

HISTORY of Air Pollution Control in Philadelphia

1904 Philadelphia passed an ordinance to regulate emission of smoke from chimneys, stacks, flues or open spaces, providing a color scale for the measurement of the degree of darkness of such smoke, making it unlawful to permit the escape of smoke of a certain degree of darkness and providing a penalty for the violation of the ordinance. It was enforced by the Bureau of Boiler Inspectors.

1948 A City Council ordinance established The Division Of Air Pollution Control and The Air Pollution Control Board in the Bureau Of Health in the Department Of Public Health, defining their power and duties, providing for administration and enforcement and fixing penalties. The Agency was created in 1949.

1954 A City Council ordinance prohibited open burning and limited smoke emissions.

1954 Environmental Health Services was created. Air Pollution Control became a Section of Environmental Health Services.

1955 Congress passed the Air Pollution Control Act.

From 1956 to 1963 sulfur dioxide levels in the City of Philadelphia fell almost in half, and particulate levels declined by 25%.

1958 Inspectors began routine inspections for area surveillance, permit and license checks, hazardous gas and vapor emissions and in response to reports and concerns from the public.

1964 Air Management Services' new laboratory was dedicated, providing a new modern facility for operation of its air monitoring and sampling activities.



Miss Clean Air 1965
17th Annual National Clean Air Week
Walter E. Jackson, Chief
Air Pollution Control Section
Philadelphia Department of Public Health

1968 The Pennsylvania Air Pollution Control Commission became dissatisfied with some of Philadelphia's air pollution control program activities and decertified

1969 Philadelphia, with much publicity and involvement of City Council and the public, passed the Air Management Code. The City established Air Management Services as a division of the Department of Public Health with its head, an Assistant Health Commissioner, reporting directly to the Health Commissioner. The code now defined that air pollution emissions in excess of standards promulgated by the Air Pollution Control Board constituted a nuisance per se. It authorized the Board to

establish air quality objectives and to achieve these goals through the enforcement of regulations. Philadelphia's air pollution control program was back in business.

From 1969 to 1971 931 incinerators closed down or were sealed during implementation of the new regulations. Peco (Philadelphia Electric Company) reduced sulfur emissions by 61% and particulate emissions by 86%.

1967 The U.S. Clean Air Act Amendment converted criteria pollutant levels into requirements.

1970 Air Management Services established a city-wide network of air monitoring stations, and began a comprehensive program to reduce particulates, sulfur dioxide, and hydrocarbon emissions. Detailed engineering surveys were made of companies throughout the city, compliance schedules were negotiated, air pollution inspectors patrolled the city looking for violations and responding to complaints and recalcitrant polluters were taken to court.



1975 Dedication of Franklin Institute Air Monitoring Station. The exhibit remains, and was updated in 2000.

1970 Congress passed the Clean Air Act Amendments.

1971 The first annual Earth Day was celebrated.

1971 Philadelphia's Asbestos Control Regulations were written.



1975 Assistant Health Commissioner William Reilly showing Philadelphia's improving air quality

1975 Philadelphia took responsibility for the implementation of the US EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) for asbestos.

1976 Noise and Vibration control were added to the Air Pollution Control Program.

1978 The sulfur content of heating oil was limited to .2% in Philadelphia.

1980 The Philadelphia Board of Health adopted Noise Regulations.

1981 Philadelphia banned coal burning for heating and cooking.

1981 Philadelphia adopted Air Quality Guidelines for 99 toxic air pollutants.

1987 the Asbestos Control Program was added to Air Management Services.

1989 Asbestos Control Regulations were adopted by the Board of Health.

1990 Clean Air Act Amendments of 1990 were passed, providing a major overhaul of the Federal air quality regulations, including creation of the Title V section requiring unified permitting of air pollution from major facilities.

1991 The Commonwealth of PA implemented requirements to certify individuals in asbestos occupations and state notification prior to the start of asbestos projects.

