

US EPA ARCHIVE DOCUMENT

## **SESSION 4**

# **THE RESOURCE CONSERVATION AND RECOVERY ACT:**

## **HOW EPA IMPLEMENTS RCRA SUBTITLE C**



## Session 4 Agenda: How EPA Implements RCRA

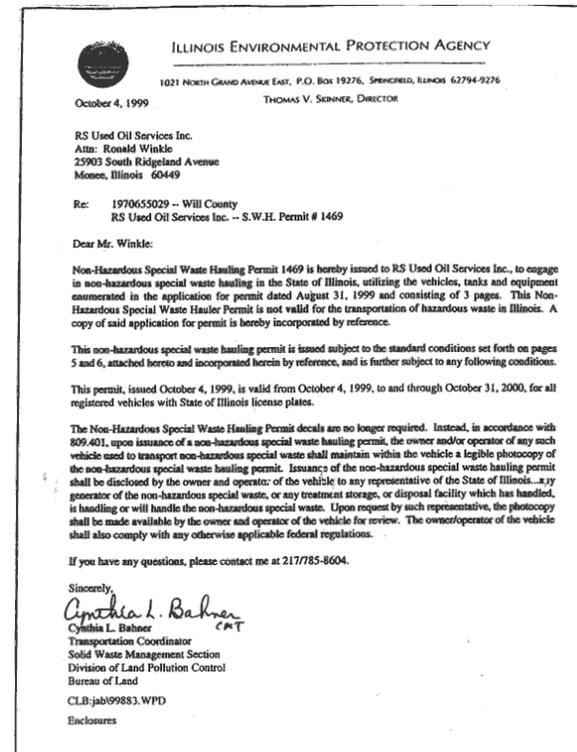
- ▶ Permitting
- ▶ Closure
- ▶ Financial Assurance
- ▶ Corrective Action
- ▶ Enforcement
- ▶ Review



## Permitting

## A permit functions as an operating license

- ▶ TSDFs are required to obtain permits
- ▶ Defines exact facility operating conditions
- ▶ Creates a tracking tool allowing EPA oversight of facility operations



Permitting process is extensive—permits can take several years to review and approve

Permitting

## Permits contain two types of standards

- ▶ General standards applicable to all facilities
  - Personnel training
  - Contingency plans
  - Security
  - Recordkeeping
  - Waste analysis plans
  
- ▶ Facility-specific standards
  - Unit requirements
  - Waste-specific practices



Permitting

## The permitting process involves many steps

### *Public's Role*

### *Facility's Role*

### *EPA's Role*

1. Preapplication meeting

**2. Prepare two-part application**

- Form required for everyone (Part A)
- Facility-specific data (Part B)

3. Receipt and review of application

4. Preparation of first draft

5. Public comments

6. Final permit decision



Permitting

## Modifications to a permit are often necessary

- ▶ Both EPA and facilities can initiate changes to a permit
- ▶ Modifications may be required to address:
  - Facility alterations or additions
  - New information about the facility
  - New regulatory requirements
- ▶ Different classes of permit modifications (Class 1, 2, or 3) each with its own approval process depending on type and complexity of change



