History of the Clean Air Act

A brief overview of the Act

MARAMA SIP 101 Training

May 2023

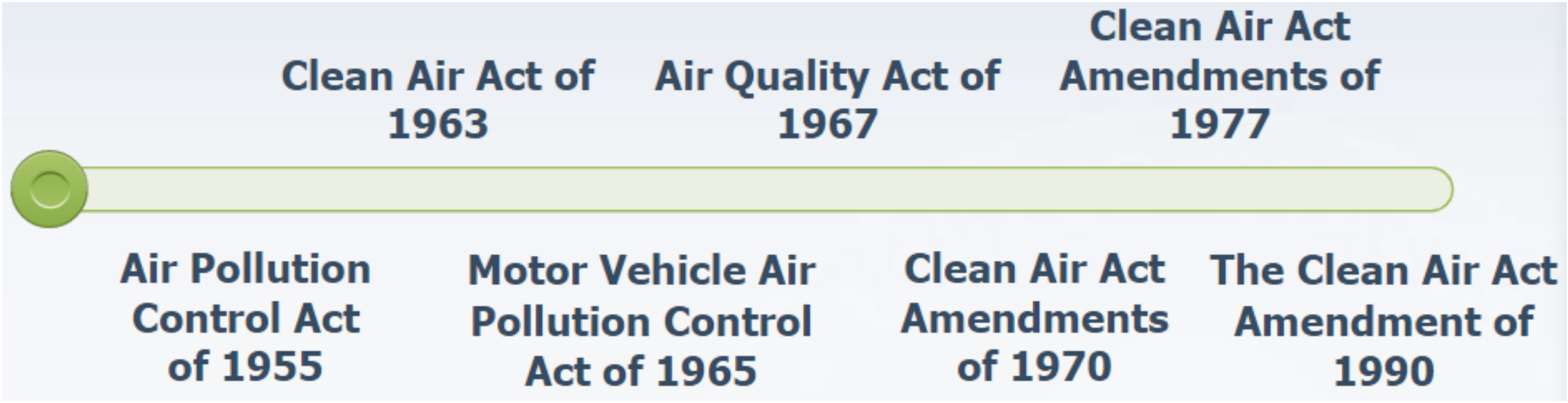
Valerie Gray

Program Administrator

DNREC

Background – Clean Air Act

- The **Clean Air Act** (42 U.S.C. § 7401) is a United States federal law designed to control air pollution on a national level.
- One of the United States' first and most influential modern environmental laws
- One of the most comprehensive air quality laws in the world.
- Administered by the **U.S. Environmental Protection Agency (EPA)**, in coordination with state, local, and tribal governments.
- Implementing regulations are codified at 40 C.F.R. Sub-chapter C, Parts 50-97.

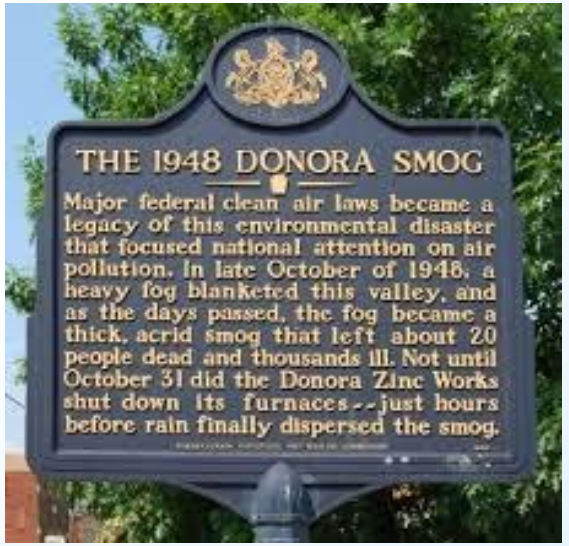

Air Pollution Control Act of 1955
Clean Air Act of 1963
Motor Vehicle Air Pollution Control Act of 1965
Air Quality Act of 1967
Clean Air Act Amendments of 1970
Clean Air Act Amendments of 1977
The Clean Air Act Amendment of 1990

Los Angeles 1943

- Los Angeles has had air pollution problems since before smog was a term.
- In 1943, people began to notice the smog when it covered Los Angeles so thickly that residents thought Japan had launched a chemical attack. The city continued to have smog problems for decades.

