

APTI Course 452

Principles and Practices of Air Pollution Control

Chapter 12:
Pollution Prevention

Chapter Overview

- Introduction to Pollution Prevention
 - And Waste Minimization
- Legislative History
- Pollution Prevention/Waste Minimization Strategies

Legislative History

- Resource Conservation and Recovery Act (1984)
- Pollution Prevention Act (1990)

What is Pollution Prevention?
What is Waste Minimization?

- **Source Reduction** and/or environmentally sound **Recycling** methods prior to energy recovery, treatment, or disposal of wastes.
- Treatment is not part of P2 or Waste Min

P2/Waste Minimization

- Does not include waste treatment, i.e., any process designed to change the physical, chemical, or biological composition of wastestreams.
- For example, compacting, neutralizing, diluting, and incineration are not typically considered waste minimization practices.

Strategy

- Determine what wastes are generated
- Characterize each waste stream
- Identify waste prevention measures
- Identify potential production changes that would improve efficiency
- Investigate opportunities for new products or ingredients
- Set priorities and goals

Pollution Prevention Strategies: Source Reduction

- Materials Substitution
- Source Control

Pollution Prevention Strategies: Recycling

- Recycling can be thought of as the collection and reprocessing of a resource so it can be used again, though not necessarily for its original purpose

Pollution Prevention Strategies: Recycling

- Examples Include?

Pollution Prevention Information
Clearinghouse

<http://www.epa.gov/oppt/library/ppicdist.htm>

Chapter Summary

- Introduction to Pollution Prevention
- Legislative History
- Pollution Prevention Strategies

Questions?

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Principles and Practices of Air Pollution Control

Chapter 13:
Laws and Regulations

Chapter Overview

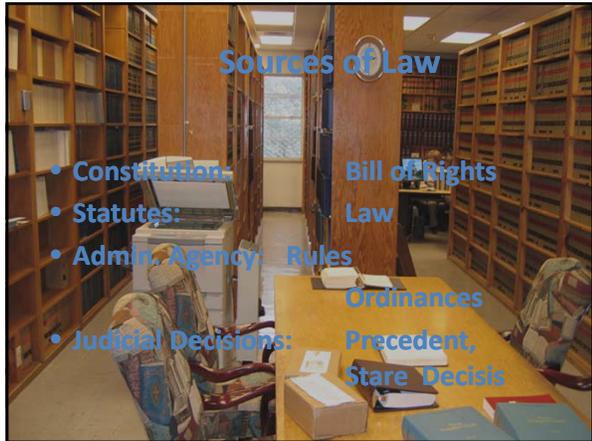
- Common Law
- Statutory Law
- Administrative Law
- Constitutional Law
- Sources of Federal Statutes
- Sources of Federal Regulations

Roots of Our Legal System

- **Common Law:**
The original 13 colonies adopted a legal system similar to that in England.



FREE AND OPEN FIELDS
ACCESS



Sources of Law

- Constitution: Bill of Rights
- Statutes: Law
- Admin. Agency: Rules
- Judicial Decisions: Precedent, Stare Decisis

Ordinances



Types of Law

- Federal: U.S. Constitution, Federal Statutes
- States: State Constitution, State Statutes
- Local: County, City & District

Source of Power

- **Federal:** U.S. Constitution
enumerated power
- **States:** Anything else
State Police Power:
Health, Safety, &
Welfare
- **Local** From the state

Conflict of Law

- **SUPREMACY
CLAUSE**



The Sounds of the Supremes

Conflict of Law

- **SUPREMACY
CLAUSE**
- **Feb 20, 1809:**
Supreme Court
ruled in **US vs
Peters** that power
of the **Federal
government** is
**greater than that
of any individual
state**



The Sounds of the Supremes

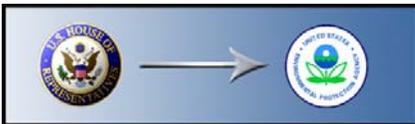
Statutory Law

- Introduction to Statutory Law
- Police Power



Administrative Law

- Introduction to Administrative Law
- Advantages of Administrative Law



Classification of Law

- **Civil Law:**
Dealing with enforcement or protection of private rights
- **Criminal Law:**
Dealing with offenses against society









Constitutional Law

- Introduction to Constitutional Law
- Right of Entry: The Fourth Amendment
- Prohibition Against Self-Incrimination: The Fifth Amendment
- Due Process: The Fourteenth Amendment
- Equal Protection: The Fourteenth Amendment

Constitutional Law: Right of Entry: The Fourth Amendment

Citizens (including corporations) will be free from unreasonable search and seizure.

