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DEPUTY SECRETARY

September 13, 2017

Mr. Trey Glenn
Regional Administrator
US EPA Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

RE: Request for approval of the final submission to revise the Kentucky State Implementation Plan to opt-out of the federal reformulated gasoline program in Boone, Campbell, and Kenton Counties of Kentucky

Dear Mr. Glenn:

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) in accordance with Clean Air Act Section 110(l). The Cabinet requests EPA's approval of the enclosed Kentucky SIP Revision and Non-interference Demonstration for the Removal of Reformulated Gasoline (RFG) from the Kentucky Counties of Boone, Campbell, and Kenton.

This submittal demonstrates that the removal of the federal reformulated gasoline (RFG) requirements in the Kentucky Counties of Boone, Campbell, and Kenton does not interfere with any applicable requirement concerning attainment and reasonable further progress in nonattainment or maintenance areas. The revision includes updated on-road and non-road source emissions inventories reflecting the removal of RFG as a control measure for the Northern Kentucky area, and replaces those emissions inventories previously submitted with the redesignation request for the 2008 8-hour Ozone National Ambient Air Quality Standard (NAAQS).

In accordance with 40 CFR 51.102, the Cabinet made the draft SIP revision available for public review and comment from July 21, 2017 until August 24, 2017. All comments received during the comment period are included in Appendix G, along with the statement of consideration.

Regional Administrator Glenn

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If you have any questions or comments concerning this matter, please contact Mrs. Melissa Duff, Assistant Director, Division for Air Quality at (502) 782-6597 or melissa.duff@ky.gov.

Sincerely,


Charles G. Snavely
Secretary

Cc: Beverly Banister, Region 4 US EPA
Lynorae Benjamin, Region 4 US EPA
Scott Davis, Region 4 US EPA

COMPLETENESS CRITERIA FOR SIP SUBMITTALS –
40 CFR PART 51 APPENDIX V

To ensure completeness of this SIP revision submittal, the following elements detailed in 40 CFR Part 51, Appendix V are listed:

A. ADMINISTRATIVE MATERIALS:

- 1. A formal letter of submittal from the Governor or his designee, requesting EPA approval of the plan or revision.**

The cover letter dated September 13, 2017 signed by Secretary Charles G. Snavely, the Governor's designee requests EPA's approval of the SIP revision to remove the federal reformulated gasoline (RFG) requirements from the state implementation plan (SIP) pertaining to the Northern Kentucky counties of Boone, Campbell and Kenton.

- 2. Evidence that the State has adopted the plan in the State code or body of regulations; or issued the permit, order, consent agreement in final form. That evidence shall include the date of adoption or final issuance as well as the effective date of the plan, if different from the adoption/issuance date.**

This SIP submission is legally adopted by the letter signed by Secretary Charles G. Snavely, the Governor's designee, on September 13, 2017.

- 3. Evidence that the State has the necessary legal authority under State law to adopt and implement the plan.**

The powers and duties of the Cabinet established in KRS 224.10-100 provide the Energy and Environment Cabinet with the statutory authority to prepare and develop a comprehensive plan or plans related to the environment of the Commonwealth. Additionally, KRS 224.10-100 requires the cabinet to administer and enforce all rules, regulations and orders promulgated under Chapter 224, Environmental Protection, including those regulations that provide for the prevention, abatement, and control of all air pollution.

- 4. A copy of the actual regulation, or document submitted for approval and incorporation by reference into the plan, including indication of the changes made to the existing approved plan, where applicable. The submittal shall be a copy of the official State regulation/document signed, stamped, dated by the appropriate State official indicating that it is fully enforceable by the State. The effective data of the regulation/document shall, whenever possible, be indicated in the document itself.**

The Energy and Environmental Cabinet has attached the entire document with appendices for approval. All changes to the existing plan are clearly stated within the submittal.

- 5. Evidence that the State followed all of the procedural requirements of the State's laws and constitution in conducting and completing the adoption/issuance of the plan.**

The procedural requirements associated with this plan and public comment period are included in the submittal to EPA. Pursuant to 40 CFR 80.72(b), Kentucky Energy and Environment Cabinet Secretary Charles Snaveley submitted a petition letter to EPA Administrator Scott Pruitt, requesting to opt-out of the RFG program in the Northern Kentucky area. The included submittal addresses the requirements of Section 110(l) of the Clean Air Act.

6. Evidence that public notice was given of the proposed change consistent with procedures approved by EPA, including the date of publication of such notice.

In accordance with 40 CFR 51.102, the Cabinet provided notice for the opportunity to submit written comments and to allow the public the opportunity to request a public hearing. A copy of the public hearing notice published on the Division's website is included in Appendix G. A public hearing was held at the Northern Kentucky Area Development District offices located at 22 Spiral Drive, Florence, Kentucky on August 24, 2017. All comments received during the comment period are included in Appendix G, along with the statement of consideration.

7. Certification that public hearing(s) were held in accordance with the information provided in the public notice and the State's laws and constitutions, if applicable.

A public hearing notice was posted on the Division's website and sent to members of the community. This notice detailed that the public had 30 days to provide comment and that a public hearing would be held on August 24, 2017, listing the time and location. The SIP revision document was made available for public review on the Division's website throughout the 30 day review period.

8. Compilation of public comments and the State's response thereto.

All comments along with the Cabinet's responses are available in Appendix G.

B. TECHNICAL SUPPORT:

1. Identification of all regulated pollutants affected by the plan.

The appropriate pollutant(s) have been identified within the narrative consistent with EPA's guidance.

2. Identification of the locations of affected sources including the EPA attainment/nonattainment designations and the status of the attainment plan for the affected area(s).

This plan focuses on the Kentucky portion of the Cincinnati-Hamilton, OH-KY-IN, Metropolitan Statistical Area (MSA) which was designated as Nonattainment for the 2008 8-

hour Ozone National Ambient Air Quality Standards (NAAQS). On July 5, 2017, EPA promulgated a final rule redesignating the Kentucky portion of the Cincinnati-Hamilton, OH-KY-IN MSA to attainment for the 2008 8-hour ozone NAAQS.

- 3. Quantification of the changes in plan allowable emissions from the affected sources; estimates of changes in current actual emissions from affected sources or, where appropriate, quantification of changes in actual emissions from affected sources through calculations of the differences between certain baseline levels and allowable emissions anticipated as a result of the revision.**

Quantification and changes in emissions are discussed within the 110(l) non-interference demonstration.

- 4. The State's demonstration that the national ambient air quality standards, prevention of significant deterioration increments, reasonable further progress demonstration, and visibility, as applicable, are protected if the plan is approved and implemented. For all requests to redesignate an area to attainment for a national ambient air quality standard, under section 107 of the Act, a revision must be submitted to provide for the maintenance of the national primary ambient air quality standards for at least 10 years as required by section 175A of the Act.**

This submittal's focus is to demonstrate that by opting-out of the federal RFG program, Kentucky will not interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter. Sections of the maintenance plan submitted as part of the Cabinet's August 26, 2016 redesignation request SIP have been amended to account for the removal of the federal RFG program.

- 5. Modeling information required to support the proposed revision, including input data, output data, models used, justification of model selections, ambient monitoring data used, meteorological data used, justification for use of offsite data (where used), modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis.**

The modeling information is discussed within the 110(l) non-interference demonstration. All input and output information is included in Appendix E.

- 6. Evidence, where necessary, that emission limitations are based on continuous emission reduction technology.**

N/A.

- 7. Evidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels.**

N/A.

8. Compliance/enforcement strategies, including how compliance will be determined in practice.

N/A.

9. Special economic and technological justifications required by any applicable EPA policies, or an explanation of why such justifications are not necessary.

Economic and technological justifications are consistent with EPA's guidance.

Kentucky State Implementation Plan Revision
110(l) Non-interference Demonstration
Removal of Reformulated Gasoline (RFG)
from the Kentucky Counties of
Boone, Campbell and Kenton



Prepared by the
Kentucky Division for Air Quality
Submitted by
Kentucky Energy and Environment Cabinet
September 2017

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Keywords: ...
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I. Introduction

Pursuant to Section 110(l) of the Clean Air Act (CAA), the Kentucky Energy and Environment Cabinet (Cabinet), on behalf of the Commonwealth of Kentucky, submits a non-interference demonstration and requests the removal of federal reformulated gasoline (RFG) requirements from the state implementation plan (SIP) pertaining to the Northern Kentucky counties of Boone, Campbell and Kenton. The federal RFG requirements are currently applicable in the Kentucky portion of the Cincinnati, OH-KY-IN Metropolitan Statistical Area (Cincinnati MSA).¹ The non-interference demonstration supports the Cabinet's request to remove the federal RFG requirements from the Northern Kentucky counties by evaluating the impact of removal of the federal RFG on National Ambient Air Quality Standard (NAAQS) pollutants, specifically ozone.

In the presence of sunlight, nitrogen oxide (NO_x) and volatile organic compounds (VOC) chemically react to form ozone. By reducing emissions of NO_x and VOC, concentrations of ozone are also limited. The RFG program was designed to reduce vehicle emissions of toxics and ozone-forming compounds, specifically NO_x and VOC. As part of the CAA Amendments of 1990, Congress added subsection (k), reformulated gasoline for conventional vehicles, to Section 211 of the CAA. States with ozone nonattainment areas designated as marginal, moderate, serious or severe, that were not required to sell RFG, were allowed to opt-in to the RFG program at the request of the Governor of the state in which the nonattainment area was located.

On November 6, 1991, the U.S. Environmental Protection Agency (EPA) designated the Kentucky portion of the Cincinnati MSA as nonattainment for the 1979 1-hour ozone NAAQS.² Consequently, Kentucky Governor Brereton C. Jones sent an application dated September 19, 1993, to EPA Administrator Carol Browner requesting the restriction of conventional gasoline sales in Boone, Campbell and Kenton Counties. Beginning January 1, 1995, those three Northern Kentucky counties were required to sell reformulated gasoline during the summer months (June 1 – September 15).

At the time Kentucky opted into the federal RFG program in 1995, this control measure contributed toward lowering NO_x and VOC emissions for the Northern Kentucky area of Boone, Campbell and Kenton counties. Over the years, implementation of additional federal programs, along with vehicle fleet turnover, further reduced NO_x and VOC emissions in the area. As a result, the area attained the 1979, 1997 and 2008 ozone NAAQS. The success of these additional federal programs have rendered the RFG program less environmentally beneficial and less cost effective for the Northern Kentucky area.

The following Section 110(l) non-interference analysis demonstrates that the removal of the RFG program from Northern Kentucky will not interfere with the requirement for the area to maintain the 2008 ozone NAAQS. The projected emissions data indicates that mobile source emissions will continue to decrease in the future as a result of on-the-book regulations. The reduction in mobile source emissions, in the absence of the RFG requirements, will provide for the attainment and maintenance of the area.

¹ Figure 1, Kentucky portion of the Cincinnati, MSA

² 56 FR 56694

Effective May 1st through September 15th, the RFG program applies to all refineries and distribution centers. Retailers and wholesale purchasers are required to comply with RFG requirements from June 1st through September 15th. During the required RFG program time period, gasoline prices in Northern Kentucky are higher than areas in Kentucky that sell conventional gasoline. The Cabinet performed a cost-benefit analysis (\$ per ton of emissions reduced) to estimate the RFG program's cost effectiveness.

Under the RFG program, the estimated total cost per ton for VOC removal is \$9,246 and \$48,100 per ton for NO_x removal.³ In contrast, EPA estimates that the compliance cost associated with reducing NO_x emissions from electric generating units (EGUs) is approximately \$1,400 per ton of NO_x eliminated.⁴ Based on these estimates, the RFG program is no longer a cost-effective control strategy for the Northern Kentucky area.

Therefore, the Cabinet requests EPA approve the proposed SIP revision to remove the federal RFG requirements applicable in the Kentucky portion of the Cincinnati MSA. The revision updates the on-road and non-road emissions inventories of the Northern Kentucky area to account for the removal of the RFG federal program. The motor vehicle emissions budgets (MVEBs) and safety margins for years 2020 and 2030 have been updated to reflect the revised on-road emissions inventories.

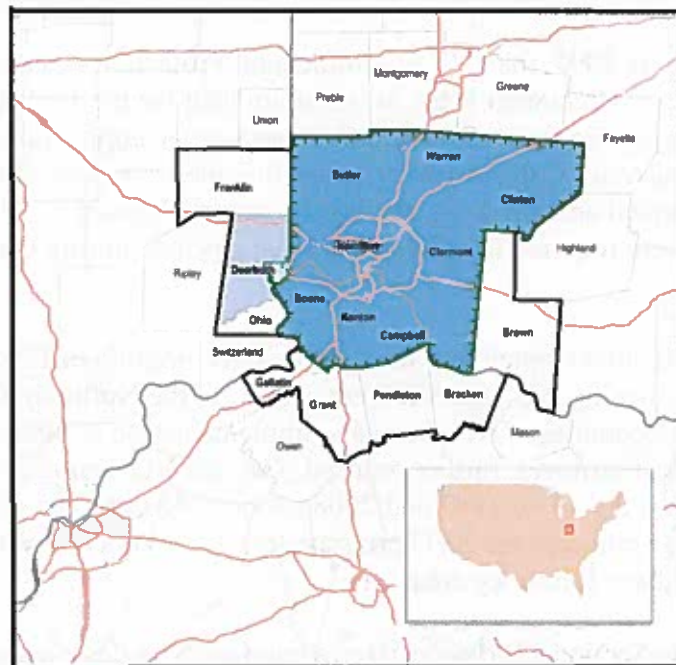


Figure 1: Kentucky portion of the Cincinnati, MSA

³ Appendix C. Cost Analysis

⁴ 81 FR 74504

II. 2008 8-Hour Ozone Redesignation Request

On August 26, 2016, the Cabinet submitted a SIP revision requesting EPA redesignate the Kentucky portion of the Cincinnati MSA from nonattainment to attainment for the 2008 8-hour ozone NAAQS. In a rule published May 4, 2016, EPA determined that the area attained the standard by the July 20, 2015 attainment date.⁵ On July 5, 2017, EPA promulgated a final rule redesignating the area to attainment.⁶ Copies of the federal registers can be found in Appendix A.

In addition to the redesignation, EPA also proposed to approve the maintenance plan, including the MVEBs for NO_x and VOC. Although the RFG program was not specified as a control measure in the 2008 8-hour ozone redesignation request submitted by the Cabinet on August 26, 2016, the emissions reductions resulting from the RFG program were accounted for in the mobile source inventory.

To demonstrate that the removal of RFG will not interfere with any applicable requirement concerning attainment and reasonable further progress, the Cabinet is revising a specific portion of the maintenance plan that was submitted as part of the August 26, 2016 redesignation request. The on-road and non-road emissions inventory along with the MVEBs for the maintenance plan portion of the 2008 8-hour ozone redesignation request have been revised and included in this submittal.

III. Petition to Opt-out of Federal RFG Program

On April 18, 2017, Kentucky Energy and Environment Cabinet Secretary Charles Snavely submitted a petition letter to EPA Administrator Scott Pruitt, requesting to opt-out of the RFG program in the Northern Kentucky area (see Appendix B). The signed petition letter meets the requirements of 40 CFR 80.72(b). The non-interference demonstration and SIP revision are provided to support the Cabinet's request to remove the federal RFG requirements from the Kentucky portion of the Cincinnati MSA.

i. Opt-out Requirements

EPA first issued a final rulemaking on procedures for states to opt-out of the RFG program on July 8, 1996.⁷ The Governor of a state, or his authorized representative, is required to send a petition to the EPA Administrator asking for the removal of any opt-in areas from the RFG program. On October 20, 1997, the EPA revised the time period for a state's opt-out request to become effective. However, the revision only applied to opt-out petitions submitted between January 1, 1998 and December 31, 2003. After January 1, 2004, the effective date for approval of the petition is reverted to a minimum of 90 days from the EPA Administrator's written approval notice to the state.

⁵ 81 FR 26697

⁶ 82 FR 30976

⁷ 61 FR 35673

ii. Petition Letter

Pursuant to 40 CFR 80.72(b), the Governor's petition must include a geographic description of the opt-in area and a description of the ways that RFG has been relied upon as a control measure in any state or local implementation plan or in any proposed plan that is pending before the EPA. The following information must be included in the petition if RFG is being used as a control measure:

- An explanation of whether the state is withdrawing any pending plan that includes the use of RFG;
- An explanation of whether the state is intending to submit a revision to an approved or pending plan that does not use RFG as a control measure, and a description of alternative air quality measures, if any, that will replace the use of RFG;
- A description of the current status of any proposed revision to an approved or pending plan that uses RFG, and a projected schedule for the plan revision submission;
- A description of why no plan revision is necessary if the state is not withdrawing a pending plan submission or revising an approved plan that uses RFG;
- A demonstration of whether the removal of the RFG program will affect completeness and/or protectiveness determinations conducted by the EPA, if the EPA has already found a pending plan submission to be complete or has made a protectiveness finding.

Upon approval of the state's opt-out petition, the EPA notifies the state in writing, and through a notice in the Federal Register, when the request is approved. The effective date the area is removed from the RFG program is included in the Federal Register notice.

As mentioned, Kentucky Energy and Environment Cabinet Secretary Charles Snavely submitted a petition letter to EPA Administrator Scott Pruitt on April 18, 2017, requesting to opt-out of the RFG program in the Northern Kentucky area (See Appendix B). The letter outlines the history of Kentucky's participation in the federal RFG program. It also notes the implementation of various federal programs related to engine and fuel technology that have been implemented since the time that Kentucky opted into the RFG program.

The petition letter provides the required description of the geographic area opting out of the RFG program, which includes Boone, Campbell and Kenton counties in Northern Kentucky. The letter also discusses the use of RFG as one of several control measures used in past SIP revisions in the Northern Kentucky area, specifically in the 15% VOC emission reduction plan, the vehicle testing plan, the 1979 1-hour ozone redesignation request, and the 1997 8-hour ozone redesignation request. Lastly, the letter outlines the various regulatory requirements for opting out of the federal RFG program.

IV. 110(l) Non-interference Demonstration

The following Section 110(l) non-interference analysis demonstrates that the removal of the RFG program from Northern Kentucky will not interfere with the requirement for the area to maintain the 2008 ozone NAAQS. The projected emissions data indicates that mobile source emissions will continue to decrease in the future as a result of on-the-book regulations. The reduction in mobile source emissions, in the absence of the RFG requirements, will provide for the attainment and maintenance of the area.

Section 110(l) of the CAA states that EPA cannot approve a SIP revision that would interfere with any CAA requirement concerning attainment and reasonable further progress, or maintenance, of the NAAQS, specifically:

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

Therefore, a state must demonstrate that the removal or modification of a control measure within a SIP will not interfere with attainment of the NAAQS, rate of progress, reasonable further progress or any other requirement of the CAA. If a nonattainment area is redesignated to attainment, mandatory control measures that were required based on the area's nonattainment classification will no longer be required, but a 110(l) non-interference demonstration must still be submitted.

Additionally, a state can demonstrate non-interference by substituting one control measure for another measure that has equivalent or greater emissions reductions and air quality benefits. This demonstration method is based on preserving the status quo in air quality. Although this approach is not used in the demonstration, additional reductions of NO_x through implementation of the Cross-State Air Pollution Rule (CSAPR) greatly exceed the emissions reductions achieved by the RFG program.⁸

This CAA Section 110(l) non-interference demonstration analysis does not provide for a substitution of a particular control strategy. Rather, the demonstration shows that the removal of the RFG program from Northern Kentucky will not interfere with the requirement for the area to maintain the NAAQS and will not lead to an increase in VOC and NO_x emissions.

i. Effectiveness of Reductions from RFG program

The federal RFG program was considered an effective control measure for ozone emission reductions at its inception in 1995. The RFG program was utilized as a control measure to reduce NO_x and VOC emissions in the Northern Kentucky area.

⁸ 81 FR 74504

a. *Emissions Reductions from RFG program*

Since the RFG program’s inception, numerous formulation changes to gasoline have effectively reduced vehicle emissions nationwide. Tables 1 and 2 below demonstrate an insignificant difference when comparing the on-road NO_x and VOC emission totals for RFG to the non-RFG totals. This slight difference in emissions denotes the success of the federal programs implemented to improve the formulation of conventional gasoline. As stated in a Federal Register published on March 14, 2014, “The result of all these actions is that now the requirements for federal RFG and conventional gasoline (CG) with respect to NO_x, toxics emissions performance and renewable fuel content are essentially the same.”⁹

Tables 1 and 2 indicate on-road non-RFG NO_x and VOC emission projections to 2030 are significantly lower than the 2014 attainment year emissions that include RFG. The decrease in emissions from the attainment year to the projected out-year demonstrates that opting out of the federal RFG program will not interfere with attainment or maintenance of the 2008 8-hour ozone NAAQS.

Table 1
On-road VOC Emissions RFG vs. Non-RFG
Tons per Summer Day (TSD)

Counties	2014	2017		2020		2025		2030	
	RFG	RFG	Non-RFG	RFG	Non-RFG	RFG	Non-RFG	RFG	Non-RFG
Boone	2.53	2.00	2.09	1.53	1.58	1.19	1.23	0.86	0.87
Campbell	1.58	1.18	1.23	.90	.93	0.70	0.73	0.51	0.52
Kenton	2.39	2.10	2.21	1.61	1.66	1.25	1.29	0.90	0.92
NKY Totals	6.50	5.28	5.53	4.03	4.18	3.14	3.25	2.26	2.31

Table 2
On-road NO_x Emissions RFG vs. Non-RFG
(TSD)

Counties	2014	2017		2020		2025		2030	
	RFG	RFG	Non-RFG	RFG	Non-RFG	RFG	Non-RFG	RFG	Non-RFG
Boone	5.46	4.49	4.58	3.20	3.26	2.28	2.32	1.36	1.38
Campbell	3.41	2.55	2.60	1.82	1.86	1.30	1.32	0.77	0.78
Kenton	5.17	4.54	4.69	3.24	3.30	2.30	2.35	1.37	1.40
NKY Totals	14.04	11.58	11.87	8.26	8.42	5.88	5.99	3.50	3.56

b. *Emissions Reductions for the entire area*

The Cabinet performed the MOVES2014a model runs to generate the estimated on-road and non-road emissions for years 2017, 2020 and 2030. Projection year 2025 emission totals were calculated using a linear interpolation formula. On-road and non-road emissions estimates for attainment year 2014 were included as a part of the SIP revision requesting the Kentucky

⁹ 79 FR 14413

portion of the Cincinnati MSA be redesignated to attainment. Therefore, the 2014 on-road emissions estimates in Tables 3 and 4 account for the use of RFG. The remaining years (2017, 2020, 2025 and 2030) represent on-road and non-road emissions with the removal of the RFG program. Projected totals for on-road emissions in 2030 are well below 2014 attainment year emissions without the use of the RFG program as a control measure.

This submittal updates the on-road and non-road projected years emissions inventories. The original non-road emissions inventory submitted with the 2008 8-hour ozone Redesignation Request applied area percentages to each county for all years (2014-2030). The area percentage was used to represent the portion of each county that was designated as nonattainment for the 2008 8-hour ozone standard. Since RFG is sold throughout the entirety of each county, the area percentages were not applied to the future year projections (2017, 2020, 2025, 2030).

VOC and NO_x emissions totals decrease from 2014 to 2030. This decrease demonstrates that the removal of the federal RFG program will not interfere with reasonable further progress, attainment or maintenance of the NAAQS in the Kentucky portion of the Cincinnati MSA.

Using the information in Tables 3 and 4, a comparison of the 2014 attainment year emissions to the projected 2030 "out year" emissions for all sectors demonstrates the significant emissions reduction for the Northern Kentucky area for both VOC and NO_x emissions. From 2014 to 2030, there is a 20.5% reduction, from 17.82 TSD to 14.16 TSD, of VOC emissions. For the same time period, there is a 39.7% reduction in NO_x emissions, from 27.44 TSD to 16.56 TSD.

The significant decrease in emissions from the 2014 attainment year to 2030 provides assurance that opting out of the federal RFG program will not interfere with attainment or maintenance of the 2008 8-hour ozone NAAQS for the Northern Kentucky area.

**Table 3
Northern Kentucky VOC Emission Projections
(TSD)**

VOC	2014	2017	2020	2025	2030
BOONE					
EGU	0.16	0.16	0.16	0.16	0.16
Non-EGU	1.57	1.57	1.57	1.57	1.57
Air	0.42	0.44	0.45	0.26	0.06
Non-road	1.30*	2.25**	2.06**	2.04**	2.01**
Area	2.56	2.46	2.41	2.38	2.36
On-road	2.53*	2.09**	1.58**	1.23**	0.87**
Total	8.54	8.97	8.23	7.63	7.03
CAMPBELL					
EGU	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.22	0.22	0.22	0.22	0.21
Air	0.00	0.00	0.00	0.00	0.00
Non-road	0.34*	0.55**	0.50**	0.49**	0.48**
Area	1.26	1.23	1.22	1.21	1.19
On-road	1.58*	1.23**	.93**	0.73**	0.52**
Total	3.4	3.23	2.87	2.65	2.40
KENTON					
EGU	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.51	0.50	0.49	0.48	0.47
Air	0.00	0.00	0.00	0.00	0.00
Non-road	0.55*	1.01**	1.00**	1.05**	1.09**
Area	2.43	2.35	2.31	2.28	2.25
On-road	2.39*	2.21**	1.66**	1.29**	0.92**
Total	5.88	6.07	5.46	5.10	4.73
NKY TOTAL	17.82	18.27	16.56	15.38	14.16
* With RFG					
** Without RFG					

Table 4
Northern Kentucky NO_x Emission Projections
(TSD)

NO _x	2014	2017	2020	2025	2030
BOONE					
EGU	7.23	7.46	7.71	7.96	8.33
Non-EGU	0.14	0.15	0.15	0.18	0.18
Air	2.07	2.18	2.29	1.29	0.29
Non-road	0.88*	1.60**	1.33**	1.17**	1.00**
Area	0.43	0.43	0.43	0.44	0.44
On-road	5.46*	4.58**	3.26**	2.32**	1.38**
Total	16.21	16.4	15.17	13.35	11.62
CAMPBELL					
EGU	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.17	0.17	0.17	0.17	0.17
Air	0.00	0.00	0.00	0.00	0.00
Non-road	0.32*	0.53**	0.45**	0.40**	0.35**
Area	0.49	0.49	0.49	0.49	0.49
On-road	3.41*	2.60**	1.86**	1.32**	0.78**
Total	4.39	3.79	2.97	2.38	1.79
KENTON					
EGU	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.01	0.01	0.01	0.01	0.01
Air	0.00	0.00	0.00	0.00	0.00
Non-road	0.64*	1.12**	0.93**	0.83**	0.72**
Area	1.02	1.02	1.02	1.02	1.02
On-road	5.17*	4.69**	3.30**	2.35**	1.40**
Total	6.84	6.84	5.26	4.20	3.15
NKY TOTAL	27.44	27.03	23.4	19.93	16.56
* With RFG					
** Without RFG					

c. Cost Effectiveness of RFG program

With nearly 200 million gallons of gasoline distributed in the Northern Kentucky area each year, the estimated cost of compliance with the RFG requirements is calculated to be \$41,530,679 per year.¹⁰ The RFG program's negligible emissions reduction benefits relative to conventional gasoline is not a cost-effective control strategy when compared to other available federal air quality control programs.

As indicated earlier, the RFG program's cost effectiveness are estimated to be \$9,246 per ton for VOC eliminated and \$48,100 per ton of NO_x removal, respectively. EPA's estimation of \$1,400 per ton of NO_x eliminated through implementation of CSAPR is approximately 35 times

¹⁰ Appendix C, Cost Analysis

less the compliance cost associated with the RFG program. The Cabinet determines that the RFG program is no longer a cost-effective air quality control program.

ii. Current and Future Control Measures

a. Cross-State Air Pollution Rule (CSAPR)

The original CSAPR was published by EPA on August 8, 2011, to address the interstate transport of ozone pollution and particulate matter (PM_{2.5}) emissions, with respect to the 1997 ozone NAAQS, and the 1997 and 2006 PM_{2.5} NAAQS.¹¹ EPA promulgated an update to CSAPR on October 26, 2016, to address interstate transport of ground-level ozone pollution in regards to the 2008 ozone NAAQS.¹² The updated CSAPR rule includes a reduction in the downwind transport of NO_x from EGUs during the ozone season in 22 eastern states, including Kentucky.

The updated CSAPR rule is expected to lower ozone season NO_x emissions from the power sector by 61,000 tons in 2017 compared to projections to the same year without implementation of the rule. The final 2017 EGU NO_x ozone season emission budget with variability for Kentucky is 25,549 tons of NO_x. Duke Energy's East Bend facility is the only facility in the Northern Kentucky area that is included in CSAPR. NO_x allocations assigned to Duke Energy's East Bend facility were reduced 28%, from 1,510 tons per ozone season in the original CSAPR to 1,081 tons in the updated CSAPR. The Cabinet calculated the difference in NO_x emissions using the Northern Kentucky area totals in Table 2. The RFG program is estimated to eliminate 39.7 tons of NO_x emissions in 2017. As seen in Table 5, the estimated tons of NO_x reduced through implementation of the updated CSAPR rule greatly exceeds the estimated 39.7 tons eliminated by the RFG program.

Table 5
2017 Estimated NO_x Emission Reductions
(TSD)

Updated CSAPR Rule May 1st – September 30th (152 days)	RFG May 1st – September 15th (137 days)
-429	-39.7

EPA evaluated the costs, benefits and impacts of compliance with the final NO_x ozone season emission budgets using a control stringency of \$1,400 per ton. As discussed above, the Cabinet determines the cost of NO_x removal by implementing CSAPR is more cost effective than the RFG program.

b. Corporate Average Fuel Economy (CAFÉ) standards

In addition to the reductions in NO_x emissions from the updated CSAPR rule, Kentucky's air quality will continue to benefit from the CAFÉ standards. The CAFÉ standards are regulated by the Department of Transportation's National Highway Traffic and Safety Administration

¹¹ 76 FR 48208

¹² 81 FR 74504

(NHTSA) and originally enacted in 1975 to improve the average fuel economy of cars and light trucks (including vans and sport utility vehicles). The CAFÉ standards are fleet-wide averages that each automaker is required to achieve annually for its car and truck fleet. When these standards are raised, automakers respond by creating a more fuel-efficient fleet.

On May 7, 2010 EPA promulgated a joint final rule to establish a National Program combining the NHTSA's CAFÉ standards with EPA's greenhouse gas (GHG) emission standards. The National Program was established to implement a strong coordinated Federal GHG and fuel economy program for passenger cars, light-duty trucks, and medium-duty passenger vehicles that focused on reducing GHG emissions and the improvement of fuel economy.¹³ In the final rule, NHTSA established final car and light truck CAFÉ standards for model years 2017-2021, which is predicted to require a combined fleet-wide fuel economy of 40.3-41.0 miles per gallon by model year 2021.

EPA estimates the combination of fuel efficiency from the CAFÉ standards and the reductions of GHG's will result in a reduction of NO_x, VOC, PM and SO₂. EPA predicts a reduction of 115,542 tons of VOC and 21,763 tons of NO_x by the year 2030.¹⁴ The implementation of this federal program will result in emissions reductions of VOC and NO_x that significantly exceed the reductions estimated to be eliminated by the RFG program.

c. Other existing national rules addressing motor vehicle emissions

There are several existing national rules designed to achieve emission reductions from on-road vehicles through 2025 and beyond:

- Control of Air Pollution from Motor Vehicles; Tier 3 Motor Vehicle Emission and Fuel Standards, April 28, 2014;¹⁵
- Control of Air Pollution from New Motor Vehicles; Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements, February 10, 2000;¹⁶
- Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, January 18, 2001;¹⁷
- Model Year 2017 and Later Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, October 15, 2012;¹⁸
- Model Year 2012-2016 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, May 7, 2010;¹⁹
- Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles-Phase 2, October 25, 2016;²⁰

¹³ 75 FR 25324

¹⁴ 75 FR 25497

¹⁵ 79 FR 23414

¹⁶ 65 FR 6698

¹⁷ 66 FR 5002

¹⁸ 77 FR 62624

¹⁹ 75 FR 25324

²⁰ 81 FR 73478

- Phase I Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, September 15, 2011; ²¹ and
- Control of Hazardous Air Pollutants from Mobile Sources, February 26, 2007. ²²

iii. Monitoring Data

In 2016, there were 29 total ozone monitors operated across Kentucky, two of which are located in the Kentucky portion of the Cincinnati MSA 2008 8-hour ozone nonattainment area: one in Boone County and one in Campbell County. As seen in Table 6, the 8-hour ozone data collected from 2014-2016 for the two monitors result in a three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentrations of 0.062 ppm and 0.070 ppm, respectively. Both Kentucky monitors are attaining the 1997, 2008 and 2015 8-hour ozone NAAQS. The Boone County monitor shows the area has consistently remained well below the standard, while the Campbell County monitor shows the area has steadily decreased while also remaining below the standard.

Table 6
Annual 4th Maximum High Trend for 8-Hour Ozone
(parts per million)

Site ID	County	2013	2014	2015	2016	2013-2015 Design Value	2014-2016 Design Value
21-015-0003	Boone, KY	0.059	0.062	0.062	0.063	0.061	0.062
21-037-3002	Campbell, KY	0.072	0.071	0.071	0.068	0.071	0.070

iv. Emissions Inventory

The tables presented in Appendix D originated from the August 2016 “Request to Redesignate Kentucky Counties Located within the Cincinnati, OH-KY-IN MSA 8-Hour Ozone Nonattainment Area.” All of the tables are either specific to individual Kentucky counties or include Kentucky counties in the MSA. For this Section 110(l) non-interference demonstration, the on-road and non-road sectors are the only sectors revised with new data. The new on-road and non-road emissions data is generated using the latest available EPA-approved mobile source emissions model, MOVES2014a. As a result of the revised on-road and non-road emissions, the total emissions from all sectors have also been updated. Emissions from all other sectors (EGUs, Non-EGUs, Air and Area) remain the same.

The redesignation request for the Kentucky portion of the Cincinnati MSA 2008 8-hour ozone nonattainment area included six years to best represent the maintenance demonstration of the ozone NAAQS for the area:

²¹ 76 FR 57106

²² 72 FR 8428

- 2011 Base Year
- 2014 Attainment Year
- 2017 Interim Projected
- 2020 Interim Projected
- 2025 Interim Projected
- 2030 Projected

A comprehensive 2011 base year emissions inventory was initially compiled.²³ For the attainment year, calendar year 2014 was selected because the design value for the 2012-2014 time period demonstrates attainment of the 2008 8-hour ozone NAAQS. Projected emissions out to the year 2030 demonstrate maintenance of the 2008 8-hour ozone NAAQS for the MSA. The projected emission totals for calendar year 2030 in each of the Northern Kentucky counties are below the 2011 base year emission levels.

Point source emissions from both the EGU and Non-EGU sectors were collected from the 2011 Kentucky Emissions Inventory database. Since only portions of counties were involved, the 2011 base year point source emissions were determined based on location within the Kentucky portion of the MSA. The inventory identified a total of 21 facilities located within the boundaries.

The 2011 base year emissions were projected using individual county growth rates. The Indiana Department of Environmental Management (IDEM) collected data for each of the three states, available on EPA's Emissions Modeling Clearinghouse website. This included point source data. IDEM also collected data for 2025 projected inventories. Kentucky used this projected point source data to calculate 2025 growth rates for each Northern Kentucky County. Then 2025 emissions were projected out to 2030, using the yearly growth rate from 2011 to 2025.

Kentucky "Air", or aircraft emissions data, was also included in the point source emissions inventory. The IDEM provided Air, Non-road, and Area emissions data using the Ozone NAAQS Emissions Modeling Platform (2011 v6.1). Through EPA modeling guidance, a temporal breakdown of the data was applied. County portions were applied by multiplying the 2011 emissions for the entire county by the area percentage. Emissions from the county portions were then projected out to future years.

For on-road and non-road sources, the latest available EPA-approved mobile source emissions model, MOVES2014a, was used in the development of the Northern Kentucky emissions inventory. According to EPA's website, the Motor Vehicle Emission Simulator is a state-of-the-science emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases and air toxics. The Cabinet performed the MOVES2014a model runs to generate the estimated on-road and non-road emissions for years 2017, 2020 and 2030. Projection year 2025 emission totals were calculated using a linear interpolation formula in Excel.²⁴

²³ Appendix D. Emissions Tables

²⁴ Appendix E. MOVES2014a Model

To generate the on-road emissions, the Cabinet used MOVES default input data for the fuel and meteorology parameters. The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) provided specific local input data relating to transportation. MOVES2014a has limited output options and it is more difficult to enter local inputs to generate non-road emissions inventories. The Cabinet generated non-road emissions projections by using available national defaults, which were applied to the county level. Details relating to the performance of the MOVES2014a model, MOVES input data, and projections can be found in Appendix E.

The Cabinet participates in interagency consultations to determine conformity of transportation plans for the area. Transportation conformity regulation 40 CFR Part 93 allows for the addition of a safety margin to the MVEBs of Kentucky's SIP. 40 CFR 93.101 defines a "safety margin" as, "the amount by which the total projected emissions from all sources of a given pollutant are less than the total emissions that would satisfy the applicable requirement for reasonable further progress, attainment or maintenance."

As part of the 2008 ozone NAAQS redesignation request, the Kentucky Transportation Cabinet requested a 15% safety margin for the years 2020 and 2030. If only a portion of the safety margin is needed during a transportation conformity determination, then interagency consultation should result in the meeting of transportation conformity for the area. If, however, the safety margin required exceeds the safety margin available, then additional work may be necessary, including the potential for a transportation conformity amendment. Tables 24-44 in Appendix D establish the revised Northern Kentucky safety margins for 2020 and 2030.

Interagency consultation is required any time there is a change to the MVEBs. On June 19, 2017 all interagency transportation and air quality partners for the Northern Kentucky area participated in a Kentucky air quality webinar.²⁵ A presentation was provided detailing the Cabinet's request to opt-out of the federal RFG program and an explanation of the 110(l) submittal which would be submitted to EPA. An email was sent to interagency members on July 19, 2017 requesting comments on the revised MVEBs. Interagency members were provided the original MVEBs along with the revised MVEBs to illustrate the slight change.

v. Non-interference Demonstration for Ozone NAAQS

At the time Kentucky opted into the federal RFG program in 1995, this control measure contributed toward lowering VOC and NO_x emissions for the Northern Kentucky area of Boone, Campbell and Kenton counties. Over the years, implementation of additional federal programs, along with vehicle fleet turnover, further reduced NO_x and VOC emissions in the area. As a result, the area attained the 1979, 1997 and 2008 ozone NAAQS. The success of these other programs have rendered the RFG program less environmentally beneficial and cost effective.

The environmental benefits from the federal RFG program have gradually declined in Northern Kentucky over the years. Originally viewed as an effective strategy for the Northern Kentucky area, the federal program was implemented in two phases. Phase I was implemented from 1995 through 1999 and focused on reducing smog pollutants by 64,000 tons per year in

²⁵ Appendix F. Interagency Consultation

RFG areas. Phase II has been in effect since the year 2000 and was designed to reduce smog pollutants by an additional 41,000 tons per year.

Since the RFG program's inception, many formulation changes to gasoline have resulted in air quality improvements not only to the Northern Kentucky area, but to the United States as a whole. Examples of these formulation changes to gasoline include the Tier 2 gasoline sulfur standards in 2000, the Energy Policy Act of 2005, the Mobile Source Air Toxics Rule in 2007, and benzene content requirements for all gasoline in 2011. EPA has also implemented several federal programs resulting in improved combustion technologies for engines, such as revised CAFÉ standards.²⁶

Implementation of these programs effectively reduced emissions nationwide. In a Federal Register published on March 14, 2014, EPA detailed the changes to gasoline, "The result of all these actions is that now the requirements for federal RFG and conventional gasoline (CG) with respect to NO_x, toxics emissions performance and renewable fuel content are essentially the same."²⁷ A copy of the Federal Register can be found in Appendix A.

Section 107(d)(3)(E) requires that a maintenance plan must meet the requirements of Section 175A of the CAA. As noted previously, the Cabinet submitted such a request relating to the Kentucky portion of the Cincinnati MSA 2008 ozone nonattainment area on August 26, 2016. Maintenance is demonstrated either by determining that the level of the attainment inventory will not be exceeded by future levels of ozone, or by modeling to show that the future emission rates will not cause a violation of the NAAQS. The removal of the RFG program does not interfere with the attainment or maintenance of the 2008 8-hour ozone NAAQS for the Northern Kentucky counties.

A comparison of 2014 attainment year emissions with projected 2030 "out year" emissions for all sectors demonstrates a significant emissions reduction for the Northern Kentucky area for both VOC and NO_x emissions. From 2014 to 2030, there is an estimated 20.5% reduction, from 17.82 TSD to 14.16 TSD, of VOC emissions. For the same time period, there is an estimated 39.7% reduction in NO_x emissions, from 27.44 TSD to 16.56 TSD.

The significant decrease in emissions from the 2014 attainment year to 2030 provides assurance that opting out of the federal RFG program will not interfere with attainment or maintenance of the 2008 8-hour ozone NAAQS for the Northern Kentucky area.

vi. Non-interference Demonstration of Other NAAQS

Carbon Monoxide (CO)

In comparing the 2014 attainment year emissions with projected 2030 "out year" emissions, a significant CO emissions reduction has been shown in the Northern Kentucky area. From 2014 to 2030, there is an estimated 54% reduction in CO emissions, from 75.03 TSD to 34.48 TSD.

²⁶ 75 FR 25324

²⁷ 79 FR 14413

The primary reason for the significant drop in CO levels in Kentucky has been from improvement in emission controls on motor vehicles. With this projected decline in CO levels over the years, opting out of the RFG program in Northern Kentucky would not interfere with the attainment of the CO NAAQS.

Particulate Matter (PM_{2.5})

On January 15 2013, the PM_{2.5} standard was finalized by EPA. There are both primary and secondary standards for PM_{2.5}.²⁸ The primary NAAQS is a 3-year average of the annual weighted mean not to exceed 12.0 µg/m³. The secondary standard is a 3-year average of the annual weighted mean not to exceed 15.0 µg/m³. In general, PM_{2.5} levels across Kentucky declined from 1999 through 2016. In 2016, there were 19 PM_{2.5} monitors, including one in Campbell County. The Campbell County PM_{2.5} monitor calculated a 3-year weighted average design value of 8.9 µg/m³.

EPA's breakdown of PM_{2.5} emissions by source sector shows the largest PM_{2.5} sources in Kentucky to be from fires, agriculture, dust, fuel combustion and industrial processes.²⁹ Agricultural sources include crop and livestock dust, fertilizer application and livestock waste; sources of fuel combustion include electrical generation, industrial boilers and fossil fuels used by commercial and industrial practices.

In comparing the 2014 attainment year emissions with projected 2030 "out year" emissions, a PM_{2.5} emissions reduction has been shown in the Northern Kentucky area. From 2014 to 2030, there is an estimated 85.9% reduction in PM_{2.5} emissions, from 0.78 TSD to 0.11 TSD.

With Kentucky's projected decline in PM_{2.5} levels, opting out of the RFG program in Northern Kentucky would not interfere with the attainment, reasonable further progress, or other applicable requirements relating to the PM_{2.5} NAAQS.

Nitrogen Dioxide (NO₂)

On February 9, 2010, the NO₂ standard was strengthened by EPA.³⁰ There are both primary and secondary standards for NO₂. The primary NAAQS is an annual arithmetic mean that must not exceed 53 parts per billion (ppb). A 3-year average of the 98th percentile of daily maximum 1-hour averages must not exceed 100 ppb. The secondary standard is an annual arithmetic mean that must not exceed 53 ppb. In Kentucky, NO₂ levels have declined. In 2016, the Cabinet operated seven NO₂ monitors, including one in Campbell County. The 2014-2016 1-hour average design value for the Campbell County NO₂ monitor is determined to be 30 ppb, with an annual mean of 2.31 ppb. Both of these values are significantly below their respective standards.

²⁸ 78 FR 3086

²⁹ <https://www.epa.gov/air-emissions-inventories/air-emissions-sources>

³⁰ 75 FR 6474

NO₂ emissions are incorporated as part of Kentucky's NO_x inventory. Table 4 above exhibits significant NO_x emission reductions when comparing 2014 attainment year emissions to the 2030 "out year" projected emissions. From 2014 to 2030, there is an estimated 44.3% reduction in NO₂ emissions, from 27.43 TSD to 15.29 TSD.

The decline in NO₂ levels in Kentucky can be attributed to the use of pollution control devices on power plants, industrial boilers and motor vehicles. With this projected decline in NO₂ levels, opting out of the RFG program in Northern Kentucky would not interfere with the attainment of the NO₂ NAAQS.

Sulfur Dioxide (SO₂)

On June 22, 2010, EPA revised the SO₂ standard.³¹ There are both primary and secondary standards for SO₂. The primary NAAQS is a 3-year average of the 99th percentile of the daily maximum 1-hour concentration not to exceed 75 ppb. The secondary standard is a 3-hour concentration not to exceed 0.5 ppm (500 ppb) more than once per year.

In 2016, the Cabinet operated 12 SO₂ monitors, including one in Campbell County. The Campbell County SO₂ monitor determined a 2014-2016 design value of 30 ppb for the 1-hour SO₂ standard.

In comparing the 2014 attainment year emissions with projected 2030 "out year" emissions, a significant SO₂ emissions reduction has been shown in the Northern Kentucky area. From 2014 to 2030, there is an estimated 66.7% reduction in SO₂ emissions, from 0.12 TSD to 0.04 TSD.

With the projected decline in SO₂ emissions, opting out of the RFG program in Northern Kentucky will not interfere with the attainment of the SO₂ NAAQS.

V. Revised Sections

The Cabinet submitted a SIP revision on August 26, 2016 requesting EPA to redesignate the Kentucky portion of the Cincinnati MSA from nonattainment to attainment for the 2008 8-hour ozone NAAQS. The following outline identifies the specific areas of the maintenance plan portion of the August 26, 2016 submittal, which have been revised to be consistent with the Cabinet's 110(l) demonstration. The only sectors that have been revised in the maintenance plan are the on-road and non-road sectors. The Cabinet performed MOVES2014a model runs to generate both the on-road and non-road emissions totals, which accounted for VOC and NO_x emissions with and without RFG to demonstrate that removal of the federal RFG program will not interfere with attainment and maintenance of the 2008 8-hour ozone NAAQS.

IV. Chapter Four – Emissions Inventory

- Requirement 1 of 4:

³¹ 75 FR 35520

- The original on-road VOC and NO_x emissions included in the Cabinet's August 26, 2016 Redesignation Request and Maintenance Plan were provided by OKI. The revised on-road VOC and NO_x emissions included in this submittal are provided by the Kentucky Division for Air Quality. The latest version of the MOVES model was used by both entities to obtain on-road emission totals.
 - The original non-road VOC and NO_x emissions included in the Cabinet's August 26, 2016 Redesignation Request and Maintenance Plan were provided by the Indiana Department of Environmental Management (IDEM). Data was obtained from the ozone NAAQS Emissions Modeling Platform (2011 v6.1). County area percentages were applied to Boone, Campbell and Kenton counties since only portions of each county were designated as nonattainment for the 2008 ozone NAAQS. The revised non-road VOC and NO_x emissions included in this submittal are provided by the Kentucky Division for Air Quality and generated using the latest version of the MOVES model. Since RFG is used throughout the entirety of each county, the area percentages were not applied to the final non-road emissions inventory, a more conservative estimate.
 - Requirement 2 of 4
 - Table 4 Boone Co., Kentucky Projected VOC Emissions
 - Table 5 Campbell Co., Kentucky Projected VOC Emissions
 - Table 6 Kenton Co., Kentucky Projected VOC Emissions
 - Table 13 Cincinnati OH-KY-IN MSA VOC Emission Totals
 - Table 14 Boone Co., Kentucky Projected NO_x Emissions
 - Table 15 Campbell Co., Kentucky Projected NO_x Emissions
 - Table 16 Kenton Co., Kentucky Projected NO_x Emissions
 - Table 23 Cincinnati OH-KY-IN MSA NO_x Emission Totals
 - Table 24 Boone Co., Kentucky VOC Emissions with Safety Margin
 - Table 25 Campbell Co., Kentucky VOC Emissions with Safety Margin
 - Table 26 Kenton Co., Kentucky VOC Emissions with Safety Margin
 - Table 33 Boone Co., Kentucky NO_x Emissions with Safety Margin
 - Table 34 Campbell Co., Kentucky NO_x Emissions with Safety Margin
 - Table 35 Kenton Co., Kentucky NO_x Emissions with Safety Margin
 - Page 32-33, Summary of safety margin totals for 2020 and 2030.
 - Table 42 Kentucky Portion Highway Mobile Emission Budgets with Safety Margins
 - Table 43 Cincinnati, OH-KY-IN MSA Total Projected VOC Emissions
 - Table 44 Cincinnati, OH-KY-IN MSA Total Projected NO_x Emissions
 - Requirement 3 of 4
 - Table 45 Cincinnati, OH-KY-IN MSA Total Emission Reductions

V. Public Hearing

A public hearing was scheduled, in accordance with 40 CFR 51.102, to be held at the Northern Kentucky Area Development District offices located at 22 Spiral Drive, Florence, KY on August 24, 2017. The SIP revision package was made available on the Division's website during the 30 day comment period from July 21, 2017 to August 24, 2017. The Cabinet received comments and several letters of support during the public hearing. The Cabinet's response to those comments is provided in Appendix G along with a copy of the public hearing notice.

VI. Conclusion

This submittal demonstrates that the removal of the federal RFG program requirements from Boone, Campbell and Kenton counties will not interfere with the attainment or maintenance of the 2008 8-hour ozone NAAQS. The monitoring data for the Northern Kentucky area indicates that the values are well below the 1997 and 2008 8-hour ozone standard, and are meeting the recently revised 2015 8-hour ozone standard. The removal of the RFG program will not interfere with attainment or maintenance of the 2015 8-hour ozone standard.

Since Kentucky opted into the RFG program for the Northern Kentucky area, there have been several major federal programs enacted that have led to significant emissions reductions. These programs have improved the quality of conventional gasoline, which has made the difference between RFG and conventional gasoline inconsequential. The improvements in conventional gasoline are evident in Tables 1 and 2, which demonstrate that there is little difference between VOC and NO_x emissions when comparing RFG to non-RFG.

The SIP revision, which includes the revised maintenance plan, accounts for the removal of the federal RFG program in Northern Kentucky as a control measure. Tables 3 and 4 demonstrate that, even without the RFG program, projected VOC and NO_x emissions for the area will continue to decrease, and emissions in 2030 will remain well below the 2014 attainment year.

The Cabinet concludes that the CAA Section 110(l) submittal demonstrates that the removal of the federal RFG program in the Northern Kentucky area will not interfere with reasonable further progress, attainment or maintenance of any NAAQS in the Cincinnati MSA and requests EPA's approval to opt-out of the federal RFG program and to remove RFG as a control measure in the Kentucky SIP for the Northern Kentucky area.

Appendix A
Federal Registers

Federal Registers

The following federal registers are referenced in the demonstration document:

- 56 FR 56694 (November 6, 1991)
- 81 FR 26697 (May 4, 2016)
- 82 FR 20297 (May 1, 2017)
- 61 FR 35673 (July 8, 1996)
- 76 FR 48208 (August 8, 2011)
- 81 FR 74504 (October 26, 2016)
- 79 FR 23414 (April 28, 2014)
- 65 FR 6698 (February 10, 2000)
- 66 FR 5002 (January 18, 2001)
- 77 FR 62624 (October 15, 2012)
- 75 FR 25324 (May 7, 2010)
- 81 FR 73478 (October 25, 2016)
- 76 FR 57106 (September 15, 2011)
- 72 FR 8428 (February 26, 2007)
- 79 FR 14410 (March 14, 2014)
- 78 FR 3086 (January 15, 2013)
- 75 FR 6474 (February 9, 2010)
- 75 FR 35520 (June 22, 2010)

Due to the large document size of each federal register rule, the federal registers have been included in the enclosed disk.

Appendix B
Kentucky Petition Letter



MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-3350
TELEFAX: 502-564-7484

R. BRUCE SCOTT
DEPUTY SECRETARY

April 18, 2017

Hon. Scott Pruitt
Administrator
U.S. EPA, Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1101A
Washington, DC 20460

Dear Administrator Pruitt:

On behalf of the Commonwealth of Kentucky, the Energy & Environmental Cabinet (Cabinet) respectfully submits this petition to opt out of the federal reformulated gasoline (RFG) program in the Northern Kentucky area. In accordance with Section 211(k)(6)(A) of the Clean Air Act, Kentucky originally opted into this program on January 1, 1995. Kentucky implemented the RFG program as an air quality control measure to address violations of the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS).

It is important to note that EPA redesignated the Northern Kentucky area as attainment for the 1997 ozone standards on August 5, 2010.¹ Since then, emissions of ozone precursors, volatile organic compounds (VOC) and nitrogen oxides (NOx), have steadily declined in the Northern Kentucky area. As a result of improved air quality, the Northern Kentucky area currently meets the more restrictive 2008 Ozone NAAQS of 75 ppb. Furthermore, Kentucky did not include the RFG program as a control measure in the applicable state implementation plans (redesignation and maintenance plans) for the 2008 Ozone NAAQS.

Since Kentucky opted into the RFG program, EPA implemented several federal programs, resulting in improved combustion technologies for engines and cleaner fuels. Implementation of these programs effectively reduced emissions nation wide. In a federal register published on March 14, 2014, EPA detailed the changes to gasoline and stated, "The result of all these actions is that now the requirements for federal RFG and conventional gasoline (CG) with respect to NOx, toxics emissions performance and renewable fuel content are essentially the same."²

Procedures for opting out of the RFG program are included in 40 CFR 80.72. Kentucky requests approval to opt out of the RFG program and specifically addresses the following regulatory requirements:

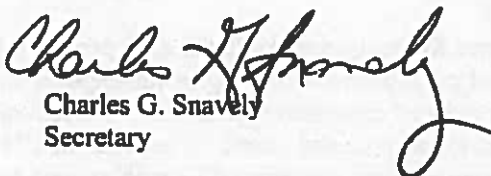
¹ 75 FR 47218

² 79 FR 14414

- (1) The geographic area for opting out of the RFG program includes the entirety of Boone, Campbell, and Kenton Counties.
- (2) Several emission control measures, including the RFG program, have been implemented over the years to attain and maintain the ozone NAAQS in the northern Kentucky area. The RFG program has been included in meeting the area's previous air quality goals for Northern Kentucky. Previous SIP revisions include the 15% VOC emission reduction plan and vehicle testing plan, the 1987 1-hour ozone redesignation request, and the 1997 8-hour ozone redesignation request.
- (3) For any opt-in areas covered by the petition for which reformulated gasoline is relied upon as a control measure, the petition shall include the following information:
 - i. Kentucky is not withdrawing any pending SIP revisions as the RFG program is not relied upon as an emissions control measure.
 - ii. Kentucky does not plan to submit revisions to any approved SIP revisions relating to the Northern Kentucky area. Kentucky will not be replacing RFG with any alternative emissions control measures.
 - iii. Kentucky will not revise any of the approved SIP revisions that utilized RFG as a control measure. RFG was beneficial at the time the program was introduced to assist Kentucky to attain the 1997 ozone NAAQS. However, now that there have been substantial improvements in engine technology and conventional gasoline formulation, RFG's assistance to reduce emissions is not as significant. As mentioned above, the emissions and monitoring data in Northern Kentucky continues to decrease and Kentucky has continued to attain more stringent standards without relying on RFG.
 - iv. Kentucky has not relied upon RFG in any pending SIP revisions, therefore no revisions need to be made and there is no risk of the removal of RFG affecting the completeness determination.

Kentucky requests approval of a SIP revision to remove RFG as an emissions control measure effective July 1, 2017. Your prompt consideration of this request is appreciated. If you have any questions or comments concerning this matter, please contact Ms. Leslie Poff, Environmental Control Supervisor in the Program Planning and Administration Branch at (502) 782-6735 or lesliem.poff@ky.gov.

Sincerely,


Charles G. Snavely
Secretary

Cc: V. Anne Heard, Region 4 US EPA
Beverly Banister, Region 4 US EPA
Lynorae Benjamin, Region 4 US EPA
Scott Davis, Region 4 US EPA

Appendix C

Cost Analysis

Appendix C – Cost Analysis

I. Cost Savings

**Table 1: Northern Kentucky Cost Savings Estimate
Switching from RFG to Conventional Gasoline**

	2010 Census Population	Percent of State		2016 Gasoline Gallons
Kentucky	4,339,367			
			Kentucky	2,220,766,665
Boone County	118,811		x NKY %	8.5%
Campbell County	90,336		NKY	188,775,814
Kenton County	159,720		x Average Cost Difference	\$0.22
NKY Total	368,867	8.5%	Savings / Year	\$41,530,679

Based on 2010 Census population data, an estimated 8.5% of Kentucky's population resides in the Northern Kentucky area. In 2016, an estimated 2,200,766,665 gallons of gasoline was sold in Kentucky. The estimated number of gallons of gasoline sold in Northern Kentucky that same year was 188,775,814 gallons, based on the population percentage of 8.5%. Knowing the average cost for RFG is 22 cents more than the average cost of conventional gasoline, this means that the estimated savings per year is \$41,530,679.

II. Cost Effectiveness

With almost 200 million gallons of gasoline being distributed in the Northern Kentucky area each year, as shown in Table 1, greater cost effectiveness from more efficient environmental programs is the primary strategy for Kentucky's air quality maintenance plan. The Cabinet continuously strives to find the most effective environmental programs as part of meeting air quality goals.

The U.S. General Accounting Office published a report summarizing the cost-effectiveness of using reformulated gasoline compared to other measures.¹ The report includes a study by the American Petroleum Institute comparing the annual average cost per ton for VOC and NOx in five RFG cities: Baltimore, Chicago, Houston, Philadelphia and Washington, D.C. The average estimated cost per ton for VOC and NOx was \$7,422 and \$38,612 respectively. The estimated cost per ton calculated in the GOA report is based on 1993 currency rates. An inflation website

¹ U.S. General Accounting Office. Motor Fuels: *Issues Related to Reformulated Gasoline, Oxygenated Fuels, and Biofuels*. June 1996

was used to update the cost effectiveness estimates to 2016 currency levels.² The updated cost effectiveness estimates total \$12,328 cost per ton for VOC and \$64,133 cost per ton for NO_x.

The GOA report accounts for RFG ozone benefits over a six month period. However, the RFG distribution schedule begins May 1st and ends on September 15th. To assure the cost effectiveness estimates from RFG represent the actual RFG distribution schedule, 4 ½ months were used instead of 6 months. Since 4½ months is 75% of the 6-month time period described above, the two estimates above were multiplied by 75% to estimate the cost effectiveness estimates from the 4½-month RFG distribution schedule. Therefore, 75% of \$12,328 for cost per ton for VOC is \$9,246 cost per ton VOC from the 4½-month RFG distribution schedule. Similarly, 75% of \$64,133 for cost per ton for NO_x is \$48,100 cost per ton NO_x from the 4½-month RFG distribution schedule.

² US Inflation Calculator. <http://www.usinflationcalculator.com>

Appendix D
Emissions Tables

Appendix D – Summary of Emissions Tables

The following three sections contain tables, which represent the emissions inventory of Boone, Campbell and Kenton Counties in Kentucky. Section D-1 are tables which were included in the August 2016 “Request to Redesignate Kentucky Counties Located within the Cincinnati, OH-KY-IN MSA 8-Hour Ozone Nonattainment Area” submittal. In December 2016, the Cabinet submitted revised tables to EPA due to underestimated point source emissions for Campbell and Kenton Counties in the original August 2016 submittal. Also, rounding errors for Kenton County totals for the years 2011 and 2014 were corrected, as well as safety margins. Section D-2 of this Appendix provides the tables which were revised and submitted to EPA. All of the tables are either specific to individual Kentucky counties or include Kentucky counties in the MSA.

Section D-3 includes the revised tables with the updated on-road and non-road emission numbers. All numbers that were updated to account for the removal of the federal RFG program have been highlighted in red for ease of identification. Both the revised on-road and non-road emissions data were generated using the latest available EPA-approved mobile source emissions model, MOVES2014a. As a result of the revised on-road and non-road emissions, the total emissions from all sectors have also been updated. Emissions from all other sectors (EGUs, Non-EGUs, Air, and Area) remain the same.

The revised tables in Section D-3 represent the VOC and NO_x emissions without the federal RFG program. Sections D-1 and D-2 are the original tables submitted in Kentucky’s redesignation request and maintenance plan which included emission reductions from implementation of the RFG program. To simplify comparison between the original tables and the tables with the amended on-road and non-road emissions, all tables are numbered the same as they were in the August 2016 submittal, “Request to Redesignate Kentucky Counties Located within the Cincinnati, OH-KY-IN MSA 8-Hour Ozone Nonattainment Area.”

Appendix D-1
August 2016 Submittal
Original Tables

Original Tables
August 2016 Redesignation Request

Table 4
Boone County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Boone					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.16	0.16	0.16	0.16	0.16	0.16
Non-EGU	1.57	1.57	1.57	1.57	1.57	1.57
Air	0.42	0.42	0.44	0.45	0.26	0.06
Non-road	1.49	1.30	1.12	1.03	0.97	0.92
Area	2.66	2.56	2.46	2.41	2.38	2.36
On-road	3.30	2.53	1.96	1.38	1.08	0.77
TOTAL	9.60	8.54	7.71	7.00	6.42	5.84

Table 5
Campbell County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Campbell					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.22	0.22	0.22	0.22	0.22	0.21
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.40	0.34	0.28	0.25	0.24	0.22
Area	1.29	1.26	1.23	1.22	1.21	1.19
On-road	2.05	1.58	1.22	0.86	0.67	0.48
TOTAL	3.96	3.40	2.95	2.55	2.34	2.10

Table 6
Kenton County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Kenton					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.51	0.51	0.50	0.49	0.48	0.47
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.62	0.55	0.48	0.47	0.48	0.50
Area	2.51	2.43	2.35	2.31	2.28	2.25
On-road	3.12	2.39	1.85	1.30	1.02	0.73
TOTAL	6.76	5.88	5.18	4.57	4.26	3.95

Table 13
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC				
County	2011	2014	2020	2030
Boone	9.60	8.54	7.00	5.84
Campbell	3.82	3.26	2.40	1.96
Kenton	6.71	5.82	4.52	3.90
Butler	25.85	22.70	19.41	17.63
Clermont	14.13	12.39	10.17	9.07
Clinton	5.61	4.77	3.99	3.75
Hamilton	60.07	51.85	42.48	37.42
Warren	16.67	14.21	11.59	9.93
Dearborn	7.31	8.29	6.52	6.42
TOTAL	149.77	131.83	108.08	95.92

Table 14
Boone County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx	Boone					
Sector	2011	2014	2017	2020	2025	2030
EGU	7.04	7.23	7.46	7.71	7.96	8.33
Non-EGU	0.16	0.14	0.15	0.15	0.18	0.18
Air	2.03	2.07	2.18	2.29	1.29	0.29
Non-road	1.06	0.88	0.70	0.60	0.49	0.38
Area	0.43	0.43	0.43	0.43	0.44	0.44
On-road	6.90	5.46	3.94	2.41	1.73	1.05
TOTAL	17.61	16.21	14.86	13.59	12.08	10.67

Table 15
Campbell County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx	Campbell					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.17	0.17	0.17	0.17	0.17	0.17
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.38	0.32	0.26	0.23	0.19	0.15
Area	0.49	0.49	0.49	0.49	0.49	0.49
On-road	4.30	3.41	2.46	1.50	1.08	0.65
TOTAL	5.34	4.39	3.38	2.39	1.93	1.46

Table 16
Kenton County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx	Kenton					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.77	0.64	0.51	0.43	0.35	0.27
Area	1.02	1.02	1.02	1.02	1.02	1.02
On-road	6.53	5.17	3.73	2.28	1.64	0.99
TOTAL	8.32	6.83	5.26	3.73	3.01	2.28

Table 23
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx				
County	2011	2014	2020	2030
Boone	17.61	16.21	13.59	10.67
Campbell	5.34	4.39	2.39	1.46
Kenton	8.32	6.83	3.73	2.28
Butler	31.98	29.74	21.34	18.22
Clermont	54.48	49.59	36.48	34.60
Clinton	6.20	4.99	3.02	2.10
Hamilton	78.65	62.88	45.94	38.15
Warren	16.29	12.29	8.51	5.95
Dearborn	19.82	13.39	4.14	3.83
TOTAL	238.69	200.31	139.14	117.26

Table 24
Boone County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Boone						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.16	0.16	0.16	0.16	0.16	0.16		
Non-EGU	1.57	1.57	1.57	1.57	1.57	1.57		
Air	0.42	0.42	0.44	0.45	0.26	0.06		
Non-road	1.49	1.30	1.12	1.03	0.97	0.92		
Area	2.66	2.56	2.46	2.41	2.38	2.36		
On-road	3.30	2.53	1.96	1.38	1.08	0.77		
TOTAL	9.60	8.54	7.71	7.00	6.42	5.84	1.61	1.18

Table 25
Campbell County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Campbell						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.22	0.22	0.22	0.22	0.22	0.21		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.40	0.34	0.28	0.25	0.24	0.22		
Area	1.29	1.26	1.23	1.22	1.21	1.19		
On-road	2.05	1.58	1.22	0.86	0.67	0.48		
TOTAL	3.96	3.40	2.95	2.55	2.34	2.10	0.99	0.68

Table 26
Kenton County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Kenton						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.51	0.51	0.50	0.49	0.48	0.47		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.62	0.55	0.48	0.47	0.48	0.50		
Area	2.51	2.43	2.35	2.31	2.28	2.25		
On-road	3.12	2.39	1.85	1.30	1.02	0.73		
TOTAL	6.76	5.88	5.18	4.57	4.26	3.95	1.50	1.02

Table 33
Boone County 2008 8-Hour Ozone Nonattainment Area
NOx Emissions and Projections
(TSD)

NOx	Boone						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	7.04	7.23	7.46	7.71	7.96	8.33		
Non-EGU	0.16	0.14	0.15	0.15	0.18	0.18		
Air	2.03	2.07	2.18	2.29	1.29	0.29		
Non-road	1.06	0.88	0.70	0.60	0.49	0.38		
Area	0.43	0.43	0.43	0.43	0.44	0.44		
On-road	6.90	5.46	3.94	2.41	1.73	1.05		
TOTAL	17.61	16.21	14.86	13.59	12.08	10.67	2.80	1.88

Table 34
Campbell County 2008 8-Hour Ozone Nonattainment Area
NOx Emissions and Projections
(TSD)

NOx	Campbell						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.17	0.17	0.17	0.17	0.17	0.17		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.38	0.32	0.26	0.23	0.19	0.15		
Area	0.49	0.49	0.49	0.49	0.49	0.49		
On-road	4.30	3.41	2.46	1.50	1.08	0.65		
TOTAL	5.34	4.39	3.38	2.39	1.93	1.46	1.80	1.09

Table 35
Kenton County 2008 8-Hour Ozone Nonattainment Area
NOx Emissions and Projections
(TSD)

NOx	Kenton						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.77	0.64	0.51	0.43	0.35	0.27		
Area	1.02	1.02	1.02	1.02	1.02	1.02		
On-road	6.53	5.17	3.73	2.28	1.64	0.99		
TOTAL	8.32	6.83	5.26	3.73	3.01	2.28	2.75	1.67

Table 42
Kentucky Portion of the Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
Highway Mobile Emission Budgets with Safety Margins
(TSD)

Mobile Budget	2020	2030
VOC	3.54	1.99
NOx	6.20	2.69
Safety Margin		
VOC	0.56	0.89
NOx	1.16	1.95
Budgets with Margins		
VOC	4.10	2.87
NOx	7.35	4.64

Table 43
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected VOC Emissions
(TSD)

VOC	2011	2014	2017	2020	2025	2030	TOTAL	TOTAL
							Budget	Budget
							and	and
							Safety	Safety
							Margin	Margin
Boone, KY	9.60	8.54	7.71	7.00	6.42	5.84	8.61	7.02
Campbell, KY	3.82	3.26	2.80	2.40	2.19	1.96	3.39	2.64
Kenton, KY	6.71	5.82	5.13	4.52	4.21	3.90	6.02	4.92
Butler, OH	25.85	22.70		19.41		17.63		
Clermont, OH	14.13	12.39		10.17		9.07		
Clinton, OH	5.61	4.77		3.99		3.75		
Hamilton, OH	60.07	51.85		42.48		37.42		
Warren, OH	16.67	14.21		11.59		9.93		
Dearborn, IN	7.31	8.29		6.52		6.42		
Combined Total	149.77	131.83		108.08		95.92		

Table 44
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected NOx Emissions
(TSD)

NOx	2011	2014	2017	2020	2025	2030	TOTAL	TOTAL
							Budget and Safety Margin	Budget and Safety Margin
							2020	2030
Boone, KY	17.61	16.21	14.86	13.59	12.08	10.67	16.39	12.55
Campbell, KY	5.34	4.39	3.38	2.39	1.93	1.46	4.19	2.55
Kenton, KY	8.32	6.83	5.26	3.73	3.01	2.28	6.48	3.95
Butler, OH	31.98	29.74		21.34		18.22		
Clermont, OH	54.48	49.59		36.48		34.60		
Clinton, OH	6.20	4.99		3.02		2.10		
Hamilton, OH	78.65	62.88		45.94		38.15		
Warren, OH	16.29	12.29		8.51		5.95		
Dearborn, IN	19.82	13.39		4.14		3.83		
Combined Total	238.69	200.31		139.14		117.26		

Table 45
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
Emission Reductions
(TSD)

	2014	2030	Total Reductions
VOC	131.83	95.92	35.91
NOx	200.31	117.26	83.05

Appendix D-2
December 2016 Submittal
Revised Tables

TABLE REVISIONS TO
REQUEST TO REDESIGNATE
KENTUCKY COUNTIES
LOCATED WITHIN THE
CINCINNATI, OH-KY-IN MSA
8-HOUR OZONE NONATTAINMENT AREA

Prepared by:
Kentucky Energy and Environment Cabinet
Division for Air Quality

December 2016

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The United States Environmental Protection Agency (U.S. EPA) recently reviewed Kentucky's submittal of the request to redesignate the Kentucky counties located within the Cincinnati, OH-KY-IN Metropolitan Statistical Area's 8-Hour Ozone Nonattainment Area. As part of Kentucky's response to U.S. EPA comments, the following tables have been updated with revised data.

