NOX	8.289212	TON	2017NEI
KY	21	21015	Boone	NR	2265007022	A	R	NOX	0.000603455	TON	2017NEI

KY	21	21015	Boone	NR	2265001060	A	R	NOX	0.256433	TON	2017NEI
KY	21	21015	Boone	NR	2260004020	A	R	NOX	0.09111321	TON	2017NEI
KY	21	21015	Boone	NR	2267003022	A	R	NOX	17.98722	TON	2017NEI
KY	21	21015	Boone	NR	2268003022	A	R	NOX	1.389146	TON	2017NEI
KY	21	21015	Boone	NR	2268005022	A	R	NOX	0.01016799	TON	2017NEI
KY	21	21015	Boone	NR	2270005022	A	R	NOX	16.07813	TON	2017NEI
KY	21	21015	Boone	NR	2270006022	A	R	NOX	15.58628	TON	2017NEI
KY	21	21015	Boone	NR	2285006015	A	R	NOX	0.000685078	TON	2017NEI
KY	21	21015	Boone	NR	2265004036	A	R	NOX	1.470149	TON	2017NEI
KY	21	21015	Boone	NR	2265004022	A	R	NOX	16.23755	TON	2017NEI
KY	21	21015	Boone	NR	2265005022	A	R	NOX	0.1563444	TON	2017NEI
KY	21	21015	Boone	NR	2268006022	A	R	NOX	0.5962732	TON	2017NEI
KY	21	21015	Boone	NR	2270004022	A	R	NOX	1.909279	TON	2017NEI
KY	21	21015	Boone	NR	2270007022	A	R	NOX	0.01442408	TON	2017NEI
KY	21	21015	Boone	NR	2282005022	A	R	NOX	13.54174	TON	2017NEI
KY	21	21015	Boone	NR	2282010005	A	R	NOX	10.11376	TON	2017NEI
KY	21	21015	Boone	NR	2260001060	A	R	NOX	0.1459683	TON	2017NEI
KY	21	21015	Boone	NR	2267002022	A	R	NOX	0.1888391	TON	2017NEI
KY	21	21015	Boone	NR	2270002022	A	R	NOX	77.73323	TON	2017NEI
KY	21	21015	Boone	NR	2270004036	A	R	NOX	0.2754558	TON	2017NEI
KY	21	21015	Boone	NR	2260004021	A	R	NOX	1.106843	TON	2017NEI
KY	21	21015	Boone	NR	2270003060	A	R	NOX	7.919988	TON	2017NEI

261.2967465

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21015	Boone	NR	2260004033	A	R	VOC	5.129503	TON	2017NEI
KY	21	21015	Boone	NR	2265001022	A	R	VOC	25.72325	TON	2017NEI
KY	21	21015	Boone	NR	2265004022	A	R	VOC	40.49641	TON	2017NEI
KY	21	21015	Boone	NR	2265003060	A	R	VOC	0.01244573	TON	2017NEI
KY	21	21015	Boone	NR	2267004044	A	R	VOC	0.02933151	TON	2017NEI
KY	21	21015	Boone	NR	2270001060	A	R	VOC	0.1275327	TON	2017NEI
KY	21	21015	Boone	NR	2260004044	A	R	VOC	51.58124	TON	2017NEI
KY	21	21015	Boone	NR	2268002022	A	R	VOC	0.000937527	TON	2017NEI
KY	21	21015	Boone	NR	2270006022	A	R	VOC	1.816168	TON	2017NEI
KY	21	21015	Boone	NR	2282005022	A	R	VOC	68.19238	TON	2017NEI
KY	21	21015	Boone	NR	2265001050	A	R	VOC	1.40196	TON	2017NEI
KY	21	21015	Boone	NR	2265003022	A	R	VOC	2.973328	TON	2017NEI
KY	21	21015	Boone	NR	2265004044	A	R	VOC	33.96753	TON	2017NEI
KY	21	21015	Boone	NR	2270002022	A	R	VOC	7.590638	TON	2017NEI
KY	21	21015	Boone	NR	2270004044	A	R	VOC	1.4825	TON	2017NEI
KY	21	21015	Boone	NR	2285004015	A	R	VOC	0.02428986	TON	2017NEI
KY	21	21015	Boone	NR	2260001060	A	R	VOC	0.5243511	TON	2017NEI
KY	21	21015	Boone	NR	2260004020	A	R	VOC	2.85267	TON	2017NEI
KY	21	21015	Boone	NR	2260004036	A	R	VOC	24.00024	TON	2017NEI
KY	21	21015	Boone	NR	2282020022	A	R	VOC	0.4401447	TON	2017NEI
KY	21	21015	Boone	NR	2270003060	A	R	VOC	0.4735195	TON	2017NEI
KY	21	21015	Boone	NR	2265004035	A	R	VOC	1.103518	TON	2017NEI
KY	21	21015	Boone	NR	2265002022	A	R	VOC	1.739939	TON	2017NEI
KY	21	21015	Boone	NR	2260003022	A	R	VOC	0.08702893	TON	2017NEI
KY	21	21015	Boone	NR	2260005022	A	R	VOC	0.009962593	TON	2017NEI
KY	21	21015	Boone	NR	2265005022	A	R	VOC	0.2390454	TON	2017NEI
KY	21	21015	Boone	NR	2265007022	A	R	VOC	0.001794429	TON	2017NEI
KY	21	21015	Boone	NR	2268003060	A	R	VOC	0.000737239	TON	2017NEI
KY	21	21015	Boone	NR	2270005022	A	R	VOC	1.444476	TON	2017NEI
KY	21	21015	Boone	NR	2260001022	A	R	VOC	66.26265	TON	2017NEI
KY	21	21015	Boone	NR	2265001060	A	R	VOC	0.6476429	TON	2017NEI
KY	21	21015	Boone	NR	2260004022	A	R	VOC	0.008010264	TON	2017NEI
KY	21	21015	Boone	NR	2260004035	A	R	VOC	3.450973	TON	2017NEI

KY	21	21015	Boone	NR	2265004033	A	R	VOC	19.89202	TON	2017NEI
KY	21	21015	Boone	NR	2267006022	A	R	VOC	0.2206335	TON	2017NEI
KY	21	21015	Boone	NR	2270007022	A	R	VOC	0.000728186	TON	2017NEI
KY	21	21015	Boone	NR	2285002015	A	R	VOC	0.1046159	TON	2017NEI
KY	21	21015	Boone	NR	2260007022	A	R	VOC	0.007951266	TON	2017NEI
KY	21	21015	Boone	NR	2265006022	A	R	VOC	15.81468	TON	2017NEI
KY	21	21015	Boone	NR	2267003022	A	R	VOC	2.76918	TON	2017NEI
KY	21	21015	Boone	NR	2267001060	A	R	VOC	0.009853908	TON	2017NEI
KY	21	21015	Boone	NR	2267005022	A	R	VOC	9.15689E-05	TON	2017NEI
KY	21	21015	Boone	NR	2270004022	A	R	VOC	0.1868669	TON	2017NEI
KY	21	21015	Boone	NR	2282010005	A	R	VOC	7.874361	TON	2017NEI
KY	21	21015	Boone	NR	2285006015	A	R	VOC	0.000144985	TON	2017NEI
KY	21	21015	Boone	NR	2260002022	A	R	VOC	4.276152	TON	2017NEI
KY	21	21015	Boone	NR	2260006022	A	R	VOC	2.739253	TON	2017NEI
KY	21	21015	Boone	NR	2267002022	A	R	VOC	0.03728587	TON	2017NEI
KY	21	21015	Boone	NR	2268003022	A	R	VOC	0.7556082	TON	2017NEI
KY	21	21015	Boone	NR	2268005022	A	R	VOC	0.005109509	TON	2017NEI
KY	21	21015	Boone	NR	2268006022	A	R	VOC	0.3334753	TON	2017NEI
KY	21	21015	Boone	NR	2270003022	A	R	VOC	1.401521	TON	2017NEI
KY	21	21015	Boone	NR	2270004036	A	R	VOC	0.01971385	TON	2017NEI
KY	21	21015	Boone	NR	2260004021	A	R	VOC	49.436	TON	2017NEI
KY	21	21015	Boone	NR	2265004036	A	R	VOC	6.191016	TON	2017NEI

455.9124093

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	NR	2265004033	A	R	NOX	4.675928	TON	2017NEI
KY	21	21037	Campbell	NR	2265004044	A	R	NOX	1.352737	TON	2017NEI
KY	21	21037	Campbell	NR	2265005022	A	R	NOX	0.09111254	TON	2017NEI
KY	21	21037	Campbell	NR	2265007022	A	R	NOX	0.000493114	TON	2017NEI
KY	21	21037	Campbell	NR	2267006022	A	R	NOX	0.6564747	TON	2017NEI
KY	21	21037	Campbell	NR	2270007022	A	R	NOX	0.0118222	TON	2017NEI
KY	21	21037	Campbell	NR	2282010005	A	R	NOX	7.201278	TON	2017NEI
KY	21	21037	Campbell	NR	2260004035	A	R	NOX	0.03047486	TON	2017NEI
KY	21	21037	Campbell	NR	2260004020	A	R	NOX	0.09215902	TON	2017NEI
KY	21	21037	Campbell	NR	2265003022	A	R	NOX	0.7931281	TON	2017NEI
KY	21	21037	Campbell	NR	2260007022	A	R	NOX	0.000145993	TON	2017NEI
KY	21	21037	Campbell	NR	2265004035	A	R	NOX	0.2064716	TON	2017NEI
KY	21	21037	Campbell	NR	2268006022	A	R	NOX	0.2942137	TON	2017NEI
KY	21	21037	Campbell	NR	2285002015	A	R	NOX	1.204299	TON	2017NEI
KY	21	21037	Campbell	NR	2285006015	A	R	NOX	0.001301301	TON	2017NEI
KY	21	21037	Campbell	NR	2260003022	A	R	NOX	0.000942437	TON	2017NEI
KY	21	21037	Campbell	NR	2260005022	A	R	NOX	0.000305381	TON	2017NEI
KY	21	21037	Campbell	NR	2260006022	A	R	NOX	0.05060718	TON	2017NEI
KY	21	21037	Campbell	NR	2265003060	A	R	NOX	0.004896984	TON	2017NEI
KY	21	21037	Campbell	NR	2265004022	A	R	NOX	2.649847	TON	2017NEI
KY	21	21037	Campbell	NR	2267005022	A	R	NOX	0.00024555	TON	2017NEI
KY	21	21037	Campbell	NR	2268003060	A	R	NOX	0.001280319	TON	2017NEI
KY	21	21037	Campbell	NR	2270003060	A	R	NOX	7.47455	TON	2017NEI
KY	21	21037	Campbell	NR	2282005022	A	R	NOX	9.672675	TON	2017NEI
KY	21	21037	Campbell	NR	2265002022	A	R	NOX	0.659975	TON	2017NEI
KY	21	21037	Campbell	NR	2268005022	A	R	NOX	0.005943664	TON	2017NEI
KY	21	21037	Campbell	NR	2270002022	A	R	NOX	58.29624	TON	2017NEI
KY	21	21037	Campbell	NR	2285004015	A	R	NOX	0.02011189	TON	2017NEI
KY	21	21037	Campbell	NR	2270004036	A	R	NOX	0.04508953	TON	2017NEI
KY	21	21037	Campbell	NR	2260004021	A	R	NOX	0.1811797	TON	2017NEI
KY	21	21037	Campbell	NR	2265004036	A	R	NOX	0.239938	TON	2017NEI
KY	21	21037	Campbell	NR	2265006022	A	R	NOX	2.884503	TON	2017NEI
KY	21	21037	Campbell	NR	2267002022	A	R	NOX	0.1416204	TON	2017NEI



