

Table 372. National Ambient Air Pollutant Concentrations by Type of Pollutant: 2003 to 2009

[Data represent annual composite averages of pollutant based on daily 24-hour averages of monitoring stations, except carbon monoxide which is based on the second-highest, nonoverlapping, 8-hour average; ozone, the fourth-highest maximum 8-hour value; and lead, the maximum quarterly average of ambient lead levels. Based on data from the Air Quality System. $\mu\text{g}/\text{m}^3$ = micrograms of pollutant per cubic meter of air; ppm = parts per million]

Pollutant	Unit	Monitoring stations, number	Air quality standard ¹	2003	2004	2005	2006	2007	2008	2009
				Carbon monoxide	ppm	300	² 9	2.7	2.5	2.3
Ozone	ppm	1,011	³ 0.075	0.080	0.074	0.079	0.077	0.077	0.073	0.069
Sulfur dioxide	ppm	384	⁴ 0.03	0.0043	0.0041	0.0041	0.0037	0.0035	0.0032	0.0027
Particulates (PM-10)	$\mu\text{g}/\text{m}^3$	722	⁵ 150	90.5	70.4	69.4	76.0	69.4	67.3	59.7
Fine particulates (PM2.5) annual average	$\mu\text{g}/\text{m}^3$	741	⁶ 15	12.3	11.9	12.8	11.6	11.9	10.9	9.9
Fine particulates (PM2.5) daily average	$\mu\text{g}/\text{m}^3$	741	⁷ 35	31.1	31.0	33.6	28.8	31.3	27.1	24.9
Nitrogen dioxide	ppm	311	⁸ 0.053	0.014	0.013	0.013	0.013	0.012	0.011	0.011
Lead	$\mu\text{g}/\text{m}^3$	109	⁹ 0.15	0.16	0.20	0.15	0.14	0.15	0.19	0.11

¹ Refers to the primary National Ambient Air Quality Standard. ² Based on 8-hour standard of 9 ppm. ³ Based on 8-hour standard of 0.075 ppm. On March 12, 2008, EPA revised the level of the primary and secondary 8-hour ozone standards to 0.075 ppm. ⁴ Based on annual standard of 0.03 ppm. ⁵ Based on 24-hour (daily) standard of 150 $\mu\text{g}/\text{m}^3$. The particulates (PM-10) standard replaced the previous standard for total suspended particulates in 1987. In 2006, EPA revoked the annual PM-10 standard. ⁶ Based on annual standard of 15 $\mu\text{g}/\text{m}^3$. The PM-2.5 national monitoring network was deployed in 1999. National trend data prior to that time is not available. ⁷ Based on daily standard of 35 $\mu\text{g}/\text{m}^3$. The PM-2.5 national monitoring network was deployed in 1999. National trend data prior to that time is not available. ⁸ Based on annual standard of 0.053 ppm. ⁹ Based on 3-month standard of 1.5 $\mu\text{g}/\text{m}^3$. On October 15, 2008, EPA revised the form of the primary and secondary lead standards and revised the level to 0.15 $\mu\text{g}/\text{m}^3$.

Source: U.S. Environmental Protection Agency, *Latest Findings on National Air Quality—Status and Trends through 2009*, <<http://www.epa.gov/air/airtrends/2010/index.html>>.

Table 373. Selected National Air Pollutant Emissions: 1970 to 2008

[In thousands of tons (4,320 represents 4,320,000), except as indicated. The methodology used to estimate emission data for 1970 thru 1984 and for 1985 thru the current year is different. Beginning with 1985, the methodology for more recent years is described in the document available at <<http://www.epa.gov/ttn/chief/net/2005inventory.html>>]

Year	Carbon monoxide		Nitrogen oxide		PM-10 ¹		PM-2.5 ²		Sulfur dioxide		V.O.C. ³
	Ammonia										
1970	(NA)	204,042	26,882	13,022	13,022	(NA)	(NA)	(NA)	31,218	34,659	
1980	(NA)	185,408	27,080	7,013	7,013	(NA)	(NA)	(NA)	25,926	31,107	
1990	4,320	154,188	25,527	27,753	27,753	7,560	7,560	23,077	24,108	24,108	
2000	4,907	114,465	22,599	23,748	22,962	7,287	6,503	16,348	17,511	17,511	
2004	4,138	99,041	19,793	21,211	18,321	5,497	3,044	14,820	19,789	19,789	
2005	4,143	93,034	19,122	21,153	18,266	5,457	3,013	14,844	18,422	18,422	
2006	4,135	87,915	18,110	19,037	16,150	5,269	2,862	13,656	17,590	17,590	
2007	4,131	82,801	17,321	16,921	14,034	5,080	2,639	13,006	16,759	16,759	
2008	4,043	77,685	16,339	14,805	11,918	4,892	2,449	11,429	15,927	15,927	

NA Not available. ¹ PM=Particulate Matter; PM-10 is equal to or less than ten microns in diameter; PM-2.5 to or less than 2.5 microns effective diameter. ² Without condensibles. ³ Volatile organic compound.

Source: U.S. Environmental Protection Agency, *National Emissions Inventory (NEI) Air Pollutant Emissions Trends Data, 1970–2008 Average annual emissions, all criteria pollutants*, <<http://www.epa.gov/ttn/chief/trends/index.html#tables>>.

Table 374. Selected Air Pollutant Emissions by Pollutant and Source: 2008

[In thousands of tons, except as indicated (4,043 represents 4,043,000). See headnote, Table 373]

Source	Carbon monoxide		Nitrogen oxide		PM-10 ¹		PM-2.5 ¹		Sulfur dioxide		V.O.C. ²
	Ammonia										
Total emissions	4,043	77,685	16,339	14,805	11,918	4,892	2,449	11,429	15,927	15,927	
Fuel combustion, stationary sources	68	5,283	5,597	1,330	1,006	9,872	1,450				
Electric utilities	34	699	3,007	534	410	7,552	50				
Industrial	16	1,216	1,838	330	175	1,670	130				
Other fuel combustion	18	3,369	727	466	421	578	1,269				
Industrial processes	206	3,767	1,047	1,461	751	1,025	7,142				
Chemical and allied product manufacturing	22	265	67	39	29	255	228				
Metals processing	3	947	68	76	52	203	46				
Petroleum and related industries	3	355	350	24	17	206	561				
Other	151	500	418	967	355	329	404				
Solvent utilization	–	2	6	8	7	–	4,226				
Storage and transport	1	115	18	57	22	4	1,303				
Waste disposal and recycling	26	1,584	120	288	267	27	374				
Highway vehicles	308	38,866	5,206	171	110	64	3,418				
Off highway ³	3	18,036	4,255	304	283	456	2,586				
Miscellaneous ⁴	3,457	11,731	260	11,540	2,742	85	1,332				

– Rounds to zero. ¹ See footnote 1, Table 373. ² Volatile organic compound. ³ Includes emissions from farm tractors and other farm machinery, construction equipment, industrial machinery, recreational marine vessels, and small general utility engines such as lawn mowers. ⁴ Includes emissions such as from forest fires and other kinds of burning, various agricultural activities, fugitive dust from paved and unpaved roads, and other construction and mining activities, and natural sources.

Source: U.S. Environmental Protection Agency, *National Emissions Inventory (NEI) Air Pollutant Emissions Trends Data, 1970–2008 Average annual emissions, all criteria pollutants*, <<http://www.epa.gov/ttn/chief/trends/index.html#tables>>.