Table 13
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC				
County	2011	2014	2020	2030
Boone	9.60	8.54	7.00	5.84
Campbell	3.96	3.40	2.55	2.10
Kenton	6.76	5.88	4.57	3.95
Butler	25.85	22.70	19.41	17.63
Clermont	14.13	12.39	10.17	9.07
Clinton	5.61	4.77	3.99	3.75
Hamilton	60.07	51.85	42.48	37.42
Warren	16.67	14.21	11.59	9.93
Dearborn	7.31	8.29	6.52	6.42
TOTAL	149.96	132.03	108.28	96.11

Table 16
Kenton County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx	Kenton					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.77	0.64	0.51	0.43	0.35	0.27
Area	1.02	1.02	1.02	1.02	1.02	1.02
On-road	6.53	5.17	3.73	2.28	1.64	0.99
TOTAL	8.33	6.84	5.27	3.74	3.02	2.29

Table 23
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected NOx Emissions
(TSD)

NOx				
County	2011	2014	2020	2030
Boone	17.61	16.21	13.59	10.67
Campbell	5.34	4.39	2.39	1.46
Kenton	8.33	6.84	3.74	2.29
Butler	31.98	29.74	21.34	18.22
Clermont	54.48	49.59	36.48	34.60
Clinton	6.20	4.99	3.02	2.10
Hamilton	78.65	62.88	45.94	38.15
Warren	16.29	12.29	8.51	5.95
Dearborn	19.82	13.39	4.14	3.83
TOTAL	238.70	200.32	139.15	117.27

Table 35
Kenton County 2008 8-Hour Ozone Nonattainment Area
NOx Emissions and Projections
(TSD)

NOx	Kenton						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.77	0.64	0.51	0.43	0.35	0.27		
Area	1.02	1.02	1.02	1.02	1.02	1.02		
On-road	6.53	5.17	3.73	2.28	1.64	0.99		
TOTAL	8.33	6.84	5.27	3.74	3.02	2.29	2.75	1.67

Table 43
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected VOC Emissions
(TSD)

VOC	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
							2020	2030
Boone, KY	9.60	8.54	7.71	7.00	6.42	5.84	1.61	1.18
Campbell, KY	3.96	3.40	2.95	2.55	2.34	2.10	0.99	0.68
Kenton, KY	6.76	5.88	5.18	4.57	4.26	3.95	1.50	1.02
Butler, OH	25.85	22.70		19.41		17.63		
Clermont, OH	14.13	12.39		10.17		9.07		
Clinton, OH	5.61	4.77		3.99		3.75		
Hamilton, OH	60.07	51.85		42.48		37.42		
Warren, OH	16.67	14.21		11.59		9.93		
Dearborn, IN	7.31	8.29		6.52		6.42		
Combined Total	149.96	132.03		108.28		96.11		

Table 44
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected NOx Emissions
(TSD)

NOx	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
							2020	2030
Boone, KY	17.61	16.21	14.86	13.59	12.08	10.67	2.80	1.88
Campbell, KY	5.34	4.39	3.38	2.39	1.93	1.46	1.80	1.09
Kenton, KY	8.32	6.83	5.26	3.73	3.01	2.28	2.75	1.67
Butler, OH	31.98	29.74		21.34		18.22		
Clermont, OH	54.48	49.59		36.48		34.60		
Clinton, OH	6.20	4.99		3.02		2.10		
Hamilton, OH	78.65	62.88		45.94		38.15		
Warren, OH	16.29	12.29		8.51		5.95		
Dearborn, IN	19.82	13.39		4.14		3.83		
Combined Total	238.69	200.31		139.14		117.26		

Table 45
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
Emission Reductions
(TSD)

	2014	2030	Total Reductions
VOC	132.03	96.11	35.92
NOx	200.31	117.26	83.05

Appendix D-3

RFG Opt-out 110(l) Demonstration Submittal

Updated Tables

Updated Tables
Removal of Federal RFG Program

Table 4
Boone County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Boone					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.16	0.16	0.16	0.16	0.16	0.16
Non-EGU	1.57	1.57	1.57	1.57	1.57	1.57
Air	0.42	0.42	0.44	0.45	0.26	0.06
Non-road	1.49	1.30	2.25	2.06	2.04	2.01
Area	2.66	2.56	2.46	2.41	2.38	2.36
On-road	3.30	2.53	2.09	1.58	1.23	0.87
TOTAL	9.60	8.54	8.97	8.23	7.63	7.03

Table 5
Campbell County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Campbell					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.22	0.22	0.22	0.22	0.22	0.21
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.40	0.34	0.55	0.50	0.49	0.48
Area	1.29	1.26	1.23	1.22	1.21	1.19
On-road	2.05	1.58	1.23	0.93	0.73	0.52
TOTAL	3.96	3.40	3.23	2.87	2.65	2.40

Table 6
Kenton County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC	Kenton					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.51	0.51	0.50	0.49	0.48	0.47
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.62	0.55	1.01	1.00	1.05	1.09
Area	2.51	2.43	2.35	2.31	2.28	2.25
On-road	3.12	2.39	2.21	1.66	1.29	0.92
TOTAL	6.76	5.88	6.07	5.46	5.10	4.73

Table 13
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected VOC Emissions
(TSD)

VOC				
County	2011	2014	2020	2030
Boone	9.60	8.54	8.23	7.03
Campbell	3.96	3.40	2.87	2.40
Kenton	6.76	5.88	5.46	4.73
Butler	25.85	22.70	19.41	17.63
Clermont	14.13	12.39	10.17	9.07
Clinton	5.61	4.77	3.99	3.75
Hamilton	60.07	51.85	42.48	37.42
Warren	16.67	14.21	11.59	9.93
Dearborn	7.31	8.29	6.52	6.42
TOTAL	149.96	132.03	110.72	98.38

Table 14
Boone County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NO_x Emissions
(TSD)

NO _x	Boone					
Sector	2011	2014	2017	2020	2025	2030
EGU	7.04	7.23	7.46	7.71	7.96	8.33
Non-EGU	0.16	0.14	0.15	0.15	0.18	0.18
Air	2.03	2.07	2.18	2.29	1.29	0.29
Non-road	1.06	0.88	1.60	1.33	1.17	1.00
Area	0.43	0.43	0.43	0.43	0.44	0.44
On-road	6.90	5.46	4.58	3.26	2.32	1.38
TOTAL	17.61	16.21	16.40	15.17	13.35	11.62

Table 15
Campbell County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NO_x Emissions
(TSD)

NO _x	Campbell					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.17	0.17	0.17	0.17	0.17	0.17
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.38	0.32	0.53	0.45	0.40	0.35
Area	0.49	0.49	0.49	0.49	0.49	0.49
On-road	4.30	3.41	2.60	1.86	1.32	0.78
TOTAL	5.34	4.39	3.79	2.97	2.38	1.79

Table 16
Kenton County, Kentucky 2008 8-Hour Ozone Nonattainment Area
Projected NO_x Emissions
(TSD)

NO _x	Kenton					
Sector	2011	2014	2017	2020	2025	2030
EGU	0.00	0.00	0.00	0.00	0.00	0.00
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01
Air	0.00	0.00	0.00	0.00	0.00	0.00
Non-road	0.77	0.64	1.12	0.93	0.83	0.72
Area	1.02	1.02	1.02	1.02	1.02	1.02
On-road	6.53	5.17	4.69	3.30	2.35	1.40
TOTAL	8.33	6.84	6.84	5.26	4.20	3.15

Table 23
Cincinnati OH-KY-IN Area 2008 8-Hour Ozone Nonattainment Area
Projected NO_x Emissions
(TSD)

NO _x				
County	2011	2014	2020	2030
Boone	17.61	16.21	15.17	11.62
Campbell	5.34	4.39	2.97	1.79
Kenton	8.33	6.84	5.26	3.15
Butler	31.98	29.74	21.34	18.22
Clermont	54.48	49.59	36.48	34.60
Clinton	6.20	4.99	3.02	2.10
Hamilton	78.65	62.88	45.94	38.15
Warren	16.29	12.29	8.51	5.95
Dearborn	19.82	13.39	4.14	3.83
TOTAL	238.70	200.32	142.82	119.40

Table 24
Boone County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Boone						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.16	0.16	0.16	0.16	0.16	0.16		
Non-EGU	1.57	1.57	1.57	1.57	1.57	1.57		
Air	0.42	0.42	0.44	0.45	0.26	0.06		
Non-road	1.49	1.30	2.25	2.06	2.04	2.01		
Area	2.66	2.56	2.46	2.41	2.38	2.36		
On-road	3.30	2.53	2.09	1.58	1.23	0.87		
TOTAL	9.60	8.54	8.97	8.23	7.63	7.03	1.63	1.10

Table 25
Campbell County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Campbell						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.22	0.22	0.22	0.22	0.22	0.21		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.40	0.34	0.55	0.50	0.49	0.48		
Area	1.29	1.26	1.23	1.22	1.21	1.19		
On-road	2.05	1.58	1.23	0.93	0.73	0.52		
TOTAL	3.96	3.40	3.23	2.87	2.65	2.40	1.01	0.67

Table 26
Kenton County 2008 8-Hour Ozone Nonattainment Area
VOC Emissions and Projections
(TSD)

VOC	Kenton						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.51	0.51	0.50	0.49	0.48	0.47		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.62	0.55	1.01	1.00	1.05	1.09		
Area	2.51	2.43	2.35	2.31	2.28	2.25		
On-road	3.12	2.39	2.21	1.66	1.29	0.92		
TOTAL	6.76	5.88	6.07	5.46	5.10	4.73	1.72	1.09

Table 33
Boone County 2008 8-Hour Ozone Nonattainment Area
NO_x Emissions and Projections
(TSD)

NO _x	Boone						2020	2030
Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin	Budget and Safety Margin
EGU	7.04	7.23	7.46	7.71	7.96	8.33		
Non-EGU	0.16	0.14	0.15	0.15	0.18	0.18		
Air	2.03	2.07	2.18	2.29	1.29	0.29		
Non-road	1.06	0.88	1.60	1.33	1.17	1.00		
Area	0.43	0.43	0.43	0.43	0.44	0.44		
On-road	6.90	5.46	4.58	3.26	2.32	1.38		
TOTAL	17.61	16.21	16.40	15.17	13.35	11.62	3.42	2.07

Table 34
Campbell County 2008 8-Hour Ozone Nonattainment Area
NO_x Emissions and Projections
(TSD)

NO _x	Campbell						2020	2030
	Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.17	0.17	0.17	0.17	0.17	0.17		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.38	0.32	0.53	0.45	0.40	0.35		
Area	0.49	0.49	0.49	0.49	0.49	0.49		
On-road	4.30	3.41	2.60	1.86	1.32	0.78		
TOTAL	5.33	4.39	3.79	2.97	2.38	1.79	2.07	1.17

Table 35
Kenton County 2008 8-Hour Ozone Nonattainment Area
NO_x Emissions and Projections
(TSD)

NO _x	Kenton						2020	2030
	Sector	2011	2014	2017	2020	2025	2030	Budget and Safety Margin
EGU	0.00	0.00	0.00	0.00	0.00	0.00		
Non-EGU	0.01	0.01	0.01	0.01	0.01	0.01		
Air	0.00	0.00	0.00	0.00	0.00	0.00		
Non-road	0.77	0.64	1.12	0.93	0.83	0.72		
Area	1.02	1.02	1.02	1.02	1.02	1.02		
On-road	6.53	5.17	4.69	3.30	2.35	1.40		
TOTAL	8.33	6.84	6.84	5.26	4.20	3.15	3.54	1.95

Table 42
Kentucky Portion of the Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
Highway Mobile Emission Budgets with Safety Margins
(TSD)

Mobile Budget	2020	2030
VOC	4.18	2.31
NO _x	8.42	3.56
Safety Margin		
VOC	0.19	0.55
NO _x	0.61	1.63
Budgets with Margins		
VOC	4.36	2.86
NO _x	9.03	5.19

Table 43
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected VOC Emissions (TSD)

VOC	2011	2014	2017	2020	2025	2030	TOTAL	TOTAL
							Budget	Budget
							and	and
							Safety	Safety
							Margin	Margin
							2020	2030
Boone, KY	9.60	8.54	8.97	8.23	7.63	7.03	1.63	1.10
Campbell, KY	3.96	3.40	3.23	2.87	2.65	2.40	1.01	0.67
Kenton, KY	6.76	5.88	6.07	5.46	5.10	4.73	1.72	1.09
Butler, OH	25.85	22.70		19.41		17.63		
Clermont, OH	14.13	12.39		10.17		9.07		
Clinton, OH	5.61	4.77		3.99		3.75		
Hamilton, OH	60.07	51.85		42.48		37.42		
Warren, OH	16.67	14.21		11.59		9.93		
Dearborn, IN	7.31	8.29		6.52		6.42		
Combined Total	149.96	132.03		110.72		98.38		

Table 44
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
TOTAL Projected NO_x Emissions (TSD)

NO _x	2011	2014	2017	2020	2025	2030	TOTAL Budget and Safety Margin	TOTAL Budget and Safety Margin
							2020	2030
Boone, KY	17.61	16.21	16.40	15.17	13.35	11.62	3.42	2.07
Campbell, KY	5.34	4.39	3.79	2.97	2.38	1.79	2.07	1.17
Kenton, KY	8.32	6.83	6.84	5.26	4.20	3.15	3.54	1.95
Butler, OH	31.98	29.74		21.34		18.22		
Clermont, OH	54.48	49.59		36.48		34.60		
Clinton, OH	6.20	4.99		3.02		2.10		
Hamilton, OH	78.65	62.88		45.94		38.15		
Warren, OH	16.29	12.29		8.51		5.95		
Dearborn, IN	19.82	13.39		4.14		3.83		
Combined Total	238.69	200.31		142.82		119.40		

Table 45
Cincinnati, OH-KY-IN MSA
2008 8-Hour Ozone Nonattainment Area
Emission Reductions
(TSD)

	2014	2030	Total Reductions
VOC	132.03	98.38	33.65
NO_x	200.31	119.40	80.90

Appendix D-4
2011 Base Year Inventory

Boone County

Region	County	City	SCS: Level One	SCS: Level Two	SCS: Level Three	SCO Level Four	Pollutant	2013 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	EGU	10100202	External Combustion Boilers	Electric Generation	Bituminous Coal, Pulverized	Spreader Stoker	NOx	7.241203704	7.501702343	7.762200982	7.849033861	7.849033861	7.849033861
21015	EGU	10100501	External Combustion Boilers	Electric Generation	Distillate Oil - Grades 1 and 2	Boiler, Normal firing	NOx	0.0224693	0.0128396	0.0032099	0	0	0
21015	EGU	20100102	Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating	NOx	0.000748018	0.000748018	0.000748018	0.000748018	0.000748018	0.000748018
21015	EGU	20100802	Internal Combustion Engines	Electric Generation	Landfill Gas	Reciprocating	NOx	0.222487473	0.222487473	0.222487473	0.222487473	0.222487473	0.222487473
21015	EGU					TOTAL	NOx	7.486908	7.737777	7.988946	8.072269	8.072269	8.072269
21015	Nonpoint	2104001000	Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types	NOx	2.54574E-09	2.54574E-09	2.54574E-09	2.54574E-09	2.54574E-09	2.54574E-09
21015	Nonpoint	2104002000	Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types	NOx	3.85332E-06	3.85332E-06	3.85332E-06	3.85332E-06	3.85332E-06	3.85332E-06
21015	Nonpoint	2104004000	Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types	NOx	0.006584889	0.006584889	0.006584889	0.006584889	0.006584889	0.006584889
21015	Nonpoint	2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	NOx	0.04810073	0.04810073	0.04810073	0.04810073	0.04810073	0.04810073
21015	Nonpoint	2104007000	Stationary Source Fuel Combustion	Residential	Petroleum Gas (LPG)	Total: All Combustor Types	NOx	0.03928268	0.03928268	0.03928268	0.03928268	0.03928268	0.03928268
21015	Nonpoint	2104008100	Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general	NOx	0.010357353	0.010676951	0.01099655	0.011330944	0.011900599	0.012470253
21015	Nonpoint	2104008210	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; non-EPA certified	NOx	0.005115251	0.004889449	0.004663647	0.004417384	0.003989895	0.003562407
21015	Nonpoint	2104008220	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; non-catalytic	NOx	0.001326841	0.001429766	0.001532691	0.001645851	0.001842982	0.002040113
21015	Nonpoint	2104008230	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	NOx	0.000387966	0.000418061	0.000448156	0.000481244	0.000538884	0.000596525
21015	Nonpoint	2104008310	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, non-EPA certified	NOx	0.004090822	0.004055758	0.004020694	0.003982123	0.003914917	0.003847711

Region cd	Data Category	ac	SCC Level Desc	SCC Level Type	SCC Level Three	SCC Level Four	Pollutant	2013 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	Nonpoint	2104008320	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	NOx	0.001061471	0.00114381	0.00122615	0.001316678	0.001474383	0.001632087
21015	Nonpoint	2104008330	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	NOx	0.000310373	0.000334449	0.000358525	0.000384996	0.000431106	0.000477221
21015	Nonpoint	2104008400	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: pellet-fired, general (freestanding or FP insert)	NOx	0.000532952	0.000680275	0.000817598	0.000989387	0.001271091	0.001552794
21015	Nonpoint	2104008510	Stationary Source Fuel Combustion	Residential	Wood	Furnace: Indoor, cordwood-fired, non-EPA certified	NOx	0.000819869	0.000856061	0.000892252	0.000953976	0.001078128	0.00120228
21015	Nonpoint	2104008610	Stationary Source Fuel Combustion	Residential	Wood	Hydronic heater: outdoor	NOx	0	0	0	0	0	0
21015	Nonpoint	2104008700	Stationary Source Fuel Combustion	Residential	Wood	Outdoor wood burning device, NEC (fire-pits, chimneys, etc)	NOx	0.000167714	0.000172889	0.000178064	0.000183479	0.000192703	0.000201927
21015	Nonpoint	2104009000	Stationary Source Fuel Combustion	Residential	Firelog	Total: All Combustor Types	NOx	0.001777029	0.001831863	0.001886697	0.00194407	0.002041806	0.002139543
21015	Nonpoint	2104011000	Stationary Source Fuel Combustion	Residential	Kerosene	Total: All Heater Types	NOx	0.005562187	0.005562187	0.005562187	0.005562187	0.005562187	0.005562187
21015	Nonpoint	2285002006	Mobile Sources	Railroad Equipment	Diesel	Line Haul Locomotives: Class 1 Operations	NOx	0.547704861	0.547704861	0.547704861	0.547704861	0.547704861	0.547704861
21015	Nonpoint	2302002100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	ConveyORIZED Charbroiling	NOx		0	0	0	0	0
21015	Nonpoint	2302002200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Under-fired Charbroiling	NOx		0	0	0	0	0
21015	Nonpoint	2302003000	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Deep Fat Frying	NOx		0	0	0	0	0
21015	Nonpoint	2302003100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Flat Griddle Frying	NOx		0	0	0	0	0

Region	City	Data Category	SCS	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Pollutant	2013 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2050 Ipad
21015	Nonpoint	Industrial Processes	2302003200	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Clamshell Griddle Frying	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310000220	Oil and Gas Exploration and Production	All Processes	Drill Rigs	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310000330	Oil and Gas Exploration and Production	All Processes	Artificial Lift	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310000550	Oil and Gas Exploration and Production	All Processes	Produced Water	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310000660	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310010100	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310010200	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flashing & Standing/Working/Breathing	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310010300	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310011000	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310011201	Oil and Gas Exploration and Production	On-Shore Oil Production	Truck/Railcar Loading: Crude Oil	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310011501	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310011502	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	NOx	0	0	0	0	0	0	0
21015	Nonpoint	Industrial Processes	2310011503	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	NOx	0	0	0	0	0	0	0

Region	Code	Category	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Point	Pollutant	2013	2014	2017	2020	2025	2030
21015	Nonpoint	2310011505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021010	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate Tank	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021030	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Truck/Railcar Loading: Condensate	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021202	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021251	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021300	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021302	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021351	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021400	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	NOx	0	0	0	0	0	0
21015	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	NOx	0	0	0	0	0	0

Region	City	County	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Pollution	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Other	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Venting - Blowdowns	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Mud Degassing	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Oil Well Pneumatic Pumps	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Mud Degassing	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Pneumatic Pumps	NOx	0	0	0	0	0	0
21015	Nonpoint		Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Completion: All Processes	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Architectural Coatings	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Traffic Markings	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2426	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Wood Furniture: SIC 25	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint		Solvent Utilization	Surface Coating	Metal Furniture: SIC 25	Total: All Solvent Types	NOx	0	0	0	0	0	0

Region Code	Data Category	ico	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2013 Year	2014 Year	2017 Year	2020 Year	2025 Year	2050 Year
21015	Nonpoint	2401030000	Solvent Utilization	Surface Coating	Paper: SIC 26	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401040000	Solvent Utilization	Surface Coating	Metal Cans: SIC 341	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401055000	Solvent Utilization	Surface Coating	Machinery and Equipment: SIC 35	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Motor Vehicles: SIC 371	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401075000	Solvent Utilization	Surface Coating	Aircraft: SIC 372	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401090000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Industrial Maintenance Coatings	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2401200000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/All Industries	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	NOx	0	0	0	0	0	0
21015	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	NOx	0	0	0	0	0	0

Region Cd	Delta Category	ISO	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Publication	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21015	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	NOx	0	0	0	0	0
21015	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	NOx	0	0	0	0	0
21015	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	NOx	0	0	0	0	0
21015	Nonpoint	2461021000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Cutback Asphalt	Total: All Solvent Types	NOx	0	0	0	0	0
21015	Nonpoint	2461022000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	NOx	0	0	0	0	0
21015	Nonpoint	2461850000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	NOx	0	0	0	0	0
21015	Nonpoint	2501013011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas Cans	Permeation	NOx	0	0	0	0	0
21015	Nonpoint	2501013012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas Cans	Evaporation (includes Diurnal losses)	NOx	0	0	0	0	0
21015	Nonpoint	2501013014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas Cans	Refilling at the Pump - Vapor Displacement	NOx	0	0	0	0	0
21015	Nonpoint	2501012011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas Cans	Permeation	NOx	0	0	0	0	0

Region	Code	Data Category	ISO	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Polutant	2011 (tpd)	2017 (tpd)	2020 (tpd)	2025 (tpd)	2050 (tpd)
21015	Nonpoint	2501012012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Evaporation (includes Diurnal losses)	NOx	0	0	0	0	0	0
21015	Nonpoint	2501012014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	NOx	0	0	0	0	0	0
21015	Nonpoint	2501050120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative	Gasoline	NOx	0	0	0	0	0	0
21015	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Plants: All Evaporative	Gasoline	NOx	0	0	0	0	0	0
21015	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Submerged Filling	NOx	0	0	0	0	0	0
21015	Nonpoint	2501060052	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Splash Filling	NOx	0	0	0	0	0	0
21015	Nonpoint	2501060053	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Balanced Submerged Filling	NOx	0	0	0	0	0	0
21015	Nonpoint	2501060201	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Underground Tank: Breathing and Emptying	NOx	0	0	0	0	0	0
21015	Nonpoint	2501080050	Storage and Transport	Petroleum and Petroleum Product Storage Aviation Airports	Aviation Gasoline	Stage 1: Total	NOx	0	0	0	0	0	0
21015	Nonpoint	2501080100	Storage and Transport	Petroleum and Petroleum Product Storage Aviation Airports	Aviation Gasoline	Stage 2: Total	NOx	0	0	0	0	0	0

Region	County	Site Category	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2014	2017	2020	2025	2030
21015	Nonpoint	2505030120	Storage and Transport	Petroleum and Petroleum Product Transport	Truck	Gasoline	NOx	0	0	0	0	0
21015	Nonpoint	2505040120	Storage and Transport	Petroleum and Petroleum Product Transport	Pipeline	Gasoline	NOx	0	0	0	0	0
21015	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Wastewater Treatment	Public Owned	Total Processed	NOx	0	0	0	0	0
21015	Nonpoint	2801500000	Miscellaneous Area Sources	Agriculture - Production - Crops - as nonpoint	Agricultural Field Burning - whole field set on fire	Unspecified crop type and Burn Method	NOx	0.00380222	0.00380222	0.00380222	0.00380222	0.00380222
21015	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Cremation	Humans	NOx	0.001194898	0.001194898	0.001194898	0.001194898	0.001194898
21015	Nonpoint				TOTAL		NOx	0.678726	0.679267	0.679866	0.680919	0.681959
21015	Nonroad	2260001010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	Motorcycles: Off-road	NOx	0.003636106	0.004146596	0.00446379	0.004831367	0.005198944
21015	Nonroad	2260001030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	All Terrain Vehicles	NOx	0.00521796	0.006004573	0.006426323	0.006825187	0.007224051
21015	Nonroad	2260001060	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	Specialty Vehicles/Carts	NOx	0.000688096	0.000523326	0.000466155	0.000460538	0.00045492
21015	Nonroad	2260002006	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Tampers/Rammers	NOx	0.000180956	0.00018242	0.000183884	0.000186325	0.000188765
21015	Nonroad	2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Plate Compactors	NOx	1.20871E-05	1.21849E-05	1.22827E-05	1.24857E-05	1.26087E-05
21015	Nonroad	2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Paving Equipment	NOx	1.44723E-05	1.45894E-05	1.47065E-05	1.49017E-05	1.50969E-05
21015	Nonroad	2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	1.01813E-07	1.02637E-07	1.03461E-07	1.04834E-07	1.06207E-07

Region ID	Data Category	SCS	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Pollutant	2014 (ppm)	2017 (ppm)	2020 (ppm)	2025 (ppm)	2030 (ppm)
21015	Nonroad	2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.000471807	0.000475656	0.000483353	0.000489767	0.000496182
21015	Nonroad	2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	2.824E-06	2.87007E-06	2.8931E-06	2.9315E-06	2.96989E-06
21015	Nonroad	2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	4.12605E-06	3.10802E-06	1.25047E-06		0
21015	Nonroad	2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	3.26873E-07	2.46224E-07	9.90646E-08		0
21015	Nonroad	2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	2.53252E-05	2.69695E-05	3.00785E-05	3.23701E-05	3.46617E-05
21015	Nonroad	2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	0.000250774	0.000264636	0.000278502	0.000314271	0.00033652
21015	Nonroad	2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	NOx	0.00035413	0.000373627	0.000412183	0.000443586	0.00047499
21015	Nonroad	2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	NOx	0.002788141	0.002936247	0.003084353	0.003232224	0.003478478
21015	Nonroad	2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	NOx	0.000496565	0.000523856	0.000577853	0.000621878	0.000665902
21015	Nonroad	2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	NOx	0.002447538	0.002577549	0.00270755	0.002837367	0.003053541
21015	Nonroad	2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	NOx	0.000317471	0.000334897	0.000352323	0.000369368	0.00038753
21015	Nonroad	2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	0.002269051	0.002389584	0.002510117	0.002630457	0.002750863
21015	Nonroad	2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	0.000114423	0.00012050	0.000126579	0.00013264	0.00013871

Region Cd	State Category	ECO	SO2 Level One	SO2 Level Two	SO2 Level Three	SO2 Level Four	SO2 Level Five	2017 Ipad	2020 Ipad	2025 Ipad	2050 Ipad
21015	Nonroad	2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.000537169	0.000652727	0.000670171	0.000717614
21015	Nonroad	2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	1.05416E-06	1.16042E-06	1.24883E-06	1.33720E-06
21015	Nonroad	2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Sprayers	NOx	3.07507E-06	3.3274E-06	3.53767E-06	3.74795E-06
21015	Nonroad	2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Generator Sets	NOx	5.90455E-05	7.24943E-05	7.99745E-05	8.74547E-05
21015	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Pumps	NOx	0.000433108	0.000493084	0.000544716	0.000595548
21015	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Air Compressors	NOx	1.47326E-07	1.80883E-07	1.99546E-07	2.1821E-07
21015	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Hydro-power Units	NOx	1.96925E-06	2.41779E-06	2.66726E-06	2.91673E-06
21015	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Chain Saws : 6 HP	NOx	2.39768E-06	3.00053E-06	3.33545E-06	3.67037E-06
21015	Nonroad	2265001010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Motorcycles: Off-road	NOx	0.002895174	0.00295244	0.00301457	0.003151099
21015	Nonroad	2265001030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	All Terrain Vehicles	NOx	0.024509881	0.023818863	0.023242053	0.021509704
21015	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Golf Carts	NOx	0.00220249	0.001911278	0.001865845	0.001911607
21015	Nonroad	2265001060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Specialty Vehicles/Carts	NOx	0.0009318098	0.000833552	0.000744821	0.000593446
21015	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Pavers	NOx	0.000248007	0.000182726	0.000157966	0.000142972

region_cd	Data Category	scd	SCC Level/Onr	SCC Level/No	SCC Level/Trnd	SCC Level/Four	Pollutant	2011 Spd	2014 Spd	2017 Spd	2020 Spd	2025 Spd	2050 Spd
21015	Nonroad	2265002006	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tampers/Rammers	NOx	2.13878E-06	1.70654E-06	1.2743E-06	1.12134E-06	1.09914E-06	1.07695E-06
21015	Nonroad	2265002009	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Plate Compactors	NOx	0.000491259	0.000403991	0.000316722	0.000287267	0.00028635	0.000285434
21015	Nonroad	2265002015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rollers	NOx	0.000455021	0.000376077	0.000297133	0.000270802	0.000270761	0.00027072
21015	Nonroad	2265002021	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Paving Equipment	NOx	0.001017189	0.000821865	0.000626541	0.000552992	0.000531889	0.000510786
21015	Nonroad	2265002024	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Surfacing Equipment	NOx	0.000386054	0.000319639	0.000253225	0.000231002	0.000230789	0.000230575
21015	Nonroad	2265002027	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Signal Boards/Light Plans	NOx	1.95576E-05	1.63334E-05	1.31092E-05	1.20578E-05	1.21162E-05	1.21745E-05
21015	Nonroad	2265002030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Trenchers	NOx	0.000978886	0.000776346	0.000573006	0.000496608	0.000472398	0.000448187
21015	Nonroad	2265002033	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Bore/Drill Rigs	NOx	0.000417755	0.000354033	0.000290311	0.000252654	0.000211614	0.000170573
21015	Nonroad	2265002039	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.001380107	0.001224593	0.001069079	0.001019256	0.001024292	0.001029329
21015	Nonroad	2265002042	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Cement and Mortar Mixers	NOx	0.000937725	0.000769596	0.000601467	0.000522796	0.000466225	0.000409654
21015	Nonroad	2265002045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Cranes	NOx	0.000179205	0.000137141	9.50772E-05	6.997E-05	4.22553E-05	1.45406E-05
21015	Nonroad	2265002054	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	0.00012648	0.000102517	7.8554E-05	6.91145E-05	6.54848E-05	6.18552E-05
21015	Nonroad	2265002057	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	0.000242298	0.00017902	0.000103742	7.20636E-05	5.05992E-05	2.91348E-05

Region ID	Dept Category	SCS Level One	SCS Level Two	SCS Label	SCS Label	SCS Label	SCS Label	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026				
21015	Nonroad	2265002060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0.000398049	0.00012773	0.000169581	0.000103744	0.000223477	0.000157852	0.000283815	0.000354789	0.00048919	0.000543048	0.000763121	0.000163156	0.000121352	0.00011313E-05	0.00018225	0.00010874	
21015	Nonroad	2265002066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tractors/Loaders	NOx	0.000543048	0.000323976	0.000354789	0.00042617	0.000332935	0.000240241	0.000325384	0.00048919	0.000543048	0.000763121	0.000163156	0.000121352	0.00011313E-05	0.00018225	0.00010874	0.000326792	
21015	Nonroad	2265002072	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Skid Steer Loaders	NOx	0.000763121	0.000543048	0.00042617	0.000332935	0.000240241	0.000325384	0.00048919	0.000543048	0.000763121	0.000163156	0.000121352	0.00011313E-05	0.00018225	0.00010874	0.000326792	0.00014754E	
21015	Nonroad	2265002078	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Dumpers/Tenders	NOx	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	6.23997E-05
21015	Nonroad	2265002081	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Other Construction Equipment	NOx	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	0.000283815	0.000103744	0.000223477	0.000157852	1.28706E-05
21015	Nonroad	2265003010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Aerial Lifts	NOx	0.002449351	0.000688016	0.001099991	0.001352916	0.000523395	0.000220311	0.000688016	0.001099991	0.001352916	0.000523395	0.000220311	0.000688016	0.001099991	0.001352916	0.000523395	0.000220311	3.3229E-05
21015	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	NOx	0.000523395	0.000220311	0.000352916	0.0001352916	0.000523395	0.000220311	0.000352916	0.0001352916	0.000523395	0.000220311	0.000352916	0.0001352916	0.000523395	0.000220311	0.000352916	0.0001352916	3.42818E-05
21015	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	0.00078114	0.000479728	0.000231342	0.000479728	0.000231342	0.000479728	0.000231342	0.00078114	0.000479728	0.000231342	0.000479728	0.000231342	0.00078114	0.000479728	0.000231342	0.000479728	1.47333E-05
21015	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	0.001171362	0.000793941	0.000416521	0.000793941	0.000416521	0.000793941	0.000416521	0.001171362	0.000793941	0.000416521	0.000793941	0.000416521	0.001171362	0.000793941	0.000416521	0.000793941	9.66041E-06
21015	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	NOx	0.000155546	0.000106988	5.84308E-05	0.000106988	5.84308E-05	0.000106988	5.84308E-05	0.000155546	0.000106988	5.84308E-05	0.000106988	5.84308E-05	0.000155546	0.000106988	5.84308E-05	0.000106988	3.31306E-06
21015	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC/Refrigeration	NOx	9.42084E-06	6.30956E-06	3.19829E-06	6.30956E-06	3.19829E-06	9.42084E-06	6.30956E-06	9.42084E-06	6.30956E-06	3.19829E-06	9.42084E-06	6.30956E-06	3.19829E-06	9.42084E-06	6.30956E-06	3.19829E-06	1.52344E-07
21015	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	NOx	0.000151268	0.000104939	5.75119E-05	0.000104939	5.75119E-05	0.000104939	5.75119E-05	0.000151268	0.000104939	5.75119E-05	0.000104939	5.75119E-05	0.000151268	0.000104939	5.75119E-05	0.000104939	5.1796E-06
21015	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	NOx	0.007175173	0.0065058919	0.004942665	0.0065058919	0.004942665	0.007175173	0.0065058919	0.007175173	0.0065058919	0.004942665	0.007175173	0.0065058919	0.004942665	0.007175173	0.0065058919	0.004942665	0.004827743

Region	Local Data Category	scs	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2011 (tpyd)	2014 (tpyd)	2017 (tpyd)	2020 (tpyd)	2025 (tpyd)	2030 (tpyd)
21015	Nonroad	2265004011	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	NOx	0.010249013	0.008903681	0.007558348	0.00729304	0.007750878	0.008208717
21015	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	0.000603173	0.000508769	0.000414366	0.000386549	0.000395677	0.000404806
21015	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	0.00054013	0.004713678	0.003887226	0.003686287	0.003872649	0.004059012
21015	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers s/Brush Cutters (Residential)	NOx	3.76751E-05	3.20584E-05	2.64416E-05	2.50897E-05	2.63906E-05	2.76915E-05
21015	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers s/Brush Cutters (Commercial)	NOx	0.000246119	0.000210447	0.000174775	0.000167055	0.000177481	0.000187907
21015	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Va cuum (Residential)	NOx	7.19047E-05	6.11669E-05	5.04291E-05	4.78504E-05	5.03517E-05	5.28531E-05
21015	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Va cuum (Commercial)	NOx	0.013256149	0.010608646	0.007961144	0.007081067	0.007087129	0.00709319
21015	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	0.000811798	0.000854921	0.000898043	0.000946309	0.001031039	0.00115762
21015	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.003810986	0.004013425	0.004215864	0.00442449	0.004840211	0.005237972
21015	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	NOx	0.001547448	0.00127274	0.001007099	0.000918131	0.000920856	0.000923581
21015	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	NOx	0.001256633	0.00104518	0.000833728	0.000781918	0.000828605	0.000875292
21015	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.001693563	0.001439409	0.001185256	0.001059105	0.000955521	0.000851938
21015	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	NOx	0.000653803	0.000553841	0.000453879	0.000427411	0.000444544	0.000461677

Region Code	Data Category	Year	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 Emissions	2014 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2050 Emissions
21015	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	NOx	0.020768375	0.01712299	0.013477605	0.012280105	0.01232418	0.012368257
21015	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	NOx	0.017077495	0.014203443	0.011329392	0.010625169	0.011259654	0.01189414
21015	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	NOx	0.003100209	0.002506556	0.001912903	0.001746561	0.001825417	0.001904274
21015	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.051317167	0.043695826	0.036019884	0.034310093	0.036432233	0.038554374
21015	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	NOx	0.000746789	0.000641681	0.000536573	0.000487421	0.000452131	0.000416842
21015	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Garden Equipment (Commercial)	NOx	0.00188416	0.001619694	0.001355229	0.001229998	0.001137311	0.001044623
21015	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	NOx	1.09934E-05	9.17802E-06	7.36266E-06	6.89281E-06	7.23099E-06	7.56916E-06
21015	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	NOx	6.75893E-05	5.00764E-05	3.25634E-05	2.63018E-05	2.5242E-05	2.41822E-05
21015	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	NOx	8.80073E-07	7.7861E-07	6.77146E-07	5.73391E-07	3.98558E-07	2.23725E-07
21015	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	NOx	0.000101517	8.98369E-05	7.81566E-05	6.62117E-05	4.60828E-05	2.5954E-05
21015	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	NOx	1.02835E-05	8.49798E-06	6.71244E-06	6.03202E-06	5.81892E-06	5.60583E-06
21015	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	NOx	0.000176209	0.000153498	0.000130786	0.000133985	9.0905E-05	6.78246E-05
21015	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Tillers : 6 HP	NOx	0.00023472	0.000229255	0.000223791	0.000212839	0.000190013	0.000167186

Report Loc	Data Category	sq	SCD Label One	SCD Label Two	SCD Label Three	SCD Label Four	Per/Month	2003 Epa	2004 Epa	2005 Epa	2006 Epa	2007 Epa	2008 Epa
21015	Nonroad	2265005045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Swathers	NOx	0.000160905	0.000142392	0.000123878	0.000104946	7.30414E-05	4.11371E-05
21015	Nonroad	2265005055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Other Agricultural Equipment	NOx	0.000193192	0.000169966	0.00014674	0.000124874	8.95635E-05	5.42528E-05
21015	Nonroad	2265005060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Irrigation Sets	NOx	7.16769E-05	5.5172E-05	3.86671E-05	3.36451E-05	3.48443E-05	3.60433E-05
21015	Nonroad	2265006005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Generator Sets	NOx	0.022294991	0.018949196	0.015603401	0.014533338	0.014646489	0.014759590
21015	Nonroad	2265006010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pumps	NOx	0.005787759	0.004923783	0.004059808	0.003797915	0.003853162	0.003928409
21015	Nonroad	2265006015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Air Compressors	NOx	0.003295505	0.002691289	0.002086073	0.001908322	0.001968289	0.0020708257
21015	Nonroad	2265006025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Welders	NOx	0.006363969	0.005316415	0.00426886	0.004012587	0.004244868	0.004477148
21015	Nonroad	2265006030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pressure Washers	NOx	0.009153044	0.007794951	0.006436858	0.006183682	0.0066682488	0.007181293
21015	Nonroad	2265006035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Hydro-power Units	NOx	0.000337906	0.000291461	0.000245016	0.000238151	0.000259692	0.000281234
21015	Nonroad	2265007010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Shredders : 6 HP	NOx	1.09988E-05	9.6726E-06	8.34639E-06	7.60683E-06	6.8631E-06	6.11938E-06
21015	Nonroad	2265007015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Forest Equip - Feller/Bunch/Sk Idler	NOx	9.92745E-08	8.82525E-08	7.72304E-08	7.6763E-08	8.47793E-08	9.27956E-08
21015	Nonroad	2267001060	Mobile Sources	LPG	Recreational Equipment	Specialty Vehicles/Carts	NOx	0.000162664	0.000142126	0.000121589	0.000101952	6.99725E-05	3.79931E-05
21015	Nonroad	2267002003	Mobile Sources	LPG	Construction and Mining Equipment	Pavers	NOx	8.55868E-05	6.22673E-05	3.89479E-05	2.89854E-05	2.35121E-05	1.80388E-05
21015	Nonroad	2267002015	Mobile Sources	LPG	Construction and Mining Equipment	Rollers	NOx	8.15271E-05	6.23444E-05	4.31616E-05	3.73215E-05	3.87068E-05	4.0092E-05

Region Code	Dept. Category	Job	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Portfolio	2011 spend	2024 spend	2017 spend	2020 spend	2025 spend	2030 spend
21015	Nonroad	2267002021	Mobile Sources	LPG	Construction and Mining Equipment	Paving Equipment	NOx	3,529,470.05	2,732,910.05	1,936,360.05	1,467,180.05	9,580,300.06	4,488,770.06
21015	Nonroad	2267002024	Mobile Sources	LPG	Construction and Mining Equipment	Surfacing Equipment	NOx	1,388,580.05	1,028,670.05	6,687,510.06	5,154,290.06	4,320,520.06	3,486,750.06
21015	Nonroad	2267002030	Mobile Sources	LPG	Construction and Mining Equipment	Trenchers	NOx	0,000,275,390	0,000,198,801	0,000,122,205	8,943,960.05	7,135,650.05	5,327,340.05
21015	Nonroad	2267002033	Mobile Sources	LPG	Construction and Mining Equipment	Bore/Drill Rigs	NOx	0,000,165,589	0,000,145,421	0,000,125,253	0,000,105,584	7,321,730.05	4,085,110.05
21015	Nonroad	2267002039	Mobile Sources	LPG	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	9,403,730.05	7,964,300.05	6,524,870.05	6,227,040.05	6,681,990.05	7,136,940.05
21015	Nonroad	2267002045	Mobile Sources	LPG	Construction and Mining Equipment	Cranes	NOx	0,000,142,341	0,000,109,667	7,699,320.05	5,697,880.05	3,417,080.05	1,136,280.05
21015	Nonroad	2267002054	Mobile Sources	LPG	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	2,345,160.05	1,766,620.05	1,188,070.05	8,676,240.06	5,486,700.06	2,296,150.06
21015	Nonroad	2267002057	Mobile Sources	LPG	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	0,000,201,378	0,000,144,445	8,751,140.05	6,220,060.05	4,636,810.05	3,053,560.05
21015	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0,000,333,298	0,000,238,577	0,000,149,856	0,000,111,674	0,000,110,154	0,000,108,633
21015	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	2,575,300.05	1,935,500.05	1,295,700.05	1,105,700.05	1,163,870.05	1,222,060.05
21015	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Skid Steer Loaders	NOx	0,000,476,114	0,000,371,577	0,000,267,039	0,000,202,239	0,000,127,882	5,337,360.05
21015	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Other Construction Equipment	NOx	0,000,226,122	0,000,180,096	0,000,134,069	0,000,101,557	5,863,040.05	1,570,400.05
21015	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Aerial Lifts	NOx	0,003,382,281	0,002,741,873	0,002,100,937	0,001,630,113	0,000,987,168	0,000,344,223
21015	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Forklifts	NOx	0,166,907,719	0,128,442,063	0,079,976,937	0,058,506,411	0,058,551,029	0,058,956,649
21015	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Sweepers/Scrubbers	NOx	0,000,810,637	0,000,641,433	0,000,472,228	0,000,424,892	0,000,447,556	0,000,470,222
21015	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Other General Industrial Equipment	NOx	0,000,902,273	0,000,228,061	0,000,153,391	0,000,130,933	0,000,137,011	0,000,143,089
21015	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Other Material Handling Equipment	NOx	0,000,176,163	0,000,133,516	9,086,920.05	6,727,880.05	4,384,180.05	2,040,480.05
21015	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Terminal Tractors	NOx	0,000,299,493	0,000,275,229	0,000,251,086	0,000,252,314	0,000,275,552	0,000,298,791

region_cd	Data Category	sc	SCO Level (N/A)	SCO Level (Type)	SCO Level (Fuel)	Pollutant	2011 tpsd	2014 tpsd	2017 tpsd	2020 tpsd	2025 tpsd	2050 tpsd
21015	Nonroad	2267004066	Mobile Sources	LPG	Grinders (Commercial)	NOx	0.001418363	0.001044298	0.000670232	0.000549953	0.000560975	0.000571998
21015	Nonroad	2267005055	Mobile Sources	LPG	Other Agricultural Equipment	NOx	1.61223E-06	1.39706E-06	1.18189E-06	9.78973E-07	6.50984E-07	3.22995E-07
21015	Nonroad	2267005060	Mobile Sources	LPG	Irrigation Sets	NOx	3.43624E-07	2.48319E-07	1.53013E-07	1.20217E-07	1.17647E-07	1.15077E-07
21015	Nonroad	2267006005	Mobile Sources	LPG	Generator Sets	NOx	0.006795523	0.006102568	0.005409613	0.004670786	0.003401183	0.002131958
21015	Nonroad	2267006010	Mobile Sources	LPG	Pumps	NOx	0.00118869	0.000976697	0.000764684	0.000621514	0.000440257	0.000259
21015	Nonroad	2267006015	Mobile Sources	LPG	Air Compressors	NOx	0.001148797	0.000846565	0.000544332	0.000425172	0.000379131	0.00033309
21015	Nonroad	2267006025	Mobile Sources	LPG	Welders	NOx	0.001524324	0.001116133	0.000707943	0.000543956	0.000474149	0.000404341
21015	Nonroad	2267006030	Mobile Sources	LPG	Pressure Washers	NOx	0.00002711	2.19186E-05	1.67273E-05	1.33397E-05	9.19677E-06	5.05387E-06
21015	Nonroad	2267006035	Mobile Sources	LPG	Hydro-power Units	NOx	1.40108E-05	1.07687E-05	7.5765E-06	6.3089E-06	5.96668E-06	5.62446E-06
21015	Nonroad	2268002081	Mobile Sources	CNG	Other Construction Equipment	NOx	9.32255E-06	7.43935E-06	5.55616E-06	4.22822E-06	2.4777E-06	7.27184E-07
21015	Nonroad	2268003020	Mobile Sources	CNG	Forklifts	NOx	0.011922386	0.008610663	0.00529894	0.004188051	0.004170597	0.004153143
21015	Nonroad	2268003030	Mobile Sources	CNG	Sweepers/Scrubbers	NOx	1.522277E-05	1.10121E-05	6.79659E-06	5.40976E-06	5.45563E-06	5.50151E-06
21015	Nonroad	2268003040	Mobile Sources	CNG	Other General Industrial Equipment	NOx	7.27131E-06	5.37123E-06	3.47115E-06	2.87608E-06	2.97182E-06	3.06755E-06
21015	Nonroad	2268003050	Mobile Sources	CNG	AC Refrigeration	NOx	9.42487E-06	7.20906E-06	4.99324E-06	4.19403E-06	4.0425E-06	3.89097E-06
21015	Nonroad	2268003070	Mobile Sources	CNG	Terminal Tractors	NOx	2.3279E-05	2.13459E-05	1.94127E-05	1.94268E-05	2.1073E-05	2.27192E-05
21015	Nonroad	2268005055	Mobile Sources	CNG	Other Agricultural Equipment	NOx	9.51183E-07	6.9285E-07	4.34517E-07	2.82016E-07	1.1604E-07	1.6455E-08
21015	Nonroad	2268005060	Mobile Sources	CNG	Irrigation Sets	NOx	4.52409E-06	2.58519E-06	6.46298E-07	0	0	0
21015	Nonroad	2268006005	Mobile Sources	CNG	Generator Sets	NOx	0.002086016	0.001867214	0.001648411	0.001417322	0.001021933	0.000626545
21015	Nonroad	2268006010	Mobile Sources	CNG	Pumps	NOx	8.92944E-05	7.43627E-05	5.94309E-05	4.74259E-05	2.98568E-05	1.22877E-05
21015	Nonroad	2268006015	Mobile Sources	CNG	Air Compressors	NOx	8.93124E-05	6.46346E-05	3.99568E-05	2.97635E-05	2.4845E-05	1.99166E-05
21015	Nonroad	2268006020	Mobile Sources	CNG	Gas Compressors	NOx	0.000706556	0.000762275	0.000817995	0.000873765	0.000966757	0.001059748
21015	Nonroad	2270001060	Mobile Sources	Off-highway Vehicle Diesel	Specialty Vehicles/Carts	NOx	0.002649953	0.002454494	0.002265035	0.002070967	0.00174368	0.001416394
21015	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	NOx	0.014897352	0.011718209	0.008539066	0.006503593	0.004064199	0.001624787

Region Cd	Deba Category	Geo	SCS Level (Orig)	SCS Level (NW)	SCS Level (Three)	SCS Level Four (Pollution)	2014, Ispad	2017, Ispad	2020, Ispad	2025, Ispad	2050, Ispad
21015	Nonroad	2270002006	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tampers/Rammers	3.32792E-05	3.20396E-05	3.23334E-05	3.41009E-05	3.58684E-05
21015	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Plate Compactors	0.000533015	0.00052217	0.000532513	0.000567408	0.000602302
21015	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rollers	0.031702707	0.023906756	0.018576873	0.011748793	0.004920713
21015	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Scrapers	0.032375862	0.023246967	0.01665069	0.007768109	0.000661883
21015	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Paving Equipment	0.002067732	0.001646102	0.001327461	0.000882218	0.000436974
21015	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Surfacing Equipment	0.001586986	0.001365775	0.001173626	0.000877597	0.000581567
21015	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Signal Boards/Light Plants	0.005114819	0.005028107	0.005045824	0.005162378	0.005278932
21015	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Trenchers	0.017992549	0.015616659	0.013885457	0.011537256	0.009189055
21015	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Bore/Drill Rigs	0.021234397	0.018592832	0.01606502	0.011946794	0.007828569
21015	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Excavators	0.101072841	0.064885078	0.044896218	0.025080538	0.005264857
21015	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Concrete/Industrial Saws	0.00128371	0.001127883	0.001013221	0.000856421	0.00069962
21015	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cement and Mortar Mixers	0.000853705	0.000773844	0.000698874	0.000578002	0.000457129
21015	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cranes	0.031201403	0.022961447	0.016849863	0.008437535	2.52069E-05
21015	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Graders	0.025081424	0.016134254	0.010735889	0.004695952	0.00107199
21015	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Trucks	0.109462933	0.083763262	0.074147881	0.071525821	0.06890376
21015	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crushing/Processing Equipment	0.006137864	0.004892993	0.003964262	0.002679826	0.001395391
21015	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rough Terrain Forklifts	0.043354174	0.032973061	0.024917761	0.013430438	0.001943116

Region Id	Data Category	Id	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	pollutant	2011 speed	2014 speed	2017 speed	2020 speed	2025 speed	2030 speed
21015	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0.185525727	0.149968713	0.1144117	0.087874175	0.051161208	0.014448241
21015	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	0.131841992	0.11424346	0.096644928	0.080305149	0.054121146	0.027937143
21015	Nonroad	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	NOx	0.155536609	0.121410366	0.087284124	0.064954596	0.037559314	0.010184031
21015	Nonroad	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Skid Steer Loaders	NOx	0.091158172	0.084885623	0.078613072	0.072683053	0.063085128	0.053487204
21015	Nonroad	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	NOx	0.020495063	0.017376236	0.014157409	0.0118623	0.008765217	0.005668134
21015	Nonroad	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	NOx	0.000295676	0.00027549	0.000255304	0.000236394	0.000205941	0.000175488
21015	Nonroad	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	NOx	0.0200016388	0.016837215	0.013658042	0.010911245	0.006693562	0.002475879
21015	Nonroad	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	NOx	0.00586473	0.005529952	0.005195175	0.004883257	0.004382444	0.003881632
21015	Nonroad	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	NOx	0.05040294	0.037793554	0.025184168	0.020820615	0.020419555	0.020018496
21015	Nonroad	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	NOx	0.026574728	0.020421735	0.014268741	0.010646232	0.006717452	0.002786673
21015	Nonroad	2270003040	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	NOx	0.03061278	0.024535491	0.018458201	0.013825195	0.00730709	0.000788984
21015	Nonroad	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	NOx	0.001577333	0.001405543	0.001233751	0.001072225	0.000811566	0.000550907
21015	Nonroad	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC Refrigeration	NOx	0.032647026	0.030769337	0.028891648	0.029140992	0.031329058	0.033517135
21015	Nonroad	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	NOx	0.02527866	0.017847007	0.010415355	0.006888219	0.004263423	0.001638628
21015	Nonroad	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	4.16748E-06	4.20595E-06	4.24441E-06	4.25757E-06	4.25841E-06	4.25926E-06
21015	Nonroad	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.001016569	0.000920345	0.00082412	0.000717208	0.000530115	0.000343022
21015	Nonroad	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.024458987	0.024577744	0.024696501	0.025065031	0.025887392	0.026709754

Region	Category	scb	[SOC Level One]	[SOC Level Two]	[SOC Level Three]	[SOC Level Four]	Politem	2011 ipad	2014 ipad	2017 ipad	2020 ipad	2025 ipad	2050 ipad
21015	Nonroad	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	NOx	0.004857528	0.005068836	0.005280144	0.005585687	0.006173453	0.006761219
21015	Nonroad	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	NOx	0.036509779	0.033283662	0.030057546	0.026477467	0.020215702	0.013953936
21015	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.003420709	0.002952912	0.002485115	0.002238889	0.002013153	0.001787417
21015	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	NOx	9.76675E-05	9.64007E-05	9.51339E-05	9.41204E-05	9.25423E-05	9.11643E-05
21015	Nonroad	2270005010	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	2-Wheel Tractors	NOx	1.71326E-06	1.75656E-06	1.79986E-06	1.87719E-06	2.03441E-06	2.19163E-06
21015	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	NOx	0.088163583	0.075975419	0.063787256	0.053144387	0.036694015	0.020243644
21015	Nonroad	2270005020	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	NOx	0.009276653	0.008164435	0.007052218	0.005994141	0.004275796	0.002557451
21015	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	NOx	4.59262E-05	4.27386E-05	3.9551E-05	3.63169E-05	3.08879E-05	2.5459E-05
21015	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	NOx	8.9594E-06	7.8816E-06	6.80377E-06	5.7302E-06	3.94447E-06	2.15875E-06
21015	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	NOx	0.000725462	0.00064749	0.000569518	0.000490593	0.00035826	0.000225926
21015	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Tillers : 6 HP	NOx	9.68656E-07	8.63794E-07	7.58933E-07	6.53382E-07	4.76888E-07	3.00394E-07
21015	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	NOx	0.000685021	0.000615231	0.000545442	0.000477134	0.000364522	0.00025191
21015	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Other Agricultural Equipment	NOx	0.001870377	0.001623537	0.001376697	0.001150216	0.000789713	0.00042921
21015	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	NOx	0.000961366	0.000796086	0.000630806	0.000492882	0.000285807	7.87321E-05
21015	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Generator Sets	NOx	0.040902868	0.038236423	0.035569978	0.032919312	0.028514687	0.024110061
21015	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	NOx	0.009653486	0.008981454	0.008309423	0.007620813	0.006459315	0.005297817
21015	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	NOx	0.022160123	0.018999584	0.015839044	0.01330888	0.009617253	0.005925626

Region Cd	Data Category	Fac	SCC Level (On)	SCC Level (Mv)	SCC Level (Tr)	SCC Level (Fuel)	Pollutant	2011 (tpy)	2014 (tpy)	2017 (tpy)	2020 (tpy)	2025 (tpy)	2030 (tpy)
21015	Nonroad	227006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	NOx	0.012305122	0.011786664	0.011268206	0.010803881	0.010075117	0.009346352
21015	Nonroad	227006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	NOx	0.001358422	0.001273585	0.001188748	0.001098127	0.000942277	0.000786416
21015	Nonroad	227006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	NOx	0.000784088	0.000686401	0.000588713	0.000512377	0.000402945	0.000293512
21015	Nonroad	227007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Equip - Feller/Bunch/Skidder	NOx	0.000210118	0.000142961	7.58035E-05	4.33209E-05	1.80784E-05	2.93286E-06
21015	Nonroad	2282005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	NOx	0.022261593	0.023770697	0.0252798	0.02604256	0.026691873	0.027341186
21015	Nonroad	2282005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	NOx	0.00892948	0.010071393	0.011213306	0.011898252	0.012659022	0.013419792
21015	Nonroad	2282010005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Stern Drive	NOx	0.033520449	0.030340531	0.027160613	0.023546881	0.017162484	0.010778087
21015	Nonroad	2282020005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Stern Drive	NOx	0.028839093	0.028595098	0.028351103	0.028030891	0.027433689	0.026836487
21015	Nonroad	2282020010	Mobile Sources	Pleasure Craft	Diesel	Outboard	NOx	8.10967E-05	7.69042E-05	7.27117E-05	6.89717E-05	6.31152E-05	5.72588E-05
21015	Nonroad	2285002015	Mobile Sources	Railroad Equipment	Diesel	Railroad Maintenance	NOx	0.002474474	0.002206786	0.001939099	0.001675762	0.001240495	0.000805229
21015	Nonroad	2285004015	Mobile Sources	Railroad Equipment	Gasoline, 4-Stroke	Railroad Maintenance	NOx	4.56875E-05	3.70034E-05	2.83192E-05	2.54869E-05	2.56427E-05	2.57986E-05
21015	Nonroad	2285006015	Mobile Sources	Railroad Equipment	LPG	Railroad Maintenance	NOx	3.88873E-05	2.85368E-06	1.81863E-06	1.29926E-06	8.6367E-07	4.2478E-07
21015	Nonroad		TOTAL				NOx	2219804	9792355	1428967	1219566	9197981	6780550
21015	Point	10200401	External Combustion Boilers	Industrial	Residual Oil - Grade 6	Boiler	NOx	0	0	0	0	0	0
21015	Point	10200502	External Combustion Boilers	Industrial	Distillate Oil	10-100 Million BTU/hr **	NOx	0	0	0	0	0	0
21015	Point	10200503	External Combustion Boilers	Industrial	Distillate Oil	< 10 Million BTU/hr **	NOx	0.000595861	0.000595861	0.000595861	0.000595861	0.000595861	0.000595861
21015	Point	10200602	External Combustion Boilers	Industrial	Natural Gas	10-100 Million BTU/hr	NOx	0.045576568	0.045576568	0.045576568	0.045576568	0.045576568	0.045576568
21015	Point	10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	NOx	0.033617027	0.033617027	0.033617027	0.033617027	0.033617027	0.033617027
21015	Point	10300501	External Combustion Boilers	Commercial/Industrial	Distillate Oil - Grades 1 and 2	Boiler	NOx	5.3628E-06	5.3628E-06	5.3628E-06	5.3628E-06	5.3628E-06	5.3628E-06
21015	Point	10300602	External Combustion Boilers	Commercial/Industrial	Natural Gas	10-100 Million BTU/hr	NOx	0.008362395	0.008362395	0.008362395	0.008362395	0.008362395	0.008362395

Region	Local Data Category	NO2	SO2 Level One	SO2 Level Two	SO2 Level Three	SO2 Level Four	Pollutant	2011 Emissions	2014 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2030 Emissions
21015	Point	10300603	External Combustion Boilers	Commercial/Ins (Industrial)	Natural Gas	< 10 Million BTU/hr	NOx	0.006606912	0.006606912	0.006606912	0.006606912	0.006606912	0.006606912
21015	Point	10301002	External Combustion Boilers	Commercial/Ins (Industrial)	Liquefied Petroleum Gas (LPG)	Propane	NOx	8.70915E-06	8.70915E-06	8.70915E-06	8.70915E-06	8.70915E-06	8.70915E-06
21015	Point	10500106	External Combustion Boilers	Space Heaters	Industrial	Natural Gas	NOx	0.002065242	0.001551201	0.001379853	0.001379853	0.001379853	0.001379853
21015	Point	20200101	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine	NOx	0	0	0	0	0	0
21015	Point	20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	NOx	0.003850514	0.003850514	0.003850514	0.003850514	0.003850514	0.003850514
21015	Point	20200107	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Exhaust	NOx	0.000597086	0.000597086	0.000597086	0.000597086	0.000597086	0.000597086
21015	Point	20200253	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Rich Burn	NOx	0.001767854	0.001760245	0.001757708	0.001757708	0.001757708	0.001757708
21015	Point	20200254	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Lean Burn	NOx	0.000104319	0.000104319	0.000104319	0.000104319	0.000104319	0.000104319
21015	Point	20200401	Internal Combustion Engines	Industrial	Large Bore Engine	Diesel	NOx	0.001562456	0.001562456	0.001562456	0.001562456	0.001562456	0.001562456
21015	Point	20201001	Internal Combustion Engines	Industrial	Liquefied Petroleum Gas (LPG)	Propane: Reciprocating	NOx	0.001333183	0.001327445	0.001325532	0.001325532	0.001325532	0.001325532
21015	Point	20300101	Internal Combustion Engines	Commercial/Ins (Industrial)	Distillate Oil (Diesel)	Reciprocating	NOx	0.004434786	0.004434786	0.004434786	0.004434786	0.004434786	0.004434786
21015	Point	2265008005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Airport Ground Support Equipment	Airport Ground Support Equipment	NOx	0.026233853	0.027329912	0.029847923	0.029847923	0.035686258	0.041524594
21015	Point	2267008005	Mobile Sources	LPG	Airport Ground Support Equipment	Airport Ground Support Equipment	NOx	0.002141095	0.002184907	0.002386211	0.002386211	0.002386211	0.00331971
21015	Point	2268008005	Mobile Sources	CNG	Airport Ground Support Equipment	Airport Ground Support Equipment	NOx	0.001658521	0.001727815	0.001887005	0.001887005	0.002256108	0.002625212
21015	Point	2270008005	Mobile Sources	Off-highway Vehicle Diesel	Airport Ground Support Equipment	Airport Ground Support Equipment	NOx	0.127222223	0.129825532	0.141786861	0.141786861	0.16952076	0.197254658
21015	Point	2275001000	Mobile Sources	Aircraft	Military Aircraft	Total	NOx	1.63629E-05	1.66977E-05	1.82361E-05	1.82361E-05	2.18032E-05	2.53702E-05
21015	Point	2275020000	Mobile Sources	Aircraft	Commercial Aircraft	Total: All Types	NOx	1.822756409	1.860054909	2.03142897	2.03142897	2.42878204	2.82613511

