



Welcome to the CLU-IN Internet Seminar

NARPM Presents... Environmental Statutes for RPMs

Sponsored by: EPA Office of Superfund Remediation and Technology Innovation

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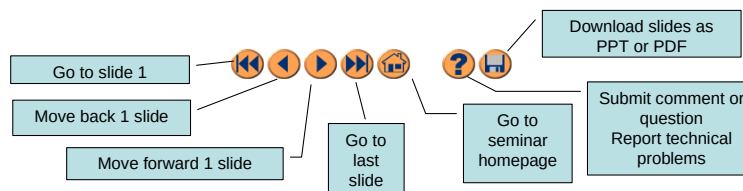
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- Q&A
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Although I'm sure that some of you have these rules memorized from previous CLU-IN events, let's run through them quickly for our new participants.

Please mute your phone lines during the seminar to minimize disruption and background noise. If you do not have a mute button, press *6 to mute #6 to unmute your lines at anytime. Also, please do NOT put this call on hold as this may bring delightful, but unwanted background music over the lines and interrupt the seminar.

You should note that throughout the seminar, we will ask for your feedback. You do not need to wait for Q&A breaks to ask questions or provide comments. To submit comments/questions and report technical problems, please use the ? Icon at the top of your screen. You can move forward/backward in the slides by using the single arrow buttons (left moves back 1 slide, right moves advances 1 slide). The double arrowed buttons will take you to 1st and last slides respectively. You may also advance to any slide using the numbered links that appear on the left side of your screen. The button with a house icon will take you back to main seminar page which displays our agenda, speaker information, links to the slides and additional resources. Lastly, the button with a computer disc can be used to download and save today's presentation materials.

With that, please move to slide 3.

NARPM PRESENTS...
ENVIRONMENTAL STATUTES
FOR RPMS
TSCA, CWA AND SDWA

What is Environmental Law ?

- Legal system of statutes, rules, guidelines, policies, and judicial/administrative interpretations addressing wide-ranging set of environmental issues and concerns
- Minimizes, prevents, punishes, or remedies consequences of actions which damage or threaten environment, public health, and safety
- Most environmental laws result from catastrophe

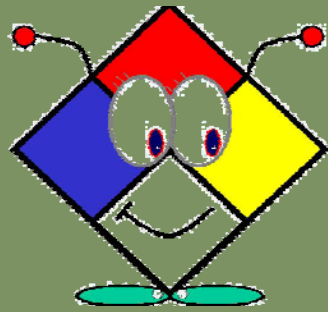


- Body of state and federal statutes intended to protect the environment, wildlife, land and beauty, prevent pollution or over-cutting of forests, save endangered species, conserve water, develop and follow general plans and prevent damaging practices.
- These laws often give individuals and groups the right to bring legal actions or seek court orders to enforce the protections or demand revisions of private and public activity which may have detrimental effects on the environment.

Some Examples

- EPCRA - Bhopal, India
- CERCLA - Love Canal
- CWA - Fires on the Cuyahoga River, Ohio
- OPA - Exxon Valdez & Mega Borg
- CAA Amendments (RMP) - Series of deadly explosions & releases in late '80s





HISTORY AND OVERVIEW OF EPA

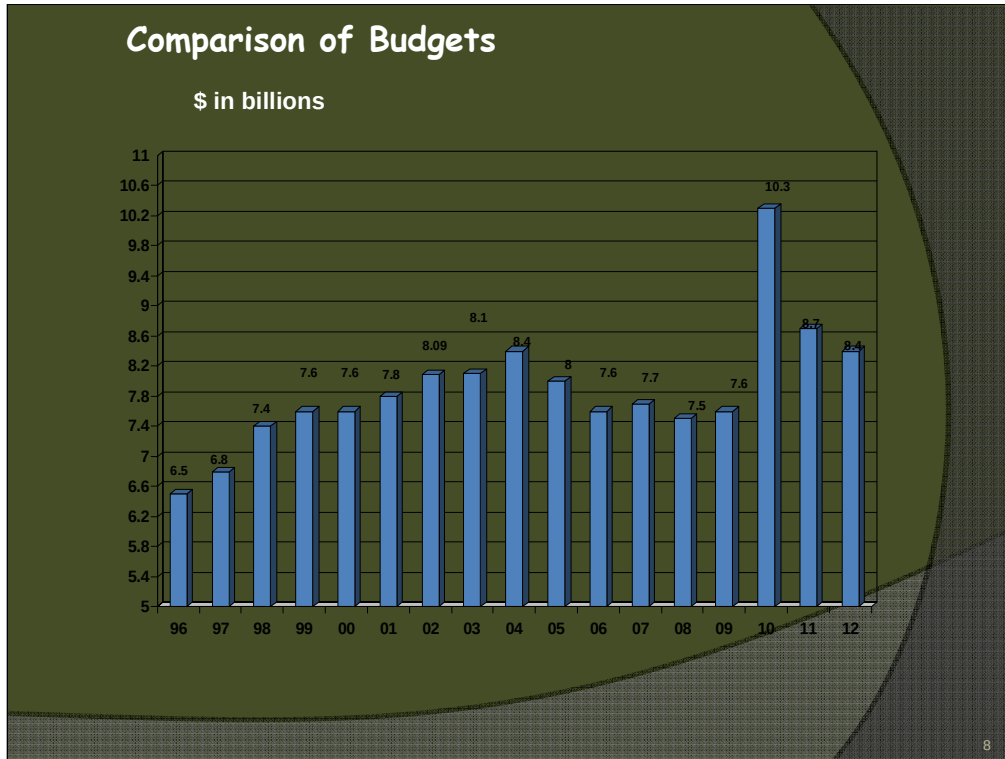
" WHY ARE WE HERE ?"

History of EPA

- Created July, 1970, by President Nixon Reorganization Plan
- Independent agency, not under another department
- FY10 budget requested \$ 10.5 Billion and 17,384.3 full-time employees
- Consolidated number of activities into 1 agency

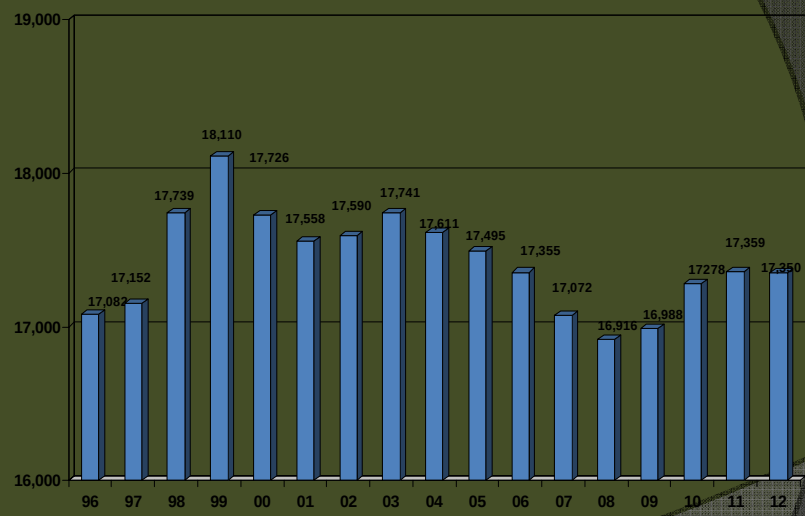


- Speaking to both houses of Congress on January 22, the President proposed making "the 1970s a historic period when, by conscious choice, [we] transform our land into what we want it to become."
- He continued this activist theme on February 10, when he announced a 37-point environmental action program.
- The program gave special emphasis to strengthening federal programs for dealing with water and air pollution.



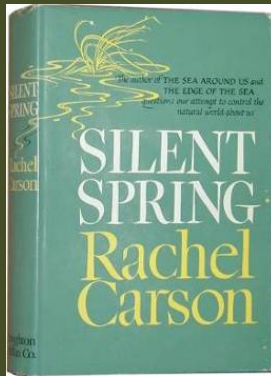
- The Fiscal Year (FY) 2010 Budget request represents the highest level of funding for EPA in its 39-year history.

Comparison of EPA Full-Time Employees



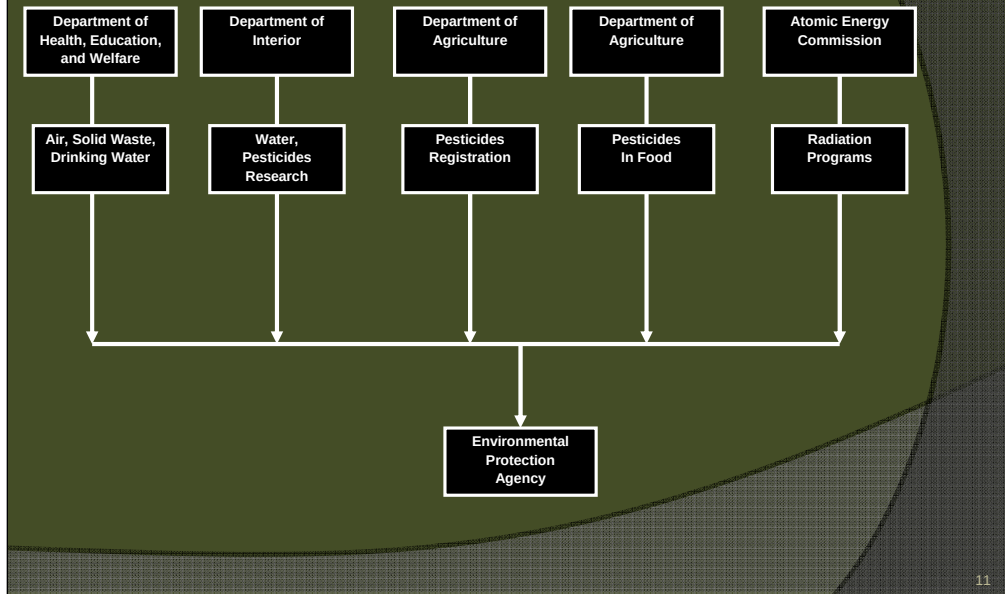
History of EPA

- Modern environmental movement was inspired by publication of "Silent Spring" in 1962
- April 22, 1970: First Earth Day Celebration



- This exhaustively researched, carefully reasoned, and beautifully written attack on the indiscriminate use of pesticides was not exactly light reading. Yet it attracted immediate attention and wound up causing a revolution in public opinion.
- Followers flocked to Carson's cause--rendered all the more sacred by her premature death in 1964. Suddenly, everywhere people looked, they saw evidence of nature's spoilation.
- Concern over air and water pollution spread in widening eddies from the often-forgotten core of the movement: a highly detailed and intellectually challenging book about commercial pesticides.
- On April 22, the first Earth Day celebration brought 20 million Americans out into the spring sunshine for peaceful demonstrations in favor of environmental reform.
- Its popularity far surpassed widest expectations. The first Earth Day lives in popular memory to this day as a joyous and life-affirming moment in American history.
- Oil-coated ducks were dumped on the doorstep of the Department of the Interior...A student disguised as the Grim Reaper stalked a General Electric Company stockholders' meeting...Demonstrators dragged a net filled with dead fish down Fifth Avenue, and shouted to passers-by, "This could be you!"