KY	21	21037	Campbell	NR	2268003022	A	R	NOX	0.3501034	TON	2017NEI
KY	21	21037	Campbell	NR	2270004044	A	R	NOX	2.576033	TON	2017NEI
KY	21	21037	Campbell	NR	2260004022	A	R	NOX	6.91083E-05	TON	2017NEI
KY	21	21037	Campbell	NR	2260004033	A	R	NOX	0.2187012	TON	2017NEI
KY	21	21037	Campbell	NR	2270003022	A	R	NOX	5.377407	TON	2017NEI
KY	21	21037	Campbell	NR	2268002022	A	R	NOX	0.000897061	TON	2017NEI
KY	21	21037	Campbell	NR	2270006022	A	R	NOX	7.690597	TON	2017NEI
KY	21	21037	Campbell	NR	2260004044	A	R	NOX	0.3231018	TON	2017NEI
KY	21	21037	Campbell	NR	2260004036	A	R	NOX	0.03541608	TON	2017NEI
KY	21	21037	Campbell	NR	2267003022	A	R	NOX	4.533281	TON	2017NEI
KY	21	21037	Campbell	NR	2260002022	A	R	NOX	0.08404389	TON	2017NEI
KY	21	21037	Campbell	NR	2265001050	A	R	NOX	0.5506821	TON	2017NEI
KY	21	21037	Campbell	NR	2267004044	A	R	NOX	0.03393912	TON	2017NEI
KY	21	21037	Campbell	NR	2270004022	A	R	NOX	0.3125309	TON	2017NEI
KY	21	21037	Campbell	NR	2270005022	A	R	NOX	9.398403	TON	2017NEI
KY	21	21037	Campbell	NR	2282020022	A	R	NOX	5.86742	TON	2017NEI

136.2946158

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21037	Campbell	NR	2265004044	A	R	VOC	5.561554	TON	2017NEI
KY	21	21037	Campbell	NR	2265006022	A	R	VOC	7.808758	TON	2017NEI
KY	21	21037	Campbell	NR	2267006022	A	R	VOC	0.1088653	TON	2017NEI
KY	21	21037	Campbell	NR	2268002022	A	R	VOC	0.000703101	TON	2017NEI
KY	21	21037	Campbell	NR	2260004036	A	R	VOC	3.928748	TON	2017NEI
KY	21	21037	Campbell	NR	2282005022	A	R	VOC	48.81813	TON	2017NEI
KY	21	21037	Campbell	NR	2282010005	A	R	VOC	5.654241	TON	2017NEI
KY	21	21037	Campbell	NR	2260004035	A	R	VOC	3.491592	TON	2017NEI
KY	21	21037	Campbell	NR	2270004036	A	R	VOC	0.00322697	TON	2017NEI
KY	21	21037	Campbell	NR	2265003022	A	R	VOC	0.749341	TON	2017NEI
KY	21	21037	Campbell	NR	2260006022	A	R	VOC	1.351756	TON	2017NEI
KY	21	21037	Campbell	NR	2265002022	A	R	VOC	1.30513	TON	2017NEI
KY	21	21037	Campbell	NR	2265004035	A	R	VOC	1.118003	TON	2017NEI
KY	21	21037	Campbell	NR	2265007022	A	R	VOC	0.001472536	TON	2017NEI
KY	21	21037	Campbell	NR	2268005022	A	R	VOC	0.002986745	TON	2017NEI
KY	21	21037	Campbell	NR	2260004020	A	R	VOC	2.887995	TON	2017NEI
KY	21	21037	Campbell	NR	2260004033	A	R	VOC	5.19346	TON	2017NEI
KY	21	21037	Campbell	NR	2260004044	A	R	VOC	8.444045	TON	2017NEI
KY	21	21037	Campbell	NR	2260007022	A	R	VOC	0.006517268	TON	2017NEI
KY	21	21037	Campbell	NR	2265003060	A	R	VOC	0.01174382	TON	2017NEI
KY	21	21037	Campbell	NR	2265004036	A	R	VOC	1.013162	TON	2017NEI
KY	21	21037	Campbell	NR	2270005022	A	R	VOC	0.8443635	TON	2017NEI
KY	21	21037	Campbell	NR	2282020022	A	R	VOC	0.314389	TON	2017NEI
KY	21	21037	Campbell	NR	2285004015	A	R	VOC	0.04615467	TON	2017NEI
KY	21	21037	Campbell	NR	2260002022	A	R	VOC	3.207014	TON	2017NEI
KY	21	21037	Campbell	NR	2265001050	A	R	VOC	1.401456	TON	2017NEI
KY	21	21037	Campbell	NR	2265004022	A	R	VOC	6.630125	TON	2017NEI
KY	21	21037	Campbell	NR	2268003022	A	R	VOC	0.1904339	TON	2017NEI
KY	21	21037	Campbell	NR	2268006022	A	R	VOC	0.1645437	TON	2017NEI
KY	21	21037	Campbell	NR	2260004022	A	R	VOC	0.001311351	TON	2017NEI
KY	21	21037	Campbell	NR	2260005022	A	R	VOC	0.005825983	TON	2017NEI
KY	21	21037	Campbell	NR	2267004044	A	R	VOC	0.004801289	TON	2017NEI
KY	21	21037	Campbell	NR	2265005022	A	R	VOC	0.139927	TON	2017NEI

KY	21	21037	Campbell	NR	2285002015	A	R	VOC	0.1987173	TON	2017NEI
KY	21	21037	Campbell	NR	2260004021	A	R	VOC	8.092616	TON	2017NEI
KY	21	21037	Campbell	NR	2265004033	A	R	VOC	20.15433	TON	2017NEI
KY	21	21037	Campbell	NR	2267005022	A	R	VOC	5.35263E-05	TON	2017NEI
KY	21	21037	Campbell	NR	2268003060	A	R	VOC	0.000695777	TON	2017NEI
KY	21	21037	Campbell	NR	2270004022	A	R	VOC	0.03058833	TON	2017NEI
KY	21	21037	Campbell	NR	2270004044	A	R	VOC	0.242671	TON	2017NEI
KY	21	21037	Campbell	NR	2270006022	A	R	VOC	0.8961355	TON	2017NEI
KY	21	21037	Campbell	NR	2267002022	A	R	VOC	0.02796264	TON	2017NEI
KY	21	21037	Campbell	NR	2267003022	A	R	VOC	0.6979114	TON	2017NEI
KY	21	21037	Campbell	NR	2270003022	A	R	VOC	0.3532223	TON	2017NEI
KY	21	21037	Campbell	NR	2270002022	A	R	VOC	5.692619	TON	2017NEI
KY	21	21037	Campbell	NR	2270003060	A	R	VOC	0.4468881	TON	2017NEI
KY	21	21037	Campbell	NR	2270007022	A	R	VOC	0.000596832	TON	2017NEI
KY	21	21037	Campbell	NR	2285006015	A	R	VOC	0.000275397	TON	2017NEI
KY	21	21037	Campbell	NR	2260003022	A	R	VOC	0.02193555	TON	2017NEI

147.2689948

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	NR	2260004021	A	R	NOX	0.6785996	TON	2017NEI
KY	21	21117	Kenton	NR	2260004036	A	R	NOX	0.1326493	TON	2017NEI
KY	21	21117	Kenton	NR	2265007022	A	R	NOX	0.000113788	TON	2017NEI
KY	21	21117	Kenton	NR	2268002022	A	R	NOX	0.001616801	TON	2017NEI
KY	21	21117	Kenton	NR	2268003060	A	R	NOX	0.002199756	TON	2017NEI
KY	21	21117	Kenton	NR	2268005022	A	R	NOX	0.00568178	TON	2017NEI
KY	21	21117	Kenton	NR	2268006022	A	R	NOX	0.7414177	TON	2017NEI
KY	21	21117	Kenton	NR	2270003060	A	R	NOX	12.84226	TON	2017NEI
KY	21	21117	Kenton	NR	2270004044	A	R	NOX	9.648415	TON	2017NEI
KY	21	21117	Kenton	NR	2282005022	A	R	NOX	2.901804	TON	2017NEI
KY	21	21117	Kenton	NR	2270004036	A	R	NOX	0.1688806	TON	2017NEI
KY	21	21117	Kenton	NR	2267006022	A	R	NOX	1.654315	TON	2017NEI
KY	21	21117	Kenton	NR	2268003022	A	R	NOX	0.640522	TON	2017NEI
KY	21	21117	Kenton	NR	2270003022	A	R	NOX	9.838107	TON	2017NEI
KY	21	21117	Kenton	NR	2285002015	A	R	NOX	2.319807	TON	2017NEI
KY	21	21117	Kenton	NR	2285006015	A	R	NOX	0.002506659	TON	2017NEI
KY	21	21117	Kenton	NR	2265003022	A	R	NOX	1.452843	TON	2017NEI
KY	21	21117	Kenton	NR	2265004035	A	R	NOX	0.3599091	TON	2017NEI
KY	21	21117	Kenton	NR	2267002022	A	R	NOX	0.2552468	TON	2017NEI
KY	21	21117	Kenton	NR	2270005022	A	R	NOX	8.984299	TON	2017NEI
KY	21	21117	Kenton	NR	2260006022	A	R	NOX	0.12753	TON	2017NEI
KY	21	21117	Kenton	NR	2265004036	A	R	NOX	0.8998419	TON	2017NEI
KY	21	21117	Kenton	NR	2265004033	A	R	NOX	8.150323	TON	2017NEI
KY	21	21117	Kenton	NR	2267004044	A	R	NOX	0.1271175	TON	2017NEI
KY	21	21117	Kenton	NR	2267005022	A	R	NOX	0.000234731	TON	2017NEI
KY	21	21117	Kenton	NR	2282020022	A	R	NOX	1.760225	TON	2017NEI
KY	21	21117	Kenton	NR	2260004020	A	R	NOX	0.1604383	TON	2017NEI
KY	21	21117	Kenton	NR	2260004035	A	R	NOX	0.05305316	TON	2017NEI
KY	21	21117	Kenton	NR	2260005022	A	R	NOX	0.000291926	TON	2017NEI
KY	21	21117	Kenton	NR	2260004044	A	R	NOX	1.210163	TON	2017NEI
KY	21	21117	Kenton	NR	2260002022	A	R	NOX	0.1514749	TON	2017NEI
KY	21	21117	Kenton	NR	2260003022	A	R	NOX	0.001724211	TON	2017NEI
KY	21	21117	Kenton	NR	2260004022	A	R	NOX	0.000258842	TON	2017NEI

KY	21	21117	Kenton	NR	2265001050	A	R	NOX	0.9189802	TON	2017NEI
KY	21	21117	Kenton	NR	2265004022	A	R	NOX	9.937156	TON	2017NEI
KY	21	21117	Kenton	NR	2265006022	A	R	NOX	7.277931	TON	2017NEI
KY	21	21117	Kenton	NR	2267003022	A	R	NOX	8.29376	TON	2017NEI
KY	21	21117	Kenton	NR	2270007022	A	R	NOX	0.002724654	TON	2017NEI
KY	21	21117	Kenton	NR	2285004015	A	R	NOX	0.03878887	TON	2017NEI
KY	21	21117	Kenton	NR	2260004033	A	R	NOX	0.3807334	TON	2017NEI
KY	21	21117	Kenton	NR	2260007022	A	R	NOX	3.36468E-05	TON	2017NEI
KY	21	21117	Kenton	NR	2265003060	A	R	NOX	0.008424067	TON	2017NEI
KY	21	21117	Kenton	NR	2265004044	A	R	NOX	5.072882	TON	2017NEI
KY	21	21117	Kenton	NR	2282010005	A	R	NOX	2.163298	TON	2017NEI
KY	21	21117	Kenton	NR	2265002022	A	R	NOX	1.190946	TON	2017NEI
KY	21	21117	Kenton	NR	2265005022	A	R	NOX	0.08720575	TON	2017NEI
KY	21	21117	Kenton	NR	2270002022	A	R	NOX	105.0691	TON	2017NEI
KY	21	21117	Kenton	NR	2270004022	A	R	NOX	1.17057	TON	2017NEI
KY	21	21117	Kenton	NR	2270006022	A	R	NOX	19.3803	TON	2017NEI