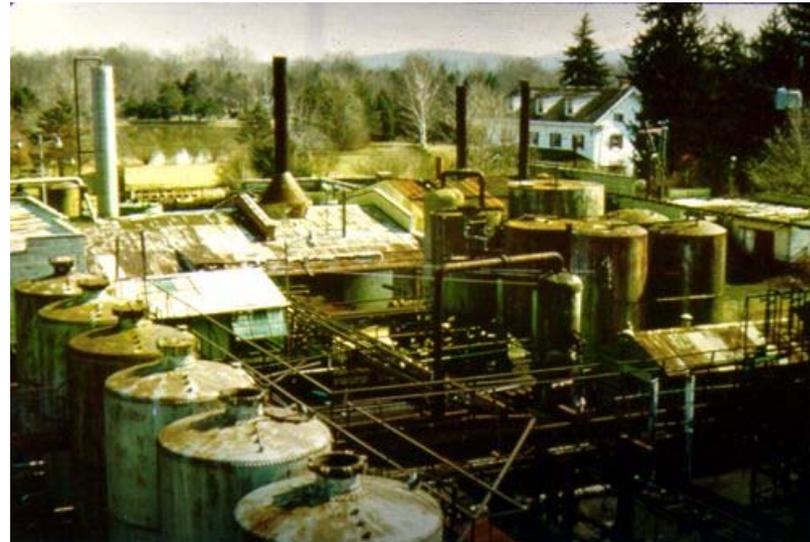
40 CFR §§270.41 and 270.42



Permitting

## Interim status allows existing facilities to continue operations

- ▶ Can continue operations while awaiting permit issuance
- ▶ Interim status is temporary
- ▶ Regulations are comparable to permitted facility requirements



Closure

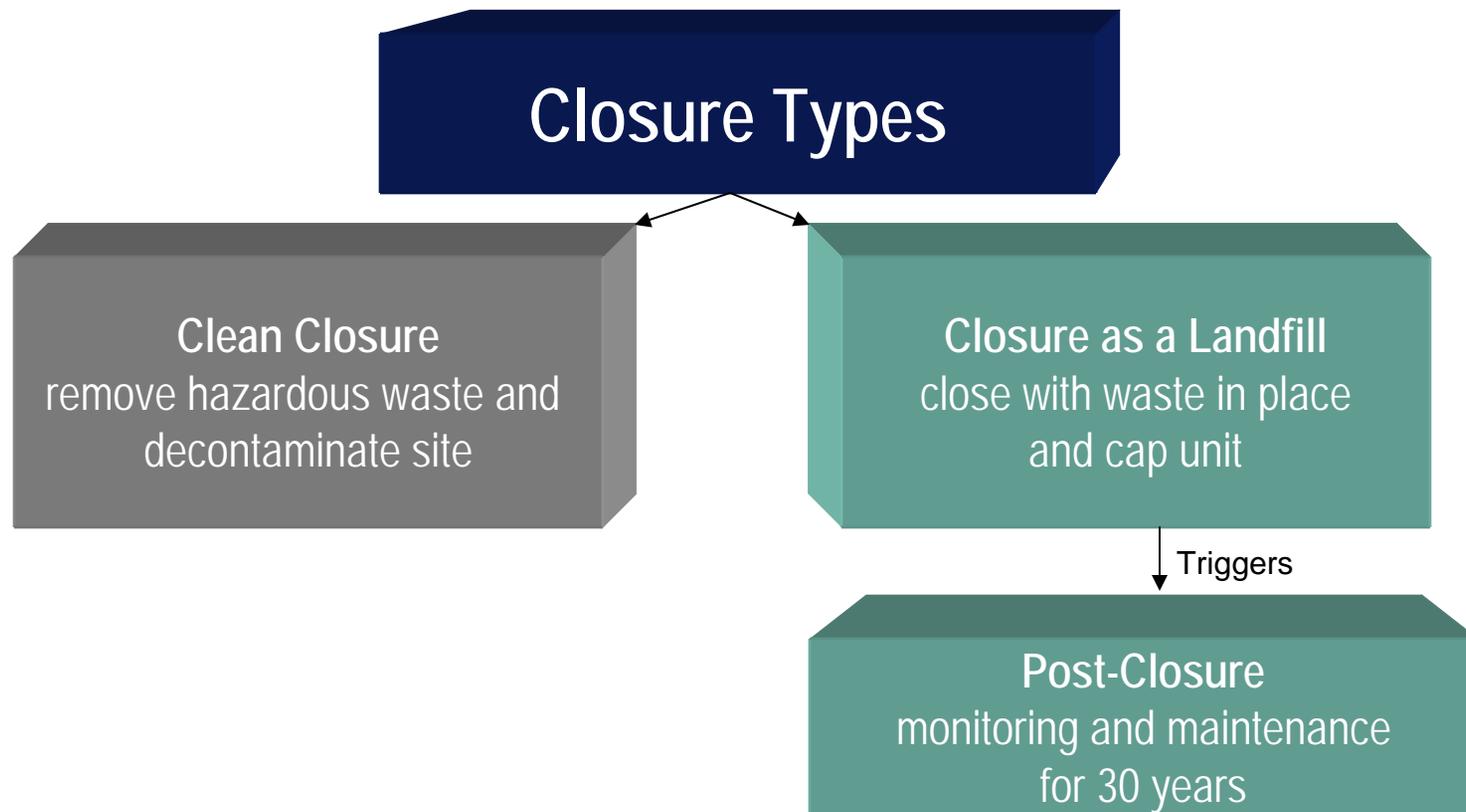
## All hazardous waste facilities must close properly

