

# The Toxic Substances Control Act (TSCA)

# Objectives



## **Terminal Objective**

**Given the Environmental Laws and Regulations course manual as a reference, you will be able to:**

- **Explain how the Toxic Substances Control Act (TSCA) affects DOE and chemical manufacturers and processors.**

# Objectives

## Enabling Objective

- **Describe the general intent of TSCA Sections 5, 6, and 8.**
- **Discuss the significance of the Chemical Substance Inventory.**
- **Explain the EPA's regulatory authority under TSCA Titles I and II.**

# Objectives



## Enabling Objective

- Describe the cleanup and disposal options for PCB remediation waste under EPA's "mega-rule".

# Overview

*The Toxic Substances Control Act (TSCA) was enacted in 1976 to regulate commerce and protect human health and the environment.*



# Overview

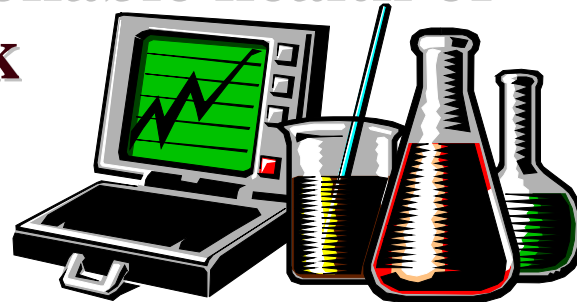
*Unlike other environmental statutes, many of which focus on waste management, TSCA grants the Environmental Protection Agency (EPA) authority to regulate the entire life cycle of a chemical substance.*



# Overview

## TSCA's objectives include:

- **Developing adequate data to determine the health and environmental effects of chemicals**
- **Controlling the use of any chemicals that present an unreasonable health or environmental risk**



TSCA

# Overview

**Under TSCA, EPA has the authority to entirely ban a chemical or substance from all US manufacture or use**

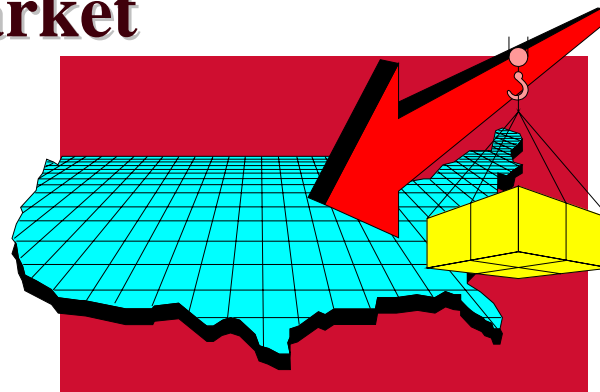




# TSCA Sections

**A major focus of TSCA is establishing a system for identifying and evaluating:**

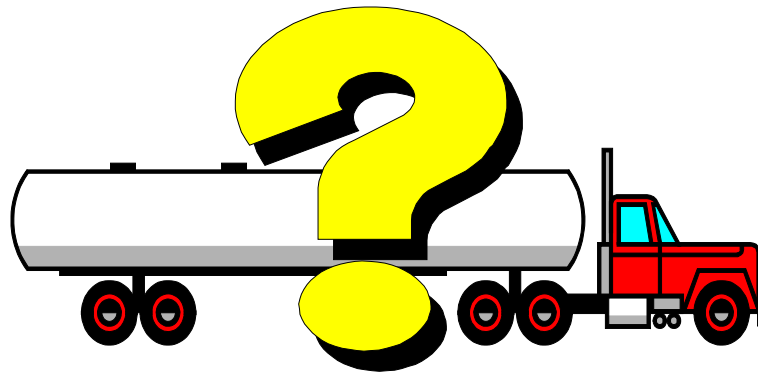
- **Environmental and health effects of existing chemicals**
- **Any new chemical substances entering the U.S. market**