Donora, PA 1948

- In October 1948, Donora, Pa., was enveloped in a lethal haze.
- Over five days, nearly half of the town's 14,000 residents experienced severe respiratory or cardiovascular problems.



Police
See ELECTION—Page 4
Death of 15 Laid to Smog
At Least 50 Ill in Pittsburgh Area
DONORA, Pa., Oct. 30.—(AP)—

London 1952

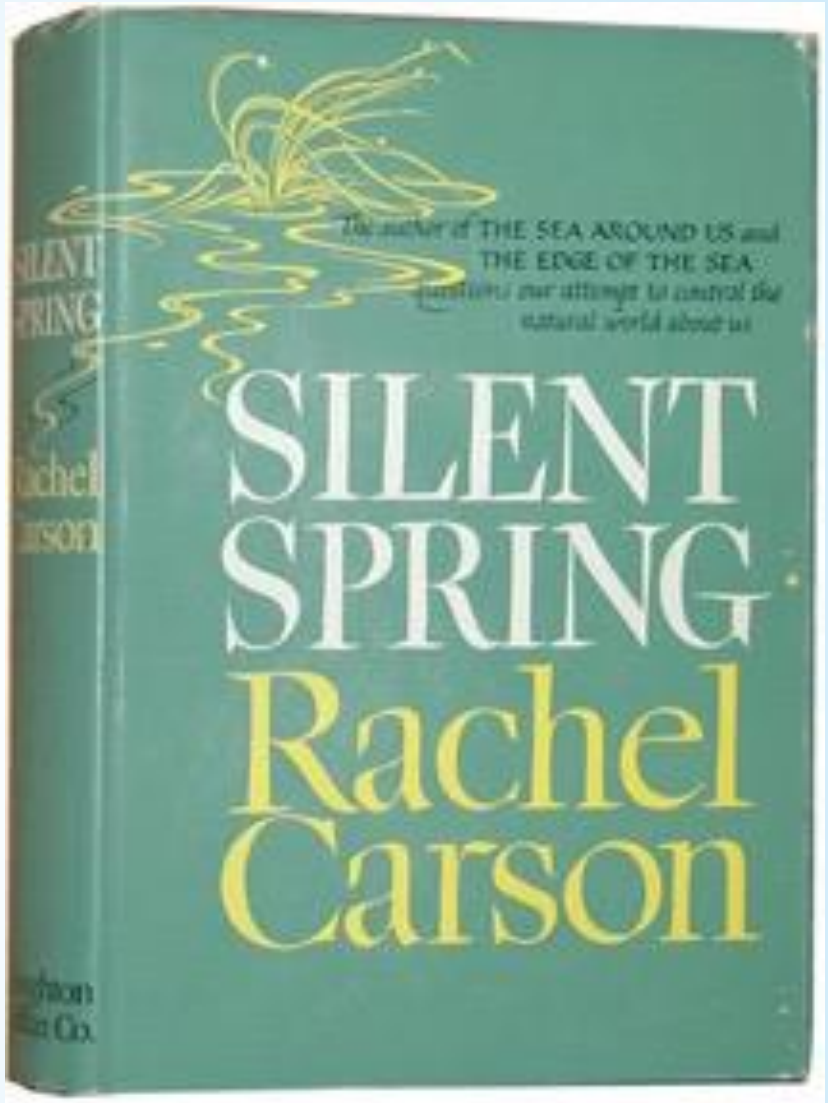
- Just 4 years later, in December 1952, a deadly smog settled over London.
- Trapped by warmer air above, the dirty cloud enveloped the city for four days.
- Rich with soot from factories and low-quality home-burned coal, the Great Smog, as it came to be known, caused some 12,000 deaths that winter.

1955 Air Pollution Control Act

- The 1955 Air Pollution Control Act was the first U.S. federal legislation that pertained to air pollution.
- The legislation enacted authorized the Public Health Service in the Department of Health, Education and Welfare (DHEW), to conduct air pollution research and training programs and provide technical assistance to state and local governments.
- Amendments to this law in 1960 and 1962 called for special studies relating to health effects associated with mobile vehicle-related pollutants.

1963 Clean Air Act

- In response to the deteriorating quality of air in the postwar U.S., Congress passed the CAA of 1963.
  - Broadened the federal role in abating air pollution.
- Established a federal program within the U.S. Public Health Service and authorized research into techniques for monitoring and controlling air pollution.
- Although the federal role was considerably expanded, state and local governments were primarily responsible for air pollution control.