- ▶ Cleanup period after facility operations cease
- ▶ Must meet pre-approved standards
- ▶ Conducted in accordance with approved closure plan



Closure

## Facilities have two options for closure



## Closure

## Closure with waste in place triggers post-closure care

- ▶ Units that cannot clean close must obtain a permit or enforceable document for post-closure care
- ▶ Post-closure requirements last for at least 30 years
- ▶ Post-closure care requires groundwater monitoring and facility maintenance
- ▶ EPA requires the submission of specific information for post-closure permits in §270.28



Financial Assurance

## TSDFs must maintain financial assurance

- ▶ Establish funding for proper closure
- ▶ Ensure coverage for accidental occurrences
- ▶ Must demonstrate financial capability during permitting process



*40 CFR Part 264/265, Subpart H*



## Financial Assurance

## Closure coverage includes funding needed to conduct closure and post-closure

- ▶ Closure cost is facility-specific
- ▶ Facility needs to prepare a cost estimate
  - Estimate at point where closure would be the most expensive
  - Cost estimates based on cost to hire a third-party to close the facility



Financial Assurance

## Liability coverage includes sudden and non-sudden accidental occurrences

- ▶ Facilities must have funds for both per occurrence and annual aggregate amounts
- ▶ Liability coverage requirements are only minimum thresholds
- ▶ Insurance required on an owner or operator basis, rather than a facility basis



## Financial Assurance

**Facilities can use one of six different mechanisms to demonstrate financial assurance**

- ▶ Trust fund
- ▶ Insurance
- ▶ Surety bond
- ▶ Corporate guarantee
- ▶ Letter of credit
- ▶ Financial test



Corrective Action

## RCRA corrective action addresses cleanup of contamination

- ▶ Cleanup of past and present releases from RCRA facilities
- ▶ Few regulations—program implemented primarily through guidance
- ▶ Process is very site-specific
- ▶ EPA continues to reform the program



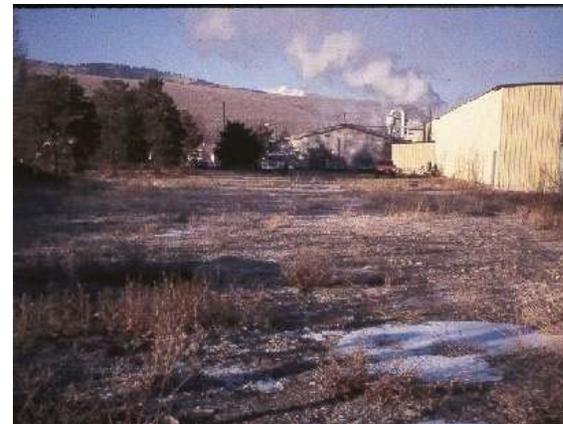
Approximately 3,700 sites are currently undergoing corrective action



## Corrective Action

## How facilities become subject to corrective action

- ▶ EPA can incorporate corrective action into a facility's **permit** using HSWA authorities (RCRA §§3004(u), 3004(v) and 3005(c)(3))
- ▶ EPA also issues corrective action **orders** (RCRA §§3008(h) and 7003)
- ▶ Facility owners or operators may **volunteer** to perform corrective action



