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SPECIFICATION SHEET: NONPT 2016beta Platform

Description: Nonpoint (nonpt) emissions, for simulating 2016 air quality

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1. EXECUTIVE SUMMARY

This document details the approach and data sources to be used for developing 2016 emissions for the nonpoint (nonpt) sector, which consists of all sources from 2014NEIv2 nonpoint that are not included in the afdust, ag, cmv_c1c2, cmv_c3, np_oilgas, rail, and rwc sectors. Emissions for 2016 beta platform include projections based on census population for certain sources and updates by the State of New Jersey. Because this sector covers a wide variety of sources, spatial surrogates, temporal profiles, and speciation profiles are also varied. Projection methods for nonpt are in process and this document will be updated when emission projections are finalized. Base year inventories were processed into a format that can be input to air quality models with the Sparse Matrix Operating Kernel Emissions (SMOKE) modeling system v4.6. National and state-level emission summaries for key pollutants are provided.

2. Introduction

The starting point for the 2016 beta platform nonpt inventory is the 2014NEIv2, including all nonpoint sources that are not included in the afdust, ag, cmv_c1c2, cmv_c3, np_oilgas, rail, and rwc sectors. The types of sources in the nonpt sector include, but are not limited to:

- stationary source fuel combustion, including industrial, commercial, and residential and orchard heaters;
- commercial sources such as commercial cooking;
- industrial processes such as chemical manufacturing, metal production, mineral processes, petroleum refining, wood products, fabricated metals, and refrigeration;
- solvent utilization for surface coatings such as architectural coatings, auto refinishing, traffic marking, textile production, furniture finishing, and coating of paper, plastic, metal, appliances, and motor vehicles;
- solvent utilization for degreasing of furniture, metals, auto repair, electronics, and manufacturing;
- solvent utilization for dry cleaning, graphic arts, plastics, industrial processes, personal care products, household products, adhesives and sealants;
- solvent utilization for asphalt application and roofing, and pesticide application;
- storage and transport of petroleum for uses such as portable gas cans, bulk terminals, gasoline service stations, aviation, and marine vessels;
- storage and transport of chemicals;
- waste disposal, treatment, and recovery via incineration, open burning, landfills, and composting;
- miscellaneous area sources such as cremation, hospitals, lamp breakage, and automotive repair shops.

A list of all SCCs in the nonpt sector is provided in Appendix A.

3. INVENTORY DEVELOPMENT METHODS

The emissions in the nonpt sector are from the nonpoint data category of 2014NEIv2 but are not included in other sectors from that category such as ag, afdust, cmv_c1c2, cmv_c3, rail and rwc. The nonpt emissions in 2016 beta platform are equivalent to those in the 2014NEIv2 except for the following changes.

New Jersey updates

In New Jersey, emissions for SCCs for Industrial (2102004000) and Commercial/Institutional (2103004000) Distillate Oil, Total: Boilers and IC Engines were removed at that state's request. These emissions were derived from EPA estimates, and double counted emissions that were provided by New Jersey and assigned to other SCCs.

Projection to 2016

Historical census population, sometimes by county and sometimes by state, was used to project select nonpt sources from 2014NEIv2 to 2016 for beta platform. The population data was downloaded from the US Census Bureau. Specifically, the "Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2017" file (https://www2.census.gov/programs-surveys/popest/datasets/2010-2017/counties/totals/coest2017-alldata.csv). A ratio of 2016 population to 2014 population was used to create a growth factor that was applied to the 2014NEIv2 emissions with SCCs matching the population-based SCCs listed in Table 1. Positive growth factors (from increasing population) were not capped, but negative growth factors (from decreasing population) were flatlined for no growth.

Table 1. 2016 beta platform SCCs for Census-based growth

SCC	Tier 1	Tier 2 Description	Tier 3	Tier 4
	Description		Description	Description
2302002100	Industrial	Food and Kindred	Commercial	Conveyorized
	Processes	Products: SIC 20	Charbroiling	Charbroiling
2302002200	Industrial	Food and Kindred	Commercial	Under-fired Charbroiling
	Processes	Products: SIC 20	Charbroiling	
2302003000	Industrial	Food and Kindred	Commercial Deep Fat	Total
	Processes	Products: SIC 20	Frying	
2302003100	Industrial	Food and Kindred	Commercial Deep Fat	Flat Griddle Frying
	Processes	Products: SIC 20	Frying	
2302003200	Industrial	Food and Kindred	Commercial Deep Fat	Clamshell Griddle Frying
	Processes	Products: SIC 20	Frying	
2401001000	Solvent	Surface Coating	Architectural Coatings	Total: All Solvent Types
	Utilization			
2401002000	Solvent	Surface Coating	Architectural Coatings	Total: All Solvent Types
	Utilization		- Solvent-based	
2401003000	Solvent	Surface Coating	Architectural Coatings	Total: All Solvent Types
	Utilization		- Water-based	
2401100000	Solvent	Surface Coating	Industrial	Total: All Solvent Types
	Utilization		Maintenance Coatings	
2401200000	Solvent	Surface Coating	Other Special Purpose	Total: All Solvent Types
	Utilization		Coatings	
2425000000	Solvent	Graphic Arts	All Processes	Total: All Solvent Types
	Utilization			

SCC	Tier 1 Description	Tier 2 Description	Tier 3 Description	Tier 4 Description	
2425010000	Solvent Utilization	Graphic Arts	Lithography	Total: All Solvent Types	
2425020000	Solvent Utilization	Graphic Arts	Letterpress	Total: All Solvent Types	
2425030000	Solvent Utilization	Graphic Arts	Rotogravure	Total: All Solvent Types	
2425040000	Solvent Utilization	Graphic Arts	Flexography	Total: All Solvent Types	
2440020000	Solvent Utilization	Miscellaneous Industrial	Adhesive (Industrial) Application	Total: All Solvent Types	
2460000000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Processes	Total: All Solvent Types	
2460100000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Personal Care Products	Total: All Solvent Types	
2460200000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Household Products	Total: All Solvent Types	
2460400000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Automotive Aftermarket Products	Total: All Solvent Types	
2460500000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Coatings and Related Products	Total: All Solvent Types	
2460600000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All Adhesives and Sealants	Total: All Solvent Types	
2460800000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	All FIFRA Related Products	Total: All Solvent Types	
2460900000	Solvent Utilization	Miscellaneous Non-industrial: Consumer and Commercial	Miscellaneous Products (Not Otherwise Covered)	Total: All Solvent Types	
2461800000	Solvent Utilization	Miscellaneous Non-industrial: Commercial	Pesticide Application: All Processes	Total: All Solvent Types	