226.2667039

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21117	Kenton	NR	2260004036	A	R	VOC	14.71466	TON	2017NEI
KY	21	21117	Kenton	NR	2265001050	A	R	VOC	2.335939	TON	2017NEI
KY	21	21117	Kenton	NR	2265004033	A	R	VOC	35.0466	TON	2017NEI
KY	21	21117	Kenton	NR	2267006022	A	R	VOC	0.2743406	TON	2017NEI
KY	21	21117	Kenton	NR	2268003060	A	R	VOC	0.001195437	TON	2017NEI
KY	21	21117	Kenton	NR	2270002022	A	R	VOC	10.25998	TON	2017NEI
KY	21	21117	Kenton	NR	2270004022	A	R	VOC	0.1145672	TON	2017NEI
KY	21	21117	Kenton	NR	2282005022	A	R	VOC	14.62878	TON	2017NEI
KY	21	21117	Kenton	NR	2285004015	A	R	VOC	0.08886452	TON	2017NEI
KY	21	21117	Kenton	NR	2265006022	A	R	VOC	19.66727	TON	2017NEI
KY	21	21117	Kenton	NR	2267004044	A	R	VOC	0.01798299	TON	2017NEI
KY	21	21117	Kenton	NR	2268006022	A	R	VOC	0.4146502	TON	2017NEI
KY	21	21117	Kenton	NR	2270003022	A	R	VOC	0.6462297	TON	2017NEI
KY	21	21117	Kenton	NR	2270004044	A	R	VOC	0.9089136	TON	2017NEI
KY	21	21117	Kenton	NR	2270007022	A	R	VOC	0.000137552	TON	2017NEI
KY	21	21117	Kenton	NR	2265002022	A	R	VOC	2.351534	TON	2017NEI
KY	21	21117	Kenton	NR	2265005022	A	R	VOC	0.1336412	TON	2017NEI
KY	21	21117	Kenton	NR	2265007022	A	R	VOC	0.000339143	TON	2017NEI
KY	21	21117	Kenton	NR	2268005022	A	R	VOC	0.002855145	TON	2017NEI
KY	21	21117	Kenton	NR	2270003060	A	R	VOC	0.7678123	TON	2017NEI
KY	21	21117	Kenton	NR	2270006022	A	R	VOC	2.258261	TON	2017NEI
KY	21	21117	Kenton	NR	2282010005	A	R	VOC	1.691382	TON	2017NEI
KY	21	21117	Kenton	NR	2260004021	A	R	VOC	30.30983	TON	2017NEI
KY	21	21117	Kenton	NR	2260004022	A	R	VOC	0.004911287	TON	2017NEI
KY	21	21117	Kenton	NR	2260005022	A	R	VOC	0.005567532	TON	2017NEI
KY	21	21117	Kenton	NR	2265004022	A	R	VOC	24.82902	TON	2017NEI
KY	21	21117	Kenton	NR	2265004044	A	R	VOC	20.82692	TON	2017NEI
KY	21	21117	Kenton	NR	2268002022	A	R	VOC	0.00126722	TON	2017NEI
KY	21	21117	Kenton	NR	2270005022	A	R	VOC	0.8071597	TON	2017NEI
KY	21	21117	Kenton	NR	2270004036	A	R	VOC	0.01208647	TON	2017NEI
KY	21	21117	Kenton	NR	2260004020	A	R	VOC	5.025561	TON	2017NEI
KY	21	21117	Kenton	NR	2260004044	A	R	VOC	31.62543	TON	2017NEI
KY	21	21117	Kenton	NR	2265004036	A	R	VOC	3.79503	TON	2017NEI

KY	21	21117	Kenton	NR	2265004035	A	R	VOC	1.9441	TON	2017NEI
KY	21	21117	Kenton	NR	2285002015	A	R	VOC	0.3827832	TON	2017NEI
KY	21	21117	Kenton	NR	2260004033	A	R	VOC	9.035419	TON	2017NEI
KY	21	21117	Kenton	NR	2260006022	A	R	VOC	3.406197	TON	2017NEI
KY	21	21117	Kenton	NR	2260007022	A	R	VOC	0.001502001	TON	2017NEI
KY	21	21117	Kenton	NR	2268003022	A	R	VOC	0.348404	TON	2017NEI
KY	21	21117	Kenton	NR	2260002022	A	R	VOC	5.779957	TON	2017NEI
KY	21	21117	Kenton	NR	2260003022	A	R	VOC	0.04012987	TON	2017NEI
KY	21	21117	Kenton	NR	2260004035	A	R	VOC	6.077352	TON	2017NEI
KY	21	21117	Kenton	NR	2265003060	A	R	VOC	0.02017593	TON	2017NEI
KY	21	21117	Kenton	NR	2265003022	A	R	VOC	1.370783	TON	2017NEI
KY	21	21117	Kenton	NR	2267002022	A	R	VOC	0.05039791	TON	2017NEI
KY	21	21117	Kenton	NR	2267003022	A	R	VOC	1.276846	TON	2017NEI
KY	21	21117	Kenton	NR	2267005022	A	R	VOC	5.11679E-05	TON	2017NEI
KY	21	21117	Kenton	NR	2282020022	A	R	VOC	0.09431671	TON	2017NEI
KY	21	21117	Kenton	NR	2285006015	A	R	VOC	0.000530489	TON	2017NEI

253.3976641

## **APPENDIX D.2**

### **Louisville Nonattainment Area**

Bullitt, Jefferson, and Oldham

2017 NEI Nonroad Source Emissions Data



state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	NR	2270001060	A	R	NOX	0.5325175	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004021	A	R	NOX	0.1087078	TON	2017NEI
KY	21	21029	Bullitt	NR	2285004015	A	R	NOX	0.0074596	TON	2017NEI
KY	21	21029	Bullitt	NR	2265001050	A	R	NOX	0.3609683	TON	2017NEI
KY	21	21029	Bullitt	NR	2260005022	A	R	NOX	0.000366223	TON	2017NEI
KY	21	21029	Bullitt	NR	2260006022	A	R	NOX	0.02564098	TON	2017NEI
KY	21	21029	Bullitt	NR	2265003022	A	R	NOX	0.6948574	TON	2017NEI
KY	21	21029	Bullitt	NR	2265006022	A	R	NOX	1.435383	TON	2017NEI
KY	21	21029	Bullitt	NR	2265003060	A	R	NOX	0.003471411	TON	2017NEI
KY	21	21029	Bullitt	NR	2267006022	A	R	NOX	0.3326139	TON	2017NEI
KY	21	21029	Bullitt	NR	2270006022	A	R	NOX	3.896567	TON	2017NEI
KY	21	21029	Bullitt	NR	2267002022	A	R	NOX	0.1090504	TON	2017NEI
KY	21	21029	Bullitt	NR	2268006022	A	R	NOX	0.1490682	TON	2017NEI
KY	21	21029	Bullitt	NR	2270002022	A	R	NOX	44.88919	TON	2017NEI
KY	21	21029	Bullitt	NR	2270005022	A	R	NOX	11.27088	TON	2017NEI
KY	21	21029	Bullitt	NR	2270007022	A	R	NOX	0.1831167	TON	2017NEI
KY	21	21029	Bullitt	NR	2282010005	A	R	NOX	1.063328	TON	2017NEI
KY	21	21029	Bullitt	NR	2265001060	A	R	NOX	0.25136	TON	2017NEI
KY	21	21029	Bullitt	NR	2260007022	A	R	NOX	0.002261313	TON	2017NEI
KY	21	21029	Bullitt	NR	2265002022	A	R	NOX	0.4992014	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004044	A	R	NOX	0.7982971	TON	2017NEI
KY	21	21029	Bullitt	NR	2267003022	A	R	NOX	4.043808	TON	2017NEI
KY	21	21029	Bullitt	NR	2268003022	A	R	NOX	0.3123015	TON	2017NEI
KY	21	21029	Bullitt	NR	2267001060	A	R	NOX	0.04481173	TON	2017NEI
KY	21	21029	Bullitt	NR	2267004044	A	R	NOX	0.02036348	TON	2017NEI
KY	21	21029	Bullitt	NR	2267005022	A	R	NOX	0.000294472	TON	2017NEI
KY	21	21029	Bullitt	NR	2268003060	A	R	NOX	0.000924106	TON	2017NEI
KY	21	21029	Bullitt	NR	2285002015	A	R	NOX	0.4548022	TON	2017NEI
KY	21	21029	Bullitt	NR	2260003022	A	R	NOX	0.000840678	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004044	A	R	NOX	0.1938611	TON	2017NEI
KY	21	21029	Bullitt	NR	2270004044	A	R	NOX	1.545619	TON	2017NEI
KY	21	21029	Bullitt	NR	2270003060	A	R	NOX	5.394959	TON	2017NEI
KY	21	21029	Bullitt	NR	2282020022	A	R	NOX	0.8801129	TON	2017NEI

KY	21	21029	Bullitt	NR	2260002022	A	R	NOX	0.06471538	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004022	A	R	NOX	1.563767	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004033	A	R	NOX	3.056014	TON	2017NEI
KY	21	21029	Bullitt	NR	2270003022	A	R	NOX	4.79679	TON	2017NEI
KY	21	21029	Bullitt	NR	2270004022	A	R	NOX	0.1875185	TON	2017NEI
KY	21	21029	Bullitt	NR	2282005022	A	R	NOX	1.450901	TON	2017NEI
KY	21	21029	Bullitt	NR	2285006015	A	R	NOX	0.000491435	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004020	A	R	NOX	0.06123866	TON	2017NEI
KY	21	21029	Bullitt	NR	2265001022	A	R	NOX	3.28332	TON	2017NEI
KY	21	21029	Bullitt	NR	2265005022	A	R	NOX	0.1074687	TON	2017NEI
KY	21	21029	Bullitt	NR	2268005022	A	R	NOX	0.007127849	TON	2017NEI
KY	21	21029	Bullitt	NR	2260001060	A	R	NOX	0.1459683	TON	2017NEI
KY	21	21029	Bullitt	NR	2260001022	A	R	NOX	0.8393984	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004022	A	R	NOX	0.000041465	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004033	A	R	NOX	0.1453244	TON	2017NEI
KY	21	21029	Bullitt	NR	2265007022	A	R	NOX	0.007501558	TON	2017NEI
KY	21	21029	Bullitt	NR	2268002022	A	R	NOX	0.000690754	TON	2017NEI

95.22528179

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21029	Bullitt	NR	2260002022	A	R	VOC	2.470548	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004021	A	R	VOC	4.857063	TON	2017NEI
KY	21	21029	Bullitt	NR	2265002022	A	R	VOC	1.011348	TON	2017NEI
KY	21	21029	Bullitt	NR	2268003060	A	R	VOC	0.000502196	TON	2017NEI
KY	21	21029	Bullitt	NR	2285002015	A	R	VOC	0.07504528	TON	2017NEI
KY	21	21029	Bullitt	NR	2260001022	A	R	VOC	66.38151	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004044	A	R	VOC	5.069675	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004033	A	R	VOC	13.64912	TON	2017NEI
KY	21	21029	Bullitt	NR	2268003022	A	R	VOC	0.1698723	TON	2017NEI
KY	21	21029	Bullitt	NR	2270002022	A	R	VOC	4.383424	TON	2017NEI
KY	21	21029	Bullitt	NR	2270003022	A	R	VOC	0.3150837	TON	2017NEI
KY	21	21029	Bullitt	NR	2270004044	A	R	VOC	0.1456027	TON	2017NEI
KY	21	21029	Bullitt	NR	2285006015	A	R	VOC	0.000104003	TON	2017NEI
KY	21	21029	Bullitt	NR	2265006022	A	R	VOC	3.995267	TON	2017NEI
KY	21	21029	Bullitt	NR	2267002022	A	R	VOC	0.02153175	TON	2017NEI
KY	21	21029	Bullitt	NR	2267006022	A	R	VOC	0.05515842	TON	2017NEI
KY	21	21029	Bullitt	NR	2268005022	A	R	VOC	0.003581805	TON	2017NEI
KY	21	21029	Bullitt	NR	2268006022	A	R	VOC	0.08336881	TON	2017NEI
KY	21	21029	Bullitt	NR	2270004022	A	R	VOC	0.018353	TON	2017NEI
KY	21	21029	Bullitt	NR	2282005022	A	R	VOC	7.434568	TON	2017NEI
KY	21	21029	Bullitt	NR	2260005022	A	R	VOC	0.007027715	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004022	A	R	VOC	3.988172	TON	2017NEI
KY	21	21029	Bullitt	NR	2265004044	A	R	VOC	3.346265	TON	2017NEI
KY	21	21029	Bullitt	NR	2260006022	A	R	VOC	0.6856968	TON	2017NEI
KY	21	21029	Bullitt	NR	2267005022	A	R	VOC	6.41905E-05	TON	2017NEI
KY	21	21029	Bullitt	NR	2270003060	A	R	VOC	0.3225533	TON	2017NEI
KY	21	21029	Bullitt	NR	2270006022	A	R	VOC	0.4540419	TON	2017NEI
KY	21	21029	Bullitt	NR	2282010005	A	R	VOC	0.8835307	TON	2017NEI
KY	21	21029	Bullitt	NR	2285004015	A	R	VOC	0.0175988	TON	2017NEI
KY	21	21029	Bullitt	NR	2265001050	A	R	VOC	0.9340109	TON	2017NEI
KY	21	21029	Bullitt	NR	2260003022	A	R	VOC	0.01958126	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004022	A	R	VOC	0.000787636	TON	2017NEI
KY	21	21029	Bullitt	NR	2260007022	A	R	VOC	0.1009768	TON	2017NEI