History of EPA - Merging of Agencies



•Duties Transferred to EPA

•Dept. of the Interior (DOI)

- Federal Water Quality Administration
- Functions transferred to the Secretary by Reorganization Plan #2 of 1966 (80 Stat 1608)
- Functions vested in the Secretary or Department by the Federal Water Pollution Control Act
- Functions vested in the Secretary by the Act of August 1, 1958, 72 Stat. 479, 16 U.S.C. 742d-1 (an act related to studies of the effects of insecticides, herbicides, fungicides, and pesticides upon fish and wildlife)
- Functions vested by law in the Secretary administered by the Gulf Breeze Biological Laboratory of the Bureau of Commercial Fisheries at Gulf Breeze, Florida
- The Water Pollution Control Advisory Board (33 U.S.C. 466f) , and the hearing boards provided for in sections 10(c)(4) and 10(f) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466g)

•Dept. of Agriculture (USDA)

- Functions of the Secretary or Department under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 135-135k)
- Functions of the Secretary or Department under section 408(1) of the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended (21 U.S.C. 346a(l))
- Functions vested by law in the Secretary or Department administered through the Environmental Quality Branch of the Plant Protection Division of the Agricultural Research Service

•Dept. of Health, Education and Welfare (HEW)

- Functions vested by law in the Secretary or Department administered through the Environmental Health Service, including:
 - The National Air Pollution Control Administration
 - The Environmental Control Administration, including:
 - Bureau of Solid Waste Management
 - Bureau of Water Hygiene
 - Bureau of Radiological Health
- Functions vested in the Secretary for establishing tolerances for pesticides chemicals under the Federal Food, Drug and Cosmetic Act (FFDCA)
- The Air Quality Advisory Board (42 U.S.C. 1857e)

•Atomic Energy Commission (AEC)

- Functions of the AEC under the Atomic Energy Act of 1954, as amended, administered through its Division of Radiation Protection Standards, to the extent that such functions consist of establishing generally applicable environmental standards for protection of the general environment from radioactive material

•Federal Radiation Council (FRC)

- All functions of the Federal Radiation Council (42 U.S.C. 2021(h))

•Council on Environmental Quality (CEQ)

- Functions of CEQ under section 204(5) of the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, approved Jan. 1, 1970, 83 Stat. 855), that pertain to ecological systems

History of EPA - Agency Seal

- Official Agency Seal by Executive Order 11628, October 18, 1971
- Flower with bloom symbolic of elements of environment. Bloom=sphere (blue sky, green earth, and blue-green water); white circle=sun and moon
- Indiana advertising agency produced seal at no cost
- EPA Order 1015.2A provides directions for use



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- The Official Agency Seal was established by Presidential Executive Order 11628, October 18, 1971, which described it as follows:
 - "A flower with a bloom which is symbolic of all the elements of the environment. The bloom is a sphere, the component parts of which represent the blue sky, green earth, and blue-green water. A white circle within the sphere denotes either the sun or the moon. All are symbolic of a clean environment and are superimposed on a disc with a white background, circled by the title, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, in blue letters."
- The Indianapolis advertising agency of McQuade, Wilkins, Bloomhorst, Newman and Colbert produced the EPA seal at no charge for the EPA, and Ken Bloomhorst was the illustrator.
- EPA Order 1015.2A (December 27, 1978), provides directions for use of the seal as the Agency Identifier, and prohibits reproduction and/or use of the symbol for commercial purposes. Questions regarding non-commercial use of the seal may be directed to Belinda Blackman.

History of EPA -- Mission

- EPA's official birthday is December 2, 1970
- Nixon explained mission of EPA:
 - Establish / enforce environmental protection standards
 - Conduct environmental research
 - Provide assistance to others combating environmental pollution
 - Assist CEQ in developing new policies for environmental protection to recommend to President

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- In a message to the House and Senate, he declared his intention to establish the U.S. Environmental Protection Agency (EPA) and left no doubts about its far-reaching powers. Nixon declared that its mission would center on:
 - The establishment and enforcement of environmental protection standards consistent with national environmental goals.
 - The conduct of research on the adverse effects of pollution and on methods and equipment for controlling it; the gathering of information on pollution; and the use of this information in strengthening environmental protection programs and recommending policy changes.
 - Assisting others, through grants, technical assistance and other means, in arresting pollution of the environment.
 - Assisting the Council on Environmental Quality in developing and recommending to the President new policies for the protection of the environment.

EPA administers these statutes:

- Atomic Energy Act (AEA)
- Clean Air Act (CAA)
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, or Superfund)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Endangered Species Act (ESA)
- Energy Policy Act
- Federal Food, Drug, and Cosmetic Act (FFDCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Federal Water Pollution Control Amendments
- Marine Protection, Research, and Sanctuaries Act (MPRSA)
- National Environmental Policy Act (NEPA)
- National Technology Transfer and Advancement Act (NTTAA)

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•A number of laws serve as EPA's foundation for protecting the environment and public health. However, most laws do not have enough detail to be put into practice right away. EPA is called a regulatory agency because Congress authorizes us to write regulations that explain the critical details necessary to implement environmental laws. In addition, a number of Presidential Executive Orders (EOs) play a central role in our activities.

EPA administers these statutes:

- Nuclear Waste Policy Act (NWPA)
- Occupational Safety and Health (OSHA)
- Oil Pollution Act (OPA)
- Pollution Prevention Act (PPA)
- Resource Conservation and Recovery Act (RCRA)
- Safe Drinking Water Act (SDWA)
- Superfund Amendments and Reauthorization Act (SARA)
- Toxic Substances Control Act (TSCA)
- EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- EO 13045: Protection of Children From Environmental Health Risks and Safety Risks
- EO 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

Laws that Influence Our Processes and Policies:

- Administrative Procedure Act (APA)
- Congressional Review Act (CRA)
- EO 12866: Regulatory Planning and Review
- EO 13132: Federalism
- EO 13175: Consultation and Coordination with Indian Tribal Governments
- Federal Advisory Committee Act (FACA)
- Freedom of Information Act (FOIA)
- Paperwork Reduction Act (PRA)
- Privacy Act
- Regulatory Flexibility Act (RFA)
- Small Business Regulatory Enforcement Fairness Act (SBREFA)
- Unfunded Mandates Reform Act (UMRA)

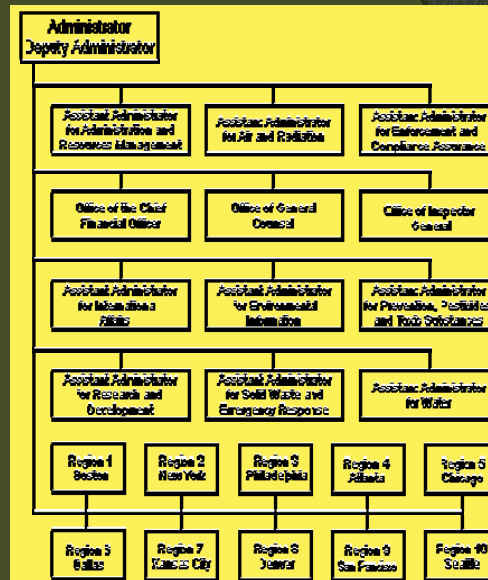
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- Besides carrying out our mission via environmental laws, EPA must abide by several laws and EOs that guide the process by which regulations are developed.
- They direct EPA to consider issues of concern to the President, Congress, and the American public.

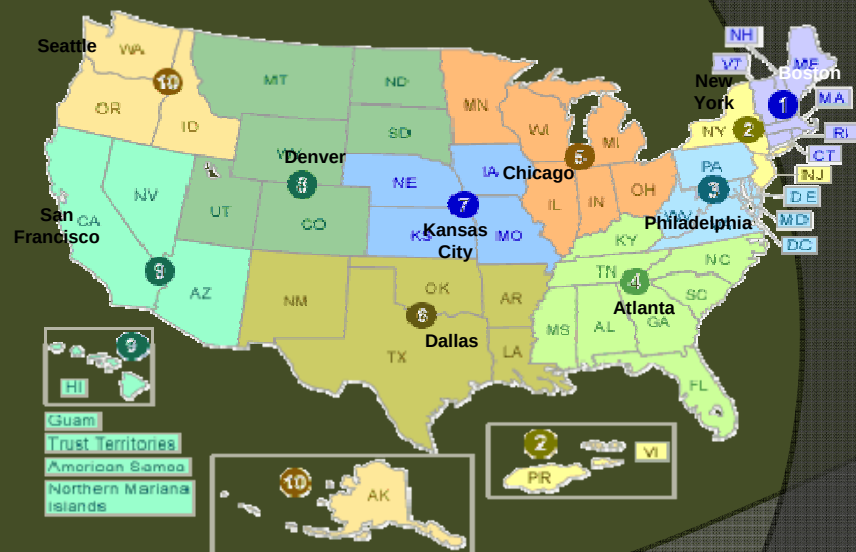
Agency directed by:

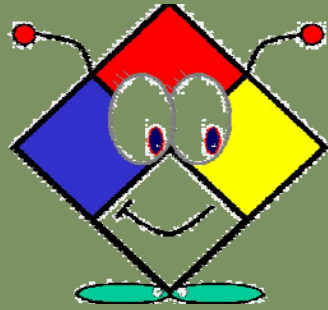
- Administrator and Deputy Administrator
- Nine Assistant Administrators
- General Counsel
- Inspector General

All Senate-approved



EPA Regional Offices





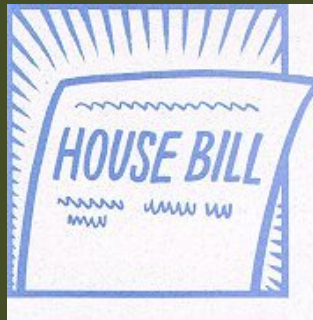
Law / Rule - Making 101

or

*"If 'progress' is moving
forward, what does
'congress' mean?"*

Making a Law

- Process begins when bill or resolution is numbered ...
- H.R. signifies House bill and S. Senate bill ...
- Referred to appropriate committee for consideration
- Committees may hold hearings, study, investigate, issue report and recommend bill for passage or not



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- Laws may be initiated in either chamber of Congress, House of Representatives or Senate.
- When Representative or Senator has idea for new law, they become sponsor of bill and introduce it by giving to clerk of House or Senate.
- Clerk assigns legislative number to bill, with H.R. for bills introduced in House and S. for bills introduced in Senate.
- GPO then prints bill and distributes copies to each representative or senator.
- Bill is assigned to committee (House has 22 standing committees, Senate has 16, each with jurisdiction over bills in certain areas) by Speaker of House.
- Standing committee (or often a subcommittee) studies bill and hears testimony from experts and people interested in bill.
- Committee then may release bill with a recommendation to pass it, or revise the bill and release it, or lay it aside so House cannot vote on it.
- Releasing bill is called reporting it out, while laying it aside is called tabling.

Making a Law



- After committee, bill placed on calendar in respective chamber, considered, debated, and voted on
- After debate and approval of amendments, bill is passed or defeated
- House and Senate generally pass different bills
- Congressional conference used to resolve differences

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- If bill is released, it goes on [calendar](#).
- Here Rules Committee may call for bill to be voted on quickly, limit the debate, or limit or prohibit amendments.
- Undisputed bills may be passed by unanimous consent, or by a two-thirds vote if members agree to suspend the rules.
- Bill now goes to floor of House or Senate for consideration and begins with complete reading of bill
- Third reading occurs after any amendments have been added.
- If bill passes by simple majority (218 of 435 or 51 of 100), bill moves to other chamber.
- Sometimes, when bill has passed in one house, it becomes known as an [act](#); this term usually means bill passed by both houses and becomes law.
- Bill now moves onto conference committee, made up of members from each House.
- Committee works out any differences between House and Senate versions of bill.
- Revised bill is sent back to both houses for their final approval.
- Once approved, bill is printed by GPO in process called enrolling.

Making a Law

- After passage in both Houses, Act sent to President
- Law if signed by President, or if not vetoed in 10 days
- If vetoed, Congress may attempt to "override veto"
- Requires 2/3 vote who are present in quorum



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- [Enrolled bill](#) is now signed by Speaker of House and Vice President.
- Finally, sent for presidential consideration.
- President has 10 days to sign or [veto](#) bill. Pocket veto occurs after Congress has adjourned and is unable to override President's action.
- If President vetoes bill, it can still become a law if two-thirds of Senate and two-thirds of House then vote in favor of bill.

Making a Law

- Laws often do not include all details
- Statutes empower administrative agency to promulgate regulations
- President may also give agency authority to promulgate regulations through executive order



Making a Law

- Proposed regulation listed in Federal Register
- Public comments to Agency; Agency considers comments, revises draft, issues final rule in Federal Register
- Rule "codified" in Code of Federal Regulations (CFR)
- CFR published annually, 50 volumes, called Titles
- Almost all environmental regulations in Title 40 or 33



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- Each year, we issue approximately 130 substantive regulations that apply nationwide.
- Of these regulations, only about 5 to 10 are considered major, meaning they have the potential to impose cumulative costs of more than \$100 million a year.
- In addition, the Agency publishes about 900 proposed regulations, technical corrections to existing regulations, State Implementation Plans (SIPs), and other information related to the enforcement and implementation of existing regulations.

1. Commence Activity. EPA typically operates under statutory authority to create regulations. Additionally, we adhere to Principles of Regulation described in Executive Order (E.O.) 12866. When we determine issue exists that cannot be addressed in the absence of regulatory activity, we commence new regulatory action.

2. Analyze the Problem. The workgroup begins by developing a work plan that will guide the regulatory development process. This plan is called an Analytic Blueprint and outlines the major questions that must be answered, the data needed, the experts who should be consulted, the anticipated costs, and other rulemaking needs. EPA's senior management provides guidance on the Analytic Blueprint early in the process at a meeting called Early Guidance. After the Early Guidance meeting, the workgroup uses its Analytic Blueprint to begin studying the problem. We may draw information from EPA's research, scientific literature, other government agencies, or other researchers in the United States and abroad.

3. Identify Options. The workgroup then considers the available options for addressing the problem. This may require evaluating environmental technologies, changes in environmental management practices, and incentives that can motivate better environmental performance. The workgroup also takes related issues into account at this stage, such as the impact of various options on small businesses, on children's health, or on state and local governments. Sometimes the workgroup might find there is no need for regulation.

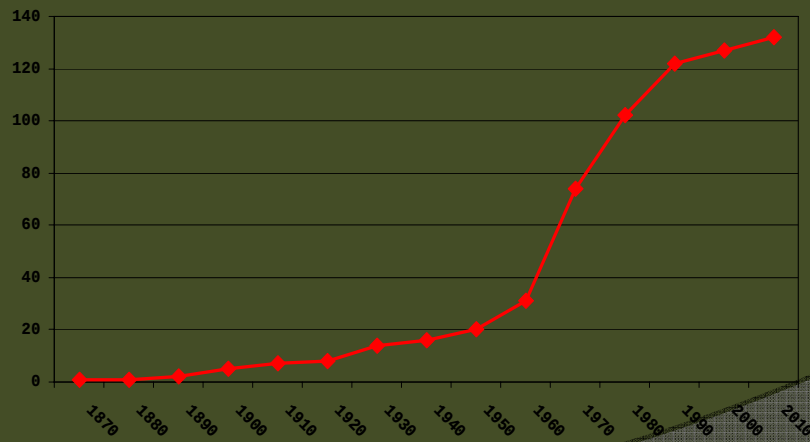
4. Publish a Proposal & Request Public Comments. If the preliminary analysis recommends the need for regulation, the workgroup drafts a proposed regulation for publication in the Federal Register. Experts from EPA, other federal agencies, advisory groups, and more help inform the proposed regulation. The draft publication is called a Notice of Proposed Rulemaking (NPRM). A law called the Administrative Procedure Act (5 USC Ch. 5) generally requires EPA (and other federal regulatory agencies) to request comments from the public before finalizing the regulation. The public comment period typically lasts 60 to 90 days. Federal Register notices related to the environment are available online from many Web sites, including this site. At the same time we publish an NPRM, EPA will sometimes publish an Information Collection Request (ICR). The Paperwork Reduction Act requires all agencies to ensure that their regulations do not impose an undue paperwork burden on individuals, businesses, and others. Therefore, we seek approval of an ICR when our proposed regulations might require more than 10 members of the public to report similar information back to us. The public can comment on these ICRs just as they can the NPRMs. See EPA's ICR Web site for more information.

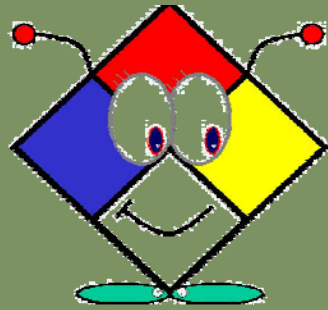
5. Review Public Comments. Next, the workgroup reviews and evaluates all the comments received. Depending on the regulation, these comments may range from recommendations for minimal change to extensive rewriting. The workgroup carefully weighs and evaluates the comments before developing a draft final regulation for review and approval by EPA senior management. All public comments and our responses are posted in the regulation's docket.

6. Issue Regulation. After approval by senior management, the EPA Administrator or his delegatee reviews the final regulation and decides whether it should be issued. If the Administrator decides to issue the regulation, it is published in the Federal Register. Effective dates vary. A regulation may be effective on the day it is published, for example, or it may be effective a year later. These dates are specified in every regulation. Congress may decide to overturn a regulation after the Administrator has issued it, but it rarely does.

7. Analyze Our Regulations. When a final regulation is issued, our work has just begun. After promulgation, we work with regulated businesses, governments, and non-profits to help them comply with the requirements. In some cases, enforcement actions are necessary. And, we analyze our regulations to make sure they are effective.

Cumulative Growth in Federal Environmental Laws





Toxic Substances Control Act (TSCA)

"If it's such bad news, do not even think
about making it in the first place"

TSCA - Introduction

- Allows EPA to determine hazards of products or use before placed in commerce
- May require companies to conduct toxicity tests of any chemical
- EPA must regulate any chemical that presents an unreasonable risk
- Can include total ban to warning labels



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- TSCA authorizes the EPA to screen existing and new chemicals used in U.S. manufacturing and commerce to identify potentially dangerous products or uses that should be subject to federal control.
- Both naturally occurring and synthetic chemicals are subject to TSCA, with the exception of chemicals regulated under other federal laws concerning food, drugs, cosmetics, firearms, ammunition, pesticides, tobacco, or mixtures.
- EPA may require manufacturers and processors of chemicals to conduct and report the results of tests to determine the effects of potentially dangerous chemicals on living things.
- Based on test results and other information, EPA must regulate the manufacture, importation, processing, distribution, use, and/or disposal of any chemical that presents an unreasonable risk of injury to human health or the environment.
- A variety of regulatory tools is available to EPA under TSCA ranging in severity from a total ban on production, import, and use to a requirement that a product bears a warning label at the point of sale.
- TSCA directs EPA to use the least burdensome option that can reduce risk to a level that is reasonable given the benefits provided by the chemical product or process.