1996 Autobody refinishing regulations were adopted.



City Hall, Then & Now

Using today's standards, in 1962 (left), over half of all days would have been considered to have unhealthful air quality. In 2000 (right) there was only one unhealthful air quality day.



ESTIMATED EMISSIONS AND PERCENTAGE REDUCTION FROM ALL SOURCES

(excludes natural sources) *

Pollutant	1966	1996	Percent Reduction
Sulfur Dioxide	262,000 tons	16,000 tons	94%
Particulate	80,000 tons	5,900 tons	93%
Nitrogen Oxides	96,000 tons	42,000 tons	56%
Carbon Monoxide	550,000 tons	215,000 tons	61%
Volatile Organic Compounds	127,000 tons	55,600 tons	56%

1997 - Stricter National Ambient Air Quality Standards go into effect, including ozone and fine particulate.

2003 - The Philadelphia Diesel Difference is launched as a public-private partnership aimed at reducing diesel pollution in the greater Philadelphia area, coordinated by Air Management Services and the Clean Air Council including the US EPA, Pennsylvania DEP, the Delaware Valley Regional Planning Commission, and other nonprofit, private and academic partners.

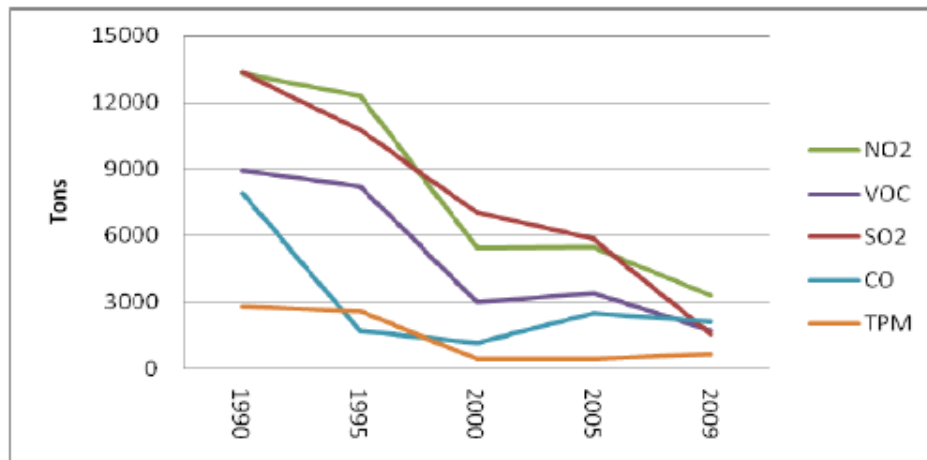
2006 - An Air Quality Improvement Fund is set up from the fines and penalties collected by Air Management Services and used for projects, that directly or indirectly have an impact on air quality improvement.

2009 - Emergency Generator and Fire Pump Regulations were adopted.

2010 - Marine Vessel Coating Operations and Synthetic Organic Manufacturing Industries, Air Oxidation, Distillation and Reactor Processes Regulations were adopted.

2010 – Dry Cleaning Facilities Regulations were adopted.

EMISSIONS REDUCTIONS FOR PHILADELPHIA FROM THE 1990 CLEAN AIR ACT AMENDMENTS



NO₂, or Nitrogen Dioxide, and VOCs, or Volatile Organic Compounds, are substances that react in the presence of heat and sunlight to form Ozone. SO₂, or Sulfur Dioxide, causes acid rain. CO, or Carbon Monoxide, forms when carbon in fuels is not burned completely. TPM, or Total Particulate Matter, is a mixture of solid particles and liquid droplets and come in sizes of less than 10 and 2.5 microns.

Air Pollution Control Leaders:

Ray Smith, Walt Jackson, Arthur Wallach, Ed Wilson (1969 - 1972), William Reilly (1972 - 1991), Robert Ostrowski (1991 - 1998), Morris Fine (1998 - 2007), Thomas Huynh (2007 - Present).