KY	21	21029	Bullitt	NR	2265001022	A	R	VOC	26.08461	TON	2017NEI
KY	21	21029	Bullitt	NR	2260001060	A	R	VOC	0.5379187	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004020	A	R	VOC	1.928845	TON	2017NEI
KY	21	21029	Bullitt	NR	2265005022	A	R	VOC	0.1702087	TON	2017NEI
KY	21	21029	Bullitt	NR	2265007022	A	R	VOC	0.02302644	TON	2017NEI
KY	21	21029	Bullitt	NR	2267001060	A	R	VOC	0.009853908	TON	2017NEI
KY	21	21029	Bullitt	NR	2282020022	A	R	VOC	0.04715836	TON	2017NEI
KY	21	21029	Bullitt	NR	2270001060	A	R	VOC	0.1275327	TON	2017NEI
KY	21	21029	Bullitt	NR	2260004033	A	R	VOC	3.488597	TON	2017NEI
KY	21	21029	Bullitt	NR	2265003022	A	R	VOC	0.6702275	TON	2017NEI
KY	21	21029	Bullitt	NR	2265003060	A	R	VOC	0.008495124	TON	2017NEI
KY	21	21029	Bullitt	NR	2267003022	A	R	VOC	0.6225545	TON	2017NEI
KY	21	21029	Bullitt	NR	2267004044	A	R	VOC	0.002880772	TON	2017NEI
KY	21	21029	Bullitt	NR	2268002022	A	R	VOC	0.0005414	TON	2017NEI
KY	21	21029	Bullitt	NR	2270005022	A	R	VOC	1.012589	TON	2017NEI
KY	21	21029	Bullitt	NR	2270007022	A	R	VOC	0.009244469	TON	2017NEI
KY	21	21029	Bullitt	NR	2265001060	A	R	VOC	0.6618556	TON	2017NEI

156.3071731



**AIR POLLUTION CONTROL DISTRICT  
LOUISVILLE, KENTUCKY**

**GREG FISCHER  
MAYOR**

**RACHAEL HAMILTON  
INTERIM DIRECTOR**

October 26, 2021

**VIA e-mail**

Ashlee Smither, Environmental Scientist II  
Evaluation Section  
Division for Air Quality  
300 Sower Blvd.  
Frankfort, KY 40601

Ms. Smither:

The Louisville Metro Air Pollution Control District (LMAPCD) would like to thank the Division for Air Quality for the opportunity to review the "Proposed State Implementation Plan revision regarding the Clean Air Action Section 182(a)(1) Emissions Inventory for the 2015 8-hour Ozone National Ambient Air Quality Standard for the Northern Kentucky and Louisville areas" (*Draft Emissions Inventory SIP*). In response to U.S. EPA's comment letter of August 18, 2021, LMAPCD reviewed the information in Tables 1 & 2, as well as submitted in our original comment letter of August 25, 2021, and provides this additional update. The annual emissions inventory provided in Table 6 of our August 25 letter addresses U.S. EPA's comment regarding Tables 1 & 2 of the original Draft Emissions Inventory SIP as to the point, nonpoint, and onroad source categories. However, after further discussion with U.S. EPA regarding their comments, the nonroad source category should be updated as follows (in tons per year):

<b>Pollutant</b>	<b>Nonroad – Draft SIP</b>	<b>Nonroad – Comment Letter</b>	<b>Nonroad – Corrected</b>
Nitrogen Oxides	1409.44	1,121.22	1288.78
Volatile Organic Compounds	1405.76	490.53	1118.76

If you have any further questions or concerns, please contact Byron L. Gary, Regulatory Coordinator, at [Byron.Gary@LouisvilleKy.gov](mailto:Byron.Gary@LouisvilleKy.gov) or (502) 574-7253.

Regards –

DocuSigned by:

*Rachael Hamilton*

621E587479C44EA...

Rachael Hamilton  
Interim Director

CC: Melissa Duff, DAQ  
Kelly Lewis, DAQ  
Leslie Poff, DAQ

county	data category	scc	sector	reporting period	pollutant code	total emissions	emissions uom	data set
Jefferson	NR	2265004022	Mobile - Non-Road Equipment - Gasoline	A	NOX	34.11	TON	2017NEI_Apr2020
Jefferson	NR	2282005022	Mobile - Non-Road Equipment - Gasoline	A	NOX	16.93	TON	2017NEI_Apr2020
Jefferson	NR	2282020022	Mobile - Non-Road Equipment - Diesel	A	NOX	10.27	TON	2017NEI_Apr2020
Jefferson	NR	2265001050	Mobile - Non-Road Equipment - Gasoline	A	NOX	5.43	TON	2017NEI_Apr2020
Jefferson	NR	2265001060	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.13	TON	2017NEI_Apr2020
Jefferson	NR	2260002022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.86	TON	2017NEI_Apr2020
Jefferson	NR	2260006022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.94	TON	2017NEI_Apr2020
Jefferson	NR	2270003022	Mobile - Non-Road Equipment - Diesel	A	NOX	105.53	TON	2017NEI_Apr2020
Jefferson	NR	2270006022	Mobile - Non-Road Equipment - Diesel	A	NOX	142.12	TON	2017NEI_Apr2020
Jefferson	NR	2265003060	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.04	TON	2017NEI_Apr2020
Jefferson	NR	2268003060	Mobile - Non-Road Equipment - Other	A	NOX	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2285006015	Mobile - Non-Road Equipment - Other	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NR	2260004021	Mobile - Non-Road Equipment - Gasoline	A	NOX	2.37	TON	2017NEI_Apr2020
Jefferson	NR	2270001060	Mobile - Non-Road Equipment - Diesel	A	NOX	0.27	TON	2017NEI_Apr2020
Jefferson	NR	2260003022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.02	TON	2017NEI_Apr2020
Jefferson	NR	2260004044	Mobile - Non-Road Equipment - Gasoline	A	NOX	4.22	TON	2017NEI_Apr2020
Jefferson	NR	2265004033	Mobile - Non-Road Equipment - Gasoline	A	NOX	38.69	TON	2017NEI_Apr2020
Jefferson	NR	2268005022	Mobile - Non-Road Equipment - Other	A	NOX	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2268006022	Mobile - Non-Road Equipment - Other	A	NOX	5.44	TON	2017NEI_Apr2020
Jefferson	NR	2270004022	Mobile - Non-Road Equipment - Diesel	A	NOX	4.08	TON	2017NEI_Apr2020
Jefferson	NR	2270007022	Mobile - Non-Road Equipment - Diesel	A	NOX	0.19	TON	2017NEI_Apr2020
Jefferson	NR	2282010005	Mobile - Non-Road Equipment - Gasoline	A	NOX	12.43	TON	2017NEI_Apr2020
Jefferson	NR	2265001022	Mobile - Non-Road Equipment - Gasoline	A	NOX	1.65	TON	2017NEI_Apr2020
Jefferson	NR	2265005022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.08	TON	2017NEI_Apr2020
Jefferson	NR	2268003022	Mobile - Non-Road Equipment - Other	A	NOX	6.87	TON	2017NEI_Apr2020
Jefferson	NR	2270002022	Mobile - Non-Road Equipment - Diesel	A	NOX	595.75	TON	2017NEI_Apr2020
Jefferson	NR	2270004044	Mobile - Non-Road Equipment - Diesel	A	NOX	33.63	TON	2017NEI_Apr2020
Jefferson	NR	2270005022	Mobile - Non-Road Equipment - Diesel	A	NOX	8.30	TON	2017NEI_Apr2020
Jefferson	NR	2260001060	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.07	TON	2017NEI_Apr2020
Jefferson	NR	2260001022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.42	TON	2017NEI_Apr2020
Jefferson	NR	2260004033	Mobile - Non-Road Equipment - Gasoline	A	NOX	1.84	TON	2017NEI_Apr2020
Jefferson	NR	2260005022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NR	2265003022	Mobile - Non-Road Equipment - Gasoline	A	NOX	15.34	TON	2017NEI_Apr2020

Jefferson	NR	2265006022	Mobile - Non-Road Equipment - Gasoline	A	NOX	52.54	TON	2017NEI_Apr2020
Jefferson	NR	2265007022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2267002022	Mobile - Non-Road Equipment - Other	A	NOX	1.45	TON	2017NEI_Apr2020
Jefferson	NR	2260004022	Mobile - Non-Road Equipment - Gasoline	A	NOX	0.00	TON	2017NEI_Apr2020
Jefferson	NR	2265002022	Mobile - Non-Road Equipment - Gasoline	A	NOX	6.65	TON	2017NEI_Apr2020
Jefferson	NR	2267004044	Mobile - Non-Road Equipment - Other	A	NOX	0.44	TON	2017NEI_Apr2020
Jefferson	NR	2267006022	Mobile - Non-Road Equipment - Other	A	NOX	12.13	TON	2017NEI_Apr2020

county	data category	scc	sector	reporting period	pollutant code	total emissions	emissions uom	data set
Jefferson	NR	2285002015	Mobile - Non-Road Equipment - Diesel	A	VOC	0.24	TON	2017NEI_Apr2020
Jefferson	NR	2260004033	Mobile - Non-Road Equipment - Gasoline	A	VOC	43.98	TON	2017NEI_Apr2020
Jefferson	NR	2260006022	Mobile - Non-Road Equipment - Gasoline	A	VOC	25.00	TON	2017NEI_Apr2020
Jefferson	NR	2265003022	Mobile - Non-Road Equipment - Gasoline	A	VOC	14.74	TON	2017NEI_Apr2020
Jefferson	NR	2270004044	Mobile - Non-Road Equipment - Diesel	A	VOC	3.17	TON	2017NEI_Apr2020
Jefferson	NR	2270003060	Mobile - Non-Road Equipment - Diesel	A	VOC	3.52	TON	2017NEI_Apr2020
Jefferson	NR	2265001060	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.33	TON	2017NEI_Apr2020
Jefferson	NR	2285006015	Mobile - Non-Road Equipment - Other	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NR	2267003022	Mobile - Non-Road Equipment - Other	A	VOC	13.70	TON	2017NEI_Apr2020
Jefferson	NR	2268003022	Mobile - Non-Road Equipment - Other	A	VOC	3.74	TON	2017NEI_Apr2020
Jefferson	NR	2268005022	Mobile - Non-Road Equipment - Other	A	VOC	0.00	TON	2017NEI_Apr2020
Jefferson	NR	2270006022	Mobile - Non-Road Equipment - Diesel	A	VOC	16.56	TON	2017NEI_Apr2020
Jefferson	NR	2270007022	Mobile - Non-Road Equipment - Diesel	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2282020022	Mobile - Non-Road Equipment - Diesel	A	VOC	0.55	TON	2017NEI_Apr2020
Jefferson	NR	2265001050	Mobile - Non-Road Equipment - Gasoline	A	VOC	14.01	TON	2017NEI_Apr2020
Jefferson	NR	2260004044	Mobile - Non-Road Equipment - Gasoline	A	VOC	110.29	TON	2017NEI_Apr2020
Jefferson	NR	2260004020	Mobile - Non-Road Equipment - Gasoline	A	VOC	24.35	TON	2017NEI_Apr2020
Jefferson	NR	2260003022	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.43	TON	2017NEI_Apr2020
Jefferson	NR	2260004022	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NR	2265005022	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.13	TON	2017NEI_Apr2020
Jefferson	NR	2265007022	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.02	TON	2017NEI_Apr2020
Jefferson	NR	2267002022	Mobile - Non-Road Equipment - Other	A	VOC	0.29	TON	2017NEI_Apr2020
Jefferson	NR	2268002022	Mobile - Non-Road Equipment - Other	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2268006022	Mobile - Non-Road Equipment - Other	A	VOC	3.04	TON	2017NEI_Apr2020
Jefferson	NR	2282005022	Mobile - Non-Road Equipment - Gasoline	A	VOC	86.55	TON	2017NEI_Apr2020
Jefferson	NR	2265003060	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.09	TON	2017NEI_Apr2020
Jefferson	NR	2260001060	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.27	TON	2017NEI_Apr2020
Jefferson	NR	2270001060	Mobile - Non-Road Equipment - Diesel	A	VOC	0.06	TON	2017NEI_Apr2020
Jefferson	NR	2265001022	Mobile - Non-Road Equipment - Gasoline	A	VOC	13.02	TON	2017NEI_Apr2020
Jefferson	NR	2267006022	Mobile - Non-Road Equipment - Other	A	VOC	2.01	TON	2017NEI_Apr2020
Jefferson	NR	2268003060	Mobile - Non-Road Equipment - Other	A	VOC	0.01	TON	2017NEI_Apr2020
Jefferson	NR	2282010005	Mobile - Non-Road Equipment - Gasoline	A	VOC	10.25	TON	2017NEI_Apr2020
Jefferson	NR	2260005022	Mobile - Non-Road Equipment - Gasoline	A	VOC	0.01	TON	2017NEI_Apr2020