SCC	Tier 1	Tier 2 Description	Tier 3	Tier 4
2454999994	Description		Description	Description
2461800001	Solvent	Miscellaneous	Pesticide Application:	Surface Application
	Utilization	Non-industrial: Commercial	All Processes	
2461800002	Solvent	Miscellaneous	Postisido Application:	Sail Incorporation
2461800002	Utilization	Non-industrial:	Pesticide Application: All Processes	Soil Incorporation
	Otilization	Commercial	All Processes	
2461870999	Solvent	Miscellaneous	Pesticide Application:	Not Elsewhere Classified
2401870333	Utilization	Non-industrial:	Non-Agricultural	Not Lisewhere classified
	Otilization	Commercial	Non-Agricultural	
2465800000	Solvent	Miscellaneous	Pesticide Application	Total: All Solvent Types
2 10300000	Utilization	Non-industrial:	r esticide Application	Totali 7 ili Solvelle Types
	0 0240.0	Consumer		
2501011011	Storage and	Petroleum and	Residential Portable	Permeation
	Transport	Petroleum	Gas Cans	
	·	Product Storage		
2501011012	Storage and	Petroleum and	Residential Portable	Evaporation (includes
	Transport	Petroleum	Gas Cans	Diurnal losses)
		Product Storage		
2501011013	Storage and	Petroleum and	Residential Portable	Spillage During Transport
	Transport	Petroleum	Gas Cans	
		Product Storage		
2501011014	Storage and	Petroleum and	Residential Portable	Refilling at the Pump -
	Transport	Petroleum	Gas Cans	Vapor Displacement
		Product Storage		
2501011015	Storage and	Petroleum and	Residential Portable	Refilling at the Pump -
	Transport	Petroleum	Gas Cans	Spillage
		Product Storage		
2501012011	Storage and	Petroleum and	Commercial Portable	Permeation
	Transport	Petroleum	Gas Cans	
2504042042	61	Product Storage	Communication and the	F
2501012012	Storage and	Petroleum and	Commercial Portable	Evaporation (includes
	Transport	Petroleum Product Storage	Gas Cans	Diurnal losses)
2501012013	Storage and	Petroleum and	Commercial Portable	Spillage During Transport
2301012013	Transport	Petroleum	Gas Cans	Spinage During Transport
	Transport	Product Storage	Gas Calls	
2501012014	Storage and	Petroleum and	Commercial Portable	Refilling at the Pump -
2501012014	Transport	Petroleum	Gas Cans	Vapor Displacement
	Transport	Product Storage	Gus Curis	vapor Displacement
2501012015	Storage and	Petroleum and	Commercial Portable	Refilling at the Pump -
	Transport	Petroleum	Gas Cans	Spillage
		Product Storage		- 10
2630020000	Waste	Treatment and	Wastewater	Total Processed
	Disposal	Recovery	Treatment, Public	
		,	Owned	

SCC	Tier 1	Tier 2 Description	Tier 3	Tier 4
	Description		Description	Description
2640000000	Waste	Treatment and	TSDFs, All TSDF Types	Total: All Processes
	Disposal	Recovery		
2810025000	Miscellane-	Other	Residential Grilling	Total
	ous Area	Combustion		
	Sources			
2810060100	Miscellane-	Other	Cremation	Humans
	ous Area	Combustion		
	Sources			

4. ANCILLARY DATA

Spatial Allocation

Spatial allocation of nonpt emissions to the contiguous US (CONUS) 36km and 12km domains used for air quality modeling is accomplished using spatial surrogates. Spatial surrogates map county polygons to the uniformly spaced grid cells of a modeling domain. Reports summarizing total emissions by spatial surrogate at the state and county level were developed. A national summary by spatial surrogate is provided in Table 2.

Table 2. 2016 beta platform nonpt emissions by spatial surrogate (36US3 domain)

Surrogate	Description	СО	NH3	NOX	PM10	PM2.5	SO2	VOC
100	Population	0	32,842	0	0	0	0	1,244,799
	Residential							
	Heating -							
150	Natural Gas	98,114	47,820	227,295	4,093	3,837	1,494	13,757
	Residential							
	Heating -							
170	Distillate Oil	9,811	1,865	35,187	4,583	3,988	56,230	1,245
	Residential							
180	Heating - Coal	3,044	20	101	79	53	1,086	111
	Residential							
	Heating - LP							
190	Gas	9,595	121	34,439	207	183	762	1,332
	Total Road							
	Avg. Annual							
	Daily Traffic							
239	(AADT)	786	0	25	575	551	0	274,991
	Total Road							
240	Miles	0	0	0	0	0	0	34,042
	All Restricted							
242	AADT	0	0	0	0	0	0	5,451

Surrogate	Description	СО	NH3	NOX	PM10	PM2.5	SO2	VOC
	All							
	Unrestricted							
244	AADT	0	0	0	0	0	0	95,312
	National							
	Transportation							
	Atlas Database							
	(NTAD) Class 1							
	2 3 Railroad							
271	Density	0	0	0	0	0	0	2,252
	National Land							
	Cover							
	Database							
	(NLCD) Low							
	Intensity							
300	Development	554,414	5,198	27,749	116,474	104,168	3,725	75,096
	NLCD Med +							
306	High	295,787	28,101	200,139	305,815	240,282	64,743	955,021
	NLCD All							
307	Development	1,563,172	25	46,372	157,454	126,828	14,199	602,300
	NLCD Low +							
308	Med + High	138,152	1,134	185,338	19,661	16,837	18,989	65,604
	NLCD Total							
310	Agriculture	0	0	0	216	37	0	204,819
	NLCD Crop							
319	Land	6,361	0	0	96	95	71	293
	NLCD Forest							
320	Land	7,399	4,143	378	1,472	1,289	9	474
505	Industrial Land	0	0	0	0	0	0	174
	Residential +							
	Commercial +							
	Industrial +							
	Institutional +							
535	Government	110	5	2	130	130	0	39
	Hospital							
560	(COM6)	0	0	0	0	0	0	0
	Refineries and							
650	Tank Farms	51	0	22	2	0	0	99,043
711	Airport Areas	0	0	0	0	0	0	287
801	Port Areas	0	0	0	0	0	0	8,059

Temporal Allocation

All nonpt inventories are annual and are temporalized to hourly within SMOKE using month-ofyear, day-of-week, and hour-of-day temporal profiles. Reports summarizing total emissions according to the monthly, day-of-week, and hour-of-day temporal profile assignments were developed at the state and county level. A national summary by temporal profile is provided in Table 3.

Table 3. 2016 beta platform nonpt emissions by temporal profile

Monthly profile	Weekly profile	Diurnal profile	СО	NH3	NOX	PM10	PM2.5	SO2	VOC
4	7	36	0	0	0	0	0	0	37,550
14	7	24	7,383	0	378	1,469	1,286	9	471
22	18	26	140	0	319	0	0	25	33
33	9	14	0	0	0	0	0	0	15,714
33	17	13	0	0	0	0	0	0	26,734
140	7	26	0	0	0	0	0	0	38,926
169	7	26	0	0	0	0	0	0	4,606
173	7	26	0	0	0	0	0	0	6,184
199	7	26	0	25	0	0	0	0	336,811
200	7	26	0	0	0	0	0	0	2,619
253	7	26	0	0	0	271	261	0	223,425
257	7	26	0	5	0	0	0	0	377,900
258	7	26	0	0	0	13	12	0	371,664
260	7	26	0	0	2	4	3	0	145,876
262	7	24	8,347	5,022	2,046	1,740	1,660	191	1,754
262	7	25	82	0	59	5	3	0	100,562
262	7	26	1,339,047	27,857	59,639	311,808	265,712	18,266	1,921,872
262	7	250	65	0	2	1,793	561	38	186
262	8	26	253,905	5,987	193,183	191,978	142,655	61,238	12,391
266	7	26	0	0	0	2	2	0	8,285
287	7	26	0	0	0	0	0	0	49,633
469	8	26	138,862	1,138	187,515	19,661	16,783	19,087	10,756
485	7	26	120,615	49,986	296,938	8,900	8,009	59,080	16,448
1215	7	26	0	0	0	0	0	0	13
1560	7	26	0	31,967	0	0	0	0	0
1600	7	26	197,492	0	5,923	20,216	15,584	1,939	14,190
1601	7	26	64,181	0	1,915	6,528	5,033	630	4,536
1612	7	26	114,263	0	3,392	11,544	8,900	1,122	7,934
1613	7	26	209,274	0	6,212	21,141	21,089	687	14,527
1645	7	26	51,251	0	1,529	5,213	4,019	503	3,622
BBQ	61500	BBQ ¹	238,021	0	5,105	16,653	13,324	0	4,484

¹ There are separate diurnal outdoor barbecue profiles for weekdays (BBQ5) and weekends (BBQ2).