Corrective Action

## How facilities enter into the corrective action process

Facility	Statutory Authority	Mechanism
Permitted TSDFs	§3004(u) §3004(v) §3005(c)(3)	Permit
Interim Status TSDFs	§3008(h)	Order
Any Facility	§7003	Order
Any Facility	N/A	Voluntary Decision



Corrective Action

## There are five traditional corrective action components

- ▶ *RCRA Facility Assessment (RFA)*—initially assess the site to determine whether cleanup may be needed and to determine areas of potential concern
  - EPA uses National Corrective Action Prioritization System (NCAPS) to rank sites
  
- ▶ *RCRA Facility Investigation (RFI)*—ascertain the nature and extent of contamination and to gather information to select an appropriate remedy



## Corrective Action

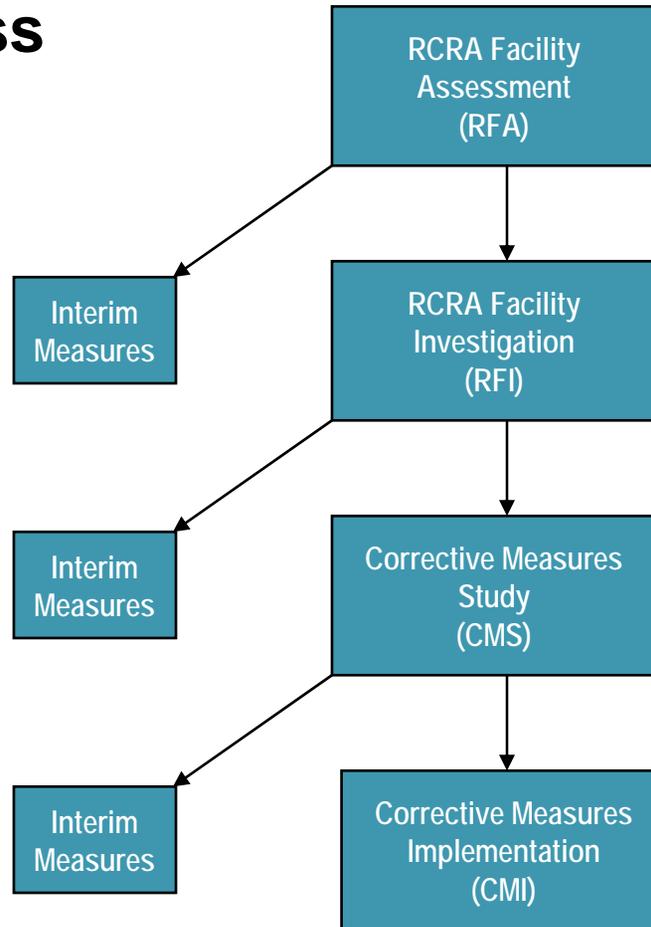
## There are five traditional corrective action components (continued)

- ▶ *Interim Measures*—used to control or abate ongoing risks to human health and the environment in advance of the final remedy selection
- ▶ *Corrective Measures Study (CMS)*—EPA and facility owners and operators will evaluate different remedial alternatives
- ▶ *Corrective Measures Implementation (CMI)*—involves detailed remedy design, remedy construction, remedy operation and maintenance, and remedy completion