Toxic Substances Control Act and Amendments (15 U.S.C. 2601-2671)

Year	Act	Public Law Number
1976	Toxic Substances Control Act	P.L. 94-469
1986	Asbestos Hazard Emergency Response Act	P.L. 99-519
1988	Radon Program Development Act	P.L. 100-551
1990	Radon Measurement	P.L. 101-508, § 10202
1990	Asbestos School Hazard Abatement Reauthorization Act	P.L. 101-637
1992	Residential Lead-Based Paint Hazard Reduction Act of 1992	P.L. 102-550
2007	Energy Independence and Security Act of 2007, Subtitle E - Healthy High-Performance Schools	P.L. 110-140

TSCA - Background

- Originally proposed in 1971 CEQ
- Congress could not agree on scope and costs
- Hudson River PCBs and PBBs contamination in Michigan led to final passage into law in Oct, 1976



- Federal legislation to control toxic substances was originally proposed in 1971 by the President's CEQ.
- Its report, "Toxic Substances," defined a need for comprehensive legislation to identify and control chemicals whose manufacture, processing, distribution, use, and/or disposal was potentially dangerous and not adequately regulated under other environmental statutes.
- The House and Senate each passed bills, but controversies over the scope of chemical screening prior to commercial production and distribution, level of costs, and the relationship to other regulatory laws stalled final action.
- Episodes of environmental contamination — including the Hudson River and other waterways by PCBs, the threat of stratospheric ozone depletion from chlorofluorocarbon (CFC) emissions, and contamination of agricultural produce by polybrominated biphenyls (PBBs) in the state of Michigan — together with more exact estimates of the costs of imposing toxic substances controls, opened the way for final passage of the legislation.
- President Ford signed the TSCA into law on October 11, 1976.

TSCA - Title I

- Requires manufacturers and processors to test for existing chemicals if unreasonable risk is present, data is insufficient to determine risk, and testing is needed
- Prevent future risks through testing and tracking of new chemicals
- Control unreasonable risks
- Provide information about chemicals and potential effects



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- TSCA (Title I) directs EPA to
 - require manufacturers and processors to conduct tests for existing chemicals if
 - (1) their manufacture, distribution, processing, use, or disposal may present an unreasonable risk of injury to health or the environment; or they are to be produced in substantial quantities and the potential for environmental release or human exposure is substantial or significant;
 - (2) existing data are insufficient to predict the effects of human exposure and environmental releases; and
 - (3) testing is necessary to develop such data (Section 4);
 - prevent future risks through pre-manufacture screening and regulatory tracking of new chemical products (Section 5);
 - control unreasonable risks already known, or as they are discovered for existing chemicals (Section 6); and
 - gather and disseminate information about chemical production, use, and possible adverse effects to human health and the environment (Section 8).

Testing of Chemicals

- Requires development of data on existing chemicals:
 - manufacture, processing, etc., of chemical “may present an unreasonable risk,” or
 - large quantities are produced and potential for large releases or substantial exposure
- Requires tests if insufficient data or no data

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- Many chemicals, even some in widespread use, are not well characterized in terms of their potential health and environmental effects.
- One of the major goals of TSCA was to induce the development of test data by producers (i.e., manufacturers, importers, and processors) of chemicals in commerce.
- Section 4 of TSCA directs EPA to require the development of test data on existing chemicals when certain conditions prevail:
 - (1) the manufacture, processing, distribution, use, or disposal of the chemical “may present an unreasonable risk,” or
 - (2) the chemical is produced in very large volume and there is a potential for a substantial quantity to be released into the environment or for substantial or significant human exposure.
- Under either condition, EPA must issue a rule requiring tests if
 - (a) existing data are insufficient to resolve the question of safety, and
 - (b) testing is necessary to develop the data.

Pre-Manufacture Notification

- Requires EPA notification 90 days prior to introduction of new chemical
- All test data must also be submitted
- Requires notification of existing chemical for new usage
- 90-day notice allows EPA to evaluate chemical and limit / prohibit activity if necessary

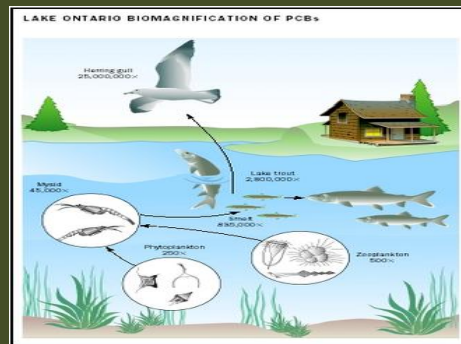


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- TSCA (Section 5) requires manufacturers, importers, and processors to notify EPA at least 90 days prior to producing or otherwise introducing a new chemical product into the United States.
- Any information or test data that is known to, reasonably ascertainable by, or in possession of the notifier, and that might be useful to EPA in evaluating the chemical's potential adverse effects on human health or the environment, must be submitted to EPA at the same time.
- TSCA also requires EPA to be notified when there are plans to produce, process, or use an existing chemical in a way that differs from previously permitted uses, if the Administrator has determined by rule that new uses of the chemical may produce significant changes in human and environmental exposures and therefore require notification.
- The 90-day notice provides EPA with the opportunity to evaluate the chemical use and, if necessary, to prohibit or limit such activity before it occurs to prevent unreasonable risk of injury to human health or the environment.

EPA Determination

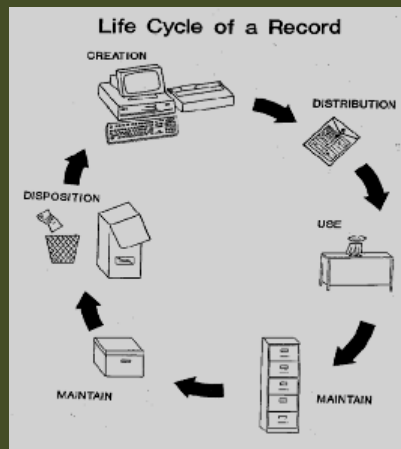
- EPA must evaluate chemical risk, and make rules to protect against unreasonable risk
- or
- determine no unreasonable risk, based on available data



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- EPA has 45 days after notification (or up to 90 days if it extends the period for good cause) to evaluate the potential risk posed by the chemical.
- If EPA determines that there is a reasonable basis to conclude that the substance presents or will present an unreasonable risk, the Administrator must promulgate requirements to protect adequately against such risk.
- Alternatively, EPA may determine that the proposed activity related to a chemical does not present an unreasonable risk; this decision may be based on the available data, or, when no data exist to document the effects of exposure, on what is known about the effects of chemicals in commerce with similar chemical structures and used in similar ways.

TSCA Screening



- EPA screening identifies and controls potential hazards
- If data is inadequate, EPA may prohibit or limit activities until adequate data is submitted

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- The purpose of EPA's screening procedure is to identify potential hazards, and control them before use of a chemical becomes widespread.
- If data are inadequate to make an informed judgment and
 - (1) manufacture, processing, distribution in commerce, use, or disposal may present an unreasonable risk, or
 - (2) a chemical is to be produced in substantial quantities, and the potential for environmental release or human exposure is substantial or significant,
- EPA may issue a proposed order to prohibit or limit such activities until sufficient data are submitted.

Regulatory Controls

EPA can:

- prohibit or limit production or distribution of substance in commerce or for specific use;
- limit volume or concentration of chemical produced;
- prohibit or regulate manner or method of use;
- require warning labels and/or instructions;
- require notification of risk, and record-keeping;
- specify disposal methods



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- TSCA requires EPA to regulate manufacturing, processing, distribution in commerce, use, or disposal of a chemical if it will present an unreasonable risk of injury to health or the environment, and the risk cannot be reduced to a sufficient degree under another federal law administered by EPA.
- The alternative means available to EPA for controlling chemical hazards that present unreasonable risks are specified in Section 6 of TSCA.
- EPA has the authority to:
 - prohibit or limit the amount of production or distribution of a substance in commerce;
 - prohibit or limit the production or distribution of a substance for a particular use;
 - limit the volume or concentration of the chemical produced;
 - prohibit or regulate the manner or method of commercial use;
 - require warning labels and/or instructions on containers or products;
 - require notification of the risk of injury to distributors and, to the extent possible, consumers;
 - require record-keeping by producers;
 - specify disposal methods; and
 - require replacement or repurchase of products already distributed.

Information Gathering

- EPA developed and maintains inventory of all chemicals, or categories of chemicals, manufactured or processed
- First inventory identified 55,000 chemicals in 1979
- Chemicals not listed are "new" and subject to PMN provisions
- Research or experimental chemicals not listed

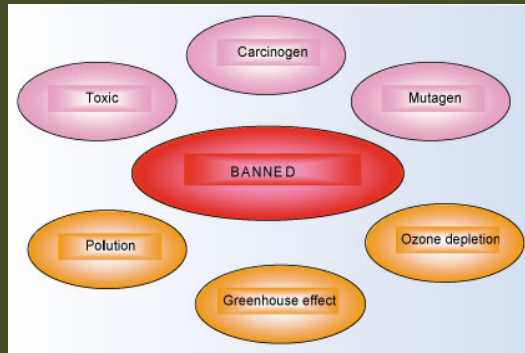


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- Section 8 of TSCA requires EPA to develop and maintain an inventory of all chemicals, or categories of chemicals, manufactured or processed.
- The first version of this inventory identified approximately 55,000 chemicals in commerce in 1979.
- All chemicals not on the inventory are, by definition, "new" and subject to the notification provisions of Section 5.
- These chemicals must be added to the inventory if they enter U.S. commerce.
- Chemicals need not be listed if they are only produced in very small quantities for purposes of experimentation or research.

Imminent Hazards

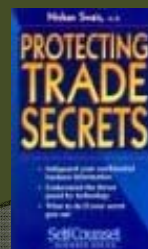
- EPA has authority to seek court orders to control chemicals with unreasonable risk



- Section 7 provides EPA authority to take emergency action through the district courts to control a chemical substance or mixture which presents an imminent and unreasonable risk of serious widespread injury to health or the environment.

