



AIR POLLUTION

Air Pollution; any contaminants or pollutant substances in the air that interfere with human health or welfare.

FRANK CASTANEDA, III, P.E., GS-14, DAF
AF Air Quality Subject Matter Expert
francisco.castaneda@us.af.mil
COM (210) 395-8421; DSN 969-8421
Mobile: (210) 410-4361



AIR POLLUTION & BIRTH OF THE CLEAN AIR ACT (CCA)

What is Air Pollution?

The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects. These pollutants come from stationary sources (like chemical plants, gas stations, and power plants) and mobile sources (like cars, trucks, and planes).

Why Should You Be Concerned About Air Pollution?

Air Pollution and Your Health:

- Each of us breathes over 3,000 gallons of air each day & breathing polluted air can make you sick
- 30 million in the US with asthma which can be severely be affected by air pollution
- Air pollution can also aggravate health problems for the elderly and others with heart or respiratory diseases
- Some toxic chemicals released in the air cause cancer, birth defects, long term lung injury, as well as brain & nerve damage
- Other pollutants in the upper atmosphere are causing thinning of the protective ozone layer; leading to dramatic increases in skin cancers & cataracts (eye damage)

Air Pollution and the Environment:

- Air pollutants form acid rain and ground-level ozone can damage trees, crops, wildlife, lakes and other bodies of water
- Air toxics are contributing to birth defects, reproductive failure, and disease in animals
- Pollutants such as greenhouse gas contribute to global warming

Air Pollution and the Economy:

- Air pollution causes thousands of illnesses leading to lost days at work and school
- Air pollution also reduces agricultural crop and commercial forest yields by billions of dollars each year.

What is the U.S. Doing About Air Pollution?

Actions by Congress:

- Congress passed the core provisions of the Clean Air Act (CAA) in 1970
- The law was amended in 1977 and again in 1990 to extend deadlines but also to specify new strategies for air cleaning up
- The basic framework of the law and its public health objective have remained intact

Actions by the Environmental Protection Agency (EPA):

- The EPA's mission is to protect human health and the environment. To achieve this mission, EPA implements a variety of programs under the CAA
- EPA CAA programs focus on:
 - Reducing outdoor, or ambient, concentrations of air problems;
 - Reducing emissions of toxic air pollutants that are known to, or are suspected of, causing cancer or other serious health effects; and
 - Phasing out production and use of chemicals that destroy stratospheric ozone

How Well Has the Clean Air Act (CAA) Worked?

By any objective measurement, the act has been a tremendous success. The air is cleaner and public health has improved.

- Emissions of toxic lead have dropped 98%.
- Emissions of sulfur dioxide have dropped by 35% even though the gross domestic product has more than doubled.
- Emissions of carbon monoxide have dropped by 32% even though driving has increased 127%.
- Even so, many areas of the country still violate the basic health standards, and the health of tens of millions of Americans remains at risk.