Region	City	DBA Category	ISO	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2011 Tpsd	2017 Tpsd	2020 Tpsd	2025 Tpsd	2030 Tpsd
21015	Point	Mobile Sources	2275050011	Aircraft	General Aviation	Piston	NOx	0.000199478	0.000194364	0.000193901	0.000194872	0.000195843	
21015	Point	Mobile Sources	2275050012	Aircraft	General Aviation	Turbine	NOx	0.000322937	0.000311655	0.000309918	0.000310247	0.000310576	
21015	Point	Mobile Sources	2275060011	Aircraft	Air Taxi	Piston	NOx	0.002018126	0.001524131	0.001353201	0.001131709	0.000910217	
21015	Point	Mobile Sources	2275060012	Aircraft	Air Taxi	Turbine	NOx	0.039042633	0.029485799	0.026179001	0.021894019	0.017609038	
21015	Point	Mobile Sources	2275070000	Aircraft	Aircraft Auxiliary Power Units	Total	NOx	0.05183512	0.054000808	0.058976111	0.070512	0.082047889	
21015	Point	Industrial Processes	30101401	Chemical Manufacturing	Paint Manufacture	General Mixing and Handling	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30101802	Chemical Manufacturing	Plastics Production	Polypropylene and Copolymers	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30101822	Chemical Manufacturing	Plastics Production	Acrylic Resins	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30101899	Chemical Manufacturing	Plastics Production	Others Not Specified	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30102099	Chemical Manufacturing	Printing Ink Manufacture	Other Not Classified	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30180002	Chemical Manufacturing	General Processes	Pipeline Valves: Gas Stream	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30180003	Chemical Manufacturing	General Processes	Pipeline Valves: Light Liquid/Gas Stream	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30180006	Chemical Manufacturing	General Processes	Open-ended Valves: All Streams	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30180007	Chemical Manufacturing	General Processes	Flanges: All Streams	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30180008	Chemical Manufacturing	General Processes	Pump Seals: Light Liquid/Gas Stream	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30183001	Chemical Manufacturing	General Processes	Storage/Transfer	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30188801	Chemical Manufacturing	Fugitive Emissions	Specify in Comments Field	NOx	0	0	0	0	0	
21015	Point	Industrial Processes	30190013	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Incinerators	NOx	0.009209209	0.009209209	0.009209209	0.009209209	0.009209209	

Region Cd	Dist Category	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	2013	2014	2017	2020	2025	2050
21015	Point	30199998	Industrial Processes	Chemical Manufacturing	Other Not Classified						
21015	Point	30203202	Industrial Processes	Food and Agriculture	Bakeries						
21015	Point	30288801	Industrial Processes	Food and Agriculture	Fugitive Emissions						
21015	Point	30290003	Industrial Processes	Food and Agriculture	Fuel Fired Equipment		0.002216677	0.002216677	0.002216677	0.002216677	0.002216677
21015	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified		0	0	0	0	0
21015	Point	30500205	Industrial Processes	Mineral Products	Asphalt Concrete		0.005428235	0.001357059	0	0	0
21015	Point	30500250	Industrial Processes	Mineral Products	Asphalt Concrete		0.009208796	0.009208796	0.009208796	0.009208796	0.009208796
21015	Point	30500255	Industrial Processes	Mineral Products	Asphalt Concrete		0.004932925	0.004932925	0.004932925	0.004932925	0.004932925
21015	Point	30500299	Industrial Processes	Mineral Products	Asphalt Concrete		0.002136097	0.002136097	0.002136097	0.002136097	0.002136097
21015	Point	30501099	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling		0	0	0	0	0
21015	Point	30502099	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305320)		0.000980174	0.000245044	0	0	0
21015	Point	30800720	Industrial Processes	Miscellaneous Plastics Products	Fiberglass Resin Products		0	0	0	0	0
21015	Point	30801007	Industrial Processes	Miscellaneous Plastics Products	Plastic Products Manufacturing		0	0	0	0	0
21015	Point	30899999	Industrial Processes	Miscellaneous Plastics Products	Other Not Specified		0	0	0	0	0

Impd Loc / Data Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2014	2017	2020	2025	2030
21015	Point	39000699	In-process Fuel Use	Natural Gas	General	NOx	0.030920057	0.030920057	0.030920057	0.030920057	0.030920057
21015	Point	39003099	In-process Fuel Use	Liquified Petroleum Gas	General	NOx	1.34001E-05	1.34001E-05	1.34001E-05	1.34001E-05	1.34001E-05
21015	Point	39999992	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0	0	0	0	0
21015	Point	39999994	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0	0	0	0	0
21015	Point	39999995	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.000204319	0.000204319	0.000204319	0.000204319	0.000204319
21015	Point	39999996	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0	0	0	0	0
21015	Point	39999999	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.016504548	0.016504548	0.016504548	0.016504548	0.016504548
21015	Point	40100198	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Other Not Classified	NOx	0	0	0	0	0
21015	Point	40100205	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Trichloroethylene: Open-top Vapor Degreasing	NOx	0	0	0	0	0
21015	Point	40100299	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Other Not Classified: Open-top Vapor Degreasing	NOx	0	0	0	0	0
21015	Point	40188898	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Specify in Comments Field	NOx	0	0	0	0	0
21015	Point	40200101	Petroleum and Solvent Evaporation	Surface Coating Operations	Paint: Solvent-base	NOx	0	0	0	0	0
21015	Point	40200701	Petroleum and Solvent Evaporation	Surface Coating Operations	Adhesive Application	NOx	0	0	0	0	0
21015	Point	40201001	Petroleum and Solvent Evaporation	Surface Coating Operations	Natural Gas	NOx	0.015301157	0.015301157	0.015301157	0.015301157	0.015301157
21015	Point	40202605	Petroleum and Solvent Evaporation	Surface Coating Operations	Equipment Cleanup	NOx	0	0	0	0	0

Project ID	Date Change	SCC Level One	SCC Level Two	SCC Level Three	SCC Label (EPA)	2001 (tpyd)	2004 (tpyd)	2007 (tpyd)	2010 (tpyd)	2025 (tpyd)	2050 (tpyd)
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Steel Drums	Interior Coating	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Steel Drums	Exterior Coating	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	Natural Gas Incinerator/Air Heater	NOx	0	0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	Specify in Comments Field	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Working Loss (Tank Diameter Independent)	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Specify Liquid: Working Loss (Tank Diameter Independent)	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Valves, Flanges, and Pumps	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Gasoline RVP	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Working Loss	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Specify Liquid: Working Loss	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Printing/Publishing	Printing/Publishing	Printing	NOx		0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Printing/Publishing	Printing/Publishing	Propyl Alcohol Cleanup	NOx		0	0	0	0

Region/County	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2013 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015 Point	Petroleum and Solvent Evaporation	Printing/Publishing	Lithographic	Printing	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Printing/Publishing	Offset Lithography	Dampening Solution with Isopropyl Alcohol	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Printing/Publishing	Offset Lithography	Nonheated Lithographic Inks	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Printing/Publishing	General	Other Not Classified	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Splash Loading (Normal Service)	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Kerosene: Splash Loading (Normal Service)	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Distillate Oil: Splash Loading (Normal Service)	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Not Classified	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	NOx		0	0	0	0	0
21015 Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	NOx		0	0	0	0	0

Region Code	Data Category	Site ID	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2015, total	2017, total	2020, total	2025, total	2030, total	
21015	Point	40704401	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Esters	Butyl Acetate: Breathing Loss	NOx	0	0	0	0	0
21015	Point	40704404	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Esters	Butyl Acrylate: Working Loss	NOx	0	0	0	0	0
21015	Point	40704417	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Esters	Methyl Methacrylate: Breathing Loss	NOx	0	0	0	0	0
21015	Point	40704418	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Esters	Methyl Methacrylate: Working Loss	NOx	0	0	0	0	0
21015	Point	40714698	Solvent Evaporation	Chemical Storage	Fixed Roof Tanks - Miscellaneous	Specify in Comments: Working Loss	NOx	0	0	0	0	0
21015	Point	42500301	Petroleum and Solvent Evaporation	Petroleum and Solvent	Fixed Roof Tanks (1,000 Bbl Size) Breathing Loss	Loss	NOx	0	0	0	0	0
21015	Point	49000199	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Solvent Extraction Process	Other Not Classified	NOx	0	0	0	0	0
21015	Point	50282599	Waste Disposal	Disposal - Commercial/Industrial	Wastewater, Points of Generation	Specify Point of Generation	NOx	0	0	0	0	0
21015	Point	50300601	Waste Disposal	Disposal - Industrial	Landfill Dump	Waste Gas Flares	NOx	0	0	0	0	0
21015	Point		TOTAL				NOx	2,277,623	2,308,957	2,439,490	2,483,395	9,672,990
21015	EGU	10100202	External Combustion Boilers	Electric Generation	Bituminous Coal, Pulverized	Spreader Stoker	VOC	0.166459423	0.162003348	0.161260669	0.161260669	0.161260669
21015	EGU	10100501	External Combustion Boilers	Electric Generation	Distillate Oil - Grades 1 and 2	Boiler, Normal firing	VOC	0.000187144	2.67492E-05	0	0	0
21015	EGU	20100102	Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating	VOC	2.1586E-05	1.53137E-05	1.42684E-05	1.42684E-05	1.42684E-05
21015	EGU	20100802	Internal Combustion Engines	Electric Generation	Landfill Gas	Reciprocating	VOC	0.123490196	0.123490196	0.123490196	0.123490196	0.123490196
21015	EGU		TOTAL				VOC	0.287847	0.286556	0.284785	0.284785	0.284785
21015	Nonpoint	2104001000	Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types	VOC	8.48581E-09	8.48581E-09	8.48581E-09	8.48581E-09	8.48581E-09
21015	Nonpoint	2104002000	Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types	VOC	4.23442E-06	4.23442E-06	4.23442E-06	4.23442E-06	4.23442E-06

Region Code	Data Category	SCC	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2011 tpyd	2012 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	Nonpoint	2104004000	Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types	VOC	0.000256078	0.000256078	0.000256078	0.000256078	0.000256078
21015	Nonpoint	2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	VOC	0.002814405	0.002814405	0.002814405	0.002814405	0.002814405
21015	Nonpoint	2104007000	Stationary Source Fuel Combustion	Residential	Liquidified Petroleum Gas (LPG)	Total: All Combustor Types	VOC	0.001440302	0.001440302	0.001440302	0.001440302	0.001440302
21015	Nonpoint	2104008100	Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general	VOC	0.077613768	0.079936503	0.082367296	0.086508248	0.090649199
21015	Nonpoint	2104008210	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; non-EPA certified	VOC	0.092550243	0.08827614	0.083614739	0.075522299	0.067431243
21015	Nonpoint	2104008220	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; non-catalytic	VOC	0.00752507	0.008066779	0.00866236	0.009699888	0.010737416
21015	Nonpoint	2104008230	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	VOC	0.003135463	0.003361176	0.003609336	0.004041642	0.004473948
21015	Nonpoint	2104008310	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, non-EPA certified	VOC	0.076769565	0.076105851	0.075375766	0.074103648	0.07283153
21015	Nonpoint	2104008320	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	VOC	0.00602005	0.006453417	0.006829881	0.007759903	0.008589924
21015	Nonpoint	2104008330	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	VOC	0.002508359	0.002688928	0.002887456	0.003233298	0.003579141
21015	Nonpoint	2104008400	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: pellet-fired, general (freestanding or FP insert)	VOC	7.33981E-06	8.92935E-06	1.0675E-05	1.37144E-05	1.67538E-05
21015	Nonpoint	2104008510	Stationary Source Fuel Combustion	Residential	Wood	Furnace: indoor, cordwood-fired, non-EPA certified	VOC	0.005485987	0.005717916	0.006113471	0.006909086	0.0077047
21015	Nonpoint	2104008610	Stationary Source Fuel Combustion	Residential	Wood	Hydronic heater: outdoor	VOC	0	0	0	0	0

Region	County	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2014	2017	2020	2025	2030
21015	Nonpoint	Stationary Source Fuel Combustion	Residential	Wood	Outdoor wood burning device, NEC (fire-pits, chimneys, etc)	VOC	0.00125677	0.001294389	0.00133375	0.001400804	0.001467857
21015	Nonpoint	Stationary Source Fuel Combustion	Residential	Firelog	Total: All Combustor Types	VOC	0.009431108	0.009713414	0.010008789	0.010511973	0.011015157
21015	Nonpoint	Stationary Source Fuel Combustion	Residential	Kerosene	Total: All Heater Types	VOC	0.000216307	0.000216307	0.000216307	0.000216307	0.000216307
21015	Nonpoint	Mobile Sources	Railroad Equipment	Diesel	Line Haul Locomotives: Class I Operations	VOC	0.028010803	0.028010803	0.028010803	0.028010803	0.028010803
21015	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	ConveyORIZED Charbroiling	VOC	0.003693845	0.003693845	0.003693845	0.003693845	0.003693845
21015	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Under-fired Charbroiling	VOC	0.009863317	0.009863317	0.009863317	0.009863317	0.009863317
21015	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Deep Fat Frying	VOC	0.001846917	0.001846917	0.001846917	0.001846917	0.001846917
21015	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Flat Griddle Frying	VOC	0.001257475	0.001257475	0.001257475	0.001257475	0.001257475
21015	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Clamshell Griddle Frying	VOC	3.9296E-05	3.9296E-05	3.9296E-05	3.9296E-05	3.9296E-05
21015	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Drill Rigs	VOC	0	0	0	0	0
21015	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Artificial Lift	VOC	0	0	0	0	0
21015	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Produced Water	VOC	0	0	0	0	0
21015	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	VOC	0	0	0	0	0

Region cd	Data Category	scd	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	Nonpoint	2310010100	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	VOC	0	0	0	0	0	0
21015	Nonpoint	2310010200	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flashing & Standing/Working/Breathing	VOC	0	0	0	0	0	0
21015	Nonpoint	2310010300	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011000	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011201	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Tank Truck/Railcar Loading: Crude Oil	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	VOC	0	0	0	0	0	0
21015	Nonpoint	2310011505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	VOC	0	0	0	0	0	0
21015	Nonpoint	2310021010	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate Tank	VOC	0	0	0	0	0	0
21015	Nonpoint	2310021030	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Truck/Railcar Loading: Condensate	VOC	0	0	0	0	0	0
21015	Nonpoint	2310021100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	VOC	0	0	0	0	0	0

Region of Data Category	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025	2050
SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2011	2012	2013	2014	2015	2016	2017	2018
21015	Nonpoint	2310021202	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	VOC	0	0	0	0	0
21015	Nonpoint	2310021251	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	VOC	0	0	0	0	0
21015	Nonpoint	2310021300	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	VOC	0	0	0	0	0
21015	Nonpoint	2310021302	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	VOC	0	0	0	0	0
21015	Nonpoint	2310021351	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	VOC	0	0	0	0	0
21015	Nonpoint	2310021400	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	VOC	0	0	0	0	0
21015	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	VOC	0	0	0	0	0
21015	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	VOC	0	0	0	0	0
21015	Nonpoint	2310021503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	VOC	0	0	0	0	0
21015	Nonpoint	2310021505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	VOC	0	0	0	0	0
21015	Nonpoint	2310021506	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Other	VOC	0	0	0	0	0
21015	Nonpoint	2310021603	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Venting - Blowdowns	VOC	0	0	0	0	0

Agency	Data Category	Sub	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2050 Total
21015	Nonpoint	2310111100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Mud Degassing	VOC	0	0	0	0	0	0
21015	Nonpoint	2310111401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Oil Well Pneumatic Pumps	VOC	0	0	0	0	0	0
21015	Nonpoint	2310121100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Mud Degassing	VOC	0	0	0	0	0	0
21015	Nonpoint	2310121401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Pneumatic Pumps	VOC	0	0	0	0	0	0
21015	Nonpoint	2310121700	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Completion: All Processes	VOC	0	0	0	0	0	0
21015	Nonpoint	2401001000	Solvent Utilization	Surface Coating	Architectural Coatings	Total: All Solvent Types	VOC	0.379246914	0.379246914	0.379246914	0.379246914	0.379246914	0.379246914
21015	Nonpoint	2401005000	Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	Total: All Solvent Types	VOC	0.108176607	0.108176607	0.108176607	0.108176607	0.108176607	0.108176607
21015	Nonpoint	2401008000	Solvent Utilization	Surface Coating	Traffic Markings	Total: All Solvent Types	VOC	0.000306605	0.000306605	0.000306605	0.000306605	0.000306605	0.000306605
21015	Nonpoint	2401015000	Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2426 thru 242	Total: All Solvent Types	VOC	0.004366579	0.004366579	0.004366579	0.004366579	0.004366579	0.004366579
21015	Nonpoint	2401020000	Solvent Utilization	Surface Coating	Wood Furniture: SIC 25	Total: All Solvent Types	VOC	0.023711529	0.023711529	0.023711529	0.023711529	0.023711529	0.023711529
21015	Nonpoint	2401025000	Solvent Utilization	Surface Coating	Metal Furniture: SIC 25	Total: All Solvent Types	VOC	0.031785213	0.031785213	0.031785213	0.031785213	0.031785213	0.031785213
21015	Nonpoint	2401030000	Solvent Utilization	Surface Coating	Paper: SIC 26	Total: All Solvent Types	VOC	0.006527613	0.006527613	0.006527613	0.006527613	0.006527613	0.006527613
21015	Nonpoint	2401040000	Solvent Utilization	Surface Coating	Metal Cans: SIC 341	Total: All Solvent Types	VOC	0.213204028	0.213204028	0.213204028	0.213204028	0.213204028	0.213204028
21015	Nonpoint	2401050000	Solvent Utilization	Surface Coating	Machinery and Equipment: SIC 35	Total: All Solvent Types	VOC	0.002565401	0.002565401	0.002565401	0.002565401	0.002565401	0.002565401
21015	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Motor Vehicles: SIC 371	Total: All Solvent Types	VOC	0.319396112	0.319396112	0.319396112	0.319396112	0.319396112	0.319396112
21015	Nonpoint	2401075000	Solvent Utilization	Surface Coating	Aircraft: SIC 372	Total: All Solvent Types	VOC	0.005816603	0.005816603	0.005816603	0.005816603	0.005816603	0.005816603
21015	Nonpoint	2401090000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing Industrial	Total: All Solvent Types	VOC	0.041093827	0.041093827	0.041093827	0.041093827	0.041093827	0.041093827
21015	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Maintenance Coatings	Total: All Solvent Types	VOC	0.097631237	0.097631237	0.097631237	0.097631237	0.097631237	0.097631237

Region	CD	Data Category	sq	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Pol/Other	2011 total	2014 total	2017 total	2020 total	2025 total	2030 total
21015	Nonpoint	2401200000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	Total: All Solvent Types	VOC	0.010360076	0.010360076	0.010360076	0.010360076	0.010360076	0.010360076	0.010360076
21015	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/AM Industries	Total: All Solvent Types	VOC	0.409513219	0.409513219	0.409513219	0.409513219	0.409513219	0.409513219	0.409513219
21015	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	Total: All Solvent Types	VOC	0.014440733	0.014440733	0.014440733	0.014440733	0.014440733	0.014440733	0.014440733
21015	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	VOC	0.307381536	0.307381536	0.307381536	0.307381536	0.307381536	0.307381536	0.307381536
21015	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	VOC	0.291203704	0.291203704	0.291203704	0.291203704	0.291203704	0.291203704	0.291203704
21015	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	VOC	0.220020425	0.220020425	0.220020425	0.220020425	0.220020425	0.220020425	0.220020425
21015	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	VOC	0.153690087	0.153690087	0.153690087	0.153690087	0.153690087	0.153690087	0.153690087
21015	Nonpoint	2460600000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	VOC	0.092214461	0.092214461	0.092214461	0.092214461	0.092214461	0.092214461	0.092214461
21015	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	VOC	0.28796841	0.28796841	0.28796841	0.28796841	0.28796841	0.28796841	0.28796841
21015	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	VOC	0.011324578	0.011324578	0.011324578	0.011324578	0.011324578	0.011324578	0.011324578

Region_Led	Data Category	Job	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2001 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2050 Ipad
21015	Nonpoint	2461021000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Cutback Asphalt	Total: All Solvent Types	VOC	0.005559203	0.005559203	0.005559203	0.005559203	0.005559203	0.005559203
21015	Nonpoint	2461022000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	VOC	0.020567234	0.020567234	0.020567234	0.020567234	0.020567234	0.020567234
21015	Nonpoint	2461850000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	VOC	0.027876608	0.027876608	0.027876608	0.027876608	0.027876608	0.027876608
21015	Nonpoint	2501011011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Permeation	VOC	0.139573802	0.088781227	0.037988652	0.022659236	0.026662842	0.030666448
21015	Nonpoint	2501011012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Evaporation (Includes Diurnal losses)	VOC	0.272513617	0.165848236	0.059182855	0.024358893	0.026186808	0.028014722
21015	Nonpoint	2501011014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Refilling at the Pump - Vapor Displacement	VOC	0.00811329	0.006340386	0.004567483	0.004302287	0.005116718	0.005931149
21015	Nonpoint	2501012011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Permeation	VOC	0.004458034	0.002941771	0.001425507	0.00096761	0.00108642	0.00120523
21015	Nonpoint	2501012012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Evaporation (Includes Diurnal losses)	VOC	0.008704139	0.005297226	0.001890313	0.000778028	0.000836412	0.000894796
21015	Nonpoint	2501012014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	VOC	0.015636084	0.013844471	0.012052858	0.011867651	0.012897645	0.013927639
21015	Nonpoint	2501050120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative Losses	Gasoline	VOC	0.157922113	0.154896777	0.15187144	0.145622876	0.132522581	0.119422285
21015	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Plants: All Evaporative Losses	Gasoline	VOC	0.100834967	0.098903257	0.096971548	0.092981772	0.084637093	0.076252413

Region	Data Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutants	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21015	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Submerged Filling	VOC	0	0	0	0	0	0
21015	Nonpoint	2501060052	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Splash Filling	VOC	0.171516612	0.168715991	0.16591537	0.159251303	0.144974988	0.130598673
21015	Nonpoint	2501060053	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Balanced Submerged Filling	VOC	0.032808007	0.032272299	0.031736591	0.030461876	0.027721513	0.024981149
21015	Nonpoint	2501060201	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Underground Tank: Breathing and Emptying	VOC	0.066117647	0.06503804	0.063958434	0.061389514	0.058666887	0.050344426
21015	Nonpoint	2501080050	Storage and Transport	Petroleum and Petroleum Product Storage	Alports: Aviation Gasoline	Stage 1: Total	VOC	0.128430283	0.128430283	0.128430283	0.128430283	0.128430283	0.128430283
21015	Nonpoint	2501080100	Storage and Transport	Petroleum and Petroleum Product Storage	Alports: Aviation Gasoline	Stage 2: Total	VOC	0.006664161	0.006664161	0.006664161	0.006664161	0.006664161	0.006664161
21015	Nonpoint	2505030120	Storage and Transport	Petroleum and Petroleum Product Transport	Truck	Gasoline	VOC	0.00424101	0.004253495	0.004182889	0.004014881	0.0036537	0.00329252
21015	Nonpoint	2505040120	Storage and Transport	Petroleum and Petroleum Product Transport	Pipeline	Gasoline	VOC	0.110097495	0.107988341	0.105879188	0.1015222919	0.092389874	0.083258829
21015	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Wastewater Treatment	Public Owned	Total Processed	VOC	0.005953322	0.005953322	0.005953322	0.005953322	0.005953322	0.005953322
21015	Nonpoint	2801500000	Miscellaneous Area Sources	Agriculture Production - Crops - as nonpoint	Agricultural Field Burning - whole field set on fire	Unspecified crop type and Burn Method	VOC	0.006546262	0.006546262	0.006546262	0.006546262	0.006546262	0.006546262
21015	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Cremation	Humans	VOC	4.18215E-06	4.18215E-06	4.18215E-06	4.18215E-06	4.18215E-06	4.18215E-06
23015	Nonpoint					TOTAL	VOC	4.650599	4.480414	4.600296	4.224002	4.377378	4.190275

Report ID	Data Category	scs	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2013 tpsd	2014 tpsd	2017 tpsd	2030 tpsd	2025 tpsd	2050 tpsd
21015	Nonroad	2260001010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	Motorcycles: Off-road	VOC	0.467793094	0.430489359	0.393185625	0.376263559	0.365044841	0.353826172
21015	Nonroad	2260001030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	All Terrain Vehicles	VOC	0.542989516	0.412383426	0.281777335	0.197585141	0.095943064	0.014629402
21015	Nonroad	2260001060	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Recreational Equipment	Specialty Vehicles/Cars	VOC	0.00378563	0.002760607	0.002235584	0.00206962	0.002092229	0.002114838
21015	Nonroad	2260002006	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Tampers/Rammers	VOC	0.007373176	0.007413614	0.007454053	0.007510203	0.00761688	0.007723556
21015	Nonroad	2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Plate Compactors	VOC	0.000266248	0.000267268	0.000268288	0.000270318	0.000274542	0.000278767
21015	Nonroad	2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Paving Equipment	VOC	0.000317024	0.000318585	0.000320146	0.00032265	0.00032761	0.000332571
21015	Nonroad	2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Signal Boards/light Plants	VOC	2.61001E-06	2.62887E-06	2.64774E-06	2.66898E-06	2.70637E-06	2.74378E-06
21015	Nonroad	2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0.018749917	0.018895843	0.019041768	0.019195352	0.019457707	0.019720062
21015	Nonroad	2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	6.44698E-05	6.48187E-05	6.51676E-05	6.56595E-05	6.65986E-05	6.75376E-05
21015	Nonroad	2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000101271	7.62405E-05	5.12103E-05	3.06192E-05		0
21015	Nonroad	2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Other General Industrial Equipment	VOC	7.73946E-06	5.82777E-06	3.91608E-06	2.34204E-06		0
21015	Nonroad	2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.00079652	0.00075427	0.00071202	0.000720404	0.000776573	0.000832742
21015	Nonroad	2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.005710186	0.005929989	0.006149792	0.006420685	0.006914747	0.007408908

Region Cd	Data Category	Geo	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2050 Ipad	
21015	Nonroad	2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	VOC	0.011813635	0.012350915	0.012888195	0.013509151	0.014613809	0.015718467
21015	Nonroad	2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	VOC	0.127211301	0.133965915	0.140720529	0.147481399	0.15875473	0.170028061
21015	Nonroad	2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.014927778	0.014634885	0.014341993	0.014731254	0.015948493	0.017165713
21015	Nonroad	2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.065297404	0.068564595	0.071831785	0.075235854	0.081023354	0.086810874
21015	Nonroad	2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.009748339	0.009336486	0.008924632	0.009131981	0.009993563	0.010855145
21015	Nonroad	2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.064587279	0.067906438	0.071225597	0.074630488	0.080376751	0.086123013
21015	Nonroad	2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.014714336	0.014981494	0.015248651	0.015893167	0.017078826	0.018322484
21015	Nonroad	2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.062101875	0.06525954	0.068417204	0.071660165	0.07713618	0.082612195
21015	Nonroad	2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	2.00573E-05	2.10969E-05	2.21364E-05	2.32016E-05	2.49985E-05	2.67953E-05
21015	Nonroad	2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Sprayers	VOC	6.16922E-05	6.33762E-05	6.50602E-05	6.75192E-05	7.22633E-05	7.70075E-05
21015	Nonroad	2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Generator Sets	VOC	0.001612485	0.001726591	0.001840698	0.001961477	0.002168337	0.002375197
21015	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Pumps	VOC	0.011416215	0.012185634	0.012955053	0.013772747	0.015174829	0.016577187
21015	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Air Compressors	VOC	4.0716E-06	4.37717E-06	4.68274E-06	4.99207E-06	5.51077E-06	6.02947E-06

Region Cd	Data Category	scn	SCQ Level	Onio	SCQ Level (Fy)	SCQ Level (Fy)	SCQ Level (Fy)	SCQ Level (Fy)	SCQ Level (Fy)	SCQ Level (Fy)	2004 tpsd	2007 tpsd	2020 tpsd	2025 tpsd	2080 tpsd
21015	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Hydro-power Units	VOC	5.73018E-05	6.15899E-05	6.58779E-05	7.02129E-05	7.4769E-05	7.74769E-05	8.47409E-05	
21015	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Chain Saws : 6 HP	VOC	0.000109001	0.000118134	0.000127266	0.000136414	0.000151673	0.000151673	0.000166931	
21015	Nonroad	2265001010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Motorcycles: Off-road	VOC	0.019032359	0.018643123	0.018253888	0.018251393	0.018569519	0.018569519	0.018887644	
21015	Nonroad	2265001030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	All Terrain Vehicles	VOC	0.213594142	0.209117086	0.204640031	0.201565438	0.197609835	0.197609835	0.193654233	
21015	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Golf Carts	VOC	0.006231696	0.005891543	0.005551389	0.005518415	0.005719442	0.005719442	0.005970468	
21015	Nonroad	2265001060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Specialty Vehicles/Carts	VOC	0.00329209	0.002868175	0.002444261	0.002339133	0.001739574	0.001739574	0.001320015	
21015	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Pavers	VOC	0.00054293	0.000467138	0.000391347	0.000366576	0.000367808	0.000367808	0.000369039	
21015	Nonroad	2265002006	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tampers/Rammers	VOC	4.95962E-06	4.29861E-06	3.63761E-06	3.42277E-06	3.43649E-06	3.43649E-06	3.45021E-06	
21015	Nonroad	2265002009	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Plate Compactors	VOC	0.001887489	0.001474085	0.001060681	0.000927923	0.000940532	0.000940532	0.000953141	
21015	Nonroad	2265002015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rollers	VOC	0.000864813	0.000770992	0.000577171	0.000650072	0.000660508	0.000660508	0.000670944	
21015	Nonroad	2265002021	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Paving Equipment	VOC	0.002818144	0.002308774	0.001799405	0.001631373	0.001635768	0.001635768	0.001640163	
21015	Nonroad	2265002024	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Surfacing Equipment	VOC	0.001075256	0.000900124	0.000724993	0.000671162	0.00068253	0.00068253	0.000693897	
21015	Nonroad	2265002027	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Signal Boards/Light Plans	VOC	6.36147E-05	5.08355E-05	3.80564E-05	3.40376E-05	3.46399E-05	3.46399E-05	3.52422E-05	

Region Cd	Data Category	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2014.1/yr	2017.1/yr	2020.1/yr	2025.1/yr	2030.1/yr
21015	Nonroad	2265002030	Mobile Sources	Construction and Mining Equipment	Trenchers	VOC	0.001662199	0.001299956	0.001181554	0.001187417	0.001193218
21015	Nonroad	2265002033	Mobile Sources	Construction and Mining Equipment	Bore/Drill Rigs	VOC	0.000885372	0.000609876	0.000512178	0.000497511	0.000482844
21015	Nonroad	2265002039	Mobile Sources	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0.002904876	0.00269966	0.002648389	0.002691225	0.00273406
21015	Nonroad	2265002042	Mobile Sources	Construction and Mining Equipment	Cement and Mortar Mixers	VOC	0.002742929	0.002074269	0.001814109	0.001720923	0.001627738
21015	Nonroad	2265002045	Mobile Sources	Construction and Mining Equipment	Cranes	VOC	9.03332E-05	6.5357E-05	5.09226E-05	3.565E-05	2.03774E-05
21015	Nonroad	2265002054	Mobile Sources	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	0.000235703	0.00018951	0.000174609	0.000175851	0.000177094
21015	Nonroad	2265002057	Mobile Sources	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	9.54676E-05	5.69577E-05	3.95275E-05	2.80439E-05	1.65602E-05
21015	Nonroad	2265002060	Mobile Sources	Construction and Mining Equipment	Rubber Tire Loaders	VOC	0.000147521	8.59114E-05	6.38112E-05	5.99015E-05	5.59919E-05
21015	Nonroad	2265002066	Mobile Sources	Construction and Mining Equipment	Tractors/Loaders/Backhoes	VOC	0.000982749	0.000873099	0.00083887	0.000853004	0.000867138
21015	Nonroad	2265002072	Mobile Sources	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.000597589	0.000469951	0.000408209	0.000360217	0.000312225
21015	Nonroad	2265002078	Mobile Sources	Construction and Mining Equipment	Dumpers/Tenders	VOC	0.000409797	0.000327622	0.000290163	0.000264997	0.000239831
21015	Nonroad	2265002081	Mobile Sources	Construction and Mining Equipment	Other Construction Equipment	VOC	0.000124656	9.1396E-05	6.81218E-05	3.76531E-05	7.18427E-06
21015	Nonroad	2265003010	Mobile Sources	Industrial Equipment	Aerial Lifts	VOC	0.001289132	0.000789829	0.000486458	0.000144117	7.1811E-06

Region	Local Data Category	SCC	SCG Level One	SCC Level Two	SCG Level Three	SCC Level Four	Pollutant	2011 (tpad)	2014 (tpad)	2017 (tpad)	2020 (tpad)	2025 (tpad)	2050 (tpad)
21015	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	VOC	0.002750754	0.00171713	0.000683506	0.00025909	5.94109E-05	1.94746E-05
21015	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000913172	0.000618308	0.000323444	0.000164692	1.35323E-05	1.35323E-05
21015	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	VOC	0.004189151	0.002766028	0.001342905	0.000625509	1.7954E-05	1.7954E-05
21015	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	VOC	0.000121529	8.4259E-05	4.6989E-05	2.6337E-05	5.7470E-06	1.6299E-06
21015	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC/Refrigeration	VOC	2.1747E-05	1.5016E-05	8.2856E-06	4.4430E-06	4.4554E-07	4.4554E-07
21015	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	VOC	7.2813E-05	5.0266E-05	2.7719E-05	1.5176E-05	2.6095E-06	9.6072E-08
21015	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	VOC	0.068268086	0.052907181	0.037546276	0.032718637	0.033450292	0.034181946
21015	Nonroad	2265004011	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	VOC	0.066632784	0.054459866	0.042286948	0.039452212	0.04250947	0.045566729
21015	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.005781277	0.004518693	0.00325611	0.002865322	0.002940506	0.003015689
21015	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.039974919	0.032400833	0.024826747	0.022828399	0.024144266	0.025460133
21015	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.000357445	0.000296538	0.000235631	0.000221808	0.000238008	0.000254208
21015	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.001361426	0.001214645	0.001067864	0.001051366	0.001132437	0.001213508
21015	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.000637065	0.000483765	0.000330466	0.000289191	0.000313754	0.000338317

Region Code	Data Category	SCC	SCC Level Code	SCC Level Type	SCC Level Two	SCC Level Three	SCC Level Four	Preference	2014 Used	2017 Used	2020 Used	2025 Used	2030 Used
21015	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.026926121	0.024786286	0.024738558	0.026402432	0.028066307
21015	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.005885124	0.005312165	0.005313475	0.005794217	0.006274956
21015	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.017713626	0.018341298	0.019158588	0.020678752	0.022198916
21015	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	VOC	0.005540188	0.004597029	0.004396493	0.004681118	0.004965743
21015	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	VOC	0.002663855	0.002424354	0.002420424	0.002610185	0.002799946
21015	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Front Mowers (Commercial)	VOC	0.003895976	0.003375173	0.003166346	0.00307828	0.002990215
21015	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	VOC	0.003872533	0.002914446	0.002642312	0.002760382	0.002878452
21015	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	VOC	0.058958131	0.049632937	0.047672251	0.050541532	0.053410813
21015	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	VOC	0.034233143	0.031389162	0.031408507	0.033826854	0.0362452
21015	Nonroad	2265004066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.00379077	0.003353359	0.003309316	0.003563716	0.003818117
21015	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	0.112083258	0.095096365	0.092374377	0.099725151	0.107075925
21015	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	VOC	0.003255016	0.002443168	0.002158079	0.002212896	0.002085714
21015	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	VOC	0.007989638	0.005934669	0.005703151	0.005086831	0.00497051

Region Id	Date Category	iso	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2011 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	VOC	2.41876E-05	2.18082E-05	1.94288E-05	1.9152E-05	2.04429E-05	2.17338E-05
21015	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	VOC	4.95982E-05	3.91506E-05	2.87029E-05	2.54268E-05	2.59428E-05	2.64589E-05
21015	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	VOC	6.08732E-07	5.40611E-07	4.72489E-07	4.06316E-07	2.97653E-07	1.8899E-07
21015	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	VOC	8.02577E-05	7.1267E-05	6.22763E-05	5.37566E-05	3.99499E-05	2.61432E-05
21015	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	VOC	2.39315E-05	2.08461E-05	1.77606E-05	1.68458E-05	1.71299E-05	1.7414E-05
21015	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	VOC	0.000372072	0.000307436	0.0002428	0.000214271	0.000196814	0.000179356
21015	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Timers : 6 HP	VOC	0.000939163	0.000866896	0.000794629	0.000729822	0.000628024	0.000526227
21015	Nonroad	2265005045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Swathers	VOC	0.000112676	0.000100099	8.75227E-05	7.53274E-05	5.53195E-05	3.53116E-05
21015	Nonroad	2265005055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Other Agricultural Equipment	VOC	0.000155848	0.000136994	0.00011814	0.000104055	8.45906E-05	6.51162E-05
21015	Nonroad	2265005060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Irrigation Sets	VOC	4.94499E-05	3.75622E-05	2.56744E-05	2.22548E-05	2.36122E-05	2.49697E-05
21015	Nonroad	2265006005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Generator Sets	VOC	0.06623919	0.057108037	0.047976884	0.046044056	0.04882128	0.051598504
21015	Nonroad	2265006010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pumps	VOC	0.018326302	0.015040586	0.011754869	0.011085958	0.012151776	0.013217595
21015	Nonroad	2265006015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Air Compressors	VOC	0.007520613	0.006231111	0.004941609	0.004691337	0.005140226	0.00558912

Region	County	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Prohibition	2011 Used	2014 Used	2017 Used	2020 Used	2025 Used	2030 Used
21015	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Welders	VOC	0.012706458	0.011688204	0.010669949	0.010751136	0.011803431	0.012185503
21015	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pressure Washers	VOC	0.033207936	0.027617312	0.022026688	0.021041966	0.023239016	0.025436065
21015	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Hydro-power Units	VOC	0.000935464	0.00080507	0.000674677	0.000659351	0.000729696	0.000800004
21015	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Shredders - 6 HP	VOC	2.948195-05	2.71743E-05	2.48666E-05	2.40713E-05	2.40061E-05	2.39409E-05
21015	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Forest Equip - Feller/Bunch/Sk idder	VOC	3.97542E-07	3.25137E-07	2.52732E-07	2.39372E-07	2.66309E-07	2.92246E-07
21015	Nonroad	Mobile Sources	LPG	Recreational Equipment	Specialty Vehicles/Carts	VOC	4.47732E-05	3.91451E-05	3.3517E-05	2.79174E-05	1.86085E-05	9.29958E-06
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Pavers	VOC	2.35873E-05	1.62579E-05	8.92855E-06	5.6726E-06	3.64052E-06	1.60845E-06
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Rollers	VOC	2.13536E-05	1.47323E-05	8.11095E-06	5.8708E-06	5.78823E-06	5.70565E-06
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Paving Equipment	VOC	9.7908E-06	7.46305E-06	5.13529E-06	3.68934E-06	2.01425E-06	3.39165E-07
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Surfacing Equipment	VOC	3.80634E-06	2.66006E-06	1.51378E-06	1.00345E-06	6.82849E-07	3.6225E-07
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Trenchers	VOC	7.62587E-05	5.22675E-05	2.82762E-05	1.762E-05	1.09722E-05	4.3244E-06
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Bore/Drill Rigs	VOC	4.53884E-05	3.98392E-05	3.429E-05	2.85974E-05	1.89902E-05	9.38296E-06
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	2.20839E-05	1.65729E-05	1.10619E-05	9.4874E-06	1.01436E-05	1.07999E-05
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Cranes	VOC	3.95365E-05	3.00125E-05	2.04885E-05	1.42947E-05	6.74676E-06	7.08432E-07
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	6.52078E-06	4.82179E-06	3.1228E-06	2.12458E-06	1.04486E-06	1.81084E-07
21015	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	5.61582E-05	3.85726E-05	2.0987E-05	1.28781E-05	7.26068E-06	1.64324E-06

Region Code	Data Category	SCD	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2011 Year	2014 Year	2017 Year	2020 Year	2025 Year	2030 Year
21015	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Rubber Tire Loaders	VOC	9.21744E-05	6.09408E-05	2.97072E-05	1.84575E-05	1.63161E-05	1.42651E-05
21015	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Tractors/Loader s/Backhoes	VOC	6.90846E-06	4.6742E-06	2.43994E-06	1.70763E-06	1.73874E-06	1.76985E-06
21015	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.000131904	0.000100839	6.97739E-05	4.96341E-05	2.51722E-05	7.10213E-07
21015	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Other Construction Equipment	VOC	6.26274E-05	4.93923E-05	3.61572E-05	2.621E-05	1.23712E-05	1.30018E-06
21015	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Aerial Lifts	VOC	0.00093432	0.000746864	0.000559407	0.000414097	0.000207036	4.13867E-05
21015	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Forklifts	VOC	0.046077451	0.030636961	0.015196471	0.009658592	0.008680969	0.007703347
21015	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000205589	0.000146116	8.66424E-05	6.69547E-05	6.72964E-05	6.76382E-05
21015	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Other General Industrial Equipment	VOC	8.10977E-05	5.52536E-05	2.94096E-05	2.06808E-05	2.03956E-05	2.01104E-05
21015	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Other Material Handling Equipment	VOC	4.88846E-05	3.63107E-05	2.37369E-05	1.63219E-05	8.26267E-06	2.03469E-07
21015	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Terminal Tractors	VOC	6.39003E-05	5.22184E-05	4.05365E-05	3.80473E-05	4.15595E-05	4.50717E-05
21015	Nonroad	2267004066	Mobile Sources	LPG	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.000385314	0.000258679	0.000132044	8.79997E-05	8.34169E-05	7.88341E-05
21015	Nonroad	2267005055	Mobile Sources	LPG	Agricultural Equipment	Other Agricultural Equipment	VOC	4.4564E-07	3.86711E-07	3.27782E-07	2.70134E-07	1.75122E-07	8.01105E-06
21015	Nonroad	2267005060	Mobile Sources	LPG	Agricultural Equipment	Irrigation Sets	VOC	9.33494E-08	6.14753E-08	2.96012E-08	1.858E-08	1.75887E-08	1.65974E-08
21015	Nonroad	2267006005	Mobile Sources	LPG	Commercial Equipment	Generator Sets	VOC	0.001404376	0.001259533	0.00111469	0.000950359	0.000660234	0.000370109
21015	Nonroad	2267006010	Mobile Sources	LPG	Commercial Equipment	Pumps	VOC	0.000245466	0.000198319	0.000151171	0.000118021	7.44342E-05	3.08476E-05
21015	Nonroad	2267006015	Mobile Sources	LPG	Commercial Equipment	Air Compressors	VOC	0.000237255	0.000167829	9.84033E-05	6.97245E-05	5.8821E-05	4.20997E-05
21015	Nonroad	2267006025	Mobile Sources	LPG	Commercial Equipment	Welders	VOC	0.000422356	0.00029166	0.000160964	0.00010417	7.10996E-05	3.80291E-05
21015	Nonroad	2267006030	Mobile Sources	LPG	Commercial Equipment	Pressure Washers	VOC	7.44278E-06	5.91454E-06	4.38631E-06	3.30498E-06	1.87519E-06	4.45405E-07
21015	Nonroad	2267006035	Mobile Sources	LPG	Commercial Equipment	Hydro-power Units	VOC	2.81137E-06	2.06674E-06	1.32211E-06	1.0211E-06	8.89087E-07	7.57076E-07
21015	Nonroad	2268002081	Mobile Sources	CNG	Construction and Mining Equipment	Other Construction Equipment	VOC	1.52424E-07	1.20399E-07	8.83738E-08	6.43228E-08	3.08829E-08	4.13102E-09
21015	Nonroad	2268003020	Mobile Sources	CNG	Industrial Equipment	Fertilizers	VOC	0.000194634	0.000129722	6.48097E-05	4.14883E-05	3.72785E-05	3.30688E-05

Region	City	Data Category	SCS	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	SCS Level Five	2013 Speed	2014 Speed	2017 Speed	2020 Speed	2025 Speed	2050 Speed
21015	Nonroad	2268003030	Mobile Sources	CNG	Industrial Equipment	Sweepers/Scrubbers	VOC	2.48356E-07	1.65349E-07	8.23428E-08	5.29986E-08	4.88103E-08	4.46221E-08	
21015	Nonroad	2268003040	Mobile Sources	CNG	Industrial Equipment	Other General Industrial Equipment	VOC	1.17418E-07	7.90247E-08	4.06316E-08	2.74746E-08	2.65764E-08	2.56782E-08	
21015	Nonroad	2268003060	Mobile Sources	CNG	Industrial Equipment	AC/Refrigeration	VOC	1.47718E-07	1.03773E-07	5.98289E-08	4.27467E-08	3.66617E-08	3.05767E-08	
21015	Nonroad	2268003070	Mobile Sources	CNG	Industrial Equipment	Terminal Tractors	VOC	2.95081E-07	2.41708E-07	1.88334E-07	1.76544E-07	1.91546E-07	2.06549E-07	
21015	Nonroad	2268005055	Mobile Sources	CNG	Agricultural Equipment	Other Agricultural Equipment	VOC	1.65006E-08	1.20249E-08	7.54909E-09	4.90295E-09	2.0174E-09	2.86071E-10	
21015	Nonroad	2268005060	Mobile Sources	CNG	Agricultural Equipment	Irrigation Sets	VOC	7.86375E-08	4.49357E-08	1.12339E-08	0	0	0	
21015	Nonroad	2268006005	Mobile Sources	CNG	Commercial Equipment	Generator Sets	VOC	2.56277E-05	2.29529E-05	2.0278E-05	1.72931E-05	1.20599E-05	6.82673E-06	
21015	Nonroad	2268006010	Mobile Sources	CNG	Commercial Equipment	Pumps	VOC	1.10015E-06	9.08754E-07	7.1736E-07	5.57368E-07	3.16882E-07	7.53963E-08	
21015	Nonroad	2268006015	Mobile Sources	CNG	Commercial Equipment	Air Compressors	VOC	1.09875E-06	7.67574E-07	4.36399E-07	2.9599E-07	2.20945E-07	1.459E-07	
21015	Nonroad	2268006020	Mobile Sources	CNG	Commercial Equipment	Gas Compressors	VOC	7.10987E-06	7.67057E-06	8.23127E-06	8.79247E-06	9.72821E-06	1.06639E-05	
21015	Nonroad	2270001060	Mobile Sources	Off-highway Vehicle Diesel	Recreational Equipment	Specialty Vehicles/Carts	VOC	0.000679608	0.000592825	0.000506043	0.000427184	0.000302356	0.000177527	
21015	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Pavers	VOC	0.00121092	0.001026443	0.000841965	0.000765968	0.000729706	0.000693444	
21015	Nonroad	2270002005	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tampers/Rammers	VOC	5.22536E-06	4.87956E-06	4.53376E-06	4.48609E-06	4.65509E-06	4.82408E-06	
21015	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Plate Compactors	VOC	7.99328E-05	7.44916E-05	6.90503E-05	6.84479E-05	7.14763E-05	7.45047E-05	
21015	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rollers	VOC	0.0032905	0.002783788	0.002277077	0.002055268	0.001923005	0.001790743	
21015	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Scrapers	VOC	0.00248916	0.002296962	0.002104763	0.002041761	0.002044419	0.002047078	
21015	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Paving Equipment	VOC	0.000220266	0.000190222	0.000160187	0.000144054	0.000128756	0.000113457	
21015	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Surfacing Equipment	VOC	0.000148052	0.000129235	0.000110417	9.95074E-05	8.79139E-05	7.63204E-05	
21015	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Signal Boards/Light Plants	VOC	0.000622316	0.0005641	0.000505883	0.000487292	0.000489326	0.000491361	
21015	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Trenchers	VOC	0.001851249	0.001555155	0.00125906	0.001108545	0.000898171	0.000710893	

Region Code	Data Category	scn	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Pollutant	2011, tpsd	2014, tpsd	2017, tpsd	2019, tpsd	2015, tpsd	2080, tpsd
21015	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Bore/Drill Rigs	VOC	0.001957546	0.001740986	0.001524427	0.001361477	0.001134568	0.000907856
21015	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Excavators	VOC	0.010454724	0.009089822	0.00772492	0.007341488	0.007520375	0.007699162
21015	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0.000136438	0.000114814	9.31905E-05	8.08061E-05	6.78649E-05	5.49237E-05
21015	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cement and Mortar Mixers	VOC	0.000103668	9.38948E-05	8.41214E-05	7.62033E-05	6.45525E-05	5.29017E-05
21015	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cranes	VOC	0.002682395	0.00236175	0.002041104	0.00189449	0.001795159	0.001695829
21015	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Graders	VOC	0.002642815	0.0023011	0.001959384	0.00185153	0.001866666	0.001881789
21015	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Trucks	VOC	0.008059767	0.007783856	0.007507944	0.007153791	0.006498533	0.005842876
21015	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	0.00052574	0.000454061	0.000382382	0.000346878	0.000317849	0.00028982
21015	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	0.004894624	0.004072731	0.003250838	0.002815165	0.002410892	0.00200652
21015	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rubber Tire Loaders	VOC	0.013048869	0.011529065	0.010009262	0.009258358	0.008647604	0.008036849
21015	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tractors/Loaders/Backhoes	VOC	0.026738151	0.022384973	0.0180331795	0.014627853	0.009745645	0.004863437
21015	Nonroad	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	VOC	0.010738566	0.009542896	0.008349226	0.007872984	0.007677102	0.007481221
21015	Nonroad	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.023713303	0.02011711	0.016520918	0.013622882	0.009374619	0.005126356
21015	Nonroad	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	VOC	0.001309321	0.001185356	0.001061391	0.000988388	0.000909184	0.00082998
21015	Nonroad	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	VOC	8.13199E-05	6.97568E-05	5.81936E-05	4.84995E-05	3.39E-05	1.93006E-05
21015	Nonroad	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	VOC	0.001424579	0.001247054	0.001069529	0.00097381	0.000882449	0.000791087
21015	Nonroad	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	VOC	0.001552977	0.00136101	0.001169043	0.000983357	0.000679116	0.000374875

Region	Data Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCS Level Four	Pollutant	2011 Year	2014 Year	2017 Year	2020 Year	2025 Year	2050 Year
21015	Nonroad	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	VOC	0.003984322	0.003302516	0.00272071	0.002611042	0.002821711	0.003032356
21015	Nonroad	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	VOC	0.002113806	0.001785894	0.001457981	0.001340532	0.001320168	0.001299804
21015	Nonroad	2270003040	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	VOC	0.002448106	0.002105553	0.001763001	0.00158055	0.001409885	0.001239127
21015	Nonroad	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	VOC	0.000282159	0.000246923	0.000211688	0.000180907	0.000133319	8.57302E-05
21015	Nonroad	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC/Refrigeration	VOC	0.002681431	0.002238654	0.001795877	0.001646638	0.001642521	0.001638404
21015	Nonroad	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	VOC	0.002047359	0.001769788	0.001492217	0.001435885	0.001526364	0.001616844
21015	Nonroad	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	6.85937E-07	6.45796E-07	6.05655E-07	5.62302E-07	4.87369E-07	4.12436E-07
21015	Nonroad	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	7.99767E-05	7.32873E-05	6.65979E-05	6.19449E-05	5.58869E-05	4.9829E-05
21015	Nonroad	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	VOC	0.002905562	0.002624467	0.002343372	0.002215233	0.00212913	0.002043032
21015	Nonroad	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	VOC	0.000612908	0.000594005	0.000575103	0.000590565	0.000644974	0.000699383
21015	Nonroad	2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.003389444	0.003089505	0.002789565	0.002547871	0.002193585	0.001839198
21015	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	0.000271582	0.000238706	0.00020583	0.000197267	0.000203256	0.000209245
21015	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	VOC	1.21786E-05	1.12341E-05	1.02897E-05	9.59748E-06	8.65412E-06	7.71076E-06
21015	Nonroad	2270005010	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	2-Wheel Tractors	VOC	2.61785E-07	2.56188E-07	2.50592E-07	2.56899E-07	2.77085E-07	2.97341E-07
21015	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	VOC	0.008141695	0.006974856	0.005808017	0.005044667	0.004108656	0.003172645
21015	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	VOC	0.000800837	0.000718541	0.000636246	0.000570673	0.00047532	0.000379956

Region	Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2013 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2050 tpyd
21015	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	VOC	6.82596E-06	5.91996E-06	5.01396E-06	4.28862E-06	3.23026E-06	2.17191E-06
21015	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	VOC	1.17617E-06	1.01317E-06	8.50169E-07	7.21951E-07	5.37241E-07	3.52532E-07
21015	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	VOC	9.09864E-05	7.81633E-05	6.53402E-05	5.61411E-05	4.38292E-05	3.15173E-05
21015	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Timers : 6 HP	VOC	8.73799E-08	7.70084E-08	6.66368E-08	5.94274E-08	5.00469E-08	4.06663E-08
21015	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	VOC	7.73273E-05	6.94329E-05	6.15384E-05	5.42278E-05	4.25299E-05	3.08319E-05
21015	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Other Agricultural Equipment	VOC	0.000187131	0.000160603	0.000134074	0.00011589	9.25378E-05	6.91852E-05
21015	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	VOC	8.79838E-05	7.42208E-05	6.04577E-05	5.19172E-05	4.20351E-05	3.2153E-05
21015	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Generator Sets	VOC	0.004846401	0.004281687	0.003716973	0.003313005	0.002773678	0.002234351
21015	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	VOC	0.001090851	0.0009803	0.000869748	0.000782896	0.000657892	0.000532889
21015	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	VOC	0.001982607	0.001686016	0.001389425	0.00121277	0.001018292	0.000823813
21015	Nonroad	2270006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	VOC	0.003466973	0.002889751	0.002312528	0.001882591	0.001288766	0.000694942
21015	Nonroad	2270006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	VOC	0.000161632	0.000147083	0.000132534	0.000119619	9.94545E-05	7.92901E-05
21015	Nonroad	2270006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	VOC	7.16565E-05	6.16214E-05	5.15862E-05	4.56574E-05	3.91978E-05	3.27383E-05
21015	Nonroad	2270007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Exp - Feller/Bunch/Sk idder	VOC	1.61858E-05	1.32385E-05	1.02911E-05	9.00413E-06	8.24288E-06	7.48163E-06
21015	Nonroad	2282005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	VOC	0.285271537	0.228651092	0.172030647	0.133835916	0.085532792	0.037229669
21015	Nonroad	2282005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	VOC	0.079583643	0.053663207	0.03374277	0.024380046	0.017573599	0.010767152
21015	Nonroad	2282010005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Stern Drive	VOC	0.031445547	0.028411597	0.025377646	0.023013827	0.01963257	0.016251314
21015	Nonroad	2282020005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Stern Drive	VOC	0.001300696	0.001398573	0.00149645	0.001590416	0.001743769	0.001897122
21015	Nonroad	2282020010	Mobile Sources	Pleasure Craft	Diesel	Outboard	VOC	1.62011E-05	1.43434E-05	1.24858E-05	1.15224E-05	1.06617E-05	9.80101E-06

Region	City	Data Category	sq	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2015 Total	2014 Total	2017 Total	2020 Total	2025 Total	2050 Total
21015	Nonroad	2285002015	sq	Mobile Sources	Railroad Equipment	Diesel	Railway Maintenance	VOC	0.00042667	0.000371734	0.000316738	0.000271116	0.000202692	0.000134267
21015	Nonroad	2285004015	sq	Mobile Sources	Railroad Equipment	Gasoline, 4-Stroke	Railway Maintenance	VOC	0.000109125	9.21084E-05	7.50921E-05	7.07407E-05	7.40423E-05	7.7344E-05
21015	Nonroad	2285006015	sq	Mobile Sources	Railroad Equipment	LPG	Railway Maintenance	VOC	1.08486E-06	7.74717E-07	4.64574E-07	3.00782E-07	1.49756E-07	2.89344E-08
228615 Nonroad TOTAL									2.85670E-06	2.58167E-07	2.20664E-07	2.09026E-07	1.90186E-07	1.79902E-07
21015	Point	102000401	sq	External Combustion Boilers	Industrial	Residual Oil - Grade 6	Boiler	VOC	0	0	0	0	0	0
21015	Point	102000502	sq	External Combustion Boilers	Industrial	Distillate Oil	10-100 Million BTU/hr **	VOC	0	0	0	0	0	0
21015	Point	102000503	sq	External Combustion Boilers	Industrial	Distillate Oil	< 10 Million BTU/hr **	VOC	8.54739E-06	8.54739E-06	8.54739E-06	8.54739E-06	8.54739E-06	8.54739E-06
21015	Point	102000602	sq	External Combustion Boilers	Industrial	Natural Gas	10-100 Million BTU/hr	VOC	0.003204241	0.003200873	0.003197506	0.003196383	0.003196383	0.003196383
21015	Point	102000603	sq	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	VOC	0.001837581	0.001837581	0.001837581	0.001837581	0.001837581	0.001837581
21015	Point	103000501	sq	External Combustion Boilers	Commercial/Industrial	Distillate Oil - Grades 1 and 2	Boiler	VOC	1.50159E-07	1.50159E-07	1.50159E-07	1.50159E-07	1.50159E-07	1.50159E-07
21015	Point	103000602	sq	External Combustion Boilers	Commercial/Industrial	Natural Gas	10-100 Million BTU/hr	VOC	0.000459932	0.000459932	0.000459932	0.000459932	0.000459932	0.000459932
21015	Point	103000603	sq	External Combustion Boilers	Commercial/Industrial	Natural Gas	< 10 Million BTU/hr	VOC	0.00036338	0.00036338	0.00036338	0.00036338	0.00036338	0.00036338
21015	Point	10301002	sq	External Combustion Boilers	Commercial/Industrial	Liquefied Petroleum Gas (LPG)	Propane	VOC	5.35948E-07	5.35948E-07	5.35948E-07	5.35948E-07	5.35948E-07	5.35948E-07
21015	Point	10500106	sq	External Combustion Engines	Space Heaters	Industrial	Natural Gas	VOC	0.000141861	0.000113588	8.53161E-05	7.5892E-05	7.5892E-05	7.5892E-05
21015	Point	20200101	sq	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine	VOC	0	0	0	0	0	0
21015	Point	20200102	sq	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	VOC	0.00030035	0.000256714	0.000213077	0.000198531	0.000198531	0.000198531
21015	Point	20200107	sq	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Exhaust	VOC	1.67929E-05	1.67929E-05	1.67929E-05	1.67929E-05	1.67929E-05	1.67929E-05
21015	Point	20200253	sq	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Rich Burn	VOC	2.378E-05	2.30462E-05	2.23124E-05	2.20578E-05	2.20578E-05	2.20578E-05
21015	Point	20200254	sq	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Lean Burn	VOC	3.01708E-06	2.92398E-06	2.83088E-06	2.79985E-06	2.79985E-06	2.79985E-06

Facility Id	Data Category	sco	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Pollutant	2011 tpsd	2014 tpsd	2017 tpsd	2020 tpsd	2025 tpsd	2050 tpsd
21015	Point	20200401	Internal Combustion Engines	Industrial	Large Bore Engine	Diesel	VOC	3.99167E-05	3.99167E-05	3.99167E-05	3.99167E-05	3.99167E-05	3.99167E-05
21015	Point	20201001	Internal Combustion Engines	Industrial	Liquidified Petroleum Gas (LPG)	Propane: Reciprocating	VOC	5.06838E-05	5.06838E-05	5.06838E-05	5.06838E-05	5.06838E-05	5.06838E-05
21015	Point	20300101	Internal Combustion Engines	Commercial/Industrial	Distillate Oil (Diesel)	Reciprocating	VOC	0.000273826	0.000227281	0.000211765	0.000211765	0.000211765	0.000211765
21015	Point	2165008005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Airport Ground Support Equipment	Airport Ground Support Equipment	VOC	0.0009075589	0.00092613	0.01011458	0.012093019	0.012093019	0.014071459
21015	Point	2267008005	Mobile Sources	LPG	Airport Ground Support Equipment	Airport Ground Support Equipment	VOC	0.000725555	0.000740402	0.000808618	0.000808618	0.000966786	0.001124953
21015	Point	2168008005	Mobile Sources	CNG	Airport Ground Support Equipment	Airport Ground Support Equipment	VOC	0.000573764	0.000585505	0.00063945	0.00063945	0.000764528	0.000889606
21015	Point	2270008005	Mobile Sources	Off-highway Vehicle Diesel	Airport Ground Support Equipment	Airport Ground Support Equipment	VOC	0.043111976	0.043994163	0.048047515	0.048047515	0.057445741	0.066843965
21015	Point	2275001000	Mobile Sources	Aircraft	Military Aircraft Commercial	Total	VOC	0.000146966	0.000149973	0.000163791	0.000163791	0.000195928	0.000227866
21015	Point	2275020000	Mobile Sources	Aircraft	Aircraft	Total: All Types	VOC	0.317936423	0.324442258	0.354334379	0.354334379	0.423643154	0.492951929
21015	Point	2275050011	Mobile Sources	Aircraft	General Aviation	Piston	VOC	0.000455869	0.000449951	0.000448977	0.000448977	0.000451126	0.000453374
21015	Point	2275050012	Mobile Sources	Aircraft	General Aviation	Turbine	VOC	0.00066825	0.000656391	0.000652718	0.000652718	0.000653418	0.000654119
21015	Point	2275060011	Mobile Sources	Aircraft	Air Taxi	Piston	VOC	0.001902041	0.001636786	0.001453223	0.001453223	0.001215359	0.000977495
21015	Point	2275060012	Mobile Sources	Aircraft	Air Taxi	Turbine	VOC	0.039581107	0.034061207	0.030241282	0.030241282	0.025291386	0.02034149
21015	Point	2275070000	Mobile Sources	Aircraft	Aircraft Auxiliary Power Units	Total	VOC	0.007007837	0.007300627	0.007973262	0.007973262	0.009532853	0.011092445
21015	Point	30101401	Industrial Processes	Chemical Manufacturing	Paint Manufacture	General Milling and Handling	VOC	0.000312813	0.000312813	0.000312813	0.000312813	0.000312813	0.000312813
21015	Point	30101802	Industrial Processes	Chemical Manufacturing	Plastics Production	Polypropylene and Copolymers	VOC	2.9785E-07	2.9785E-07	2.9785E-07	2.9785E-07	2.9785E-07	2.9785E-07
21015	Point	30101822	Industrial Processes	Chemical Manufacturing	Plastics Production	Acrylic Resins	VOC	0.001077451	0.001077451	0.001077451	0.001077451	0.001077451	0.001077451
21015	Point	30101899	Industrial Processes	Chemical Manufacturing	Plastics Production	Others Not Specified	VOC	0.015534334	0.015534334	0.015534334	0.015534334	0.015534334	0.015534334

Region	City	Site	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Position	2011	2014	2017	2020	2025	2050
21015	Point	30102099	Industrial Processes	Chemical Manufacturing	Printing Ink Manufacture	Other Not Classified	VOC	0.018188876	0.018188876	0.018188876	0.018188876	0.018188876	0.018188876
21015	Point	30180002	Industrial Processes	Chemical Manufacturing	General Processes	Pipeline Valves: Gas Stream	VOC	0.00033386	0.00033386	0.00033386	0.00033386	0.00033386	0.00033386
21015	Point	30180003	Industrial Processes	Chemical Manufacturing	General Processes	Pipeline Valves: Light Liquid/Gas Stream	VOC	0.025303012	0.025303012	0.025303012	0.025303012	0.025303012	0.025303012
21015	Point	30180006	Industrial Processes	Chemical Manufacturing	General Processes	Open-ended Valves: All Streams	VOC	0.000354689	0.000354689	0.000354689	0.000354689	0.000354689	0.000354689
21015	Point	30180007	Industrial Processes	Chemical Manufacturing	General Processes	Flanges: All Streams	VOC	0.004292445	0.004292445	0.004292445	0.004292445	0.004292445	0.004292445
21015	Point	30180008	Industrial Processes	Chemical Manufacturing	General Processes	Pump Seals: Light Liquid/Gas Stream	VOC	0.001523063	0.001523063	0.001523063	0.001523063	0.001523063	0.001523063
21015	Point	30183001	Industrial Processes	Chemical Manufacturing	General Processes	Storage/Transfer	VOC	5.63372E-05	5.63372E-05	5.63372E-05	5.63372E-05	5.63372E-05	5.63372E-05
21015	Point	30188801	Industrial Processes	Chemical Manufacturing	Fugitive Emissions	Specify in Comments Field	VOC	0.002589602	0.002589602	0.002589602	0.002589602	0.002589602	0.002589602
21015	Point	30190013	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Incinerators	VOC	0.000506507	0.000506507	0.000506507	0.000506507	0.000506507	0.000506507
21015	Point	30199998	Industrial Processes	Chemical Manufacturing	Other Not Classified	Specify in Comments Field	VOC	0.000123937	0.000123937	0.000123937	0.000123937	0.000123937	0.000123937
21015	Point	30203202	Industrial Processes	Food and Agriculture	Bakeries	Bread Baking: Straight Dough Process	VOC	0.174516966	0.174516966	0.174516966	0.174516966	0.174516966	0.174516966
21015	Point	30288801	Industrial Processes	Food and Agriculture	Fugitive Emissions	Specify in Comments Field	VOC	0.000509237	0.000509237	0.000509237	0.000509237	0.000509237	0.000509237
21015	Point	30290003	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Natural Gas: Process Heaters	VOC	0.000121917	0.000121917	0.000121917	0.000121917	0.000121917	0.000121917
21015	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified	Other Not Classified	VOC	0.017079248	0.017079248	0.017079248	0.017079248	0.017079248	0.017079248
21015	Point	30500205	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Dryer: Drum Mix Plant (see 3-05-002-55 thru -63 for subtypes)	VOC	0.004842851	0.002767344	0.000691835	0	0	0