# TSCA Section 5

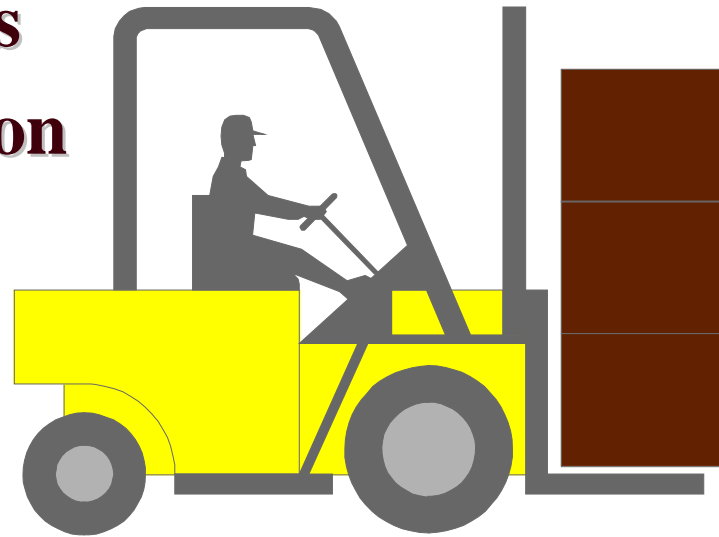
**Section 5 requires any company planning to manufacture or import a new chemical to submit a premanufacture notice to the EPA that contains information on the substance's:**

- **Identity**
- **Use**



# TSCA Section 5

- **Anticipated production or import volume**
- **Workplace hazards**
- **Disposal information**



# TSCA Sections 6 and 8



- **Section 6 gives the EPA the power to control the production and use of toxic chemical substances**
- **Section 8 gives the EPA broad powers to collect chemical health and environmental risk information**

# TSCA Section 8

**Under Section 8, producers and importers can be required to supply data on:**

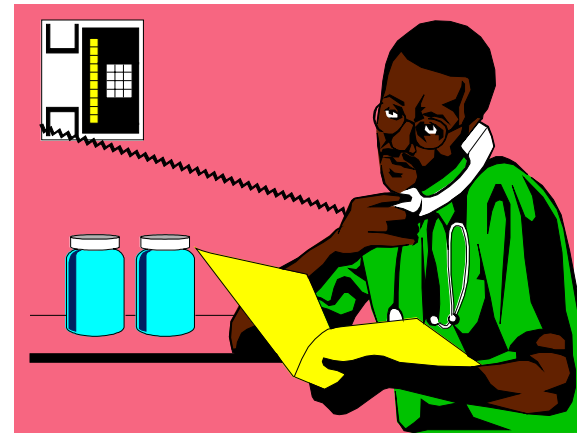
- **Production**
- **Use**
- **Exposure**
- **Risk**



# TSCA Section 8

**The EPA can also ask manufacturers and processors to:**

- **Report unpublished health and safety studies on existing chemicals**
- **Conduct and report results of toxicological tests**



# TSCA Reporting Requirements

**Under TSCA, the EPA is required to compile and maintain a Chemical Substance Inventory of each chemical substance that is:**

- **Manufactured, or**
- **Processed in the United States**



# TSCA Reporting Requirements

*TSCA requires chemical manufacturers and importers to notify the EPA before introducing new chemical substances into commerce.*