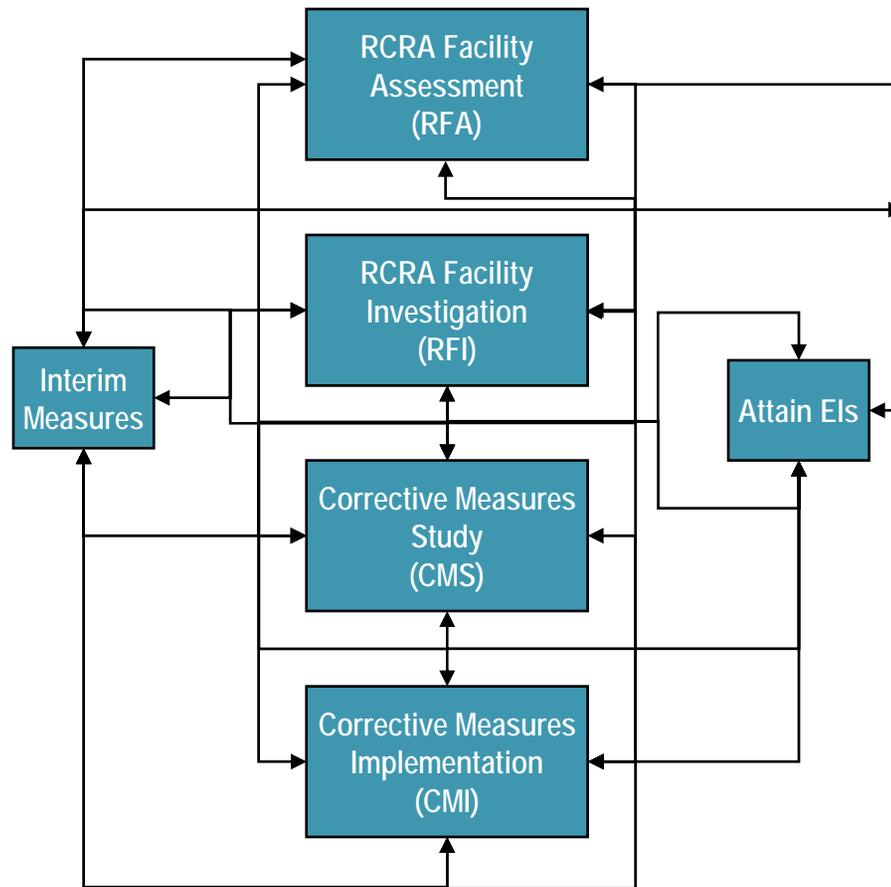
Corrective Action

# Overview of the “traditional” RCRA corrective action process



Corrective Action

# Overview of the “new” RCRA corrective action process



Corrective Action

## EPA has developed two environmental indicators (EIs) to measure cleanup progress

- ▶ *Current Human Exposures Under Control (CA725)*—pertains to current land & water uses (a.k.a. “Human Exposures EI”)
- ▶ *Migration of Contaminated Groundwater Under Control (CA750)*—pertains to physical migration of contaminated groundwater and acceptability of current impacts to surface water (a.k.a. “Groundwater EI”)
- ▶ Used to evaluate and report on the acceptability of current site conditions (i.e., interim milestones, not final remedy or site closure goals)



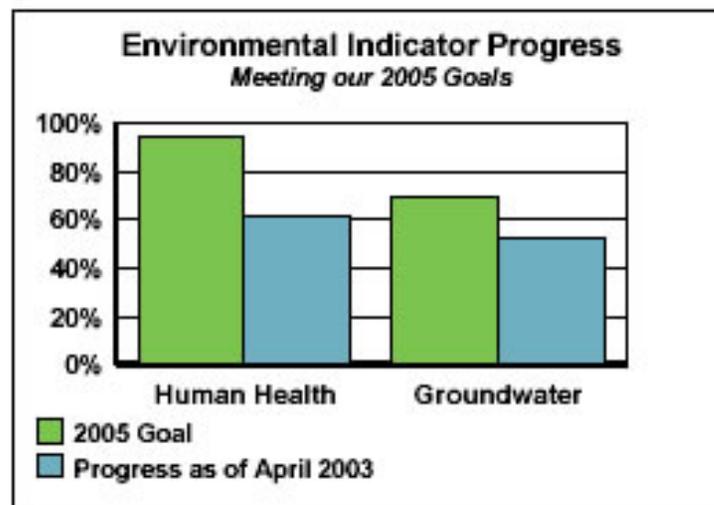
[www.epa.gov/epaoswer/hazwaste/ca/eis.htm](http://www.epa.gov/epaoswer/hazwaste/ca/eis.htm)