Region	Local	State Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011, tpyd	2014, tpyd	2017, tpyd	2020, tpyd	2025, tpyd	2030, tpyd
21015	Point	Industrial Processes	30500250	Mineral Products	Asphalt Concrete	Asphalt Concrete	Conventional Continuous Mix (outside of drum) Plant: Rotary Drum Dryer / Mixer, Natural Gas-Fired	VOC	0.011333905	0.011333905	0.011333905	0.011333905	0.011333905	0.011333905
21015	Point	Industrial Processes	30500255	Mineral Products	Asphalt Concrete	Asphalt Concrete	See Comment	VOC	0.006071296	0.006071296	0.006071296	0.006071296	0.006071296	0.006071296
21015	Point	Industrial Processes	30500299	Mineral Products	Asphalt Concrete	Asphalt Concrete	Coal Mining, Cleaning, and Material Handling	VOC	0.00070064	0.00070064	0.00070064	0.00070064	0.00070064	0.00070064
21015	Point	Industrial Processes	30501099	Mineral Products	Stone Quarrying-Processing (See also 305320)	Stone Quarrying-Processing (See also 305320)	Other Not Classified	VOC	0	0	0	0	0	0
21015	Point	Industrial Processes	30502099	Mineral Products	Stone Quarrying-Processing (See also 305320)	Stone Quarrying-Processing (See also 305320)	Not Classified	VOC	0.000389842	0.000222767	5.56917E-05	0	0	0
21015	Point	Industrial Processes	30800720	Miscellaneous Plastics Products	Fiberglass Resin Products	Fiberglass Resin Products	General	VOC	6.15468E-06	6.15468E-06	6.15468E-06	6.15468E-06	6.15468E-06	6.15468E-06
21015	Point	Industrial Processes	30801007	Miscellaneous Plastics Products	Plastic Products Manufacturing	Plastic Products Manufacturing	Molding Machine	VOC	6.31367E-05	6.31367E-05	6.31367E-05	6.31367E-05	6.31367E-05	6.31367E-05
21015	Point	Industrial Processes	30899999	Miscellaneous Plastics Products	Other Not Specified	Other Not Specified	Other Not Classified	VOC	0.013601142	0.013601142	0.013601142	0.013601142	0.013601142	0.013601142
21015	Point	Industrial Processes	39000699	In-process Fuel Use	Natural Gas Liquified	Natural Gas Liquified	General	VOC	0.001579498	0.001579498	0.001579498	0.001579498	0.001579498	0.001579498
21015	Point	Industrial Processes	39001099	In-process Fuel Use	Petroleum Gas	Petroleum Gas	General	VOC	8.24619E-07	8.24619E-07	8.24619E-07	8.24619E-07	8.24619E-07	8.24619E-07
21015	Point	Industrial Processes	39999992	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.00405044	0.00405044	0.00405044	0.00405044	0.00405044	0.00405044
21015	Point	Industrial Processes	39999994	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.268735512	0.268735512	0.268735512	0.268735512	0.268735512	0.268735512
21015	Point	Industrial Processes	39999995	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.380621579	0.380621579	0.380621579	0.380621579	0.380621579	0.380621579
21015	Point	Industrial Processes	39999996	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.015131185	0.015131185	0.015131185	0.015131185	0.015131185	0.015131185

Region/CD	Data Category	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21015	Point	Industrial Processes Petroleum and Solvent Evaporation	Miscellaneous Manufacturing Industries Organic Solvent Evaporation	Miscellaneous Industrial Processes Dry Cleaning	Other Not Classified VOC	0.256167375	0.256167375	0.256167375	0.256167375	0.256167375	0.256167375
21015	Point	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Other Not Classified Trichloroethylene: Open-top Vapor Degreasing	Other Not Classified VOC	0.02079175	0.02079175	0.02079175	0.02079175	0.02079175	0.02079175
21015	Point	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	VOC	0	0	0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	VOC	0.00050409	0.00050409	0.00050409	0.00050409	0.00050409	0.00050409
21015	Point	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fugitive Emissions Surface Coating Application - General	VOC	0.004338804	0.004338804	0.004338804	0.004338804	0.004338804	0.004338804
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Surface Coating Application - General	VOC	0.049770921	0.028411955	0.007102989	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Surface Coating Application - General	VOC	0.00631305	0.00631305	0.00631305	0.00631305	0.00631305	0.00631305
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	VOC	0.000841564	0.000841564	0.000841564	0.000841564	0.000841564	0.000841564
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Steel Drums	VOC	0.010297181	0.010297181	0.010297181	0.010297181	0.010297181	0.010297181
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Steel Drums	VOC	0.098971133	0.098971133	0.098971133	0.098971133	0.098971133	0.098971133
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Steel Drums	VOC	0.093473584	0.093473584	0.093473584	0.093473584	0.093473584	0.093473584
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	VOC	0	0	0	0	0	0
21015	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	VOC	0.02489915	0.021358814	0.017818478	0.016638366	0.016638366	0.016638366
21015	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	VOC	8.98693E-06	8.98693E-06	8.98693E-06	8.98693E-06	8.98693E-06	8.98693E-06
21015	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	VOC	1.96313E-06	1.96313E-06	1.96313E-06	1.96313E-06	1.96313E-06	1.96313E-06

Region Code	Data Category	msn	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Polutant	2011 tpeid	2014 tpeid	2017 tpeid	2020 tpeid	2025 tpeid	2050 tpeid
21015	Point	40301099	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Specify Liquid: Working Loss (Tank Diameter Independent)	VOC	8.39171E-09	8.39171E-09	8.39171E-09	8.39171E-09	8.39171E-09	8.39171E-09
21015	Point	40399999	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment	VOC	0.000114694	0.000114694	0.000114694	0.000114694	0.000114694	0.000114694
21015	Point	40400251	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Valves, Flanges, and Pumps	VOC	2.64856E-05	2.59782E-05	2.54708E-05	2.44229E-05	2.22258E-05	2.00287E-05
21015	Point	40400402	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Gasoline RVP #1: Working Loss	VOC	0.000792301	0.000782301	0.000769315	0.000738415	0.000671987	0.000605559
21015	Point	40400414	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Working Loss	VOC	0.001059145	0.001059145	0.001059145	0.001059145	0.001059145	0.001059145
21015	Point	40400498	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Specify Liquid: Working Loss	VOC	4.44271E-07	4.44271E-07	4.44271E-07	4.44271E-07	4.44271E-07	4.44271E-07
21015	Point	40500301	Petroleum and Solvent Evaporation	Printing/Publishing	Flexographic	Printing	VOC	0.072869969	0.072869969	0.072869969	0.072869969	0.072869969	0.072869969
21015	Point	40500314	Petroleum and Solvent Evaporation	Printing/Publishing	Flexographic	Propyl Alcohol Cleanup	VOC	0.00254945	0.00254945	0.00254945	0.00254945	0.00254945	0.00254945
21015	Point	40500401	Petroleum and Solvent Evaporation	Printing/Publishing	Lithographic	Printing	VOC	0.000405655	0.000405655	0.000405655	0.000405655	0.000405655	0.000405655
21015	Point	40500418	Petroleum and Solvent Evaporation	Printing/Publishing	Offset Lithography	Dampening Solution with Isopropyl Alcohol	VOC	0.000531046	0.000531046	0.000531046	0.000531046	0.000531046	0.000531046
21015	Point	40500431	Petroleum and Solvent Evaporation	Printing/Publishing	Offset Lithography	Nonheated Lithographic Inks	VOC	0.000717939	0.000717939	0.000717939	0.000717939	0.000717939	0.000717939
21015	Point	40500597	Petroleum and Solvent Evaporation	Printing/Publishing	General	Other Not Classified	VOC	0.085933668	0.085933668	0.085933668	0.085933668	0.085933668	0.085933668
21015	Point	40600136	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Splash Loading (Normal Service)	VOC	0.000304045	0.000299081	0.000294116	0.000282303	0.000256907	0.000231511

Region ID	Delta Category	SCC	SCC Level Opns	SCC Level (TVO)	SCC Level (T/Trns)	SCC Level (Folr)	Population	2014 tpsid	2017 tpsid	2020 tpsid	2025 tpsid	2050 tpsid
21015	Point	40600139	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Kerosene: Splash Loading (Normal Service)	VOC	0	0	0	0	0
21015	Point	40600140	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Distillate Oil: Splash Loading (Normal Service)	VOC	5.1062E-06	5.1062E-06	5.1062E-06	5.1062E-06	5.1062E-06
21015	Point	40600301	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	VOC	0.025470746	0.025047942	0.02404188	0.021879062	0.019716244
21015	Point	40600307	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	VOC	0.082097587	0.080734798	0.077492048	0.070520831	0.063549613
21015	Point	40600399	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Not Classified **	VOC	0.001035922	0.001018726	0.000977809	0.000889845	0.000801881
21015	Point	40600401	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	VOC	0.185143665	0.182070351	0.174757412	0.159036161	0.14331491
21015	Point	40600402	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	VOC	0.055226573	0.055226573	0.055226573	0.055226573	0.055226573
21015	Point	40704401	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Esters	Butyl Acetate: Breathing Loss	VOC	0	0	0	0	0
21015	Point	40704404	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Esters	Butyl Acrylate: Working Loss	VOC	3.66204E-05	3.66204E-05	3.66204E-05	3.66204E-05	3.66204E-05
21015	Point	40704417	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Esters	Methyl Methacrylate: Breathing Loss	VOC	6.35866E-07	6.35866E-07	6.35866E-07	6.35866E-07	6.35866E-07
21015	Point	40704418	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Esters	Methyl Methacrylate: Working Loss	VOC	0.002211245	0.002211245	0.002211245	0.002211245	0.002211245
21015	Point	40714698	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Miscellaneous	Specify in Comments: Working Loss	VOC	9.48145E-06	5.48247E-06	4.14948E-06	4.14948E-06	4.14948E-06

Region Cd	Data Category	acc	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2030 tpyd
21015	Point	42500301	Petroleum and Solvent Evaporation			Fixed Roof Tanks (1,000 Bbl Size) Breathing Loss	VOC	0	0	0	0	0	0
21015	Point	49000199	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Solvent Extraction Process	Other Not Classified	VOC	0.000245098	0.000245098	0.000245098	0.000245098	0.000245098	0.000245098
21015	Point	50282599	Waste Disposal	Disposal - Commercial/Industrial Waste	Wastewater, Commercial/Industrial Points of Generation	Specify Point of Generation	VOC	0.003994597	0.003994597	0.003994597	0.003994597	0.003994597	0.003994597
21015	Point	50300601	Waste Disposal	Disposal - Industrial	Landfill Dump	Waste Gas Flares	VOC	0	0	0	0	0	0
21015	Point					TOTAL	VOC	2.462298	2.462298	2.491961	2.442841	2.495179	2.547517

Campbell County

Region	City	EGU	EGU ID	SCC Level	SCC Level (Type)	SCC Level (Fuel)	SCC Level (Emission)	2011 Total	2017 Total	2020 Total	2025 Total	2030 Total	
21037	EGU	Nonpoint	20100102	Internal	Electric Generation	Distillate Oil (Diesel)	Reciprocating	NOx	0	4.08497E-06	4.08497E-06	4.08497E-06	4.08497E-06
21037	EGU	Nonpoint	2104001000	Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types	NOx	0.0000000	0.0000004	0.0000004	0.0000004	0.0000004
21037	EGU	Nonpoint	2104002000	Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types	NOx	3.56404E-08	0.004152041	0.004152041	0.004152041	0.004152041
21037	EGU	Nonpoint	2104004000	Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types	NOx	0.005179452	0.000228288	0.000228288	0.000228288	0.000228288
21037	EGU	Nonpoint	2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	NOx	0.076167714	9.24621E-06	9.24621E-06	9.24621E-06	9.24621E-06
21037	EGU	Nonpoint	2104007000	Stationary Source Fuel Combustion	Residential	Petroleum Gas (LPG)	Total: All Combustor Types	NOx	0.027895153	2.58894E-07	2.58894E-07	2.58894E-07	2.58894E-07
21037	EGU	Nonpoint	2104008100	Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general	NOx	0.009277587	0	0	0	0
21037	EGU	Nonpoint	2104008210	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; non-EPA certified	NOx	0.004583524	0	0	0	0
21037	EGU	Nonpoint	2104008220	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; non-catalytic	NOx	0.001191751	0	0	0	0
21037	EGU	Nonpoint	2104008230	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	NOx	0.000349853	0	0	0	0
21037	EGU	Nonpoint	2104008310	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, non-EPA certified	NOx	0.00366092	0.038294718	0.038294718	0.038294718	0.038294718
21037	EGU	Nonpoint	2104008320	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	NOx	0.000954352	0.002110295	0.002110295	0.002110295	0.002110295
21037	EGU	Nonpoint	2104008330	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	NOx	0.00027905	0.002567888	0.002567888	0.002567888	0.002567888

Region Code	State Category	SCD Level Code	SCD Level Desc	SCD Level (N/A)	SCD Level (F/Res)	SCD Level (Fork)	SCD Level (Fork)	2013 (tbl)	2014 (tbl)	2017 (tbl)	2020 (tbl)	2025 (tbl)	2050 (tbl)
21037	Nonpoint	2104008400	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: pellet-fired, general (freestanding or FP insert)	NOx	0.000465686	0.00041234	0.00041234	0.00041234	0.00041234	0.00041234
21037	Nonpoint	2104008510	Stationary Source Fuel Combustion	Residential	Wood	Furnace: indoor, cordwood-fired, non-EPA certified	NOx	0.000815438	0	0	0	0	0
21037	Nonpoint	2104008610	Stationary Source Fuel Combustion	Residential	Wood	Hydronic heater: outdoor	NOx	0	0	0	0	0	0
21037	Nonpoint	2104008700	Stationary Source Fuel Combustion	Residential	Wood	Outdoor wood burning device, NEC (fire-pits, chimneys, etc)	NOx	0.000160582	0	0	0	0	0
21037	Nonpoint	2104009000	Stationary Source Fuel Combustion	Residential	Firelog	Total: All Combustor Types	NOx	0.001485112	0	0	0	0	0
21037	Nonpoint	2104011000	Stationary Source Fuel Combustion	Residential	Kerosene	Total: All Heater Types	NOx	0.004375041	0.004156974	0.004156974	0.004156974	0.004156974	0.004156974
21037	Nonpoint	2285002006	Mobile Sources	Railroad Equipment	Diesel	Line Haul Locomotives: Class 1 Operations	NOx	0.607826129	0.000289151	0.000239171	0.000222844	0.000222844	0.000222844
21037	Nonpoint	2302002100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Conveyorized Charbroiling	NOx	0.000479477	0.000479477	0.000479477	0.000479477	0.000479477	0.000479477
21037	Nonpoint	2302002200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Under-fired Charbroiling	NOx	1.39134E-05	1.39134E-05	1.39134E-05	1.39134E-05	1.39134E-05	1.39134E-05
21037	Nonpoint	2302003000	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Deep Fat Frying	NOx	0.001181389	0.001181389	0.001181389	0.001181389	0.001181389	0.001181389
21037	Nonpoint	2302003100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Flat Griddle Frying	NOx	6.59152E-05	5.47108E-05	5.0976E-05	5.0976E-05	5.0976E-05	5.0976E-05
21037	Nonpoint	2302003200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Clamshell Griddle Frying	NOx	6.15296E-06	6.12648E-06	6.11765E-06	6.11765E-06	6.11765E-06	6.11765E-06
21037	Nonpoint	2310000220	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Drill Rigs	NOx	8.02062E-08	7.76525E-08	7.68012E-08	7.68012E-08	7.68012E-08	7.68012E-08

Region Code	Data Category	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Problem	2013 Input	2014 Input	2017 Input	2020 Input	2025 Input	2030 Input
21037	Nonpoint	2310000330	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Artificial Lift	NOx	0	3.56404E-08	3.56404E-08	3.56404E-08	3.56404E-08
21037	Nonpoint	2310000550	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Produced Water	NOx		1.18801E-07	1.18801E-07	1.18801E-07	1.18801E-07
21037	Nonpoint	2310000660	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	NOx	0	5.39463E-05	5.39463E-05	5.39463E-05	5.39463E-05
21037	Nonpoint	2310010100	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	NOx	0	5.9282E-05	5.9282E-05	5.9282E-05	5.9282E-05
21037	Nonpoint	2310010200	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flushing & Standing/Working/Breathing	NOx	0	0.005179452	0.005179452	0.005179452	0.005179452
21037	Nonpoint	2310010300	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	NOx	0.000201423	0.000201423	0.000201423	0.000201423	0.000201423
21037	Nonpoint	2310011000	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	NOx	0	0.076167714	0.076167714	0.076167714	0.076167714
21037	Nonpoint	2310011201	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Tank Truck/Railcar Loading: Crude Oil	NOx	0.004456623	0.004456623	0.004456623	0.004456623	0.004456623
21037	Nonpoint	2310011501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	NOx	0.027895153	0.027895153	0.027895153	0.027895153	0.027895153
21037	Nonpoint	2310011502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	NOx	0.001022775	0.001022775	0.001022775	0.001022775	0.001022775
21037	Nonpoint	2310011503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	NOx	0.009563867	0.009850147	0.01014968	0.010659948	0.011170215
21037	Nonpoint	2310011505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	NOx	0.069521938	0.071602971	0.073780349	0.077489599	0.081198849
21037	Nonpoint	2310021010	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate	NOx	0	0.004381194	0.004378864	0.00395821	0.003575149

Region/CD	Data Category	No.	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year	SO2 Lbs/Year
21037	Nonpoint	2310021030	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Tank Truck/Railcar Loading: Condensate	NOx		0.082929718	0.079099904	0.074923053	0.067672435	0.060421817				
21037	Nonpoint	2310021100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	NOx	0	0.001284197	0.001375643	0.001478282	0.001655342	0.001833402				
21037	Nonpoint	2310021202	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	NOx	0	0.006758944	0.007245501	0.007780446	0.008123444	0.009644241				
21037	Nonpoint	2310021251	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	NOx	0	0.000376992	0.000404113	0.000433968	0.000485946	0.000537924				
21037	Nonpoint	2310021300	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	NOx		0.002827442	0.003030982	0.003254764	0.003644601	0.004034439				
21037	Nonpoint	2310021362	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	NOx	0	0.003629541	0.003998162	0.004356645	0.004803501	0.005344337				
21037	Nonpoint	2310021351	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	NOx	0	0.068702058	0.068308092	0.06745473	0.066316295	0.06517786				
21037	Nonpoint	2310021400	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	NOx	0	0.001028382	0.001102413	0.001183805	0.001325595	0.001467384				
21037	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	NOx		0.005412537	0.005802171	0.006230552	0.006976812	0.007723072				
21037	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	NOx		0.000300696	0.000322342	0.000346141	0.0003876	0.000429059				
21037	Nonpoint	2310021503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	NOx		0.00225223	0.002417571	0.002596063	0.002907005	0.003217946				
21037	Nonpoint	2310021505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	NOx		0.000594415	0.000723144	0.000864513	0.001110662	0.00135683				

Region Code	Data Category	Site	SCQ Level Code	SCQ Level Desc	SCQ Level Type	SCQ Level Area	SCQ Level Point	Priority	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21037	Nonpoint	2310021506	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Other	NOx		6.41343E-05	7.80235E-06	9.32764E-06	1.19835E-05	1.46393E-05	
21037	Nonpoint	2310021603	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Venting - Blowdowns	NOx	0	0.000851434	0.00086743	0.000948821	0.001072302	0.001195782	
21037	Nonpoint	2310111100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Mud Degassing	NOx		0.005456329	0.005687004	0.006080421	0.006871734	0.007663048	
21037	Nonpoint	2310111401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Oil Well Pneumatic Pumps	NOx	0	0	0	0	0	0	
21037	Nonpoint	2310121100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Mud Degassing	NOx	0	0	0	0	0	0	
21037	Nonpoint	2310121401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Pneumatic Pumps	NOx		0.000165537	0.000170492	0.000175676	0.000184508	0.000193334	
21037	Nonpoint	2310121700	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Completion: All Processes	NOx	0	0.001203324	0.001239343	0.00127703	0.001341232	0.001405434	
21037	Nonpoint	2401001000	Solvent Utilization	Surface Coating	Architectural Coatings	Total: All Solvent Types	NOx		0.001530938	0.001576764	0.001624712	0.001706393	0.001788074	
21037	Nonpoint	2401005000	Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	Total: All Solvent Types	NOx		0.007881818	0.008117748	0.008364601	0.008785125	0.009205649	
21037	Nonpoint	2401008000	Solvent Utilization	Surface Coating	Traffic Markings	Total: All Solvent Types	NOx		0.004375041	0.004375041	0.004375041	0.004375041	0.004375041	
21037	Nonpoint	2401015000	Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2426 thru 242	Total: All Solvent Types	NOx		0.00017014	0.00017014	0.00017014	0.00017014	0.00017014	
21037	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Motor Vehicles: SIC 371	Total: All Solvent Types	NOx		5.93712E-05	5.98515E-05	6.03319E-05	6.11326E-05	6.19332E-05	
21037	Nonpoint	2401090000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing	Total: All Solvent Types	NOx		0.002432801	0.00244607	0.002464528	0.002499619	0.002534709	
21037	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Industrial Maintenance Coatings	Total: All Solvent Types	NOx		3.96574E-06	3.99783E-06	4.02991E-06	4.08339E-06	4.13687E-06	
21037	Nonpoint	2401200000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	Total: All Solvent Types	NOx		8.77302E-05	8.80647E-05	8.8734E-05	9.01286E-05	9.15232E-05	
21037	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/All Industries	Total: All Solvent Types	NOx		4.74833E-06	4.78674E-06	4.82516E-06	4.8892E-06	4.95323E-06	

Region Loc	Dept Category	SCO	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	Products	2001	2004	2007	2010	2015	2019
21037	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	Total: All Solvent Types	NOx		0.00010457	0.000105082	0.000105907	0.000107544	0.000109318
21037	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	NOx		3.34046E-08	3.36749E-08	3.39451E-08	3.43956E-08	3.4846E-08
21037	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	NOx		8.6263E-07	8.6882E-07	8.75799E-07	8.88088E-07	9.00378E-07
21037	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	NOx		0.000156062	0.000157324	0.000158587	0.000160691	0.000162796
21037	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	NOx		0.00620006	0.006247939	0.00629836	0.006384515	0.006470669
21037	Nonpoint	2460600000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	NOx		9.34104E-07	9.41663E-07	9.4922E-07	9.61816E-07	9.74411E-07
21037	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	NOx		2.12706E-05	2.13851E-05	2.15468E-05	2.18556E-05	2.21645E-05
21037	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	NOx		7.83306E-07	5.26738E-07	3.15154E-07		0
21037	Nonpoint	2461021000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Cutback Asphalt	Total: All Solvent Types	NOx		1.92162E-05	1.29074E-05	7.71749E-06		0
21037	Nonpoint	2461022000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	NOx		6.20553E-08	4.17293E-08	2.49671E-08		0

Region Code	Data Category	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Profile	2015 Total	2017 Total	2020 Total	2025 Total	2050 Total	
21037	Nonpoint	2461850000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	NOx	1.46888E-06	9.87037E-07	5.90302E-07		
21037	Nonpoint	2501011011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Permeation	NOx	2.7279E-05	2.89422E-05	3.04238E-05	3.27417E-05	3.50595E-05
21037	Nonpoint	2501011012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Evaporation (includes Diurnal losses)	NOx	0.000763796	0.000729711	0.000729711	0.000786742	0.000843774
21037	Nonpoint	2501011014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Refilling at the Pump - Vapor Displacement	NOx	4.33188E-05	4.55882E-05	4.78014E-05	5.14432E-05	5.50851E-05
21037	Nonpoint	2501012011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Permeation	NOx	0.000970716	0.001006698	0.001051038	0.001131902	0.001212767
21037	Nonpoint	2501012012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Evaporation (includes Diurnal losses)	NOx	0.000377915	0.000397635	0.000416914	0.000448678	0.000480442
21037	Nonpoint	2501012014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	NOx	0.012494885	0.013038396	0.013664187	0.014775739	0.01588729
21037	Nonpoint	2501050120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative Losses	Gasoline	NOx	0.000480636	0.00050488	0.000529084	0.000569394	0.000609703
21037	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Plants: All Evaporative Losses	Gasoline	NOx	0.021928887	0.023034537	0.024141099	0.025986129	0.027831159
21037	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service Stations	Stage 1: Submerged Filling	NOx	0.000529868	0.000557471	0.000584485	0.000629015	0.000673546

Agency Code	Data Category	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	SCC Level Five	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21037	Nonpoint	2501060052	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Splash Filling	NOx		0.014820109	0.014525104	0.014920706	0.016155545	0.017390385
21037	Nonpoint	2501060053	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Balanced Submerged Filling	NOx		0.000421921	0.000443202	0.000464445	0.000499836	0.000535221
21037	Nonpoint	2501060201	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Underground Tank: Breathing and Emptying	NOx		0.011223998	0.01175884	0.01231605	0.013263374	0.014210599
21037	Nonpoint	2501080050	Petroleum and Petroleum Product Storage	Airports: Aviation Gasoline	Stage 1: Total	NOx		0.000333874	0.000356365	0.000373627	0.000402093	0.000430559
21037	Nonpoint	2501080100	Petroleum and Petroleum Product Storage	Airports: Aviation Gasoline	Stage 2: Total	NOx		0.009475511	0.009060613	0.009274772	0.010155917	0.011037063
21037	Nonpoint	2505030120	Petroleum and Petroleum Product Transport	Truck	Gasoline	NOx		0.000391152	0.000410882	0.000430588	0.000463385	0.00049619
21037	Nonpoint	2505040120	Petroleum and Petroleum Product Transport	Pipeline	Gasoline	NOx		0.011116603	0.011659957	0.012217367	0.013158097	0.014098827
21037	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Public Owned	Total Processed	NOx		0.000121884	0.000128032	0.00013417	0.000144392	0.000154615
21037	Nonpoint	2801500000	Miscellaneous Area Sources	Agriculture	Unspecified Burning - whole crop type and field set on fire	NOx	5.42754E-05	0.015163554	0.01543276	0.016026561	0.017286726	0.018546891
21037	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Humans	NOx	0.000902549	9.26003E-05	9.72708E-05	0.000101934	0.000109701	0.000117467
21037	Nonpoint	2260002006	Mobile Sources	Construction and Mining Equipment	Tampers/Rammers	NOx	5.88908E-05	0.010682703	0.011199525	0.011730433	0.012627017	0.013523601
21037	Nonpoint		Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Tampers/Rammers	NOx		0.5599018	0.562126	0.566948	0.574981	0.583622

Region	City	State	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Position	2011 Ipead	2014 Ipead	2017 Ipead	2020 Ipead	2025 Ipead	2030 Ipead	
21037	Nonroad		2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Plate Compactors	NOx	3.93365E-06	1.72556E-07	1.81259E-07	1.89949E-07	2.04421E-07	2.18893E-07
21037	Nonroad		2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Paving Equipment	NOx	4.70991E-05	3.45391E-06	3.62409E-06	3.79852E-06	4.09277E-06	4.38702E-06
21037	Nonroad		2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	3.31343E-08	2.12531E-06	2.21251E-06	2.2997E-06	2.44503E-06	2.59036E-06
21037	Nonroad		2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.000154799	4.3864E-05	4.50299E-05	4.67377E-05	5.00355E-05	5.33333E-05
21037	Nonroad		2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	9.26546E-07	3.13456E-05	3.35569E-05	3.57703E-05	3.94611E-05	4.31519E-05
21037	Nonroad		2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	1.03987E-06	0.000852266	0.000908599	0.000968237	0.001070421	0.00117606
21037	Nonroad		2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	8.23813E-08	0.000213705	0.000228672	0.000243693	0.000268774	0.000293856
21037	Nonroad		2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	2.56159E-05	0.006013752	0.006393467	0.00679596	0.007489261	0.008181503
21037	Nonroad		2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	4.10493E-05	7.82113E-08	8.37287E-08	8.92515E-08	9.84604E-08	1.07669E-07
21037	Nonroad		2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	NOx	0.000358195	2.16E-06	2.31079E-06	2.46345E-06	2.71946E-06	2.97548E-06
21037	Nonroad		2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	NOx	0.000456392	1.04542E-06	1.11917E-06	1.19299E-06	1.31608E-06	1.43918E-06
21037	Nonroad		2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	NOx	0.000502264	3.03903E-05	3.25062E-05	3.46452E-05	3.82295E-05	4.18139E-05
21037	Nonroad		2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	NOx	0.000400639	2.12988E-06	2.29458E-06	2.45928E-06	2.73379E-06	3.00829E-06

Region Id	Data Category	SCD Level One	SCD Level (NW)	SCD Level (Thru)	SCD Level (Foli)	Pollutant	2015 (t/yr)	2016 (t/yr)	2017 (t/yr)	2018 (t/yr)	2019 (t/yr)	2020 (t/yr)	2025 (t/yr)	2050 (t/yr)
21037	Nonroad	2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	NOx	0.000321114	9.6824E-05	0.000104309	0.000111806	0.000124311	0.000136816	0.000136816
21037	Nonroad	2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	0.000371423	0.002104574	0.001913173	0.001868012	0.001914611	0.001961211	0.001961211
21037	Nonroad	2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	0.000115737	0.005896244	0.005555593	0.005522597	0.005722859	0.005923121	0.005923121
21037	Nonroad	2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	8.79297E-05	8.1469E-05	6.00245E-05	5.3893E-05	4.94345E-05	4.69761E-05	4.69761E-05
21037	Nonroad	2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	1.63852E-07	0.00015342	0.000128522	0.000120377	0.000120765	0.000120765	0.000121154
21037	Nonroad	2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Sprayers	NOx	2.03811E-06	5.60589E-07	4.18599E-07	3.68366E-07	3.63108E-07	3.53851E-07	3.53851E-07
21037	Nonroad	2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Generator Sets	NOx	2.91342E-05	1.41174E-06	1.19468E-06	1.12409E-06	1.12851E-06	1.13292E-06	1.13292E-06
21037	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Pumps	NOx	0.000198738	0.000132709	0.000104042	9.4369E-05	9.40764E-05	9.37839E-05	9.37839E-05
21037	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Air Compressors	NOx	7.26939E-08	0.000484101	0.000348371	0.000304776	0.000308899	0.000313022	0.000313022
21037	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Hydro-power Units	NOx	9.7167E-07	0.000123539	9.76067E-05	8.89603E-05	8.89548E-05	8.89494E-05	8.89494E-05
21037	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Chain Saws : 6 HP	NOx	1.96518E-06	0.000253236	0.000222426	0.000213506	0.000216915	0.000220325	0.000220325
21037	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Golf Carts	NOx	0.002295976	0.000269978	0.000205816	0.000181661	0.000174745	0.000167828	0.000167828
21037	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Pavers	NOx	0.000102913	0.000759348	0.00059196	0.000536814	0.000538437	0.000540061	0.000540061

Region Code	District Code	Year	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Position	2011 Emissions	2014 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2030 Emissions
21037	Nonroad	2265002006	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Tampers/Rammers	NOx	7.02578E-07	0.000105	8.31831E-05	7.58855E-05	7.58224E-05	7.57592E-05
21037	Nonroad	2265002009	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Plate Compactors	NOx	0.000161376	0.000295691	0.00023818	0.000220504	0.000224238	0.000227972
21037	Nonroad	2265002015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Rollers	NOx	0.000149472	5.36543E-06	4.3063E-06	3.96107E-06	3.98059E-06	4.00012E-06
21037	Nonroad	2265002021	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Paving Equipment	NOx	0.000334141	1.66971E-05	1.25013E-05	1.11817E-05	1.13791E-05	1.15765E-05
21037	Nonroad	2265002024	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Surfacing Equipment	NOx	0.000126817	0.000255026	0.000188493	0.000163139	0.0001552	0.00014726
21037	Nonroad	2265002027	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	6.42456E-06	0.000546019	0.00042704	0.000388146	0.000390052	0.000391956
21037	Nonroad	2265002030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Trenchers	NOx	0.000323559	0.000116298	9.53658E-05	8.29982E-05	6.95228E-05	5.60474E-05
21037	Nonroad	2265002033	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Bore/Drill Rigs	NOx	0.00013723	0.000291263	0.00020074	0.000158659	0.000163891	0.000159123
21037	Nonroad	2265002039	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.000453358	0.000402272	0.000351187	0.000334832	0.000336517	0.000338201
21037	Nonroad	2265002042	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Cement and Mortar Mixers	NOx	0.000308038	0.000953934	0.000886544	0.000869663	0.000883621	0.00089758
21037	Nonroad	2265002045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Cranes	NOx	5.8868E-05	0.000252809	0.000197579	0.000171741	0.000153172	0.000134602
21037	Nonroad	2265002054	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	4.1548E-05	0.000903809	0.000683922	0.000598585	0.000568483	0.000538381
21037	Nonroad	2265002057	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	7.95936E-05	4.50502E-05	3.12324E-05	2.29853E-05	1.38824E-05	4.7795E-06

Region	Local Category	Local Code	Local Description	Local Type	Local Power	Local Pollutant	2013 Tread	2014 Tread	2017 Tread	2020 Tread	2025 Tread	2030 Tread
21037	Nonroad	2265002060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rubber Tire Loaders	NOx	2.97117E-05	2.14967E-05	1.6748E-05	1.172E-05	6.696E-06
21037	Nonroad	2265002066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	3.36763E-05	2.58046E-05	2.27045E-05	2.15141E-05	2.03237E-05
21037	Nonroad	2265002072	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Skid Steer Loaders	NOx	7.74635E-05	6.22885E-05	5.73951E-05	5.78075E-05	5.82198E-05
21037	Nonroad	2265002078	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Dumpers/Tenders	NOx	5.68362E-05	3.40787E-05	2.36731E-05	1.66237E-05	9.5747E-06
21037	Nonroad	2265002081	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Other Construction Equipment	NOx	3.13879E-05	1.87217E-05	1.29884E-05	9.21045E-06	5.4325E-06
21037	Nonroad	2265003010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Aerial Lifts	NOx	9.32318E-05	5.57066E-05	4.19533E-05	3.8841E-05	3.57288E-05
21037	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	NOx	4.84828E-05	2.8219E-05	2.0948E-05	1.96569E-05	1.83658E-05
21037	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	0.000147467	0.000116546	0.000106428	0.0001069	0.000107372
21037	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	0.000326059	0.000285761	0.000275508	0.000280124	0.00028474
21037	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	NOx	0.000195338	0.000139995	0.00010937	7.89279E-05	4.84857E-05
21037	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC/Refrigeration	NOx	0.000196539	0.000154554	0.000134247	0.000118468	0.000102888
21037	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	NOx	4.2964E-05	3.40793E-05	2.9348E-05	2.49257E-05	2.05033E-05
21037	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	NOx	0.000135	0.000107976	9.55861E-05	8.74803E-05	7.92745E-05

Region	City	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Prohibitions	2011 speed	2014 speed	2017 speed	2020 speed	2025 speed	2030 speed	
21037	Nonroad	2265004011	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	NOx	0.001679217	7.34113E-05	5.35958E-05	3.98643E-05	2.20485E-05	4.23264E-06
21037	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	0.00061066	4.10147E-05	3.00715E-05	2.24131E-05	1.23866E-05	2.36004E-06
21037	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	0.000907705	0.000447862	0.000277597	0.000173628	5.5592E-05	8.37751E-06
21037	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edger s/Brush Cutters (Residential)	NOx	3.81478E-05	0.000325733	0.000199575	0.000122928	3.64398E-05	1.84458E-06
21037	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edger s/Brush Cutters (Commercial)	NOx	4.03247E-05	0.000846014	0.000341426	0.000132085	2.92205E-05	8.64761E-06
21037	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Va cuums (Residential)	NOx	7.27973E-05	0.000433061	0.000172348	6.53069E-05	1.49651E-05	4.89672E-06
21037	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Va cuums (Commercial)	NOx	0.001171913	0.000121066	5.83823E-05	2.78992E-05	3.71772E-06	3.71772E-06
21037	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	0.000823092	0.000156011	8.16036E-05	4.15473E-05	3.41248E-06	3.41248E-06
21037	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.000625324	0.000200362	0.000105115	5.31004E-05	2.43765E-06	2.43765E-06
21037	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	NOx	0.001566658	0.000697635	0.000338714	0.000157775	4.52811E-06	4.52811E-06
21037	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	NOx	0.000205889	2.7E-05	1.47459E-05	8.20475E-06	2.06398E-06	8.35824E-07
21037	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.000277477	2.12896E-05	1.18741E-05	6.65503E-06	1.45348E-06	4.13165E-07
21037	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	NOx	0.00010712	5.96263E-06	3.02243E-06	1.49996E-06	1.4395E-07	1.4395E-07

Region_Cd	Data_Catgory	scn	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 Issd	2014 Issd	2017 Issd	2020 Issd	2025 Issd	2030 Issd
21037	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	NOx	0.02102618	1.41905E-05	7.8303E-06	4.19904E-06	4.21026E-07	4.21026E-07
21037	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	NOx	0.002798011	2.63441E-05	1.45139E-05	7.92376E-06	1.30699E-06	1.30699E-06
21037	Nonroad	2265004066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	NOx	0.000507944	1.26769E-05	6.98762E-06	3.82441E-06	6.57474E-07	2.40867E-08
21037	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.008416846	0.006134132	0.005004019	0.004671864	0.004783239	0.004894614
21037	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	NOx	0.000756059	0.053628365	0.038078026	0.033196927	0.033952795	0.034708663
21037	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	NOx	0.000308704	0.001458796	0.001238375	0.001195213	0.001270994	0.001346775
21037	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	NOx	7.60503E-06	0.008917488	0.006924126	0.006459449	0.006958893	0.007458338
21037	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	NOx	4.67571E-05	0.000515085	0.000419509	0.000391445	0.000400929	0.000410412
21037	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	NOx	6.08818E-07	0.004578129	0.003300154	0.002904899	0.002981742	0.003058585
21037	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	NOx	7.02276E-05	0.000772298	0.000636891	0.000604122	0.00063504	0.000665957
21037	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	NOx	7.11395E-06	0.00530487	0.004064629	0.003737123	0.003951894	0.004166664
21037	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	NOx	0.000121898	3.24563E-05	2.67699E-05	2.54076E-05	2.67409E-05	2.80741E-05
21037	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Timers : 6 HP	NOx	0.000162375	0.000300336	0.000238675	0.000224674	0.000241055	0.000257436

Region ID	Data Category	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four (Pollutant)	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	NOx	0.000111311	3.44801E-05	2.86355E-05	2.73777E-05	2.91035E-05	3.08293E-05
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	NOx	0.000133647	0.000198875	0.000174837	0.000172121	0.000185364	0.000198607
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	NOx	4.95848E-05	6.19262E-05	5.10551E-05	4.84567E-05	5.10199E-05	5.35832E-05
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.011015459	0.000491477	0.000336159	0.000294506	0.000319805	0.000345103
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.002859602	0.001738141	0.001304369	0.001160456	0.001162152	0.001163647
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.00162873	0.004408596	0.00405815	0.004049885	0.004321261	0.004592636
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.003144295	0.000866815	0.000910537	0.000958654	0.00104251	0.001126366
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.004522326	0.005978931	0.005397505	0.005400108	0.005891138	0.006382168
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	NOx	0.000166952	0.000658541	0.000691758	0.000728314	0.000792021	0.000855728
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	NOx	9.02678E-06	0.002901652	0.003004362	0.003137883	0.003386092	0.003634301
21037	Nonroad	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	NOx	8.14751E-08	0.001293129	0.0010196	0.000929753	0.000933077	0.0009364
21037	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	NOx	2.80808E-05	0.005638406	0.004681491	0.004480889	0.004776816	0.005072742
21037	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	NOx	2.67488E-05	0.00017244	0.0001366	0.000128144	0.000135875	0.000143607
21037	Nonroad	Mobile Sources	LPG	Construction and Mining Equipment	NOx	1.15801E-05	0.000436405	0.000397166	0.000396487	0.00042745	0.000458494

Region/CD	Data Category	no.	SCQ Level/Orig	SCQ Level/Type	SCQ Level/Code	SCQ Level/Desc	2011 Spd.	2014 Spd.	2017 Spd.	2020 Spd.	2023 Spd.	2030 Spd.
21037	Nonroad	2267002024	Mobile Sources	LPG	Construction and Mining Equipment	Surfacing Equipment	NOx	0.000235836	0.000194195	0.000173564	0.000156687	0.00013981
21037	Nonroad	2267002030	Mobile Sources	LPG	Construction and Mining Equipment	Trenchers	NOx	0.000638866	0.00055354	0.00051934	0.000504941	0.000490541
21037	Nonroad	2267002033	Mobile Sources	LPG	Construction and Mining Equipment	Bore/Drill Rigs	NOx	9.07424E-05	7.43644E-05	7.00455E-05	7.28966E-05	7.57476E-05
21037	Nonroad	2267002039	Mobile Sources	LPG	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.00063424	0.000477338	0.000432754	0.000452045	0.000471336
21037	Nonroad	2267002045	Mobile Sources	LPG	Construction and Mining Equipment	Cranes	NOx	0.017335547	0.013644914	0.012435569	0.012487735	0.012539901
21037	Nonroad	2267002054	Mobile Sources	LPG	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	0.059886673	0.050433516	0.048463362	0.051415611	0.054367859
21037	Nonroad	2267002057	Mobile Sources	LPG	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	0.00232722	0.00185623	0.001741294	0.001846365	0.001951436
21037	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0.00560658	0.005140721	0.00514323	0.005537718	0.00593206
21037	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Tractors/Loaders/s/Backhoes	NOx	0.000410679	0.000313414	0.000286232	0.000299333	0.000312434
21037	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Skid Steer Loaders	NOx	0.000621198	0.000549458	0.000542155	0.000583681	0.000625706
21037	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Other Construction Equipment	NOx	0.007159202	0.005901559	0.00562287	0.005974181	0.006325492
21037	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Aerial Lifts	NOx	0.018361909	0.015579406	0.015132194	0.016332918	0.017533642
21037	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Forklifts	NOx	0.000649647	0.000543234	0.000493583	0.000458132	0.00042268
21037	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Sweepers/Scrubbers	NOx	0.003309296	0.002486668	0.002199103	0.002165715	0.002132327
21037	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Other General Industrial Equipment	NOx	0.000265374	0.000222043	0.00020157	0.000186497	0.000171423
21037	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Other Material Handling Equipment	NOx	0.001314648	0.000977682	0.000858256	0.000840498	0.000822739
21037	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Terminal Tractors	NOx	6.34918E-06	5.09335E-06	4.76953E-06	5.0065E-06	5.2434E-06
21037	Nonroad	2267004066	Mobile Sources	LPG	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	NOx	1.50908E-05	1.34446E-05	1.32527E-05	1.41448E-05	1.50369E-05

Region	CD	Date	Category	POB	SCO Level (Type)	SCO Level (Price)	SCO Level (Fuel)	Public Use	2017 (Used)	2018 (Used)	2019 (Used)	2020 (Used)	2021 (Used)	2022 (Used)	2023 (Used)	2024 (Used)	2025 (Used)	2026 (Used)
21037	Nonroad	2267005055	Mobile Sources	LPG	Agricultural Equipment	Other	Agricultural Equipment	NOx	1.11428E-06	3.46419E-05	2.25268E-05	1.81993E-05	1.74767E-05	1.67541E-05				
21037	Nonroad	2267005060	Mobile Sources	LPG	Agricultural Equipment	Other	Irrigation Sets	NOx	2.37493E-07	2.70876E-05	1.98563E-05	1.75866E-05	1.79383E-05	1.82901E-05				
21037	Nonroad	2267006005	Mobile Sources	LPG	Commercial Equipment	Other	Generator Sets	NOx	0.00353072	5.38627E-07	4.68437E-07	3.96728E-07	2.75948E-07	1.55169E-07				
21037	Nonroad	2267006010	Mobile Sources	LPG	Commercial Equipment	Other	Pumps	NOx	0.000586523	3.76457E-07	3.28982E-07	2.83025E-07	2.07694E-07	1.32364E-07				
21037	Nonroad	2267006015	Mobile Sources	LPG	Commercial Equipment	Other	Air Compressors	NOx	0.00056684	6.21474E-05	5.40673E-05	4.58117E-05	3.19062E-05	1.80008E-05				
21037	Nonroad	2267006025	Mobile Sources	LPG	Commercial Equipment	Other	Welders	NOx	0.000752134	4.97446E-05	4.34628E-05	3.75377E-05	2.79597E-05	1.83816E-05				
21037	Nonroad	2267006030	Mobile Sources	LPG	Commercial Equipment	Other	Pressure Washers	NOx	1.33767E-05	5.87874E-06	4.64354E-06	4.17381E-06	4.02883E-06	3.88385E-06				
21037	Nonroad	2267006035	Mobile Sources	LPG	Commercial Equipment	Other	Hydro-power Units	NOx	6.91324E-06	1.44344E-05	1.22994E-05	1.16672E-05	1.18659E-05	1.20645E-05				
21037	Nonroad	2268002081	Mobile Sources	CNG	Construction and Mining Equipment	Other	Construction Equipment	NOx	3.0587E-06	0.000106187	9.04764E-05	7.88681E-05	6.29396E-05	4.70111E-05				
21037	Nonroad	2268003020	Mobile Sources	CNG	Industrial Equipment	Other	Forklifts	NOx	0.003004775	0.000213398	0.000168629	0.000148905	0.000136901	0.000124897				
21037	Nonroad	2268003030	Mobile Sources	CNG	Industrial Equipment	Other	Sweepers/Scrubbers	NOx	3.83781E-06	0.000158594	0.000154814	0.00014727	0.000131559	0.000115848				
21037	Nonroad	2268003040	Mobile Sources	CNG	Industrial Equipment	Other	Other General Industrial Equipment	NOx	1.83258E-06	0.000599733	0.000549775	0.000504862	0.000434211	0.000363561				
21037	Nonroad	2268003060	Mobile Sources	CNG	Industrial Equipment	Other	AC Refrigeration	NOx	8.8948E-06	9.85038E-05	8.56967E-05	7.26116E-05	5.05714E-05	2.85313E-05				
21037	Nonroad	2268003070	Mobile Sources	CNG	Industrial Equipment	Other	Terminal Tractors	NOx	5.86696E-06	6.97135E-05	6.09474E-05	5.24771E-05	3.86064E-05	2.47357E-05				
21037	Nonroad	2268005055	Mobile Sources	CNG	Agricultural Equipment	Other	Agricultural Equipment	NOx	6.57403E-07	0.00011758	0.000101512	8.64005E-05	6.20108E-05	3.7621E-05				
21037	Nonroad	2268005060	Mobile Sources	CNG	Agricultural Equipment	Other	Irrigation Sets	NOx	3.12677E-06	9.50297E-05	8.19563E-05	7.22109E-05	5.87419E-05	4.5273E-05				
21037	Nonroad	2268006005	Mobile Sources	CNG	Commercial Equipment	Other	Generator Sets	NOx	0.001029284	3.8167E-05	2.67492E-05	2.32809E-05	2.4125E-05	2.4969E-05				
21037	Nonroad	2268006010	Mobile Sources	CNG	Commercial Equipment	Other	Pumps	NOx	4.40598E-05	2.59909E-05	1.77562E-05	1.53839E-05	1.63154E-05	1.7247E-05				
21037	Nonroad	2268006015	Mobile Sources	CNG	Commercial Equipment	Other	Air Compressors	NOx	4.40686E-05	0.00362375	0.00770929	0.007180378	0.007235669	0.007290959				
21037	Nonroad	2268006020	Mobile Sources	CNG	Commercial Equipment	Other	Gas Compressors	NOx	0.000348631	0.028266322	0.023754886	0.022806968	0.024196696	0.025586424				
21037	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other	Pavers	NOx	0.004887778	0.002432732	0.002005861	0.001876403	0.001908482	0.001940561				
21037	Nonroad	2270002006	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other	Tampers/Rammers	NOx	1.13255E-05	0.007430341	0.005807922	0.005477753	0.006004348	0.006530942				
21037	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other	Plate Compactors	NOx	0.000178439	0.001325706	0.001030687	0.000942827	0.000972376	0.001001924				

Region	City	State	County	Year	Source	Category	Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
21037	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rollers	NOx	0.003077259	0.002440511	0.002316816	0.002538201	0.00275586									
21037	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Scrapers	NOx	0.002626722	0.002109148	0.001982461	0.002097053	0.0022211645									
21037	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Paving Equipment	NOx	0.005771438	0.005268319	0.00530795	0.005826277	0.006344603									
21037	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Surfacing Equipment	NOx	0.003851317	0.003180308	0.003055109	0.003301287	0.003547465									
21037	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	0.013649698	0.010888866	0.010403754	0.01149167	0.012579585									
21037	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Trenchers	NOx	0.000144004	0.000121057	0.000117661	0.000128293	0.000138916									
21037	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Bore/Drill Rigs	NOx	0.000397666	0.000333291	0.000325726	0.000360461	0.000395196									
21037	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Excavators	NOx	7.93835E-06	6.84992E-06	6.24278E-06	5.63194E-06	5.0211E-06									
21037	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	2.2306E-05	2.04135E-05	1.97618E-05	1.97097E-05	1.96576E-05									
21037	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cement and Mortar Mixers	NOx	7.24293E-08	6.33835E-08	6.29975E-08	6.95708E-08	7.61441E-08									
21037	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cranes	NOx	2.66596E-07	2.07225E-07	1.9625E-07	2.18289E-07	2.40328E-07									
21037	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Graders	NOx	2.04298E-05	1.27787E-05	9.51003E-06	7.71425E-06	5.91847E-06									
21037	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Trucks	NOx	5.33417E-06	2.92943E-06	1.86116E-06	1.19445E-06	5.2727E-07									
21037	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	2.0455E-05	1.41612E-05	1.22451E-05	1.26996E-05	1.31541E-05									
21037	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	4.83362E-06	2.66118E-06	1.92619E-06	1.8991E-06	1.87201E-06									
21037	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rubber Tire Loaders	NOx	8.96662E-06	6.35314E-06	4.81378E-06	3.14327E-06	1.47276E-06									
21037	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	2.4486E-06	1.68487E-06	1.21046E-06	6.6087E-07	1.1279E-07									

Region	Local District	County	Site No.	SCD Level Code	SCD Level Name	SCD Level Thru	SCD Level Fuel	2011 Inpd	2014 Inpd	2017 Inpd	2020 Inpd	2025 Inpd	2050 Inpd
21037	Nonroad		2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	0.051031096	3.37503E-06	2.19416E-06	1.69111E-06	1.41755E-06	1.14399E-06
21037	Nonroad		2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Skid Steer Loaders	0.02990874	8.72759E-07	4.96667E-07	3.29229E-07	2.24041E-07	1.18853E-07
21037	Nonroad		2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	0.00672437	6.52258E-05	4.0095E-05	2.93448E-05	2.34119E-05	1.74789E-05
21037	Nonroad		2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	9.70106E-05	1.71488E-05	9.27733E-06	5.78106E-06	3.59994E-06	1.41882E-06
21037	Nonroad		2270002081	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	0.006567316	4.77122E-05	4.10951E-05	3.46417E-05	2.40224E-05	1.34031E-05
21037	Nonroad		2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	0.001478076	1.30711E-05	1.12504E-05	9.38271E-06	6.23062E-06	3.07853E-06
21037	Nonroad		2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	0.012702977	2.61306E-05	2.14079E-05	2.04307E-05	2.19234E-05	2.34161E-05
21037	Nonroad		2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	0.008697551	5.43752E-06	3.62938E-06	3.11279E-06	3.3281E-06	3.54341E-06
21037	Nonroad		2270003040	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	0.007715279	3.59815E-05	2.52613E-05	1.86946E-05	1.12113E-05	3.72809E-06
21037	Nonroad		2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	0.000397532	9.84702E-06	6.72223E-06	4.69004E-06	2.21359E-06	2.32432E-07
21037	Nonroad		2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC Refrigeration	0.030810882	5.79623E-06	3.89803E-06	2.84665E-06	1.80001E-06	7.59364E-07
21037	Nonroad		2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	0.006370915	1.58201E-06	1.02458E-06	6.97068E-07	3.42816E-07	5.94133E-08
21037	Nonroad		2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacums (Commercial)	6.82177E-07	4.73919E-05	2.87123E-05	2.04079E-05	1.52132E-05	1.00186E-05
21037	Nonroad		2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	0.000166403	1.26555E-05	6.88576E-06	4.22527E-06	2.38221E-06	5.39142E-07
21037	Nonroad		2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	0.004003698	7.82763E-05	4.71987E-05	3.66399E-05	3.61411E-05	3.56423E-05
21037	Nonroad		2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	0.00079513	1.99945E-05	9.74684E-06	6.05584E-06	5.36808E-06	4.68035E-06
21037	Nonroad		2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Grinders (Commercial)	0.005976315	6.35033E-06	4.25116E-06	3.62778E-06	3.81864E-06	4.0095E-06

Region Loc	Debit Category	sqc	sqc Level One	sqc Level Two	sqc Level Three	sqc Level Four	Pollutant	2014 Apud	2017 Apud	2020 Apud	2025 Apud	2030 Apud
21037	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	1.53359E-06	8.00539E-07	5.6027E-07	5.70476E-07	5.80683E-07
21037	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	NOx	0.000121913	8.76147E-05	6.64035E-05	4.19576E-05	1.75117E-05
21037	Nonroad	2270005010	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	2-Wheel Tractors	NOx	3.3085E-05	2.28927E-05	1.62848E-05	8.25891E-05	2.32989E-07
21037	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	NOx	5.90889E-05	4.39878E-05	3.33205E-05	1.92365E-05	5.15245E-06
21037	Nonroad	2270005020	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	NOx	1.62055E-05	1.18631E-05	8.59944E-06	4.05896E-06	4.26582E-07
21037	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	NOx	0.000691027	0.000529494	0.000410834	0.000248794	8.67535E-05
21037	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	NOx	0.000188231	0.000140986	0.000104364	5.21788E-05	1.04905E-05
21037	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	NOx	0.030354813	0.018644267	0.014745248	0.01475649	0.014767732
21037	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Tillers : 6 HP	NOx	0.007721372	0.003829934	0.002434233	0.002187846	0.001941459
21037	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	NOx	0.000161659	0.000119015	0.000107085	0.000112797	0.000118509
21037	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Other Agricultural Equipment	NOx	3.68254E-05	2.18363E-05	1.68744E-05	1.69606E-05	1.70467E-05
21037	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	NOx	5.74776E-05	3.86589E-05	3.29987E-05	3.45305E-05	3.6023E-05
21037	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Generator Sets	NOx	1.39255E-05	7.41203E-06	5.21213E-06	5.14026E-06	5.0684E-06
21037	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	NOx	3.36498E-05	2.29015E-05	1.69561E-05	1.10494E-05	5.14762E-06
21037	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	NOx	9.15132E-06	5.98234E-06	4.11356E-06	2.08242E-06	5.12877E-08
21037	Nonroad	2270006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	NOx	6.93807E-05	6.32807E-05	6.35901E-05	6.94469E-05	7.53036E-05
21037	Nonroad	2270006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	NOx	1.31605E-05	1.02163E-05	9.589E-06	1.04742E-05	1.13599E-05

Region	CD	Date	Category	SCC	SCC Level	Dye	SCC Level	Mile	SCC Level	Time	SCC Level	Point	Polynomial	2011	2014	2017	2020	2025	2030
21037	Nonroad		2270006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	NOx	0.000368886	0.000170942	0.000109711	9.0022E-05	9.18263E-05	9.36308E-05					
21037	Nonroad		2270007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Equip Feller/Bunch/Sk idder	NOx	0.000172215	4.23434E-05	2.16144E-05	1.44047E-05	1.36545E-05	1.29044E-05					
21037	Nonroad		2280005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	NOx	0.015901152	9.65589E-07	8.16856E-07	6.7661E-07	4.49922E-07	2.23234E-07					
21037	Nonroad		2280005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	NOx	0.006378191	2.67272E-07	2.26544E-07	1.86701E-07	1.21034E-07	5.53675E-08					
21037	Nonroad		2280005005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Sterndr ive	NOx	0.023958012	1.71623E-07	1.05754E-07	8.30869E-08	8.13106E-08	7.95349E-08					
21037	Nonroad		2280200005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Sterndr ive	NOx	0.020599314	4.24882E-08	2.04586E-08	1.28414E-08	1.21563E-08	1.14712E-08					
21037	Nonroad		2280200010	Mobile Sources	Pleasure Craft	Diesel	Outboard	NOx	5.79262E-05	0.003011146	0.00265922	0.002304665	0.001678215	0.001051766					
21037	Nonroad		2285002015	Mobile Sources	Railroad Equipment	Diesel	Railway Maintenance	NOx	0.004700261	0.00062148	0.000550012	0.000468928	0.000325773	0.000182619					
21037	Nonroad		2285004015	Mobile Sources	Railroad Equipment	Gasoline, 4-Stroke	Railway Maintenance	NOx	8.68986E-05	0.000481916	0.00037731	0.000306667	0.000217232	0.000127797					
21037	Nonroad		2285006015	Mobile Sources	Railroad Equipment	LPG	Railway Maintenance	NOx	7.3866E-06	9.78547E-05	7.45911E-05	5.8234E-05	3.67274E-05	1.52209E-05					
21037	Nonroad			TOTAL				NOx	0.0794001	0.987236	0.369969	0.296263	0.390006	0.519096					
21037	Point		10200503	External Combustion Boilers	Industrial	Distillate Oil	< 10 Million BTU/hr **	NOx	4.08497E-06	0.000417712	0.000268585	0.000209789	0.000187071	0.000164354					
21037	Point		10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	NOx	0.004152041	8.28103E-05	4.85543E-05	3.44036E-05	2.75734E-05	2.07437E-05					
21037	Point		10300501	External Combustion Boilers	Commercial/Industrial	Distillate Oil - Grades 1 and 2	Boiler	NOx	9.24621E-06	0.000550724	0.000349314	0.0002684	0.000239955	0.00019951					
21037	Point		10300502	External Combustion Boilers	Commercial/Industrial	Distillate Oil	10-100 Million BTU/hr **	NOx	0	0.000149912	7.9423E-05	5.13997E-05	3.50821E-05	1.87644E-05					
21037	Point		10300503	External Combustion Boilers	Commercial/Industrial	Distillate Oil	< 10 Million BTU/hr **	NOx	0	1.08151E-05	8.25361E-06	6.58209E-06	4.53788E-06	2.49367E-06					
21037	Point		10300602	External Combustion Boilers	Commercial/Industrial	Natural Gas	10-100 Million BTU/hr	NOx	0.038294718	2.91836E-06	2.1643E-06	1.63075E-06	9.2526E-07	2.1977E-07					
21037	Point		10300603	External Combustion Boilers	Commercial/Industrial	Natural Gas	< 10 Million BTU/hr	NOx	0.002567888	5.31348E-06	3.71373E-06	3.11294E-06	2.94408E-06	2.77523E-06					
21037	Point		10301002	External Combustion Boilers	Commercial/Industrial	Liquefied Petroleum Gas (LPG)	Propane	NOx	0	1.01977E-06	6.52358E-07	5.03831E-07	4.38694E-07	3.73558E-07					
21037	Point		20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Refrigerating	NOx	0.004156974	2.44083E-06	1.82296E-06	1.38727E-06	8.12926E-07	2.38586E-07					

Region	Delta Category	SCD	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Public Use	2011 (sqd)	2014 (sqd)	2017 (sqd)	2020 (sqd)	2025 (sqd)	2030 (sqd)
21037	Point	20200401	Internal Combustion Engines	Industrial	Large Bore Engine	Diesel	NOx	0.000479477	3.95025E-08	2.89952E-08	2.11041E-08	1.011326E-08	1.3554E-09
21037	Point	20300101	Internal Combustion Engines	Commercial/Industrial	Distillate Oil (Diesel)	Reciprocating	NOx	0.00181389	0.002170126	0.001335478	0.001055503	0.001051107	0.00104671
21037	Point	20300201	Internal Combustion Engines	Commercial/Industrial	Natural Gas	Reciprocating	NOx	6.17945E-06	3.26936E-05	1.63339E-05	1.04562E-05	9.39523E-06	8.33424E-06
21037	Point	2275050011	Mobile Sources	Aircraft	General Aviation	Piston	NOx	3.26593E-06	2.77537E-06	1.71293E-06	1.36341E-06	1.37497E-06	1.38653E-06
21037	Point	2275050012	Mobile Sources	Aircraft	General Aviation	Turbine	NOx	2.91388E-05	4.16728E-08	2.07527E-08	1.33571E-08	1.23016E-08	1.1246E-08
21037	Point	30201304	Industrial Processes	Food and Agriculture	Meat Smokehouses	Continuous Smokehouse: Smoke Zone	NOx	1.41612E-07	1.3537E-06	8.74827E-07	7.24853E-07	7.4898E-07	7.73107E-07
21037	Point	30290003	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Natural Gas: Process Heaters	NOx	0.007707626	1.99165E-08	1.02403E-08	6.92438E-09	6.698E-09	6.47163E-09
21037	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified	Other Not Classified	NOx	2.35076E-05	6.80361E-06	4.71242E-06	3.95815E-06	3.81514E-06	3.67213E-06
21037	Point	30500205	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Dryer: Drum Mix Plant (see 3-05-002-SS thru -63 for subtypes)	NOx	0.002836494	9.7937E-08	5.64639E-08	4.03425E-08	3.45998E-08	2.88571E-08
21037	Point	30501599	Industrial Processes	Mineral Products	Gypsum Manufacture	** See Comment	NOx		5.37975E-06	4.89254E-06	4.89609E-06	5.33098E-06	5.72588E-06
21037	Point	38500110	Industrial Processes	Cooling Tower Use	Process Cooling	Other Not Specified	NOx		6.0917E-08	4.74653E-08	4.44938E-08	4.8275E-08	5.20561E-08
21037	Point	39000699	Industrial Processes	In-process Fuel Use	Natural Gas	General	NOx	0.159805174	4.78858E-07	3.00313E-07	1.94913E-07	8.02004E-08	1.13727E-08
21037	Point	39999992	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx		8.31088E-09	5.21749E-09	3.98863E-09	1.39431E-09	1.97717E-10
21037	Point	39999994	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx		1.78673E-06	4.46682E-07	0	0	0
21037	Point	39999995	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx		3.1057E-08	7.76424E-09	0	0	0
21037	Point	39999999	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.000421329	0.000921322	0.00081336	0.000699336	0.000504243	0.000309151
21037	Point	40100198	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Dry Cleaning	Other Not Classified	NOx		1.13254E-05	1.00056E-05	8.53279E-06	5.95062E-06	3.36846E-06

Region Code	Site Category	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Other Not Classified:	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21037	Point	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: General Degreasing Units	NOx	3.66921E-05	2.93244E-05	2.34009E-05	1.4732E-05	6.06302E-06
21037	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Natural Gas	NOx	4.48397E-07	3.53961E-07	2.75017E-07	1.56356E-07	3.76953E-08
21037	Point	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	Specify in Comments Field	NOx	3.18921E-05	1.97155E-05	1.46859E-05	1.22591E-05	9.83219E-06
21037	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Working Loss (Tank Diameter Independent)	NOx	3.78739E-07	2.15329E-07	1.46047E-07	1.09019E-07	7.19902E-08
21037	Point	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment	NOx	0.000376124	0.000403617	0.000431134	0.000477018	0.000522902
21037	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Jet Kerosene: Working Loss	NOx	3.78482E-06	4.06148E-06	4.33838E-06	4.8001E-06	5.26182E-06
21037	Point	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Working Loss	NOx	0.003844713	0.002801647	0.002133813	0.001333449	0.000533085
21037	Point	Petroleum and Solvent Evaporation	Printing/Publishing	General	Other Not Classified	NOx	0.000336773	0.000276246	0.000251312	0.000239414	0.000227517
21037	Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	NOx	1.09189E-05	1.05121E-05	1.06085E-05	1.11884E-05	1.17683E-05
21037	Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	NOx	1.60097E-06	1.48752E-06	1.47188E-06	1.52732E-06	1.58276E-06
21037	Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	NOx	0.000174881	0.000171323	0.000174716	0.000186165	0.000197614
21037	Point	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	NOx	2.44405E-05	2.26552E-05	2.24576E-05	2.34512E-05	2.44448E-05
25087	Point				TOTAL	NOx	0.0009215	0.0006692	0.0004831	0.0004880	0.0005025