Constitutional Law: Prohibition Against Self-Incrimination: The Fifth Amendment

Persons cannot be required to give testimony against themselves.

Constitutional Law: Due Process: The Fourteenth Amendment

Due process of law and equal protection are guaranteed for all citizens.

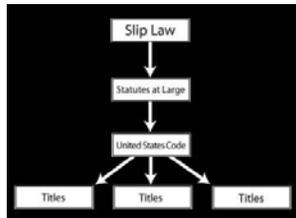
Governmental action shall not deprive a person of life, liberty, and property without due process.

Constitutional Law: Equal Protection: The Fourteenth Amendment

The enactment of laws that establish arbitrary systems of classification or that permits discrimination between persons of the same classification is prohibited.

Sources of Federal Statutes

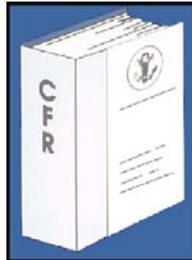
- Slip Laws
- Statutes At Large
- United States Code (U.S.C.)



- Statutes vs Laws vs Regulations

Sources of Federal Regulations

- Federal Register
- Code of Federal Regulations (C.F.R.)



Chapter Summary

- Common Law
- Statutory Law
- Administrative Law
- Constitutional Law
- Sources of Federal Statutes
- Sources of Federal Regulations

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Principles and Practices of Air Pollution Control

Chapter 14:
Compliance and Enforcement

Chapter Overview

- Enforcement Systems
- Penalty Assessment Criteria

Enforcement Systems

- Permits to Construct and Operate
- Compliance Monitoring
- Compliance Plan Enforcement
- Surveillance and Complaint Response
- Initiation of an Enforcement Action

Permits to Construct and Operate

- Purpose
- Goal



Permits to Construct

- Purpose



Permits to Construct

- Benefits to Applicant

Permits to Operate

- Purpose
- Uniform Permit Program



Permits to Operate

- Aids to Enforcement

Compliance Monitoring and Inspections

- Introduction to Compliance Monitoring
- Compliance Monitoring Strategy
- Compliance Monitoring Categories
- Compliance Plan Enforcement

Compliance Monitoring: Introduction

- Continuous, Self-Monitoring
- Compliance Inspections

Compliance Monitoring: Inspections

- Objectives
- Conducting an Inspection



Compliance Monitoring

- Compliance Incentives
- Innovations
- Auditing
- Environmental Management Systems
- Pollution Prevention
- Small Business
- Small Community

Inspections: Objectives

- Observe and Identify Problems
- Provide Facts About Compliance Status
- Collect and Preserve Evidence
- Act as Deterrent

Enforcement and Compliance History Online (ECHO)

- <http://echo.epa.gov>

Inspections: Conducting an Inspection

- Review Rules and Source Records
- Prepare an Inspection Plan
- Enter the Facility and Hold Opening Conference
- Conduct Inspection, Obtain Samples, and Hold Closing Conference
- Prepare Report

General Inspection Pattern

- **File Review**
- **Entry and Entrance Interview**
- **Inspection**
- **Exit Interview**
- **Report**



Practical Exercise

- A role play exercise designed to acquaint you with issues and techniques involved in entering a regulated facility.
- This exercise takes place during the entry and entrance interview.
- The facility to be inspected is regulated and has had some problems in the past.
- The facility has some history with causing inspectors difficulty.

Practical Exercise

Instruction and Roles

- The class will be broken up into groups and each group will have an identical makeup and problem to solve
- Groups will consist of:
 - 2 Inspectors
 - Senior Facility Manager
 - Junior Facility Manager
 - Observers

Practical Exercise

Instructions

- Each of you will be given specific information relative to your own role
 - All inspectors have the same information
 - All observers have the same information
- DO NOT share your information with others outside your own roles!