Jefferson	NR	2265002022	Mobile - Non-Road Equipment - Gasoline	A	VOC	13.41	TON	2017NEI_Apr2020
Jefferson	NR	2265004022	Mobile - Non-Road Equipment - Gasoline	A	VOC	86.74	TON	2017NEI_Apr2020

state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	NR	2260004033	A	R	NOX	0.1006526	TON	2017NEI
KY	21	21185	Oldham	NR	2260004044	A	R	NOX	0.5992071	TON	2017NEI
KY	21	21185	Oldham	NR	2265003060	A	R	NOX	0.002715283	TON	2017NEI
KY	21	21185	Oldham	NR	2260006022	A	R	NOX	0.04723336	TON	2017NEI
KY	21	21185	Oldham	NR	2267006022	A	R	NOX	0.6127097	TON	2017NEI
KY	21	21185	Oldham	NR	2270002022	A	R	NOX	33.15588	TON	2017NEI
KY	21	21185	Oldham	NR	2268006022	A	R	NOX	0.2745993	TON	2017NEI
KY	21	21185	Oldham	NR	2270005022	A	R	NOX	16.31218	TON	2017NEI
KY	21	21185	Oldham	NR	2260005022	A	R	NOX	0.00053003	TON	2017NEI
KY	21	21185	Oldham	NR	2265004033	A	R	NOX	2.143284	TON	2017NEI
KY	21	21185	Oldham	NR	2260004035	A	R	NOX	0.01402542	TON	2017NEI
KY	21	21185	Oldham	NR	2268005022	A	R	NOX	0.01031601	TON	2017NEI
KY	21	21185	Oldham	NR	2282005022	A	R	NOX	9.189045	TON	2017NEI
KY	21	21185	Oldham	NR	2270007022	A	R	NOX	0.08926025	TON	2017NEI
KY	21	21185	Oldham	NR	2265001050	A	R	NOX	0.9140642	TON	2017NEI
KY	21	21185	Oldham	NR	2265003022	A	R	NOX	0.3106679	TON	2017NEI
KY	21	21185	Oldham	NR	2267002022	A	R	NOX	0.08054633	TON	2017NEI
KY	21	21185	Oldham	NR	2270006022	A	R	NOX	7.177887	TON	2017NEI
KY	21	21185	Oldham	NR	2282020022	A	R	NOX	5.574047	TON	2017NEI
KY	21	21185	Oldham	NR	2260004022	A	R	NOX	0.000128165	TON	2017NEI
KY	21	21185	Oldham	NR	2260002022	A	R	NOX	0.04779981	TON	2017NEI
KY	21	21185	Oldham	NR	2267004044	A	R	NOX	0.06294164	TON	2017NEI
KY	21	21185	Oldham	NR	2268003022	A	R	NOX	0.1377586	TON	2017NEI
KY	21	21185	Oldham	NR	2265004035	A	R	NOX	0.09447456	TON	2017NEI
KY	21	21185	Oldham	NR	2260004020	A	R	NOX	0.04241426	TON	2017NEI
KY	21	21185	Oldham	NR	2260003022	A	R	NOX	0.00037083	TON	2017NEI
KY	21	21185	Oldham	NR	2265004022	A	R	NOX	4.894358	TON	2017NEI
KY	21	21185	Oldham	NR	2265004044	A	R	NOX	2.498552	TON	2017NEI
KY	21	21185	Oldham	NR	2265006022	A	R	NOX	2.68002	TON	2017NEI
KY	21	21185	Oldham	NR	2267003022	A	R	NOX	1.783755	TON	2017NEI
KY	21	21185	Oldham	NR	2282010005	A	R	NOX	6.816773	TON	2017NEI
KY	21	21185	Oldham	NR	2270003060	A	R	NOX	4.163336	TON	2017NEI
KY	21	21185	Oldham	NR	2260004021	A	R	NOX	0.3360061	TON	2017NEI

KY	21	21185	Oldham	NR	2260007022	A	R	NOX	0.001102275	TON	2017NEI
KY	21	21185	Oldham	NR	2265005022	A	R	NOX	0.1574975	TON	2017NEI
KY	21	21185	Oldham	NR	2270004022	A	R	NOX	0.5796025	TON	2017NEI
KY	21	21185	Oldham	NR	2285006015	A	R	NOX	0.000495665	TON	2017NEI
KY	21	21185	Oldham	NR	2270004036	A	R	NOX	0.08362043	TON	2017NEI
KY	21	21185	Oldham	NR	2265002022	A	R	NOX	0.3736533	TON	2017NEI
KY	21	21185	Oldham	NR	2265007022	A	R	NOX	0.003706272	TON	2017NEI
KY	21	21185	Oldham	NR	2270003022	A	R	NOX	2.115903	TON	2017NEI
KY	21	21185	Oldham	NR	2268003060	A	R	NOX	0.00071314	TON	2017NEI
KY	21	21185	Oldham	NR	2265004036	A	R	NOX	0.4424015	TON	2017NEI
KY	21	21185	Oldham	NR	2260004036	A	R	NOX	0.06568076	TON	2017NEI
KY	21	21185	Oldham	NR	2267005022	A	R	NOX	0.000426185	TON	2017NEI
KY	21	21185	Oldham	NR	2268002022	A	R	NOX	0.000510202	TON	2017NEI
KY	21	21185	Oldham	NR	2270004044	A	R	NOX	4.777369	TON	2017NEI
KY	21	21185	Oldham	NR	2285002015	A	R	NOX	0.4587164	TON	2017NEI
KY	21	21185	Oldham	NR	2285004015	A	R	NOX	0.007625935	TON	2017NEI

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state	fips state code	fips code	county	data category	scc	reporting period	emissions operating type	pollutant code	total emissions	emissions uom	data set
KY	21	21185	Oldham	NR	2270003060	A	R	VOC	0.2489171	TON	2017NEI
KY	21	21185	Oldham	NR	2260006022	A	R	VOC	1.262166	TON	2017NEI
KY	21	21185	Oldham	NR	2265003022	A	R	VOC	0.2952476	TON	2017NEI
KY	21	21185	Oldham	NR	2265006022	A	R	VOC	7.31607	TON	2017NEI
KY	21	21185	Oldham	NR	2265007022	A	R	VOC	0.01115158	TON	2017NEI
KY	21	21185	Oldham	NR	2285002015	A	R	VOC	0.07569122	TON	2017NEI
KY	21	21185	Oldham	NR	2285004015	A	R	VOC	0.01765513	TON	2017NEI
KY	21	21185	Oldham	NR	2268003060	A	R	VOC	0.000387548	TON	2017NEI
KY	21	21185	Oldham	NR	2265004033	A	R	VOC	9.341009	TON	2017NEI
KY	21	21185	Oldham	NR	2267003022	A	R	VOC	0.2746139	TON	2017NEI
KY	21	21185	Oldham	NR	2267005022	A	R	VOC	9.29019E-05	TON	2017NEI
KY	21	21185	Oldham	NR	2268005022	A	R	VOC	0.005183893	TON	2017NEI
KY	21	21185	Oldham	NR	2270006022	A	R	VOC	0.8363931	TON	2017NEI
KY	21	21185	Oldham	NR	2265001050	A	R	VOC	2.336522	TON	2017NEI
KY	21	21185	Oldham	NR	2260004044	A	R	VOC	15.66303	TON	2017NEI
KY	21	21185	Oldham	NR	2260007022	A	R	VOC	0.04921067	TON	2017NEI
KY	21	21185	Oldham	NR	2265002022	A	R	VOC	0.7443935	TON	2017NEI
KY	21	21185	Oldham	NR	2267004044	A	R	VOC	0.008904199	TON	2017NEI
KY	21	21185	Oldham	NR	2268002022	A	R	VOC	0.000399887	TON	2017NEI
KY	21	21185	Oldham	NR	2268003022	A	R	VOC	0.07493194	TON	2017NEI
KY	21	21185	Oldham	NR	2282005022	A	R	VOC	46.58321	TON	2017NEI
KY	21	21185	Oldham	NR	2282020022	A	R	VOC	0.2986697	TON	2017NEI
KY	21	21185	Oldham	NR	2260004021	A	R	VOC	15.0093	TON	2017NEI
KY	21	21185	Oldham	NR	2260005022	A	R	VOC	0.01013505	TON	2017NEI
KY	21	21185	Oldham	NR	2265003060	A	R	VOC	0.006549977	TON	2017NEI
KY	21	21185	Oldham	NR	2260004035	A	R	VOC	1.608668	TON	2017NEI
KY	21	21185	Oldham	NR	2265005022	A	R	VOC	0.2441013	TON	2017NEI
KY	21	21185	Oldham	NR	2270004044	A	R	VOC	0.4500447	TON	2017NEI
KY	21	21185	Oldham	NR	2270007022	A	R	VOC	0.004506214	TON	2017NEI
KY	21	21185	Oldham	NR	2270004036	A	R	VOC	0.005984563	TON	2017NEI
KY	21	21185	Oldham	NR	2260003022	A	R	VOC	0.008633229	TON	2017NEI
KY	21	21185	Oldham	NR	2265004044	A	R	VOC	10.32455	TON	2017NEI
KY	21	21185	Oldham	NR	2267006022	A	R	VOC	0.1016077	TON	2017NEI

KY	21	21185	Oldham	NR	2270002022	A	R	VOC	3.237666	TON	2017NEI
KY	21	21185	Oldham	NR	2260004020	A	R	VOC	1.330858	TON	2017NEI
KY	21	21185	Oldham	NR	2270003022	A	R	VOC	0.138986	TON	2017NEI
KY	21	21185	Oldham	NR	2265004036	A	R	VOC	1.878631	TON	2017NEI
KY	21	21185	Oldham	NR	2260004022	A	R	VOC	0.002432829	TON	2017NEI
KY	21	21185	Oldham	NR	2260004033	A	R	VOC	2.399713	TON	2017NEI
KY	21	21185	Oldham	NR	2265004022	A	R	VOC	12.30757	TON	2017NEI
KY	21	21185	Oldham	NR	2268006022	A	R	VOC	0.1535743	TON	2017NEI
KY	21	21185	Oldham	NR	2270004022	A	R	VOC	0.05672743	TON	2017NEI
KY	21	21185	Oldham	NR	2285006015	A	R	VOC	0.000104898	TON	2017NEI
KY	21	21185	Oldham	NR	2265004035	A	R	VOC	0.5182819	TON	2017NEI
KY	21	21185	Oldham	NR	2260002022	A	R	VOC	1.824296	TON	2017NEI
KY	21	21185	Oldham	NR	2260004036	A	R	VOC	7.286775	TON	2017NEI
KY	21	21185	Oldham	NR	2267002022	A	R	VOC	0.0159037	TON	2017NEI
KY	21	21185	Oldham	NR	2270005022	A	R	VOC	1.465504	TON	2017NEI
KY	21	21185	Oldham	NR	2282010005	A	R	VOC	5.442642	TON	2017NEI

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# Appendix E

# **APPENDIX E.1**

## **Public Hearing Notice**

**KENTUCKY DIVISION FOR AIR QUALITY  
NOTICE OF PUBLIC HEARING  
TO REVISE KENTUCKY'S STATE IMPLEMENTATION PLAN**

The Kentucky Energy and Environment Cabinet will conduct a public hearing, if requested, on August 26, 2021, at 10:00 a.m. (EDT) in Conference Room 214 located at 300 Sower Boulevard, Frankfort, Kentucky 40601. This hearing is being held to receive comments on a proposed revision to Kentucky's State Implementation Plan (SIP) addressing the emissions inventory requirements of Clean Air Act Section 182(a)(1).