Region	Local	Data Category	MSJ	SCS Level Code	SCS Level Name	SCS Level Type	SCS Level Title	SCS Level Code	SCS Level Name	SCS Level Title	2004	2005	2006	2007	2008	2009	2010
21037	EGU	20100102		Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating	VOC	0		0.010401579	0.007843734	0.006095012	0.003854746	0.001614479		
21037	EGU						TOTAL	VOC	0.000000		0.007844	0.006095	0.003855	0.001614			
21037	Nonpoint	2104001000		Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types	VOC	1.18801E-07		0.000913354	0.000747104	0.000674329	0.000630933	0.000587536		
21037	Nonpoint	2104002000		Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types	VOC	5.9282E-05		0.010622423	0.007627257	0.005463104	0.002548694	0.000217166		
21037	Nonpoint	2104004000		Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types	VOC	0.000201423		0.000753626	0.000690566	0.000669896	0.000670768	0.000671641		
21037	Nonpoint	2104006000		Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	VOC	0.004456623		0.000678417	0.000540082	0.000435537	0.000289453	0.000143369		
21037	Nonpoint	2104007000		Stationary Source Fuel Combustion	Residential	Liquid Petroleum Gas (LPG)	Total: All Combustor Types	VOC	0.001022775		6.24127E-05	5.25568E-05	4.72637E-05	4.22444E-05	3.7225E-05		
21037	Nonpoint	2104008100		Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general	VOC	0.067440904		0.000520685	0.000448107	0.000385053	0.000287937	0.000190811		
21037	Nonpoint	2104008210		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; non-EPA certified	VOC	0.086759532		4.24015E-05	3.62276E-05	3.26481E-05	2.88443E-05	2.50405E-05		
21037	Nonpoint	2104008220		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; non-catalytic	VOC	0.006272386		0.001678158	0.001649707	0.00165552	0.001693762	0.001732003		
21037	Nonpoint	2104008230		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	VOC	0.002623903		0.00018508	0.000165979	0.000159879	0.000160547	0.000161214		
21037	Nonpoint	2104008310		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, non-EPA certified	VOC	0.069796024		0.005903307	0.005123787	0.004555774	0.003785341	0.003014908		
21037	Nonpoint	2104008320		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	VOC	0.005622903		0.000510243	0.000413095	0.000356134	0.000294688	0.000233241		
21037	Nonpoint	2104008330		Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	VOC	0.002092876		0.006966947	0.006100266	0.005270897	0.003919709	0.002568521		

Agency	Year	Stationary Combustion	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2013 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2030 Emissions
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Wood	Wood	VOC	5.02451E-06	0.00050016	0.00446697	0.000372248	0.0002978
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Wood	Wood	VOC	0.005225654	0.021288586	0.014730303	0.008228854	0.001727404
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Wood	Wood	VOC	0	0.002534521	0.002408719	0.002467397	0.002526076
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Wood	Wood	VOC	0.001167304	0.000370055	0.000332435	0.000289889	0.000229543
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Firelog	Firelog	VOC	0.007645888	3.05756E-05	2.65123E-05	2.21663E-05	1.80203E-05
21037	Nonpoint	Stationary Source Fuel Combustion	Residential	Kerosene	Kerosene	VOC	0.00017014	0.000253896	0.000229299	0.000189641	0.000149982
21037	Nonpoint	Mobile Sources	Railroad Equipment	Diesel	Diesel	VOC	0.029403555	2.76E-05	2.50021E-05	2.11795E-05	1.73569E-05
21037	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Commercial Cooking - Charbroiling	VOC	0.002087279	0.00753359	0.005528394	0.002768331	8.26874E-06
21037	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Commercial Cooking - Charbroiling	VOC	0.006292222	0.00066968	0.000621576	0.000588987	0.000556397
21037	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Commercial Cooking - Frying	VOC	0.001061329	0.005293601	0.003522413	0.001540729	0.000351718
21037	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Commercial Cooking - Frying	VOC	0.000849063	0.000642868	0.000607482	0.000612446	0.00061741
21037	Nonpoint	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Commercial Cooking - Frying	VOC	3.26149E-05	0.027482517	0.024327723	0.023467419	0.022607114
21037	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	All Processes	All Processes	VOC	0	0.002463335	0.00234713	0.002132085	0.001917032

Region Cd	Data Category	scd	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Pollutant	2011 Spd	2014 Spd	2017 Spd	2020 Spd	2025 Spd	2030 Spd
21037	Nonpoint	2310000330	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Artificial Lift	VOC	0	0.002013817	0.001605379	0.001300665	0.000879243	0.000457822
21037	Nonpoint	2310000550	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Produced Water	VOC	0	0.000148976	0.000125458	0.00011381	0.000104285	9.47609E-05
21037	Nonpoint	2310000660	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	VOC	0	0.014224397	0.010818367	0.008175442	0.004406489	0.000637535
21037	Nonpoint	2310010100	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	VOC	0	0.001336251	0.001066591	0.000923648	0.000791007	0.000658366
21037	Nonpoint	2310010200	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flashing & Standing/Working/Breathing	VOC	0	0.049204325	0.037538179	0.028831288	0.016785847	0.004740407
21037	Nonpoint	2310010300	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	VOC	0	0.003782659	0.003284013	0.003037642	0.002837254	0.001636867
21037	Nonpoint	2310011000	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	VOC	0	0.037482943	0.031708902	0.026347871	0.017756995	0.009166118
21037	Nonpoint	2310011201	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Tank Truck/Railcar Loading: Crude Oil	VOC	0	0.007344443	0.005916182	0.004799359	0.003197518	0.001595678
21037	Nonpoint	2310011501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	VOC	0	0.039834372	0.028637647	0.0213114	0.012326385	0.003341371
21037	Nonpoint	2310011503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	VOC	0	0.003130996	0.002739358	0.002583104	0.002518836	0.002454567
21037	Nonpoint	2310011503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	VOC	0	0.027850736	0.025792732	0.023847108	0.020698052	0.017548996
21037	Nonpoint	2310011505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	VOC	0	0.006600368	0.005420466	0.004469628	0.003075786	0.001681949
21037	Nonpoint	2310021010	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate	VOC	0	0.005684689	0.004645008	0.003891989	0.002875943	0.001859697

Region Id	Delta Category	Seq	SCC Label Code	SCC Label Title	SCC Label Name	SCC Label Form	Public...	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21037	Nonpoint	2310021030	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Tank Truck/Halcar Loading: Condensate	VOC	0	0.000388912	0.000348239	0.000324287	0.000298301	0.000272314
21037	Nonpoint	2310021100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	VOC	0	9.03876E-05	8.37647E-05	7.75603E-05	6.75687E-05	5.7577E-05
21037	Nonpoint	2310021202	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	VOC	0	2.2887E-05	1.90932E-05	1.59125E-05	1.11225E-05	6.33247E-06
21037	Nonpoint	2310021251	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	VOC	0	0.00552424	0.004481164	0.003579948	0.002196139	0.000812329
21037	Nonpoint	2310021300	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	VOC	0	0.000409155	0.00035091	0.000319504	0.000289529	0.000259553
21037	Nonpoint	2310021302	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	VOC	0	0.0012937	0.001309323	0.001230712	0.001104498	0.000978284
21037	Nonpoint	2310021351	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	VOC	0	0.000343012	0.000294631	0.000247834	0.000171156	9.44787E-05
21037	Nonpoint	2310021400	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	VOC	0	0.009525038	0.006347098	0.00524736	0.005146296	0.005045233
21037	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	VOC	0	0.000832326	0.000685695	0.000658055	0.00071115	0.000764244
21037	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	VOC	0	0.005146836	0.003359612	0.002683149	0.001692985	0.000702821
21037	Nonpoint	2310021503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	VOC	0	0.000450095	0.000367452	0.000337851	0.000332719	0.00032787
21037	Nonpoint	2310021505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	VOC	0	0.006183633	0.004651987	0.003484338	0.00184159	0.000198841

Region/Cd	Date Category	Jcc	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 (tpd)	2014 (tpd)	2017 (tpd)	2020 (tpd)	2025 (tpd)	2030 (tpd)
21037	Nonpoint	2310021506	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Other	VOC	0	0.000530658	0.000444326	0.000398343	0.000355533	0.000312318
21037	Nonpoint	2310021603	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Venting - Blowdowns	VOC	0	0.000354236	0.000310939	0.00027023	0.000204537	0.000138844
21037	Nonpoint	2310111100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Mud Degassing	VOC	0	6.22318E-05	5.33514E-05	4.55938E-05	3.6001E-05	2.16063E-05
21037	Nonpoint	2310111401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Oil Well Pneumatic Pumps	VOC	0	0.02903881	0.027266737	0.02750205	0.029567059	0.031632069
21037	Nonpoint	2310121100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Mud Degassing	VOC	0	0.002112749	0.001694873	0.001554028	0.001550142	0.001546257
21037	Nonpoint	2310121401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Pneumatic Pumps	VOC	0	0.004497937	0.00267496	0.001736025	0.001074501	0.000412978
21037	Nonpoint	2310121700	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Completion: All Processes	VOC	0	0.000446035	0.00037608	0.000361883	0.000384686	0.00040749
21037	Nonpoint	2401001000	Solvent Utilization	Surface Coating	Architectural Coatings	Total: All Solvent Types	VOC	0.288353589	6.88474E-07	6.94771E-07	6.96925E-07	6.97062E-07	6.97199E-07
21037	Nonpoint	2401005000	Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	Total: All Solvent Types	VOC	0.042681645	1.05711E-07	9.91398E-08	9.20433E-08	7.97776E-08	6.7512E-08
21037	Nonpoint	2401008000	Solvent Utilization	Surface Coating	Traffic Markings	Total: All Solvent Types	VOC	0.000239382	0.000150652	0.000134901	0.0001174	8.67748E-05	5.61493E-05
21037	Nonpoint	2401015000	Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2426 thru 242	Total: All Solvent Types	VOC	0.000544393	1.19964E-05	1.09014E-05	1.01398E-05	9.14816E-06	8.15653E-06
21037	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Motor Vehicles: SIC 371	Total: All Solvent Types	VOC	0.002492763	0.004023135	0.004042573	0.0041029	0.004237519	0.004372139
21037	Nonpoint	2401090000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing Industrial	Total: All Solvent Types	VOC	0.006575015	0.0004196	0.000383588	0.000362613	0.000348519	0.000334425
21037	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Maintenance Coatings	Total: All Solvent Types	VOC	0.074232336	0.000829719	0.000864309	0.000914374	0.001010535	0.001106747
21037	Nonpoint	2401200000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	Total: All Solvent Types	VOC	0.007877113	9.72331E-05	9.41389E-05	9.66899E-05	0.000105576	0.000134482
21037	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/All Industries	Total: All Solvent Types	VOC	0.103533316	0.005448226	0.004920136	0.00433411	0.003309118	0.002284126

Region	cd	Data	Category	Yr	scs	SCG Level One	SCG Level Two	SCG Level Three	SCG Level Four	Product	2013	2014	2017	2020	2025	2030
21037	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	Total: All Solvent Types	VOC	0.004951089	0.000505721	0.000456625	0.000417062	0.000359069	0.000301075			
21037	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	VOC	0.233711874	0.000483364	0.00040679	0.000366485	0.000329534	0.000291583			
21037	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	VOC	0.221412037	3.90738E-05	3.36924E-05	3.22907E-05	3.32711E-05	3.42514E-05			
21037	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	VOC	0.167288943	1.57799E-05	1.55725E-05	1.54066E-05	1.51647E-05	1.49227E-05			
21037	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	VOC	0.116856209	1.83892E-06	1.68432E-06	1.57102E-06	1.4166E-06	1.26218E-06			
21037	Nonpoint	2460600000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	VOC	0.070113698	1.21403E-06	1.24396E-06	1.2974E-06	1.40606E-06	1.51472E-06			
21037	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	VOC	0.218951525	1.77062E-07	1.73194E-07	1.77505E-07	1.91505E-07	2.05504E-07			
21037	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	VOC	0.068610458	0.052509774	0.044086031	0.036730303	0.025360768	0.013991233			
21037	Nonpoint	2461021000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Curbank Asphalt	Total: All Solvent Types	VOC	0.007269159	0.004820614	0.004014157	0.003486574	0.002839664	0.002191754			
21037	Nonpoint	2461022000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	VOC	0.02689347	0.005642789	0.004874096	0.004142812	0.002955181	0.00176755			

Region Cd	Data Category	scd	SCC Level Date	SCC Level Title	SCC Level Code	SCC Level Title	SCC Level Code	2011 Issued	2014 Issued	2017 Issued	2020 Issued	2025 Issued	2030 Issued
21037	Nonpoint	2461850000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	VOC	0.007569493	0.000495613	0.000493736	0.000394416	0.000328513	0.000252611
21037	Nonpoint	2501011011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Permeation	VOC	0.04329439	2.95384E-05	2.73354E-05	2.51001E-05	2.13479E-05	1.75958E-05
21037	Nonpoint	2501011012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Evaporation (Includes Diurnal losses)	VOC	0.084530773	4.09153E-06	3.46536E-06	2.96405E-06	2.23257E-06	1.50109E-06
21037	Nonpoint	2501011014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Refilling at the Pump - Vapor Displacement	VOC	0.002516661	5.44731E-06	4.70237E-06	3.96038E-06	2.72619E-06	1.49201E-06
21037	Nonpoint	2501012011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Permeation	VOC	0.001382832	7.00245E-07	5.87587E-07	4.9897E-07	3.7131E-07	2.4365E-07
21037	Nonpoint	2501012012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Evaporation (Includes Diurnal losses)	VOC	0.002599932	0.000447508	0.000393618	0.00033907	0.000247608	0.000156146
21037	Nonpoint	2501012014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	VOC	0.004850163	5.40219E-05	4.51593E-05	3.88015E-05	3.02922E-05	2.17829E-05
21037	Nonpoint	2501050120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative	Gasoline	VOC	0	5.97004E-07	5.2453E-07	4.51579E-07	3.29597E-07	2.07615E-07
21037	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Plants: All Evaporative	Gasoline	VOC	0	5.32237E-08	4.60555E-08	4.10728E-08	3.45895E-08	2.81061E-08
21037	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Submerged Filling	VOC	0	0.000425211	0.000376978	0.000329768	0.000251936	0.000174105

Region Code	State Category	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	Political	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21037	Nonpoint	2501060052	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service Stations	Stage 1: Splash Filling VOC	0.156045207	4.7988E-05	4.25318E-05	3.74791E-05	2.93942E-05	2.13099E-05
21037	Nonpoint	2501060053	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service Stations	Stage 1: Balanced Submerged Filling VOC	0.029848584	0.001122094	0.000951492	0.000794962	0.000545803	0.000296645
21037	Nonpoint	2501060201	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service Stations	Underground Tank: Breathing and Emptying VOC	0.060159395	0.000110999	9.26644E-05	8.00968E-05	6.39568E-05	4.78167E-05
21037	Nonpoint	2501080050	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Airports: Aviation Gasoline	Stage 1: Total VOC	0.000304338	0.000550209	0.000435977	0.000340652	0.000197533	5.44145E-05
21037	Nonpoint	2501080100	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Airports: Aviation Gasoline	Stage 2: Total VOC	1.57919E-05	5.1297E-05	4.17848E-05	3.58821E-05	2.90522E-05	2.22223E-05
21037	Nonpoint	2505030120	Storage and Transport	Petroleum and Petroleum Product Transport	Truck	Gasoline VOC	0.033934041	0.018866688	0.017550977	0.016243075	0.014069746	0.0118966417
21037	Nonpoint	2505040120	Storage and Transport	Petroleum and Petroleum Product Transport	Pipeline	Gasoline VOC	0	0.002112678	0.001834034	0.001634707	0.001368591	0.001102475
21037	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Wastewater Treatment	Public Owned	Total Processed VOC	0.004496759	0.004431638	0.004100041	0.003760267	0.003187162	0.002614056
21037	Nonpoint	2801500000	Miscellaneous Area Sources	Agriculture Production - Crops - as nonpoint	Agricultural Field Burning - whole field set on fire	Unspecified crop type and Burn Method VOC	0.000134744	0.000483698	0.000429149	0.000386295	0.000324618	0.00026294
21037	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Cremation	Humans VOC	3.15892E-06	0.009374788	0.007815305	0.006566872	0.004745355	0.002923039
21037	Nonpoint	2260002006	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Tampers/Rammers VOC	2.809582	0.504406	0.493218	0.340716	0.238782	0.173224
21037	Nonroad						0.000831915	0.000685571	0.000598406	0.000502447	0.000406487	

Region/Local	Data Category	Loc	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Pollutant	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21037	Nonroad	2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Plate Compactors	VOC	8.73957E-05	0.005815774	0.005559967	0.005330863	0.004971275	0.004611687
21037	Nonroad	2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Paving Equipment	VOC	0.000104058	0.001425864	0.00114105	0.000928909	0.000635905	0.0003425
21037	Nonroad	2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Signal Boards/Light Plants	VOC	8.5644E-07	0.000628413	0.000586553	0.000541839	0.000464937	0.000388034
21037	Nonroad	2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0.006152181	7.25738E-05	6.53951E-05	5.90224E-05	4.90729E-05	3.91235E-05
21037	Nonroad	2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	2.115161E-05	0.000338685	0.000290484	0.000252818	0.000198821	0.000144824
21037	Nonroad	2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Sweepers/Scrubbers	VOC	2.55251E-05	3.04053E-05	2.54938E-05	2.25283E-05	1.9341E-05	1.61537E-05
21037	Nonroad	2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Other General Industrial Equipment	VOC	1.95072E-06	0.000117173	6.21298E-05	3.55085E-05	1.48173E-05	2.40376E-06
21037	Nonroad	2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.000806469	1.08505E-05	8.43474E-06	7.37993E-06	6.75599E-06	6.13205E-06
21037	Nonroad	2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.000934735	3.29373E-06	3.32153E-06	3.3603E-06	3.43406E-06	3.50782E-06
21037	Nonroad	2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	VOC	0.011951373	7.62492E-06	7.68928E-06	7.77903E-06	7.94978E-06	8.12053E-06
21037	Nonroad	2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	VOC	0.020823237	2.93869E-05	2.96349E-05	2.99808E-05	3.06389E-05	3.1297E-05
21037	Nonroad	2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.015115113	6.2586E-05	6.31142E-05	6.38509E-05	6.52524E-05	6.6654E-05
21037	Nonroad	2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.010689157	0.016979083	0.018057013	0.018601837	0.019065622	0.019529406

region_cd	Dist	Category	poa	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Public Use	2013 Used	2014 Used	2017 Used	2020 Used	2025 Used	2030 Used
21037	Nonroad	2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.009890408	0.163527105	0.123058258	0.095734923	0.061150623	0.026566322
21037	Nonroad	2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.010573248	0.007193848	0.008009506	0.008498753	0.009042158	0.009585563
21037	Nonroad	2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.014894349	0.03833517	0.024106732	0.017418421	0.012554675	0.00769093
21037	Nonroad	2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.01016588	0.021685232	0.019412452	0.01683419	0.012282519	0.007730848
21037	Nonroad	2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	3.28372E-06	0.020387966	0.018211751	0.01650939	0.014067001	0.011624612
21037	Nonroad	2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Agricultural Equipment	Sprayers	VOC	4.26982E-05	0.020425049	0.020250784	0.020022066	0.019595492	0.019168917
21037	Nonroad	2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Commercial Equipment	Generator Sets	VOC	0.000795943	0.000998981	0.001068892	0.001136011	0.001245549	0.001355087
21037	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Commercial Equipment	Pumps	VOC	0.005634036	5.49316E-05	5.1937E-05	4.97655E-05	4.50823E-05	4.08991E-05
21037	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Commercial Equipment	Air Compressors	VOC	2.00922E-06	1.02453E-05	8.91844E-06	8.23025E-06	7.61549E-06	7.00073E-06
21037	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Commercial Equipment	Hydro-power Units	VOC	2.82744E-05	0.607826129	0.607826129	0.607826129	0.607826129	0.607826129
21037	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Logging Equipment	Chain Saws : 6 HP	VOC	8.93387E-05	0.029403555	0.029403555	0.029403555	0.029403555	0.029403555
21037	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Recreational Equipment	Golf Carts	VOC	0.006236559	0.004191788	0.003683315	0.003183106	0.002356314	0.001523521
21037	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Construction and Mining Equipment	Pavers	VOC	0.000178318	0.000706107	0.000601757	0.000514985	0.000385012	0.000255039

Region/Local	Data Category	Year	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2014	2017	2020	2025	2030
21037	Nonroad	2265002006	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Tampers/Rammers	VOC	7.03812E-05	5.38638E-05	4.84749E-05	4.87674E-05	4.90598E-05
21037	Nonroad	2265002009	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Plate Compactors	VOC	0.000175448	0.000143065	0.000134808	0.000141153	0.000147496
21037	Nonroad	2265002015	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Rollers	VOC	5.42054E-06	3.45447E-06	2.46793E-06	1.63996E-06	8.11993E-07
21037	Nonroad	2265002021	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Paving Equipment	VOC	1.47157E-06	8.82453E-07	5.71333E-07	2.8446E-07	5.49631E-08
21037	Nonroad	2265002024	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Surfacing Equipment	VOC	0	0	0	0	0
21037	Nonroad	2265002027	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Signal Boards/Light Plants	VOC	0.002087279	0.002087279	0.002087279	0.002087279	0.002087279
21037	Nonroad	2265002030	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Trenchers	VOC	0	0	0	0	0
21037	Nonroad	2265002033	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Bore/Drill Rigs	VOC	0.006297222	0.006297222	0.006297222	0.006297222	0.006297222
21037	Nonroad	2265002039	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0	0	0	0	0
21037	Nonroad	2265002042	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Cement and Mortar Mixers	VOC	0.001061329	0.001061329	0.001061329	0.001061329	0.001061329
21037	Nonroad	2265002045	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Cranes	VOC	0	0	0	0	0
21037	Nonroad	2265002054	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	0.000849063	0.000849063	0.000849063	0.000849063	0.000849063
21037	Nonroad	2265002057	Off-highway Vehicle Gasoline, 4-Stroke	Mobile Sources	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	0	0	0	0	0

Region Id	District Category	SCD Level One	SCD Level Two	SCD Level Three	SCG Level Four	Political...	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21037	Nonroad	2265002060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rubber Tire Loaders	VOC	6.87466E-05	3.26149E-05	3.26149E-05	3.26149E-05	3.26149E-05
21037	Nonroad	2265002066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tractors/Loader s/Backhoes	VOC	0.000965357	0	0	0	0
21037	Nonroad	2265002072	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.000238523	0	0	0	0
21037	Nonroad	2265002078	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Dumpers/Tende rs	VOC	0.000162023	0	0	0	0
21037	Nonroad	2265002081	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Other Construction Equipment	VOC	5.19579E-05	0	0	0	0
21037	Nonroad	2265003010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Aerial Lifts	VOC	0.00045189	0	0	0	0
21037	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	VOC	0.000693774	0	0	0	0
21037	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrub bers	VOC	0.000230418	0	0	0	0
21037	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	VOC	0.001056556	0	0	0	0
21037	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	VOC	3.0705E-05	0	0	0	0
21037	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC Refrigeratio n	VOC	2.05507E-05	0	0	0	0
21037	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	VOC	1.83662E-05	0	0	0	0
21037	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	VOC	0.069178703	0	0	0	0

Region ID	Data Category	ISO	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2011, ipad	2014, ipad	2017, ipad	2020, ipad	2025, ipad	2030, ipad
21037	Nonroad	2265004011	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	VOC	0.01091085	0	0	0	0	0
21037	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.005856104	0	0	0	0	0
21037	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.006545111	0	0	0	0	0
21037	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.000361996	0	0	0	0	0
21037	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.000222913	0	0	0	0	0
21037	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.000646795	0	0	0	0	0
21037	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.004759041	0	0	0	0	0
21037	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.006560356	0	0	0	0	0
21037	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.002798941	0	0	0	0	0
21037	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	VOC	0.006595322	0	0	0	0	0
21037	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	VOC	0.000475644	0	0	0	0	0
21037	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Front Mowers (Commercial)	VOC	0.000724181	0	0	0	0	0
21037	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	VOC	0.000791142	0	0	0	0	0

Region	CD	Delta Category	SCD Level	Open	SCD Level	Two	SCD Level	Three	SCD Level	Four	Public	2011	2014	2017	2020	2023	2030
21037	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	VOC	0.069339831	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	VOC	0.006072439	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265004066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.000692939	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	0.021144411	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	VOC	0.004131924	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	VOC	0.001651615	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	VOC	1.67377E-05	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	VOC	3.43189E-05	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	VOC	4.23932E-07	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	VOC	5.60263E-05	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	VOC	1.65693E-05	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	VOC	0.000258166	0	0	0	0	0	0	0	0	0
21037	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Tillers - 6 HP	VOC	0.000649691	0	0	0	0	0	0	0	0	0

Region	CD	Dist. Category	Job	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Material	2013 (pad)	2014 (pad)	2017 (pad)	2020 (pad)	2025 (pad)	2030 (pad)
21037	Nonroad	2265005045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Swathers	VOC	7.84796E-05	0	0	0	0	0	0
21037	Nonroad	2265005055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Other Agricultural Equipment	VOC	0.000108103	0	0	0	0	0	0
21037	Nonroad	2265005060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Irrigation Sets	VOC	3.42255E-05	0	0	0	0	0	0
21037	Nonroad	2265006005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Generator Sets	VOC	0.032777755	0	0	0	0	0	0
21037	Nonroad	2265006010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pumps	VOC	0.00905276	0	0	0	0	0	0
21037	Nonroad	2265006015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Air Compressors	VOC	0.003714008	0	0	0	0	0	0
21037	Nonroad	2265006025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Welders	VOC	0.006274516	0	0	0	0	0	0
21037	Nonroad	2265006030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pressure Washers	VOC	0.016410531	0	0	0	0	0	0
21037	Nonroad	2265006035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Hydro-power Units	VOC	0.000462042	0	0	0	0	0	0
21037	Nonroad	2265007010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Shredders : 6 HP	VOC	2.41984E-05	0	0	0	0	0	0
21037	Nonroad	2265007015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Forest Equip - Feller/Bunch/Skidder	VOC	3.25958E-07	0	0	0	0	0	0
21037	Nonroad	2267002003	Mobile Sources	LPG	Mining Construction and Equipment	Pavers	VOC	7.73891E-06	0	0	0	0	0	0
21037	Nonroad	2267002015	Mobile Sources	LPG	Mining Construction and Equipment	Rollers	VOC	7.00607E-06	0	0	0	0	0	0
21037	Nonroad	2267002021	Mobile Sources	LPG	Mining Construction and Equipment	Paving Equipment	VOC	3.21233E-06	0	0	0	0	0	0

Region	City	Dept	Category	Item	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Public	2014 Item	2017 Item	2020 Item	2025 Item	2030 Item
21037	Nonroad	2267002024	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Surfacing Equipment	VOC	1.24885E-06	0	0	0	0	0
21037	Nonroad	2267002030	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Trenchers	VOC	2.50203E-05	0	0	0	0	0
21037	Nonroad	2267002033	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Bore/Drill Rigs	VOC	1.48918E-05	0	0	0	0	0
21037	Nonroad	2267002039	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	7.24566E-06	0	0	0	0	0
21037	Nonroad	2267002045	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Cranes	VOC	1.29718E-05	0	0	0	0	0
21037	Nonroad	2267002054	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	2.13945E-06	0	0	0	0	0
21037	Nonroad	2267002057	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	1.84253E-05	0	0	0	0	0
21037	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Rubber Tire Loaders	VOC	3.02422E-05	0	0	0	0	0
21037	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Tractors/Loaders/Backhoes	VOC	2.26665E-06	0	0	0	0	0
21037	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Skid Steer Loaders	VOC	4.32774E-05	0	0	0	0	0
21037	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Construction and Mining Equipment	Other Construction Equipment	VOC	2.05479E-05	0	0	0	0	0
21037	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Aerial Lifts	VOC	0.000235475	0	0	0	0	0
21037	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Forklifts	VOC	0.01161281	0	0	0	0	0
21037	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Sweepers/Scrubbers	VOC	5.18144E-05	0	0	0	0	0
21037	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Other General Industrial Equipment	VOC	2.04389E-05	0	0	0	0	0
21037	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Other Material Handling Equipment	VOC	1.23203E-05	0.288353589	0.288353589	0.288353589	0.288353589	0.288353589
21037	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Industrial Equipment	Terminal Tractors	VOC	1.61046E-05	0	0	0	0	0
21037	Nonroad	2267004066	Mobile Sources	LPG	Lawn and Garden Equipment	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	6.30725E-05	0.042681645	0.042681645	0.042681645	0.042681645	0.042681645

Region Id	Data Category	SCN	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Pollutant	2011 Epa	2014 Epa	2017 Epa	2020 Epa	2025 Epa	2030 Epa
21037	Nonroad	2267005055	Mobile Sources	LPG	Agricultural Equipment	Other Agricultural Equipment	VOC	3.08E-07	0	0	0	0	0
21037	Nonroad	2267005060	Mobile Sources	LPG	Agricultural Equipment	Irrigation Sets	VOC	6.45177E-08	0.000239382	0.000239382	0.000239382	0.000239382	0.000239382
21037	Nonroad	2267006005	Mobile Sources	LPG	Commercial Equipment	Generator Sets	VOC	0.000692948	0	0	0	0	0
21037	Nonroad	2267006010	Mobile Sources	LPG	Commercial Equipment	Pumps	VOC	0.000121118	0.000544393	0.000544393	0.000544393	0.000544393	0.000544393
21037	Nonroad	2267006015	Mobile Sources	LPG	Commercial Equipment	Air Compressors	VOC	0.000117066	0	0	0	0	0
21037	Nonroad	2267006025	Mobile Sources	LPG	Commercial Equipment	Welders	VOC	0.0002084	0.002492763	0.002492763	0.002492763	0.002492763	0.002492763
21037	Nonroad	2267006030	Mobile Sources	LPG	Commercial Equipment	Pressure Washers	VOC	3.67242E-06	0	0	0	0	0
21037	Nonroad	2267006035	Mobile Sources	LPG	Commercial Equipment	Hydro-power Units	VOC	1.38719E-06	0.006575015	0.006575015	0.006575015	0.006575015	0.006575015
21037	Nonroad	2268002081	Mobile Sources	CNG	Construction and Mining Equipment	Other Construction Equipment	VOC	5.00098E-08	0	0	0	0	0
21037	Nonroad	2268003020	Mobile Sources	CNG	Industrial Equipment	Forklifts	VOC	4.90533E-05	0.074232336	0.074232336	0.074232336	0.074232336	0.074232336
21037	Nonroad	2268003030	Mobile Sources	CNG	Industrial Equipment	Sweepers/Scrubbers	VOC	6.25929E-08	0	0	0	0	0
21037	Nonroad	2268003040	Mobile Sources	CNG	Industrial Equipment	Other General Industrial Equipment	VOC	2.95926E-08	0.007877113	0.007877113	0.007877113	0.007877113	0.007877113
21037	Nonroad	2268003060	Mobile Sources	CNG	Industrial Equipment	AC/Refrigeration Terminal	VOC	1.3941E-07	0	0	0	0	0
21037	Nonroad	2268003070	Mobile Sources	CNG	Industrial Equipment	Tractors	VOC	7.43687E-08	0.103533316	0.103533316	0.103533316	0.103533316	0.103533316
21037	Nonroad	2268005055	Mobile Sources	CNG	Agricultural Equipment	Other Agricultural Equipment	VOC	1.14043E-08	0	0	0	0	0
21037	Nonroad	2268005060	Mobile Sources	CNG	Agricultural Equipment	Irrigation Sets	VOC	5.43497E-08	0.004951089	0.004951089	0.004951089	0.004951089	0.004951089
21037	Nonroad	2268006005	Mobile Sources	CNG	Commercial Equipment	Generator Sets	VOC	1.26453E-05	0	0	0	0	0
21037	Nonroad	2268006010	Mobile Sources	CNG	Commercial Equipment	Pumps	VOC	5.42833E-07	0.233711874	0.233711874	0.233711874	0.233711874	0.233711874
21037	Nonroad	2268006015	Mobile Sources	CNG	Commercial Equipment	Air Compressors	VOC	5.42147E-07	0	0	0	0	0
21037	Nonroad	2268006020	Mobile Sources	CNG	Commercial Equipment	Gas Compressors	VOC	3.50817E-06	0.221412037	0.221412037	0.221412037	0.221412037	0.221412037
21037	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Construction and Mining Pavers	VOC	0.0003973	0	0	0	0	0
21037	Nonroad	2270002006	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tampers/Rammers	VOC	1.71442E-06	0.167288943	0.167288943	0.167288943	0.167288943	0.167288943
21037	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Plate Compactors	VOC	2.62257E-05	0	0	0	0	0

Region Code	Data Category	scd	SCD Level Type	SCD Level Name	SCD Level Code	2011 Apnl	2014 Apnl	2017 Apnl	2020 Apnl	2025 Apnl	2030 Apnl
21037	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.001079504	0.116856209	0.116856209	0.116856209	0.116856209	0.116856209
21037	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000816686	0	0	0	0	0
21037	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	7.22686E-05	0.070113698	0.070113698	0.070113698	0.070113698	0.070113698
21037	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	4.85754E-05	0	0	0	0	0
21037	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000204181	0.218951525	0.218951525	0.218951525	0.218951525	0.218951525
21037	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000607391	0	0	0	0	0
21037	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000642265	0.008610458	0.008610458	0.008610458	0.008610458	0.008610458
21037	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.003430164	0	0	0	0	0
21037	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	4.4765E-05	0.007269159	0.007269159	0.007269159	0.007269159	0.007269159
21037	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	3.40132E-05	0	0	0	0	0
21037	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000880087	0.02689347	0.02689347	0.02689347	0.02689347	0.02689347
21037	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000867099	0	0	0	0	0
21037	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.00264439	0.007569493	0.007569493	0.007569493	0.007569493	0.007569493
21037	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.000172494	0	0	0	0	0
21037	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.001605911	0.027539041	0.011783692	0.00702866	0.008270537	0.009512414
21037	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.004281306	0	0	0	0	0
21037	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	0.008772703	0.051444332	0.01835789	0.007555876	0.008122876	0.008689876

Region Id	Data Category	scd	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21037	Nonroad	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	VOC	0.003522634	0	0	0	0	0
21037	Nonroad	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.007780271	0.001966724	0.001416786	0.001334525	0.001587153	0.001839781
21037	Nonroad	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	VOC	0.000429584	0	0	0	0	0
21037	Nonroad	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	VOC	2.66808E-05	0.000912505	0.000442177	0.000300143	0.000336996	0.00037385
21037	Nonroad	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	VOC	0.0004674	0	0	0	0	0
21037	Nonroad	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	VOC	0.000391393	0.001643144	0.000586355	0.000241336	0.000259446	0.000277557
21037	Nonroad	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	VOC	0.000978957	0	0	0	0	0
21037	Nonroad	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000552738	0.004294418	0.003738673	0.003681222	0.004000716	0.004320209
21037	Nonroad	2270003040	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	VOC	0.000616991	0	0	0	0	0
21037	Nonroad	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	VOC	7.1121E-05	0	0	0	0	0
21037	Nonroad	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC/Refrigeration	VOC	0.002530624	0	0	0	0	0
21037	Nonroad	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	VOC	0.00051599	0	0	0	0	0
21037	Nonroad	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	1.12281E-07	0	0	0	0	0
21037	Nonroad	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	1.30914E-05	0	0	0	0	0
21037	Nonroad	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	VOC	0.000475613	0	0	0	0	0
21037	Nonroad	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	VOC	0.000100327	0.153497212	0.150949216	0.144866272	0.131852242	0.118818211
21037	Nonroad	2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.000554817	0	0	0	0	0

Region	CD	Defn	Category	Seq	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	2011 tpeid	2014 tpeid	2017 tpeid	2020 tpeid	2025 tpeid	2030 tpeid
21037	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	4.44553E-05	0.029361199	0.028873814	0.027714084	0.025220914	0.022727743	0.022727743
21037	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	VOC	1.99352E-06	0	0	0	0	0	0
21037	Nonroad	2270005010	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	2-Wheel Tractors	VOC	1.8093E-07	0.059171373	0.05818915	0.05851957	0.05827491	0.045803025	0.045803025
21037	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	VOC	0.005627071	0	0	0	0	0	0
21037	Nonroad	2270005020	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	VOC	0.00055349	0.000304338	0.000304338	0.000304338	0.000304338	0.000304338	0.000304338
21037	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	VOC	4.7177E-06	0	0	0	0	0	0
21037	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	VOC	8.12904E-07	1.57919E-05	1.57919E-05	1.57919E-05	1.57919E-05	1.57919E-05	1.57919E-05
21037	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	VOC	6.28844E-05	0	0	0	0	0	0
21037	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Tillers : 6 HP	VOC	6.03918E-08	0.003869804	0.003805567	0.003652715	0.003324115	0.002995515	0.002995515
21037	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	VOC	5.34442E-05	0	0	0	0	0	0
21037	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Other Agricultural Equipment	VOC	0.000129334	0	0	0	0	0	0
21037	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	VOC	6.08092E-05	0	0	0	0	0	0
21037	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Generator Sets	VOC	0.002391322	0.004496759	0.004496759	0.004496759	0.004496759	0.004496759	0.004496759
21037	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	VOC	0.000538247	5.42754E-05	5.42754E-05	5.42754E-05	5.42754E-05	5.42754E-05	5.42754E-05
21037	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	VOC	0.000978259	0.000134744	0.000134744	0.000134744	0.000134744	0.000134744	0.000134744
21037	Nonroad	2270006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	VOC	0.001710679	0.000902549	0.000902549	0.000902549	0.000902549	0.000902549	0.000902549
21037	Nonroad	2270006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	VOC	7.97525E-05	3.15892E-06	3.15892E-06	3.15892E-06	3.15892E-06	3.15892E-06	3.15892E-06

Regulated	Data Category	Fac ID	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Point Name	2011, Ipad	2014, Ipad	2017, Ipad	2020, Ipad	2023, Ipad	2030, Ipad
21037	Nonroad	2270006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	VOC	3.53569E-05	1.41612E-07	1.41612E-07	1.41612E-07	1.41612E-07	1.41612E-07
21037	Nonroad	2270007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Equip - Feller/Bunch/Sk idder	VOC	1.32562E-05	9.25928E-07	9.25928E-07	9.25928E-07	9.25928E-07	9.25928E-07
21037	Nonroad	2282005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	VOC	0.203995952	0.007707626	0.007707626	0.007707626	0.007707626	0.007707626
21037	Nonroad	2282005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	VOC	0.052563609	0.000423919	0.000423919	0.000423919	0.000423919	0.000423919
21037	Nonroad	2282010005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Stern Drive	VOC	0.022564182	2.35076E-05	2.35076E-05	2.35076E-05	2.35076E-05	2.35076E-05
21037	Nonroad	2282020005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Stern Drive	VOC	0.000929069	0.043161198	0.043161198	0.043161198	0.043161198	0.043161198
21037	Nonroad	2282020010	Mobile Sources	Pleasure Craft	Diesel	Outboard	VOC	1.15722E-05	0.002836494	0.002836494	0.002836494	0.002836494	0.002836494
21037	Nonroad	2285002015	Mobile Sources	Railroad Equipment	Diesel	Railroad Maintenance	VOC	0.000810458	0.003491086	0.003491086	0.003491086	0.003491086	0.003491086
21037	Nonroad	2285004015	Mobile Sources	Railroad Equipment	Gasoline, 4-Stroke	Railroad Maintenance	VOC	0.000207832	0	0	0	0	0
21037	Nonroad	2285006015	Mobile Sources	Railroad Equipment	LPG	Railroad Maintenance	VOC	2.06068E-06	0.061442647	0.061442647	0.061442647	0.061442647	0.061442647
21037	Nonroad		TOTAL				VOC	0.0779486	3.020556	2.966109	2.841540	2.775477	2.709421
21037	Point	10200503	External Combustion Boilers	Industrial	Distillate Oil	< 10 Million BTU/hr **	VOC	4.08497E-08	0	0	0	0	0
21037	Point	10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	VOC	0.000228362	2.8549E-06	2.8549E-06	2.8549E-06	2.8549E-06	2.8549E-06
21037	Point	10300501	External Combustion Boilers	Commercial/Industrial	Distillate Oil - Grades 1 and 2	Boiler	VOC	2.58894E-07	0.159805174	0.159805174	0.159805174	0.159805174	0.159805174
21037	Point	10300502	External Combustion Boilers	Commercial/Industrial	Distillate Oil	10-100 Million BTU/hr **	VOC	0	0.013649737	0.013649737	0.013649737	0.013649737	0.013649737
21037	Point	10300503	External Combustion Boilers	Commercial/Industrial	Distillate Oil	< 10 Million BTU/hr **	VOC	0	0	0	0	0	0
21037	Point	10300602	External Combustion Boilers	Commercial/Industrial	Natural Gas	10-100 Million BTU/hr	VOC	0.002110295	0.000348924	0.000348924	0.000348924	0.000348924	0.000348924
21037	Point	10300603	External Combustion Boilers	Commercial/Industrial	Natural Gas	< 10 Million BTU/hr	VOC	0.000141234	0	0	0	0	0
21037	Point	10301002	External Combustion Boilers	Commercial/Industrial	Liquefied Petroleum Gas (LPG)	Propane	VOC	0	0.002300798	0.002300798	0.002300798	0.002300798	0.002300798
21037	Point	20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	VOC	0.000337332	0	0	0	0	0

Region	City	Site	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2011	2014	2017	2020	2025	2030
21037	Point	20200401	Internal Combustion Engines	Industrial	Large Bore Engine	Diesel	VOC	1.39134E-05	0.136676958	0.136676958	0.136676958	0.136676958
21037	Point	20300101	Internal Combustion Engines	Commercial/Industrial	Distillate Oil (Diesel)	Reciprocating	VOC	7.71196E-05	0.000421329	0.000421329	0.000421329	0.000421329
21037	Point	20300201	Internal Combustion Engines	Commercial/Industrial	Natural Gas	Reciprocating	VOC	8.27599E-08	0.008167429	0.008167429	0.008167429	0.008167429
21037	Point	2275050011	Mobile Sources	Aircraft	General Aviation	Piston	VOC	7.56057E-06	0	0	0	0
21037	Point	2275050012	Mobile Sources	Aircraft	General Aviation	Turbine	VOC	6.20577E-05	0.01247505	0.01247505	0.01247505	0.01247505
21037	Point	30201304	Industrial Processes	Food and Agriculture	Meat Smokehouses	Continuous Smokehouse: Smoke Zone	VOC	9.25926E-07	0	0	0	0
21037	Point	30290003	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Natural Gas: Process Heaters	VOC	0.000423919	0.00879085	0.00879085	0.00879085	0.00879085
21037	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified	Other Not Classified	VOC	0.043161198	6.53595E-05	6.53595E-05	6.53595E-05	6.53595E-05
21037	Point	30500205	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Dryer: Drum Mix Plant (see 3-05-002-55 thru -63 for subtypes)	VOC	0.003491086	3.59477E-06	3.59477E-06	3.59477E-06	3.59477E-06
21037	Point	30501599	Industrial Processes	Mineral Products	Gypsum Manufacture	See Comment	VOC	0.061442647	0	0	0	0
21037	Point	38500110	Industrial Processes	Cooking Tower	Process Cooling	Other Not Specified	VOC	2.8549E-06	0.012708736	0.012708736	0.012708736	0.012708736
21037	Point	39000699	Industrial Processes	In-process Fuel Use	Natural Gas	General	VOC	0.013649737	0	0	0	0
21037	Point	39999992	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.000348924	1.22696E-06	1.22696E-06	1.22696E-06	1.22696E-06
21037	Point	39999994	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.002300798	0	0	0	0
21037	Point	39999995	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.136676958	0	0	0	0
21037	Point	39999999	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.008167429	0	0	0	0
21037	Point	40100198	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Dry Cleaning	Other Not Classified	VOC	0.01247505	0	0	0	0

Region Id	Data Category	scd	SCC Label One	SCC Label Two	SCC Label Three	SCC Label Four	Pollutant	2011 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2030 tpyd
21037	Point	40100296	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: General Degreasing Units	VOC	0.00879085	0	0	0	0
21037	Point	40201001	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Natural Gas	VOC	3.59477E-06	5.00871E-05	5.00871E-05	5.00871E-05	5.00871E-05
21037	Point	40299998	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	Specify in Comments Field	VOC	0.012708736	0	0	0	0
21037	Point	40301018	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Working Loss (Tank Diameter Independent)	VOC	1.22696E-06	0.003486435	0.003486435	0.003486435	0.003486435
21037	Point	40399999	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment **	VOC	0	0	0	0	0
21037	Point	40400412	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Tanks	Jet Kerosene: Working Loss	VOC	0.012339813	0.012134976	0.011647569	0.010599749	0.009551929
21037	Point	40400414	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Tanks	Distillate Fuel #2: Working Loss	VOC	5.00871E-05	0	0	0	0
21037	Point	40500597	Petroleum and Solvent Evaporation	Printing/Publishing	General	Other Not Classified	VOC	0.003486435	0.041123926	0.039472165	0.035921232	0.032370299
21037	Point	40600301	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	VOC	0.012544649	0	0	0	0
21037	Point	40600307	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	VOC	0.042512255	0.0409930081	0.039286105	0.035751911	0.032217736
21037	Point	40600401	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	VOC	0.042311865	0	0	0	0
21037	Point	40600402	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	VOC	0.029784647	0.029784647	0.029784647	0.029784647	0.029784647
21037	Point					TOTAL	VOC	0.0457814	0.0479145	0.0471012	0.0462679	0.0462679

Kenton County

Region	City	Site	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		
21117	EGU	20100102	Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating	NOx	0.001777606	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	
21117	EGU	20100102	Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating	NOx	0.0021778	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	0.01492596	
21117	Nonpoint	2104001000	Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types	NOx	1.01829E-08	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	0.000820927	
21117	Nonpoint	2104002000	Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types	NOx	1.54133E-05	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	0.027497538	
21117	Nonpoint	2104004000	Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types	NOx	0.008020591	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	0.001523973	
21117	Nonpoint	2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types	NOx	0.133702888	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21117	Nonpoint	2104007000	Stationary Source Fuel Combustion	Residential	Liquefied Petroleum Gas (LPG)	Total: All Combustor Types	NOx	0.038240196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Nonpoint	2104008100	Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general	NOx	0.016124864	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	0.000104905	
21117	Nonpoint	2104008210	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; non-EPA certified	NOx	0.007959613	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	2.93734E-06	
21117	Nonpoint	2104008220	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; non-catalytic	NOx	0.002067089	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	0.016409712	
21117	Nonpoint	2104008230	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	NOx	0.000603026	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	0.000902533	
21117	Nonpoint	2104008310	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, non-EPA certified	NOx	0.006367702	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	0.000945305	
21117	Nonpoint	2104008320	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	NOx	0.001654619	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	5.19918E-05	
21117	Nonpoint	2104008330	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	NOx	0.000482421	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	0.000728656	

Region cd	Data Category	sco	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	PerkWhk	2015 tpsd	2017 tpsd	2020 tpsd	2025 tpsd	2050 tpsd
21117	Nonpoint	2104008400	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: pellet-fired, general (freestanding or FP insert)	NOx	4.00766E-05	4.00766E-05	4.00766E-05	4.00766E-05	4.00766E-05
21117	Nonpoint	2104008510	Stationary Source Fuel Combustion	Residential	Wood	Furnace: Indoor, cordwood-fired, non-EPA certified	NOx	0.000188535	0.000188535	0.000188535	0.000188535	0.000188535
21117	Nonpoint	2104008610	Stationary Source Fuel Combustion	Residential	Wood	Hydronic heater: outdoor	NOx	4.04003E-06	4.04003E-06	4.04003E-06	4.04003E-06	4.04003E-06
21117	Nonpoint	2104008700	Stationary Source Fuel Combustion	Residential	Wood	Outdoor wood burning device, NEC (fire-pits, chimneys, etc)	NOx	0.001777606	0.001777606	0.001777606	0.001777606	0.001777606
21117	Nonpoint	2104009000	Stationary Source Fuel Combustion	Residential	Firelog	Total: All Combustor Types	NOx	3.88857E-05	3.22759E-05	3.00726E-05	3.00726E-05	3.00726E-05
21117	Nonpoint	2104011000	Stationary Source Fuel Combustion	Residential	Kerosene	Total: All Heater Types	NOx	0	0	0	0	0
21117	Nonpoint	2285002006	Mobile Sources	Railroad Equipment	Diesel	Line Haul Locomotives: Class I Operators	NOx	0	0	0	0	0
21117	Nonpoint	2302002100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	ConveyORIZED Charbroiling	NOx	0.001002293	0.000644889	0.000525754	0.000525754	0.000525754
21117	Nonpoint	2302002200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Under-fired Charbroiling	NOx	7.02192E-05	3.82422E-05	2.75832E-05	2.75832E-05	2.75832E-05
21117	Nonpoint	2302003000	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Deep Fat Frying	NOx	0.000436757	0.000436757	0.000436757	0.000436757	0.000436757
21117	Nonpoint	2302003100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Flat Griddle Frying	NOx	1.65333E-05	1.65333E-05	1.65333E-05	1.65333E-05	1.65333E-05
21117	Nonpoint	2302003200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Clamshell Griddle Frying	NOx	5.08358E-05	5.08358E-05	5.08358E-05	5.08358E-05	5.08358E-05
21117	Nonpoint	2310000220	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Drill Rigs	NOx	3.52365E-06	2.92469E-06	2.72504E-06	2.72504E-06	2.72504E-06

Region	Site	ICD	SC2 Level One	SC2 Level Two	SC2 Level Three	SC2 Level Four	Pollutant	2011 Ipad	2014 Ipad	2017 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21117	Nonpoint	231000330	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Artificial Lift	NOx	0	1.01829E-08	1.01829E-08	1.01829E-08	1.01829E-08	1.01829E-08
21117	Nonpoint	231000550	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Produced Water	NOx		3.39433E-08	3.39433E-08	3.39433E-08	3.39433E-08	3.39433E-08
21117	Nonpoint	231000660	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	NOx	0	1.54133E-05	1.54133E-05	1.54133E-05	1.54133E-05	1.54133E-05
21117	Nonpoint	2310010100	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	NOx	0	1.69377E-05	1.69377E-05	1.69377E-05	1.69377E-05	1.69377E-05
21117	Nonpoint	2310010200	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flashing & Standing/Working/Breathing	NOx	0	0.008020591	0.008020591	0.008020591	0.008020591	0.008020591
21117	Nonpoint	2310010300	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	NOx		0.000311912	0.000311912	0.000311912	0.000311912	0.000311912
21117	Nonpoint	2310011000	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	NOx	0	0.133702888	0.133702888	0.133702888	0.133702888	0.133702888
21117	Nonpoint	2310011201	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Tank Truck/Trailer Loading: Crude Oil	NOx		0.007823051	0.007823051	0.007823051	0.007823051	0.007823051
21117	Nonpoint	2310011501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	NOx		0.038740196	0.038740196	0.038740196	0.038740196	0.038740196
21117	Nonpoint	2310011502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	NOx		0.001402083	0.001402083	0.001402083	0.001402083	0.001402083
21117	Nonpoint	2310011503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	NOx		0.016622431	0.017119998	0.017640601	0.018527469	0.019414336
21117	Nonpoint	2310011505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	NOx		0.120832347	0.124449275	0.128733663	0.134680511	0.14112758
21117	Nonpoint	2310021010	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate	NOx	0	0.007608253	0.007255893	0.006873695	0.006208498	0.005543302

Region of Data Category	SCD	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	SCC Level Five	2014 (t/yr)	2017 (t/yr)	2020 (t/yr)	2025 (t/yr)	2050 (t/yr)		
21117	Nonpoint	2310021030	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Tank Truck/Railcar Loading: Condensate	NOx	0	0.144013467	0.137362718	0.130109312	0.117518088	0.104926864
21117	Nonpoint	2310021100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	NOx	0	0.002227436	0.002387783	0.002564076	0.002871186	0.003178297
21117	Nonpoint	2310021202	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Lean Burn Compressor Engines 50 To 499 HP	NOx	0	0.011723343	0.012567275	0.013495133	0.015111503	0.016727873
21117	Nonpoint	2310021251	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	NOx	0	0.000649803	0.000695581	0.00074801	0.000837603	0.000927195
21117	Nonpoint	2310021300	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	NOx	0	0.004873516	0.005224347	0.005610068	0.006282201	0.006953952
21117	Nonpoint	2310021302	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4Cycle Rich Burn Compressor Engines 50 To 499 HP	NOx	0	0.006313121	0.006258541	0.006198503	0.006093389	0.005989278
21117	Nonpoint	2310021351	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	NOx	0	0.119498192	0.118465067	0.117328629	0.115348471	0.113368314
21117	Nonpoint	2310021400	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	NOx	0	0.00178297	0.001911321	0.002052436	0.002298265	0.002544094
21117	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	NOx	0	0.009384057	0.010059589	0.010802302	0.01209614	0.013389978
21117	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	NOx	0	0.000519843	0.000557265	0.000598409	0.000670083	0.000741757
21117	Nonpoint	2310021503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	NOx	0	0.003898831	0.004179497	0.004488075	0.00502563	0.005563186
21117	Nonpoint	2310021505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	NOx	0	0.001059947	0.00130166	0.001556124	0.001999191	0.002442548

Region Code	Data Category	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Population	2011 Emissions	2017 Emissions	2025 Emissions	2050 Emissions	
21117	Nonpoint	2310021506	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	NOx	0	1.15447E-05	1.67898E-05	2.15702E-05	2.63507E-05
21117	Nonpoint	2310021603	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	NOx	0	0.001497938	0.001669272	0.001886513	0.002103754
21117	Nonpoint	2310111100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	NOx		0.009599404	0.010697379	0.012089548	0.013481718
21117	Nonpoint	2310111401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	NOx		0	0	0	0
21117	Nonpoint	2310121100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	NOx		0	0	0	0
21117	Nonpoint	2310121401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	NOx		0.000287509	0.000296115	0.000320459	0.000335799
21117	Nonpoint	2310121700	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	NOx	0	0.002089973	0.002152533	0.002329497	0.002441005
21117	Nonpoint	2401001000	Solvent Utilization	Surface Coating	Architectural Coatings	NOx		0.002660431	0.002740067	0.002823339	0.002965534
21117	Nonpoint	2401005000	Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	NOx		0.013696841	0.014106835	0.01453581	0.015266587
21117	Nonpoint	2401008000	Solvent Utilization	Surface Coating	Traffic Markings	NOx		0.006774918	0.006774918	0.006774918	0.006774918
21117	Nonpoint	2401015000	Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2425 thru 242	NOx		0.000263469	0.000263469	0.000263469	0.000263469
21117	Nonpoint	2401020000	Solvent Utilization	Surface Coating	Wood Furniture: SIC 25	NOx		0.000155231	0.000156487	0.000157743	0.000159836
21117	Nonpoint	2401030000	Solvent Utilization	Surface Coating	Paper: SIC 26 Machinery and Equipment: SIC 35	NOx		0.006360005	0.006394723	0.006442827	0.006534154
21117	Nonpoint	2401055000	Solvent Utilization	Surface Coating	Electronic and Other Electrical: SIC 36 - 363 Motor Vehicles: SIC 371	NOx		1.03687E-05	1.04526E-05	1.05365E-05	1.06162E-05
21117	Nonpoint	2401065000	Solvent Utilization	Surface Coating	Other Electrical: SIC 36 - 363 Motor Vehicles: SIC 371	NOx		0.000229308	0.000230185	0.00023192	0.000233914
21117	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Surface Coating	NOx		1.24149E-05	1.25153E-05	1.26158E-05	1.27832E-05

Region Id	Data Category	iso	SCD Level Dye	SCD Level Type	SCD Level (Fuels)	SCD Level Point	Pollutant	2011 Year	2014 Year	2017 Year	2020 Year	2025 Year	2030 Year
21117	Nonpoint	2401085000	Solvent Utilization	Surface Coating	Railroad: SIC 374	Total: All Solvent Types	NOx		0.000273332	0.000274672	0.000276814	0.000281051	0.000285789
21117	Nonpoint	2401090000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing Industrial	Total: All Solvent Types	NOx		8.7339E-08	8.80456E-08	8.87522E-08	8.993E-08	9.11077E-08
21117	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Maintenance Coatings	Total: All Solvent Types	NOx		2.25523E-06	2.27141E-06	2.28967E-06	2.32163E-06	2.35365E-06
21117	Nonpoint	2401200000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	Total: All Solvent Types	NOx		0.000408035	0.000411337	0.000414638	0.00042014	0.000425642
21117	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/All Industries	Total: All Solvent Types	NOx		0.016709816	0.016335002	0.016466668	0.016691511	0.016916355
21117	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	Total: All Solvent Types	NOx		2.44229E-06	2.46205E-06	2.48181E-06	2.51474E-06	2.54768E-06
21117	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	NOx		5.56068E-05	5.59064E-05	5.63277E-05	5.71313E-05	5.79349E-05
21117	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	NOx		1.43308E-06	9.63678E-07	5.7658E-07		0
21117	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	NOx		3.51545E-05	2.36131E-05	1.41186E-05		0
21117	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	NOx		1.13532E-07	7.63448E-08	4.5678E-08		0
21117	Nonpoint	2460600000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	NOx		2.68719E-06	1.80571E-06	1.07992E-06		0
21117	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	NOx		4.74896E-05	5.0385E-05	5.29642E-05	5.69994E-05	6.10347E-05

Region	City	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2011 Ispad	2014 Ispad	2017 Ispad	2020 Ispad	2025 Ispad	2050 Ispad
21117	Nonpoint	2460900000	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	NOx	0.00132855	0.001254301	0.001269009	0.001367653	0.001466297
21117	Nonpoint	2461021000	Miscellaneous Non-Industrial: Commercial	Cutback Asphalt	Total: All Solvent Types	NOx	0.000162248	0.000170748	0.000179038	0.000192678	0.000206319
21117	Nonpoint	2461022000	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	NOx	0.003635644	0.00377042	0.003936474	0.004239296	0.004542117
21117	Nonpoint	2461850000	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	NOx	0.000657906	0.000692236	0.000725799	0.000781096	0.000836394
21117	Nonpoint	2501011011	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Permeation	NOx	0.021747625	0.022693647	0.023784465	0.025773158	0.027661852
21117	Nonpoint	2501011012	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Evaporation (Includes Diurnal losses)	NOx	0.001800199	0.001891003	0.001981662	0.002132638	0.002283615
21117	Nonpoint	2501011014	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Refilling at the Pump - Vapor Displacement	NOx	0.082133213	0.086274296	0.090418841	0.097339302	0.104239763
21117	Nonpoint	2501012011	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Permeation	NOx	0.000922439	0.000970493	0.00101752	0.001095043	0.001172566
21117	Nonpoint	2501012012	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Evaporation (Includes Diurnal losses)	NOx	0.025777521	0.025264839	0.02594892	0.028086359	0.030223798
21117	Nonpoint	2501012014	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	NOx	0.001580283	0.001659994	0.001739577	0.001872112	0.002004646
21117	Nonpoint	2501050120	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative	Gasoline	NOx	0.042036885	0.044040142	0.04612681	0.0496741	0.05322139

Region_cd	Data Category	SCQ Level Code	SCQ Level Title	SCQ Level Name	SCQ Level Power	Pollutant	2014 Year	2017 Year	2020 Year	2025 Year	2030 Year
21117	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage	Bulk Plants: All Evaporative Losses	Gasoline	0.000589707	0.000620391	0.000650441	0.000699997	0.000749554
21117	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Submerged Filling	0.01645824	0.015736135	0.01609915	0.017608443	0.019117736
21117	Nonpoint	2501060052	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Splash Filling	0.001465042	0.00153894	0.00161272	0.001735589	0.001858458
21117	Nonpoint	2501060053	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Stage 1: Balanced Submerged Filling	0.041634074	0.043669154	0.04575628	0.049278193	0.052800106
21117	Nonpoint	2501060201	Storage and Transport	Petroleum and Petroleum Product Storage	Gasoline Service Stations	Underground Tank: Breathing and Emptying	0.000212187	0.000222889	0.000233575	0.000251371	0.000269166
21117	Nonpoint	2501080050	Storage and Transport	Petroleum and Petroleum Product Storage	Aviation Gasoline	Stage 1: Total	0.026385325	0.026856115	0.027887989	0.03007595	0.032262711
21117	Nonpoint	2501080100	Storage and Transport	Petroleum and Petroleum Product Storage	Aviation Gasoline	Stage 2: Total	0.00034683	0.000364325	0.000381791	0.000410878	0.000439966
21117	Nonpoint	2505040120	Storage and Transport	Petroleum and Petroleum Product Transport	Pipeline	Gasoline	0.040010441	0.041946427	0.043934496	0.047291348	0.050648201
21117	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Wastewater Treatment	Public Owned	Total Processed	6.46299E-07	6.78898E-07	7.11446E-07	7.6565E-07	8.19853E-07
21117	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Cremation	Humans	1.2935E-05	1.35724E-05	1.42253E-05	1.53265E-05	1.64276E-05
21117	Nonpoint				TOTAL		1.062754	0.978860	1.087069	1.119494	0.999615
21117	Nonroad	2260002006	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Tampers/Rammers	1.8532E-06	1.92923E-06	2.00526E-06	2.13199E-06	2.25871E-06

Region	County	Site	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Policy	2011 (pnd)	2014 (pnd)	2017 (pnd)	2020 (pnd)	2023 (pnd)	2030 (pnd)
21117	Nonroad	2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Plate Compactors	NOx	1.02848E-05	3.82132E-05	3.92295E-05	4.0709E-05	4.3561E-05	4.64129E-05
21117	Nonroad	2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Paving Equipment	NOx	1.23144E-05	7.89907E-05	8.45632E-05	9.01411E-05	9.9442E-05	0.000108743
21117	Nonroad	2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	8.66324E-08	0.002147159	0.002289073	0.002439207	0.002696279	0.002953351
21117	Nonroad	2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	0.000404734	0.000538537	0.000576253	0.000614107	0.000677312	0.000740517
21117	Nonroad	2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	2.42253E-06	0.015152759	0.016109558	0.017125745	0.01868882	0.020612019
21117	Nonroad	2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	1.90748E-06	1.97092E-07	2.10996E-07	2.24914E-07	2.4812E-07	2.71327E-07
21117	Nonroad	2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	1.50718E-07	5.44282E-06	5.82279E-06	6.20737E-06	6.85218E-06	7.49699E-06
21117	Nonroad	2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	4.45943E-05	2.63446E-06	2.82031E-06	3.00634E-06	3.31653E-06	3.62673E-06
21117	Nonroad	2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	0.000153748	7.65823E-05	8.19143E-05	8.73041E-05	9.6335E-05	0.000105366
21117	Nonroad	2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	NOx	0.000623575	4.90871E-07	5.28829E-07	5.66788E-07	6.30053E-07	6.93319E-07
21117	Nonroad	2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	NOx	0.001709395	2.23148E-05	2.40399E-05	2.57677E-05	2.86497E-05	3.15317E-05
21117	Nonroad	2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	NOx	0.000874386	0.00350709	0.003188136	0.003113136	0.003191434	0.003269731
21117	Nonroad	2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	NOx	0.001500573	0.009822153	0.00925515	0.00919962	0.009533297	0.009866974

Region	Local	Data Category	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	Pollutant	2014 Input	2017 Input	2020 Input	2025 Input	2030 Input
21117	Nonroad	2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	NOx	0.000712951	0.000156897	0.000135668	0.000129306	0.00012945
21117	Nonroad	2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	0.000400879	0.000335832	0.00031455	0.000315554	0.000316557
21117	Nonroad	2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	1.46532E-06	1.09417E-06	9.63058E-07	9.44555E-07	9.26052E-07
21117	Nonroad	2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	3.68872E-06	3.1216E-06	2.93706E-06	2.94833E-06	2.95959E-06
21117	Nonroad	2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.000346887	0.000271954	0.000246719	0.000246077	0.000245434
21117	Nonroad	2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Sprayers	NOx	0.001264971	0.00091025	0.000796281	0.000806956	0.000817632
21117	Nonroad	2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Generator Sets	NOx	0.000322919	0.000255133	0.000232579	0.00023268	0.000232781
21117	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Pumps	NOx	0.000661659	0.000581138	0.00055784	0.000566697	0.000575554
21117	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Air Compressors	NOx	0.000705694	0.000537979	0.000474934	0.000457082	0.00043923
21117	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Hydro-power Units	NOx	0.001982298	0.001545143	0.001400722	0.001403956	0.00140723
21117	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Chain Saws : 6 HP	NOx	0.000274458	0.000217431	0.000198396	0.000198329	0.000198263
21117	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Golf Carts	NOx	0.000772524	0.00062224	0.000576001	0.000585641	0.000595281
21117	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Pavers	NOx	1.40246E-05	1.12562E-05	1.03559E-05	1.04121E-05	1.04683E-05

region_cd	Data Category	scs	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	Pollutant	2011 speed	2014 speed	2017 speed	2020 speed	2025 speed	2050 speed
21117	Nonroad	2265002060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0.000341784	0.000148533	8.9078E-05	6.18876E-05	4.34827E-05	2.50778E-05
21117	Nonroad	2265002066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	0.000466288	8.19589E-05	4.88903E-05	3.39179E-05	2.40441E-05	1.41702E-05
21117	Nonroad	2265002072	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Skid Steer Loaders	NOx	0.000655254	0.000243698	0.000145611	0.000109682	0.000101597	9.35122E-05
21117	Nonroad	2265002078	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Dumpers/Tenders	NOx	0.000135539	0.000126621	7.37165E-05	5.47281E-05	5.13438E-05	4.79595E-05
21117	Nonroad	2265002081	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Other Construction Equipment	NOx	0.000243684	0.000385464	0.00030464	0.000278247	0.0002796	0.000280993
21117	Nonroad	2265003010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Aerial Lifts	NOx	0.001130504	0.000851957	0.000749277	0.000719853	0.000731859	0.000743855
21117	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	NOx	0.002470142	0.000510593	0.000365931	0.000285923	0.000206453	0.000126982
21117	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrubbers	NOx	0.000335063	0.000513092	0.000403497	0.000350432	0.000309098	0.000267763
21117	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	NOx	0.000540645	0.000112309	8.90797E-05	7.67255E-05	6.51984E-05	5.36712E-05
21117	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	NOx	7.17976E-05	0.000352031	0.0002815	0.000249289	0.000227537	0.000205785
21117	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC/Refrigeration	NOx	1.52912E-05	0.000191899	0.000140093	0.000104212	5.76725E-05	1.11324E-05
21117	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	NOx	6.98179E-05	0.000107051	7.84869E-05	5.84903E-05	3.23023E-05	6.11426E-05
21117	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	NOx	0.012644286	0.000819104	0.000507704	0.00031758	0.00010177	1.54462E-05