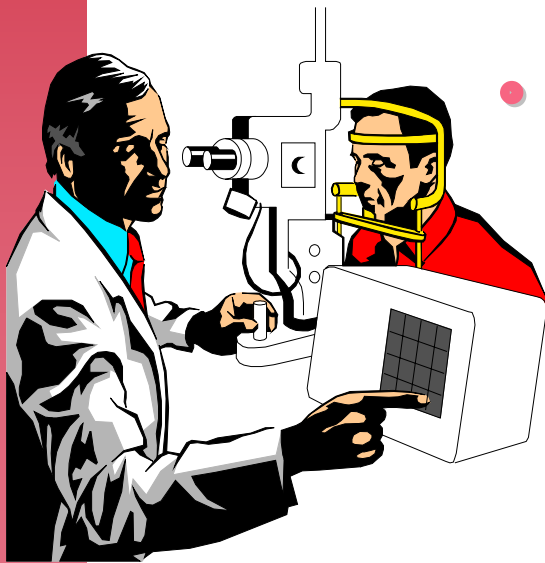




# TSCA Title I

**TSCA's Title I established the EPA's regulatory authority over:**

- **Existing and new chemicals**
- **Mechanisms for identifying and evaluating chemical hazards**



# TSCA Title I

**Under Title I (Section 6), the EPA banned polychlorinated biphenyl (PCB):**

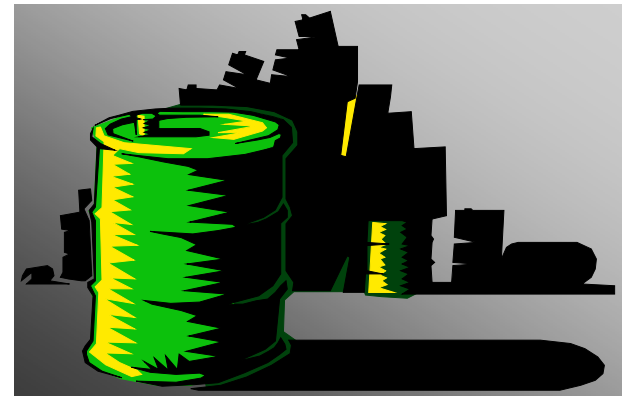
- **Manufacturing**
- **Processing (except for disposal)**
- **Distribution**



# TSCA Title I

**Additional rules were developed under TSCA to regulate:**

- **PCB disposal**
- **PCB storage**
- **PCB spill cleanup**
- **The use of PCB transformers**



# TSCA Title II

*In 1986, Congress enacted the Asbestos Hazard Emergency Response Act (AHERA) as Title II of TSCA, which initiated a phaseout of the manufacture and use of asbestos.*



TSCA

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# TSCA Title II

*Title II also charges the EPA with responsibility for drafting regulations to protect students and workers in elementary and secondary schools from exposure to asbestos.*



# TSCA Title II

**Title II orders school systems throughout the United States to:**

- **Inspect their buildings for asbestos**
- **Identify areas where asbestos-containing materials pose threats to humans**
- **Abate asbestos hazards**



# TSCA Title II

**Amendments were passed in 1988 and 1990 to:**

- **Provide additional time for local educational agencies to submit asbestos management plans to State Governors**
- **Expand Federal training and accreditation requirements to include abatement personnel working in all public and commercial buildings**

# Regulatory Authority

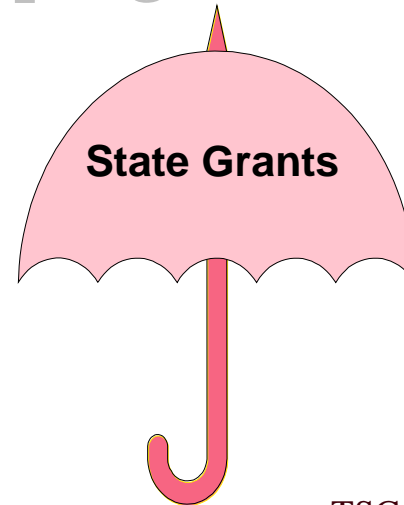
*TSCA regulatory authority rests entirely with the Federal Government. The TSCA program is administered by the EPA and cannot be delegated to individual State authority.*





# Regulatory Authority

*However, individual States can obtain grants for regulating substances that pose a risk within their State boundaries, but are not regulated under the Federal program.*



# TSCA and Other Environmental Laws



*TSCA was enacted to fill gaps left by other environmental laws. To avoid jurisdictional conflicts, Section 9 of TSCA describes coordination procedures to be followed when regulatory laws overlap.*