Chemical Speciation

The nonpt sector includes emissions for particulate matter < 2.5 μ m (PM_{2.5}), oxides of nitrogen (NOx), and VOC, among other criteria pollutants. These three inventory pollutants must be converted to air quality modeling species through an emissions processing step referred to as

"chemical speciation". The U.S. EPA SPECIATE¹ database was used to develop factors to map the inventory species to the chemical species required for air quality modeling. The nonpt sector uses partial HAP integration for VOCs. A GSPRO_COMBO is used to speciate VOC emissions from portable fuel containers (PFCs), Stage 1 refueling, and other gasoline storage SCCs. Reports summarizing total PM2.5 and VOC emissions according to speciation profile were developed at the state and county level.

5. Emissions Projection Methods

Future year projections for the 2016 beta platform have not yet been finalized at the time this was written.

6. Emissions Processing Requirements

Nonpt sector emissions were processed for air quality modeling using the Sparse Matrix Operator Kernel Emissions (SMOKE²) modeling system. All nonpt sector inventories are annual, but the sector is typically run through SMOKE as a monthly sector; i.e. Smkinven is run 12 times, each with a different SMKINVEN_MONTH setting. This is because in prior emissions platforms, the nonpt sector has occasionally included at least one monthly inventory. SMOKE applies the same monthly temporalization to annual sources as it would when running Smkinven on an annual basis, so this does not impact the emissions. The downside to this approach is a small amount of additional processing time.

Nonpt sector emissions are processed for seven representative days per month (one for each day of the week), plus holidays. This is a 2-D sector in which all emissions are output to a single layer gridded emissions file.

7. EMISSIONS SUMMARIES

National and state totals by pollutant for the beta platform cases are provided here in Table 4 – Table 6, and some example plots (Figure 1 – Figure 3). Additional nonpt plots and maps are available online through the LADCO website³ and the Intermountain West Data Warehouse⁴.

Descriptions of the emissions platform cases shown in the tables and plots below are as follows:

2011en, 2023en, 2028el = Final 2011, 2023, and 2028 cases from the 2011v6.3 platform

¹ https://www.epa.gov/air-emissions-modeling/speciate-version-45-through-40

² http://www.smoke-model.org/index.cfm

³ https://www.ladco.org/technical/modeling-results/2016-inventory-collaborative/

⁴ http://views.cira.colostate.edu/iwdw/eibrowser2016

2014fd = 2014NEIv2 and 2014 NATA

2016fe = 2016 alpha platform (grown from 2014NEIv2)

2016ff = 2016 beta platform

Table 4. Comparison of national total annual CAPS nonpt emissions (tons/yr)

Pollutant	2011en	2014fd	2016fe	2016ff	2023en	2028el
СО	1,659,563	2,738,901	2,738,901	2,742,927	1,695,179	1,695,815
NH3	95,189	122,006	122,006	121,986	95,637	95,542
NOX	727,808	765,230	765,230	764,158	738,591	739,639
PM10	495,754	617,154	617,154	618,938	512,700	513,118
PM2.5	407,682	503,253	503,253	504,895	430,481	430,836
SO2	281,630	163,983	163,983	162,816	97,842	97,741
VOC	3,731,618	3,725,042	3,725,042	3,759,706	3,507,786	3,507,763

Table 5. Comparison of state total annual NOx nonpt emissions (tons/yr)

State	2011en	2014fd	2016fe	2016ff	2023en	2028el
Alabama	11,630	20,003	20,003	20,004	11,895	11,895
Alaska	5,853	5,641	5,641	5,642	4,613	4,613
Arizona	6,878	8,398	8,398	8,401	8,381	8,381
Arkansas	3,025	9,830	9,830	9,831	3,025	3,025
California	57,105	47,933	47,933	47,943	60,743	60,743
Colorado	7,286	7,210	7,210	7,213	8,425	8,425
Connecticut	11,786	12,273	12,273	12,273	9,229	8,992
Delaware	2,059	2,891	2,891	2,892	2,037	2,064
D.C.	1,357	1,682	1,682	1,682	1,384	1,404
Florida	18,835	17,247	17,247	17,261	20,986	20,986
Georgia	17,193	19,404	19,404	19,409	17,271	17,271
Hawaii	1,129	395	395	395	600	600
Idaho	5,722	4,657	4,657	4,658	5,992	5,992
Illinois	42,634	48,552	48,552	48,552	44,658	44,658
Indiana	16,498	12,832	12,832	12,833	16,684	16,684
Iowa	11,441	9,481	9,481	9,482	12,816	12,816
Kansas	9,100	7,232	7,232	7,232	9,554	9,554
Kentucky	6,615	6,212	6,212	6,213	6,830	6,830
Louisiana	33,058	7,325	7,325	7,326	35,405	35,405
Maine	4,371	6,484	6,484	6,485	2,725	2,581
Maryland	12,848	11,448	11,448	11,449	13,946	14,274
Massachusetts	21,014	27,958	27,958	27,960	17,941	17,716
Michigan	29,958	38,590	38,590	38,591	31,214	31,214
Minnesota	22,831	22,313	22,313	22,314	22,251	22,251
Mississippi	4,248	3,625	3,625	3,626	4,217	4,217
Missouri	13,127	14,530	14,530	14,531	13,380	13,380

State	2011en	2014fd	2016fe	2016ff	2023en	2028el
Montana	3,451	5,050	5,050	5,051	3,415	3,415
Nebraska	4,234	2,755	2,755	2,756	4,159	4,159
Nevada	4,275	3,251	3,251	3,253	3,813	3,813
New Hampshire	4,373	10,782	10,782	10,782	3,733	3,645
New Jersey	23,144	25,978	25,978	24,808	21,850	23,746
New Mexico	4,961	7,678	7,678	7,678	5,081	5,081
New York	62,946	58,447	58,447	58,448	57,399	57,610
North Carolina	13,268	15,795	15,795	15,799	13,594	13,594
North Dakota	4,148	1,275	1,275	1,275	4,259	4,259
Ohio	37,241	35,082	35,082	35,083	39,919	39,919
Oklahoma	17,784	8,363	8,363	8,364	19,817	19,817
Oregon	11,811	8,623	8,623	8,626	12,557	12,557
Pennsylvania	33,198	61,553	61,553	61,554	30,971	30,495
Rhode Island	5,565	3,468	3,468	3,468	4,033	3,726
South Carolina	9,979	9,338	9,338	9,340	11,713	11,713
South Dakota	1,974	1,213	1,213	1,213	1,606	1,606
Tennessee	16,230	18,084	18,084	18,086	17,218	17,218
Texas	32,622	46,146	46,146	46,162	39,790	39,790
Utah	7,002	4,854	4,854	4,856	6,870	6,870
Vermont	3,531	3,176	3,176	3,176	2,776	2,703
Virginia	15,102	18,382	18,382	18,384	14,880	14,996
Washington	5,665	11,868	11,868	11,873	5,711	5,711
West Virginia	4,841	7,798	7,798	7,798	4,798	4,798
Wisconsin	20,944	20,062	20,062	20,063	20,521	20,521
Wyoming	1,546	1,022	1,022	1,022	1,543	1,543
Puerto Rico	37	864	864	864	36	36
Virgin Islands	1	59	59	59	1	1
Tribal Data	334	120	120	120	326	326