Practical Exercise

Instructions - Continued

- Inspectors: Conduct an entry interview and reach agreement on conducting the inspection
- Facility Personnel: Based on your role, meet and talk with the inspectors
- Observers: Observe and evaluate how the inspectors accomplish their objectives – AND report your observations back to the entire class

Entry



- Free and Open Fields Access
- Scheduling An Inspection
- Proper Entry Procedures
- Denied Access Procedures
- Signing Entry Forms

Entry



- Legal basis for entry

Entry



- Consensual entry
 - Absence of express denial = consent

Entry



- Warrant less entry
 - Emergencies
 - “Open fields” and “in plain view”

Entry



- Denial of entry
 - policy is TYPICALLY to obtain a warrant

Entry

- If denied entry
 - Be tactful
 - Use reason and logic
 - Record observations
 - DO NOT THREATEN
 - Contact supervisor



Entry

- Warrants
 - When facility has denied access
 - If full consent is withdrawn during inspection
 - May be done in advance of inspection
 - Inspector & attorneys work as team

Entry

- **Proper site entry procedures**
 - Drive-by and off-site observations
 - Look for obvious concerns
 - Familiarize yourself with layout
 - Normal working hours



Entry

- **Use main gate or entry**
- **Contact person in charge**
 - Plant manager, environmental manager, owner, etc.
- **Identify yourself with your credentials**
- **Identify company representatives**



Opening Conference

- **Explain:**
 - Authority
 - Purpose
 - Establish Inspection Objectives
 - Scope of inspection
 - Establish Inspection Order
 - Estimated time to complete



Opening Conference

Explain:

• Documentation methods

- Notes
 - Procedures recommended
- Copies
- Photographs
- Audio recordings
- Samples, etc.



Opening Conference

- **Discuss Confidential Business Information (CBI)**
 - Their right to claim CBI
 - Use good presentation technique
 - Provide paperwork
- **Identify special safety concerns**
 - May be denied access W/O proper PPE
 - PPE (hard hat, safety glasses etc)
 - DO NOT SIGN LIABILITY WAIVER

Proper Attire

- **Wear what's appropriate**
 - Industrial site?
 - Office visit?
- **Wear what's safe**
 - Proper PPE



PERSONAL PROTECTIVE EQUIPMENT

- Hard Hat
- Foot Protection (more than one pair)
- Vision and Hearing Protection
- Respirators
- First Aid Kit
- Protective Clothing
- Gloves

Opening Conference



Explain:

- Inspection process
 - Facility processes
 - Records review
 - Site tour

Opening Conference

Develop “Must See” list

- Key process operations
- Waste management areas
- Areas with past violations
- Areas with suspected violations



Obligation to Report



Professionalism



Entry



Confidential Information



- **Handling Confidential Data**
 - Store in Locked Files
 - Destroy or Return when Not Needed
- **Public Requests**
- **Improper Disclosure**
 - Fines
 - Imprisonment
 - Dismissal

Closing Conference



- Format varies
- Preliminary (tentative) discussion of findings
- Resolve outstanding issues
- Complete paperwork –
- Follow your agency's policy in regard to providing notice of violations

Confidential Information

Inspector Liability

- **Being – and parking – at appropriate locations**



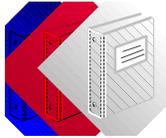
Inspector Liability

- Being – and parking – at appropriate locations
- **Doing your assigned job**



Inspector Liability

- Being – and parking – at appropriate locations
- Doing your assigned job
- **Following your SOP's**



Summary

- **General Inspection Pattern**
- **Attire & Attitude**
- **Neutrality**
- **Entry Procedures**
- **Confidentiality**
- **Reporting**



A bad inspection is a great defense!