Confidential Business Information

- TSCA protects proprietary confidential information about chemicals
- Disclosure is not permitted except when necessary in emergency situations to protect health or environment
- Health and Safety data exempt unless disclosure would harm company's business
- Wrongful disclosure of confidential data may result in criminal penalties

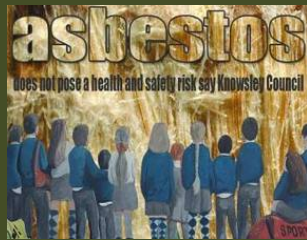


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- Section 14 provides broad protection of proprietary confidential information about chemicals in commerce.
- Disclosure by EPA employees of such information generally is not permitted, except to other federal employees, or when necessary to protect health or the environment.
- Data from health and safety studies of chemicals is not protected unless its disclosure would reveal a chemical process or chemical proportion in a mixture.
- Wrongful disclosure of confidential data by federal employees is prohibited, and may result in criminal penalties.

Title II (Asbestos in Buildings)

- Addresses public concerns of presence of asbestos in buildings, especially schools
- Asbestos Hazard Emergency Response Act (AHERA), enacted in 1986
- Required EPA set standards for responding to presence of asbestos in schools
- Schools required to inspect for asbestos-containing material and implement plan for managing material

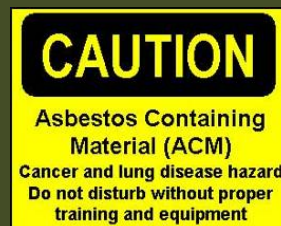


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- Growing public concern about the presence of potentially hazardous asbestos in buildings, especially in schools, led to congressional efforts to address this problem.
- Title II of TSCA, the Asbestos Hazard Emergency Response Act (AHERA), enacted in 1986 and amended in July 1988.
- It required EPA to set standards by October 1987, for responding to the presence of asbestos in schools.
- The standards, set at levels adequate to protect public health and the environment, identify appropriate response actions that depend on the physical condition of asbestos.
- Schools, in turn, were required to inspect for asbestos-containing material, and to develop and implement a plan for managing any such material.
- Plans for managing asbestos were to be submitted by schools before May 1989, and implementation was to begin by July 1989.
- The law contains no deadlines for schools to complete implementation.

Title II -- Asbestos Act

- Asbestos contractors and labs must be certified, and abatement work done in schools by certified persons
- Also applies to work in all public and commercial buildings
- Requirements for buildings be inspected for asbestos not extended to non-school buildings



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- Title II requires asbestos contractors and analytical laboratories to be certified, and schools to use certified persons for abatement work.
- Training and accreditation requirements also apply to inspectors, contractors, and workers performing asbestos abatement work in all public and commercial buildings.
- EPA may award training grants to nonprofit organizations for asbestos health and safety programs.
- However, authorization of appropriations for this grant program expired September 30, 1995.
- Other Title II requirements (such as mandates that buildings be inspected for asbestos) have not been extended to non-school buildings.

Title III - Radon Programs

- Added to TSCA in October 1988
- Provided financial and technical assistance to states; optional, not mandatory



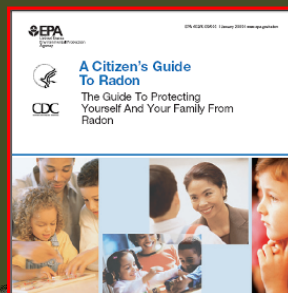
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- In October 1988 Congress amended TSCA by adding Title III — Indoor Radon Abatement.
- The basic purpose of Title III is to provide financial and technical assistance to the states that choose to support radon monitoring and control; neither monitoring nor abatement of radon is required by the act.

Title III – Radon Programs

Required

- Updated pamphlet "A Citizen's Guide to Radon"
- Develop model construction standards
- Provide technical assistance to states
- Establish information clearinghouse
- Publish public information materials
- Establish database of radon levels



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- Title III required EPA to update its pamphlet "A Citizen's Guide to Radon," to develop model construction standards and techniques for controlling radon levels within new buildings, and to provide technical assistance to states.
- EPA is to provide technical assistance by:
 - establishing an information clearinghouse;
 - publishing public information materials;
 - establishing a national database of radon levels detected, organized by state;
 - providing information to professional organizations representing private firms involved in building design and construction;
 - submitting to Congress a plan for providing financial and technical assistance to states;
 - operating cooperative projects with states;
 - conducting research to develop, test, and evaluate radon measurement methods and protocols;
 - developing and demonstrating new methods of radon measurement and mitigation, including methods that are suitable for use in nonresidential child care facilities;
 - operating a voluntary program to rate radon measurement and mitigation devices and methods and the effectiveness of private firms and individuals offering radon-related services;
 - and designing and implementing training seminars.

Title IV - Lead Exposure Reduction

- Speed up federal efforts to reduce risks to children exposed to lead-based paint
- Stimulate private lead inspection and hazard abatement services



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- Congress added Title IV to TSCA Lead-Based Paint Hazard Reduction Act of 1992
- Title IV aims to accelerate federal efforts to reduce risks to young children who daily are exposed to lead-based paint in their homes.
- In addition, it is expected to stimulate development of lead inspection and hazard abatement services in the private sector, while ensuring that the services provided and any products employed are reliable and effective in reducing risk.

Title IV - Lead Exposure Reduction

Directed EPA to develop:

- Definitions of lead-based hazards;
- Certification for lead detection personnel and contractors;
- Accreditation programs for lead workers;
- Criteria for effectiveness of control products;
- Protocols for lab analysis;
- List of accredited environmental sampling laboratories



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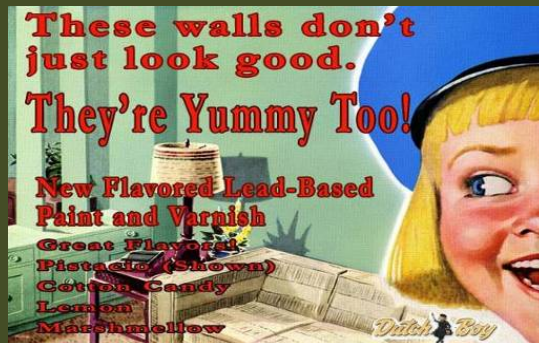
•Title IV directs EPA:

- to promulgate definitions of lead-contaminated dust, lead-contaminated soil, and lead-based paint hazards;
- to ensure that people engaged in detection and control of lead hazards are properly trained and that contractors are certified;
- to publish requirements for the accreditation of training programs for workers;
- to develop criteria to evaluate the effectiveness of commercial products used to detect or reduce risks associated with lead-based paint;
- to establish protocols, criteria, and minimum performance standards for laboratory analysis of lead in paint films, soil, and dust;
- to establish a program to certify laboratories as qualified to test substances for lead content; and
- to publish and distribute to the public a list of certified or accredited environmental sampling laboratories.

Title IV - Lead Exposure Reduction

Directed development of:

- Clearinghouses and hotline
- Information pamphlet
- Public education and outreach activities

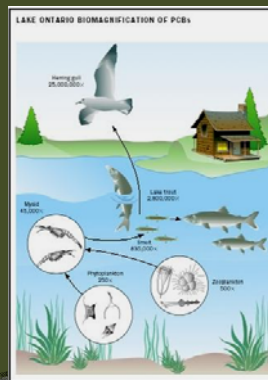


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- Title IV directs EPA to establish a clearinghouse and hotline to distribute information about the hazards of lead-based paint, how to avoid exposure and reduce risk, and new technologies for removing or immobilizing lead-based paint.
- In addition, Congress mandated development of:
 - a lead hazard information pamphlet;
 - public education and outreach activities for health professionals, the general public, homeowners, landlords, tenants, consumers of home improvement products, the residential real estate industry, and the home renovation industry;
 - and information to be distributed by retailers of home improvement products to provide consumers with practical information related to the hazards of renovation where lead-based paint may be present.

How are PCBs regulated?

- TSCA banned manufacture, processing, distribution and use of PCBs, except in totally enclosed manner
- EPA to promulgate regulations governing PCBs
- Since 1978, EPA promulgated numerous rules addressing all aspects of life cycle of PCBs



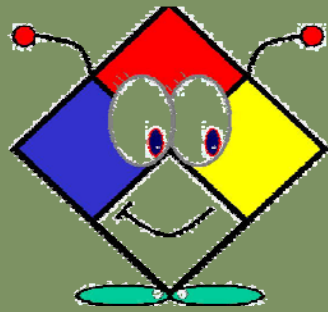
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- PCB toxicity became evident in 1968 when over 1000 people became sick after consuming rice oil which had been contaminated from a leaking heat exchanger in a commercial factory in Yusho, Japan.
- Another incident happened in 1979 when approximately 2000 Taiwanese ate PCB contaminated rice oil known as the "Ye Cheng" incident.
- EPA has five different statutes which impact activities relating to PCBs:
 - 1) Toxic Substances Control Act (TSCA)
 - 2) Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
 - 3) Resource Conservation and Recovery Act (RCRA)
 - 4) Safe Drinking Water Act (SDWA)
 - 5) Clean Water Act (CWA)
- TSCA required EPA to develop rules to:
 - prescribe methods for the disposal of polychlorinated biphenyls, and
 - require polychlorinated biphenyls to be marked with clear and adequate warnings, and instructions with respect to their processing, distribution in commerce, use, or disposal or with respect to any combination of such activities.

TSCA -- Conclusion

- Unlike statutes that regulate risks after substance has been introduced into commerce, TSCA judges risks from chemical before introduced
- TSCA is not to regulate all chemicals that present risk, but only those that present "unreasonable" risk of harm





**Clean Water Act (CWA)
or
Federal Water Pollution
Control Act (FWPCA)**

"Don't put it out the pipe" or "Why is that fish
swimming upside down?"