Table 6. Comparison of state total annual VOC nonpt emissions (tons/yr)

State	2011en	2014fd	2016fe	2016ff	2023en	2028el
Alabama	66,226	69,875	69,875	70,147	60,092	60,092
Alaska	9,278	7,944	7,944	7,986	7,872	7,872
Arizona	64,286	68,370	68,370	69,694	59,461	59,461
Arkansas	58,559	53,026	53,026	53,344	51,760	51,760
California	244,800	224,154	224,154	225,686	238,165	238,165
Colorado	41,085	35,883	35,883	36,987	39,010	39,010
Connecticut	31,218	41,841	41,841	41,861	30,692	30,447
Delaware	7,164	6,054	6,054	6,125	6,864	6,957
D.C.	3,927	4,685	4,685	4,837	4,315	4,439
Florida	251,511	219,307	219,307	224,596	218,130	218,130
Georgia	137,331	136,011	136,011	137,573	126,927	126,927
Hawaii	17,892	14,570	14,570	14,641	16,015	16,015

State	2011en	2014fd	2016fe	2016ff	2023en	2028el
Idaho	37,268	42,629	42,629	42,991	34,705	34,705
Illinois	133,768	134,425	134,425	134,538	128,376	128,376
Indiana	92,125	94,795	94,795	95,310	84,127	84,127
Iowa	72,032	48,853	48,853	49,145	66,656	66,656
Kansas	66,245	48,078	48,078	48,323	61,407	61,407
Kentucky	64,217	59,746	59,746	60,238	57,842	57,842
Louisiana	121,111	73,941	73,941	74,278	109,500	109,500
Maine	13,216	14,862	14,862	14,904	12,242	11,971
Maryland	45,120	49,454	49,454	49,778	45,744	46,533
Massachusetts	59,544	75,762	75,762	76,266	55,739	55,720
Michigan	114,326	127,745	127,745	128,177	99,811	99,811
Minnesota	86,057	66,590	66,590	67,120	80,068	80,068
Mississippi	65,610	44,951	44,951	45,097	57,489	57,489
Missouri	88,022	85,136	85,136	85,566	79,662	79,662
Montana	17,282	26,621	26,621	26,770	15,803	15,803
Nebraska	41,688	33,936	33,936	34,191	38,867	38,867
Nevada	23,607	30,441	30,441	31,202	22,582	22,582
New Hampshire	12,696	14,128	14,128	14,177	11,913	11,970
New Jersey	79,765	78,490	78,490	78,734	75,992	77,448
New Mexico	29,207	30,565	30,565	30,622	26,083	26,083
New York	168,064	208,400	208,400	209,334	156,574	155,686
North Carolina	111,260	125,863	125,863	127,757	114,809	113,637
North Dakota	19,494	22,843	22,843	22,983	18,622	18,622
Ohio	124,575	151,524	151,524	152,146	118,893	118,893
Oklahoma	49,776	55,214	55,214	55,662	44,517	44,517
Oregon	50,603	51,675	51,675	52,643	48,172	48,172
Pennsylvania	124,041	170,578	170,578	171,039	119,340	118,490
Rhode Island	8,047	11,009	11,009	11,041	7,543	7,451
South Carolina	70,658	67,073	67,073	68,173	61,583	61,583
South Dakota	26,945	28,579	28,579	28,693	25,651	25,651
Tennessee	93,236	101,507	101,507	102,608	83,213	83,213
Texas	313,142	309,651	309,651	315,069	325,298	325,298
Utah	30,720	30,668	30,668	31,353	28,967	28,967
Vermont	5,397	7,384	7,384	7,396	5,353	5,366
Virginia	107,795	93,072	93,072	93,764	107,608	108,833
Washington	86,004	101,843	101,843	103,558	82,274	82,274
West Virginia	23,603	22,928	22,928	22,990	21,032	20,788
Wisconsin	77,752	64,543	64,543	64,743	72,878	72,878
Wyoming	11,197	7,978	7,978	8,007	9,827	9,827
Puerto Rico	31,681	28,189	28,189	28,189	30,354	30,354
Virgin Islands	756	900	900	900	744	744
Tribal Data	689	753	753	753	624	624

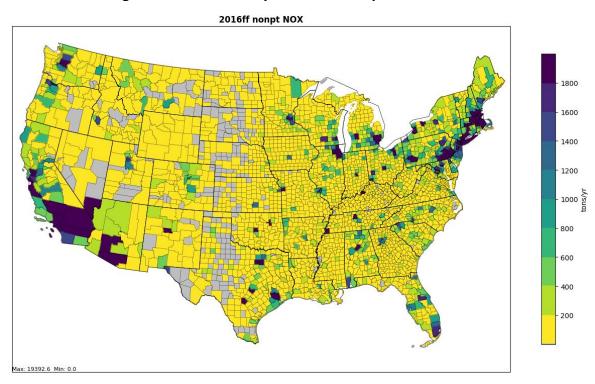
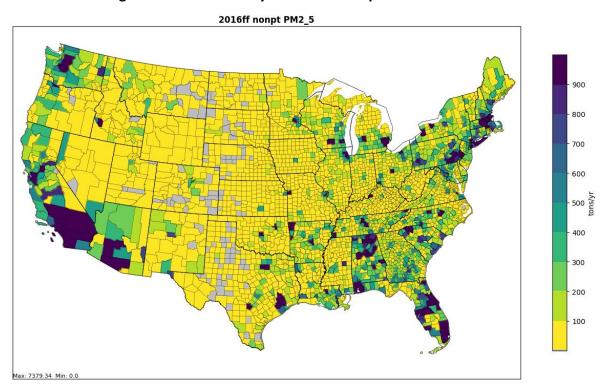