Region/Local Data Category	SCQ Label Code	SCQ Label Title	SCQ Label Description	SCQ Label Type	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total			
21117	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	NOx	0.006288479	0.000594998	0.000364552	0.000224524	6.6492E-05	3.27927E-06
21117	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	NOx	0.001062927	0.001547292	0.000624441	0.000241587	5.34927E-05	1.58739E-05
21117	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	NOx	0.003399252	0.000791937	0.000315119	0.000119444	2.73697E-05	8.95472E-06
21117	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	NOx	6.63921E-05	0.00022142	0.000106777	5.09175E-05	6.80589E-06	6.80589E-06
21117	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	NOx	0.000151011	0.000285219	0.000149194	7.59625E-05	6.23812E-06	6.23812E-06
21117	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	NOx	0.000126712	0.000366445	0.000192246	9.71176E-05	4.46251E-06	4.46251E-06
21117	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	0.008133567	0.001275782	0.000619394	0.000288807	8.27888E-06	8.27888E-06
21117	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	NOx	0.001431806	4.93807E-05	2.69689E-05	1.50069E-05	3.77844E-06	1.53276E-06
21117	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.002340319	3.88894E-05	2.16889E-05	1.21543E-05	2.65153E-06	7.50973E-07
21117	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	NOx	0.002726955	1.02412E-05	5.19121E-06	2.57634E-06	2.47479E-07	2.47479E-07
21117	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	NOx	0.000771031	2.43611E-05	1.34421E-05	7.20824E-06	7.22635E-07	7.22635E-07
21117	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.001039119	4.81813E-05	2.65447E-05	1.44926E-05	2.39265E-06	2.39265E-06
21117	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	NOx	0.000401153	2.31789E-05	1.27791E-05	6.9953E-06	1.20221E-06	4.35949E-06

Region_Cd	Data Category	eco	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	Highway	2014 Issued	2017 Issued	2020 Issued	2025 Issued	2030 Issued
21117	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	NOx	0.010677191	0.008710096	0.008131724	0.008325039	0.008518353
21117	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	NOx	0.093222154	0.066173984	0.057662537	0.05892406	0.060185593
21117	Nonroad	2265004066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Chippers/Slump Grinders (Commercial)	NOx	0.005463026	0.004637573	0.004475814	0.004759292	0.005042771
21117	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.033392954	0.025928591	0.024189241	0.026061167	0.027931093
21117	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	NOx	0.000896566	0.000730206	0.000681338	0.0006978	0.000714263
21117	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	NOx	0.007960548	0.00573743	0.005048572	0.005179018	0.005309465
21117	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	NOx	0.007892168	0.002385083	0.002262306	0.002377933	0.002493561
21117	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	NOx	0.019866409	0.015222016	0.013996149	0.014801809	0.015607469
21117	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	NOx	5.64941E-05	4.65961E-05	4.42238E-05	4.65414E-05	4.8859E-05
21117	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	NOx	0.00052236	0.000415102	0.000390702	0.000419085	0.000447469
21117	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	NOx	0.000129124	0.000107237	0.000102523	0.000108979	0.000115415
21117	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	NOx	0.000744754	0.000654744	0.0006446	0.000694248	0.000743895
21117	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Tillers - 6 HP	NOx	0.00010779	8.88675E-05	8.43424E-05	8.87982E-05	9.32541E-05

Region Code	Data Category	SCC	SCC Label	SCC Label (W/C)	SCC Label (P/W)	SCC Label (P/W)	SCC Label (P/W)	2011 Emissions	2014 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2050 Emissions
21117	Nonroad	2267002024	Mobile Sources	LPG	Construction and Mining Equipment	Surfacing Equipment	NOx	1.19118E-05	0.002374639	0.00178717	0.001620209	0.001692362	0.001764516
21117	Nonroad	2267002030	Mobile Sources	LPG	Construction and Mining Equipment	Trenchers	NOx	0.000236245	0.030174596	0.023750605	0.021645028	0.021734411	0.021823794
21117	Nonroad	2267002033	Mobile Sources	LPG	Construction and Mining Equipment	Bore/Drill Rigs	NOx	0.000142048	0.103960143	0.087539891	0.084066112	0.089065207	0.094064302
21117	Nonroad	2267002039	Mobile Sources	LPG	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	8.06685E-05	0.008714798	0.006951369	0.00652077	0.006913795	0.007306811
21117	Nonroad	2267002045	Mobile Sources	LPG	Construction and Mining Equipment	Cranes	NOx	0.000122105	0.020991596	0.019247536	0.019257867	0.020737148	0.022216409
21117	Nonroad	2267002054	Mobile Sources	LPG	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	2.01177E-05	0.001537945	0.001173698	0.001071877	0.001120856	0.001169854
21117	Nonroad	2267002057	Mobile Sources	LPG	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	0.000172749	0.002324951	0.00205657	0.002029265	0.002184653	0.002340042
21117	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Rubber Tire Loaders	NOx	0.000285914	0.026810385	0.022100672	0.021056429	0.022370582	0.023684735
21117	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	2.20919E-05	0.068736898	0.058319547	0.056644887	0.061139952	0.065639837
21117	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Skid Steer Loaders	NOx	0.000408428	0.001130787	0.000945563	0.000859119	0.00079736	0.000735601
21117	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Other Construction Equipment	NOx	0.000193976	0.005742122	0.004311944	0.003808433	0.003741471	0.003674508
21117	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Aerial Lifts	NOx	0.001559781	0.000993795	0.000831577	0.00075484	0.000698346	0.000641852
21117	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Forklifts	NOx	0.076959477	0.004907447	0.003647038	0.003197242	0.003123093	0.003048945
21117	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Sweepers/Scrubbers	NOx	0.000373778	5.53543E-06	4.44056E-06	4.15812E-06	4.36443E-06	4.57075E-06
21117	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Other General Industrial Equipment	NOx	0.000139587	1.31485E-05	1.17141E-05	1.15461E-05	1.23215E-05	1.30969E-05
21117	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Other Material Handling Equipment	NOx	8.12271E-05	3.0202E-05	1.96396E-05	1.58664E-05	1.52354E-05	1.46044E-05
21117	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Terminal Tractors	NOx	0.000138094	2.36024E-05	1.73024E-05	1.53247E-05	1.56304E-05	1.5936E-05
21117	Nonroad	2267004066	Mobile Sources	LPG	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	NOx	0.000869592	4.69594E-07	4.08399E-07	3.45875E-07	2.40559E-07	1.35243E-07

Region	CD	Data Category	Year	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	pollutants	2011 Emissions	2017 Emissions	2020 Emissions	2025 Emissions	2030 Emissions
21117	Nonroad	2267005055	Mobile Sources	LPG	Agricultural Equipment	Other Agricultural Equipment	NOx	9.71618E-07	3.2676E-07	2.85571E-07	2.45507E-07	1.79671E-07	1.13835E-07
21117	Nonroad	2267005060	Mobile Sources	LPG	Agricultural Equipment	Irrigation Sets	NOx	2.07086E-07	5.41822E-05	4.71377E-05	3.99395E-05	2.78144E-05	1.56893E-05
21117	Nonroad	2267006005	Mobile Sources	LPG	Commercial Equipment	Generator Sets	NOx	0.008449706	4.31161E-05	3.76745E-05	3.25086E-05	2.41286E-05	1.57485E-05
21117	Nonroad	2267006010	Mobile Sources	LPG	Commercial Equipment	Pumps	NOx	0.001478042	5.12529E-06	4.04839E-06	3.63877E-06	3.51215E-06	3.36552E-06
21117	Nonroad	2267006015	Mobile Sources	LPG	Commercial Equipment	Air Compressors	NOx	0.001428441	1.25705E-05	1.07109E-05	1.01582E-05	1.03263E-05	1.04943E-05
21117	Nonroad	2267006025	Mobile Sources	LPG	Commercial Equipment	Welders	NOx	0.001895376	9.25777E-05	7.88804E-05	6.87584E-05	5.48678E-05	4.09773E-05
21117	Nonroad	2267006030	Mobile Sources	LPG	Commercial Equipment	Pressure Washers	NOx	3.37092E-05	0.000185561	0.000146585	0.000129344	0.000118722	0.0001081
21117	Nonroad	2267006035	Mobile Sources	LPG	Commercial Equipment	Hydro-power Units	NOx	1.74213E-05	0.000138268	0.000134972	0.000128392	0.000114687	0.000100982
21117	Nonroad	2268002081	Mobile Sources	CNG	Construction and Mining Equipment	Other Construction Equipment	NOx	7.99722E-06	0.000522535	0.00047899	0.000439859	0.000378318	0.000316778
21117	Nonroad	2268003020	Mobile Sources	CNG	Industrial Equipment	Forklifts	NOx	0.00549732	8.5879E-05	7.47133E-05	6.33041E-05	4.40859E-05	2.48676E-05
21117	Nonroad	2268003030	Mobile Sources	CNG	Industrial Equipment	Sweepers/Scrubbers	NOx	7.02134E-06	6.05058E-05	5.29011E-05	4.55168E-05	3.33939E-05	2.12697E-05
21117	Nonroad	2268003040	Mobile Sources	CNG	Industrial Equipment	Other General Industrial Equipment	NOx	3.35275E-06	0.00010251	8.85017E-05	7.53254E-05	5.40582E-05	3.27909E-05
21117	Nonroad	2268003060	Mobile Sources	CNG	Industrial Equipment	AC/Refrigeration	NOx	1.52824E-05	8.26721E-05	7.1297E-05	6.27935E-05	5.10139E-05	3.92342E-05
21117	Nonroad	2268003070	Mobile Sources	CNG	Industrial Equipment	Terminal Tractors	NOx	1.07338E-05	3.32752E-05	2.33208E-05	2.02965E-05	2.1031E-05	2.17656E-05
21117	Nonroad	2268005055	Mobile Sources	CNG	Agricultural Equipment	Other Agricultural Equipment	NOx	5.73233E-07	2.26449E-05	1.54741E-05	1.34088E-05	1.42212E-05	1.50337E-05
21117	Nonroad	2268005060	Mobile Sources	CNG	Agricultural Equipment	Irrigation Sets	NOx	2.72644E-06	0.023585362	0.019420973	0.01809351	0.018245176	0.018396843
21117	Nonroad	2268006005	Mobile Sources	CNG	Commercial Equipment	Generator Sets	NOx	0.002593797	0.071087591	0.059731555	0.057318113	0.060747871	0.06417763
21117	Nonroad	2268006010	Mobile Sources	CNG	Commercial Equipment	Pumps	NOx	0.00011103	0.00612845	0.005053093	0.004728273	0.004812353	0.004896433
21117	Nonroad	2268006015	Mobile Sources	CNG	Commercial Equipment	Air Compressors	NOx	0.000111053	0.018710348	0.014623678	0.01379046	0.015112973	0.016435486
21117	Nonroad	2268006020	Mobile Sources	CNG	Commercial Equipment	Gas Compressors	NOx	0.000878546	0.00334975	0.002596459	0.002375803	0.002451904	0.002528005
21117	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Pavers	NOx	0.012779473	0.007750494	0.006146577	0.005834831	0.006932852	0.006594294
21117	Nonroad	2270002006	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tampers/Rammers	NOx	2.96114E-05	0.006617152	0.005313299	0.004995585	0.005287845	0.005580105
21117	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Plate Compactors	NOx	0.000466543	0.014537327	0.013270516	0.013370819	0.014677254	0.015983688

Region/CD	Data Category	ISCC	ISCC Level One	ISCC Level Two	ISCC Level Three	ISCC Level Four	Pollutant	2004* Total	2007 Total	2020 Total	2025 Total	2030 Total
21117	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rollers	NOx	0.00970209	0.008011713	0.00769858	0.008324395	0.008950211
21117	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Scrapers	NOx	0.034360859	0.027407649	0.026180097	0.028905557	0.031631017
21117	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Paving Equipment	NOx	0.000362771	0.00030496	0.000296495	0.0003235	0.000350505
21117	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Surfacing Equipment	NOx	0.001001459	0.00083929	0.000820173	0.000907523	0.000994873
21117	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Signal Boards/Light Plants	NOx	1.82894E-06	1.57817E-06	1.43864E-06	1.29879E-06	1.15894E-06
21117	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Trenchers	NOx	5.13532E-06	4.69959E-06	4.54895E-06	4.53546E-06	4.52197E-06
21117	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Bore/Drill Rigs	NOx	1.66872E-08	1.46031E-08	1.45185E-08	1.60439E-08	1.75692E-08
21117	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Excavators	NOx	6.14284E-08	4.77481E-08	4.52233E-08	5.03081E-08	5.59393E-08
21117	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Concrete/Industrial Saws	NOx	5.34152E-05	3.34109E-05	2.48647E-05	2.01695E-05	1.54743E-05
21117	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cement and Mortar Mixers	NOx	1.39466E-05	7.65923E-06	4.86616E-06	3.12297E-06	1.37979E-06
21117	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cranes	NOx	5.34812E-05	3.70256E-05	3.20157E-05	3.3204E-05	3.43924E-05
21117	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Graders	NOx	1.26379E-05	6.95786E-06	5.03618E-06	4.96535E-06	4.89451E-06
21117	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Trucks	NOx	2.3444E-05	1.65108E-05	1.2586E-05	8.21832E-06	3.85063E-06
21117	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crushing/Processing Equipment	NOx	6.40206E-06	4.40523E-06	3.16484E-06	1.7279E-06	2.90952E-07
21117	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rough Terrain Forklifts	NOx	8.82428E-06	5.73679E-06	4.42153E-06	3.70629E-06	2.99105E-06
21117	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rubber Tire Loaders	NOx	2.28189E-06	1.29857E-06	8.60793E-07	5.85773E-07	3.10752E-07
21117	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tractors/Loaders/Backhoes	NOx	0.000170538	0.000104832	7.67245E-05	6.12121E-05	4.56697E-05

Region	County	SCD Level	CDL	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW	SCD Level	FW																																																																																																																																																																									
21117	Nonroad	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	NOx	0.133424869	4.48369E-05	2.42563E-05	1.5115E-05	9.41233E-06	3.70963E-06	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	NOx	0.078198676	0.000124747	0.000107446	9.05733E-05	6.28084E-05	3.50436E-05	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	NOx	0.017581403	3.41755E-05	2.94152E-05	2.45318E-05	1.62904E-05	8.04905E-06	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	NOx	0.000253642	6.83206E-05	5.59727E-05	5.34178E-05	5.73205E-05	6.12231E-05	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	NOx	0.01717079	1.42168E-05	9.4893E-06	8.13863E-06	8.70158E-06	9.26452E-06	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	NOx	0.002704179	9.40763E-05	6.60476E-05	4.88784E-05	2.93129E-05	9.74739E-06	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	NOx	0.023240475	2.57458E-05	1.75758E-05	1.22625E-05	5.78761E-06	6.0772E-07	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	NOx	0.012253369	1.51547E-05	1.01917E-05	7.44279E-06	4.70626E-06	1.96972E-06	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	NOx	0.014115311	4.1363E-06	2.67885E-06	1.82254E-06	8.96318E-07	1.5534E-07	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	NOx	0.000727297	0.00012391	7.50705E-05	5.3358E-05	3.97762E-05	2.61945E-05	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC Refrigeration	NOx	0.052837255	3.30889E-05	1.80034E-05	1.10473E-05	6.22847E-06	1.40963E-06	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	NOx	0.011655784	0.000204659	0.000123405	9.57979E-05	9.44938E-05	9.31896E-05	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	2.55506E-06	5.22772E-05	2.54839E-05	1.58335E-05	1.40353E-05	1.22371E-05	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.000623253	1.66034E-05	1.1115E-05	9.4851E-06	9.98414E-06	1.04832E-05	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.014995662	4.0097E-06	2.09307E-06	1.46487E-06	1.49156E-06	1.51824E-06	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors	NOx	0.002978123	0.000318757	0.000229076	0.000173617	0.000109702	4.57858E-05	2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Slump Grinders (Commercial)	NOx	0.02238402	8.65033E-05	5.98547E-05	4.2578E-05	2.15936E-05	6.09125E-07
21117	Nonroad	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	NOx	0.133424869	4.48369E-05	2.42563E-05	1.5115E-05	9.41233E-06	3.70963E-06	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	NOx	0.078198676	0.000124747	0.000107446	9.05733E-05	6.28084E-05	3.50436E-05	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	NOx	0.017581403	3.41755E-05	2.94152E-05	2.45318E-05	1.62904E-05	8.04905E-06	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	NOx	0.000253642	6.83206E-05	5.59727E-05	5.34178E-05	5.73205E-05	6.12231E-05	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	NOx	0.01717079	1.42168E-05	9.4893E-06	8.13863E-06	8.70158E-06	9.26452E-06	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	NOx	0.002704179	9.40763E-05	6.60476E-05	4.88784E-05	2.93129E-05	9.74739E-06	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	NOx	0.023240475	2.57458E-05	1.75758E-05	1.22625E-05	5.78761E-06	6.0772E-07	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	NOx	0.012253369	1.51547E-05	1.01917E-05	7.44279E-06	4.70626E-06	1.96972E-06	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	NOx	0.014115311	4.1363E-06	2.67885E-06	1.82254E-06	8.96318E-07	1.5534E-07	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	NOx	0.000727297	0.00012391	7.50705E-05	5.3358E-05	3.97762E-05	2.61945E-05	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC Refrigeration	NOx	0.052837255	3.30889E-05	1.80034E-05	1.10473E-05	6.22847E-06	1.40963E-06	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	NOx	0.011655784	0.000204659	0.000123405	9.57979E-05	9.44938E-05	9.31896E-05	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	NOx	2.55506E-06	5.22772E-05	2.54839E-05	1.58335E-05	1.40353E-05	1.22371E-05	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers (Commercial)	NOx	0.000623253	1.66034E-05	1.1115E-05	9.4851E-06	9.98414E-06	1.04832E-05	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers (Commercial)	NOx	0.014995662	4.0097E-06	2.09307E-06	1.46487E-06	1.49156E-06	1.51824E-06	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors	NOx	0.002978123	0.000318757	0.000229076	0.000173617	0.000109702	4.57858E-05	2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Slump Grinders (Commercial)	NOx	0.02238402	8.65033E-05	5.98547E-05	4.2578E-05	2.15936E-05	6.09125E-07

Region/CD	Data Category	scd	SCD Level One	SCD Level Two	SCD Level Three	SCD Level Four	pollutant	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2050 Total
21117	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment (Commercial)	NOx	0.002097221	0.000154493	0.00011501	8.71191E-05	5.02953E-05	1.34714E-05
					Other Lawn and Garden Equipment (Commercial)								
21117	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	2-Wheel Tractors	NOx	5.98794E-05	4.23705E-05	3.1017E-05	2.24839E-05	1.06125E-05	1.11534E-06
					Agricultural Equipment								
21117	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	NOx	1.0325E-06	0.001264253	0.000968725	0.000751633	0.000455175	0.000158717
					Agricultural Equipment								
21117	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	NOx	0.055590579	0.000344373	0.000257938	0.000190937	9.54625E-05	1.90828E-05
					Agricultural Equipment								
21117	Nonroad	2270005020	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	NOx	2.76775E-05	0.055534813	0.034110149	0.026976823	0.026997392	0.027017967
					Agricultural Equipment								
21117	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	NOx	5.39943E-06	0.014126452	0.007006956	0.004453486	0.004002723	0.00355196
					Agricultural Equipment								
21117	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	NOx	0.000437202	0.000295759	0.000217741	0.000195915	0.000206364	0.000216814
					Agricultural Equipment								
21117	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Tillers : G HP	NOx	5.83762E-07	6.73728E-05	3.99501E-05	3.08723E-05	3.10298E-05	3.11874E-05
					Agricultural Equipment								
21117	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	NOx	0.000412828	0.000105157	7.07275E-05	6.0377E-05	6.31744E-05	6.59769E-05
					Agricultural Equipment	Other Agricultural Equipment							
21117	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	NOx	0.000579371	2.5477E-05	1.35605E-05	9.53574E-06	9.40425E-06	9.27276E-06
					Commercial Equipment	Generator Sets							
21117	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	NOx	0.01200335	6.1563E-05	4.18988E-05	3.10215E-05	2.02151E-05	9.40865E-06
					Commercial Equipment								
21117	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	NOx	0.027554383	1.67426E-05	1.09449E-05	7.52588E-06	3.80985E-06	9.38211E-08
					Commercial Equipment								
21117	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	NOx	0.015300413	0.000126934	0.000115774	0.00011634	0.000127055	0.00013777
					Commercial Equipment								
21117	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	NOx	0.001689087	2.40775E-05	1.86911E-05	1.75433E-05	1.91627E-05	2.07821E-05
					Commercial Equipment								
21117	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment		NOx	0.000640255	0.000640255	0.000410917	0.000337174	0.000343931	0.000350688
					Commercial Equipment								
21117	Nonroad	2270006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment		NOx	0.000158595	0.000158595	8.09559E-05	5.39522E-05	5.11425E-05	4.8328E-05
					Commercial Equipment								
21117	Nonroad	2270006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment		NOx	8.41944E-07	8.41944E-07	7.12271E-07	5.89981E-07	3.92317E-07	1.94653E-07
					Commercial Equipment								

Region/County	Data Category	sq	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	20031 Total	2004 Total	2007 Total	2020 Total	2025 Total	2050 Total	
21117	Nonroad	2270006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	NOx	0.000974951	2.33052E-07	1.97539E-07	1.62797E-07	1.05538E-07	4.87786E-08
21117	Nonroad	2270007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Equipment/Feller/Bunch/Sk idder	NOx	3.95904E-05	1.4965E-07	9.22138E-08	7.24489E-08	7.09001E-08	6.93513E-08
21117	Nonroad	2282005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	NOx	0.00477035	3.70481E-08	1.78392E-08	1.11973E-08	1.05999E-08	1.00025E-08
21117	Nonroad	2282005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	NOx	0.001913458	0.007588067	0.006726429	0.005807755	0.004229102	0.00285045
21117	Nonroad	2282010005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Stern drive	NOx	0.007187792	0.001566128	0.001386027	0.001181695	0.000820949	0.000460203
21117	Nonroad	2282020005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Stern drive	NOx	0.006179799	0.001214433	0.000950824	0.000772803	0.000547425	0.000323046
21117	Nonroad	2282020010	Mobile Sources	Pleasure Craft	Diesel	Outboard	NOx	1.73779E-05	0.000246594	0.00018797	0.00014675	9.25531E-05	3.83564E-05
21117	Nonroad	2285002015	Mobile Sources	Equipment	Diesel	Railway Maintenance	NOx	0.009053954	0.001052637	0.000676833	0.000528666	0.000471419	0.000414172
21117	Nonroad	2285004015	Mobile Sources	Equipment	Gasoline, 4-Stroke	Railway Maintenance	NOx	0.000167335	0.000208682	0.000122356	8.66967E-05	6.9485E-05	5.22732E-05
21117	Nonroad	2285006015	Mobile Sources	Equipment	LPG	Railway Maintenance	NOx	1.42286E-05	0.001387824	0.000880272	0.000676368	0.000589566	0.000507165
21117	Nonroad		TOTAL				NOx	0.0671066	0.066941	0.064674	0.064917	0.0678475	0.0708754
21117	Point	10200602	External Combustion Boilers	Industrial	Natural Gas	10-100 Million BTU/hr	NOx	0.01492596	0.000362658	0.000200146	0.000129528	8.84068E-05	4.7286E-05
21117	Point	10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	NOx	0.027497538	2.72541E-05	2.07991E-05	1.65868E-05	1.14355E-05	6.28408E-06
21117	Point	10201002	External Combustion Boilers	Industrial	Liquefied Petroleum Gas (LPG)	Propane	NOx	0	7.35425E-06	5.45403E-06	4.10949E-06	2.33165E-06	5.5382E-07
21117	Point	10300501	External Combustion Boilers	Commercial/Industrial	Distillate Oil - Grades 1 and 2	Boiler	NOx	0.000104905	1.339E-05	9.35859E-06	7.8446E-06	7.41909E-06	6.99358E-06
21117	Point	10300602	External Combustion Boilers	Commercial/Industrial	Natural Gas	10-100 Million BTU/hr	NOx	0.016409712	2.56983E-06	1.64394E-06	1.26966E-06	1.10551E-06	9.41364E-07
21117	Point	10300603	External Combustion Boilers	Commercial/Industrial	Natural Gas	< 10 Million BTU/hr	NOx	0.000945305	6.38175E-06	4.76628E-06	3.62713E-06	2.12546E-06	6.23793E-07
21117	Point	10500206	External Combustion Engines	Space Heaters	Commercial/Industrial	Natural Gas	NOx	0.000728666	1.03282E-07	7.58101E-08	5.51784E-08	2.64925E-08	3.5438E-09
21117	Point	10500210	External Combustion Engines	Space Heaters	Commercial/Industrial	Liquefied Petroleum Gas (LPG)	NOx	0.000188535	0.003970306	0.002443292	0.00193107	0.001923027	0.001914965
21117	Point	20200101	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine	NOx	0	5.98138E-05	2.98832E-05	1.91299E-05	1.71888E-05	1.52477E-05
21117	Point	20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	NOx	0.001359698	5.07759E-06	3.13385E-06	2.49439E-06	2.51555E-06	2.5367E-06

Region Code	Date Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total	
21117	Point	20200252	Internal Combustion Engines	Industrial	Natural Gas	2-cycle Lean Burn	NOx	0.000436757	7.62413E-08	3.79676E-08	2.44372E-08	2.2506E-08	2.05748E-08
21117	Point	20300101	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Reciprocating	NOx	5.08358E-05	2.47663E-06	1.60052E-06	1.32614E-06	1.37028E-06	1.41442E-06
21117	Point	2275050011	Mobile Sources	Aircraft	General Aviation	Piston	NOx	1.57623E-05	3.64376E-08	1.87349E-08	1.26683E-08	1.22542E-08	1.184E-08
21117	Point	2275050012	Mobile Sources	Aircraft	General Aviation	Turbine	NOx	5.82777E-05	1.16895E-05	8.09556E-06	6.80063E-06	6.55491E-06	6.30919E-06
21117	Point	28500201	Internal Combustion Engines	Railroad Equipment	Diesel	Yard Locomotives	NOx	0.13081073	1.68269E-07	9.70125E-08	6.93137E-08	5.9447E-08	4.95802E-08
21117	Point	30101899	Industrial Processes	Chemical Manufacturing	Plastics Production	Others Not Specified	NOx		9.8424E-06	8.95104E-06	8.95745E-06	9.71658E-06	1.04756E-05
21117	Point	30180003	Industrial Processes	Chemical Manufacturing	General Processes	Pipeline Valves: Light Liquid/Gas Stream	NOx		1.11449E-07	8.68393E-08	8.14029E-08	8.83204E-08	9.52379E-08
21117	Point	30180007	Industrial Processes	Chemical Manufacturing	General Processes	Flanges: All Streams	NOx		4.17548E-07	2.61863E-07	1.69958E-07	6.9932E-08	9.91654E-09
21117	Point	30180008	Industrial Processes	Chemical Manufacturing	General Processes	Pump Seals: Light Liquid/Gas Stream	NOx		7.2468E-09	4.54948E-09	2.95477E-09	1.21579E-09	1.72401E-10
21117	Point	30188801	Industrial Processes	Chemical Manufacturing	Fugitive Emissions	Specify in Comments Field	NOx		1.55796E-06	3.89491E-07	0	0	0
21117	Point	30190013	Industrial Processes	Chemical Manufacturing	Fuel Fired Incinerators	Natural Gas: Incinerators	NOx	6.06724E-05	2.70806E-08	6.77015E-09	0	0	0
21117	Point	30201303	Industrial Processes	Food and Agriculture	Meat Smokehouses	Smokehouses: Cooking Cycle	NOx		0.002321733	0.002049669	0.001762327	0.001270693	0.00077906
21117	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified	Other Not Classified	NOx		2.85401E-05	2.52141E-05	2.15026E-05	1.49956E-05	8.4885E-06
21117	Point	30500206	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Natural Gas	NOx	0	9.2464E-05	7.38976E-05	5.89705E-05	3.71246E-05	1.52787E-05
21117	Point	30500207	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Residual Oil	NOx	0	1.12996E-06	8.91981E-07	6.93043E-07	3.94018E-07	9.49923E-08
21117	Point	30500208	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Distillate Oil	NOx	0.000392157	8.03681E-05	4.96832E-05	3.70086E-05	3.08929E-05	2.47771E-05
21117	Point	30500213	Industrial Processes	Mineral Products	Asphalt Concrete	Storage Silo	NOx		9.54419E-07	5.42629E-07	3.68041E-07	2.74727E-07	1.81414E-07
21117	Point	30500214	Industrial Processes	Mineral Products	Asphalt Concrete	Truck Load-out	NOx		0.00094783	0.001017114	0.001086459	0.001202085	0.001317711

Region/County	Dist. Category	SCC	SCC Label (Dry)	SCC Label (Wet)	SCC Label (Firm)	SCC Label (Four)	Point	2013 (Speed)	2014 (Speed)	2017 (Speed)	2020 (Speed)	2025 (Speed)	2030 (Speed)
21117	Point	30500257	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Plant: Rotary Drum Dryer / Mixer, Natural Gas, Counterflow	NOx	0.005789978	9.53776E-06	1.02349E-05	1.09327E-05	1.20963E-05	1.32598E-05
21117	Point	30500260	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Plant: Rotary Drum Dryer / Mixer, #2 Oil-Fired, Counterflow	NOx	0	0.0100523	0.007325127	0.005579023	0.003486407	0.001393792
21117	Point	30500263	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Pt: Rotary Drum Dryer/Mixer, Waste/Drain/#6 Oil, Counterflow	NOx	0	0.00988052	0.000722268	0.000657075	0.000625968	0.000594861
21117	Point	30501305	Industrial Processes	Mineral Products	Frit Manufacture	Rotary Smelting Furnace	NOx	8.06386E-05	2.85481E-05	2.74847E-05	2.77367E-05	2.9253E-05	3.07692E-05
21117	Point	30510498	Industrial Processes	Mineral Products	Bulk Materials Unloading Operation	Mineral: Specify In Comments	NOx		4.18587E-06	3.88923E-06	3.84834E-06	3.9933E-06	4.13827E-06
21117	Point	30600103	Industrial Processes	Petroleum Industry	Process Heaters	Oil-fired	NOx	0	0.00045724	0.000447937	0.000456809	0.000486743	0.000516677
21117	Point	30600105	Industrial Processes	Petroleum Industry	Process Heaters	Natural Gas-fired	NOx	2.76701E-06	6.39016E-05	5.92339E-05	5.87172E-05	6.13149E-05	6.39127E-05
21117	Point	30600812	Industrial Processes	Petroleum Industry	Fugitive Emissions	Pipeline Valves: Light Liquid/Gas Streams	NOx		0.027195746	0.020508077	0.015935906	0.010078537	0.004221167
21117	Point	30600816	Industrial Processes	Petroleum Industry	Fugitive Emissions	Flanges: All Streams	NOx		0.002388034	0.001953358	0.001763082	0.001649623	0.001536164
21117	Point	30600817	Industrial Processes	Petroleum Industry	Fugitive Emissions	Pump Seals: Light Liquid/Gas Streams	NOx		0.027773192	0.019942084	0.014283729	0.006663763	0.00056779
21117	Point	30899999	Industrial Processes	Miscellaneous Products	Other Not Specified	Other Not Classified	NOx		0.001970417	0.001805542	0.001751496	0.001753776	0.001756057
21117	Point	39000605	Industrial Processes	In-process Fuel Use	Natural Gas	Metal Melting	NOx	6.29085E-06	0.001773775	0.001412086	0.001138745	0.000756798	0.000374852
21117	Point	39000699	Industrial Processes	In-process Fuel Use	Natural Gas	General	NOx	0.010512037	0.000163183	0.000137414	0.000123575	0.000110451	9.73277E-05
21117	Point	39000999	Industrial Processes	In-process Fuel Use	Wood	General: Wood	NOx	0	0.001361373	0.001171261	0.001006778	0.000752834	0.00049889
21117	Point	39999994	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx		0.000110862	9.47199E-05	8.53611E-05	7.54157E-05	6.54704E-05

Region Loc	Data Category	scd	[SCC Level One]	[SCC Level Two]	[SCC Level Three]	[SCC Level Four]	2014 (ppd)	2017 (ppd)	2020 (ppd)	2025 (ppd)	2030 (ppd)	
21117	Point	39999995	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.004387682	0.004313298	0.004328495	0.004428473	0.004528452
21117	Point	39999996	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.000483905	0.000433964	0.000418016	0.000419762	0.000421507
21117	Point	39999997	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.015434655	0.013396557	0.011911442	0.009897073	0.007882704
21117	Point	39999999	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	NOx	0.001334068	0.001080067	0.000951139	0.000770484	0.000609829
21117	Point	40100198	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Dry Cleaning	Other Not Classified	NOx	0.018215633	0.015949602	0.013781153	0.010248389	0.006715625
21117	Point	40100251	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Stoddard (Petroleum Solvent): General Degreasing Units	NOx	0.001493481	0.001307709	0.001167925	0.000973273	0.000778621
21117	Point	40188898	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fugitive Emissions	Specify in Comments Field	NOx	0.086703921	0.0556607	0.038513539	0.021514988	0.004516436
21117	Point	40200601	Petroleum and Solvent Evaporation	Surface Coating Operations	Surface Coating Application - General	Primer	NOx	0.007975759	0.006626706	0.006297786	0.006451205	0.006604623
21117	Point	40201001	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Natural Gas	NOx	0.001101212	0.000967539	0.000869178	0.000734668	0.000600159
21117	Point	40202503	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Coating Mixing	NOx	9.84919E-05	7.99422E-05	6.93184E-05	5.8217E-05	4.71156E-05
21117	Point	40299998	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	Specify in Comments Field	NOx	0.000732339	0.000663831	0.000599952	0.000495831	0.000392141
21117	Point	40301002	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Gasoline RVP 10: Breathing Loss (67000 Bbl. Tank Size)	NOx	8.05463E-05	7.21623E-05	6.53699E-05	5.53755E-05	4.5381E-05
21117	Point	40301008	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Gasoline RVP 10: Working Loss (Tank Diameter Independent) Jet Kerosene: Breathing Loss (67000 Bbl. Tank Size)	NOx	0.02676572	0.019697159	0.014454415	0.00738021	2.1627E-05
21117	Point	40301016	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Breathing Loss (67000 Bbl. Tank Size)	NOx	0.002025995	0.001750933	0.001625162	0.001539952	0.001454742

Region	Site Category	Site ID	500 Level Code	500 Level Name	500 Level Description	2011, 1994	2014, 1994	2017, 1994	2020, 1994	2025, 1994	2030, 1994	
21117	Point	40301018	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Working Loss (Tank Diameter Independent)	NOx	0.021515743	0.013840547	0.009209637	0.004028356	0.000919588
21117	Point	40301019	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Distillate Fuel #2: Breathing Loss (67000 Bbl. Tank Size)	NOx	0.001973966	0.001680829	0.001588309	0.001601288	0.001614267
21117	Point	40301021	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Distillate Fuel #2: Working Loss (Tank Diameter Independent)	NOx	0.09390122	0.071855117	0.063606703	0.061357421	0.059108139
21117	Point	40388801	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fugitive Emissions	Specify in Comments Field	NOx	0.006677274	0.006440576	0.006136772	0.005574504	0.005012237
21117	Point	40399999	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment ..	NOx	0.005265285	0.004197395	0.003400694	0.002298852	0.001197009
21117	Point	40400121	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Diesel Fuel: Standing Loss (Diameter Independent) - Fixed Roof Tank	NOx	0.00038951	0.000328021	0.000297564	0.000272662	0.00024776
21117	Point	40400122	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Diesel Fuel: Working Loss (Diameter Independent) - Fixed Roof Tank	NOx	0.037190803	0.028285482	0.021375340	0.01521112	0.001666877
21117	Point	40400148	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13/10/7: Withdrawal Loss - Ext. Float Roof (Pri/Sec Seal)	NOx	0.00349374	0.002788686	0.002414949	0.00206815	0.001721352
21117	Point	40400149	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Specify Liquid: External Floating Roof (Primary/Secondary Seal)	NOx	0.128648512	0.098146436	0.075381605	0.043887923	0.012394242
21117	Point	40400150	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Miscellaneous Losses/Leaks: Loading Racks	NOx	0.005890042	0.008586307	0.007942156	0.007418225	0.006894295
21117	Point	40400151	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Valves, Flanges, and Pumps	NOx	0.098002181	0.082905456	0.068888601	0.048427066	0.023965531

Region Cd	Date Category	scn	SCC Level/Code	SCC Level/No	SCC Level/Time	SCC Level/Use	Pol/Unit	2011 Epa	2014 Epa	2017 Epa	2020 Epa	2025 Epa	2050 Epa
21117	Point	40400153	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Vapor Control Unit Losses	NOx	0.019202639	0.01546831	0.012548304	0.008360164	0.004172024	
						Specify Liquid: Internal Floating Roof (Primary/Secondary Seal)							
21117	Point	40400179	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	See Comment **	NOx	0.104150163	0.074875456	0.055720388	0.032228306	0.008736227	
						**							
21117	Point	40400199	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Jet Kerosene: Working Loss	NOx	0.008186243	0.00716227	0.006753731	0.006585695	0.006417658	
						**							
21117	Point	40400412	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Breathing Loss	NOx	0.072817919	0.067437162	0.06235038	0.054116691	0.045863202	
						**							
21117	Point	40400413	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Working Loss	NOx	0.017257178	0.014172235	0.011686196	0.008041885	0.004397575	
						**							
21117	Point	40400414	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	Specify Liquid: Working Loss	NOx	0.014863067	0.012144732	0.010175905	0.007519119	0.004862332	
						**							
21117	Point	40400498	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Tank Cars and Trucks	Gasoline: Submerged Loading **	NOx	0.001016841	0.0009105	0.000847875	0.000779931	0.000711987	
						**							
21117	Point	40600126	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Submerged Loading **	NOx	0.000236325	0.000219009	0.000202787	0.000176664	0.00015054	
						**							
21117	Point	40600131	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Kerosene: Submerged Loading (Normal Service)	NOx	5.98398E-05	4.99205E-05	4.16046E-05	2.90807E-05	1.65568E-05	
						**							
21117	Point	40600134	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Distillate Oil: Submerged Loading (Normal Service)	NOx	0.014443578	0.011716966	0.009360062	0.005741978	0.002123894	
						**							
21117	Point	40600135	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Specify Liquid: Working Loss	NOx	0.001069768	0.000917481	0.00083537	0.000756996	0.000678623	
						**							

Region Id	Data Category	sqc	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2011 Upd	2017 Upd	2020 Upd	2023 Upd	2020 Upd	
21117	Point	40600136	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Splash Loading (Normal Service)	NOx	0.002549812	0.002395446	0.002251624	0.002020709	0.001789793
21117	Point	40600163	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Return with Vapor (Transit Losses)	NOx	0.000627549	0.000539035	0.000453417	0.000313135	0.000172853
21117	Point	40600251	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Marine Vessels	Distillate Oil: Loading Barges	NOx	0.017426352	0.011612228	0.009600216	0.009415287	0.009230358
21117	Point	40600301	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	NOx	0.001522763	0.001254497	0.00120393	0.001301067	0.001398705
21117	Point	40600306	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Balanced Submerged Filling	NOx	0.009416794	0.006579219	0.004908908	0.003097361	0.001285815
21117	Point	40600307	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	NOx	0.00082346	0.000672264	0.000618109	0.000608718	0.000599327
21117	Point	40600401	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	NOx	0.011313122	0.008510933	0.006374689	0.003369238	0.000363787
21117	Point	40600402	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	NOx	0.000970854	0.000812904	0.000728778	0.000650086	0.000571395
21117	Point	40700810	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Alcohols	Ethyl Alcohol: Working Loss	NOx	0.000648084	0.000568871	0.000494392	0.000374206	0.00025402
21117	Point	40714697	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Miscellaneous	Specify In Comments: Breathing Loss	NOx	0.000113854	9.76076E-05	8.34149E-05	6.14722E-05	3.95295E-05
21117	Point	40714698	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks Miscellaneous	Specify In Comments: Working Loss	NOx	0.049892577	0.046847899	0.047252176	0.0508001	0.054348024
21117	Point	40899999	Petroleum and Solvent Evaporation	Organic Chemical Transportation	Specific Liquid	Loading Rack	NOx	0.003629979	0.002912017	0.002670025	0.002663349	0.002656672

Region Cd	Data Category	Loc	SCQ Label Desc	SCQ Label Type	SCQ Label Name	SCQ Label Detail	2011 Spd	2016 Spd	2017 Spd	2020 Spd	2025 Spd	2088 Spd
21117	Point	49099998	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Miscellaneous Volatile Organic Compound Evaporation	Identify the Process and Solvent in Comments		0.00822911E	0.004802451	0.003178115	0.001965829	0.000755543
21117	Point	64520011	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Polymerization Reaction: Kettle		0.000816034	0.000698048	0.000662074	0.000703794	0.000745514
21117	Point	64520020	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Product Finishing		2.57865E-06	2.60223E-06	2.6103E-06	2.61081E-06	2.61133E-06
21117	Point	64520021	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Finishing: Thinning Vessels		3.95934E-07	3.71323E-07	3.44743E-07	2.98804E-07	2.52864E-07
21117	Point					TOTAL	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
21117	EGU	20100102	Internal Combustion Engines	Electric Generation	Distillate Oil (Diesel)	Reciprocating		0.000564259	0.000505264	0.000439717	0.000325011	0.000210305
21117	EGU					TOTAL	4.54956E-05	5.64258E-04	5.05254E-04	4.09717E-04	3.125010E-04	2.103047E-04
21117	Nonpoint	2104001000	Stationary Source Fuel Combustion	Residential	Anthracite Coal	Total: All Combustor Types		4.49321E-05	4.08309E-05	3.79782E-05	3.4264E-05	3.05499E-05
21117	Nonpoint	2104002000	Stationary Source Fuel Combustion	Residential	Bituminous/Subbituminous Coal	Total: All Combustor Types		0.015068473	0.015141285	0.015367236	0.015871436	0.016375636
21117	Nonpoint	2104004000	Stationary Source Fuel Combustion	Residential	Distillate Oil	Total: All Combustor Types		0.001609048	0.00143671	0.001358149	0.001305361	0.001252572
21117	Nonpoint	2104006000	Stationary Source Fuel Combustion	Residential	Natural Gas	Total: All Combustor Types		0.003107672	0.003237221	0.00342455	0.003784914	0.004145278
21117	Nonpoint	2104007000	Stationary Source Fuel Combustion	Residential	Liquefied Petroleum Gas (LPG)	Total: All Combustor Types		0.000364182	0.000352593	0.000362073	0.000395431	0.000428788
21117	Nonpoint	2104008100	Stationary Source Fuel Combustion	Residential	Wood	Fireplace: general		0.020406075	0.01842813	0.016233197	0.01239415	0.008555103
21117	Nonpoint	2104008210	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts, non-EPA certified		0.001894157	0.00171027	0.001562089	0.001344876	0.001127664
21117	Nonpoint	2104008220	Stationary Source Fuel Combustion	Residential	Wood	Woodstove: fireplace inserts, EPA certified; non-catalytic		0.001810417	0.001523613	0.001372652	0.001234254	0.001095856

Region	CD	Diets Category	ico	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	SCC Level Five	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21117	Nonpoint	Stationary Source Fuel Combustion	2104008230	Residential	Wood	Woodstove: fireplace inserts; EPA certified; catalytic	VOC	0.004522685	0.000146349	0.000126193	0.000120943	0.000124615	0.000128287	0.000128287
21117	Nonpoint	Stationary Source Fuel Combustion	2104008310	Residential	Wood	Woodstove: freestanding, non-EPA certified	VOC	0.120531318	5.91027E-05	5.83261E-05	5.77047E-05	5.67986E-05	5.58924E-05	5.58924E-05
21117	Nonpoint	Stationary Source Fuel Combustion	2104008320	Residential	Wood	Woodstove: freestanding, EPA certified, non-catalytic	VOC	0.008708524	6.8876E-06	6.30854E-06	5.88418E-06	5.3058E-06	4.72743E-06	4.72743E-06
21117	Nonpoint	Stationary Source Fuel Combustion	2104008330	Residential	Wood	Woodstove: freestanding, EPA certified, catalytic	VOC	0.003618164	1.0586E-06	1.08469E-06	1.13129E-06	1.22604E-06	1.32079E-06	1.32079E-06
21117	Nonpoint	Stationary Source Fuel Combustion	2104008400	Residential	Wood	Woodstove: pellet-fired, general (freestanding or FP insert)	VOC	9.04412E-06	1.54392E-07	1.5102E-07	1.54778E-07	1.66986E-07	1.79193E-07	1.79193E-07
21117	Nonpoint	Stationary Source Fuel Combustion	2104008510	Residential	Wood	Furnace: indoor, cordwood-fired, non-EPA certified	VOC	0.009193573	0.045786757	0.038441529	0.032027581	0.022113735	0.012199888	0.012199888
21117	Nonpoint	Stationary Source Fuel Combustion	2104008610	Residential	Wood	Hydronic heater: outdoor	VOC	0	0.00420341	0.00350021	0.003040176	0.002476091	0.001912007	0.001912007
21117	Nonpoint	Stationary Source Fuel Combustion	2104008700	Residential	Wood	Outdoor wood burning device, NEC (fire-pls, chimneys, etc)	VOC	0.002027413	0.004920308	0.004250036	0.003612386	0.002576818	0.001541251	0.001541251
21117	Nonpoint	Stationary Source Fuel Combustion	2104009000	Residential	Firelog	Total: All Combustor Types	VOC	0.013286846	0.00043303	0.000383436	0.000343918	0.000286452	0.000228987	0.000228987
21117	Nonpoint	Stationary Source Fuel Combustion	2104011000	Residential	Kerosene	Total: All Heater Types	VOC	0.000263469	2.57565E-05	2.38355E-05	2.18865E-05	1.86147E-05	1.53429E-05	1.53429E-05
21117	Nonpoint	Mobile Sources	2285002006	Railroad Equipment	Diesel	Line Haul Locomotives: Class I Operations	VOC	0.07190765	3.56768E-06	3.02168E-06	2.58455E-06	1.94673E-06	1.3089E-06	1.3089E-06
21117	Nonpoint	Industrial Processes	2302002100	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Commercial Cooking - Charbroiling	VOC	0.003191776	4.74987E-06	4.10032E-06	3.45333E-06	2.37715E-06	1.30097E-06	1.30097E-06
21117	Nonpoint	Industrial Processes	2302002200	Food and Kindred Products: SIC 20	Commercial Cooking - Charbroiling	Commercial Cooking - Charbroiling	VOC	0.009379957	6.1059E-07	5.12356E-07	4.35085E-07	3.2377E-07	2.12454E-07	2.12454E-07

Region ID	Data Category	600	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	PostStage	2015 (used)	2014 (used)	2017 (used)	2020 (used)	2025 (used)	2050 (used)
21117	Nonpoint	2310003000	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Deep Fat Frying	VOC	0.001539894	0.000390212	0.000343222	0.000295658	0.000215906	0.000196154
21117	Nonpoint	2310003100	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Flat Griddle Frying	VOC	0.001287911	4.71052E-05	3.93774E-05	3.38335E-05	2.64138E-05	1.8594E-05
21117	Nonpoint	2310003200	Industrial Processes	Food and Kindred Products: SIC 20	Commercial Cooking - Frying	Clamshell Griddle Frying	VOC	2.79981E-05	5.20567E-07	4.57372E-07	3.93762E-07	2.87397E-07	1.81033E-07
21117	Nonpoint	2310000220	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Drill Rigs	VOC	0	4.64093E-08	4.01589E-08	3.58142E-08	3.01609E-08	2.45076E-08
21117	Nonpoint	2310000330	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Artificial Lift	VOC	0	0.00037077	0.000328712	0.000287546	0.00021966	0.000151814
21117	Nonpoint	2310000550	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Produced Water	VOC	0	4.18439E-05	3.70863E-05	3.26805E-05	2.56307E-05	1.85809E-05
21117	Nonpoint	2310000660	Industrial Processes	Oil and Gas Exploration and Production	All Processes	Hydraulic Fracturing Engines	VOC	0	0.000978478	0.00082967	0.00069318	0.00047592	0.000258664
21117	Nonpoint	2310010100	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Heaters	VOC	0	9.67876E-05	8.08002E-05	6.98416E-05	5.57681E-05	4.16946E-05
21117	Nonpoint	2310010200	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Tanks - Flashing & Standing/Working/Breathing	VOC	0	0.000479764	0.000380157	0.000297037	0.000172242	4.7482E-05
21117	Nonpoint	2310010300	Industrial Processes	Oil and Gas Exploration and Production	Crude Petroleum	Oil Well Pneumatic Devices	VOC	0	4.47294E-05	3.64351E-05	3.12881E-05	2.53326E-05	1.9377E-05
21117	Nonpoint	2310011000	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Total: All Processes	VOC	0	0.047544035	0.04228581	0.040932667	0.035455762	0.02997856
21117	Nonpoint	2310011201	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Tank Truck/Railcar Loading: Crude Oil	VOC	0	0.005323938	0.004621749	0.004119447	0.003448849	0.002778251
21117	Nonpoint	2310011501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Connectors	VOC	0	0.011167721	0.010332091	0.009475862	0.008031647	0.006587432

Impoundment ID	Date Category	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	2011 Total	2014 Total	2017 Total	2020 Total	2025 Total	2030 Total
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Flanges	0	0.001218925	0.001081461	0.000973468	0.000818037	0.000662606
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Open Ended Lines	0	0.023624496	0.019694609	0.016548546	0.011958295	0.007368043
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Production	Fugitives: Valves	0	0.002096427	0.001727642	0.001507986	0.001266165	0.001024345
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Storage Tanks: Condensate Tank	0	0.014655771	0.014011128	0.01343376	0.012527612	0.011621444
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Truck/Railcar Loading: Condensate	0	0.003593173	0.002875448	0.002340855	0.001602479	0.000864103
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Heaters	0	0.001583601	0.001478114	0.001365434	0.00117164	0.000977847
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4 Cycle Lean Burn Compressor Engines 50 To 499 HP	0	0.000182886	0.000164796	0.000148736	0.000123664	9.85911E-05
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Lean Burn	0	0.000853485	0.000732018	0.000637101	0.00050103	0.000364958
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Pneumatic Devices	0	7.66215E-05	6.41436E-05	5.67715E-05	4.87394E-05	4.07073E-05
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Natural Gas Fired 4 Cycle Rich Burn Compressor Engines 50 To 499 HP	0	2.70047E-05	1.4319E-05	8.18316E-06	3.41493E-06	5.53987E-07
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Lateral Compressors 4 Cycle Rich Burn	0	2.50069E-05	1.94395E-05	1.70084E-05	1.55705E-05	1.41325E-05
21117	Nonpoint	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Dehydrators	0	1.58965E-05	1.60307E-05	1.62178E-05	1.65737E-05	1.69297E-05

Region Cd	Data Category	iso	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 total	2014 total	2017 total	2020 total	2025 total	2050 total
21117	Nonpoint	2310021501	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Connectors	VOC	0	3.68001E-05	3.71107E-05	3.75439E-05	3.8368E-05	3.91921E-05
21117	Nonpoint	2310021502	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Flanges	VOC	0	5.87737E-05	5.92698E-05	5.99616E-05	6.12778E-05	6.25939E-05
21117	Nonpoint	2310021503	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Open Ended Lines	VOC	0	0.000125172	0.000126228	0.000127702	0.000130505	0.000133308
21117	Nonpoint	2310021505	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Valves	VOC	0	0.005093725	0.0054171	0.005580547	0.005719687	0.005858876
21117	Nonpoint	2310021506	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Fugitives: Other	VOC	0	0.049008969	0.036874863	0.028682626	0.018131379	0.007944954
21117	Nonpoint	2310021603	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Production	Gas Well Venting - Blowdowns	VOC	0	0.002158153	0.002402847	0.002549622	0.002712647	0.002875673
21117	Nonpoint	2310111100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Mud Degassing	VOC	0	0.011498948	0.00723058	0.005224116	0.003764929	0.002305743
21117	Nonpoint	2310111401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Oil Exploration	Oil Well Pneumatic Pumps	VOC	0	0.006505921	0.00582405	0.005050128	0.003683549	0.00231697
21117	Nonpoint	2310121100	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Mud Degassing	VOC	0	0.006096017	0.005445156	0.004935234	0.004202814	0.003470394
21117	Nonpoint	2310121401	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Pneumatic Pumps	VOC	0	0.006127515	0.00607523	0.006006615	0.005878648	0.00575068
21117	Nonpoint	2310121700	Industrial Processes	Oil and Gas Exploration and Production	On-Shore Gas Exploration	Gas Well Completion: All Processes	VOC	0	0.000299694	0.000370668	0.000340804	0.000373665	0.000406576
21117	Nonpoint	2401001000	Solvent Utilization	Surface Coating	Architectural Coatings	Solvent Types	VOC	0.509828996	1.64795E-05	1.55811E-05	1.47796E-05	1.35247E-05	1.22897E-05
21117	Nonpoint	2401005000	Solvent Utilization	Surface Coating	SIC 7532	Total: All Solvent Types	VOC	0.034306645	3.0736E-06	2.67554E-06	2.46908E-06	2.28465E-06	2.10023E-06
21117	Nonpoint	2401008000	Solvent Utilization	Surface Coating	Traffic Markings	Total: All Solvent Types	VOC	0.000329937	1.435929731	1.435929731	1.435929731	1.435929731	1.435929731

Project ID	Diets Category	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	2011 spend	2012 spend	2013 spend	2014 spend	2015 spend	2016 spend
21117	Nonpoint	2401015000	Solvent Utilization	Surface Coating	Factory Finished Wood: SIC 2426 thru 242	0.003266353	0.07190765	0.07190765	0.07190765	0.07190765	0.07190765
					Total: All Solvent Types						0.07190765
21117	Nonpoint	2401020000	Solvent Utilization	Surface Coating	Wood Furniture: SIC 25	0.011590312	0.007095047	0.006131516	0.0080745	0.0045389	0.002946283
					Total: All Solvent Types						0.0045389
21117	Nonpoint	2401030000	Solvent Utilization	Surface Coating	Paper: SIC 26 Machinery and Equipment: SIC 35	0.039165733	0.001159147	0.000991999	0.001360155	0.000741638	0.000491276
					Total: All Solvent Types						0.000741638
21117	Nonpoint	2401055000	Solvent Utilization	Surface Coating	Electronic and Other Electrical: SIC 36 - 363 Motor Vehicles: SIC 371	0.004988669	0.000135528	0.000103722	0.000135528	9.39973E-05	9.46242E-05
					Total: All Solvent Types						9.46242E-05
21117	Nonpoint	2401065000	Solvent Utilization	Surface Coating	Railroad: SIC 374	0.000219697	0.000337369	0.000275071	0.000337369	0.000271085	0.00028307
					Total: All Solvent Types						0.00028307
21117	Nonpoint	2401070000	Solvent Utilization	Surface Coating	Miscellaneous Manufacturing Industrial Maintenance Coatings	0.017831767	1.04414E-05	4.7539E-06	1.04414E-05	3.15901E-06	1.56411E-06
					Total: All Solvent Types						1.56411E-06
21117	Nonpoint	2401085000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	0.026828981	2.83465E-06	1.69985E-06	2.83465E-06	5.47947E-07	1.0587E-07
					Total: All Solvent Types						1.0587E-07
21117	Nonpoint	2401100000	Solvent Utilization	Surface Coating	Other Special Purpose Coatings	0.021676196	0	0	0	0	0
					Total: All Solvent Types						0
21117	Nonpoint	2401200000	Solvent Utilization	Surface Coating	All Processes/All Industries	0.131247564	0.003191776	0.003191776	0.003191776	0.003191776	0.003191776
					Total: All Solvent Types						0.003191776
21117	Nonpoint	2415000000	Solvent Utilization	Degreasing	All Processes/All Industries	0.25879503	0.009379357	0.009379357	0.009379357	0.009379357	0.009379357
					Total: All Solvent Types						0.009379357
21117	Nonpoint	2420000000	Solvent Utilization	Dry Cleaning	All Processes	0.004951089	0	0	0	0	0
					Total: All Solvent Types						0
21117	Nonpoint	2460100000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Personal Care Products	0.413218954	0.001539894	0.001539894	0.001539894	0.001539894	0.001539894
					Total: All Solvent Types						0.001539894
21117	Nonpoint	2460200000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Household Products	0.391470588	0	0	0	0	0
					Total: All Solvent Types						0
21117	Nonpoint	2460400000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Automotive Aftermarket Products	0.29577505	0.001287911	0.001287911	0.001287911	0.001287911	0.001287911
					Total: All Solvent Types						0.001287911

Region Cd	Data Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2013 (tpyd)	2014 (tpyd)	2017 (tpyd)	2020 (tpyd)	2025 (tpyd)	2030 (tpyd)
21117	Nonpoint	2460500000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	VOC	0.206609477	0	0	0	0	0
21117	Nonpoint	2460600000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	VOC	0.123965686	2.79981E-05	2.79981E-05	2.79981E-05	2.79981E-05	2.79981E-05
21117	Nonpoint	2460800000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	VOC	0.38712146	0	0	0	0	0
21117	Nonpoint	2460900000	Solvent Utilization	Miscellaneous Non-Industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	VOC	0.015223856	0	0	0	0	0
21117	Nonpoint	2461021000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Culback Asphalt	Total: All Solvent Types	VOC	0.012045754	0	0	0	0	0
21117	Nonpoint	2461022000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Emulsified Asphalt	Total: All Solvent Types	VOC	0.044565343	0	0	0	0	0
21117	Nonpoint	2461850000	Solvent Utilization	Miscellaneous Non-Industrial: Commercial	Pesticide Application: Agricultural	All Processes	VOC	0.008424525	0	0	0	0	0
21117	Nonpoint	2501013011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Permeation	VOC	0.110407952	0	0	0	0	0
21117	Nonpoint	2501013012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Evaporation (includes Diurnal Losses)	VOC	0.215567538	0	0	0	0	0
21117	Nonpoint	2501013014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Residential Portable Gas	Refilling at the Pump - Vapor Displacement	VOC	0.006417892	0	0	0	0	0

Region_cd	Date_Catgry	pcg	SCOLevel_Othr	SCOLevel_TWR	SCOLevel_Titile	SCOLevel_Fork	2011 Ipad	2014 Ipad	2020 Ipad	2025 Ipad	2030 Ipad
21117	Nonpoint	2501012011	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Permeation	0.003526443	0	0	0	0
21117	Nonpoint	2501012012	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas (Includes Diurnal losses)	Evaporation	0.006885267	0	0	0	0
21117	Nonpoint	2501012014	Storage and Transport	Petroleum and Petroleum Product Storage Cans	Commercial Portable Gas	Refilling at the Pump - Vapor Displacement	0.012368709	0	0	0	0
21117	Nonpoint	2501050120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Terminals: All Evaporative	Gasoline	0.148149782	0	0	0	0
21117	Nonpoint	2501055120	Storage and Transport	Petroleum and Petroleum Product Storage Losses	Bulk Plants: All Evaporative	Gasoline	0.094995316	0	0	0	0
21117	Nonpoint	2501060051	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Submerged Filling	0	0	0	0	0
21117	Nonpoint	2501060052	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Splash Filling	0.25901988	0	0	0	0
21117	Nonpoint	2501060053	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Stage 1: Balanced Submerged Filling	0.049545752	0	0	0	0
21117	Nonpoint	2501060201	Storage and Transport	Petroleum and Petroleum Product Storage Stations	Gasoline Service	Underground Tank: Breathing and Emptying	0.099848856	0	0	0	0
21117	Nonpoint	2501080050	Storage and Transport	Petroleum and Petroleum Product Storage Airports	Aviation Gasoline	Stage 1: Total	0.000608679	0	0	0	0

Region of Origin	SCQ Level One	SCQ Level Two	SCQ Level Three	SCQ Level Four	2011 tpsd	2014 tpsd	2017 tpsd	2020 tpsd	2025 tpsd	2050 tpsd	
21117	Nonpoint	2501080100	Storage and Transport	Petroleum and Petroleum Product Storage	Alports : Aviation Gasoline Stage 2: Total	VOC	3.15839E-05	0	0	0	0
21117	Nonpoint	2505040120	Storage and Transport	Petroleum and Petroleum Product Transport	Pipeline	VOC	0.103284586	0	0	0	0
21117	Nonpoint	2630020000	Waste Disposal, Treatment, and Recovery	Wastewater Treatment	Public Owned	VOC	0.008143791	0	0	0	0
21117	Nonpoint	2810060100	Miscellaneous Area Sources	Other Combustion	Cremation	VOC	5.72092E-06	0	0	0	0
21117	Nonpoint				TOTAL	VOC	4.633394	1,183,4528	1,793,525	1,776,1629	1,771,8053
21117	Nonroad	2260002006	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	0.006325287	0	0	0	0
21117	Nonroad	2260002009	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	0.000228432	0	0	0	0
21117	Nonroad	2260002021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	0.000271992	0	0	0	0
21117	Nonroad	2260002027	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	2.23904E-06	0	0	0	0
21117	Nonroad	2260002039	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	0.01608463	0	0	0	0
21117	Nonroad	2260002054	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Construction and Mining Equipment	VOC	5.53073E-05	0	0	0	0
21117	Nonroad	2260003030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	VOC	4.66958E-05	0	0	0	0
21117	Nonroad	2260003040	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Industrial Equipment	VOC	3.56867E-06	0	0	0	0

Region Cd	Date	Chng-17	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Politic...	2014/1/1/2014	2017/1/1/2017	2020/1/1/2020	2025/1/1/2025	2030/1/1/2030
21117	Nonroad		2260004015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.001402799	0	0	0	0
21117	Nonroad		2260004016	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.003500868	0	0	0	0
21117	Nonroad		2260004020	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Residential)	VOC	0.020801604	0	0	0	0
21117	Nonroad		2260004021	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)	VOC	0.077992129	0	0	0	0
21117	Nonroad		2260004025	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.026290204	0	0	0	0
21117	Nonroad		2260004026	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.040033629	0	0	0	0
21117	Nonroad		2260004030	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.017188345	0	0	0	0
21117	Nonroad		2260004031	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.039598993	0	0	0	0
21117	Nonroad		2260004035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.025914535	0	0	0	0
21117	Nonroad		2260004036	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.038074455	0	0	0	0
21117	Nonroad		2260004071	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	1.22976E-05	0	0	0	0
21117	Nonroad		2260005035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Agricultural Equipment	Sprayers	VOC	3.71968E-05	0	0	0	0
21117	Nonroad		2260006005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Generator Sets	VOC	0.002005245	0	0	0	0

Region	Data Category	SCS	SCS Label One	SCS Level Two	SCS Level Three	SCS Level Four	Pollutant	2011 Year	2017 Year	2020 Year	2025 Year	2030 Year
21117	Nonroad	2260006010	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Pumps	VOC	0.01419596	0	0	0	0
21117	Nonroad	2260006015	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Air Compressors	VOC	5.06286E-06	0	0	0	0
21117	Nonroad	2260006035	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Commercial Equipment	Hydro-power Units	VOC	7.12502E-05	0	0	0	0
21117	Nonroad	2260007005	Mobile Sources	Off-highway Vehicle Gasoline, 2-Stroke	Logging Equipment	Chain Saws : 6 HP	VOC	2.05897E-05	0	0	0	0
21117	Nonroad	2265001050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Recreational Equipment	Golf Carts	VOC	0.010389155	0	0	0	0
21117	Nonroad	2265002003	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Pavers	VOC	0.000465927	0	0	0	0
21117	Nonroad	2265002006	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tampers/Rammers	VOC	4.25585E-05	0	0	0	0
21117	Nonroad	2265002009	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Plate Compactors	VOC	0.001619691	0	0	0	0
21117	Nonroad	2265002015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rollers	VOC	0.00074218	0	0	0	0
21117	Nonroad	2265002021	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Paving Equipment	VOC	0.002419454	0	0	0	0
21117	Nonroad	2265002024	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Surfacing Equipment	VOC	0.000922809	0	0	0	0
21117	Nonroad	2265002027	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Signal Boards/Light Plants	VOC	5.45926E-05	0	0	0	0
21117	Nonroad	2265002030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Trenchers	VOC	0.00173743	0	0	0	0

Region Code	Disb Category	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	2011 Used	2012 Used	2013 Used	2014 Used	2015 Used	2016 Used	2017 Used	2018 Used	2019 Used	2020 Used		
21117	Nonroad	2265002033	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Bore/Drill Rigs	VOC	0.000996702									
21117	Nonroad	2265002039	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	0.002668865									
21117	Nonroad	2265002042	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Cement and Mortar Mixers	VOC	0.002930542									
21117	Nonroad	2265002045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Cranes	VOC	9.901165E-05									
21117	Nonroad	2265002054	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	0.000241968									
21117	Nonroad	2265002057	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	0.000115028									
21117	Nonroad	2265002060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Rubber Tire Loaders	VOC	0.000179525									
21117	Nonroad	2265002066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Tractors/Loaders/Backhoes	VOC	0.000954636									
21117	Nonroad	2265002072	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.000622686									
21117	Nonroad	2265002078	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Dumpers/Tenders	VOC	0.000422563									
21117	Nonroad	2265002081	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Construction and Mining Equipment	Other Construction Equipment	VOC	0.000135615									
21117	Nonroad	2265003010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Aerial Lifts	VOC	0.000825444									
21117	Nonroad	2265003020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Forklifts	VOC	0.001268685									

