

**Monitoring and Regulation in
Environmental Health
(Overview of Blumm reading
assignment)**

Prof. Rob McConnell

Overview of Legislation

- Most (not all) administered by EPA or delegated by EPA to state
 - National Environmental Policy Act (NEPA)
 - Occupational Safety and Health Administration (OSHA) – Dept of Labor
 - Clean Air Act (CAA)
 - Clean Water Act (CWA)
 - Toxic Substances Control Act (TSCA)
 - Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
 - Resource Conservation and Recovery Act (RCRA)
 - Federal Insecticide Fungicide and Rodenticide Act (FIFRA)
 - Others
 - Federal lands protection (eg National Parks, Wilderness, Rivers, Wetlands)
 - Endangered species, marine mammals protection
 - Food and Drug Administration (FDA)
 - Mine Safety and Health Administration (MSHA)

NEPA

- Requirements for environmental impact assessments (EIA) for major new projects affecting environment
 - Eg. new freeway or new development effect on air quality
- Does not actually have enforcement provisions, but:
 - Courts have enjoined dishonest EIA
 - Provision for citizen suits

Approaches to Standard Setting

- Based on ambient exposures, eg. CAA criteria pollutants or CWA water allowable pollutant concentrations
- Based on emissions, eg. CWA provisions to limit untreated sewage discharge into rivers
- Focused on a specific industry, eg. lead exposure in construction industry or mandated procedures for asbestos abatement (can be very specific rules)

Criteria for Standard Setting

- Based on health effects, eg NAAQS or CWA
 - Limitation: can be hard to define hazardous concentration
- Based on best available technology, eg. state of the art for sewage treatment
 - What happens if many discharges using state of the art? – cumulative effect may be hazardous exposures
- Based on costs and benefits
 - Eg FIFRA
 - Industry and regulators like these criteria, because costs easy to identify, benefits harder to assign value
 - Environmental community generally doesn't like

Critique and Alternative to “Command and Control Approach”

- Where is the incentive structure?
 - Set fines to discourage noncompliance
 - No incentive to do better than the standard
- Alternatives include trading allowable emissions permits like a commodity
 - Worked well for sulfur in oil and coal fired power plants that produced Eastern acid rain
- Taxes and fees on emissions promising
 - But neither industry nor environmental community likes this alternative (“license to pollute”)

Enforcement

- By Feds and states
 - Permits allow specified amount of pollution
- Key features
 - Right to know
 - Workers
 - Communities (emissions by industry)
 - Role of citizen suits of industry or of government
 - Can recover all costs of litigation

Toxic Substances Control Act (TSCA)

- Encourage industry to develop data on health and environmental effects of their products
- Regulates hazards
- Avoids impeding technical innovation
- Features:
 - Imminent hazard provision for quick action
 - Pre-manufacturing notification of new use (if no EPA response, use is allowed)
 - Testing of chemicals by industry (not very effective?)
 - Provisions for regulating environmental carcinogens and teratogens

Comprehensive Environmental Response, Compensation and Liability Act

- Hazardous waste cleanup – huge problem, because there are thousands of sites
- Novel liability for past and present generators and transporters
 - EPA can sue past and present owners
 - Has generated new industry of environmental auditors, and polluters take seriously the economic consequences of contaminating a site
 - Additional economic incentive from insurance industry interest in chemical companies and other polluters
 - Trust fund for cleanup of sites with no one liable

“Remedies”

- Worker’s compensation
 - Instituted as solution to liability suits by workers, so they could get compensated without having to prove fault (just that work related)
 - Also to limit employer liability
 - Specifically excludes compensation for pain and suffering
 - Works for injuries (sort of) because causal relationship is clear
 - Doesn’t work so well for occupational disease
 - 1980 government study found 5% receive any benefit; those compensated get 13% of actual wage loss
 - “More probable than not” required attributable risk > 50%...

Central Features of Environmental Legislation in the U.S.

- Provisions for community “right to know”
- “Command and control” approach to regulation
- Provision for citizen groups to sue industry
- Provision for citizen groups to sue EPA to force them to abate exposures

Toxic Torts as a Policy Tool

- Little studied effects on corporate behavior?
 - Corporations would like to avoid product liability lawsuits
 - It can be expensive
 - Results are unpredictable
 - Do they pollute less to avoid liability?
- More effective than regulation?
 - Less subject to political intervention
 - Costs can be greater to industry
 - Examples
 - Asbestos
 - Tobacco?