Figure 1. Annual County-total 2016 nonpt NOx emissions





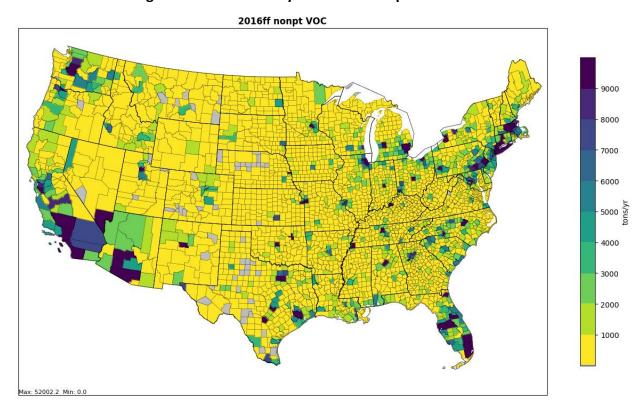


Figure 3. Annual County-total 2016 nonpt VOC emissions

Appendix A: List of SCCs in nonpt sector

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2102001000	Stationary Source			
2102001000	Fuel Combustion	Industrial	Anthracite Coal	Total: All Boiler Types
2102002000	Stationary Source		Bituminous/Subbit	
2102002000	Fuel Combustion	Industrial	uminous Coal	Total: All Boiler Types
2102004000	Stationary Source			Total: Boilers and IC
2102004000	Fuel Combustion	Industrial	Distillate Oil	Engines
2102004001	Stationary Source			
2102004001	Fuel Combustion	Industrial	Distillate Oil	All Boiler Types
2102004002	Stationary Source			
2102004002	Fuel Combustion	Industrial	Distillate Oil	All IC Engine Types
2102005000	Stationary Source			
2102003000	Fuel Combustion	Industrial	Residual Oil	Total: All Boiler Types
2102006000	Stationary Source			Total: Boilers and IC
2102000000	Fuel Combustion	Industrial	Natural Gas	Engines
2102007000	Stationary Source		Liquified Petroleum	
2102007000	Fuel Combustion	Industrial	Gas (LPG)	Total: All Boiler Types
2102008000	Stationary Source			
2102008000	Fuel Combustion	Industrial	Wood	Total: All Boiler Types
2102011000	Stationary Source			
2102011000	Fuel Combustion	Industrial	Kerosene	Total: All Boiler Types
2102012000	Stationary Source			
2102012000	Fuel Combustion	Industrial	Waste oil	Total
2103001000	Stationary Source	Commercial/In		
2103001000	Fuel Combustion	stitutional	Anthracite Coal	Total: All Boiler Types
2103002000	Stationary Source	Commercial/In	Bituminous/Subbit	
2103002000	Fuel Combustion	stitutional	uminous Coal	Total: All Boiler Types
2103004000	Stationary Source	Commercial/In		Total: Boilers and IC
2103004000	Fuel Combustion	stitutional	Distillate Oil	Engines
2103004001	Stationary Source	Commercial/In		
2103004001	Fuel Combustion	stitutional	Distillate Oil	Boilers
2103004002	Stationary Source	Commercial/In		
2103004002	Fuel Combustion	stitutional	Distillate Oil	IC Engines
2103005000	Stationary Source	Commercial/In		
2103003000	Fuel Combustion	stitutional	Residual Oil	Total: All Boiler Types
2103006000	Stationary Source	Commercial/In		Total: Boilers and IC
210300000	Fuel Combustion	stitutional	Natural Gas	Engines
2103007000	Stationary Source	Commercial/In	Liquified Petroleum	Total: All Combustor
	Fuel Combustion	stitutional	Gas (LPG)	Types
2103008000	Stationary Source	Commercial/In		
210300000	Fuel Combustion	stitutional	Wood	Total: All Boiler Types
2103011000	Stationary Source	Commercial/In		Total: All Combustor
2103011000	Fuel Combustion	stitutional	Kerosene	Types

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2104001000	Stationary Source			Total: All Combustor
2104001000	Fuel Combustion	Residential	Anthracite Coal	Types
2104002000	Stationary Source		Bituminous/Subbit	Total: All Combustor
2101002000	Fuel Combustion	Residential	uminous Coal	Types
2104004000	Stationary Source			Total: All Combustor
210 100 1000	Fuel Combustion	Residential	Distillate Oil	Types
2104006000	Stationary Source			Total: All Combustor
	Fuel Combustion	Residential	Natural Gas	Types
2104007000	Stationary Source		Liquified Petroleum	Total: All Combustor
	Fuel Combustion	Residential	Gas (LPG)	Types
2104011000	Stationary Source			Total: All Heater
	Fuel Combustion	Residential	Kerosene	Types
2275085000	Mobile Sources	Aircraft	Unpaved Airstrips	Total
2294000000	Mobile Sources	Paved Roads	All Paved Roads	Total: Fugitives
		Chemical		
2301000000	Industrial	Manufacturing:		
	Processes	SIC 28	All Processes	Total
			Process Emissions	
2301020000		Chemical	from Synthetic	
230102000	Industrial	Manufacturing:	Fibers Manuf	
	Processes	SIC 28	(NAPAP cat. 107)	Total
			Process Emissions	
			from	
2301030000		Chemical	Pharmaceutical	
	Industrial	Manufacturing:	Manuf (NAPAP cat.	
	Processes	SIC 28	106)	Total
			Fugitive Emissions	
			from Synthetic	
2301040000		Chemical	Organic Chem	
	Industrial	Manufacturing:	Manuf (NAPAP cat.	
_	Processes	SIC 28	102)	Total
		Food and		
2302000000		Kindred		
	Industrial	Products: SIC		
	Processes	20	All Processes	Total
		Food and		
2302002100		Kindred	Commercial	
	Industrial	Products: SIC	Cooking -	Conveyorized
	Processes	20	Charbroiling	Charbroiling
		Food and		
2302002200		Kindred	Commercial	
	Industrial	Products: SIC	Cooking -	Under-fired
	Processes	20	Charbroiling	Charbroiling
2302003000	Industrial	Food and	Commercial	5
	Processes	Kindred	Cooking - Frying	Deep Fat Frying

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Products: SIC		
		20		
		Food and		
2302003100		Kindred		
2302003100	Industrial	Products: SIC	Commercial	
	Processes	20	Cooking - Frying	Flat Griddle Frying
		Food and		
2302003200		Kindred		
2302003200	Industrial	Products: SIC	Commercial	Clamshell Griddle
	Processes	20	Cooking - Frying	Frying
		Food and		
2302010000		Kindred		
	Industrial	Products: SIC		
	Processes	20	Meat Products	Total
		Food and		
2302050000		Kindred		
	Industrial	Products: SIC		
	Processes	20	Bakery Products	Total
		Food and		
2302070000		Kindred		
	Industrial	Products: SIC	Fermentation/Beve	
	Processes	20	rages	Total
		Food and		
2302070001		Kindred		
	Industrial	Products: SIC	Fermentation/Beve	D
	Processes	20	rages	Breweries
		Food and		
2302070005	La di catalia l	Kindred		
	Industrial	Products: SIC	Fermentation/Beve	Minarias
	Processes	20 Food and	rages	Wineries
		Kindred		
2302070010	Industrial	Products: SIC	Fermentation/Beve	
	Processes	20	1	Distilleries
	FIUCESSES	Food and	rages	טוטנווופו ופט
		Kindred	Miscellaneous	
2302080000	Industrial	Products: SIC	Food and Kindred	
	Processes	20	Products	Total
	110003003	Food and	11000003	1 Otal
		Kindred	Miscellaneous	
2302080002	Industrial	Products: SIC	Food and Kindred	
	Processes	20	Products	Refrigeration
	Industrial	Secondary	i i Oddets	Kenigeration
2304000000	Processes	Metal	All Processes	Total
	FIUCESSES	IVICIAI	אוו דוטנפטטפט	וטנמו