1965 Motor Vehicle Air Pollution Control ACT

- The Clean Air Act was first amended in 1965
- Motor Vehicle Air Pollution Control Act
  - Authorized the federal government to set required standards for controlling the emission of pollutants from certain automobiles, beginning with the 1968 models.
- The 1965 amendments also established the National Air Pollution Control Administration (NAPCA)
  - Provided regulatory leadership in the nation's efforts to control air pollution.

1967 Air Quality Act

- Second amendment, the Air Quality Act of 1967
  - Investigate enforcement of interstate air pollution transport regulations
  - Perform far-reaching ambient monitoring studies
  - Perform stationary source inspections.
- Required National Air Pollution Control Administration(NAPCA) to designate Air Quality Control Regions (AQCR)
- Required individual states were to develop air quality standards and plan for their implementation.
- Air Quality criteria for SOx, PM were issued in 1969. (HCs, CO and oxidants (aka ozone) – 1970 and NOx – 1971).
- States were directed to submit State Implementation Plans NLT 1970.

1970 – Environmental Protection Agency

- EPA was established on December 2, 1970 for the purpose of consolidating pertinent federal research, monitoring, standard-setting and enforcement activities into one agency that ensures environmental protection.

Specific provisions of the 1970 CAA amendments included

The goal of the 1970 CAA amendments was to achieve clean air for all regions of the country by July 1, 1975!

1. Setting uniform national ambient air quality standards (NAAQS)
2. Immediately designating Air Quality Control Regions
3. Requiring state implementation plans to achieve NAAQS
4. Setting stringent new automobile exhaust emission standards and standards for fuel additives
5. Setting emission standards for new or significantly modified sources (NSPS) and HAPs
6. Allowing the right of citizen suits
7. Providing for federal enforcement authority in air pollution emergencies and interstate and intrastate air pollution violations.

1971
National Ambient Air Quality Standards

- Primary (health based) and Secondary (public welfare) Standards
  1. Carbon Monoxide
  2. Nitrogen Dioxide
  3. Sulfur Dioxide
  4. Non-methane hydrocarbons; Photo-chemical oxidant later changed to Ozone (1978)
  5. Particulate Matter – Total Suspended Particulate change to PM10 (1987) and PM2.5 (1997)
  6. Lead (1978)