CWA: Introduction

- First comprehensive show of federal interest in clean water programs
- Provided technical assistance funds to address water
- Pollution viewed as state and local problem, so no federal rules or guidelines



- The Federal Water Pollution Control Act of 1948 was the first comprehensive statement of federal interest in clean water programs, and it specifically provided state and local governments with technical assistance funds to address water pollution problems, including research.
- Water pollution was viewed as primarily a state and local problem, hence, there were no federally required goals, objectives, limits, or even guidelines.
- When it came to enforcement, federal involvement was strictly limited to matters involving interstate waters and only with the consent of the state in which the pollution originated.

Clean Water Act and Major Amendments (codified generally as 33 U.S.C. 1251-1387)

Year	Act	Public Law Number
1948	Federal Water Pollution Control Act	P.L. 80-845
1956	Water Pollution Control Act of 1956	P.L. 84-660
1961	Federal Water Pollution Control Act Amendments	P.L. 87-88
1965	Water Quality Act of 1965	P.L. 89-234
1966	Clean Water Restoration Act	P.L. 89-753
1970	Water Quality Improvement Act of 1970	P.L. 91-224, Part I
1972	Federal Water Pollution Control Act Amendments	P.L. 92-500
1977	Clean Water Act of 1977	P.L. 95-217
1981	Municipal Wastewater Treatment Construction Grants Amendments	P.L. 97-117
1987	Water Quality Act of 1987	P.L. 100-4

CWA: Introduction

- In 1950s and 1960s, 4 laws changed how U.S. dealt with water pollution programs
- Assistance to municipal dischargers and enforcement for all dischargers
- Federal jurisdiction extended to include navigable intrastate as well as interstate, waters
- Water quality standards added in 1965 to set standards for interstate waters

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- During the latter half of the 1950s and well into the 1960s, water pollution control programs were shaped by four laws which amended the 1948 statute.
- They dealt largely with federal assistance to municipal dischargers and with federal enforcement programs for all dischargers.
- During this period, the federal role and federal jurisdiction were gradually extended to include navigable intrastate, as well as interstate, waters.
- Water quality standards became a feature of the law in 1965, requiring states to set standards for interstate waters that would be used to determine actual pollution levels.

1972 Statute

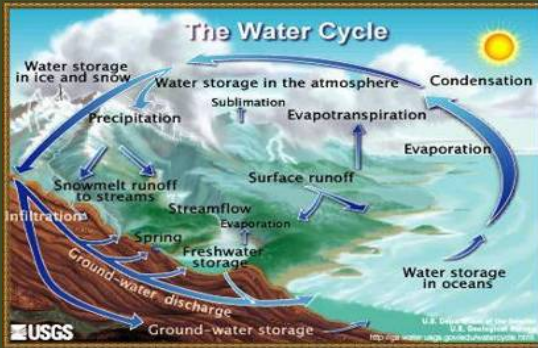
- 1972 statute set up new goals:
 - required wastewater to be treated before discharge
 - increased municipal treatment plant construction
 - increased enforcement
 - retained day-to-day responsibility for states

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- The 1972 statute did not continue the basic components of previous laws as much as it set up new ones.
- It set optimistic and ambitious goals:
 - required all municipal and industrial wastewater to be treated before being discharged into waterways
 - increased federal assistance for municipal treatment plant construction
 - strengthened and streamlined enforcement
 - expanded the federal role while retaining the responsibility of states for day-to-day implementation of the law.

1972 Legislation Objective

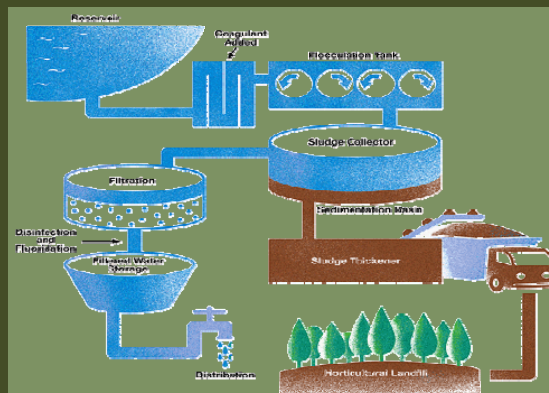
- Restore and maintain integrity of nation's waters
- Two goals established:
 - zero discharge of pollutants by 1985 and
 - water quality "fishable" and "swimmable" by 1983
- These goals remain, and efforts to meet goals continue



- The 1972 legislation declared as its objective the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.
- Two goals also were established:
 - zero discharge of pollutants by 1985 and, as an interim goal and where possible,
 - water quality that is both "fishable" and "swimmable" by mid-1983.
- While those dates have passed, the goals remain, and efforts to attain the goals continue.

Two Major Parts

- Federal financial assistance for municipal sewage treatment plant construction
- Regulatory requirements apply to industrial and municipal dischargers

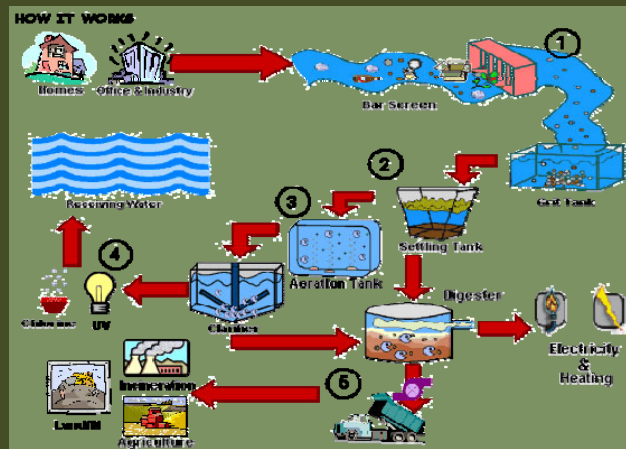


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- The Clean Water Act (CWA) today consists of two major parts, one being the Title II and Title VI provisions which authorize federal financial assistance for municipal sewage treatment plant construction.
- The other is regulatory requirements, found throughout the act, that apply to industrial and municipal dischargers.

Municipal Wastewater Treatment Construction

- Provided grants for sewage treatment facilities since 1956
- Grants allocated among states according to state population and estimate of municipal sewage treatment funding needs



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- Federal law has authorized grants for planning, design, and construction of municipal sewage treatment facilities since 1956.
- Congress greatly expanded this grant is program in 1972.
- Since that time Congress has authorized \$65 billion and appropriated more than \$76 billion in Clean Water Act funds to aid wastewater infrastructure plant construction (not including congressionally earmarked appropriations for specific projects).
- Grants are allocated among the states according to a complex statutory formula that combines two factors: state population and an estimate of municipal sewage treatment funding needs derived from a biennial survey conducted by EPA and the states.

Permits & Regulations



- Concept all discharges into nation's waters are unlawful, unless authorized by permit
- > 65,000 industrial and municipal dischargers must obtain NPDES permit
- Permit requires discharger to attain technology-based effluent limits

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- To achieve its objectives, the act embodies the concept that all discharges into the nation's waters are unlawful, unless specifically authorized by a permit.
- Thus, more than 65,000 industrial and municipal dischargers must obtain permits from EPA (or qualified states) under the act's National Pollutant Discharge Elimination System (NPDES) program (authorized in Section 402 of the act).
- An NPDES permit requires the discharger (source) to attain technology-based effluent limits (BPT or BAT for industry, secondary treatment for municipalities, or more stringent for water quality protection).
- Permits specify the control technology applicable to each pollutant, the effluent limitations a discharger must meet, and the deadline for compliance.

Permits & Regulations



- Permits specify technology needed, effluent limitations, and deadlines
- Must maintain records and conduct monitoring activities
- Permits issued for 5 years, renewed for continued discharge

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- Permits specify the control technology applicable to each pollutant, the effluent limitations a discharger must meet, and the deadline for compliance.
- Sources are required to maintain records and to carry out effluent monitoring activities.
- Permits are issued for five-year periods and must be renewed thereafter to allow continued discharge.

Permits & Regulations

- Technologies focused on conventional pollutants & toxic pollutants
- EPA issued water quality criteria for more than 115 pollutants, including 65 classes or categories of toxic chemicals, or "priority pollutants"
- Provide ambient concentration levels and provide guidance for establishing water quality standards



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- The NPDES permit incorporates numerical effluent limitations issued by EPA.
- The initial BPT limitations focused on regulating discharges of conventional pollutants, such as bacteria and oxygen-consuming materials.
- The more stringent BAT limitations emphasize controlling toxic pollutants — heavy metals, pesticides, and other organic chemicals.
- In addition to these limitations applicable to categories of industry, EPA has issued water quality criteria for more than 115 pollutants, including 65 named classes or categories of toxic chemicals, or "priority pollutants."
- These criteria recommend ambient, or overall, concentration levels for the pollutants and provide guidance to states for establishing water quality standards that will achieve the goals of the act.

Permits, Regulations & Enforcement

- Permit required to dispose of dredge or fill material in nation's waters, including wetlands
- Administered by Corps of Engineers using EPA's guidance
- Wetlands permit program most controversial part of law



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- A separate type of permit is required to dispose of dredge or fill material in the nation's waters, including wetlands.
- Authorized by Section 404 of the act, this permit program is administered by the U.S. Army Corps of Engineers, subject to and using EPA's environmental guidance.
- Some types of activities are exempt from these permit requirements, including certain farming, ranching, and forestry practices which do not alter the use or character of the land; some construction and maintenance; and activities already regulated by states under other provisions of the act.
- EPA may delegate certain Section 404 permitting responsibility to qualified states and has done so twice (Michigan and New Jersey).
- For some time, the act's wetlands permit program has been one of the most controversial parts of the law.
- Some who wish to develop wetlands maintain that federal regulation intrudes on and impedes private land-use decisions, while environmentalists seek more protection for remaining wetlands and limits on activities that take place in wetlands.

Permits, Regulations & Enforcement

- Nonpoint sources of pollution, responsible for most water quality impairments, not subject to CWA permits
- Covered by state management of runoff



- Nonpoint sources of pollution, which EPA and states believe are responsible for the majority of water quality impairments in the nation, are not subject to CWA permits or other regulatory requirements under federal law.
- They are covered by state programs for the management of runoff, under Section 319 of the act.