Region	City	Date Category	SCQ Level	SCQ Level Dns	SCQ Level ID No	SCQ Level Three	SCQ Level Four	SCQ Level Five	2011 E-quest	2014 E-quest	2017 E-quest	2020 E-quest	2025 E-quest	2050 E-quest
21117	Nonroad	2265003030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000421243	0.034306645	0.034306645	0.034306645	0.034306645	0.034306645	0.034306645
21117	Nonroad	2265003040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other General Industrial Equipment	VOC	0.00193217	0	0	0	0	0	0
21117	Nonroad	2265003050	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Other Material Handling Equipment	VOC	5.60898E-05	0.000329937	0.000329937	0.000329937	0.000329937	0.000329937	0.000329937
21117	Nonroad	2265003060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	AC/Refrigeration	VOC	3.52801E-05	0	0	0	0	0	0
21117	Nonroad	2265003070	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Industrial Equipment	Terminal Tractors	VOC	3.35787E-05	0.003266353	0.003266353	0.003266353	0.003266353	0.003266353	0.003266353
21117	Nonroad	2265004010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Residential)	VOC	0.120270325	0	0	0	0	0	0
21117	Nonroad	2265004011	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn Mowers (Commercial)	VOC	0.040857316	0.011590312	0.011590312	0.011590312	0.011590312	0.011590312	0.011590312
21117	Nonroad	2265004015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Residential)	VOC	0.010183664	0	0	0	0	0	0
21117	Nonroad	2265004016	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)	VOC	0.024510803	0.039165733	0.039165733	0.039165733	0.039165733	0.039165733	0.039165733
21117	Nonroad	2265004025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Residential)	VOC	0.000629618	0	0	0	0	0	0
21117	Nonroad	2265004026	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)	VOC	0.000834763	0.004988669	0.004988669	0.004988669	0.004988669	0.004988669	0.004988669
21117	Nonroad	2265004030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Residential)	VOC	0.0011231	0	0	0	0	0	0
21117	Nonroad	2265004031	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)	VOC	0.017821523	0.000219697	0.000219697	0.000219697	0.000219697	0.000219697	0.000219697

Region Code	State Catalog	SCQ	SCQ Level Code	SCQ Level Name	SCQ Level Type	SCQ Level Title	SCQ Level Policy	Position	2011 Year	2014 Year	2017 Year	2020 Year	2025 Year	2030 Year
21117	Nonroad	2265004035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Residential)	VOC	0.011386399	0	0	0	0	0	0
21117	Nonroad	2265004036	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Snowblowers (Commercial)	VOC	0.010478894	0.017831767	0.017831767	0.017831767	0.017831767	0.017831767	0.017831767
21117	Nonroad	2265004040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Residential)	VOC	0.011437147	0	0	0	0	0	0
21117	Nonroad	2265004041	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)	VOC	0.001780515	0.026828981	0.026828981	0.026828981	0.026828981	0.026828981	0.026828981
21117	Nonroad	2265004046	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Front Mowers (Commercial)	VOC	0.002708876	0	0	0	0	0	0
21117	Nonroad	2265004051	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)	VOC	0.002562108	0.021676196	0.021676196	0.021676196	0.021676196	0.021676196	0.021676196
21117	Nonroad	2265004055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Residential)	VOC	0.120380391	0	0	0	0	0	0
21117	Nonroad	2265004056	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)	VOC	0.022735656	0.131247564	0.131247564	0.131247564	0.131247564	0.131247564	0.131247564
21117	Nonroad	2265004066	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)	VOC	0.002593331	0	0	0	0	0	0
21117	Nonroad	2265004071	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Turf Equipment (Commercial)	VOC	0.079154248	0.013927291	0.013927291	0.013927291	0.013927291	0.013927291	0.013927291
21117	Nonroad	2265004075	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Residential)	VOC	0.007172299	0	0	0	0	0	0
21117	Nonroad	2265004076	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)	VOC	0.006167856	0.25879503	0.25879503	0.25879503	0.25879503	0.25879503	0.25879503
21117	Nonroad	2265005010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	2-Wheel Tractors	VOC	1.45829E-05	0	0	0	0	0	0

Region_Cd	Data Category	Loc	SCD Level Desc	SCD Level Type	SCD Level Title	SCS Level Code	SCS Level Name	SCS Level Poll	SCS Level Poll	2013 Type	2014 Type	2017 Type	2020 Type	2025 Type	2030 Type
21117	Nonroad	2265005015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Tractors	VOC			2.99024E-05	0.004951089	0.004951089	0.004951089	0.004951089	0.004951089
21117	Nonroad	2265005020	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Combines	VOC			3.67949E-07	0	0	0	0	0
21117	Nonroad	2265005025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Balers	VOC			4.85577E-05	0.413218954	0.413218954	0.413218954	0.413218954	0.413218954
21117	Nonroad	2265005030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Agricultural Mowers	VOC			1.44301E-05	0	0	0	0	0
21117	Nonroad	2265005035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Sprayers	VOC			0.000224538	0.391470588	0.391470588	0.391470588	0.391470588	0.391470588
21117	Nonroad	2265005040	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Tillers - 6 HP	VOC			0.00056608	0	0	0	0	0
21117	Nonroad	2265005045	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Swathers	VOC			6.81105E-05	0.295777505	0.295777505	0.295777505	0.295777505	0.295777505
21117	Nonroad	2265005055	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Other Agricultural Equipment	VOC			9.40472E-05	0	0	0	0	0
21117	Nonroad	2265005060	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Agricultural Equipment	Irrigation Sets	VOC			2.98157E-05	0.206609477	0.206609477	0.206609477	0.206609477	0.206609477
21117	Nonroad	2265006005	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Generator Sets	VOC			0.082443627	0	0	0	0	0
21117	Nonroad	2265006010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pumps	VOC			0.022797018	0.123965686	0.123965686	0.123965686	0.123965686	0.123965686
21117	Nonroad	2265006015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Air Compressors	VOC			0.00935441	0	0	0	0	0
21117	Nonroad	2265006025	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Welders	VOC			0.015804137	0.38712146	0.38712146	0.38712146	0.38712146	0.38712146

Region Code	Data Category	SCS	SCS Level One	SCS Level Two	SCS Level Three	SCS Level Four	Position	2011 Used	2014 Used	2017 Used	2020 Used	2025 Used	2030 Used
21117	Nonroad	2265006030	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Pressure Washers	VOC	0.041314068	0	0	0	0	0
21117	Nonroad	2265006035	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Commercial Equipment	Hydro-power Units	VOC	0.001169628	0.015223856	0.015223856	0.015223856	0.015223856	0.015223856
21117	Nonroad	2265007010	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Shredders: 6 HP	VOC	5.57105E-06	0	0	0	0	0
21117	Nonroad	2265007015	Mobile Sources	Off-highway Vehicle Gasoline, 4-Stroke	Logging Equipment	Forest Equip - Feller/Bunch/Skidder	VOC	7.51087E-08	0.012045754	0.012045754	0.012045754	0.012045754	0.012045754
21117	Nonroad	2267002003	Mobile Sources	LPG	Construction and Mining Equipment	Pavers	VOC	2.0234E-05	0	0	0	0	0
21117	Nonroad	2267002015	Mobile Sources	LPG	Construction and Mining Equipment	Rollers	VOC	1.83179E-05	0.044565343	0.044565343	0.044565343	0.044565343	0.044565343
21117	Nonroad	2267002021	Mobile Sources	LPG	Construction and Mining Equipment	Paving Equipment	VOC	8.3989E-06	0	0	0	0	0
21117	Nonroad	2267002024	Mobile Sources	LPG	Construction and Mining Equipment	Surfacing Equipment	VOC	3.26521E-06	0.008424525	0.008424525	0.008424525	0.008424525	0.008424525
21117	Nonroad	2267002030	Mobile Sources	LPG	Construction and Mining Equipment	Trenchers	VOC	6.54175E-05	0	0	0	0	0
21117	Nonroad	2267002033	Mobile Sources	LPG	Construction and Mining Equipment	Bore/Drill Rigs	VOC	3.89358E-05	0.070229169	0.030050385	0.017924255	0.021091248	0.024258241
21117	Nonroad	2267002039	Mobile Sources	LPG	Construction and Mining Equipment	Concrete/Industrial Saws	VOC	1.89443E-05	0	0	0	0	0
21117	Nonroad	2267002045	Mobile Sources	LPG	Construction and Mining Equipment	Cranes	VOC	3.39159E-05	0.131191607	0.046815676	0.019268743	0.020714688	0.022160633
21117	Nonroad	2267002054	Mobile Sources	LPG	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	5.59375E-06	0	0	0	0	0
21117	Nonroad	2267002057	Mobile Sources	LPG	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	4.81744E-05	0.005015465	0.003613039	0.003403261	0.004047504	0.004691748
21117	Nonroad	2267002060	Mobile Sources	LPG	Construction and Mining Equipment	Rubber Tire Loaders	VOC	7.90706E-05	0	0	0	0	0
21117	Nonroad	2267002066	Mobile Sources	LPG	Construction and Mining Equipment	Tractors/Loaders s/Backhoes	VOC	5.97633E-06	0.002327034	0.001127624	0.000765414	0.000859397	0.000953336

Region Id	Date Category	SOE Level One	SOE Level Two	SOE Level Three	SOE Level Four	Postmark	2011 Asset	2014 Asset	2017 Asset	2020 Asset	2025 Asset	2050 Asset
21117	Nonroad	2267002072	Mobile Sources	LPG	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.000113152	0	0	0	0
21117	Nonroad	2267002081	Mobile Sources	LPG	Construction and Mining Equipment	Other Construction Equipment	VOC	5.3724E-05	0.001495302	0.000615448	0.000661632	0.000707816
21117	Nonroad	2267003010	Mobile Sources	LPG	Industrial Equipment	Aerial Lifts	VOC	0.000430887	0	0	0	0
21117	Nonroad	2267003020	Mobile Sources	LPG	Industrial Equipment	Forklifts	VOC	0.021245948	0.009534238	0.00938773	0.010202492	0.011017253
21117	Nonroad	2267003030	Mobile Sources	LPG	Industrial Equipment	Sweepers/Scrubbers	VOC	9.47954E-05	0	0	0	0
21117	Nonroad	2267003040	Mobile Sources	LPG	Industrial Equipment	Other General Industrial Equipment	VOC	3.73935E-05	0.142473529	0.136611631	0.12432199	0.11203235
21117	Nonroad	2267003050	Mobile Sources	LPG	Industrial Equipment	Other Material Handling Equipment	VOC	2.25403E-05	0	0	0	0
21117	Nonroad	2267003070	Mobile Sources	LPG	Industrial Equipment	Terminal Tractors	VOC	2.94639E-05	0.090970964	0.087228075	0.079381001	0.071533926
21117	Nonroad	2267004066	Mobile Sources	LPG	Lawn and Garden Equipment	Chippers/Slump Grinders (Commercial)	VOC	0.000236235	0	0	0	0
21117	Nonroad	2267005055	Mobile Sources	LPG	Agricultural Equipment	Other Agricultural Equipment	VOC	2.68566E-07	0	0	0	0
21117	Nonroad	2267005060	Mobile Sources	LPG	Agricultural Equipment	Irrigation Sets	VOC	5.62571E-08	0	0	0	0
21117	Nonroad	2267006005	Mobile Sources	LPG	Commercial Equipment	Generator Sets	VOC	0.001746229	0.250561031	0.240497133	0.218861909	0.197216684
21117	Nonroad	2267006010	Mobile Sources	LPG	Commercial Equipment	Pumps	VOC	0.000305218	0	0	0	0
21117	Nonroad	2267006015	Mobile Sources	LPG	Commercial Equipment	Air Compressors	VOC	0.000295007	0.047977729	0.04600269	0.041864258	0.037725847
21117	Nonroad	2267006025	Mobile Sources	LPG	Commercial Equipment	Welders	VOC	0.00052517	0	0	0	0
21117	Nonroad	2267006030	Mobile Sources	LPG	Commercial Equipment	Pressure Washers	VOC	9.25448E-06	0.096588078	0.092708574	0.084368471	0.076028368
21117	Nonroad	2267006035	Mobile Sources	LPG	Commercial Equipment	Hydro-power Units	VOC	3.49572E-06	0	0	0	0
21117	Nonroad	2268002081	Mobile Sources	CNG	Construction and Mining Equipment	Other Construction Equipment	VOC	1.30755E-07	0.000608679	0.000608679	0.000608679	0.000608679
21117	Nonroad	2268003020	Mobile Sources	CNG	Industrial Equipment	Forklifts	VOC	8.97444E-05	0	0	0	0
21117	Nonroad	2268003030	Mobile Sources	CNG	Industrial Equipment	Sweepers/Scrubbers	VOC	1.14515E-07	3.15839E-05	3.15839E-05	3.15839E-05	3.15839E-05
21117	Nonroad	2268003040	Mobile Sources	CNG	Industrial Equipment	Other General Industrial Equipment	VOC	5.41403E-08	0	0	0	0
21117	Nonroad	2268003060	Mobile Sources	CNG	Industrial Equipment	AC Refrigeration	VOC	2.39525E-07	0.101305948	0.099327311	0.095240611	0.086671715

Region Code	State Code	Local Code	Agency	Account	Item	Unit	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
21117	Nonroad	2268003070	Mobile Sources	CNG	Industrial Equipment	Terminal Tractors	1.36059E-07	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2268005055	Mobile Sources	CNG	Agricultural Equipment	Other Agricultural Equipment	9.94413E-09	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791	0.008143791
21117	Nonroad	2268005060	Mobile Sources	CNG	Agricultural Equipment	Irrigation Sets	4.73911E-08	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545	0.001634545
21117	Nonroad	2268006005	Mobile Sources	CNG	Commercial Equipment	Generator Sets	3.18661E-05	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06	5.72092E-06
21117	Nonroad	2268006010	Mobile Sources	CNG	Commercial Equipment	Pumps	1.36794E-06	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073	0.13081073
21117	Nonroad	2268006015	Mobile Sources	CNG	Commercial Equipment	Air Compressors	1.36621E-06	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676	0.009928676
21117	Nonroad	2268006020	Mobile Sources	CNG	Commercial Equipment	Gas Compressors	8.84059E-06	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2270002003	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Pavers	0.001038773	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257	0.008643257
21117	Nonroad	2270002006	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tampers/Rammers	4.48251E-06	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2270002009	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Plate Compactors	6.85692E-05	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037	0.000782037
21117	Nonroad	2270002015	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rollers	0.00282271	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2270002018	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Scrapers	0.002135292	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221	0.000180221
21117	Nonroad	2270002021	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Paving Equipment	0.000188952	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2270002024	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Surfacing Equipment	0.000127004	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438	0.001261438
21117	Nonroad	2270002027	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Signal Boards/Light Planis	0.000533847	0	0	0	0	0	0	0	0	0	0	0
21117	Nonroad	2270002030	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Trenchers	0.001588069	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175	0.017612175
21117	Nonroad	2270002033	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Bore/Drill Rigs	0.001679253	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05	6.06724E-05
21117	Nonroad	2270002036	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Excavators	0.008968632	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06	3.33698E-06
21117	Nonroad	2270002039	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Concrete/Industrial Saws	0.000117042	0	0	0	0	0	0	0	0	0	0	0

Region/Col	Dept. Category	PO	SCO Level One	SCO Level Two	SCO Level Three	ISCE Level Four	Pol/Mark	2015 tiped	2017 tiped	2020 tiped	2025 tiped	2030 tiped
21117	Nonroad	2270002042	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cement and Mortar Mixers	VOC	8.89303E-05	0.00035162	0.00035162	0.00035162	0.00035162
21117	Nonroad	2270002045	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Cranes	VOC	0.002301057	0	0	0	0
21117	Nonroad	2270002048	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Graders	VOC	0.002267103	0.006538412	0.006538412	0.006538412	0.006538412
21117	Nonroad	2270002051	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Trucks	VOC	0.006913971	0	0	0	0
21117	Nonroad	2270002054	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crushing/Processing Equipment	VOC	0.000450998	0	0	0	0
21117	Nonroad	2270002057	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rough Terrain Forklifts	VOC	0.004198793	0	0	0	0
21117	Nonroad	2270002060	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Rubber Tire Loaders	VOC	0.011193778	0	0	0	0
21117	Nonroad	2270002066	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Tractors/Loaders/Backhoes	VOC	0.022936948	0.000392157	0.000392157	0.000392157	0.000392157
21117	Nonroad	2270002069	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Crawler Tractor/Dozers	VOC	0.009210216	6.66667E-06	6.66667E-06	6.66667E-06	6.66667E-06
21117	Nonroad	2270002072	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Skid Steer Loaders	VOC	0.020342121	0	0	0	0
21117	Nonroad	2270002075	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Off-highway Tractors	VOC	0.001123183	0.001449058	0.001449058	0.001449058	0.001449058
21117	Nonroad	2270002078	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Dumpers/Tenders	VOC	6.97591E-05	0	0	0	0
21117	Nonroad	2270002081	Mobile Sources	Off-highway Vehicle Diesel	Construction and Mining Equipment	Other Construction Equipment	VOC	0.001222054	0.000469869	0.000469869	0.000469869	0.000469869
21117	Nonroad	2270003010	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Aerial Lifts	VOC	0.000716064	0.005789978	0.005789978	0.005789978	0.005789978
21117	Nonroad	2270003020	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Forklifts	VOC	0.001791028	0.007126144	0.007126144	0.007126144	0.007126144
21117	Nonroad	2270003030	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Sweepers/Scrubbers	VOC	0.000974656	0	0	0	0
21117	Nonroad	2270003040	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other General Industrial Equipment	VOC	0.001128804	0	0	0	0

Region/County	Distric	City/County	SCC	SCO Level One	SCO Level Two	SCO Level Three	SCO Level Four	Political	2011 fiscal	2014 fiscal	2017 fiscal	2020 fiscal	2025 fiscal	2030 fiscal
21117	Nonroad	2270003050	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Other Material Handling Equipment	VOC	0.000130101	0	0	0	0	0	0
21117	Nonroad	2270003060	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	AC/Refrigeration	VOC	0.004347941	0	0	0	0	0	0
21117	Nonroad	2270003070	Mobile Sources	Off-highway Vehicle Diesel	Industrial Equipment	Terminal Tractors	VOC	0.00094402	8.06386E-05	8.06386E-05	8.06386E-05	8.06386E-05	8.06386E-05	8.06386E-05
21117	Nonroad	2270004031	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Leafblowers/Vacuums	VOC	4.20545E-07	0	0	0	0	0	0
21117	Nonroad	2270004036	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Snowblowers	VOC	4.90333E-05	0	0	0	0	0	0
21117	Nonroad	2270004046	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Front Mowers	VOC	0.001781385	0.03921506	0.03921506	0.03921506	0.03921506	0.03921506	0.03921506
21117	Nonroad	2270004056	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Lawn and Garden Tractors	VOC	0.000375771	0	0	0	0	0	0
21117	Nonroad	2270004066	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Chippers/Stump Grinders	VOC	0.002078045	0	0	0	0	0	0
21117	Nonroad	2270004071	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Turf Equipment	VOC	0.000166505	2.73002E-06	2.69302E-06	2.55223E-06	2.23107E-06	1.90991E-06	
21117	Nonroad	2270004076	Mobile Sources	Off-highway Vehicle Diesel	Lawn and Garden Equipment	Other Lawn and Garden Equipment	VOC	7.46665E-06	1.50293E-07	1.48401E-07	1.42605E-07	1.29694E-07	1.16783E-07	
21117	Nonroad	2270005010	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	2-Wheel Tractors	VOC	1.57765E-07	0	0	0	0	0	0
21117	Nonroad	2270005015	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Tractors	VOC	0.00490661	0.000243038	0.000239977	0.000230606	0.000209727	0.000186849	
21117	Nonroad	2270005020	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Combines	VOC	0.000482625	0	0	0	0	0	0
21117	Nonroad	2270005025	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Balers	VOC	4.11368E-06	0.000630388	0.00062245	0.000598142	0.000543988	0.000489834	
21117	Nonroad	2270005030	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Agricultural Mowers	VOC	7.08824E-07	0	0	0	0	0	0
21117	Nonroad	2270005035	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Sprayers	VOC	5.4833E-05	0.000115565	0.000114111	0.000109654	9.97259E-05	8.97981E-05	

Region	CD	Date Category	SCC	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pol/Market	2011 (t/psd)	2014 (t/psd)	2017 (t/psd)	2020 (t/psd)	2025 (t/psd)	2030 (t/psd)
21117	Nonroad	2270005040	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Tillers : 6 HP	VOC	5.26596E-08	0	0	0	0	0	0
21117	Nonroad	2270005045	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Swathers	VOC	4.66015E-05	5.1014E-05	5.1014E-05	5.1014E-05	5.1014E-05	5.1014E-05	5.1014E-05
21117	Nonroad	2270005055	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Other Agricultural Equipment	VOC	0.000112775	6.29085E-06	6.29085E-06	6.29085E-06	6.29085E-06	6.29085E-06	6.29085E-06
21117	Nonroad	2270005060	Mobile Sources	Off-highway Vehicle Diesel	Agricultural Equipment	Irrigation Sets	VOC	5.30237E-05	1.04847E-05	1.04847E-05	1.04847E-05	1.04847E-05	1.04847E-05	1.04847E-05
21117	Nonroad	2270006005	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Generator Sets	VOC	0.006026127	0.010512037	0.010512037	0.010512037	0.010512037	0.010512037	0.010512037
21117	Nonroad	2270006010	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pumps	VOC	0.001356388	0.000715869	0.000715869	0.000715869	0.000715869	0.000715869	0.000715869
21117	Nonroad	2270006015	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Air Compressors	VOC	0.002465213	0	0	0	0	0	0
21117	Nonroad	2270006025	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Welders	VOC	0.004310899	0	0	0	0	0	0
21117	Nonroad	2270006030	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Pressure Washers	VOC	0.000200976	0	0	0	0	0	0
21117	Nonroad	2270006035	Mobile Sources	Off-highway Vehicle Diesel	Commercial Equipment	Hydro-power Units	VOC	8.90993E-05	0.102836479	0.102836479	0.102836479	0.102836479	0.102836479	0.102836479
21117	Nonroad	2270007015	Mobile Sources	Off-highway Vehicle Diesel	Logging Equipment	Forest Equip - Feller/Bunch/Sk idder	VOC	3.05744E-06	0	0	0	0	0	0
21117	Nonroad	2282005010	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Outboard	VOC	0.061143076	0.052713198	0.052713198	0.052713198	0.052713198	0.052713198	0.052713198
21117	Nonroad	2282005015	Mobile Sources	Pleasure Craft	Gasoline 2-Stroke	Personal Water Craft	VOC	0.015767317	0	0	0	0	0	0
21117	Nonroad	2282010005	Mobile Sources	Pleasure Craft	Gasoline 4-Stroke	Inboard/Stern Drive	VOC	0.005746879	0.005766295	0.005766295	0.005766295	0.005766295	0.005766295	0.005766295
21117	Nonroad	2282020005	Mobile Sources	Pleasure Craft	Diesel	Inboard/Stern Drive	VOC	0.000278721	0	0	0	0	0	0
21117	Nonroad	2282020010	Mobile Sources	Pleasure Craft	Diesel	Outboard	VOC	3.47166E-06	0.004550252	0.004550252	0.004550252	0.004550252	0.004550252	0.004550252
21117	Nonroad	2285002015	Mobile Sources	Equipment	Diesel	Railway Maintenance	VOC	0.001561163	0.180543301	0.180543301	0.180543301	0.180543301	0.180543301	0.180543301
21117	Nonroad	2285004015	Mobile Sources	Equipment	Gasoline, 4-Stroke	Railway Maintenance	VOC	0.000399667	0.011639801	0.011639801	0.011639801	0.011639801	0.011639801	0.011639801
21117	Nonroad	2285006015	Mobile Sources	Equipment	LPG	Railway Maintenance	VOC	3.96944E-06	0	0	0	0	0	0
21117	Nonroad				TOTAL		VOC	1.1729841	4.53892	4.409513	4.639444	4.261752	4.225060	4.225060

Region/CD	Date Contag...	ppm	SCC Level/Disc	SCC Level/Use	SCC Level/Threat	SCC Level/Point	2011 Sped	2014 Sped	2017 Sped	2020 Sped	2025 Sped	2030 Sped
21117	Point	10200602	External Combustion Boilers	Industrial	Natural Gas	10-100 Million BTU/hr	VOC	0.000820927	0.026336216	0.026336216	0.026336216	0.026336216
21117	Point	10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million BTU/hr	VOC	0.001523973	0	0	0	0
21117	Point	10201002	External Combustion Boilers	Industrial	Liquid Petroleum Gas (LPG)	Propane	VOC	0	0	0	0	0
21117	Point	10300501	External Combustion Boilers	Commercial/Inst	Distillate Oil - Grades 1 and 2	Boiler	VOC	2.93734E-06	0	0	0	0
21117	Point	10300602	External Combustion Boilers	Commercial/Inst	Natural Gas	10-100 Million BTU/hr	VOC	0.000902533	0.002669118	0.002669118	0.002669118	0.002669118
21117	Point	10300603	External Combustion Boilers	Commercial/Inst	Natural Gas	< 10 Million BTU/hr	VOC	5.19918E-05	0	0	0	0
21117	Point	10500206	External Combustion Boilers	Space Heaters	Commercial/Inst	Natural Gas	VOC	4.00766E-05	5.48087E-05	5.48087E-05	5.48087E-05	5.48087E-05
21117	Point	10500210	External Combustion Boilers	Space Heaters	Commercial/Inst	Liquid Petroleum Gas (LPG)	VOC	4.04003E-06	0.000254666	0.000254666	0.000254666	0.000254666
21117	Point	20200101	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine	VOC	0	1.39956E-05	1.39956E-05	1.39956E-05	1.39956E-05
21117	Point	20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	VOC	0.000102196	0	0	0	0
21117	Point	20200252	Internal Combustion Engines	Industrial	Natural Gas	2-cycle Lean Burn	VOC	1.65333E-05	0.000381264	0.000381264	0.000381264	0.000381264
21117	Point	20300101	Internal Combustion Engines	Commercial/Inst	Distillate Oil (Diesel)	Reciprocating	VOC	4.1226E-06	0	0	0	0
21117	Point	2275050011	Mobile Sources	Aircraft	General Aviation	Piston	VOC	3.64895E-05	0.002393369	0.002393369	0.002393369	0.002393369
21117	Point	2275050012	Mobile Sources	Aircraft	General Aviation	Turbine	VOC	0.000124115	0	0	0	0
21117	Point	28500201	Internal Combustion Engines	Railroad Equipment	Diesel	Yard Locomotives	VOC	0.009928676	0.000439403	0.000430821	0.000413095	0.000375933
21117	Point	30101899	Industrial Processes	Chemical Manufacturing	Plastics Production	Others Not Specified	VOC	0.008643257	0	0	0	0
21117	Point	30180003	Industrial Processes	Chemical Manufacturing	General Processes	Pipeline Valves: Light Liquid/Gas Stream	VOC	0.000782037	0.000998776	0.000998776	0.000998776	0.000998776
21117	Point	30180007	Industrial Processes	Chemical Manufacturing	General Processes	Flanges: All Streams	VOC	0.000180221	0	0	0	0

Region_Cd	Date_Catgory	scs	USCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Pollutant	2011 Upd	2014 Upd	2017 Upd	2020 Upd	2025 Upd	2050 Upd
21117	Point	30180008	Industrial Processes	Chemical Manufacturing	General Processes	Pump Seals: Light Liquid/Gas Stream	VOC	0.001261438	9.80392E-06	9.80392E-06	9.80392E-06	9.80392E-06	9.80392E-06
21117	Point	30188801	Industrial Processes	Chemical Manufacturing	Fugitive Emissions	Specify in Comments Field	VOC	0.017612175	0	0	0	0	0
21117	Point	30190013	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Incinerators Batch	VOC	3.33698E-06	5.03053E-06	5.03053E-06	5.03053E-06	5.03053E-06	5.03053E-06
21117	Point	30201303	Industrial Processes	Food and Agriculture	Meat Smokehouses	Cooking Cycle	VOC	0.00035162	0	0	0	0	0
21117	Point	30299998	Industrial Processes	Food and Agriculture	Other Not Specified	Other Not Classified	VOC	0.006538412	2.01797E-05	2.01797E-05	2.01797E-05	2.01797E-05	2.01797E-05
21117	Point	30500206	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Natural Gas	VOC	0	0	0	0	0	0
21117	Point	30500207	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Residual Oil	VOC	0	2.02032E-06	2.02032E-06	2.02032E-06	2.02032E-06	2.02032E-06
21117	Point	30500208	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Distillate Oil	VOC	6.66667E-06	0	0	0	0	0
21117	Point	30500213	Industrial Processes	Mineral Products	Asphalt Concrete	Storage Silo	VOC	0.001449058	0.000262193	0.000262193	0.000262193	0.000262193	0.000262193
21117	Point	30500214	Industrial Processes	Mineral Products	Asphalt Concrete	Truck Load-out	VOC	0.000469869	0	0	0	0	0
21117	Point	30500257	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Plant: Rotary Drum Dryer / Mixer, Natural Gas, Counterflow	VOC	0.007126144	0.003501071	0.003501071	0.003501071	0.003501071	0.003501071
21117	Point	30500260	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Plant: Rotary Drum Dryer / Mixer, #2 Oil-Fired, Counterflow	VOC	0	0	0	0	0	0
21117	Point	30500263	Industrial Processes	Mineral Products	Asphalt Concrete	Drum Mix Pl: Rotary Drum Dryer/Mixer, Waste/Drain/#6 Oil, Counterflow	VOC	0	2.66341E-05	2.66341E-05	2.66341E-05	2.66341E-05	2.66341E-05
21117	Point	30501305	Industrial Processes	Mineral Products	Frit Manufacture Bulk Materials Unloading Operation	Rotary Smelling Furnace	VOC	0	0	0	0	0	0
21117	Point	30510498	Industrial Processes	Mineral Products	Mineral: Specify in Comments	Mineral: Specify in Comments	VOC	0.03921506	1.25669E-05	1.25669E-05	1.25669E-05	1.25669E-05	1.25669E-05

Region	City	Site ID	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level
Region	City	Site ID	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level
Region	City	Site ID	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level
Region	City	Site ID	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level	SCQ Level
21117	Point	30600103	Industrial Processes	Petroleum Industry	Process Heaters	Oil-fired	VOC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	30600105	Industrial Processes	Petroleum Industry	Process Heaters	Natural Gas-fired	VOC	1.52186E-07	0.003331735	0.003266662	0.003132259	0.00285048	0.002568703										
21117	Point	30600812	Industrial Processes	Petroleum Industry	Fugitive Emissions	Pipeline Valves: Light Liquid/Gas Streams	VOC	0.000246098	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	30600816	Industrial Processes	Petroleum Industry	Fugitive Emissions	Flanges: All Streams	VOC	0.000638327	0.00487906	0.004783765	0.004586944	0.0041743	0.003761657										
21117	Point	30600817	Industrial Processes	Petroleum Industry	Fugitive Emissions	Pump Seals: Light Liquid/Gas Streams	VOC	0.00011702	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	30899999	Industrial Processes	Miscellaneous Products	Other Not Specified	Other Not Classified	VOC	5.1014E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39000605	Industrial Processes	In-process Fuel Use	Natural Gas	Metal Melting	VOC	1.04847E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39000699	Industrial Processes	In-process Fuel Use	Natural Gas	General	VOC	0.000715869	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39000999	Industrial Processes	In-process Fuel Use	Wood	General: Wood	VOC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39999994	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.102836479	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39999995	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.052713198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39999996	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.005766295	0.001799587	0.001764439	0.001691843	0.001539644	0.001387445										
21117	Point	39999997	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.004550252	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	39999999	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Industrial Processes	Other Not Classified	VOC	0.011639801	0.040131347	0.039347529	0.037728624	0.034334541	0.030940458										
21117	Point	40100198	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Dry Cleaning	Other Not Classified	VOC	0.026336216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21117	Point	40100251	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Stoddard (Petroleum Solvent): General Degreasing Units	VOC	0	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	1.08932E-07	

Region	City	Data Category	Site	(SOC Level One)	(SOC Level Two)	(SOC Level Three)	(SOC Level Four)	2013 (total)	2014 (total)	2017 (total)	2020 (total)	2025 (total)	2030 (total)
21117	Point	4018888	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fugitive Emissions	Specify in Comments Field	VOC	0.002669118	0	0	0	0	0
21117	Point	40200601	Petroleum and Solvent Evaporation	Surface Coating Operations	Surface Coating Application - General	Primer	VOC	5.48087E-05	0	0	0	0	0
21117	Point	40201001	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Natural Gas	VOC	1.39956E-05	0	0	0	0	0
21117	Point	40202503	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Coating Mixing	VOC	0.000381264	3.49786E-05	3.49786E-05	3.49786E-05	3.49786E-05	3.49786E-05
21117	Point	40299998	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous	Specify in Comments Field	VOC	0.002393369	0	0	0	0	0
21117	Point	40301002	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	10: Breathing Loss (67000 Bbl. Tank Size)	VOC	0.000447985	4.84013E-07	4.84013E-07	4.84013E-07	4.84013E-07	4.84013E-07
21117	Point	40301008	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Gasoline RVP	VOC	0.000998776	0	0	0	0	0
21117	Point	40301016	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	10: Working Loss (Tank Diameter Independent)	VOC	9.80392E-06	0	0	0	0	0
21117	Point	40301018	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Breathing Loss (67000 Bbl. Tank Size)	VOC	5.03053E-06	0.004030914	0.004030914	0.004030914	0.004030914	0.004030914
21117	Point	40301019	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Jet Kerosene: Working Loss (Tank Diameter Independent)	VOC	2.01797E-05	0.003777418	0.003714714	0.003565511	0.003244756	0.002924001
21117	Point	40301021	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fixed Roof Tanks (Varying Sizes)	Distillate Fuel #2: Working Loss (Tank Diameter Independent)	VOC	2.02032E-06	1.4595E-08	1.4595E-08	1.4595E-08	1.4595E-08	1.4595E-08
21117	Point	40388801	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Fugitive Emissions	Specify in Comments Field	VOC	0.000262193	0.003350611	0.003350611	0.003350611	0.003350611	0.003350611
21117	Point	40399999	Petroleum and Solvent Evaporation	Petroleum Product Storage at Refineries	Other Not Classified	See Comment **	VOC	0.003501071	0	0	0	0	0

Region	City	Site	500 Level Code	500 Level Name	500 Level Store	500 Level Prod	2011 Spd	2014 Spd	2017 Spd	2020 Spd	2025 Spd	2030 Spd
21117	Point	40400121	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	2.66341E-05	0	0	0	0	0
						Diesel Fuel: Standing Loss (Diameter Independent) - Fixed Roof Tank						
21117	Point	40400122	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	1.25669E-05	0	0	0	0	0
						Diesel Fuel: Working Loss (Diameter Independent) - Fixed Roof Tank						
21117	Point	40400148	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0.003396809	0.00163962	0.001612403	0.00154764	0.001408413	0.001269187
						Gasoline RVP 13/10/7: Withdrawal Loss - Ext. Float Roof (Pn/Sec Seal)						
21117	Point	40400149	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0.004974355	0	0	0	0	0
						Specify Liquid: External Floating Roof (Primary/Secondary Seal)						
21117	Point	40400150	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0	0	0	0	0	0
						Miscellaneous Losses/Leaks: Loading Racks						
21117	Point	40400151	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0	0	0	0	0	0
						Valves, Flanges, and Pumps						
21117	Point	40400153	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0	0	0	0	0	0
						Vapor Control Unit Losses						
21117	Point	40400179	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0.001834736	0	0	0	0	0
						Specify Liquid: Internal Floating Roof (Primary/Secondary Seal)						
21117	Point	40400199	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	VOC	0.040915165	0.03173019	0.031203481	0.029950179	0.027255843	0.024561518
						See Comment **						
21117	Point	40400412	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	VOC	1.08937E-07	0	0	0	0	0
						Jet Kerosene: Working Loss						
21117	Point	40400413	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petroleum Products - Underground Tanks	VOC	0	0.000459288	0.000451664	0.000433522	0.000394523	0.000355523
						Distillate Fuel #2: Breathing Loss						

Region/Local	Date Category	SCC	SCC Level Code	SCC Level (N/A)	SCC Level (Fines)	SCC Level (Air)	Pollutant	2011 tpyd	2014 tpyd	2017 tpyd	2020 tpyd	2025 tpyd	2030 tpyd
21117	Point	40400414	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-refinery)	Petroleum Products - Underground Tanks	Distillate Fuel #2: Working Loss	VOC	3.49786E-05	0	0	0	0	0
21117	Point	40400498	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-refinery)	Petroleum Products - Underground Tanks	Specify Liquid: Working Loss	VOC	4.84013E-07	0.068301676	0.067167894	0.064470065	0.05867031	0.052870556
21117	Point	40600126	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Submerged Loading **	VOC	0	0	0	0	0	0
21117	Point	40600131	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Submerged Loading (Normal Service)	VOC	0.003840122	0.10005965	0.098398698	0.094446469	0.085950025	0.07745358
21117	Point	40600134	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Kerosene: Submerged Loading (Normal Service)	VOC	0.003350611	0	0	0	0	0
21117	Point	40600135	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Distillate Oil: Submerged Loading (Normal Service)	VOC	0	0.050378023	0.050378023	0.050378023	0.050378023	0.050378023
21117	Point	40600136	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Splash Loading (Normal Service)	VOC	0.001666837	0	0	0	0	0
21117	Point	40600163	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Return with Vapor (Transit Losses)	VOC	0	0	0	0	0	0
21117	Point	40600251	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Marine Vessels	Distillate Oil: Loading Barges	VOC	0	0	0	0	0	0
21117	Point	40600301	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	VOC	0.0322569	2.30369E-05	2.30369E-05	2.30369E-05	2.30369E-05	2.30369E-05
21117	Point	40600306	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Balanced Submerged Filling	VOC	0.000466912	0	0	0	0	0

Region	City	Delta	Code	SCC Level One	SCC Level Two	SCC Level Three	SCC Level Four	Point	2011 tpsd	2014 tpsd	2017 tpsd	2020 tpsd	2025 tpsd	2030 tpsd
21117	Point	40600307	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	VOC	0.069435458	2.90226E-06	2.90226E-06	2.90226E-06	2.90226E-06	2.90226E-06	2.90226E-06
21117	Point	40600401	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	VOC	0.101720602	0	0	0	0	0	0
21117	Point	40600402	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	VOC	0.050378023	1.92734E-06	1.92734E-06	1.92734E-06	1.92734E-06	1.92734E-06	1.92734E-06
21117	Point	40700810	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Ethyl Alcohol: Working Loss	Ethyl Alcohol: Working Loss	VOC	0	0	0	0	0	0	0
21117	Point	40714697	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Comments: Miscellaneous	Comments: Miscellaneous	VOC	2.30369E-05	0.002481481	0.002481481	0.002481481	0.002481481	0.002481481	0.002481481
21117	Point	40714698	Petroleum and Solvent Evaporation	Organic Chemical Storage	Fixed Roof Tanks - Comments: Miscellaneous	Comments: Miscellaneous	VOC	2.90226E-06	0	0	0	0	0	0
21117	Point	40899999	Petroleum and Solvent Evaporation	Organic Chemical Transportation	Specific Liquid	Loading Rack	VOC	1.92734E-06	0.000869627	0.000869627	0.000869627	0.000869627	0.000869627	0.000869627
21117	Point	49999998	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Miscellaneous Volatile Organic Compound Evaporation	Identify the Process and Solvent in Comments	VOC	0.002481481	0	0	0	0	0	0
21117	Point	64520011	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Polymerization Reaction: Kettle	VOC	0.000869627	0.00014624	0.00014624	0.00014624	0.00014624	0.00014624	0.00014624
21117	Point	64520020	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Product Finishing Product	VOC	0.00014624	0	0	0	0	0	0
21117	Point	64520021	MACT Source Categories	Miscellaneous Resins	Alkyd Resin Production, Solvent Process	Finishing: Thinning Vessels	VOC	0.001809483	0.001809483	0.001809483	0.001809483	0.001809483	0.001809483	0.001809483
21117	Point				TOTAL		VOC	0.698225	0.354620	0.352215	0.342097	0.320270	0.329605	0.329605

Appendix E
MOVES Modeling

Appendix E-1

**On-Road
RFG vs Non-RFG
2017-2020-2030**

1. Summary of Emissions Modeling Decisions

The Division performed air quality analyses using the U.S. EPA MOVES 2014a mobile emissions simulator to demonstrate the difference in emissions resulting from the use of reformulated gasoline (RFG) and conventional gasoline (CG) in Northern Kentucky (Boone, Kenton and Campbell counties).

The pollutants primarily under consideration were oxides of nitrogen (NO_x) and volatile organic compounds (VOC). Other pollutants considered in the air quality analyses were sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}), and carbon monoxide (CO).

The years selected to model were 2017, 2020 and 2030, with interpolated emissions for 2025 figured post-analysis. The results presented are in tons per summer day (TSD).

Inventory

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI), which is the Cincinnati area metropolitan planning organization (MPO), developed and provided the inventory. OKI developed much of the inventory through their Travel Demand Forecast Model (TDFM). OKI estimated vehicle miles traveled and vehicle hours through the TDFM for 2017, 2020 and 2030.

Technical Parameters

The parameter selections for the MOVES run specifications and the inputs for the County Data Manager are given in Tables 1 and 2. Run specifications were performed individually by county, year and fuel scenario, which resulted in 18 unique iterations of MOVES for this demonstration.

Table 1. Run Specification Parameters

MOVES Version	MOVES2014a
Scale	Model: Onroad Domain/Scale: County Calculation Type: Inventory
Time Span	Time Aggregation Level: Hour Years: 2017, 2020, 2030 Month: July Day: Weekdays Hours: All Hours
Geographic Bounds	Region: County State: Kentucky County: Boone, Campbell, Kenton
Vehicles/Equipment	All fuels, source use types and combinations
Road Type	All available road types
Pollutants and Processes	VOC, NO _x , CO, PM _{2.5} -Total, PM ₁₀ -Total, SO ₂ , and prerequisite pollutants
General Output	Mass Units: Pounds Energy Units: Joules Distance Units: Miles
Output Emissions	Time: Hour Location: County Pollutant: Always

Table 2. County Data Manager Inputs

Age Distribution	Default
Average Speed Distribution	Data developed by the OKI TDFM and received from OKI
Fuel	RFG Scenarios: Default CG Scenarios: Default Grant County, KY
Meteorology Data	Default
Ramp Fraction	Default
Road Type Distribution	Default
Source Type Population	Registration data delivered to OKI by KY Transportation Cabinet, Data developed by the OKI TDFM and received from OKI
Vehicle Type VMT	Data developed by the OKI TDFM and received from OKI
I/M Programs	No I/M Program

Fuels

The fuel files selected for the MOVES demonstration were MOVES defaults. Concerning the RFG scenarios, default fuel files were selected for Boone, Campbell and Kenton counties. The default fuel file for Grant county, Kentucky, was used for the CG scenarios and were applied to Boone, Campbell and Kenton counties. The table below gives the Reid Vapor Pressure (RVP) of each year's fuel scenario.

Table 3. Fuel Scenario RVP

RFG	CG
6.9 psi	9.7 psi

2017 NKY RFG v NONRFG

NONRFG TSD
RFG TSD

CO	Total PM10	Total PM25	SO2	VOC	NOx
67.18	0.43	0.39	0.04	5.53	11.87
61.71	0.41	0.37	0.04	5.28	11.58

Boone (TSD)
Campbell (TSD)
Kenton (TSD)
NKY (TSD)

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
4.49	4.58	2.00	2.09
2.55	2.60	1.18	1.23
4.54	4.69	2.10	2.21
11.58	11.87	5.28	5.53

2017 Total Emissions Benefit of RFG in NKY

NOx	VOC	CO	Total PM10	Total PM2.5	SO2
0.29	0.25	5.48	0.02	0.02	0.00

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM1	Total_PM2	SO2	VOC	NOx	
2017	7	7	5	1	21	21015	3	338	3	3	0	47	100
2017	7	7	5	2	21	21015	3	225	2	2	0	41	72
2017	7	7	5	3	21	21015	3	164	2	2	0	35	60
2017	7	7	5	4	21	21015	3	169	2	2	0	35	57
2017	7	7	5	5	21	21015	3	292	3	2	0	42	76
2017	7	7	5	6	21	21015	3	752	6	6	1	70	165
2017	7	7	5	7	21	21015	3	1966	15	14	1	180	398
2017	7	7	5	8	21	21015	3	2861	22	20	2	256	581
2017	7	7	5	9	21	21015	3	3122	19	18	2	260	533
2017	7	7	5	10	21	21015	3	2204	16	15	2	192	441
2017	7	7	5	11	21	21015	3	2350	16	15	2	190	441
2017	7	7	5	12	21	21015	3	2837	17	16	2	224	504
2017	7	7	5	13	21	21015	3	2916	18	17	2	226	520
2017	7	7	5	14	21	21015	3	2946	18	17	2	223	520
2017	7	7	5	15	21	21015	3	3131	20	18	2	226	550
2017	7	7	5	16	21	21015	3	3769	22	20	2	271	640
2017	7	7	5	17	21	21015	3	3853	24	22	3	275	678
2017	7	7	5	18	21	21015	3	3884	24	22	3	292	686
2017	7	7	5	19	21	21015	3	3040	19	17	2	259	543
2017	7	7	5	20	21	21015	3	2150	14	13	2	196	406
2017	7	7	5	21	21	21015	3	1676	11	10	1	164	336
2017	7	7	5	22	21	21015	3	1232	10	9	1	120	281
2017	7	7	5	23	21	21015	3	991	8	7	1	102	228
2017	7	7	5	24	21	21015	3	639	6	5	1	74	163
							47507	317	292	34	4000	8979 lb/day	
							23.7535	0.1585	0.146	0.017	2	4.4895 TSD	

NONRFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10	Total_PM25	SO2	VOC	NOx
2017	7	1	5	21	21015	2	363	4	3	0	47	101
2017	7	2	5	21	21015	2	240	2	2	0	42	73
2017	7	3	5	21	21015	2	177	2	2	0	35	60
2017	7	4	5	21	21015	2	180	2	2	0	35	58
2017	7	5	5	21	21015	2	307	3	2	0	43	77
2017	7	6	5	21	21015	2	788	6	6	1	72	168
2017	7	7	5	21	21015	2	2046	15	14	1	186	406
2017	7	8	5	21	21015	2	2986	22	21	2	264	592
2017	7	9	5	21	21015	2	3229	20	18	2	272	544
2017	7	10	5	21	21015	2	2338	16	15	2	209	449
2017	7	11	5	21	21015	2	2504	16	15	2	208	449
2017	7	12	5	21	21015	2	3006	18	16	2	242	515
2017	7	13	5	21	21015	2	3106	19	17	2	243	531
2017	7	14	5	21	21015	2	3149	19	17	2	238	531
2017	7	15	5	21	21015	2	3353	20	18	2	239	561
2017	7	16	5	21	21015	2	4018	23	21	2	283	654
2017	7	17	5	21	21015	2	4127	25	23	3	283	691
2017	7	18	5	21	21015	2	4153	25	23	3	301	700
2017	7	19	5	21	21015	2	3238	19	18	2	266	555
2017	7	20	5	21	21015	2	2292	14	13	2	200	414
2017	7	21	5	21	21015	2	1774	12	11	1	169	343
2017	7	22	5	21	21015	2	1319	10	9	1	122	285
2017	7	23	5	21	21015	2	1053	8	8	1	104	232
2017	7	24	5	21	21015	2	683	6	5	1	75	165
							50429	326	299	34	4178	9154 lb/day
							25.2145	0.163	0.1495	0.017	2.089	4.577 TSD

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM1	Total_PM2	SO2	VOC	NOx	
2017	7	7	5	1	21	21037	1	190.00	2.00	2.00	0.00	27.00	56.00
2017	7	7	5	2	21	21037	1	127.00	1.00	1.00	0.00	24.00	41.00
2017	7	7	5	3	21	21037	1	93.00	1.00	1.00	0.00	20.00	34.00
2017	7	7	5	4	21	21037	1	97.00	1.00	1.00	0.00	20.00	32.00
2017	7	7	5	5	21	21037	1	169.00	1.00	1.00	0.00	25.00	43.00
2017	7	7	5	6	21	21037	1	435.00	4.00	3.00	0.00	41.00	94.00
2017	7	7	5	7	21	21037	1	1142.00	8.00	8.00	1.00	107.00	227.00
2017	7	7	5	8	21	21037	1	1646.00	12.00	11.00	1.00	151.00	331.00
2017	7	7	5	9	21	21037	1	1806.00	11.00	10.00	1.00	154.00	304.00
2017	7	7	5	10	21	21037	1	1266.00	9.00	8.00	1.00	113.00	250.00
2017	7	7	5	11	21	21037	1	1354.00	9.00	8.00	1.00	113.00	250.00
2017	7	7	5	12	21	21037	1	1643.00	10.00	9.00	1.00	133.00	287.00
2017	7	7	5	13	21	21037	1	1685.00	10.00	9.00	1.00	134.00	296.00
2017	7	7	5	14	21	21037	1	1700.00	10.00	9.00	1.00	132.00	296.00
2017	7	7	5	15	21	21037	1	1805.00	11.00	10.00	1.00	133.00	313.00
2017	7	7	5	16	21	21037	1	2173.00	13.00	12.00	1.00	160.00	365.00
2017	7	7	5	17	21	21037	1	2217.00	14.00	12.00	1.00	162.00	386.00
2017	7	7	5	18	21	21037	1	2234.00	14.00	13.00	1.00	172.00	390.00
2017	7	7	5	19	21	21037	1	1752.00	11.00	10.00	1.00	153.00	309.00
2017	7	7	5	20	21	21037	1	1235.00	8.00	7.00	1.00	116.00	231.00
2017	7	7	5	21	21	21037	1	960.00	6.00	6.00	1.00	97.00	191.00
2017	7	7	5	22	21	21037	1	697.00	6.00	5.00	1.00	71.00	159.00
2017	7	7	5	23	21	21037	1	563.00	5.00	4.00	0.00	60.00	130.00
2017	7	7	5	24	21	21037	1	361.00	3.00	3.00	0.00	43.00	92.00
							27350.00	180.00	163.00	16.00	2361.00	5107.00 lb/day	
							13.68	0.09	0.08	0.01	1.18	2.55 TSD	

NONRFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM1	Total_PM2.5	VOC	NOX	
2017	7	1	5	21	21037	2	204	2	2	0	28	57
2017	7	2	5	21	21037	2	135	1	1	0	24	41
2017	7	3	5	21	21037	2	100	1	1	0	20	34
2017	7	4	5	21	21037	2	103	1	1	0	20	33
2017	7	5	5	21	21037	2	177	2	1	0	25	43
2017	7	6	5	21	21037	2	455	4	3	0	42	95
2017	7	7	5	21	21037	2	1186	9	8	1	110	232
2017	7	8	5	21	21037	2	1713	13	12	1	155	337
2017	7	9	5	21	21037	2	1863	11	10	1	161	310
2017	7	10	5	21	21037	2	1340	9	8	1	124	256
2017	7	11	5	21	21037	2	1440	9	8	1	124	255
2017	7	12	5	21	21037	2	1738	10	9	1	145	294
2017	7	13	5	21	21037	2	1791	11	10	1	144	303
2017	7	14	5	21	21037	2	1814	11	10	1	141	302
2017	7	15	5	21	21037	2	1930	11	10	1	141	319
2017	7	16	5	21	21037	2	2313	13	12	1	166	373
2017	7	17	5	21	21037	2	2371	14	13	1	167	394
2017	7	18	5	21	21037	2	2385	14	13	1	177	399
2017	7	19	5	21	21037	2	1863	11	10	1	157	316
2017	7	20	5	21	21037	2	1315	8	7	1	118	236
2017	7	21	5	21	21037	2	1014	7	6	1	100	195
2017	7	22	5	21	21037	2	744	6	5	1	72	162
2017	7	23	5	21	21037	2	597	5	4	0	61	132
2017	7	24	5	21	21037	2	384	3	3	0	44	94
							28975	186	167	16	2466	5212 lb/day
							14.4875	0.093	0.0835	0.008	1.233	2.606 TSD

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10	Total_PM25	SO2	VOC	NOX
2017	7	1	5	21	21117	2	341.00	3.00	3.00	0.00	49.00	100.00
2017	7	2	5	21	21117	2	227.00	2.00	2.00	0.00	43.00	73.00
2017	7	3	5	21	21117	2	165.00	2.00	2.00	0.00	36.00	60.00
2017	7	4	5	21	21117	2	172.00	2.00	2.00	0.00	36.00	57.00
2017	7	5	5	21	21117	2	300.00	3.00	2.00	0.00	45.00	76.00
2017	7	6	5	21	21117	2	773.00	6.00	6.00	1.00	74.00	167.00
2017	7	7	5	21	21117	2	2028.00	15.00	14.00	1.00	190.00	403.00
2017	7	8	5	21	21117	2	2935.00	22.00	20.00	2.00	269.00	587.00
2017	7	9	5	21	21117	2	3220.00	19.00	18.00	2.00	274.00	540.00
2017	7	10	5	21	21117	2	2252.00	16.00	15.00	2.00	202.00	445.00
2017	7	11	5	21	21117	2	2401.00	16.00	15.00	2.00	200.00	445.00
2017	7	12	5	21	21117	2	2911.00	17.00	16.00	2.00	236.00	511.00
2017	7	13	5	21	21117	2	2984.00	18.00	17.00	2.00	238.00	527.00
2017	7	14	5	21	21117	2	3012.00	18.00	17.00	2.00	235.00	526.00
2017	7	15	5	21	21117	2	3191.00	20.00	18.00	2.00	236.00	556.00
2017	7	16	5	21	21117	2	3850.00	22.00	21.00	2.00	284.00	649.00
2017	7	17	5	21	21117	2	3927.00	24.00	22.00	3.00	288.00	685.00
2017	7	18	5	21	21117	2	3963.00	24.00	22.00	3.00	306.00	694.00
2017	7	19	5	21	21117	2	3106.00	19.00	17.00	2.00	272.00	550.00
2017	7	20	5	21	21117	2	2192.00	14.00	13.00	2.00	206.00	411.00
2017	7	21	5	21	21117	2	1711.00	11.00	10.00	1.00	173.00	340.00
2017	7	22	5	21	21117	2	1245.00	10.00	9.00	1.00	126.00	283.00
2017	7	23	5	21	21117	2	1005.00	8.00	7.00	1.00	107.00	230.00
2017	7	24	5	21	21117	2	646.00	6.00	5.00	1.00	77.00	164.00
							48557.00	317.00	293.00	34.00	4202.00	9079.00 lb/day
							24.28	0.16	0.15	0.02	2.10	4.54 TSD

2020 NKY RFG v NONRFG

NONRFG TSD
RFG TSD

CO	Total_PM10	Total_PM25	SO2	VOC	NOx
57.11	0.27	0.25	0.04	4.18	8.42
53.75	0.26	0.24	0.02	4.03	8.26

Boone (TSD)
Campbell (TSD)
Kenton (TSD)
NKY (TSD)

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
3.20	3.26	1.53	1.58
1.82	1.86	0.90	0.93
3.24	3.30	1.61	1.66
8.26	8.42	4.03	4.18

2020 Total Emissions Benefit of RFG in NKY (TSD)

NOx	VOC	CO	Total PM10	Total PM2.5	SO2
0.16	0.15	3.36	0.01	0.01	0.02

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10	Total_PM25	SO2	VOC	NOx
2020	7	5	1	21	21015	2	295	2	2	0	38	76
2020	7	5	2	21	21015	2	198	2	1	0	34	56
2020	7	5	3	21	21015	2	144	1	1	0	29	47
2020	7	5	4	21	21015	2	148	1	1	0	29	45
2020	7	5	5	21	21015	2	255	2	2	0	34	57
2020	7	5	6	21	21015	2	663	4	4	1	55	120
2020	7	5	7	21	21015	2	1686	10	9	1	135	283
2020	7	5	8	21	21015	2	2472	14	13	2	193	412
2020	7	5	9	21	21015	2	2741	13	11	2	197	379
2020	7	5	10	21	21015	2	1916	10	9	2	147	313
2020	7	5	11	21	21015	2	2052	10	9	2	145	312
2020	7	5	12	21	21015	2	2479	11	10	2	170	357
2020	7	5	13	21	21015	2	2553	12	11	2	173	368
2020	7	5	14	21	21015	2	2567	12	11	2	169	367
2020	7	5	15	21	21015	2	2746	13	11	2	171	389
2020	7	5	16	21	21015	2	3283	14	13	2	202	452
2020	7	5	17	21	21015	2	3364	16	14	3	207	478
2020	7	5	18	21	21015	2	3379	16	14	3	220	484
2020	7	5	19	21	21015	2	2644	12	11	2	197	386
2020	7	5	20	21	21015	2	1874	9	8	1	151	290
2020	7	5	21	21	21015	2	1447	7	7	1	126	241
2020	7	5	22	21	21015	2	1072	6	6	1	93	203
2020	7	5	23	21	21015	2	858	5	5	1	79	166
2020	7	5	24	21	21015	2	558	4	3	1	59	120
							41394	206	186	33	3053	6401 lb/day
							20.697	0.103	0.093	0.0165	1.5265	3.2005 TSD

NONRFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM1(Total_PM2.5)	SO2	VOC	NOx	
2020	7	7	5	1	21	21015	2	319	2	0	38	77
2020	7	7	5	2	21	21015	2	212	2	0	34	57
2020	7	7	5	3	21	21015	2	156	1	0	29	48
2020	7	7	5	4	21	21015	2	158	1	0	29	45
2020	7	7	5	5	21	21015	2	269	2	0	35	58
2020	7	7	5	6	21	21015	2	694	4	1	56	122
2020	7	7	5	7	21	21015	2	1752	10	9	137	289
2020	7	7	5	8	21	21015	2	2578	15	13	197	420
2020	7	7	5	9	21	21015	2	2826	13	12	205	387
2020	7	7	5	10	21	21015	2	2038	11	10	159	319
2020	7	7	5	11	21	21015	2	2193	11	10	159	318
2020	7	7	5	12	21	21015	2	2630	12	11	183	364
2020	7	7	5	13	21	21015	2	2728	12	11	184	376
2020	7	7	5	14	21	21015	2	2754	12	11	178	375
2020	7	7	5	15	21	21015	2	2952	13	12	180	396
2020	7	7	5	16	21	21015	2	3511	15	14	209	461
2020	7	7	5	17	21	21015	2	3618	16	15	211	488
2020	7	7	5	18	21	21015	2	3627	16	15	224	494
2020	7	7	5	19	21	21015	2	2826	13	12	201	394
2020	7	7	5	20	21	21015	2	2006	9	9	153	296
2020	7	7	5	21	21	21015	2	1535	8	7	128	246
2020	7	7	5	22	21	21015	2	1152	7	6	94	206
2020	7	7	5	23	21	21015	2	914	5	5	80	169
2020	7	7	5	24	21	21015	2	599	4	4	59	122
							44047	214	197	33	3162	6527 lb/day
							22.0235	0.107	0.0985	0.0165	1.581	3.2635 TSD

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10	Total_PM25	SO2	VOC	NOx
2020	7	7	5	1	21	21037	1	166	1	0	22	43
2020	7	7	5	2	21	21037	1	111	1	0	20	32
2020	7	7	5	3	21	21037	1	81	1	0	17	27
2020	7	7	5	4	21	21037	1	85	1	0	17	25
2020	7	7	5	5	21	21037	1	148	1	0	20	33
2020	7	7	5	6	21	21037	1	384	2	0	32	68
2020	7	7	5	7	21	21037	1	979	5	1	80	162
2020	7	7	5	8	21	21037	1	1421	7	1	114	234
2020	7	7	5	9	21	21037	1	1585	6	1	117	216
2020	7	7	5	10	21	21037	1	1100	5	1	87	178
2020	7	7	5	11	21	21037	1	1182	5	1	86	177
2020	7	7	5	12	21	21037	1	1435	6	1	101	203
2020	7	7	5	13	21	21037	1	1474	6	1	102	210
2020	7	7	5	14	21	21037	1	1481	6	1	100	209
2020	7	7	5	15	21	21037	1	1582	6	1	101	221
2020	7	7	5	16	21	21037	1	1892	7	1	119	257
2020	7	7	5	17	21	21037	1	1935	8	1	122	272
2020	7	7	5	18	21	21037	1	1942	8	1	130	276
2020	7	7	5	19	21	21037	1	1523	6	1	117	219
2020	7	7	5	20	21	21037	1	1076	5	1	90	165
2020	7	7	5	21	21	21037	1	828	4	1	74	137
2020	7	7	5	22	21	21037	1	605	3	1	55	115
2020	7	7	5	23	21	21037	1	487	3	0	46	94
2020	7	7	5	24	21	21037	1	315	2	0	34	68
								23817	117	105	16	3641 lb/day
							11.9085	0.0585	0.0525	0.008	0.9015	1.8205 TSD

NONRFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10(fotal_PM2.5)	SO2	VOC	NOx	
2020	7	7	5	1	21	21037	2	179	1	0	22	43
2020	7	7	5	2	21	21037	2	119	1	0	20	32
2020	7	7	5	3	21	21037	2	88	1	0	17	27
2020	7	7	5	4	21	21037	2	91	1	0	17	26
2020	7	7	5	5	21	21037	2	155	1	0	20	33
2020	7	7	5	6	21	21037	2	401	2	0	33	69
2020	7	7	5	7	21	21037	2	1014	6	1	81	165
2020	7	7	5	8	21	21037	2	1477	8	1	116	239
2020	7	7	5	9	21	21037	2	1629	7	1	122	221
2020	7	7	5	10	21	21037	2	1167	6	1	95	181
2020	7	7	5	11	21	21037	2	1261	6	1	95	181
2020	7	7	5	12	21	21037	2	1520	7	1	109	208
2020	7	7	5	13	21	21037	2	1572	7	1	109	214
2020	7	7	5	14	21	21037	2	1585	7	1	105	214
2020	7	7	5	15	21	21037	2	1698	7	1	106	225
2020	7	7	5	16	21	21037	2	2019	9	1	123	263
2020	7	7	5	17	21	21037	2	2077	9	1	124	278
2020	7	7	5	18	21	21037	2	2081	9	1	132	281
2020	7	7	5	19	21	21037	2	1624	7	1	119	224
2020	7	7	5	20	21	21037	2	1149	5	1	91	168
2020	7	7	5	21	21	21037	2	876	4	1	75	140
2020	7	7	5	22	21	21037	2	649	4	1	56	117
2020	7	7	5	23	21	21037	2	517	3	0	47	96
2020	7	7	5	24	21	21037	2	337	2	0	35	69
								25285	120	16	1869	3714 lb/day
								12.6425	0.06	0.008	0.9345	1.857 TSD
									111			
									0.0555			

RFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10	Total_PM25	SO2	VOC	NOx
2020	7	1	5	21	21117	3	297	2	2	0	39	76
2020	7	2	5	21	21117	3	199	2	1	0	36	57
2020	7	3	5	21	21117	3	144	1	1	0	30	47
2020	7	4	5	21	21117	3	150	1	1	0	30	45
2020	7	5	5	21	21117	3	262	2	2	0	36	58
2020	7	6	5	21	21117	3	682	4	4	1	58	121
2020	7	7	5	21	21117	3	1739	10	9	1	142	287
2020	7	8	5	21	21117	3	2536	14	13	2	203	417
2020	7	9	5	21	21117	3	2828	13	11	2	208	385
2020	7	10	5	21	21117	3	1958	10	9	2	154	316
2020	7	11	5	21	21117	3	2096	10	9	2	153	315
2020	7	12	5	21	21117	3	2543	11	10	2	179	362
2020	7	13	5	21	21117	3	2612	12	11	2	182	373
2020	7	14	5	21	21117	3	2624	12	11	2	177	372
2020	7	15	5	21	21117	3	2798	13	12	2	180	393
2020	7	16	5	21	21117	3	3353	14	13	2	213	458
2020	7	17	5	21	21117	3	3427	16	14	3	217	484
2020	7	18	5	21	21117	3	3446	16	14	3	231	490
2020	7	19	5	21	21117	3	2700	12	11	2	208	390
2020	7	20	5	21	21117	3	1910	9	8	1	159	293
2020	7	21	5	21	21117	3	1475	7	7	1	133	244
2020	7	22	5	21	21117	3	1082	6	6	1	98	204
2020	7	23	5	21	21117	3	869	5	5	1	83	168
2020	7	24	5	21	21117	3	564	4	3	1	61	121
							42294	206	187	33	3210	6476 lb/day
							21.147	0.103	0.0935	0.0165	1.605	3.238 TSD

NONRFG

Year	Month	Day	Hour	State	County	Run	CO	Total_PM10(fotal_PM2.5	SO2	VOC	NOx		
2020	7	7	5	1	21	21117	2	320	2	2	0	40	77
2020	7	7	5	2	21	21117	2	213	2	1	0	36	57
2020	7	7	5	3	21	21117	2	157	1	1	0	30	48
2020	7	7	5	4	21	21117	2	161	1	1	0	30	45
2020	7	7	5	5	21	21117	2	275	2	2	0	36	58
2020	7	7	5	6	21	21117	2	712	4	4	1	59	123
2020	7	7	5	7	21	21117	2	1802	10	9	1	144	292
2020	7	7	5	8	21	21117	2	2635	15	14	2	207	425
2020	7	7	5	9	21	21117	2	2906	13	12	2	216	393
2020	7	7	5	10	21	21117	2	2076	11	10	2	168	322
2020	7	7	5	11	21	21117	2	2236	11	10	2	168	322
2020	7	7	5	12	21	21117	2	2692	12	11	2	194	370
2020	7	7	5	13	21	21117	2	2784	12	11	2	194	381
2020	7	7	5	14	21	21117	2	2808	12	11	2	188	380
2020	7	7	5	15	21	21117	2	3001	13	12	2	188	401
2020	7	7	5	16	21	21117	2	3577	15	14	2	220	468
2020	7	7	5	17	21	21117	2	3678	16	15	3	221	494
2020	7	7	5	18	21	21117	2	3691	16	15	3	235	500
2020	7	7	5	19	21	21117	2	2879	13	12	2	211	399
2020	7	7	5	20	21	21117	2	2040	10	9	1	162	299
2020	7	7	5	21	21	21117	2	1560	8	7	1	135	249
2020	7	7	5	22	21	21117	2	1161	7	6	1	99	208
2020	7	7	5	23	21	21117	2	924	5	5	1	84	170
2020	7	7	5	24	21	21117	2	604	4	4	1	62	123
							44892	215	198	3327	6604	lb/day	
							22.446	0.1075	0.099	0.0165	1.6635	3.302	TSD

2030 NKY RFG v NONRFG

NONRFG TSD
RFG TSD

CO	Total_PM10	Total_PM25	SO2	VOC	NOx
34.48	0.13	0.11	0.04	2.31	3.56
32.50	0.11	0.11	0.04	2.26	3.50

Boone (TSD)
Campbell (TSD)
Kenton (TSD)
NKY (TSD)

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
1.36	1.38	0.86	0.87
0.77	0.78	0.51	0.52
1.37	1.40	0.90	0.92
3.50	3.56	2.26	2.31

2030 Total Emissions Benefit of RFG in NKY (TSD)

NOx	VOC	CO	Total PM10	Total PM2.5	SO2
0.06	0.04	1.99	0.01	0.01	0.00

Draft Linear Interpolation of 2020-2030 MOVES Onroad Mobile Emissions for Northern Kentucky (NKY) Counties to Determine 2025 Onroad Mobile VOC and NOx Emissions (tpd)

NKY With RFG MOVES Run

Boone County Known_y1 Onroad VOC Emissions (tpd)	Boone County Known_y2 Onroad NOx Emissions (tpd)	Campbell County Known_y3 Onroad VOC Emissions (tpd)	Campbell County Known_y4 Onroad NOx Emissions (tpd)	Kenton County Known_y5 Onroad VOC Emissions (tpd)	Kenton County Known_y6 Onroad NOx Emissions (tpd)
Known_x1_Y R	Known_x2_Y R	Known_x3_Y R	Known_x4_Y R	Known_x5_Y R	Known_x6_Y R
2020 1.53	2020 3.20	2020 0.90	2020 1.82	2020 1.61	2020 3.24
2030 0.86	2030 1.36	2030 0.51	2030 0.77	2030 0.90	2030 1.37

Boone County 2025 Onroad VOC Emissions (tpd)	Boone County 2025 Onroad NOx Emissions (tpd)	Campbell County 2025 Onroad VOC Emissions (tpd)	Campbell County 2025 Onroad NOx Emissions (tpd)	Kenton County 2025 Onroad VOC Emissions (tpd)	Kenton County 2025 Onroad NOx Emissions (tpd)	2025 With RFG Total NKY Onroad VOC Emissions (tpd)	2025 With RFG Total NKY Onroad NOx Emissions (tpd)
New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	3.15	5.88
1.19	2.28	0.70	1.30	1.25	2.30		

NKY NO RFG MOVES Run

Boone County Known_y11 Onroad VOC Emissions (tpd)	Boone County Known_y12 Onroad NOx Emissions (tpd)	Campbell County Known_y13 Onroad VOC Emissions (tpd)	Campbell County Known_y14 Onroad NOx Emissions (tpd)	Kenton County Known_y15 Onroad VOC Emissions (tpd)	Kenton County Known_y16 Onroad NOx Emissions (tpd)
Known_x11_Y R	Known_x12_Y R	Known_x13_Y R	Known_x14_Y R	Known_x15_Y R	Known_x16_Y R
2020 1.58	2020 3.26	2020 0.93	2020 1.86	2020 1.66	2020 3.30
2030 0.87	2030 1.38	2030 0.52	2030 0.78	2030 0.92	2030 1.40

Boone County 2025 Onroad VOC Emissions (tpd)	Boone County 2025 Onroad NOx Emissions (tpd)	Campbell County 2025 Onroad VOC Emissions (tpd)	Campbell County 2025 Onroad NOx Emissions (tpd)	Kenton County 2025 Onroad VOC Emissions (tpd)	Kenton County 2025 Onroad NOx Emissions (tpd)	2025 No RFG Total NKY Onroad VOC Emissions (tpd)	2025 No RFG Total NKY Onroad NOx Emissions (tpd)
New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	New_x_YR 2025	3.24	5.99
1.23	2.32	0.73	1.32	1.29	2.35		

Note:
The above linear interpolation using excel reflects the following linear interpolation formula and its results:
 $y = y1 + ((x-x1)/(x2-x1)) * (y2-y1)$
 Difference between 2025 NKY No RFG Run Minus 2025 NKY With RFG Run (tpd)
 0.10 0.11

Appendix E-2

**Non-Road
RFG vs Non-RFG
2017-2020-2030**

Summary of Nonroad Emissions Modeling Decisions

The Division performed air quality analyses using the U.S. EPA MOVES 2014a mobile emissions simulator to demonstrate the difference in emissions resulting from the nonroad use of reformulated gasoline (RFG) and conventional gasoline (CG) in Northern Kentucky (Boone, Kenton and Campbell counties).

