A Brief Introduction to The U.S. Clean Air Act – Summary Handout

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Learning Objectives

Demonstrate an understanding of:

- The basis for and purpose of the Clean Air Act
- How ambient and emissions standards complement each other
- The authority for emissions trading programs
- Provisions for regulating interstate pollution
- The status of efforts to strengthen ozone standards
- The basis for regulating greenhouse gas emissions under the Clean Air Act

The basis for and purpose of the Clean Air Act

- Scientific Basis: Air pollution causes damage to human health and the environment
- Economic Basis: Externalities won't be addressed without enforcing legal requirements
- Legal Basis: The Constitution gives Congress the power to regulate interstate commerce
- Purpose: To prevent and reduce air pollution that harms human health or the environment
- Purpose: To support state air pollution control programs
- Purpose: To initiate & accelerate national R&D

How ambient and emissions standards complement each other

- Ambient air is outdoor air to which the public has access (not including some private property)
- Emissions are what comes out of the smoke stack or tail pipe or other pollution source
- Pollutants that are emitted contribute to ambient air concentrations
- Emissions standards help achieve ambient standards, reduce toxic emissions, and maintain clean air

The status of ozone standards

2008: EPA adopted tighter ozone standards (0.075 ppm)

- Standards were not as strict as recommended by EPA's Clean Air Science Advisory Committee
- Suits were filed – EPA agreed to reconsider
- In the mean time, the standards remained at 0.08 ppm

2011: 0.075 ppm standard retained. Further study.

2015: 0.070 ppm standard adopted

EPA's emissions trading programs

- The Clean Air Act Amendments of 1990 established the Acid Rain Control Program
- EPA issued the NOx SIP Call for states to reduce emissions of nitrogen oxide to prevent transport that interfered with other states attaining the ozone standard
- EPA was rebuffed by the Supreme Court when it tried to enact CAIR
- Replacement - Cross State Air Pollution Rule (CSAPR) in effect and updated to address 2008 ozone NAAQS. In the wings—the 2015 NAAQS.

Provisions for regulating interstate pollution

Section 110(a)(2)(d):

SIP must contain provisions to prohibit any source in a state from interfering with attainment of NAAQS in another state

Section 126(b):

Any state or group of states may petition EPA to find that a source or sources in other states are in violation of 110(a)(2)(d)

More provisions for regulating interstate pollution

Section 182(j): Interstate Ozone Nonattainment

- Requires coordination
  - MD-DC-VA example of good coordination
  - Specific to nonattainment areas

Section 176(A): Interstate Transport Commissions

- May be formed by EPA on its own or on petition by Governors

Section 184: Northeast Ozone Transport Region

The basis for regulating greenhouse gas emissions under the Clean Air Act

- On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and ordered EPA to determine if emissions were endangering health/welfare
- On December 15, 2009 EPA issued findings that GHG endanger the public health and welfare of current and future generations

Why do we need the Clean Air Act?

- "In 1970 Congress amended the Clean Air Act …in response to the perceived failure of state and local governments to control pollution when aided by only the most minimal federal assistance."

  --Wyman, Freeman & Skow, ALI-ABA Course, 1989

- The benefits of avoiding early death, preventing heart attacks and asthma attacks, and reducing the number of sick days for employees far exceed costs of implementing clean air protections.

  --EPA "The Benefits and Costs of the Clean Air Act from 1990 to 2020"

Suggested Reading

Congressional Research Service, "Clean Air Act: A Summary of the Act and Its Major Requirements"(2005)

Congressional Research Service, "Clean Air Issues in the 114th Congress" (January 2016)

Congressional Research Service, "Transportation Conformity Under the Clean Air Act" (2015)

Suggested Reading

Resources for the Future, "Performance of the Clean Air Act and its Amendments" (2002)

National Academy of Sciences, "Air Quality Management in the United States" (2004)

The Plain English Guide to the Clean Air Act, EPA (2007)

The Benefits and Costs of the Clean Air Act from 1990 to 2020, EPA (2011)

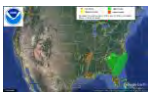
Suggested Reading

The Search for the Ultimate Sink: Urban Pollution in Historical Perspective, by Joel A. Tarr, The University of Akron Press (1996)

The Waxman Report: How Congress Really Works, Henry Waxman with Joshua Green, Twelve, Hachette Book Group (2009/10)

Interesting Links

- **EPA's AirNow website:** www.airnow.gov
- **The Smog Blog** http://alg.umbc.edu/usaq/ a daily diary of air quality in the U.S. prepared using information from satellites, ground-based measurements, and models. Interpretation and analysis are provided by the staff of the University of Maryland Baltimore County Atmospheric Lidar Group.
- **American Lung Association "State of the Air"** http://www.stateoftheair.org/
- **Calculating your Carbon Footprint** https://www3.epa.gov/carbon-footprint-calculator/



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Regional Reading

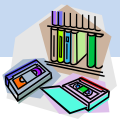
A Guide to Mid-Atlantic Regional Air Quality, Mid-Atlantic Regional Air Management Association, 2005

Contributions to Regional Haze in the Northeast and Mid-Atlantic United States, NESCAUM (2006)

MARAMA Reports

- www.marama.org publications page

For further training



- Clean Air Act Training Modules –
  - – Self-instructional web courses available from EPA
  - http://www.apti-learn.net
  - "Learn" section
  - Click on the functional area "Introduction to Air Pollution"