This hearing is open to the public and all interested persons will be given the opportunity to present testimony. The hearing will be held, if requested, at the date, time and place given above. It is not necessary that the hearing be held or attended in order for persons to comment on the proposed submittal to EPA. To assure that all comments are accurately recorded, the Division requests that oral comments presented at the hearing also be provided in written form, if possible. To be considered part of the hearing record, written comments must be received by the close of the hearing. Written comments should be sent to the contact person. If no request for a public hearing is received, the hearing will be cancelled, and notice of the cancellation will be posted at the website listed below. Request for a public hearing must be received no later than **August 19, 2021** while all comments must be submitted no later than **August 26, 2021**.

The full text of the proposed SIP revision is available for public inspection and copying during regular business hours (8:00 a.m. to 4:30 p.m.) at the following location: Division for Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601. Any individual requiring copies may submit a request to the Division for Air Quality in writing, by email. Requests for copies should be directed to the contact person. In addition, an electronic version of the proposed SIP revision document and relevant attachments can be downloaded from the Division for Air Quality's website at: <https://eec.ky.gov/Environmental-Protection/Air/Pages/Public-Notices.aspx>.

The hearing facility is accessible to people with disabilities. An interpreter or other auxiliary aid or service will be provided upon request. Please direct these requests to the contact person. CONTACT PERSON: Ashlee Smither, Environmental Scientist II, Evaluation Section, Division for Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601. Phone: (502) 782-4716; E-mail: ashlee.smither@ky.gov.

The Energy and Environment Cabinet does not discriminate on the basis of race, color, national origin, sex, age, religion or disability and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford an individual with a disability an equal opportunity to participate in all services, programs and activities.



## **APPENDIX E.2**

### **Comments Received**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

August 23, 2021

Melissa Duff  
Director  
Kentucky Division for Air Quality  
300 Sower Boulevard  
Frankfort, Kentucky 40601

Dear Ms. Duff:

Thank you for your letter dated July 14, 2021, transmitting a prehearing package regarding the Emissions Inventory for the 2015 8-hour Ozone National Ambient Air Quality Standard for the Northern Kentucky and Louisville areas. This rule is subject to public review and comment, with written comments due by the close of business on August 26, 2021. We have completed our review of the prehearing submittal and offer a few suggestions in the enclosure.

We look forward to continuing to work with you and your staff. If you have any questions, please contact Ms. Pepa Sassin, Chief, Air Regulatory Management Section at (404) 562-9075, or have your staff contact Ms. LaRocca at (404) 562-8994.

Sincerely,

Lynorae Benjamin  
Chief  
Air Planning and Implementation Branch

Enclosure

**The U.S. Environmental Protection Agency's Preliminary Comments Regarding the Emissions Inventory for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS) for Northern Kentucky and Louisville Areas**

**General Comments**

1. Emissions Inventory – Please verify values in Tables 1 and 2 for both Northern Kentucky and Louisville for data categories of point, nonpoint and nonroad and the associated appendices. Ensure applicable changes are captured in the remaining tables for both areas.
2. MOVES Modeling – Please verify vehicle miles traveled for Oldham, Boone, and Kenton counties. Please also verify Source types age distribution for types 11, 21 and 31 for Jefferson County. The EPA recommends providing further explanation and detail on the meteorological data used. The EPA MOVES modeling staff may provide additional discussion as needed.
3. For both the Northern Kentucky and Louisville areas, the Kentucky submittal states that the typical summer day emissions (in tons per day) for the nonattainment portion of each county, were derived by taking the calculated annual emissions totals, multiplying them by 25 percent to account for the 4 seasons, and then dividing by the 92 days of the summer season. The EPA's May 2017 Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations, specifically Sections 2.5.2 and 4.5.1, defines the Ozone season day emissions as an average day's emissions for a typical ozone season work weekday. The guidance states that the state shall select, subject to the EPA's approval, the particular month(s) in the ozone season and the day(s) in the work week to be represented (considering the conditions assumed in the development of reasonable further progress plans and/or emissions budgets for transportation conformity). For ozone SIPs, ozone season day emissions (as defined in Section 2.5.2 of the guidance) are used for the base year inventory for the nonattainment area. The guidance states that since other planning inventories must be consistent with the base year inventory, inventories such as the projected attainment year inventory for the nonattainment area and the periodic inventories must also include ozone season day emissions. The guidance goes on to say the states must select the representative months and work weekdays to include in the calculation of the ozone season day emissions. As an example, the EPA has seen this done where a state has selected the ozone season month with typically the highest emissions based on past data, found the average emissions during the weekdays in that month and divided by the number of work days for that month. Please provide documentation that the calculation Kentucky used (25 percent of annual emissions divided by 92 summer days) is consistent with the above referenced EPA Emissions Inventory guidance regarding typical ozone season day emissions.



**AIR POLLUTION CONTROL DISTRICT  
LOUISVILLE, KENTUCKY**

**GREG FISCHER  
MAYOR**

**RACHAEL HAMILTON  
INTERIM DIRECTOR**

August 25, 2021

**VIA e-mail**

Ashlee Smither, Environmental Scientist II  
Evaluation Section  
Division for Air Quality  
300 Sower Blvd.  
Frankfort, KY 40601

Ms. Smither:

The Louisville Metro Air Pollution Control District (LMAPCD) would like to thank the Division for Air Quality for the opportunity to review the "Proposed State Implementation Plan revision regarding the Clean Air Action Section 182(a)(1) Emissions Inventory for the 2015 8-hour Ozone National Ambient Air Quality Standard for the Northern Kentucky and Louisville areas" (*"Draft Emissions Inventory SIP"*). The District offers the attached comments.

If you have any further questions or concerns, please contact Byron L. Gary, Regulatory Coordinator, at [Byron.Gary@LouisvilleKy.gov](mailto:Byron.Gary@LouisvilleKy.gov) or (502) 574-7253.

Regards –

DocuSigned by:  
*Rachael Hamilton*  
621E587479C44EA...  
Rachael Hamilton  
Interim Director

CC: Melissa Duff, DAQ  
Kelly Lewis, DAQ  
Leslie Poff, DAQ



**AIR POLLUTION CONTROL DISTRICT  
LOUISVILLE, KENTUCKY**

**GREG FISCHER  
MAYOR**

**RACHAEL HAMILTON  
INTERIM DIRECTOR**

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Appendix J – Annual Onroad Source Emissions Inventory for 2017

Appendix K – Annual Nonroad Source Emissions Inventory for 2017

**Comment 1 – NSR Certification Language**

On Page 9, at the bottom of the third paragraph, immediately preceding the beginning of Section 2 of the Louisville portion of the submission, LMAPCD suggests changing the final sentence to state “On May 13, 2021, the Cabinet also submitted on LMAPCD’s behalf a proposed certification that satisfies CAA Section 182(a)(2)(C).” The current language stating the Cabinet submitted a proposed revision is not incorrect; however, the suggested change is meant to add specificity, and match language regarding the Cabinet’s earlier submission covering Bullitt and Oldham Counties.

**Comment 2 – LMAPCD Point Inventory Language**

In the first full paragraph on page 10 LMAPCD suggests adding language that indicates that in addition to the point source emissions data that the Division collects on an annual basis, LMAPCD also collects emissions inventories from major sources annually.

**Comment 3 – Tons Per Summer Day Calculations, Overall**

The Draft Emissions Inventory SIP provides 2017 Summer Day NO<sub>x</sub> and VOC Emissions by Source Category in Tables 3 and 4, respectively. It further states that “[t]he summer day emissions, in (tpd), were derived by taking the calculated annual emissions totals, multiplying them by 0.25 to account for the 4 seasons, and then dividing by the 92 days of the summer season.”

40 C.F.R. §51.1315(c) requires that “emissions values included in the inventories ... shall be actual ozone season day emissions.” 40 C.F.R. §51.1300(q) defines ozone season day emissions as “an average day's emissions for a typical ozone season work weekday.” While the Division’s approach roughly reflects the proportion of the number of total of days of the year that fall in the summer months of June, July, and August, emissions can vary significantly between seasons and this variability should be accounted for. Suggested approaches for each source category in Jefferson County are provided in the following comments.

**Comment 4 - Tons Per Summer Day Calculations, Point**

For the point source category, LMAPCD is providing a spreadsheet of sources that reported NO<sub>x</sub> and/or VOC emissions to LMAPCD in 2017 as Appendix A to these comments. This is a slightly updated version of the spreadsheet included with the letter sent to the Division on July 2, 2020, and included in the Draft Emissions Inventory SIP as Appendix A.3.<sup>1</sup>

In order to calculate ozone season day emissions, “Summer Operations (%)” as reported by facilities were divided by 100 (to convert to a decimal) and multiplied by “Estimated Emissions (Tons)” for each process and pollutant at each facility, then divided by the 92 days of the summer season to derive tons per ozone season day (tposd) emissions. For twenty processes with estimated total (annual) emissions of 1.19 tons of NO<sub>x</sub> and 10.68 tons of VOCs that did not report “Summer Operations (%)”, LMAPCD conservatively assumed emissions were entirely in the summer, and so allocated the full “Estimated

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<sup>1</sup> The primary update made was to exclude certain sources that report annual emissions to LMAPCD due to local requirements but are not reported to U.S. EPA annually because they are not covered by the Air Emissions Reporting Rule (AERR, 40 C.F.R. Part 51, Subpart A). Sources include several bulk gasoline terminals and a sewage treatment plant that are not permitted under Title V of the Clean Air Act. These sources generally are included in the nonpoint category and were excluded here to avoid double-counting.

Emissions (Tons)” to the ozone season and divided by 92 days to derive tons per ozone season day. This results in the following emissions in table 1, which vary less than 1 tpsd from the table in the July 2, 2020, letter to the Division.<sup>2</sup>

Table 1 - 2017 Emissions from Facilities Reported to LMAPCD

Pollutant	Ozone Season Emissions (Tons per Day)
Nitrogen Oxides	30.76
Volatile Organic Compounds	20.73

While this does not reflect the entire ozone season,<sup>3</sup> or just weekdays, LMAPCD believe it is an appropriate method for these sources. Most ozone exceedances occurred in June, July, or August (3 out of the 4 exceedances in 2017 at the Cannons Lane monitoring site, the area’s Design Value monitor; and 5 out of 5 at the New Albany site in Indiana, the site with the most exceedances and the highest fourth-maximum in 2017). Furthermore, ozone exceedances occurred at a proportionate rate on weekends and weekdays in 2017 (1 out of 4 days at the Cannons Lane monitoring site, and 2 out of 5 at the New Albany site). Finally, the two largest sources of NO<sub>x</sub> and VOCs in Jefferson County, power plants and bourbon aging, respectively, emit roughly equally on weekdays and weekends, so including all days of the week is reasonable. According to EPA’s *Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations*, “Since the goal of the definition of ozone season day emissions is representativeness of the emissions contributing to the ozone nonattainment problem, if including the weekend emissions resulted in a better representation of emissions, then states may be able to justify including weekend emissions....”<sup>4</sup>

This is still an incomplete accounting of the point source category, though. Since nonpoint and nonroad category emissions are derived from EPA’s National Emissions Inventory (“NEI”) (see Comments 5 & 6), and these point category emissions only account for sources reporting to LMAPCD, other sources included by EPA in the point category in the NEI, such as airports and railyards, need to be accounted for. LMAPCD downloaded and extracted emissions of NO<sub>x</sub> and VOCs from sources in Jefferson County from the 2017 NEI,<sup>5</sup> and filtered for “facilities” in NAICS codes 48811 and 488210 (covering “Airport Operations” and “Support Activities for Rail Transportation”, respectively).<sup>6</sup> Appendix B includes these data, with an added column labeled “tpsd”, calculated with the method that the Draft Emissions Inventory SIP laid out (i.e., divide annual by four to get summer total emissions, then divide by the 92

<sup>2</sup> LMAPCD believes this approach is appropriately conservative, but it makes little difference as the emissions reported without a percent summer operations were de minimis, at 0.0129 tons per day of the total NO<sub>x</sub> in the above table, and 0.116 tons of VOCs.