Spill Reporting

- Major area where CWA interfaces with CERCLA
- Requirements established to address oil spills and releases of hazardous substances, including reporting of oil spills to National Response Center



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- Any person in charge of a vessel or of an onshore facility or an offshore facility shall, as soon as he has knowledge of any discharge of oil or a hazardous substance from such vessel or facility, immediately notify the appropriate agency of the United States Government of such discharge.
- The Federal agency shall immediately notify the appropriate State agency of any State which is, or may reasonably be expected to be, affected by the discharge of oil or a hazardous substance.

Federal Removal Authority

- President (EPA/USCG OSCs) shall ensure effective cleanup of oil or hazardous substance
 - (i) into or on navigable waters
 - (ii) on adjoining shorelines to navigable waters
- President (EPA/USCG OSCs) shall direct all actions to remove spill of a substantial threat to public health or welfare
- All cleanup actions shall be in accordance with NCP



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- The President shall, in accordance with the NCP and any appropriate ACP, ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance—
 - (i) into or on the navigable waters;
 - (ii) on the adjoining shorelines to the navigable waters;
 - (iii) into or on the waters of the exclusive economic zone; or
 - (iv) that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States
- In carrying out this paragraph, the President may—
 - (i) remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;
 - (ii) direct or monitor all Federal, State, and private actions to remove a discharge; and
 - (iii) remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

NCP

- President required to prepare NCP for removal of oil and hazardous substances
- NCP provides for efficient and effective action to minimize damage from oil and hazardous substance discharges, including containment, dispersal, and removal of oil and hazardous substances

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- Assignment of duties and responsibilities among Federal departments and agencies in coordination with State and local agencies and port authorities including, but not limited to, water pollution control and conservation and trusteeship of natural resources
- Identification, procurement, maintenance, and storage of equipment and supplies.
- Establishment or designation of Coast Guard strike teams
- System of surveillance and notice designed to safeguard against as well as ensure earliest possible notice of discharges of oil and hazardous substances and imminent threats of such discharges to the appropriate State and Federal agencies.
- Establishment of a national center to provide coordination and direction for operations in carrying out the Plan.
- Procedures and techniques to be employed in identifying, containing, dispersing, and removing oil and hazardous substances.
- Schedule, prepared in cooperation with the States, identifying dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the Plan
- System whereby the State or States affected by a discharge of oil or hazardous substance may act where necessary to remove such discharge and such State or States may be reimbursed in accordance with the Oil Pollution Act of 1990, in the case of any discharge of oil from a vessel or facility, for the reasonable costs incurred for that removal, from the Oil Spill Liability Trust Fund.
- Establishment of criteria and procedures to ensure immediate and effective Federal identification of, and response to, a discharge, or the threat of a discharge, that results in a substantial threat to the public health or welfare of the United States
- Establishment of procedures and standards for removing a worst case discharge of oil, and for mitigating or preventing a substantial threat of such a discharge.
- Designation of the Federal official who shall be the Federal On-Scene Coordinator for each area for which an Area Contingency Plan is required

Oil Spill Plans

- Act required development of prevention and response plans for the discharge of oil
- Led to development of SPCC plans and FRPs



CWA Conclusion



To “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”



SAFE DRINKING WATER ACT (SDWA)

**“DO NOT PUT IT IN A HOLE IN THE
GROUND”**

Introduction

- SDWA is key federal law for protecting public water supplies from harmful contaminants.
- Establishes standards and treatment requirements for public water supplies, control underground injection of wastes, and protect sources of drinking water.

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- The Safe Drinking Water Act (SDWA), Title XIV of the Public Health Service Act, is the key federal law for protecting public water supplies from harmful contaminants.
- First enacted in 1974 and substantively amended in 1986 and 1996, the act is administered through programs that establish standards and treatment requirements for public water supplies, control underground injection of wastes, finance infrastructure projects, and protect sources of drinking water.
- The 1974 law established the current federal-state arrangement in which states may be delegated primary implementation and enforcement authority for the drinking water program.
- The state-administered Public Water Supply Supervision (PWSS) Program remains the basic program for regulating the nation's public water systems, and 49 states have assumed this authority.

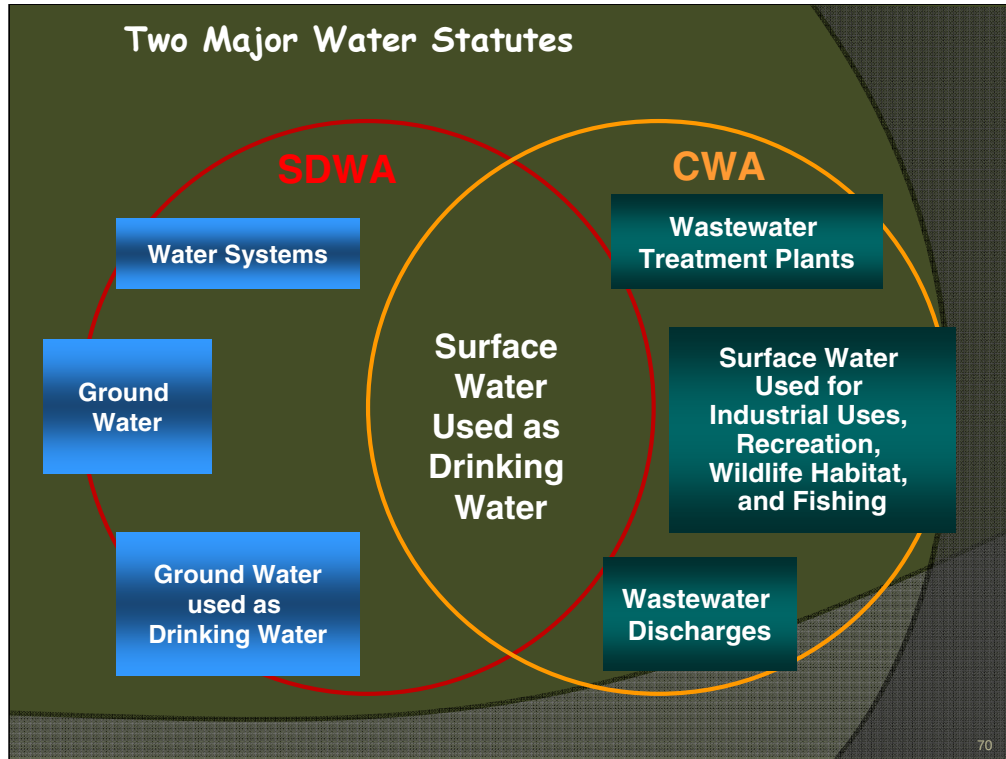
Safe Drinking Water Act and Amendments (codified generally as 42 U.S.C. 300f-300j)

Year	Act	Public Law Number
1974	Safe Drinking Water Act of 1974	P.L. 93-523
1977	Safe Drinking Water Act Amendments of 1977	P.L. 95-190
1979	Safe Drinking Water Act Amendments	P.L. 96-63
1980	Safe Drinking Water Act Amendments	P.L. 96-502
1986	Safe Drinking Water Act Amendments of 1986	P.L. 99-339
1988	Lead Contamination Control Act of 1988	P.L. 100-572
1996	Safe Drinking Water Act Amendments of 1996	P.L. 104-182
2002	Public Health Security and Bioterrorism Preparedness and Response Act of 2002	P.L. 107-188

SDWA -- Background

- SDWA enacted after nationwide study of water systems revealed water quality and health problems resulting from:
 - poor operating procedures
 - inadequate facilities, and
 - poor management of public water supplies

- Safe Drinking Water Act has been amended several times since enactment of the Safe Drinking Water Act of 1974 (P.L. 93-523).
- Congress enacted P.L. 93-523 after nationwide studies of community water systems revealed widespread water quality problems and health risks resulting from poor operating procedures, inadequate facilities, and poor management of public water supplies in communities of all sizes.
- The 1974 law gave EPA substantial discretionary authority to regulate drinking water contaminants and gave states the lead role in implementation and enforcement.



- The two major Federal statutes governing water are the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA).
- In general terms, the SDWA addresses drinking water, discharges to ground water, and the water systems that deliver drinking water to the public.
- The CWA is the counterpart to the SDWA.
- It regulates wastewater discharges to surface water, supports the creation and rehabilitation of wastewater treatment plants, and protects surface water.
- Some overlap obviously exists between these two statutes.
- However, as a basic rule, the SDWA is concerned with public health associated with safe drinking water while the CWA has a broader goal of clean, fishable, and swimmable waters.

National Drinking Water Regulations

- Act required EPA promulgate national primary drinking water regulations for contaminants present in water supplies
- Criteria for contaminant selection and regulations provided
- Act applies to 168,000 privately and publicly owned water systems providing water to at least 15 service connections or least 25 people.
- EPA has issued regulations for roughly 90 contaminants

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- A key component of the SDWA is the requirement that EPA promulgate national primary drinking water regulations for contaminants that may pose health risks and that are likely to be present in public water supplies.
- Section 1412 instructs EPA on how to select contaminants for regulation and specifies how EPA must establish regulations once a contaminant has been selected.
- The regulations apply to the roughly 168,000 privately and publicly owned water systems that provide piped water for human consumption to at least 15 service connections or that regularly serve at least 25 people.
- EPA has issued regulations for roughly 90 contaminants.

Contaminant Selection

- EPA required to select contaminants for consideration based on occurrence, health effects, and opportunity for risk reduction
- Every five years, EPA must publish contaminants list that warrant regulation; determine whether or not to regulate at least five of contaminants

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- Section 1412, as amended in 1996, directs EPA to select contaminants for regulatory consideration based on occurrence, health effects, and meaningful opportunity for health risk reduction.
- Starting in 1998, and every five years thereafter, EPA must publish a list of contaminants that may warrant regulation.
- Starting in 2001, and every five years thereafter, EPA must determine whether or not to regulate at least five of the listed contaminants.
- The act requires EPA to evaluate contaminants that present the greatest health concern and to regulate contaminants that occur at concentration levels and frequencies of public health concern.
- The amendments also included schedules for EPA to complete regulations for specific contaminants (i.e., radon, arsenic, disinfectants and disinfection byproducts, and *Cryptosporidium*).