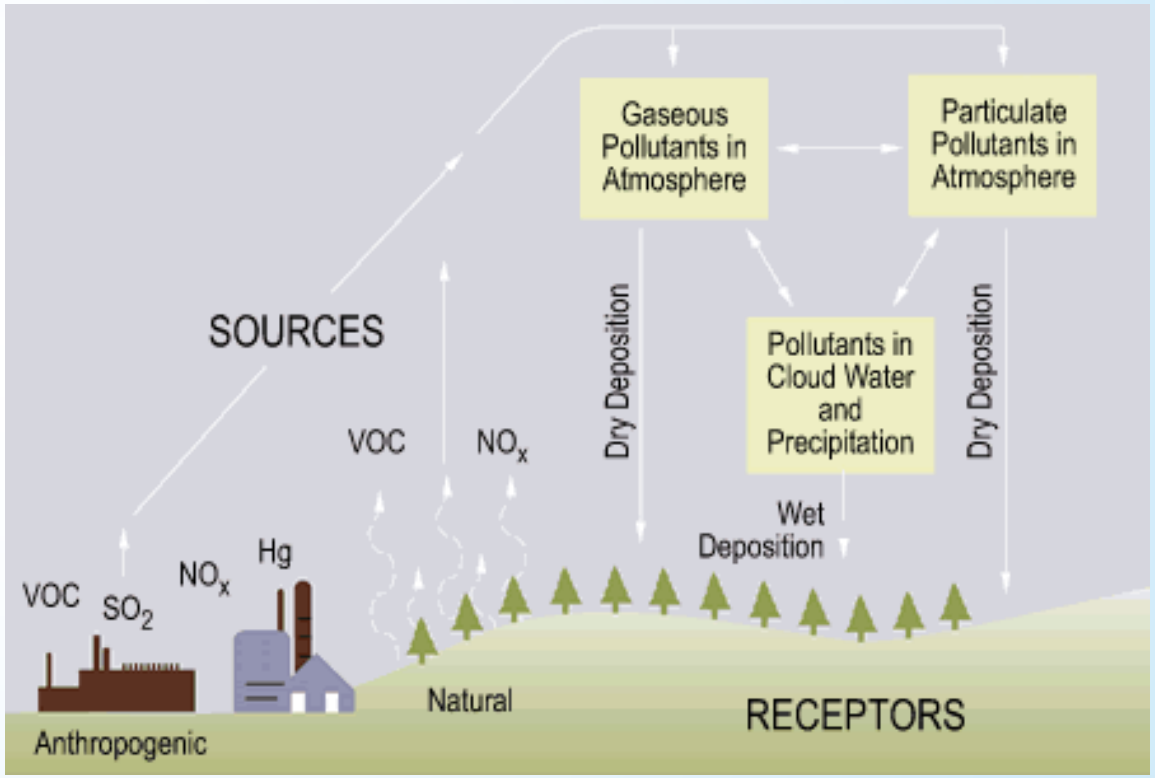
1977 Clean Air Act Amendments

- Recognizing that air quality goals set in 1970 could not be met without major economic disruptions, Congress amended the CAA in 1977.
- These amendments would be best described as a "mid-course correction."
- Specifically, they
  1. Postponed compliance deadlines for national primary (health-based) air quality standards
  2. Postponed, and modified federal automobile standards
  3. Included prevention of significant deterioration (PSD)
  4. Gave the EPA authority to regulate stratospheric ozone destroying chemicals.

1990 Clean Air Act Amendments

- Address the problems of:
  - acid rain,
  - ozone depletion,
  - toxic air pollution

- Reviewing his tenure as EPA Administrator under President George H. W. Bush, William K. Reilly characterized passage of the 1990 amendments to the Clean Air Act as his most notable accomplishment.



Clean Air Act Titles

- Title I – National Ambient Air Quality Standards
- Title II – Mobile Sources
- Title III – Hazardous Air Pollution
- Title IV – Acid Deposition Control
- Title V - Permits
- Title VI – Stratospheric Ozone Protection
- Title VII – Provisions regarding Enforcement
- Title VIII – Miscellaneous Provisions
- Title IX – Clean Air Research

Air Quality Strategies & Planning Process

Since 1990…

- On August 16, 2022, President Joe Biden signed into law the strongest U.S. climate action yet.
- The Inflation Reduction Act provides billions in strategic investment to promote clean energy and climate justice.
  - Will also help to create hundreds of thousands of jobs, spur clean energy innovation, and strengthen domestic manufacturing.

Clean Air Act Milestones

1955

- Air Pollution Control Act
  - First federal air pollution legislation -
  - Funded research for scope and sources of air pollution

1963

- Clean Air Act
  - Authorized the development of a national program to address air pollution related environmental problems
  - Authorized research into techniques to minimize air pollution

1967

- Air Quality Act
  - Authorized enforcement procedures for air pollution problems involving interstate transport of pollutants
  - Authorized expanded research activities

1970

- Clean Air Act
  - Authorized the establishment of National Ambient Air Quality Standards
  - Established requirements for State Implementation Plans to achieve the National Ambient Air Quality Standards
  - Authorized the establishment of New Source Performance Standards for new and modified stationary sources
  - Authorized the establishment of National Emission Standards for Hazardous Air Pollutants
  - Increased enforcement authority
  - Authorized requirements for control of motor vehicle emissions

1977

- CAA Amendments
  - Authorized provisions related to the Prevention of Significant Deterioration
  - Authorized provisions relating to areas which are non-attainment with respect to the National Ambient Air Quality Standards

1990

- CAA Amendments
  - Authorized programs for Acid Deposition Control
  - Authorized a program to control 189 toxic pollutants, including those previously regulated by the National Emission Standards for Hazardous Air Pollutants
  - Established permit program requirements
  - Expanded and modified provisions concerning the attainment of National Ambient Air Quality Standards
  - Expanded and modified enforcement authority
  - Established a program to phase out the use of chemicals that deplete the ozone layer.

Major Court Decisions that impact our implementation of the CAA

- NAAQS
- State Implementation Plans
- Interstate Transport
- New Source Performance Standards
- The "routine maintenance" exemption
- The "bubble concept"
- National standards for hazardous air pollutants
- Greenhouse gas emissions
- Enforcement

Questions?

Valerie Gray
Program Administrator
DNREC

Valerie.gray@delaware.gov