Inspections: Conducting an Inspection

- Review Rules and Source Records
- Prepare an Inspection Plan
- Enter the Facility and Hold Opening Conference
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Compliance Monitoring Strategy

- Covered yesterday

Compliance Monitoring Strategy

- Major Changes in the 1991 Compliance Monitoring Strategy occurred in 4/2001
- 2010 the strategy was again modified
 - Time frame in policy based on Federal fiscal year, not calendar year
 - Includes an overview of the OECA Clean Air Act National Initiatives
 - State Review Framework added
 - AFS updated
 - Internet link to CMRs

Compliance Monitoring Strategy: Major Changes

- Emphasis on Title V Sources
- Minimum Frequencies Determined
- Variety of Tools Available
- Categories of Compliance Monitoring
- Frequency of CMS Plans

Compliance Monitoring Strategy: Implementation Process

- CMS Plan Submission
- Regional Response to the OECA MOA
- Maintenance and Recording of Compliance Monitoring Activities
- Review of Compliance Monitoring Activities
- Evaluations

Compliance Monitoring Categories: Full
Compliance Evaluations

- Scope
- Components
- Frequency

Compliance Monitoring Categories: Full
Compliance Evaluations

- Scope
- Components
- Frequency

Compliance Monitoring Categories: Full
Compliance Evaluations

- Scope
- Components
- Frequency

Compliance Monitoring Categories:
Partial Compliance Evaluations

- Scope
- Components
- Frequency

Compliance Monitoring Categories:
Investigations

- Scope
- Components
- Frequency

Compliance Plan Enforcement

- Objectives
- Benefits to Enforcement Efforts
- Components

Compliance Plan Enforcement

- Objectives
- Benefits to Enforcement Efforts
- Components

Surveillance and Complaint Response

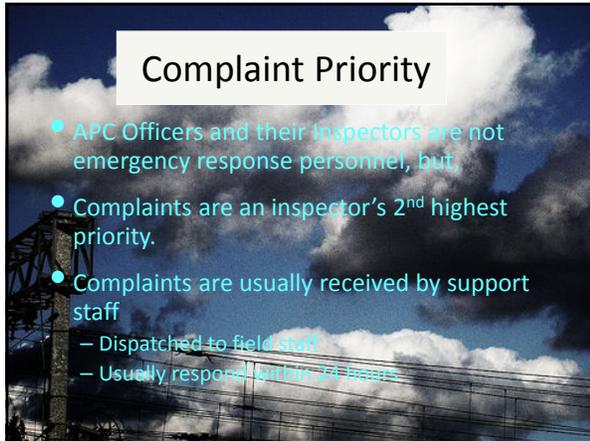
- Surveillance
- Complaint Response



Common types of complaints



- Odors
- Dust
- Point sources
- An air pollution episode
- General air quality, "bad air"



Complaint Priority

- APC Officers and their inspectors are not emergency response personnel, but
- Complaints are an inspector's 2nd highest priority.
- Complaints are usually received by support staff
 - Dispatched to field staff
 - Usually respond within 24 hours

Initiation of an Enforcement Action

- Goals
- Alternative Enforcement Procedures
- Steps in an Enforcement Action

Enforcement Action: Goals

- Correct Violation
- Deter Future Violations
- Maintain Consistency and Fairness
- Seek Criminal Sanctions
- Make Effective Use of Enforcement Resources

Enforcement Action: Alternative Enforcement Procedures

- Notice of Violation
- Informal
- Formal Abatement Order/Consent Degree
- Citations
- Administrative Fine
- Civil or Criminal Punishment
- Court-Ordered Injunction
- Revocation of Operating Permit

Enforcement Action: Steps in an Enforcement Action

- Violation is Found and Documented
- Level and Type of Enforcement Action is Decided
- Enforcement Documents Drafted and Filed
- Settlement Negotiations Entered
- Hearing or Trial Conducted

Penalty Assessment Criteria

- Penalty Factors

- Enforcement Responsibility

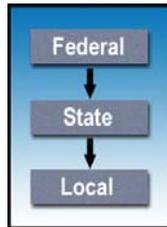
Penalty Assessment Criteria: Penalty Factors

- Size of Business
- Economic Effect of Penalty
- Company Compliance History
- Duration of Violation
- Previous Penalties for Same Offense
- Economic Benefit for Noncompliance
- Seriousness of Violation



Penalty Assessment Criteria: Enforcement Responsibility

- Federal
- State
- Local



Compliance Certification Program

- Enhanced Monitoring
- Compliance Assurance Monitoring

Any Credible Evidence Rule

- Change from Previous Standard
- Impact on Enforcement

Compliance Audits

- Purpose
- Audit Privilege [Laws] policies/rules

Chapter Summary

- Enforcement Systems
- Penalty Assessment Criteria