# TSCA and Other Environmental Laws

**For example:**

- **Nuclear material waste is specifically excluded as a TSCA-regulated chemical substance**
- **However, the TSCA-regulated portion of a mixed nuclear and regulated waste must comply with TSCA requirements**

# TSCA and Other Environmental Laws

*TSCA regulates certain chemicals, such as PCBs, that may be present in DOE facilities. The regulation of PCBs is the primary way that TSCA affects the DOE.*



# TSCA and Other Environmental Laws



*Although PCBs are not classified as Resource Conservation and Recovery Act (RCRA) wastes, they are subject to PCB manifesting and notification requirements that have been adopted from RCRA.*

# TSCA and DOE

**TSCA allows for the continued use of totally enclosed PCBs**

**DOE sites may find PCBs in electrical equipment such as:**

- **transformers**
- **capacitors**
- **electrical switches**

# TSCA and DOE

**DOE sites may also find PCBs during D&D activities in:**

- **old hydraulic fluid and fluid lines**
- **waste cutting and cooling oils**

# TSCA and DOE

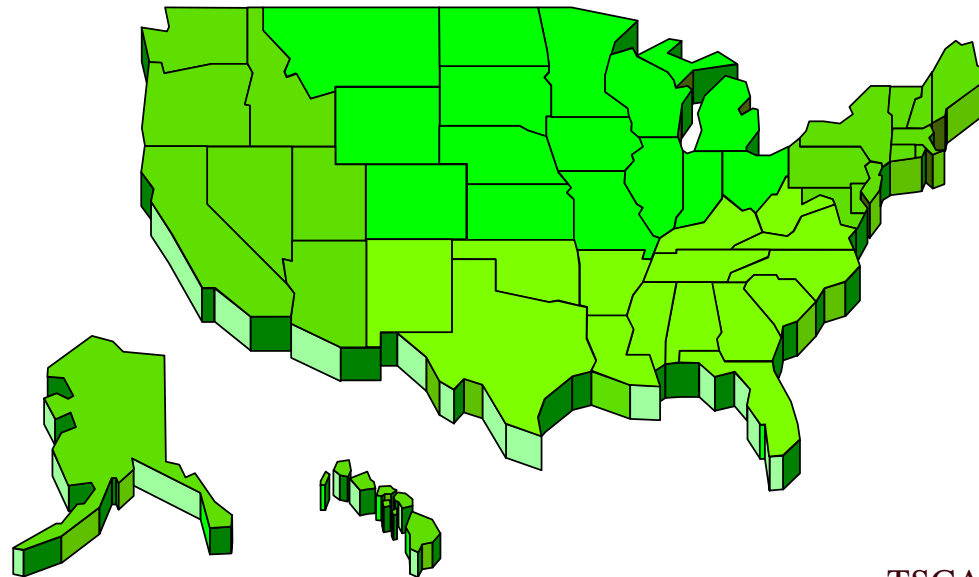
**Substances subject to TSCA that may be found at DOE sites include:**

- **PCBs**
- **chlorofluorocarbons (CFCs)**
- **asbestos**
- **lead-based paints**
- **certain hexavalent chromium compounds**



