2009 State Summary Data for Clean Air Act Air Emission Sources

June 2010

Office of Compliance
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (MC: 2224-A)
Washington, DC 20460

http://www.epa.gov/compliance/data/results/performance/caa.html

US Environmental Protection Agency
2009 State Summary Data for
Clean Air Act Air Emission Sources

FISCAL YEAR 2009 FINAL REPORT (June 17, 2010)

Overview

This report provides summary data on the number of sources of air pollutants. This report covers October 1, 2008, to September 30, 2009, which is the 2009 federal fiscal year. The data from this report are from EPA's Air Facility System (AFS), Title V Operating Permits System (TOPS) database, Acid Rain Program, National Emissions Inventory (NEI) and Toxics Release Inventory (TRI). The data from AFS was pulled in March 2010. NEI is updated every three years and TRI is updated annually. The data reflects the best data available to EPA. The table provides a broad overview of the number and types of sources of air emissions.

Definitions for Report Columns

State

Two character state abbreviation. The totals include data provided by both delegated state and local agencies.

Active Facilities Universe

This report covers the universe of federally-reportable[1] active facilities and other sources that the State/local agency may report to AFS voluntarily for the period October 1, 2008, to September 30, 2009. Active facilities are those characterized in AFS as operating, temporarily closed or seasonally operating. The source totals included on this report are based on both the source classification and the Title V Air Program Code in AFS. The Air Program Code identifies those sources that have a Title V permit or are required to obtain a Title V permit. The values in this table may differ from values found on other reports because of the additional Air Program Code selection criteria.

- Title V major sources meet the definition of a major source under the 1990 Clear Air Act Amendments, which state that a major source has actual or potential emissions above 100 tons per year for any air pollutant other than greenhouse gases.

- Synthetic minor sources would be major but have enforceable permit limits to restrict their emissions below major source thresholds.

- Minor sources, also known as area sources, are facilities that physically cannot emit at or above major source thresholds.

[1] For the definition of "federally-reportable" see the 2009 AFS Information Collection Request Support Statement http://cfpub.epa.gov/compliance/resources/publications/data/air/policies/

- The sources with unknown classification are likely those that the states report voluntarily, but are counted toward the minor source total.

This report covers about 160,000 sources, including facilities that are not part of the federally reportable universe.

Active CAA MACT[2] Regulated Facilities

The Clean Air Act requires EPA to regulate emissions of toxic air pollutants from a published list of industrial sources referred to as "source categories." As required under the CAA, EPA has developed a list of source categories that must meet control technology requirements for these toxic air pollutants. The control technology requirements are referred to as National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories or Maximum Achievable Control Technology (MACT) standards.

There are two types of stationary sources that generate routine emissions of air toxics that are regulated by one or more MACT standards:

1. Major MACT sources are defined as sources that emit 10 tons per year of any of the listed toxic air pollutants, or 25 tons per year of a combination of air toxics. These sources may release air toxics from equipment leaks, when materials are transferred from one location to another, or during discharge through emission stacks or vents.

2. Area sources consist of smaller-size facilities that release lesser quantities of toxic pollutants into the air. Area sources are defined as sources that emit less than 10 tons per year of a single air toxic, or less than 25 tons per year of a combination of air toxics. Though emissions from individual area sources are often relatively small, collectively their emissions can be of concern - particularly where large numbers of sources are located in heavily populated areas.

Facilities regulated by a MACT standard are identified in AFS by an “Air Program Code” of “M.” Every facility in AFS must have at least one air program code and one pollutant. The numbers provided in the table were pulled from AFS using the air program code.