Standard Setting

- For each contaminant, EPA sets non-enforceable MCLG level below anticipated adverse health effects
- EPA then sets enforceable MCL, using best technology, treatment techniques, or other means available
- Must consider costs for smaller treatment systems

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- For each contaminant that EPA determines requires regulation, EPA must set a non-enforceable maximum contaminant level goal (MCLG) at a level at which no known or anticipated adverse health effects occur and which allows an adequate margin of safety.
- EPA must then set an enforceable standard, a maximum contaminant level (MCL), as close to the MCLG as is "feasible" using best technology, treatment techniques, or other means available (taking costs into consideration).
- EPA generally sets standards based on technologies that are affordable for large communities; however, EPA is now required, when issuing a regulation for a contaminant, to list any technologies or other means that comply with the MCL and that are affordable for three categories of small public water systems (serving populations of 10,000 or fewer).
- If EPA does not identify technologies that are affordable for small systems, then EPA must identify small system "variance" technologies or other means that may not achieve the MCL but are protective of public health.

Standard Setting

- EPA must consider whether benefits of standard justify costs.
- If not, EPA may promulgate standard maximizing risk reduction benefits at justified costs
- New standards effective 3 years later, 2 additional years if warranted

- Another provision added in 1996 requires EPA, when proposing a regulation, to publish a determination as to whether or not the benefits of the standard justify the costs.
- If EPA determines that the benefits do not justify the costs, EPA may, with certain exceptions, promulgate a standard that maximizes health risk reduction benefits at a cost that is justified by the benefits.
- New SDWA regulations generally become effective three years after promulgation.
- Up to two additional years may be allowed if EPA (or a state in the case of an individual system) determines the time is needed for capital improvements.

Risk Assessment

- EPA required to use best available science and data, make available assessment results
- EPA must publish health risk reduction and cost
- Analysis; interim standard for urgent threats

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- The 1996 amendments also added risk assessment and risk communication provisions to SDWA.
- When developing regulations, EPA is required to (1) use the best available, peer-reviewed science and supporting studies and data; and (2) make publicly available a risk assessment document that discusses estimated risks, uncertainties, and studies used in the assessment.
- When proposing drinking water regulations, EPA must publish a health risk reduction and cost analysis (HRRCA).
- EPA may promulgate an interim standard without first preparing this benefit-cost analysis or making a determination as to whether the benefits of a regulation would justify the costs if EPA determines that a contaminant presents an urgent threat to public health.

Variances & Exemptions

- Act allows states to grant water system variance from standard if raw water quality prevents standard from being met despite application of best technology, and the variance does not result in an unreasonable risk to health.
- Act authorizes variances specifically for small systems based on application of best affordable technology

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- In anticipation that some systems, particularly smaller ones, could have difficulty complying with every regulation, Congress included in the SDWA provisions for variances and exemptions.
- Section 1415 authorizes a state to grant a public water system a *variance* from a standard if raw water quality prevents the standard from being met despite application of best technology, and the variance does not result in an unreasonable risk to health.
- A 1996 provision (Subsection 1415(e)) authorizes variances specifically for small systems based on application of best affordable technology.

State Primacy

- Under SDWA, States can assume primary oversight and enforcement responsibility for public water systems
- States must adopt peer regulations, enforcement procedures, penalties, records, and plan for providing emergency water supplies
- 55 of 57 states and territories have primacy authority

- Section 1413 authorizes states to assume primary oversight and enforcement responsibility (primacy) for public water systems.
- To assume primacy, states must adopt regulations at least as stringent as national requirements, develop adequate procedures for enforcement, adopt authority for administrative penalties, maintain records, and develop a plan for providing emergency water supplies.
- Currently, 55 of 57 states and territories have primacy authority.
- The act authorizes \$100 million annually for EPA to make grants to states to administer the Public Water System Supervision Program.
- States may also use part of their SRF grant for this purpose.

Ground Water Protection Programs

- Act established state UIC programs to protect underground sources of drinking water
- Requirements for injection of wastes into 5 classes of disposal wells
- States must prohibit injection not authorized by permit
- States required to submit implementation plans for primacy
- Oil/gas injection operations subject to State program only

- Most small water systems rely on ground water as a source of drinking water, and Part C of the act focuses on ground water protection.
- Section 1421 authorized the establishment of state underground injection control (UIC) programs to protect underground sources of drinking water.
- In 1977, EPA issued mandated regulations containing minimum requirements for the underground injection of wastes into five classes of disposal wells and requiring states to prohibit any underground injection not authorized by state permit.
- The law specified that the regulations could not interfere with the underground injection of brine from oil and gas production or recovery of oil unless underground sources of drinking water would be affected.
- Section 1422 authorized affected states to submit plans to EPA for implementing UIC programs and, if approved, to assume primary enforcement responsibility.
- EPA is required to implement the program if a state's plan has not been approved or the state has chosen not to assume program responsibility (Section 1423).
- For oil and gas injection operations only, states with UIC programs are delegated primary enforcement authority without meeting EPA regulations (Section 1425).

Ground Water Protection Programs

- EPA can determine aquifer is sole or principal drinking water source for area, so no federal funding used for projects that may contaminate aquifer
- State can adopt program for protecting wellhead areas around public water system wells
- EPA can provide grants for wellhead protection program

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- Section 1424(e) authorizes EPA to make determinations, on EPA's initiative or upon petition, that an aquifer is the sole or principal drinking water source for an area.
- In areas that overlie a designated sole-source aquifer, no federal funding may be committed for projects that EPA determines may contaminate such an aquifer.
- Any person may petition for sole source aquifer designation.
- The act contains three additional state programs aimed specifically at protecting ground water.
- Added in 1986, Section 1427 established procedures for demonstration programs to develop, implement, and assess critical aquifer protection areas already designated by the Administrator as sole source aquifers.
- Section 1428, also added in 1986, established an elective state program for protecting wellhead areas around public water system wells.
- If a state established a wellhead protection program by 1989, and EPA approved the state's program, then EPA may award grants covering between 50% and 90% of the costs of implementing the program.
- Section 1429, added in 1996, authorizes EPA to make 50% grants to states to develop programs to ensure coordinated and comprehensive protection of ground water within the states.
- Appropriations for these three programs and for UIC state program grants were authorized through FY2003.

Drinking Water Security

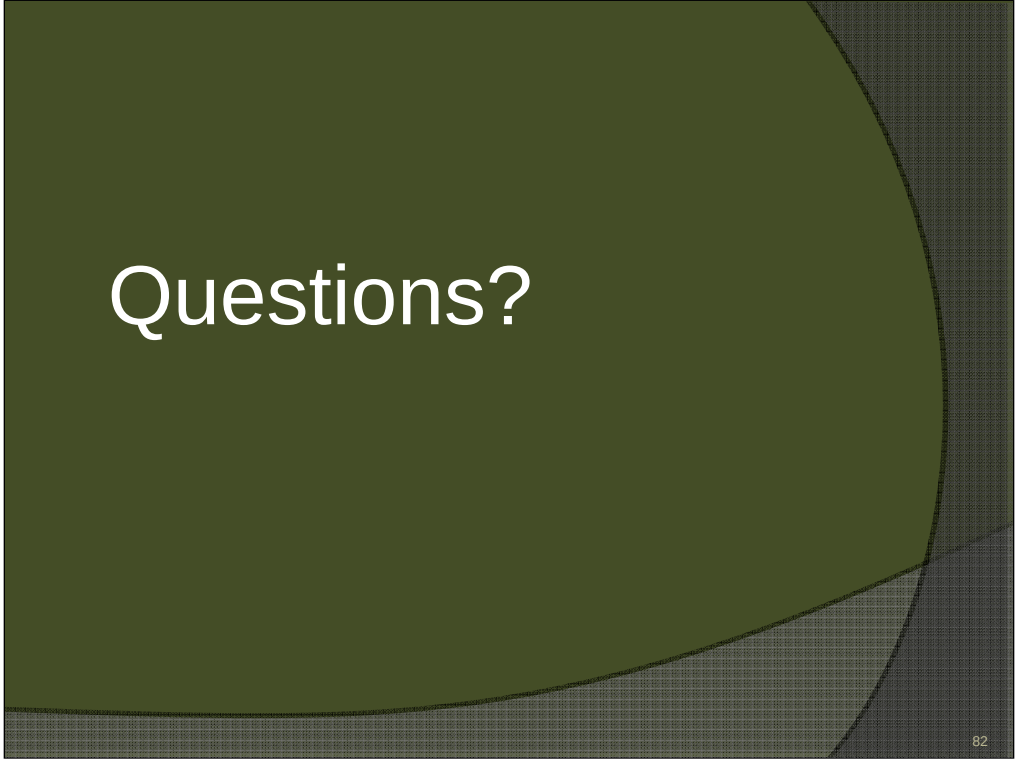
- SDWA amended in 2002 to address threats to drinking water security, which included:
 - Vulnerability Assessments
 - Emergency Powers
 - Tampering with Public Water Systems
 - Emergency Assistance

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- The 107th Congress passed the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (P.L. 107-188).
- Title IV of the Bioterrorism Act amended the SDWA to address threats to drinking water security. Key provisions are summarized below.
- **Vulnerability Assessments.** Section 1433 was added to SDWA, requiring each community water system serving more than 3,300 individuals to conduct an assessment of the system's vulnerability to terrorist attacks or other intentional acts to disrupt the provision of a safe and reliable drinking water supply.
- **Emergency Powers.** Under Section 1431, the Administrator has emergency powers to issue orders and commence civil action if (1) a contaminant likely to enter a public water supply system poses a substantial threat to public health, and (2) state or local officials have not taken adequate action.
- **Tampering with Public Water Systems.** Section 1432 provides for civil and criminal penalties against any person who tampers, attempts to tamper, or makes a threat to tamper with a public water system.
- **Emergency Assistance.** SDWA Subsection 1442(b) authorizes EPA to provide technical assistance and to make grants to states and public water systems to assist in responding to and alleviating emergency situations.

Conclusion

- SWDA is key federal law for protecting public water systems from harmful contaminants
- Standards, treatment requirements, and control of underground injection of wastes all work to protect drinking water



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