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Production: SIC		
		33		
		Mineral		
2305000000	Industrial	Processes: SIC		
	Processes	32	All Processes	Total
		Mineral		
2305070000	Industrial	Processes: SIC	Concrete, Gypsum,	
	Processes	32	Plaster Products	Total
		Mineral		
2305080000	Industrial	Processes: SIC	Cut Stone and	
	Processes	32	Stone Products	Total
2306000000	Industrial	Petroleum		
2306000000	Processes	Refining: SIC 29	All Processes	Total
			Asphalt	
2306010000	Industrial	Petroleum	Paving/Roofing	
	Processes	Refining: SIC 29	Materials	Total
		Wood		
2307000000	Industrial	Products: SIC		
	Processes	24	All Processes	Total
	Industrial	Rubber/Plastics		
2308000000	Processes	: SIC 30	All Processes	Total
	Industrial	Fabricated		
2309000000	Processes	Metals: SIC 34	All Processes	Total
	Industrial	Fabricated	Coating, Engraving,	
2309100200	Processes	Metals: SIC 34	and Allied Services	Abrasive Blasting
	Industrial	Construction:		
2311000000	Processes	SIC 15 - 17	All Processes	Total
	Industrial	Construction:		
2311010000	Processes	SIC 15 - 17	Residential	Total
	Industrial	Construction:	Industrial/Commer	
2311020000	Processes	SIC 15 - 17	cial/Institutional	Total
	Industrial	Construction:		
2311030000	Processes	SIC 15 - 17	Road Construction	Total
	Industrial	Machinery: SIC	Rodd Construction	Total
2312000000	Processes	35	All Processes	Total
	110003303	Mining and	All Focesses	Total
2325000000	Industrial	Quarrying: SIC		
2323000000	Processes	14	All Processes	Total
	Industrial	Industrial	Industrial	Total
2399000000		Processes: NEC	Processes: NEC	Total
	Processes	•	FIOLESSES: NEC	Total
2399010000	Industrial	Industrial	Dofrigorout Lagas	All Drocesses
	Processes	Refrigeration	Refrigerant Losses	All Processes
2401001000	Calmont Datit - 11-	Comfort Control	Architectural	Total: All Solvent
	Solvent Utilization	Surface Coating	Coatings	Types

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2404004050			A mala it a atomal	All Other
2401001050	Solvent Utilization	Surface Coating	Architectural	Architectural
	Solvent Othization	Surface Coating	Coatings	Categories Total: All Solvent
2401005000	Solvent Utilization	Surface Coating	Auto Refinishing: SIC 7532	Types
	Solvent Othization	Juliace Coating	Auto Refinishing:	Турез
2401005700	Solvent Utilization	Surface Coating	SIC 7532	Top Coats
	Solvent Othization	Surface couring	Auto Refinishing:	100 0000
2401005800	Solvent Utilization	Surface Coating	SIC 7532	Clean-up Solvents
		<u> </u>		Total: All Solvent
2401008000	Solvent Utilization	Surface Coating	Traffic Markings	Types
2404040000		J	Textile Products:	Total: All Solvent
2401010000	Solvent Utilization	Surface Coating	SIC 22	Types
			Factory Finished	
2401015000			Wood: SIC 2426	Total: All Solvent
	Solvent Utilization	Surface Coating	thru 242	Types
2401020000			Wood Furniture:	Total: All Solvent
2401020000	Solvent Utilization	Surface Coating	SIC 25	Types
2401025000			Metal Furniture:	Total: All Solvent
2401023000	Solvent Utilization	Surface Coating	SIC 25	Types
2401030000				Total: All Solvent
	Solvent Utilization	Surface Coating	Paper: SIC 26	Types
2401035000			Plastic Products:	Total: All Solvent
	Solvent Utilization	Surface Coating	SIC 308	Types
2401040000			Metal Cans: SIC	Total: All Solvent
	Solvent Utilization	Surface Coating	341	Types
2401045000	Calvant Htilization	Cumfoss Costina	Metal Coils: SIC	Total: All Solvent
	Solvent Utilization	Surface Coating	3498	Types
			Miscellaneous Finished Metals:	
2401050000			SIC 34 - (341 +	Total: All Solvent
	Solvent Utilization	Surface Coating	3498)	Types
	SOIVEITE SEINEGET	Surface couring	Machinery and	Total: All Solvent
2401055000	Solvent Utilization	Surface Coating	Equipment: SIC 35	Types
		<u> </u>	Large Appliances:	Total: All Solvent
2401060000	Solvent Utilization	Surface Coating	SIC 363	Types
			Electronic and	• •
2401065000			Other Electrical: SIC	Total: All Solvent
	Solvent Utilization	Surface Coating	36 - 363	Types
2401070000			Motor Vehicles: SIC	Total: All Solvent
2401070000	Solvent Utilization	Surface Coating	371	Types
2401075000				Total: All Solvent
24010/3000	Solvent Utilization	Surface Coating	Aircraft: SIC 372	Types
2401080000				Total: All Solvent
01000000	Solvent Utilization	Surface Coating	Marine: SIC 373	Types

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2401085000				Total: All Solvent
2401063000	Solvent Utilization	Surface Coating	Railroad: SIC 374	Types
2401090000			Miscellaneous	Total: All Solvent
2401030000	Solvent Utilization	Surface Coating	Manufacturing	Types
			Industrial	
2401100000			Maintenance	Total: All Solvent
	Solvent Utilization	Surface Coating	Coatings	Types
2401200000			Other Special	Total: All Solvent
2101200000	Solvent Utilization	Surface Coating	Purpose Coatings	Types
2415000000			All Processes/All	Total: All Solvent
211300000	Solvent Utilization	Degreasing	Industries	Types
2420000000				Total: All Solvent
242000000	Solvent Utilization	Dry Cleaning	All Processes	Types
2425000000				Total: All Solvent
242300000	Solvent Utilization	Graphic Arts	All Processes	Types
2440000000		Miscellaneous		Total: All Solvent
244000000	Solvent Utilization	Industrial	All Processes	Types
			Adhesive	
2440020000		Miscellaneous	(Industrial)	Total: All Solvent
	Solvent Utilization	Industrial	Application	Types
		Miscellaneous		
2460000000		Non-industrial:		
240000000		Consumer and		Total: All Solvent
	Solvent Utilization	Commercial	All Processes	Types
		Miscellaneous		
2460100000		Non-industrial:		
210020000		Consumer and	All Personal Care	Total: All Solvent
	Solvent Utilization	Commercial	Products	Types
		Miscellaneous		
2460200000		Non-industrial:		
		Consumer and	All Household	Total: All Solvent
	Solvent Utilization	Commercial	Products	Types
		Miscellaneous		
2460400000		Non-industrial:	All Automotive	
		Consumer and	Aftermarket	Total: All Solvent
	Solvent Utilization	Commercial	Products	Types
		Miscellaneous		
2460500000		Non-industrial:		
		Consumer and	All Coatings and	Total: All Solvent
	Solvent Utilization	Commercial	Related Products	Types
		Miscellaneous		
2460600000		Non-industrial:		
		Consumer and	All Adhesives and	Total: All Solvent
	Solvent Utilization	Commercial	Sealants	Types

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Miscellaneous		
2460800000		Non-industrial:		
		Consumer and	All FIFRA Related	Total: All Solvent
	Solvent Utilization	Commercial	Products	Types
		Miscellaneous	Miscellaneous	
2460900000		Non-industrial:	Products (Not	
2.0030000		Consumer and	Otherwise	Total: All Solvent
	Solvent Utilization	Commercial	Covered)	Types
		Miscellaneous		
2461000000		Non-industrial:		Total: All Solvent
	Solvent Utilization	Commercial	All Processes	Types
		Miscellaneous	Asphalt	
2461020000		Non-industrial:	Application: All	Total: All Solvent
	Solvent Utilization	Commercial	Processes	Types
		Miscellaneous		
2461021000		Non-industrial:		Total: All Solvent
	Solvent Utilization	Commercial	Cutback Asphalt	Types
		Miscellaneous		
2461022000		Non-industrial:		Total: All Solvent
	Solvent Utilization	Commercial	Emulsified Asphalt	Types
		Miscellaneous	·	.,
2461023000		Non-industrial:		Total: All Solvent
	Solvent Utilization	Commercial	Asphalt Roofing	Types
		Miscellaneous		.,
2461024000		Non-industrial:	Asphalt Pipe	Total: All Solvent
	Solvent Utilization	Commercial	Coating	Types
		Miscellaneous	Tank/Drum	,,
2461160000		Non-industrial:	Cleaning: All	Total: All Solvent
	Solvent Utilization	Commercial	Processes	Types
		Miscellaneous	Pesticide	71
2461800001		Non-industrial:	Application: All	
	Solvent Utilization	Commercial	Processes	Surface Application
		Miscellaneous	Pesticide	
2461800002		Non-industrial:	Application: All	
2.0100002	Solvent Utilization	Commercial	Processes	Soil Incorporation
_	Solvene Genization	Miscellaneous	Pesticide	3011 meorporation
2461850000		Non-industrial:	Application:	
2401030000	Solvent Utilization	Commercial	Agricultural	All Processes
	SOLVELLE GUILZUUUII	Petroleum and	7.611cartara	7.11.1.10003003
		Petroleum		
2501000150	Storage and	Product	All Storage Types:	
	Transport	Storage	Breathing Loss	Jet Naphtha
	'	Petroleum and	Residential	Jet Napiitiia
2501011011	Storage and			Dormostion
	Transport	Petroleum	Portable Gas Cans	Permeation