<sup>3</sup> According to 40 C.F.R. §51.1300(j), “Ozone season means for each state (or portion of a state), the ozone monitoring season as defined in 40 CFR part 58, appendix D, section 4.1(i) for that state (or portion of a state).” For Kentucky this is March through October.

<sup>4</sup> U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Assessment Division, at 76 (May 2017), available at [https://www.epa.gov/sites/default/files/2017-07/documents/ei\\_guidance\\_may\\_2017\\_final\\_rev.pdf](https://www.epa.gov/sites/default/files/2017-07/documents/ei_guidance_may_2017_final_rev.pdf).

<sup>5</sup> See [https://gaftp.epa.gov/air/nei/2017/data\\_summaries/2017v1/2017neiJan\\_facility\\_process\\_byregions.zip](https://gaftp.epa.gov/air/nei/2017/data_summaries/2017v1/2017neiJan_facility_process_byregions.zip) for point sources.

<sup>6</sup> The unfiltered list of sources of NO<sub>x</sub> and VOC emissions in Jefferson County was manually checked against the spreadsheet containing emissions reported to LMAPCD to verify this captured all sources not in that list.

days of June, July, and August). This method gives 4.05 tpsod of NO<sub>x</sub> emissions and 0.83 tpsod for VOCs.<sup>7</sup> For these remaining facilities LMAPCD believes this is a sufficient approximation. Principally, this estimate is useful because information on seasonal variation of activities is not readily available for all of these sources. However, for the single largest contributor to these remaining emissions, the Louisville International Airport, this method of approximation is supported by data available on monthly flights indicating that flights in June, July, and August made up almost precisely one quarter of total annual flights (25.3%).<sup>8</sup>

Adding these emissions to the facility-specific emissions reported to LMAPCD above gives point source emissions for Jefferson County for 2017 in table 2. Appendix B includes this full point inventory including both facilities that reported to LMAPCD, and those extracted from the NEI.

*Table 2 - Point Source Ozone Season Emissions, tons per day*

Pollutant	Ozone Season Emissions (Tons per Day)
Nitrogen Oxides	34.81
Volatile Organic Compounds	21.56

The full methodology is laid out in the R code used for extracting, combining, and summarizing data, included as a text file as Appendix C.

#### **Comment 5 – Tons Per Summer Day Calculations, Nonpoint**

For the nonpoint source category, LMAPCD agrees that the best source of emissions data is the 2017 National Emissions Inventory (NEI). LMAPCD has not been able to find any emissions data other than annual emissions in any NEI files on EPA’s website or supporting documentation and data.<sup>9</sup> However, EPA’s 2016 version 1 modeling platform does provide monthly emissions data.

According to EPA, “The 2016v1 emissions modeling platform is a product from the National Emissions Inventory Collaborative and includes a full suite of base year (2016) and projection year (2023 & 2028) inventories, ancillary emission data, and scripts and software for preparing the emissions for air quality modeling.”<sup>10</sup> Using this data, LMAPCD derived a weighted ozone season percent of total emissions from the 2016 platform. LMAPCD utilized the “county monthly report” from the 2016v1 platform,<sup>11</sup> filtered for emissions of NO<sub>x</sub> and VOCs from nonpoint sources Jefferson County.<sup>12</sup> First, a summer percent of

<sup>7</sup> Appendix B includes these sources, as well as those that reported emissions to LMAPCD as described above, however these emissions are just for those sources extracted from the NEI.

<sup>8</sup> Louisville Regional Airport Authority, Aviation Statistics (December 2017), *available at* <https://www.flylouisville.com/wp-content/uploads/2019/05/Aviation-Stats-2017-12-Dec.pdf>. Adding the monthly total flights for June, July and August (41,486), and dividing by the total (163,676) on page 2.

<sup>9</sup> <https://gaftp.epa.gov/air/nei/2017/>.

<sup>10</sup> <https://www.epa.gov/air-emissions-modeling/2016v1-platform>.

<sup>11</sup> Specifically,

[https://gaftp.epa.gov/Air/emismod/2016/v1/reports/county\\_monthly/2016fh\\_county\\_monthly\\_report\\_06jan2020\\_v0.csv.zip](https://gaftp.epa.gov/Air/emismod/2016/v1/reports/county_monthly/2016fh_county_monthly_report_06jan2020_v0.csv.zip), filtering for nonpoint under “shape\_id,” which seems to equate to source category.

<sup>12</sup> “Sources” here refers to Source Classification Codes (SCCs), since nonpoint sources are by definition not inventoried individually.



total emissions was calculated by summing June, July, and August emissions, and dividing by total for each row. A weighted total percent for each pollutant was then calculated using the following formula:

$$\frac{\sum \text{ozone season percent} * \text{total emissions}}{\sum \text{total emissions}}$$

This weighted ozone season percent for each pollutant was then applied to the nonpoint emissions from the 2017 NEI to find the nonpoint emissions for Jefferson County for 2017 in table 3.

Table 3 - Nonpoint Source Ozone Season Emissions, tons per day

Pollutant	Ozone Season Emissions (Tons per Day)
Nitrogen Oxides	6.66
Volatile Organic Compounds	41.57

The full nonpoint inventory is contained in Appendix D. The full methodology is laid out in the R code used for extracting, combining, and summarizing data, included as a text file as Appendix E.

#### Comment 6 - Tons Per Summer Day Calculations, Nonroad

For the nonroad category, emissions can be obtained using the MOVES 3.0 model. This is an improvement over MOVES 2014b, used by EPA for the 2017 NEI.<sup>13</sup> Further, MOVES can be set up to run for selected months and provide tons per day outputs, and with updated worst-case summer meteorology, obtained from historical data from Louisville Muhammad Ali International Airport.<sup>14</sup> Running for June-August, and weighting weekdays and weekends at a proportionate rate (i.e., weekday emissions \* (5/7) + weekend emissions \* (2/7)), gives the tons per summer day emissions for Jefferson County for 2017 in table 4.

Table 4 - Nonroad Source Ozone Season Emissions, tons per day

Pollutant	Ozone Season Emissions (Tons per Day)
Nitrogen Oxides	4.32
Volatile Organic Compounds	4.02

The full nonroad inventory is contained in Appendix F.

#### Comment 7 - Tons Per Summer Day Calculations, Onroad

For the onroad source category, it appears the Division has used the MOVES 3.0 run specs in Appendix C, including running for weekdays in July. Because 40 C.F.R. §51.1300(q) defines Ozone season day emissions as “an average day’s emissions for a typical ozone season work weekday,” LMAPCD believes

<sup>13</sup> See, EPA, 2017 National Emissions Inventory: January 2021 Updated Release, Technical Support Document (2021) at 5-2.

<sup>14</sup> Included as a spreadsheet in Appendix G. All other inputs used were default EPA inputs.

this is a valid choice; however, if this choice is maintained it should be more fully explained in the narrative body, along with the source of other inputs such as meteorology.

Nevertheless, as explained above in comment 4, because ozone exceedances occurred at a proportionate rate on weekends and weekdays in 2017 (one out of 4 days at the Cannons Lane monitoring site, and 2 out of 5 at the New Albany site), LMAPCD believes the Division should consider including weekend days as well, at a proportionate rate (i.e., weekday emissions \* (5/7) + weekend emissions \* (2/7)). Furthermore, this would maintain consistency with all other source categories, where no distinction is made between weekday and weekend. This single change, while maintaining all other specs and inputs, results in the onroad emissions for Jefferson County for 2017 shown in table 4.

Table 5 - Onroad Source Ozone Season Emissions, tons per day

Pollutant	Ozone Season Emissions (Tons per Day)
Nitrogen Oxides	20.97
Volatile Organic Compounds	7.85

The full onroad summer inventory is included as Appendix H.

#### Comment 8 – Annual Emissions

Annual emissions are provided in tables 1 & 2 of the Draft Emissions Inventory SIP, but they are not required by 40 C.F.R. Part 51, Subpart CC – Provisions for Implementation of the 2015 Ozone National Ambient Air Quality Standards. However, if DAQ desires to include annual emissions in the final Emissions Inventory SIP submittal, LMAPCD believes the emissions totals in table 6, derived from the same sources as in comments 4, 5 & 7, should be submitted for Jefferson County.<sup>15</sup> Nonroad annual emissions show below in table 6 are not from a new MOVES 3.0 run, rather they are taken from the 2017 NEI.<sup>16</sup> The annual emissions below in table 6 are not extrapolated out from the tpsod emissions in tables 1-5 above, but instead reflect direct calculations of annual emissions.

Table 6 - Annual Emissions for All Source Categories for Jefferson County, tons per year

Pollutant	Point	Nonpoint	Nonroad	Onroad
Nitrogen Oxides	12,051.28	3,864.55	1,121.22	7,198.91
Volatile Organic Compounds	7,877.43	15,447.73	490.53	2,254.55

<sup>15</sup> Annual onroad emissions are from a new MOVES 3.0 run as in Comment 7, but with annual meteorological inputs rather than worst-case historical meteorology. Full inputs are provided in Appendix I to these comments, and the inventory is included as Appendix J.

<sup>16</sup> Jefferson County emissions of NO<sub>x</sub> and VOCs were extracted from the file “nonroad\_4.csv” at [https://gaftp.epa.gov/air/nei/2017/data\\_summaries/2017v1/2017neiApr\\_nonroad\\_byregions.zip](https://gaftp.epa.gov/air/nei/2017/data_summaries/2017v1/2017neiApr_nonroad_byregions.zip), and are included as Appendix K to these comments.

## **APPENDIX E.3**

### **Statement of Consideration**

**STATEMENT OF CONSIDERATION  
Relating to the Proposed SIP Revision for the  
2015 8-Hour Ozone Base Year Emissions Inventory**

**Energy and Environment Cabinet  
Kentucky Department for Environmental Protection  
Division for Air Quality**

**Response to Comments for Kentucky’s proposed SIP submittal to address Clean Air Act (CAA) Section 182(a)(1), regarding the 2015 ozone National Ambient Air Quality Standards (NAAQS) emissions inventory requirements for nonattainment areas**

Beginning July 19, 2021 until August 26, 2021, the Energy and Environment Cabinet (Cabinet) provided an opportunity for the public to review and comment on the proposed SIP revision addressing CAA section 182(a)(1) for the 2015 ozone NAAQS. The Cabinet made available the public notice of the comment period and public hearing on the Division for Air Quality’s website and mailed the public notice to interested individuals registered on the regulatory mailing lists maintained by the Cabinet.

The following people submitted written statements during the public comment period:

<u>Name</u>	<u>Title/Agency/Organization/Entity/Other</u>
Lynorae Benjamin.....	Chief, Air Planning & Implementation Branch U.S. EPA
Rachael Hamilton.....	Interim Director, Louisville Metro Air Pollution Control District

**Summary of Comments and Responses**

**1. Comment:** Emissions Inventory – Please verify values in Tables 1 and 2 for both Northern Kentucky and Louisville for data categories of point, nonpoint and nonroad and the associated appendices. Ensure applicable changes are captured in the remaining tables for both areas.  
*(Lynorae Benjamin, U.S. EPA)*

**Response:** The Cabinet acknowledges this comment. The Cabinet has reviewed the values in Tables 1 and 2 and amended the data.