Facilities Reporting Toxic Releases to the Air (TRI 2008)

The Emergency Planning and Community Right-to-Know Act (EPCRA)[3] was enacted in 1986. Its primary purpose is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report the locations and quantities of chemicals stored on-site to state and local governments in order to help communities prepare to respond to chemical spills and similar emergencies. Facilities must report release and other waste management information to EPA and the appropriate state or tribal agencies if they: (1) have 10 or more full-time employees or the equivalent; (2) are in a covered NAICS code; and (3)

[2] http://www.epa.gov/oecaerth/monitoring/programs/caa/neshaps.html
[3] http://www.epa.gov/oecaagct/lcra.html

exceed any one threshold for manufacturing (including importing), processing, or otherwise using a toxic chemical listed in 40 CFR § 372.65. Each facility submits a TRI reporting form for each TRI chemical it has manufactured, processed, or otherwise used in amounts exceeding the thresholds.

Section 313 requires EPA and the States to annually collect data on releases and transfers of certain toxic chemicals from industrial facilities, and make the data available to the public in the Toxics Release Inventory (TRI)[4]. EPA compiles the data reported each year.

CAA Title V Permitted or FESOP (Major and Minor)

Operating permits are required by title V of the CAA, with regulations promulgated at 40 CFR part 70[5] for state, local, and tribal permitting authorities and at 40 CFR part 71[5] for cases where EPA has jurisdiction (a small number of permits). Operating permits are legally enforceable documents that include all air quality control requirements promulgated under federal rules and state implementation plans (SIP)[6] that apply to the permitted source. Such requirements may include emission standards, emission limits, and control technology requirements, and monitoring, test methods, record keeping, and reporting designed to ensure compliance with the requirements. Also, the operating permits independently impose certain compliance requirements, including for periodic monitoring, monitoring adequate to assure compliance, deviation reports, semiannual monitoring reports, and for an annual compliance certification. For additional information on operating permits, please see http://www.epa.gov/air/oaqps/permits/index.html.

This data represents all major sources and certain non-major sources in the following categories: (1) sources that have been issued a permit, and (2) sources that have submitted a permit application that is being processed by the state. Any source that is a major source under the Clean Air Act must obtain an operating permit. The majority of operating permits issued are for major sources, but a small percentage of permits are for certain non-major sources, including, but not limited to, those subject to CAA §§ 112 (NESHAP)[7] and 129 (solid waste incineration) requirements[8], and any that are an "affected source" subject to acid rain requirements[9].

Counts of the administrative status of sources subject to title V permitting are tracked in EPA's TOPS database, which is not publically available. EPA maintains a separate publicly-available database, ECHO, which contains source-specific information on title V sources.

For a more detailed explanation of the sources subject to permitting please see http://www.epa.gov/air/oaqps/permits/obtain.html

Acid Rain Affected Sources

---

[4] http://www.epa.gov/tri/
[5] http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=8d0cc1ec2e618d6494fc20d514994e52&tpl=/ecfrbrowse/Title40/40cfr70_main_02.tpl
[6] http://www.epa.gov/oar/caa/title1.html
[7] http://www.epa.gov/oecaerth/monitoring/programs/caa/neshaps.html
[8] http://www.law.cornell.edu/uscode/html/uscode42/usc_sec_42_00007429----000-.html
[9] http://www.epa.gov/airmarkets/progsregs/arp/index.html

Title IV of the CAA set a goal of reducing annual sulfur dioxide (SO_2) emissions by 10 million tons and nitrogen oxides (NO_x) emissions of approximately 2 million tons below 1980 levels. Both SO_2 and NO_x are primary contributors to acid rain. In general, electric utility units at power plants that burn fossil fuel, and both produce and sell electricity are subject to the Acid Rain Program requirements.

The Acid Rain program affects electric utility units greater than 25 megawatts that were in operation as of November 15, 1990, and all units regardless of size that began operating after November 15, 1990. In addition, some industrial boiler units have chosen to opt in to the Acid Rain program. The numbers provided in the table are facilities with at least one affected unit. Not all active sources are subject to the Acid Rain program.

EPA tracks the universe of sources affected by the Acid Rain program through emissions monitoring and reporting requirements.

Facilities Reporting to the National Emissions Inventory (NEI 2005)

The National Emissions Inventory (NEI) is EPA's compilation of estimates of air pollutants discharged on an annual basis and their sources. The compilation includes emissions estimates submitted by State, local and tribal air pollution control agencies, estimates calculated by EPA, and emissions obtained from other sources.