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Product		
		Storage		
		Petroleum and		
2501011012		Petroleum		
2301011012	Storage and	Product	Residential	Evaporation (includes
	Transport	Storage	Portable Gas Cans	Diurnal losses)
		Petroleum and		
2504044042		Petroleum		
2501011013	Storage and	Product	Residential	Spillage During
	Transport	Storage	Portable Gas Cans	Transport
	•	Petroleum and		•
		Petroleum		
2501011014	Storage and	Product	Residential	Refilling at the Pump
	Transport	Storage	Portable Gas Cans	- Vapor Displacement
		Petroleum and		Tapar = representation
		Petroleum		
2501011015	Storage and	Product	Residential	Refilling at the Pump
	Transport	Storage	Portable Gas Cans	- Spillage
	Transport	Petroleum and	1 Ortubic Gus Curis	эртавс
		Petroleum		
2501012011	Storage and	Product	Commercial	
	Transport	Storage	Portable Gas Cans	Permeation
	Transport	Petroleum and	Fortable das Caris	reinieation
		Petroleum		
2501012012	Ctorogo and	Product	Commercial	Evaporation (includes
	Storage and			Evaporation (includes
	Transport	Storage	Portable Gas Cans	Diurnal losses)
		Petroleum and		
2501012013	6.	Petroleum		6 '11 6 '
	Storage and	Product	Commercial	Spillage During
	Transport	Storage	Portable Gas Cans	Transport
		Petroleum and		
2501012014		Petroleum		D 6111
	Storage and	Product	Commercial	Refilling at the Pump
	Transport	Storage	Portable Gas Cans	- Vapor Displacement
		Petroleum and		
2501012015		Petroleum		
	Storage and	Product	Commercial	Refilling at the Pump
	Transport	Storage	Portable Gas Cans	- Spillage
		Petroleum and		
2501050120		Petroleum		
2301030120	Storage and	Product	Bulk Terminals: All	
	Transport	Storage	Evaporative Losses	Gasoline
2501055120	Storage and	Petroleum and	Bulk Plants: All	
2301033120	Transport	Petroleum	Evaporative Losses	Gasoline

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Product		
		Storage		
		Petroleum and		
2501060050		Petroleum		
2301000030	Storage and	Product	Gasoline Service	
	Transport	Storage	Stations	Stage 1: Total
		Petroleum and		
2501060051		Petroleum		
2501060051	Storage and	Product	Gasoline Service	Stage 1: Submerged
	Transport	Storage	Stations	Filling
	,	Petroleum and		
2504050050		Petroleum		
2501060052	Storage and	Product	Gasoline Service	
	Transport	Storage	Stations	Stage 1: Splash Filling
	'	Petroleum and		0 1
		Petroleum		
2501060053	Storage and	Product	Gasoline Service	Stage 1: Balanced
	Transport	Storage	Stations	Submerged Filling
		Petroleum and	00000000	
		Petroleum		Underground Tank:
2501060201	Storage and	Product	Gasoline Service	Breathing and
	Transport	Storage	Stations	Emptying
	Transport	Petroleum and	Stations	264,8
		Petroleum		
2501070053	Storage and	Product	Diesel Service	Stage 1: Balanced
	Transport	Storage	Stations	Submerged Filling
	Transport	Petroleum and	Stations	Jubiliergeu i lilling
		Petroleum		Underground Tank:
2501070201	Storage and	Product	Diesel Service	Breathing and
	Transport	Storage	Stations	Emptying
	Transport	Petroleum and	Stations	Emptying
2501080050	Ctorogo and	Petroleum Product	Airmorts , Aviation	
	Storage and		Airports : Aviation Gasoline	Ctogo 1, Total
	Transport	Storage	Gasonne	Stage 1: Total
		Petroleum and		
2501080100	Ct	Petroleum	A:	
	Storage and	Product	Airports : Aviation	Class 2 Table
	Transport	Storage	Gasoline	Stage 2: Total
		Petroleum and		11.1
2501080201	Character	Petroleum	A	Underground Tank:
	Storage and	Product	Airports : Aviation	Breathing and
	Transport	Storage	Gasoline	Emptying
2501995120	Storage and	Petroleum and	All Storage Types:	
	Transport	Petroleum	Working Loss	Gasoline

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Product		
		Storage		
		Petroleum and		
2501005100		Petroleum		
2501995180	Storage and	Product	All Storage Types:	
	Transport	Storage	Working Loss	Kerosene
	-	Petroleum and		
252522422		Petroleum		
2505000120	Storage and	Product		
	Transport	Transport	All Transport Types	Gasoline
	'	Petroleum and	, ,,	
		Petroleum		
2505010000	Storage and	Product		
	Transport	Transport	Rail Tank Car	Total: All Products
		Petroleum and	Train raint Gar	
		Petroleum		
2505020000	Storage and	Product		
	Transport	Transport	Marine Vessel	Total: All Products
	Transport	Petroleum and	Widthic Vesser	Total: 7111 Todacts
		Petroleum		
2505020030	Storage and	Product		
	Transport	Transport	Marine Vessel	Crude Oil
	Transport	Petroleum and	Iviailile vessei	Crude Oil
		Petroleum		
2505020060	Storage and	Product		
	Transport	Transport	Marine Vessel	Residual Oil
	Transport	Petroleum and	iviai iile vessei	Residual Oil
		Petroleum		
2505020090	Ctavasa and			
	Storage and	Product	Maning Manag	Distillata Oil
	Transport	Transport	Marine Vessel	Distillate Oil
		Petroleum and		
2505020120	Ci a con a cont	Petroleum		
	Storage and	Product		
	Transport	Transport	Marine Vessel	Gasoline
		Petroleum and		
2505020150		Petroleum		
	Storage and	Product		
	Transport	Transport	Marine Vessel	Jet Naphtha
		Petroleum and		
2505020180		Petroleum		
	Storage and	Product		
	Transport	Transport	Marine Vessel	Kerosene
2505020900	Storage and	Petroleum and		
2303020300	Transport	Petroleum	Marine Vessel	Tank Cleaning

