



Clean Air Act of 1970 (2018 Course Update)

An Online Continuing Education Course for Engineers

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History

The Air Pollution Control Act of 1955 was the first federal legislation involving air pollution. This Act provided funds for federal research in air pollution. The Clean Air Act (CAA) of 1963 was the first federal legislation regarding air pollution control. It established a federal program within the U.S. Public Health Service and authorized research into techniques for monitoring and controlling air pollution.

In 1967, the Air Quality Act was enacted in order to expand federal government activities. In accordance with this law, enforcement proceedings were initiated in areas subject to interstate air pollution transport. As part of these proceedings, the federal government for the first time conducted extensive ambient monitoring studies and stationary source inspections. The Air Quality Act of 1967 also authorized expanded studies of air pollutant emission inventories, ambient monitoring techniques, and control techniques.

Clean Air Act of 1970

The enactment of the CAA of 1970 resulted in a major shift in the federal government's role in air pollution control. This legislation authorized the development of comprehensive federal and state regulations to limit emissions from both stationary (industrial) sources and mobile sources. Four major regulatory programs affecting stationary sources were initiated:

- National Ambient Air Quality Standards (NAAQS)
- State Implementation Plans (SIPS)
- New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAPS)

Furthermore, the enforcement authority was substantially expanded. The adoption of this very important legislation occurred at approximately the same time as the National Environmental Policy Act that established the U.S. Environmental Protection Agency (EPA). The EPA was created on May 2, 1971 in order to implement the various requirements included in the Clean Air Act of 1970.

Clean Air Act Amendments of 1977

Major amendments were added to the Clean Air Act in 1977 (1977 CAAA). The 1977 Amendments primarily concerned provisions for the Prevention of Significant Deterioration (PSD) of air quality in areas attaining the NAAQS. The 1977 CAAA also contained requirements pertaining to sources in non-attainment areas for NAAQS (defined later). These amendments established major permit review requirements to ensure attainment and maintenance of the NAAQS.

Clean Air Act Amendments of 1990

These most recent Amendments achieved the following major milestones:

- Authorized programs for Acid Deposition Control under Title IV-A
- 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 under Title V
- 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 under Title VI

Regulatory Details

The Clean Air Act was incorporated into United States Code (USC) under Title 42 “The Public Health and Welfare,” Chapter 85 “Air Pollution Prevention and Control.” 42 USC Chapter 85 is divided into six subchapters that correspond to Titles in the Clean Air Act:

Clean Air Act	42 USC Chapter 85
Title I Air Pollution Prevention and Control	Subchapter I Programs and Activities §7401 - 7514
Title II Emission Standards for Moving Sources	Subchapter II Emission Standards for Moving Sources § 7521 - 7590
Title III General	Subchapter III General Provisions §7601 - 7628
Title IV Noise Pollution	Subchapter IV Noise Pollution § 7641 - 7642
Title IV Acid Deposition Control	Subchapter IV-A Acid Deposition Control §7651 - 7651
Title V Permits	Subchapter V Permits §7661
Title VI Stratospheric Ozone Protection	Subchapter VI Stratospheric Ozone Protection §7671 - 7671

Each Subchapter is further divided into Parts, Subparts, and Sections. Sections (denoted with the symbol §) are consecutively numbered 7401 through 7671 across all of Chapter 85.

Although Congress originated the CAA and published it in the USC, Congress does not actually enforce it. Instead, Congress authorizes the U.S. Environmental Protection Agency (EPA), which falls under the Executive Branch, to enforce the CAA.

The CAA by itself is insufficient for EPA to conduct enforcement because it generally tells EPA “what” to do, but not necessarily “how” to do it. Therefore, EPA created specific, prescriptive regulations in order to carry out the intent of the CAA. These regulations are contained in the Code of Federal Regulations (CFR), Title 40 Protection of the Environment, Chapter I - Environmental Protection Agency, Subchapter C - Air Programs, Parts 50 through 99.

Here's an important note about the states. Although Congress created the CAA, and EPA is the federal enforcer, the states themselves are really the ones who implement the CAA. In fact, EPA delegates significant authority to the states to run their own air programs, particularly permit issuance.

Course Scope

This course presents key topics of the Clean Air Act (CAA) for stationary sources of air pollution; i.e. facilities. Source material consists of both United States Code, Title 42, Chapter 85; as well as Code of Federal Regulations, Title 40, Parts 50 to 99. As such, the course refers extensively to these sources in order to emphasize the statutory & regulatory origins of the topics presented. The following convention is used:

- “42 USC §7409” means United States Code, Title 42, Section 7409.
- “40 CFR 50” means Code of Federal Regulations, Chap. 40, Part 50.

Obviously, both USC and CFR have an overwhelming quantity of text written in tedious legalese. Therefore, it is not the intent of this course to address all their content. Rather, this course just presents their key content in way that's easier to digest for the reader. References throughout the course provide an opportunity to explore the full legal context, if the reader so desires.

The main course chapters address a particular Title of the CAA. However, because the scope of this course is limited to stationary sources, Title II for mobile sources (vehicles, aircraft, boats, and equipment) and Title IV Noise Pollution are excluded. Furthermore, Title III is also excluded because it is mostly administrative content.