From the NEI, EPA creates a publicly available emissions inventory that contains a single emission value for each pollutant at a given source. EPA uses the NEI to track emissions trends over time, develop regional pollutant reduction strategies, set and analyze regulations, perform air toxics risk assessments including inhalation risks and multi-pathway exposure, model air pollutant dispersion and deposition, and measure environmental performance as required by the Government Performance and Results Act[10].

Since 1996, EPA has compiled the NEI every three years. The most recent inventory is the 2005 NEI, which was published in 2008. The 2008 inventory will be available in December 2010. The 2005 inventory includes emission estimates for criteria air pollutants and hazardous air pollutants. The 2008 inventory will include greenhouse gases.

NEI includes a Facility Inventory of stationary sources, and voluntarily-reported smaller sources, which serves as the basis for all point emissions. It contains information about facility sites and their location and operation, emissions units, emissions processes, release points, controls, and applicable regulations. State, local and tribal agencies are responsible for updating their facility inventory prior to submitting emissions data.

[10] http://www.whitehouse.gov/omb/mgmt-gpra_gplaw2m/

FY 2009 CAA Air Emission Sources - Regulated Facility Universe and Reporting Universe

State	Active[1] Facilities Universe			Active[1] CAA MACT Regulated Facilities			Facilities Reporting Toxic Releases to the Air[4]	CAA Title V Permitted[5] or FESOP	Acid Rain Affected Sources[6]	Facilities Reporting to the National Emissions Inventory (NEI)[7]	
	Title V Major	Synthetic Minor[2]	Minor[3]	Major	Synthetic Minor[2]	Minor[3]	All	Major and Minor	All "Affected"	CAA Criteria Pollutants	Hazardous Air Toxics
AK	141	155	112	9	11	9	16	156	0	582	569
AL	355	350	821	202	28	107	289	354	23	675	1,012
AR	207	532	398	108	93	24	185	214	20	375	567
AZ	130	119	143	38	8	12	71	129	24	342	612
CA	1,051	304	757	162	9	112	310	1,048	97	18,940	19,551
CO	265	923	14,721	103	66	582	118	223	25	4,047	7,674
CT	82	252	2,308	43	33	114	146	85	13	153	325
DC	35	0	497	1	0	235	1	35	1	13	7
DE	61	84	137	18	2	80	38	61	8	132	145
FL	404	550	3,528	169	15	52	279	435	62	1,379	1,406
GA	392	1,286	2,008	179	22	35	372	413	33	433	1,011
GU	1	3	11	1	2	4	5	0	n/a	n/a	n/a
HI	132	7	23	3	0	5	22	153	0	53	87
IA	245	1,579	2,655	164	187	37	264	252	25	426	622
ID	55	200	570	18	13	20	43	58	4	90	199
IL	485	576	6,886	110	29	225	675	573	54	6,683	4,905
IN	634	595	183	341	33	9	448	650	36	1,298	1,742
KS	293	774	3,184	130	22	116	162	295	23	4,186	766
KY	267	313	1,985	117	14	198	259	295	25	2,091	1,371
LA	480	87	7,875	220	9	512	240	513	32	993	1,102
MA	142	899	3,447	46	38	105	222	146	20	2,318	1,270
MD	129	202	10,881	47	17	532	86	130	13	246	323
ME	65	177	654	37	13	142	51	63	7	263	317
MI	442	972	1,901	185	173	85	391	385	35	2,386	3,383
MN	298	342	1,408	69	18	26	205	295	27	2,615	2,132
MO	294	312	4,027	139	25	289	280	278	30	1,525	1,385
MP	0	2	5	1	1	2	0	0	n/a	n/a	n/a
MS	284	271	353	143	19	30	154	297	23	710	715
MT	72	151	1,538	26	1	10	32	68	5	458	170
NC	322	759	2,056	198	67	147	416	343	24	1,761	1,940
ND	65	99	167	19	1	11	29	61	7	85	171
NE	105	166	3,335	45	17	99	105	123	14	657	480
NH	44	93	781	7	1	20	49	47	5	78	195
NJ	308	1,049	3,226	96	31	623	216	303	22	806	684
NM	159	466	3,160	27	9	121	28	158	16	503	381
NV	54	43	32	9	1	12	29	60	16	516	176
NY	439	2,396	6,613	196	197	2,685	282	473	65	690	1,768
OH	649	857	4,288	432	73	400	701	597	41	922	1,911
OK	314	1,118	1,579	160	472	393	156	319	22	470	781
OR	135	35	157	64	2	2	103	140	7	245	841
PA	633	717	5,835	287	109	1,536	561	881	47	1,562	2,179
PR	47	14	534	22	5	193	54	54	0	33	126
RI	40	79	373	18	9	41	39	40	6	404	445
SC	274	425	1,320	122	31	41	322	306	20	690	905
SD	82	60	58	15	8	4	30	267	5	95	147
TN	298	660	1,381	176	60	236	322	307	10	954	1,162
TX	1,404	211	3,198	178	6	916	534	1,493	122	2,488	3,310
UT	91	215	1,041	51	9	49	78	92	11	357	397
VA	255	1,539	4,746	153	65	832	241	300	27	951	1,097
VI	10	4	94	4	0	7	4	8	0	4	8
VT	18	71	149	2	3	15	12	20	1	50	186
WA	122	194	285	44	19	17	113	121	10	222	522
WI	470	1,114	1,345	116	30	42	403	467	33	1,950	1,997
WV	177	34	847	60	1	91	93	179	17	260	413
WY	139	31	1,154	49	1	4	21	142	9	218	256
National	**14,095**	**24,466**	**120,770**	**5,379**	**2,128**	**12,246**	**10,305**	**14,905**	**1,222**	**70,383**	**75,846**