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
		Product		
		Transport		
		Petroleum and		
2505020420		Petroleum		
2505030120	Storage and	Product		
	Transport	Transport	Truck	Gasoline
	•	Petroleum and		
		Petroleum		
2505040120	Storage and	Product		
	Transport	Transport	Pipeline	Gasoline
		Organic		
2510000000	Storage and	Chemical	All Storage Types:	
232333333	Transport	Storage	Breathing Loss	Total: All Products
		Inorganic	2.0008 2000	
2520010000	Storage and	Chemical	Commercial/Indust	
2320010000	Transport	Storage	rial: Breathing Loss	Total: All Products
	Waste Disposal,	Storage	Tidi. Diedetiing 2000	Total: 7111110ddct3
2601000000	Treatment, and	On-site		
2001000000	Recovery	Incineration	All Categories	Total
	Waste Disposal,	incineration	All Categories	Total
2601010000	Treatment, and	On-site		
2001010000	•	Incineration	Industrial	Total
	Recovery	incineration	industrial	TOLAI
2601020000	Waste Disposal, Treatment, and	On-site	Commercial/Institu	
2001020000	•		tional	Total
	Recovery	Incineration	LIONAI	Total
2610000100	Waste Disposal,			Vard Wasta Last
2610000100	Treatment, and	On an Desiration	All Catagorias	Yard Waste - Leaf
	Recovery	Open Burning	All Categories	Species Unspecified
2640000000	Waste Disposal,			Yard Waste - Weed
2610000300	Treatment, and		AU 0	Species Unspecified
	Recovery	Open Burning	All Categories	(incl Grass)
	Waste Disposal,			
2610000400	Treatment, and			Yard Waste - Brush
	Recovery	Open Burning	All Categories	Species Unspecified
				Land Clearing Debris
2610000500	Waste Disposal,			(use 28-10-005-000
	Treatment, and			for Logging Debris
	Recovery	Open Burning	All Categories	Burning)
	Waste Disposal,			Household Waste
2610030000	Treatment, and			(use 26-10-000-xxx
	Recovery	Open Burning	Residential	for Yard Wastes)
	Waste Disposal,			
2620010000	Treatment, and			
	Recovery	Landfills	Industrial	Total

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2620030000	Waste Disposal,			
	Treatment, and			
	Recovery	Landfills	Municipal	Total
2620030001				Dumping/Crushing/S
	Waste Disposal,			preading of New
	Treatment, and			Materials (working
	Recovery	Landfills	Municipal	face)
2630010000	Waste Disposal,			
	Treatment, and	Wastewater		
	Recovery	Treatment	Industrial	Total Processed
	Waste Disposal,			
2630020000	Treatment, and	Wastewater		
	Recovery	Treatment	Public Owned	Total Processed
	Waste Disposal,	Soil and		
2635000000	Treatment, and	Groundwater		
	Recovery	Remediation	All Categories	Total
	Waste Disposal,			
2640000000	Treatment, and			
	Recovery	TSDFs	All TSDF Types	Total: All Processes
	Waste Disposal,	Scrap and		
2650000000	Treatment, and	Waste	Scrap and Waste	
	Recovery	Materials	Materials	Total: All Processes
	Waste Disposal,	Scrap and		
2650000002	Treatment, and	Waste	Scrap and Waste	
	Recovery	Materials	Materials	Shredding
	Waste Disposal,	Leaking	Leaking	Ü
2660000000	Treatment, and	Underground	Underground	Total: All Storage
	Recovery	Storage Tanks	Storage Tanks	Types
	,	J	100% Biosolids	71
			(e.g., sewage	
2680001000	Waste Disposal,		sludge, manure,	
	Treatment, and		mixtures of these	
	Recovery	Composting	matls)	All Processes
		- comprosing	Mixed Waste (e.g.,	
	Waste Disposal,		a 50:50 mixture of	
2680002000	Treatment, and		biosolids and green	
	Recovery	Composting	wastes)	All Processes
		2011/20011/2	100% Green Waste	
2680003000	Waste Disposal,		(e.g., residential or	
	Treatment, and		municipal yard	
	Recovery	Composting	wastes)	All Processes
2801000000		Agriculture		
	Miscellaneous Area	Production -		
	Sources	Crops	Agriculture - Crops	Total
	3001003	C10P3	1 / Sileulture Crops	1000

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2801520000		Agriculture		
	Miscellaneous Area	Production -		
	Sources	Crops	Orchard Heaters	Total, all fuels
		Agriculture		
2801600000	Miscellaneous Area	Production -	Country Grain	
	Sources	Crops	Elevators	Total
2806010000		Domestic		
	Miscellaneous Area	Animals Waste		
	Sources	Emissions	Cats	Total
		Domestic		
2806015000	Miscellaneous Area	Animals Waste		
	Sources	Emissions	Dogs	Total
		Wild Animals		
2807020001	Miscellaneous Area	Waste		
	Sources	Emissions	Bears	Black Bears
		Wild Animals		
2807020002	Miscellaneous Area	Waste		
	Sources	Emissions	Bears	Grizzly Bears
		Wild Animals		
2807025000	Miscellaneous Area	Waste		
	Sources	Emissions	Elk	Total
		Wild Animals		
2807030000	Miscellaneous Area	Waste		
	Sources	Emissions	Deer	Total
		Wild Animals		
2807040000	Miscellaneous Area	Waste		
	Sources	Emissions	Birds	Total
	Miscellaneous Area	Other		
2810003000	Sources	Combustion	Cigarette Smoke	Total
			0	Unspecified Burn
			Managed Burning,	Method (use
2810005000	Miscellaneous Area	Other	Slash (Logging	2610000500 for non-
	Sources	Combustion	Debris)	logging debris)
			Managed Burning,	1088.18 111111
2810005001	Miscellaneous Area	Other	Slash (Logging	
2010003001	Sources	Combustion	Debris)	Pile Burning
		3211130000011	Human	
2810010000	Miscellaneous Area	Other	Perspiration and	
	Sources	Combustion	Respiration	Total
2810025000	234,000	2311124361011	Residential Grilling	. 5 tu
	Miscellaneous Area	Other	(see 23-02-002-xxx	
	Sources	Combustion	for Commercial)	Total
2810030000	Miscellaneous Area	Other		. 5 tu
	Sources	Combustion	Structure Fires	Unspecified
	Jources	Combastion	Januara Tiles	Onspecifica

SCC	Tier 1	Tier 2	Tier 3	Tier 4
	Description	Description	Description	Description
2810035000	Miscellaneous Area	Other	Firefighting	
	Sources	Combustion	Training	Total
2810040000			Aircraft/Rocket	
	Miscellaneous Area	Other	Engine Firing and	
	Sources	Combustion	Testing	Total
2010050000	Miscellaneous Area	Other		
2810050000	Sources	Combustion	Motor Vehicle Fires	Unspecified
2810060100	Miscellaneous Area	Other		
2810060100	Sources	Combustion	Cremation	Humans
2810060200	Miscellaneous Area	Other		
2810060200	Sources	Combustion	Cremation	Animals
2830000000		Catastrophic/A	All	
	Miscellaneous Area	ccidental	Catastrophic/Accid	
	Sources	Releases	ential Releases	Total
2840000000	Miscellaneous Area	Automotive	Automotive Repair	
	Sources	Repair Shops	Shops	Total
2840010000	Miscellaneous Area	Automotive	Auto Top and Body	
	Sources	Repair Shops	Repair	Total
2850000010	Miscellaneous Area			Sterilization
	Sources	Health Services	Hospitals	Operations
2851001000	Miscellaneous Area		Bench Scale	
	Sources	Laboratories	Reagents	Total
2862000000	Miscellaneous Area	Swimming	Total (Commercial,	
	Sources	Pools	Residential, Public)	Total