The pollutants primarily under consideration were oxides of nitrogen (NO_x) and volatile organic compounds (VOC). Other pollutants considered in the air quality analyses were sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}), and carbon monoxide (CO).

The years selected to model were 2017, 2020 and 2030, with interpolated emissions for 2025 figured post-analysis. The results presented are in tons per summer day (TSD).

Technical Parameters

The parameter selections for the MOVES run specifications and the inputs for the Nonroad Data Importer are given in Tables 1 and 2. Run specifications were performed individually by county, year and fuel scenario, which resulted in 18 unique iterations of MOVES for this demonstration.

Table 1. Run Specification Parameters

MOVES Version	MOVES2014a
Scale	Model: Nonroad Domain/Scale: National Calculation Type: Inventory
Time Span	Time Aggregation Level: Hour Years: 2017, 2020, 2030 Month: July Day: Weekdays
Geographic Bounds	Region: County State: Kentucky County: Boone, Campbell, Kenton
Vehicles/Equipment	All fuels, source use types and combinations
Road Type	Nonroad
Pollutants and Processes	VOC, NO _x , CO, PM _{2.5} -Total, PM ₁₀ -Total, SO ₂ , and prerequisite pollutants
General Output	Mass Units: Pounds Energy Units: Joules Distance Units: Miles
Output Emissions	Time: 24-Hour Day Location: County Pollutant

Table 2. Nonroad Data Importer Inputs

Fuel	RFG Scenarios: Default CG Scenarios: Default Grant County, KY
Meteorology Data	Default

Fuels

The fuel files selected for the MOVES demonstration were MOVES defaults. Concerning the RFG scenarios, default fuel files were selected for Boone, Campbell and Kenton counties. The default fuel file for Grant County, Kentucky, was used for the CG scenarios and applied to Boone, Campbell and Kenton counties. The table below gives the Reid Vapor Pressure (RVP) of each year's fuel scenario.

Table 3. Fuel Scenario RVP

RFG	CG
6.9 psi	9.7 psi

2017 NKY RFG v NONRFG

Nonroad

NONRFG TSD

RFG TSD

CO	Total PM10	Total PM25	SO2	VOC	NOx
46.65	0.38	0.36	0.01	3.81	3.25
46.65	0.38	0.36	0.01	3.58	3.25

Boone TSD

Campbell TSD

Kenton TSD

NKY TSD

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
1.60	1.60	2.14	2.25
0.53	0.53	0.50	0.55
1.12	1.12	0.94	1.01
3.25	3.25	3.58	3.81

2020 NKY RFG v NONRFG

Nonroad

NONRFG TSD

RFG TSD

CO	Total PM10	Total PM25	SO2	VOC	NOx
47.70	0.33	0.31	0.01	3.56	2.71
47.70	0.33	0.31	0.01	3.33	2.71

Boone TSD

Campbell TSD

Kenton TSD

NKY TSD

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
1.33	1.33	1.95	2.06
0.45	0.45	0.46	0.50
0.93	0.93	0.93	1.00
2.71	2.71	3.33	3.56

2030 NKY RFG v NONRFG

Nonroad

NONRFG TSD

RFG TSD

CO	Total PM10	Total PM25	SO2	VOC	NOx
53.47	0.26	0.24	0.01	3.58	2.07
53.47	0.26	0.24	0.01	3.34	2.07

Boone TSD

Campbell TSD

Kenton TSD

NKY TSD

NOx		VOC	
RFG	NONRFG	RFG	NONRFG
1.00	1.00	1.90	2.01
0.35	0.35	0.44	0.48
0.72	0.72	1.01	1.09
2.07	2.07	3.34	3.58

Draft Linear Interpolation of 2020-2030 MOVES Nonroad Mobile Emissions for Northern Kentucky (NKY) Counties to Determine 2025 Nonroad Mobile VOC and NOx Emissions (tpd)

NKY With RFG MOVES Nonroad Run

Boone County		Campbell County		Kenton County		Kenton County	
Known_x1_Y	Known_x2_Y	Known_x3_Y	Known_x4_Y	Known_x5_Y	Known_x6_Y	Known_x6_Y	Known_x6_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.93
2030	2030	2030	2030	2030	2030	2030	0.72
1.95	1.33	0.46	0.45	0.93	1.01	0.93	
1.90	1.00	0.44	0.35	1.01	1.01	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

NKY NO RFG MOVES Nonroad Run

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Boone County		Campbell County		Kenton County		Kenton County	
Known_x11_Y	Known_x12_Y	Known_x13_Y	Known_x14_Y	Known_x15_Y	Known_x16_Y	Known_x16_Y	Known_x16_Y
R	R	R	R	YR	R	R	NOx
(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	(tpd)	Emissions
2020	2020	2020	2020	2020	2020	2020	0.83
2030	2030	2030	2030	2030	2030	2030	2.39
2.06	1.33	0.50	0.45	1.00	1.09	0.93	
2.01	1.00	0.48	0.35	1.09	1.09	0.72	

Difference between 2025 NKY No RFG Run Minus 2025 NKY With RFG Run (tpd) 0.24 0.00

Note: The above linear interpolation using excel reflects the following linear interpolation formula and its results:

Appendix F
Interagency Consultation

KY Air Quality Webinar

Monday, June 19, 2017 @ 10:00 AM



Summer 2017:
June 21-Sept 22

MINUTES

- Welcome** –Bernadette Dupont , FHWA-KY
- 2015 Ozone NAAQS** – Kelly Sheckler, EPA-R4
The designations originally expected in October 2017, have been postponed for one year.
- KY's QA/QC Data** – Leslie Poff, KYDAQ
The 2013-2015 3-Yr average of the 4th highest daily max, 8hr shows Campbell County in violation at .071. Preliminary review of the 2014-2016 data for Jefferson County shows a violation of 0.074.
- Redesignation Request** – Leslie Poff, KYDAQ
The comment period on EPA's proposed rule to redesignate NKY to attainment for the 2008 8-hr ozone standard. EPA received no comments and the final rule should be published in the near future.
- Reformulated Gasoline Program** – Leslie Poff, KYDAQ
KYECC sent a petition to USEPA requesting to opt-out of the reformulated gasoline (RFG) program in N. KY (Boone, Campbell, Kenton). Studies have shown that RFG doesn't reduce emissions significantly. APCD is considering a similar action for Louisville (Jefferson, Oldham).
- Stage II Program** – Kelly Sheckler, EPA-R4
Effective November 2016, KY canceled their Stage II program for gasoline stations. New gasoline stations will no longer be required to have Stage II equipment, all others are required to remove those systems by Dec 31, 2018.
- VIN Data** – Justin Harrod, KYTC-Planning
KY's 2016 VIN data is ready and will be distributed soon.
- Volkswagen Settlement** – Lona Brewer
The VW settlement has 3 parts: consumer, nationwide (promoting zero emission vehicles, and states. The last provides money to the states for 10 eligible types of projects. KY will receive \$20+ M based on the number of VW registered in the State. \$19+M for 1.0 L engine, and \$1.3+M for 3 L diesel engines. A Trustee has been named. Once the Trustee announces the Effect Date, then States have 15 days to submit their plans on how to spend the money. KY is working on their plan now, and actively seeking public participation, developing a list of projects, and determining the benefits of those projects.
KY website: <http://eec.ky.gov/Pages/Volkswagen-Settlement.aspx>
EPA's websites: <https://www.epa.gov/vw>, and www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement
- CMAQ Projects** – Jackie Jones, KYTC – OLP
KYTC anticipates a new funding cycle to start at the beginning of July and last for 6 wks. Please use the revised application form. Also under consideration is a standardized method for calculating emissions for all projects under review. FHWA just conducted a "State of the Practice" review on CMAQ and has shared that report. It is attached. The Atlanta Regional Council created a program that calculates emissions. <http://atlantaregional.org/congestion-mitigation-and-air-quality-program-cmaq/> Denver and the Kansas City MPO use it for their CMAQ applications.
- CMAQ Performance Measures** – Bernadette Dupont, FHWA-KY
See attached presentation

WEBINAR PARTICIPANTS

AIR AGENCIES

EPA

- Dianna Myers, R4
- ✓ Kelly Sheckler, R4

IDEM

- Shawn Seals

KYDAQ

- Joe Forgacs
- ✓ Leslie Poff

Louisville APCD

- ✓ Craig Butler
- Bradley Coomes
- ✓ Bryon Gary
- Thomas Nord
- ✓ Michelle King
- ✓ Keith Talley

OHEPA

- Mike Maleski

TDEQ

- Marc Corrigan

WVDAQ

- David Fewell
- Brian Durgin

MPOs

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CIN

- ✓ Adam Evans
- ✓ Andy Reser

CLK

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- ✓ Stan Williams

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- ✓ Vishu Lingala
- ✓ Seyed

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- ✓ Bernadette Dupont, KY
- Chandra Inglis-Smith, WV
- ✓ Antonio Johnson, IN
- Joyce Newland, IN
- Leigh Oesterling, OH
- ✓ Greg Rawlings, KY
- Mike Roberts, RC
- ✓ Sean Santella, TN

INDOT

- Frank Baukert, INDOT
- Jay Mitchell, INDOT

KYTC

- ✓ Daniel Burgin, DEA
- ✓ Ed Harding, OIT
- ✓ Justin Harrod, Planning
- ✓ Tonya Higdon, Planning

Barry House, Planning

- ✓ Jackie Jones, OLP
- Eric Perez, Transportation Delivery
- Lynn Soporowski, Planning
- Thomas Witt, Planning

ODOT

- ✓ Caroline Griffith

Dave Moore

TDOT

- Deborah Fleming

HVVDOT

- Paul Mattox
- Tim Sedosky

GUEST SPEAKER

- ✓ Lona Brewer, KYEEC

Announcements:

- STAQS 2017 – August 29-30, 2017 in Arlington, TX**
To register go to: www.nctcog.org/STAQS2017-DFW
- FHWA has a new website that evaluates strategies for reducing energy consumption and GHG emissions.
https://www.planning.dot.gov/fhwa_tool/default.aspx



Appendix G
Public Hearing
&
Statement of Consideration

Appendix G-1
Statement of Consideration

**STATEMENT OF CONSIDERATION
Relating to Proposed SIP Revision
To Remove Federal Reformulated Gasoline Requirements
In the Northern Kentucky Area**

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

Response to Comments for the proposed SIP submittal requesting approval to opt-out of the federal RFG program requirements.

Beginning July 21, 2017, until August 24, 2017, the Cabinet provided an opportunity for the public to review and comment on the non-interference demonstration proposing to remove the federal reformulated gasoline (RFG) requirements from the State Implementation Plan (SIP) pertaining to the Northern Kentucky counties of Boone, Campbell and Kenton. 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.

During the public comment period, the Cabinet received one (1) comment from the Environmental Protection Agency (EPA) and numerous letters from the public and regulated community supporting the removal of the federal RFG requirements in Boone, Campbell and Kenton counties. The comments received during the public comment and responses from the Cabinet are provided in this document.

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

<u>Name and Title</u>	<u>Agency/Organization/Entity/Other</u>
Adam Chaney	Executive Director of SD1
Brian Clark,	Executive Director, Kentucky Petroleum Marketers Association
Brent Cooper	President, Northern Kentucky Chamber of Commerce
Nick D'Andrea	UPS
Scott Davis	U.S. EPA
Gary Emmick	President, Valor Oil
James Hamberg	Mayor, City of Southgate
B. Stephen Harper	President, Harper Oil Products
Robert Heil,	Chairman of Board of Directors, Northern Kentucky Chamber of Commerce
John Schickel	State Senator
John Toebbin,	Toebbin Builders
Diane Whalen	Mayor, City of Florence

A public hearing was conducted August 24, 2017, at 6:00 p.m. at the Northern Kentucky Area Development District.

The following people attended this public hearing:

<u>Name and Title</u>	<u>Agency/Organization/Entity/Other</u>	<u>Testimony</u>
Kristin Baldwin	Northern Kentucky Chamber of Commerce	No
Richard Brewer	Duke Energy	No
Todd Bryant	Ft. Thomas, Kentucky	No
Brent Cooper	President, Northern Kentucky Chamber of Commerce	Yes
Rusty Cress	Dinsmore	No
Mark Hansel	Northern Kentucky Tribune	No
Glenn Pfendt	A.O. Smith	No
Greg Schrand	Union, KY	No
Phil Schworer	Frost, Brown, Todd	No

The following people from the Division for Air Quality attended this public hearing:

Name and Title

Melissa Duff, Assistant Director

Leslie Poff, Environmental Control Supervisor*

*Cabinet Representative

Appendix G of this final SIP Revision package includes all comments as received during the public comment period, as well as the transcript from the public hearing.

Summary of Comments and Responses

1. Comment: The noninterference demonstration should have an updated non-road emissions inventory that reflects the net change in emissions with and without RFG.
(*Scott Davis, U.S. EPA*)

Response: The Cabinet concurs and provides additional information. The Cabinet has modeled non-RFG vs RFG VOC and NO_x emissions for the non-road sector using MOVES2014a. The results of the modeling can be found in Appendix D "Updated Tables: Removal of federal RFG Program." The MOVES2014a specs for the non-road model are located in Appendix E. An explanation of the methodology used to generate the non-road emissions inventory have been included in the 110(l) demonstration.

2. Comment: The Sanitation District No. 1 of Northern Kentucky provides service to more than 290,000 residents, requiring constant travel throughout Boone, Campbell and Kenton counties. “As you can imagine, this work means SD1’s fleet and the fuel that powers it can weigh on our bottom line. During Fiscal Year 2017, our gasoline-powered vehicles traveled 766,911 miles, consuming 63,715 gallons of gasoline at a cost of \$131,116. To ensure our rates remain affordable for our customers, SD1 is working hard to reduce our costs while maintaining service levels. That means evaluating all costs – including the size and use of our fleet – and making changes whenever the return on investment is not favorable. While reducing the number of miles put on each vehicle might affect service levels, reducing the cost of the fuel put in it would not. If RFG requirements are eliminated from Kentucky’s SIP, SD1 summer fuel costs would decline – without SD1 customers or the surrounding community feeling any negative effects.”
(Adam Chaney, Executive Director of SD1)

Response: The Cabinet acknowledges this comment.

3. Comment: “UPS believes that environmental regulations that impose additional costs on consumers must demonstrate commensurate reductions in pollution.”
(Nick D’Andrea of UPS)

Response: The Cabinet acknowledges this comment.

4. Comment: The City of Southgate Council declares support for the removal of Reformulated Gasoline (RFG) from the State Implementation Plan (SIP) for Boone, Campbell, and Kenton Counties.
(James Hamberg, Mayor, City Council of the City of Southgate)

Response: The Cabinet acknowledges this comment.

5. Comment: “Since beginning to sell reformulated gasoline over twenty years ago, we have seen a multitude of market gyrations in the industry’s attempt to keep Northern Kentucky supplied with its needs of this boutique fuel. We were told at the time of implementation of the RFG program that the cost of refining this fuel was only a few pennies per gallon over that of conventional gasoline. But due to inevitable disruptions in the refining, supply and distribution system, we have witnessed the almost continual outage of one refined product or another which are required by the market. When product supply is tight it inevitably drives the price of the product upward. So much so, that over the past several months, we’ve seen reformulated gasoline priced at the terminal rack between twenty and thirty cents per gallon continuously. At \$.20/gallon differential, I estimate the cost to the residents, businesses and the economy of Northern Kentucky to be \$42 million per year.....Said another way, we are no longer receiving any environmental benefit for the additional \$42 million per year that we are spending. It’s no longer an investment, it’s just an expense.”
(B. Stephen Harper, Chairman & President, Harper Oil Products)

Response: The Cabinet acknowledges this comment.

6. Comment: “In addition to the much cleaner burning conventional gasoline being sold in the market today compared to that sold at the advent of RFG in the mid 90’s, the vehicle fleet has significantly turned over whereby the cars on the road today emit far fewer pollutants and travel much further on a single gallon of gas. So, we can enjoy the benefits of cleaner air while driving the more environmentally friendly cars of today running on the environmentally improved conventional gasoline of today.”

(B. Stephen Harper, Chairman & President, Harper Oil Products)

Response: The Cabinet acknowledges this comment.

7. Comment: I strongly support removing the awful reformulated gas requirements from Northern Kentucky. These restrictions have been burdensome and are completely unnecessary.

(John Schickel, State Senator)

Response: The Cabinet acknowledges this comment.

8. Comment: That the City of Florence Council declares support for the removal of Reformulated Gasoline (RFG) from the State Implementation Plan (SIP) for Boone, Campbell and Kenton Counties.

(Diane Whalen, Mayor, City Council of the City of Florence)

Response: The Cabinet acknowledges this comment.

9. Comment: \$41 million could be saved within the Northern Kentucky area by ending the required use of RFG.

(Nick D’Andrea, UPS; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce.)

Response: The Cabinet acknowledges this comment.

10. Comment: The removal of RFG in Northern Kentucky will not interfere with the attainment of the ambient air quality standards for ozone and nitrogen dioxide.

(Nick D’Andrea, UPS; Brian Clark & Michael Hardy, Kentucky Petroleum Marketers Association; James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence; Gary Emmick, President of Valor Oil; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce; Adam Chaney, Executive Director, Sanitation District No.1 of Northern Kentucky; John Toebben, President, Toebben Builders.)

Response: The Cabinet acknowledges this comment.

11. Comment: Advances in fuel and vehicle technology have reduced motor vehicle emissions, therefore, RFG as a control measure is no longer necessary, since conventional gasoline is essentially the same as RFG.

(Brian Clark & Michael Hardy, Kentucky Petroleum Marketers Association; James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence; Gary Emmick, President of Valor Oil; B. Stephen Harper, Chairman & President of Harper Oil Products; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce; Adam Chaney, Executive Director, Sanitation District No.1 of Northern Kentucky; John Toebben, President, Toebben Builders.

Response: The Cabinet acknowledges this comment.

12. Comment: Consistency should be maintained throughout the Greater Cincinnati metropolitan area; the SIP revision will keep Northern Kentucky on equal footing with gasoline retailers in Ohio, where RFG has already been eliminated.

(Brian Clark & Michael Hardy, Kentucky Petroleum Marketers Association; Gary Emmick, President of Valor Oil.

Response: The Cabinet acknowledges this comment.

13. Comment: Emissions from vehicles will continue to decrease as a result of current and future regulations.

(James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce; Adam Chaney, Executive Director, Sanitation District No.1 of Northern Kentucky.

Response: The Cabinet acknowledges this comment.

14. Comment: RFG is no longer a cost-effective method for controlling emissions.

(James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce.

Response: The Cabinet acknowledges this comment.

15. Comment: The average cost for RFG is 22 cents more per gallon than the average cost of conventional gasoline.

(James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence; Robert Heil, Chairman of Board of Directors, and Brent Cooper, Interim President & CEO, of NKY Chamber of Commerce; Adam Chaney, Executive

Director, Sanitation District No.1 of Northern Kentucky; John Toebben, President, Toebben Builders.

Response: The Cabinet acknowledges this comment.

16. Comment: A motorist who drives 15,000 miles per year, with a vehicle averaging 15 miles per gallon, will save over \$220 annually with the removal of RFG.

(James Hamberg, Mayor, City Council of the City of Southgate; Diane Whalen, Mayor, City Council of the City of Florence.

Response: The Cabinet acknowledges this comment.

Summary of the Response to Comments and Action Taken by the Division for Air Quality

Summary of Comments

The Division for Air Quality received eleven (11) written statements prior to the close of the public comment period. At the public hearing, one (1) oral statement was received.

These statements contained 27 individual comments addressing the following areas of concern:

- | | |
|---|-------------|
| • General comments of support | 10 comments |
| • Non-road emissions inventory update | 1 comment |
| • Economic impact | 6 comments |
| • No interference with attainment or maintenance | 8 comments |
| • Consistency throughout the Greater Cincinnati metropolitan area | 2 comments |

The only revision resulting from the comments received related to the non-road sector emissions inventory. In response to the comment received, the Cabinet performed MOVES2014a model runs to determine the net emissions change resulting from removing the federal RFG requirements. The results of the modeling can be found in Appendix D “Updated Tables: Removal of federal RFG Program.” Additionally, the MOVES2014a specifications for the non-road model are located in Appendix E, and an explanation of the methodology used to generate the non-road emissions inventory has been included in the 110(l) demonstration.

Appendix G-2
Comments Received



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

August 21, 2017

Sean Alteri, Director
Kentucky Division for Air Quality
Department for Environmental Protection
300 Sower Blvd, 2nd Floor
Frankfort, Kentucky 40201-6571

Dear Mr. Alteri:

Thank you for your letter dated July 21, 2017, transmitting a prehearing package regarding the draft Kentucky State Implementation Plan (SIP) revision and non-interference demonstration for the removal of reformulated gasoline (RFG) from the Northern Kentucky Counties of Boone, Campbell, and Kenton. This draft is the subject of a public hearing scheduled for August 24, 2017, with written comments due by the close of business on August 21, 2017. We have completed our preliminary review of the prehearing package and offer the following comment: The noninterference demonstration should have an updated non-road emissions inventory that reflects the net change in emissions with and without RFG.

We look forward to continuing to work with you and your staff. If you have any questions, please contact Ms. Lynorae Benjamin, Chief, Air Regulatory Management Section at (404) 562-9040, or have your staff contact Ms. Ashten Bailey at (404) 562-9164.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Scott Davis".

R. Scott Davis
Chief
Air Planning and Implementation Branch

The logo for SD1, consisting of the letters 'SD1' in a bold, blue, sans-serif font.

Managing Northern Kentucky's
Wastewater and Storm Water



Monday, August 14, 2017

Leslie Poff
Environmental Control Supervisor, Evaluation Section
Kentucky Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, KY 40601

Re: Written Comments on Requested Revision to KY SIP
RFG Opt-out 110(1) Non-interference Demonstration

Dear Supervisor Poff:

Thank you for the opportunity to comment on the Kentucky Division for Air Quality's draft revision to the Kentucky State Implementation Plan (SIP) that would remove reformulated gasoline (RFG) requirements as a control measure in Northern Kentucky.

SD1 (Sanitation District No. 1 of Northern Kentucky), provides wastewater and storm water services to more than 290,000 residents across 30-plus communities in the Northern Kentucky (NKY) region. By providing these services, SD1 is responsible for protecting public health, property and the environment while also supporting NKY's economic vitality.

SD1 services are essential to the region's quality of life and future progress, and they are made possible in part through the ongoing maintenance and operation of our infrastructure. This infrastructure is spread across a 187-square mile wastewater service area and a 218-square mile storm water service area. It includes three major and several smaller treatment plants, 1,620 miles of sanitary sewer pipe, 450 miles of separate storm sewers, 33,000 storm water structures, 120 pump stations and 15 flood stations. Whether proactively inspecting assets or responding to a customer concern, SD1 is required to travel constantly throughout Boone, Kenton and Campbell counties.

As you can imagine, this work means SD1's fleet and the fuel that powers it can weigh on our bottom line. During Fiscal Year 2017, our gasoline-powered vehicles traveled 766,911 miles, consuming 63,715 gallons of gasoline at a cost of \$131,116. To ensure our rates remain affordable for our customers, SD1 is working hard to reduce our costs while maintaining service levels. That means evaluating all costs – including the size and use of our fleet – and making changes whenever the return on investment is not favorable. While reducing the number of miles put on each vehicle might affect service levels, reducing the cost of the fuel put in it would not.

If RFG requirements are eliminated from Kentucky's SIP, SD1 summer fuel costs would decline – without SD1 customers or the surrounding community feeling any negative effects. The KyDAQ's Non-interference Demonstration clearly shows that the quality of conventional

Leslie Poff
Page 2
8/7/17

gasoline has improved to the point that it is essentially the same as RFG, except in price. The average cost of RFG is \$0.22 more per gallon than the average price per gallon of conventional gasoline. In addition, other regulations do far more to improve air quality than RFG requirements. As a result, the region's ability to meet air quality standards now and in the future will not be affected by eliminating the RFG requirements currently imposed on Northern Kentucky.

It has been two decades since NKY opted in to RFG requirements, and there is no longer a significant benefit to them – only added costs that weigh on the budgets of Northern Kentucky residents, businesses and public service providers like SD1. With this in mind, SD1 supports KyDAQ's request to remove RFG as a control measure in the Kentucky SIP for the Northern Kentucky area.

On behalf of the SD1 Board of Directors, staff and our rate-conscious customers, thank you for your consideration of this matter. SD1 is grateful for the opportunity to express support for a change that will cut costs without sacrificing the environment or quality of life in the NKY region.

Sincerely,



Adam Chaney
Executive Director

1400 N. Hurstbourne Parkway
Louisville, KY 40223
502.329.3000 Tel



August 17, 2017

Leslie Poff
Environmental Control Supervisor
Kentucky Energy and Environment Cabinet
Division for Air Quality
Frankfort, Kentucky 40601

Dear Ms. Poff:

Please accept this as our public response to support the Kentucky Division for Air Quality's proposal to remove the requirement for the use of reformulated gasoline in Boone, Kenton and Campbell counties.

UPS is one of the largest employers in the state with over 23,000 employees. UPS operates several facilities in Boone, Kenton and Campbell counties including several Supply Chain Solutions campuses in Hebron, Kentucky. We are very concerned about minimizing our own effect on the environment in the areas we serve. Thus, we are a leader in the use of alternative fuel vehicles that help to reduce our emissions that contribute to smog and toxic pollutants, as is also the purpose of the RFG program.

UPS urges the EPA to give careful and expedient consideration to the position of the Kentucky Energy and Environment Cabinet that "the following Section 110(l) non-interference analysis demonstrates that the removal of the RFG program from Northern Kentucky will not interfere with the requirement for the area to maintain the 2008 ozone NAAQS.

Reformulated gasoline can be very expensive. The Northern Kentucky Chamber of Commerce suggests \$41 million could be saved [within the Boone, Kenton and Campbell area] by ending the required use of reformulated gasoline. UPS believes that environmental regulations that impose additional costs on consumers must demonstrate commensurate reductions in pollution.

Sincerely,

A handwritten signature in black ink that reads "Nick D'Andrea".

Nick D'Andrea

**CITY OF SOUTHGATE
CAMPBELL COUNTY, KENTUCKY**

RESOLUTION NO. 17-12

A RESOLUTION OF THE CITY OF SOUTHGATE SUPPORTING THE REMOVAL OF REFORMULATED GASOLINE (RFG) FROM THE STATE IMPLEMENTATION PLAN (SIP) FOR BOONE, CAMPBELL, AND KENTON COUNTIES.

SECTION I

WHEREAS, the City of Southgate Council desires to provide its support to the efforts to remove Reformulated Gasoline (RFG) from the State Implementation Plan (SIP)

WHEREAS, the City of Southgate City Council would agree removal of RFG from the SIP will not interfere with the regions continued attainment of the ambient air quality standards for ozone and nitrogen oxide

WHEREAS, the City of Southgate Council would agree that advances in conventional gasoline are now essentially the same according to the EPA

WHEREAS, the City of Southgate Council would agree that emissions from vehicles will continue to decrease as a result of regulations that are already in effect or will take effect in the future

WHEREAS, the City of Southgate Council would agree that RFG is no longer a cost- effective method for controlling emissions

WHEREAS, the City of Southgate Council would agree that the average cost for RFG is 22 cents more per gallon than the average cost of gasoline

WHEREAS, the City of Southgate Council would agree that a motorist who drives 15,000 miles per year, with a vehicle averaging 15 miles per gallon, will save over \$220 annually

WHEREAS, the City of Southgate Council would agree that both government agencies and private businesses will reduce costs as a result of the elimination of RFG

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF SOUTHGATE, KENTUCKY:

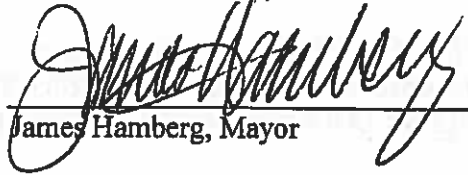
SECTION II

THAT the City of Southgate Council declares support for the removal of Reformulated Gasoline (RFG) from the State Implementation Plan (SIP) for Boone, Campbell, and Kenton Counties.

Approved by the City Council this 16th day of August 2017.

CITY OF SOUTHGATE, KENTUCKY

By:


James Hamberg, Mayor

Attest: Brandi Barton
Brandi Barton, City Clerk



August 18, 2017

Leslie Poff
Environmental Control Supervisor
Kentucky Energy and Environment Cabinet
Division for Air Quality
Frankfort, KY 40601

Re: Public Comment to the Proposed SIP Revision
For RFG Opt-Out and "Non-interference Demonstration"
For Northern Kentucky

Dear Ms. Poff:

Please accept this letter as a public comment in favor of the Kentucky Division for Air Quality's proposed revision of the SIP for the Northern Kentucky counties of Boone, Campbell and Kenton to opt-out of RFG requirements.

Harper Oil Products is a petroleum distributor marketing gasoline, diesel fuel and lubricants in the golden triangle of company along with Ohio and Indiana. We are headquartered in Boone County and have marketed gasoline in the area long before the reformulated gasoline requirements began in 1995 and continue to do so. We are committed to sell and deliver the products required by our customers that comply with all pertinent laws and regulations and which are protective of human health and the environment.

Since beginning to sell reformulated gasoline over twenty years ago, we have seen a multitude of market gyrations in the industry's attempt to keep Northern Kentucky supplied with its needs of this boutique fuel. We were told at the time of implementation of the RFG program that the cost of refining this fuel was only a few pennies per gallon over that of conventional gasoline. But due to the inevitable disruptions in the refining, supply and distribution system, we have witnessed the almost continual outage of one refined product or another which are required by the market. When product supply is tight it inevitably drives the price of the product upward. So much so, that over the past several months, we've seen reformulated gasoline priced at the terminal rack between twenty and thirty cents per gallon continuously. At \$.20/gallon differential, I estimate the cost to the residents, businesses and the economy of Northern Kentucky to be \$42 million per year.

Additionally, from research done over the last couple of years, I have come to find out that due to the changes in formulation of conventional gasoline over the more than two decades since we began selling reformulated gasoline, the two gasolines are now essentially the same with regard to their impact on the environment. Said another way,

we are no longer receiving any environmental benefit for the additional \$42 million per year that we are spending. It's no longer an investment, it's just an expense.

In addition to the much cleaner burning conventional gasoline being sold in the market today compared to that sold at the advent of RFG in the mid 90's, the vehicle fleet has significantly turned over whereby the cars on the road today emit far fewer pollutants and travel much further on a single gallon of gas. So, we can enjoy the benefits of cleaner air while driving the more environmentally friendly cars of today running on the environmentally improved conventional gasoline of today.

In conclusion, Harper Oil Products, Inc. supports the Kentucky Division for Air Quality's proposal to opt out of RFG and urge the U.S. EPA to approve this request as soon as possible.

Sincerely,



B. Stephen Harper
Chairman & President

Commonwealth of Kentucky State Senate

P.O. Box 991
Union, Kentucky 41091
www.lrc.ky.gov



State Capitol Annex Rm 209
Frankfort, Kentucky 40601
(800) 372-7181
(502) 564-8100 Ext. 617
Fax (502) 564-6543

JOHN SCHICKEL

July 27, 2017

Ms. Anna M. Bowman
Division for Air Quality
Department for Environmental Protection
300 Sower Boulevard, Second Floor
Frankfort, KY 40601

Dear Ms. Bowman:

I strongly support removing the awful reformulated gas requirements from Northern Kentucky. These restrictions have been burdensome and are completely unnecessary.

If you have any questions, please feel free to contact me.

Sincerely,


John Schickel
State Senator

JS:kl

cc: Gary Bentle
B. Stephen Harper



RESOLUTION NO. R-10-17

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLORENCE SUPPORTING THE REMOVAL OF REFORMULATED GASOLINE (RFG) FROM THE STATE IMPLEMENTATION PLAN (SIP) FOR BOONE, CAMPBELL AND KENTON COUNTIES.

WHEREAS, the City of Florence Council desires to provide its support to the efforts to remove Reformulated Gasoline (RFG) from the State Implementation Plan (SIP); and

WHEREAS, the City of Florence Council would agree removal of RFG from the SIP will not interfere with the regions continued attainment of the ambient air quality standards for ozone and nitrogen oxide; and

WHEREAS, the City of Florence Council would agree that advances in conventional gasoline are now essentially the same according to the EPA; and

WHEREAS, the City of Florence Council would agree that emissions from vehicles will continue to decrease as a result of regulations that are already in effect or will take effect in the future; and

WHEREAS, the City of Florence Council would agree that RFG is no longer a cost-effective method for controlling emissions; and

WHEREAS, the City of Florence would agree that the average cost for RFG is 22 cents more per gallon than the average cost of gasoline; and

WHEREAS, the City of Florence would agree that a motorist who drives 15,000 miles per year, with a vehicle averaging 15 miles per gallon, will save over \$220.00 annually; and

WHEREAS, the City of Florence would agree that both government agencies and private businesses will reduce costs as a result of the elimination of RFG.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FLORENCE AS FOLLOWS:

That the City of Florence Council declares support for the removal of Reformulated Gasoline (RFG) from the State Implementation Plan (SIP) for Boone, Campbell and Kenton Counties.

PASSED AND APPROVED THIS 22ND DAY OF August, 2017.

APPROVED:

Diane Whalen
Diane Whalen
Mayor

ATTEST:

Erin M. Couets
City Clerk

N

K

August 21, 2017

Leslie Poff
Environmental Control Supervisor
Kentucky Energy and Environment Cabinet
Division for Air Quality
Frankfort, Kentucky 40601

NKY Chamber
300 Buttermilk Pike
Suite 330
Ft. Mitchell, KY 41017

859.578.8800
www.NKYChamber.com

Re: Public Comment to the Proposed SIP Revision For RFG Opt-Out and "Non-interference Demonstration" for Northern Kentucky

Dear Ms. Poff:

Please accept this letter as our public comment in favor of the Kentucky Division for Air Quality's (KyDAQ) proposed revision of the Kentucky State Implementation Plan (SIP) removing Reformulated Gasoline (RFG) as a requirement for Boone, Campbell, and Kenton Counties (NKY). The proposal is supported by the "Non-interference Demonstration" required by Section 110(l) of the Clean Air Act (collectively referred to herein as "the DAQ Proposal").

The Northern Kentucky Chamber of Commerce represents over 1,500 employers in northern Kentucky and the surrounding region. We enjoy a diverse economy, with broad representation of employment in all sectors of the economy, including manufacturing, distribution, agriculture, finance, and services. Our region is situated centrally to the majority of the population in the eastern United States, and is traversed by major interstates, rail lines and navigable rivers. Our region has enjoyed and is positioned for economic growth. We are committed to protecting human health and the environment and at the same time preserving and empowering a robust economic climate in our community.

The RFG program was voluntarily included in the SIP twenty-five plus years ago as a means to limit pollutants that participate in the formation of ozone during the summer. Opting into the program included a requirement that only RFG-certified fuel can be sold year-round. It is now clear that the environmental benefits of the program have run their course, and now impose an unjustified economic burden. We are supportive of the DAQ Proposal. The "Non-interference Demonstration" document clearly establishes that all

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of the U.S. EPA's requirements to opt-out of the voluntary RFG program, as established by the Clean Air Act, have been satisfied. We highlight a few of the most important findings in the DAQ Proposal:

- Removal of RFG from the SIP will not interfere with the region's continued attainment of the ambient air quality standards for ozone and nitrogen oxide

The DAQ Proposal provides extensive computer modeling establishing that the removal of RFG from the SIP will not have an adverse impact on the nitrogen oxide (NOx) and ozone ambient air quality in NKY. We are currently in attainment of these standards and will continue to be in attainment after RFG is removed from the SIP.

- There have been major advances in conventional gasoline in the past twenty-five years

The DAQ Proposal correctly identifies that since the 1990's, when RFG was voluntarily added to the SIP, there have been major advances in the formulation of conventional gasoline. U.S. EPA recognizes that RFG and conventional gasoline are now essentially the same. The DAQ Proposal documents the current and projected vehicle emissions for NKY with and without RFG. The differences in projected emissions are inconsequential. For example, projected volatile organic compound (VOC) emissions for 2030 are 2.26 tons per summer day (TSD) with RFG and 2.31 TSD without RFG, a mere 2.2% difference. The difference in NOx emissions is even more inconsequential: 3.56 TSD with RFG and 3.50 TSD without RFG, a mere 1.7% difference. Tracking VOC emissions is important because VOCs, when emitted to the atmosphere participate along with sunlight and NOx in the formation of ozone. Ozone and NOx have ambient air quality standards that are set by the U.S. EPA and monitored by the KyDAQ.

- Emissions from vehicles will continue to decrease

Like the advances in the formulation of conventional gasoline, there have also been advances in the design and performance of the internal combustion engines that burn gasoline. The DAQ Proposal properly recognizes that VOC and NOx emissions from mobile sources have since the 1990's and will

NKY Chamber
300 Buttermilk Pike
Suite 330
Ft. Mitchell, KY 41017

859 578 8800
www.NKYChamber.com

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continue to decrease as older vehicles are retired in favor of new, more efficient vehicles.

- Reductions from Other Regulations

The DAQ Proposal also recognizes that current air quality regulations have significantly reduced emissions of NOx and VOC since the 1990's when RFG was voluntarily included in the SIP. For example, the Cross-State Air Pollution Rule (CSAPR) has reduced NOx emissions in NKY by 429 TSD. Additionally, Corporate Average Fuel Economy (CAFE) standards continue to require that automakers produce more efficient vehicles. As a result, less fuel per mile of travel is consumed now when compared to the 1990's vehicles. Lower fuel consumption means lower emissions. The DAQ Proposal recognizes that these federal programs result in emission reductions of VOC and NOX that significantly exceed the reductions from an RFG program. Thus, elimination of the RFG requirement will have no impact on our continued attainment and maintenance of the ambient air quality standards.

NKY Chamber
300 Buttermilk Pike
Suite 330
Ft. Mitchell, KY 41017

859 578.8800
www.NKYChamber.com

- RFG is no longer a cost-effective

The DAQ Proposal clearly establishes that RFG is no longer a cost-effective method for reduction of VOC and NOx emissions. The RFG program costs \$9,246 per ton of VOC eliminated and \$48,100 per ton of NOx eliminated. By comparison, the CSAPR program discussed above costs only \$1,400 per ton of NOx eliminated. U.S. EPA typically determines that an emission reduction programs in the range of \$1,600 per ton of pollutant removed will be cost-effective to implement. Thus, the RFG program is no longer a cost-effective control measure.

- Economic Benefit

Removal of the RFG program will provide a significant economic benefit to NKY. The average cost for RFG is 22 cents more per gallon than the average cost of conventional gasoline. A motorist who drives 15,000 miles per year, with a vehicle that gets 15 miles per gallon will save \$220 per year when RFG is eliminated. Businesses and public service providers (e.g., police and other vital civic services) will likewise save money.

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An estimated 188 million gallons of gasoline is sold per year in NKY, that means there will be an estimated savings of \$41 million per year when RFG is terminated. NKY businesses and residents can direct that money to their savings or spend it on goods and services, a great deal of which will be provided by NKY businesses. Thus, the majority of the \$41 million *per year* will stay in NKY.

NKY Chamber
300 Buttermilk Pike
Suite 330
Ft Mitchell, KY 41017

In conclusion, the Northern Kentucky Chamber of Commerce supports the KyDAQ's proposed action and urges that the action be finalized by KyDAQ and U.S. EPA as soon as possible.

859 578 8800
www.NKYChamber.com

Very truly yours,



Robert Heil
Chairman, Board of Directors



Brent Cooper
Interim President & CEO

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August 24, 2017

NKY President & CEO Brent Cooper Public Comments

NKY Chamber
300 Buttermilk Pike
Suite 330
Ft. Mitchell, KY 41017

859 578 8800
www.NKYChamber.com

*Re: Public Comment to the Proposed SIP Revision For
RFG Opt-Out and "Non-interference Demonstration" for
Northern Kentucky*

Good evening. Thank you for the opportunity to speak publically in support of the Kentucky Division of Air Quality's proposed revisions of the Kentucky State Implementation Program removing reformulated gas as a requirement for Boone, Campbell and Kenton counties.

My name is Brent Cooper, President & CEO of the Northern Kentucky Chamber of Commerce.

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The Chamber represents over 1,400 employers in northern Kentucky and the surrounding region.

Our region has enjoyed and is positioned for economic growth.

But we must continue to remain competitive in the region.

We are committed to protecting human health and the environment and at the same time preserving and empowering a robust economic climate in our community.

The Chamber submitted written comments to your agency earlier this week, but since this matter is so important to the entire business community, we wanted to make sure we were here this evening to reiterate the top line points included in our letter.

These top points include the following:

NKY Chamber
300 Buttermik Pike
Suite 330
Ft. Mitchell, KY 41017
659 578 8800
www.NKYChamber.com

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- The removal of RFG from the State Implementation Plan will not interfere with the region's continued attainment of the ambient air quality standards for ozone and nitrogen oxide.

NKY Chamber
300 Buttermilk Pike
Suite 320
Ft. Mitchell, KY 41017
859.578.8800
www.NKYChamber.com

- There have been major advances in conventional gasoline in the past twenty-five years. In fact, U.S. EPA recognizes that RFG and conventional gasoline are now essentially the same.

- Emissions from vehicles will continue to decrease. Like the advances in the formulation of conventional gasoline, there have also been advances in the design and performance of the internal combustion engines that burn gasoline.

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- The Division of Air Quality Proposal recognizes that federal programs, like CAFE standards, result in emission reductions that significantly exceed the reductions from an RFG program.

NKY Chamber
300 Butlermilk Pike
Suite 330
Ft. Mitchell, KY 41017

659 576 8800
www.NKYChamber.com

- The Division of Air Quality Proposal clearly establishes that RFG is no longer a cost-effective method for reduction of emissions.

Lastly and most importantly:

- Economic Benefit

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Removal of the RFG program will provide a significant economic benefit to NKY. The average cost for RFG is 22 cents more per gallon than the average cost of conventional gasoline.

NKY Chamber
300 Butlermilk Pike
Suite 330
Ft. Mitchell, KY 41017

659 578 6800
www.NKYChamber.com

A motorist who drives 15,000 miles per year, with a vehicle that gets 15 miles per gallon will save \$220 per year when RFG is eliminated.

Businesses and public service providers (like our local police and other vital civic services) will likewise save money.

I believe you have heard from many of our local city and county governments who agree with our position and are hopeful the RFG requirement will be removed.

An estimated 188 million gallons of gasoline is sold per year in NKY.

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That means there will be an estimated savings of \$41 million per year when RFG is terminated.

NKY businesses and residents can direct that money to their savings or spend it on goods and services, a great deal of which will be provided by NKY businesses.

NKY Chamber
300 Butlermark Pike
Suite 320
Ft. Mitchell, KY 41017

859 578 8800
www.NKYChamber.com

Thus, the majority of the \$41 million *per year* **will stay in NKY.**

In conclusion, the Northern Kentucky Chamber of Commerce supports the Kentucky Division of Air Quality's proposed action and urges that the action be finalized by your agency and U.S. EPA as soon as possible.

We appreciate all the hard work you and the entire Cabinet has put forth on this critical matter.

Thank you again for the opportunity this evening to speak before you.

Y



Kentucky Petroleum Marketers Association

August 18, 2017

Leslie Poff
Environmental Control Supervisor
Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601

RE: Support for proposed RFG Opt-out in Boone, Kenton and Campbell Counties

Dear Ms. Poff:

Please accept this letter written on behalf of the members of the Kentucky Petroleum Marketers Association (KPMA) who collectively and enthusiastically support the proposed revision to Kentucky's State Implementation Plan (SIP) pertaining to the Reformulated Gasoline (RFG) Opt-out 110(l) Non-interference Demonstration in Boone, Kenton and Campbell Counties in Kentucky. KPMA supports the Kentucky Energy and Environment Cabinet's submittal to United States Environmental Protection Agency, on behalf of the Commonwealth of Kentucky, of a pre-hearing draft revision to the Kentucky State Implementation Plan and Non-interference Demonstration for the removal of RFG requirements from these counties.

KPMA agrees with the Cabinet's position that removal of federal RFG requirements in the Boone, Campbell, and Kenton Counties will not interfere with the state's efforts to abide by obligations in nonattainment and maintenance areas. Advances in fuel and vehicle technology have reduced motor vehicle emissions, and, as a result, RFG as a control measure is no longer necessary in these counties. Moreover, it is important that consistency should be maintained throughout the Greater Cincinnati metropolitan area and the revision to the Kentucky SIP will keep these northern counties on an equal footing with gasoline retailers across the river in Ohio where the RFG requirement has already been eliminated.

The petroleum industry in Kentucky, as represented by the membership of KPMA, respectfully supports this proposed revision to Kentucky's SIP.

Sincerely,


Brian Clark
Executive Director


Michael Hardy
Chairman





Leslie Poff
Environmental Control Supervisor
Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601

RE: Support for proposed RFG Opt-out in Northern Kentucky

Dear Ms. Poff:

Please accept this letter as our support for the proposed revision to Kentucky's State Implementation Plan (SIP) pertaining to the RFG Opt-out for Boone, Kenton and Campbell Counties in Kentucky. Our company supports the Kentucky Energy and Environment Cabinet's submittal to the United States Environmental Protection Agency, on behalf of the Commonwealth of Kentucky, of a pre-hearing draft revision to the Kentucky State Implementation Plan and Non-interference Demonstration for the removal of RFG requirements from these counties.

Valor Oil agrees with the Cabinet's position that the removal of the RFG requirements in Boone, Campbell and Kenton Counties will not interfere with the state's efforts to abide by obligations in nonattainment and maintenance areas. Advances in fuel and vehicle technology have reduced motor vehicle emissions and as a result, RFG as a control measure is no longer necessary in these counties. Moreover, it is important that consistency should be maintained throughout the Greater Cincinnati metropolitan area and the revision to the Kentucky SIP will keep these northern counties on an equal footing with gasoline retailers across the river in Ohio where the RFG requirement has already been eliminated.

Yours Truly

A handwritten signature in blue ink, appearing to read 'Gary Emmick', is written over a horizontal line.

Gary Emmick
President

Valor LLC

Emmick Oil Company
Comfuel
Renegade Race Fuels
1200 Alsop Lane
P.O. Box 1914
Owensboro,
Kentucky 42302-1914

Phone:
(270) 683-2461 Owensboro
(270) 842-0361 Bowling Green

www.valoroil.com





TOEBBEN COMPANIES

541 Buttermilk, Pike, Suite 104 Crescent Springs, Kentucky 41017
Phone: (859) 331-1560 Fax (859) 331-9702
E-mail: toebben@toebben.com Web Site: www.toebben.com

August 1, 2017

VIA REGULAR U.S. MAIL

Kentucky Division of Air Quality
300 Sower Blvd., 2nd Floor
Frankfort, KY 40601

Re: Reformulated Gas in Kenton, Boone, and Campbell Counties

Dear Sir or Madam:

Toebben Companies, a real estate development company located in Northern Kentucky, understands that the Kentucky Division of Air Quality (the "KyDAQ") is accepting letters of comment regarding the elimination of reformulated gas in Kenton, Boone, and Campbell Counties. As such, Toebben Companies is hereby submitting this letter, urging the KyDAQ to eliminate reformulated gas in Kenton, Boone, and Campbell Counties.

This is an issue that Toebben Companies has closely followed and monitored for years. Removing reformulated gas from the state implementation plan will not interfere with the region's continued attainment of the ambient air quality standards for ozone and nitrogen oxide. Indeed, advances in conventional gasoline have effectively reduced vehicle emissions, such that reformulated gas and conventional gas are now essentially the same, according to the Environmental Protection Agency. Additionally, reformulated gasoline is no longer a cost-effective method for controlling emissions, as the average cost for reformulated gas is 22 cents more than the average cost of conventional gas.

In short, eliminating reformulated gas in the effected counties would save money for commuters, businesses, and public service providers, and there would be no adverse impact to vehicle emissions or the air quality.

Thank you for your attention to this letter.

Sincerely,

John Toebben
President, Toebben Builders

Bill Toebben, President
Toebben Companies
Toebben Construction Co.
Commercial/Industrial Construction
Design/Build
General Contracting
Construction Management

John Toebben, President
Toebben Builders, Inc.
Residential Construction
The Reserve at Rivers Pointe
Rivers Pointe, Hebron, KY
Riverview Homes
Country Squire Estates
Luxury Homes
Squire Valley Landminiums
Villa Hills, KY

Landstone Developers, Inc.
Residential Community Developers
The Reserve, Hebron, KY

Industrial Park
Enterprise V, Boone County, KY
Mt. Zion Technology Park,
Boone County, KY

COMMERCIAL PROPERTIES
Kentucky Properties
High Street Center, Crescent Springs
Mall Road Center, Florence
Toebben Exec. Center, Crescent Springs
Mt. Zion Center, Boone County
Summit Medical Building, Crittenden
Creswell Center, Crescent Springs
Fifth Street Center, Covington
Huff Executive Center, Ft. Mitchell
Granger, Boone County
Technology Park, Boone County
North Bend Square, Hebron
Independence Square, Independence

Ohio Properties
Keystone Plaza, Blue Ash
Milford Shopping Center, Milford
Houston Park Center, Colerain Township
Western Row Center, Deerfield Twp.
Wilmington Comm. Park, Wilmington
Harrison Retail Center, Harrison

Agricultural Property
Toebben TTT, Carrollton, KY

Appendix G-3
Public Hearing Transcript

Energy and Environment Cabinet
 DIVISION FOR AIR QUALITY
 Public Hearing
 August 24, 2017

Name: Brent Cooper			TESTIMONY			
Affiliation/Company: Northern KY Chamber of Commerce			Verbal	Written	None	Time limited?
Address: 300 Butter milk Pike, Ft Mitchell, KY 41077			<input checked="" type="checkbox"/>			
City:	State:	Zip:	Copy of SOC?			

Name: DICK BRISWON			TESTIMONY			
Affiliation/Company: DUKES ENERGY			Verbal	Written	None	Time limited?
Address:					<input checked="" type="checkbox"/>	
City:	State:	Zip:	Copy of SOC?			

Name: Greg Schrand			TESTIMONY			
Affiliation/Company: Retirer			Verbal	Written	None	Time limited?
Address: 904 Caitlin Dr.					<input checked="" type="checkbox"/>	
City: Union	State: KY	Zip: 41091	Copy of SOC?			

Name: Todd Bryan			TESTIMONY			
Affiliation/Company: Ret A/C			Verbal	Written	None	Time limited?
Address: 114 CASA GRANDE					<input checked="" type="checkbox"/>	
City: FT. THOMAS	State: KY	Zip: 41075	Copy of SOC?			

Name: Phil Schworen			TESTIMONY			
Affiliation/Company: Frost Brown Todd / No 15 Chamber			Verbal	Written	None	Time limited?
Address: 7310 Tsaft way Rd					<input checked="" type="checkbox"/>	
City: Florence	State: IL	Zip: 41017	Copy of SOC?			

Energy and Environment Cabinet
 DIVISION FOR AIR QUALITY
 Public Hearing
 August 24, 2017

Name: <i>Reesty Cress</i>	TESTIMONY			
Affiliation/Company: <i>Dinsmore</i>	Verbal	Written	None	Time limited?
Address: <i>314 West Main St.</i>			X	
City: <i>Frankfort</i> State: <i>KY</i> Zip: <i>40601</i>	Copy of SOC?			

Name: <i>Mark Hansel</i>	TESTIMONY			
Affiliation/Company: <i>Northern Ky Tribune</i>	Verbal	Written	None	Time limited?
Address: <i>mark.hansel@nkytribune.com</i>				
City: <i>Cincinnati</i> State: <i>Oh</i> Zip: <i>45261</i>	Copy of SOC?			

Name:	TESTIMONY			
Affiliation/Company:	Verbal	Written	None	Time limited?
Address:				
City: State: Zip:	Copy of SOC?			

Name:	TESTIMONY			
Affiliation/Company:	Verbal	Written	None	Time limited?
Address:				
City: State: Zip:	Copy of SOC?			

Name:	TESTIMONY			
Affiliation/Company:	Verbal	Written	None	Time limited?
Address:				
City: State: Zip:	Copy of SOC?			

Energy and Environment Cabinet
 DIVISION FOR AIR QUALITY
 Public Hearing
 August 24, 2017

Name: <u>GLENN PFENDT</u>			TESTIMONY			
Affiliation/Company: <u>A.O. SMITH</u>			Verbal	Written	None	Time limited?
Address: <u>8160 HOOTON DRIVE</u>					x	
City: <u>FLORENCE</u> State: <u>KY</u> Zip: <u>41042</u>			Copy of SOC?			

Name: <u>Kristin Baldwin</u>			TESTIMONY			
Affiliation/Company: <u>Northern KY Chamber of Commerce</u>			Verbal	Written	None	Time limited?
Address: <u>300 Bakersmill Pike Ft Mitchell</u>					✓	
City: _____ State: _____ Zip: _____			Copy of SOC?			

Name: _____			TESTIMONY			
Affiliation/Company: _____			Verbal	Written	None	Time limited?
Address: _____						
City: _____ State: _____ Zip: _____			Copy of SOC?			

Name: _____			TESTIMONY			
Affiliation/Company: _____			Verbal	Written	None	Time limited?
Address: _____						
City: _____ State: _____ Zip: _____			Copy of SOC?			

Name: _____			TESTIMONY			
Affiliation/Company: _____			Verbal	Written	None	Time limited?
Address: _____						
City: _____ State: _____ Zip: _____			Copy of SOC?			

KENTUCKY DIVISION FOR AIR QUALITY

AUGUST 24, 2017

PUBLIC HEARING

IN RE: STATE IMPLEMENTATION PLAN REVISION RELATING
TO THE RFG OPT-OUT
CAA SECTION 110(1) NONINTERFERENCE DEMONSTRATION

APPEARANCES

LESLIE POFF

ENVIRONMENTAL CONTROL SUPERVISOR

EVALUATION SECTION

DIVISION FOR AIR QUALITY

300 SOWER BOULEVARD

FRANKFORT, KENTUCKY 40601

MELISSA DUFF

ASSISTANT DIRECTOR

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION FOR AIR QUALITY

300 SOWER BOULEVARD, 2nd FLOOR

FRANKFORT, KENTUCKY 40601

SPEAKERS

BRENT COOPER

Northern Kentucky Chamber of Commerce

300 Buttermilk Pike

Fort Mitchell, Kentucky 41017

1 MS. POFF: If everyone takes a
2 seat.

3 Good evening. It is
4 August 24th, 2017, at 6:04 p.m. My name is
5 Leslie Poff with the Kentucky Division for
6 Air Quality Evaluation Section. As your
7 moderator, I declare this public hearing in
8 session.

9 The Division asks that everyone
10 attending today's hearing provide all the
11 information requested on the attendance
12 roster located at the entrance of the
13 conference room.

14 Today's hearing announcement
15 was sent to everyone on the Division's
16 current mailing list in the Florence
17 Regional Office. In addition, the notice
18 was published on the Division's website.

19 This is a non-adversarial
20 hearing, so the Division will not respond to
21 comments or questions regarding the proposed
22 actions, and individuals who present
23 testimony will not be questioned by anyone
24 attending this hearing. A Division

1 representative may, however, ask questions
2 in order to clarify the meaning or intent of
3 a comment.

4 All comments received in an
5 appropriate format by the close of comments
6 hearing will receive equal consideration.
7 The statement of consideration will be
8 provided to anyone who requests a copy.

9 Ms. Fleckinger, to my right, is
10 recording today's hearing. Anyone
11 interested in obtaining a copy of the
12 transcript should contact Ms. Fleckinger.

13 Are there any questions?

14 (No response.)

15 MS. POFF: All right. Today's
16 hearing is being conducted in order to
17 receive public comments concerning a
18 proposed revision to Kentucky State
19 Implementation Plan pertaining to RFG
20 Opt-Out 110(1) Noninterference
21 Demonstration.

22 There are indications to
23 present testimony, so please come forward
24 when your name is called and provide a

1 written copy of your comments to me, if
2 possible.

3 So Brent Cooper.

4 MR. BRENT COOPER: Good
5 evening.

6 MS. POFF: Speak loud.

7 MR. BRENT COOPER: I'll come up
8 here. That way, you can hear me.

9 MS. POFF: Perfect.

10 MR. BRENT COOPER: Good
11 evening, and thank you for the opportunity
12 to speak publicly in support of the Kentucky
13 Division of Air Quality's proposed revisions
14 to the Kentucky State Implementation Program
15 removing reformulated gas as a requirement
16 for Boone, Campbell, and Kenton Counties.

17 My name is Brent Cooper. I'm
18 the new president and CEO of the Northern
19 Kentucky Chamber of Commerce.

20 Our Chamber represents over
21 1,400 employers in the Northern Kentucky
22 area, and around 200,000 employees.

23 Our region has enjoyed and is
24 positioned for economic growth, but we must

1 continue to remain competitive in the
2 region.

3 We are committed to protecting
4 human health and the environment, while at
5 the same time preserving and empowering a
6 robust economic climate in our community.

7 The Chamber submitted written
8 comments to your agency earlier this week,
9 but since this matter is so important to the
10 entire business community, we wanted to make
11 sure we were here this evening to reiterate
12 the top line points included in our letter.

13 These top points include the
14 following:

15 The removal of RFG from the
16 State Implementation plan will not interfere
17 with the region's continued attainment of
18 the ambient air quality standards for ozone
19 and nitrogen oxide.

20 There have been major advances
21 in conventional gasoline in the past
22 25 years. In fact, US EPA recommends that
23 RFG and conventional gasoline are now
24 essentially the same.

1 Emissions from vehicles will
2 continue to decrease. Like the advances in
3 the formulation of conventional gasoline,
4 there have also been advances in the design
5 and performance of the internal combustion
6 engines that burn gasoline.

7 The Division of Air Quality's
8 proposal recognizes that federal programs,
9 like CAFE standards, result in emission
10 reductions that significantly exceed the
11 reductions from an RFG program.

12 And the Division of Air Quality
13 proposal clearly establishes that RFG is no
14 longer a cost-effective method for reduction
15 of emissions.

16 Lastly, and most importantly,
17 removal of the RFG program will provide a
18 significant economic benefit to Northern
19 Kentucky. The average cost of RFG is 22
20 cents more per gallon than the average cost
21 of conventional gasoline.

22 A motorist who drives
23 15,000 miles per year, with a vehicle that
24 gets 15 miles per gallon, will save \$220 per

1 year when RFG is eliminated.

2 Businesses and public service
3 providers, like our police and other vital
4 civic service, will likewise save money.

5 I believe you've heard from
6 many of our local city and county
7 governments who agree with our position and
8 are hopeful the RFG requirement will be
9 removed.

10 An estimate 188 million gallons
11 of gasoline is sold per year in Northern
12 Kentucky. That means there will be an
13 estimated savings of \$41 million per year
14 when RFG is terminated.

15 Northern Kentucky businesses
16 and residents can direct that money to their
17 savings or spend it on goods and services, a
18 great deal of which will be provided to
19 Northern Kentucky businesses.

20 Thus, the majority of the 41
21 million per year will stay right here in
22 Northern Kentucky.

23 In conclusion, the Northern
24 Kentucky Chamber of Commerce supports the

1 Kentucky Division of Air Quality's proposed
2 action and urges that the action be
3 finalized by your agency and the US EPA as
4 soon as possible.

5 We appreciate all the hard work
6 that you and your entire cabinet has put
7 forth on this critical act.

8 And we want -- I want to thank
9 you for letting me speak tonight. I also
10 want to thank you for making the trip up
11 here. I hope Northern Kentucky treats you
12 hospitably and that you have a great night
13 and a great trip.

14 MS. POFF: Thank you,
15 Mr. Cooper.

16 All right. Does anyone present
17 who has not offered comments previously have
18 any final comments before we close the
19 hearing?

20 (No response.)

21 MS. POFF: All right. Then in
22 the absence of any additional testimony,
23 this public hearing is adjourned.

24 Thank you all.

1 COMMONWEALTH OF KENTUCKY)

2 STATE AT LARGE)

3

4 I, DEBRA S. FLECKINGER, a Notary
5 Public within and for the Commonwealth of
6 Kentucky at Large, do hereby certify that the
7 foregoing was taken before me for the purpose
8 in the record so stated; that the hearing was
9 reduced to stenotype by me in the presence of
10 the witnesses.

11 WITNESS MY SIGNATURE THIS _____

12 day of _____, 2017.

13

14

15

16

Debra S. Fleckinger

17

Notary Public

Commonwealth of Kentucky

18

At Large

19

20

21 My Commission Expires: April 25, 2018

22 Notary ID 508741

23

24

Appendix G-4
Public Hearing Notice

**KENTUCKY DIVISION FOR AIR QUALITY
NOTICE OF PUBLIC HEARING
STATE IMPLEMENTATION PLAN REVISION RELATING TO THE RFG OPT-OUT
CAA SECTION 110(I) NONINTERFERENCE DEMONSTRATION**

The Kentucky Energy and Environment Cabinet will conduct a public hearing on August 24, 2017, at 6:00 p.m. (EST) at the Northern Kentucky Area Development District, located at 22 Spiral Drive, Florence, Kentucky 41042. This hearing is being held to receive comments on a proposed revision to Kentucky's State Implementation Plan (SIP) pertaining to the RFG Opt-out 110(I) Non-interference Demonstration.

This hearing is open to the public and all interested persons will be given the opportunity to present testimony. The hearing will be held at the date, time and place given above. It is not necessary that the hearing be 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 on August 24, 2017. Written comments should be sent to the contact person.

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 locations: Division for Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601; Florence Regional Office, 802 Veterans Memorial Dr., Suite 110, Florence, Kentucky. Any individual requiring copies may submit a request to the Division for Air Quality in writing, by telephone or by fax. 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: <http://air.ky.gov/Pages/PublicNoticesandHearings.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: Leslie Poff, Environmental Control Supervisor, Evaluation Section, Division for Air Quality, 300 Sower Boulevard, Frankfort, Kentucky 40601. Phone: (502) 782-6735; E-mail: lesliem.poff@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.