**2. Comment:** MOVES Modeling – Please verify vehicle miles traveled for Oldham, Boone, and Kenton counties. Please also verify Source types age distribution for types 11, 21, and 31 for Jefferson County. The EPA recommends providing further explanation and detail on the meteorological data used. The EPA MOVES modeling staff may provide additional discussion as needed.  
*(Lynorae Benjamin, U.S. EPA)*

**Response:** The Cabinet acknowledges this comment. For Boone and Kenton Counties, vehicle miles traveled (VMT) and vehicle hours were provided by the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) transportation planning modelers. The VMT and vehicle hours were estimated using the OKI Travel Demand Model. The OKI model is an Activity-Based Model (ABM). The OKI ABM utilizes the Coordinated Travel – Regional Activity Based Modeling Platform (CT-RAMP) from Citilabs to simulate the travel pattern of all individual travelers in the region. The ABM estimates a schedule and itinerary of daily activities for members of every household in the region based on detailed information for individuals, households, trips, and highway and transit systems. Truck trips are generated from two types of activities. One is the local delivery and services truck trips, which are estimated by OKI TAZs, land use, and employment. The other truck trips are generated from commodity flows. OKI truck model takes the truck trips converted from commodity flows in the Ohio statewide model, disaggregates them into OKI zones and scales them to the proper proportion relative to local truck trips. Travel behavior modeling at fine spatial-temporal resolution improves the accuracy of travel pattern estimates and enables the model to evaluate conventional highway and transit projects as well as to test a variety of policies and scenarios. OKI's Travel Demand Model has been validated to observed traffic volumes for the model base year.

During post-processing, the loaded highway network is used to generate VMT by time of day, VMT by speed distribution and VMT by road type. Two sets of VMT tables are generated, one for entire counties and the second for only the portion of counties in the nonattainment area. These tables are then included as inputs into MOVES. The VMT by time of day tables utilize hourly traffic distribution and directional split factors for different roadway types as developed by OKI. The main source of the data was the permanent traffic counting stations located throughout the OKI region. The program performs the appropriate summation by area and roadway type as well as regional totals. OKI has also developed seasonal conversion factors to adjust traffic volumes to summer conditions. The factors were derived for June, July and August from local data collected at permanent traffic counting stations.

OKI's process utilized EPA's emission model MOVES 3.0 to develop emission inventories for VOC's and NO<sub>x</sub>. The MOVES input files contain local parameters, developed through consultation with state partners, for temperature, fuel programs, fuel characteristics, and vehicle fleet composition. The vehicle fleet composition (source type population) was derived from motor registration data from the Kentucky Transportation Cabinet. The local parameters are combined with the VMT and speed data from the OKI ABM to produce the emissions inventory for the appropriate analysis year.

For Oldham County, MOVES 3.0 was run by the Cabinet. All data files were provided by the Louisville Metro Air Pollution Control District's (LMAPCD) MOVES modeler. The LMAPCD modeler received VMT data from the Kentuckiana Regional Planning and Development Agency (KIPDA). Detailed files and Run Specs are available in Appendix C.

**3. Comment:** For both the Northern Kentucky and Louisville areas, the Kentucky submittal states that the typical summer day emissions (in tons per day) for the nonattainment portion of each county, were derived by taking the calculated annual emissions totals, multiplying them by 25 percent to account for the 4 seasons, and then dividing by the 92 days of the summer season. The EPA’s May 2017 Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations, specifically Sections 2.5.2 and 4.5.1, defines the Ozone season day emissions as an average day’s emissions for a typical ozone season work weekday. The guidance states that the state shall select, subject to the EPA’s approval, the particular month(s) in the ozone season and the day(s) in the work week to be represented (considering the conditions assumed in the development of reasonable further progress plans and/or emissions budgets for transportation conformity). For ozone SIPs, ozone season day emissions (as defined in Section 2.5.2 of the guidance) are used for the base year inventory for the nonattainment area. The guidance states that since other planning inventories must be consistent with the base year inventory, inventories such as the projected attainment year inventory for the nonattainment area and the periodic inventories must also include ozone season day emissions. The guidance goes on to say the states must select the representative months and work weekdays to include in the calculation of the ozone season day emissions. As an example, the EPA has seen this done where a state has selected the ozone season month with typically the highest emissions based on past data, found the average emissions during the weekdays in that month and divided by the number of work days for that month. Please provide documentation that the calculation Kentucky used (25 percent of annual emissions divided by 92 summer days) is consistent with the above referenced EPA Emissions Inventory guidance regarding typical ozone season day emissions.  
*(Lynorae Benjamin, U.S. EPA)*

**Response:** The Cabinet acknowledges this comment. The EPA does not give specific guidance on calculations that should be used to convert emissions from tons per year to tons per summer day. The Cabinet reached out to EPA for direction on the best method to use; however, no definitive method was provided. The Cabinet, through research, discovered the calculation that was used to convert annual emissions to tons per summer day. Kentucky’s internal Emissions Inventory System divides annual emissions quarterly. Therefore, the Cabinet used 25% as the annual throughput representing the June-August quarter. The annual emissions totals were multiplied by the 25% annual throughput and divided by the 92 days of the summer season to derive tons per ozone season day.

**4. Comment:** NSR Certification Language – On Page 9, at the bottom of the third paragraph, immediately preceding the beginning of Section 2 of the Louisville portion of the submission, LMAPCD suggests changing the final sentence to state “On May 13, 2021, the Cabinet also submitted on LMAPCD’s behalf a proposed certification that satisfies CAA Section 182(a)(2)(C).” The current language stating the Cabinet submitted a proposed revision is not incorrect; however, the suggested change is meant to add specificity, and

match language regarding the Cabinet’s earlier submission covering Bullitt and Oldham Counties.

*(Rachael Hamilton, LMAPCD)*

**Response:** The Cabinet concurs with this comment and has updated the narrative on page 9.

**5. Comment:** LMAPCD Point Inventory Language - In the first full paragraph on page 10 LMAPCD suggests adding language that indicates that in addition to the point source emissions data that the Division collects on an annual basis, LMAPCD also collects emissions inventories from major sources annually.

*(Rachael Hamilton, LMAPCD)*

**Response:** The Cabinet concurs with this comment and has updated the narrative on page 10.

**6. Comment:** Tons Per Summer Day Calculations, Overall - The Draft Emissions Inventory SIP provides 2017 Summer Day NO<sub>x</sub> and VOC Emissions by Source Category in Tables 3 and 4, respectively. It further states that “[t]he summer day emissions, in (tpd), were derived by taking the calculated annual emissions totals, multiplying them by 0.25 to account for the 4 seasons, and then dividing by the 92 days of the summer season.”

40 C.F.R. §51.1315(c) requires that “emissions values included in the inventories ... shall be actual ozone season day emissions.” 40 C.F.R. §51.1300(q) defines ozone season day emissions as “an average day's emissions for a typical ozone season work weekday.” While the Division’s approach roughly reflects the proportion of the number of total of days of the year that fall in the summer months of June, July, and August, emissions can vary significantly between seasons and this variability should be accounted for. Suggested approaches for each source category in Jefferson County are provided in the following comments (*Louisville Comments Letter, Appendix E.2, comments 4, 5, 6 & 7*).

*(Rachael Hamilton, LMAPCD)*

**Response:** The Cabinet acknowledges this comment. The VOC and NO<sub>x</sub> emissions for Jefferson County utilize LMAPCD’s method of calculation.

**7. Comment:** Tons Per Summer Day Calculations, Point – For the point source category, LMAPCD is providing a spreadsheet of sources that reported NO<sub>x</sub> and/or VOC emissions to LMAPCD in 2017 as Appendix A to these comments. This is a slightly updated version of the spreadsheet included with the letter sent to the Division on July 2, 2020, and included in the Draft Emissions Inventory SIP as Appendix A.3.

*(Rachael Hamilton, LMAPCD)*

Due to the amount of information provided by LMAPCD in their August 25, 2021 comment letter, the Cabinet has not included the entire comment in this SOC. The Jefferson County

specific information can be found within Comment 4 of LMAPCD's August 25, 2021 letter (Appendix E.2).

**Response:** The Cabinet acknowledges this comment. The VOC and NO<sub>x</sub> emissions for Jefferson County utilize LMAPCD's method of calculation.

**8. Comment:** Tons per Summer Day Calculations, Nonpoint – For the nonpoint source category, LMAPCD agrees that the best source of emissions data is the 2017 National Emissions Inventory (NEI). LMAPCD has not been able to find any emissions data other than annual emissions in any NEI files on EPA's website or supporting documentation and data. However, EPA's 2016 version 1 modeling platform does provide monthly emissions data. *(Rachael Hamilton, LMAPCD)*

Due to the amount of information provided by LMAPCD in their August 25, 2021 comment letter, the Cabinet has not included the entire comment in this SOC. The Jefferson County specific information can be found within Comment 5 of LMAPCD's August 25, 2021 letter (Appendix E.2).

**Response:** The Cabinet acknowledges this comment. The VOC and NO<sub>x</sub> emissions for Jefferson County utilize LMAPCD's method of calculation.

**9. Comment:** Tons Per Summer Day Calculations, Nonroad – For the nonroad category, emissions can be obtained using the MOVES 3.0 model. This is an improvement over MOVES 2014b, used by EPA for the 2017 NEI. *(Rachael Hamilton, LMAPCD)*

Due to the amount of information provided by LMAPCD in their August 25, 2021 comment letter, the Cabinet has not included the entire comment in this SOC. The Jefferson County specific information can be found within Comment 6 of LMAPCD's August 25, 2021 letter (Appendix E.2).

**Response:** The Cabinet acknowledges this comment. The VOC and NO<sub>x</sub> emissions for Jefferson County utilize LMAPCD's method of calculation. Additionally, the nonroad NO<sub>x</sub> and VOC emissions for Jefferson County have been updated in Tables 1 and 2 on pages 10 and 11, per the letter received from LMAPCD on October 26, 2021 (Appendix D.2).

**10. Comment:** Tons Per Summer Day Calculations, Onroad – For the onroad category, it appears the Division has used the MOVES 3.0 run specs in Appendix C, including running for weekdays in July. Because 40 C.F.R. §51.1300(q) defines Ozone season day emissions as “an average day's emissions for a typical ozone season work weekday,” LMAPCD believes this is a valid choice; however, if this choice is maintained it should be fully explained in the narrative



body, along with the source of other inputs such as meteorology.  
(*Rachael Hamilton, LMAPCD*)

Due to the amount of information provided by LMAPCD in their August 25, 2021 comment letter, the Cabinet has not included the entire comment in this SOC. The Jefferson County specific information can be found within Comment 7 of LMAPCD's August 25, 2021 letter (Appendix E.2).

**Response:** The Cabinet acknowledges this comment. The Cabinet relied upon EPA's guidance, *MOVES3 Technical Guidance: Using MOVES to Prepare Emission Inventories for State Implementation Plans and Transportation Conformity*. EPA's guidance states "When modeling emissions for a single day (e.g., a ozone season day for an ozone SIP or average-season-day for a 24-hour PM2.5 SIP), the user should select Weekday in the Time Span Panel and use weekday data. Additionally, weekday data should be used for any inventory that represents an ozone season day, whether in summer or winter." (p. 16-17). This method was applied to Boone, Campbell, Kenton, Bullitt, and Oldham County MOVES runs. The onroad emissions resulting from LMAPCD's MOVES run for Jefferson County are included in the emissions tables within the document.

**11. Comment:** Annual Emissions – Annual emissions are provided in tables 1 & 2 of the Draft Emissions Inventory SIP, but they are not required by 40 C.F.R. Part 51, Subpart CC – Provisions for Implementation of the 2015 Ozone National Ambient Air Quality Standards. However, if DAQ desires to include annual emissions in the final Emissions Inventory SIP submittal, LMAPCD believes the emissions totals in table 6 (within LMAPCD's August 25, 2021 comment letter) should be submitted for Jefferson County.  
(*Rachael Hamilton, LMAPCD*)

Due to the amount of information provided by LMAPCD in their August 25, 2021 comment letter, the Cabinet has not included the entire comment in this SOC. The Jefferson County specific information can be found within Comment 8 of LMAPCD's August 25, 2021 letter (Appendix E.2).

**Response:** The Cabinet acknowledges this comment and has added Jefferson County's information to the tables in the narrative.