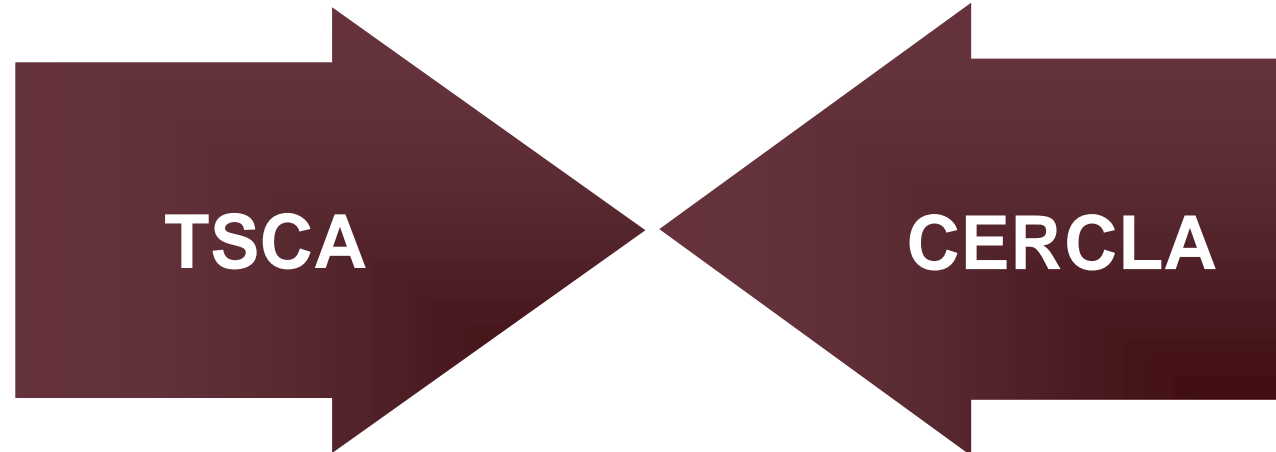
# TSCA and Other Environmental Laws

*Furthermore, some States regulate PCBs under an authorized State RCRA program.*



# TSCA and Other Environmental Laws

*TSCA also overlaps with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).*



# SCA and Other Environmental Laws

**For example, PCB spills may be regulated under both:**

- **TSCA and**
- **CERCLA**



# The “Mega-Rule”

- **Published by EPA June 29, 1998**
- **Streamlines PCB handling and disposal procedures**
- **Sets concentration standards for releases “presumed not to present an unreasonable risk”**
- **Provides three cleanup and disposal options for PCB remediation waste**

# Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste

## **Addresses:**

- **Bulk PCB remediation waste**
- **Non-porous surfaces**
- **Porous surfaces**
- **Liquids**

## **Provides for:**

- **Application of generic risk assumptions to determine cleanup levels**

# Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste

**Allows use of capping, marking, or fencing to reduce exposures**

- **Also requires deed restrictions in these cases**

**Does not allow these provisions to address cleanup of :**

- **Surface or ground waters**
- **Sediments in marine and freshwater ecosystems**
- **Sewers or sewage treatment systems**
- **Other specific locations**

# Performance-Based Disposal



**Depending on the concentration, liquid PCB remediation wastes are to be**

- **Incinerated,**
- **Disposed of using an alternative method to achieve the same performance level as incineration, or**
- **Decontaminated according to specific EPA procedures**

# Performance-Based Disposal

**Non - liquid PCB remediation wastes are to be:**

- **Incinerated,**
- **Disposed of using an alternative method equivalent to incineration,**
- **Disposed of in a TSCA-approved chemical landfill, or**
- **Decontaminated according to EPA procedures**



# Risk-Based Disposal Approval



- **Must be applied for in writing to the EPA Regional Administrator**
- **Applications will be approved if the method for cleanup or disposal will not pose an unreasonable risk of injury to human health or the environment**

# The Anti-Dilution Rule

- **Previous interpretation was that all contaminated media were to be considered to contain the same PCB concentration as the original liquid**
- **New rule enables disposal consistent with actual PCB concentration at the time of disposal**

# Review Questions

1. **The Toxic Substance Control Act has regulated authority for PCBs and Asbestos.**
  - a. **True**
  - b. **False**

# Review Questions

**2. Under the Toxic Substances Control Act (TSCA), EPA can petition Congress for the authority to entirely ban a chemical or substance from all U.S. manufacture or use.**

**a. True**

**b. False**

# Review Questions

- 3. According to EPA's "PCB Mega-Rule", contaminated media (such as soils or building debris) are considered to contain the same PCB concentration as the original (leaking, spilled, or released) liquid.**

**a. True**

**b. False**