Notes:

Totals for facilities with compliance evaluations and actions/events may not be additive because EPA and states can take an activity against the same facility.

Generally, EPA counts will include activities conducted at facilities on Tribal lands.

The data used in this report for the Active Facilities Universe and MACT Regulated Facilities reflects a static data set that was pulled in March 2010. The information may differ from the live or production data pulled from ECHO or other sources that have been updated since March 2010. The static data set is used by the State Review Framework (SRF). SRF is used to consistently assess EPA and state/local enforcement of the Clean Air Act and its regulations. SRF reports allow EPA to identify recommendations for improvement to ensure fair and consistent enforcement and compliance programs across the states.

Footnotes:

1. Active in this report indicates a facility is either operating, temporarily closed or seasonally operated during the fiscal year.
2. Synthetic minor sources would be major but have enforceable permit limits to restrict their emissions below major source thresholds. Synthetic minor sources are required to be reported by delegated agencies.
3. Minor sources, also known as area sources, are facilities that physically cannot emit at or above major source thresholds. Only federally-reportable minor sources are required to be reported by delegated agencies. These include mino sources that are part of a CMS plan, minor sources with an active High Priority Violation (HPV), minor sources subject to a National Emission Standard for Hazardous Air Pollutants (40 C.F.R. § 61 only) and minor sources subject to a formal enforcement action. Some exceptions do apply. The total also includes sources with unknown classification.
4. For more information on the Toxic Release Inventory visit http://www.epa.gov/tri/tridata/
5. For more information on facilities required to obtain CAA Title V permits visit http://www.epa.gov/air/oaqps/permits/obtain.html
6. For more information on sources subject to the Acid Rain Program visit http://www.epa.gov/airmarkets/progsregs/arp/index.html
7. Many facilities emit both Criteria Pollutants and Hazardous Air Pollutants , therefore, are included in both columns. These counts include any NEI facility with non-zero emissions reported by states for at least one pollutant. See NEI web site for more information (http://www.epa.gov/ttn/chief/eiinformation.html)