Corrective Action

## EIs used to report on environmental conditions at sites on the Cleanup Baseline

- ▶ Established pursuant to the Government Performance Results Act (GPRA) of 1993
- ▶ 1,714 high priority sites on Cleanup Baseline
- ▶ EPA's 2005 goal under GPRA
  - Controlling current human exposure at 95 percent by 2005; and
  - Controlling migration of contaminated groundwater at 70 percent by 2005



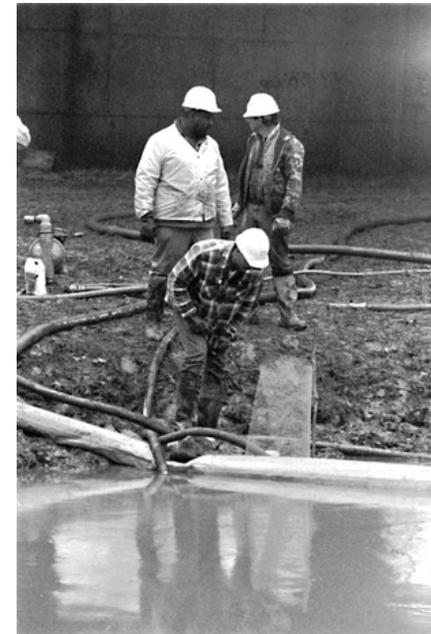
[www.epa.gov/correctiveaction](http://www.epa.gov/correctiveaction)



Corrective Action

## EPA continues to reform the corrective action program

- ▶ Special provisions to encourage cleanup
- ▶ RCRA Cleanup Reforms
- ▶ One Cleanup Program



Corrective Action

## **EPA has developed certain policies and provisions for managing remediation waste**

- ▶ Media may “contain” hazardous waste
- ▶ EPA offers flexible options to encourage cleanup, such as LDR soil treatment standards, remedial action plans (RAPs), and the area of contamination (AOC) policy
- ▶ Facilities conducting cleanup may use remediation waste management units, including temporary units, staging piles, and corrective action management units

EPA defines remediation waste as all solid and hazardous waste or all media and debris that are managed for implementing cleanup (§260.10)



Corrective Action

## Facilities conducting cleanup may use remediation waste management units

- ▶ *Temporary units (TUs)*—tanks or container storage areas used for the treatment or storage of remediation wastes
- ▶ *Staging piles*—used for the temporary accumulation of remediation waste
- ▶ *Corrective action management units (CAMUs)*—areas within a facility designated for treatment, storage, or disposal of CAMU-eligible waste



Corrective Action

## RCRA Cleanup Reforms continue to evolve

- ▶ 1999 Reforms outline policies to:
  - Remove obstacles to efficient cleanups
  - Maximize program flexibility
  - Initiate progress toward the GPRA cleanup goals
  
- ▶ 2001 Reforms highlight activities that accelerate program progress and foster creative solutions
  - Showcase Pilots highlight innovative cleanup approaches
  - EPA guidance seeks to change regulatory culture



[www.epa.gov/epaoswer/hazwaste/ca/reforms.htm](http://www.epa.gov/epaoswer/hazwaste/ca/reforms.htm)



Corrective Action

## **OSWER's One Cleanup Program aims for greater consistency in cleanup decisions**

- ▶ Involves cleanup programs dealing with brownfields, federal facilities, leaking USTs, RCRA, and Superfund
- ▶ The One Cleanup Program establishes activities that will lead to:
  - More consistent and effective cleanups
  - Clear and more useful information about cleanups
  - Better cross-program performance measures
- ▶ Will not require new legislation or program restructuring; instead, it is designed to support the ongoing planning and quality improvement efforts of EPA cleanup programs

[www.epa.gov/oswer/onecleanupprogram](http://www.epa.gov/oswer/onecleanupprogram)



Enforcement

## Success of RCRA program depends on compliance with regulations

- ▶ Enforcement program provides EPA and citizens with mechanisms for carrying out RCRA program
- ▶ RCRA enforcement personnel rely on statutory authorities to enforce RCRA program
- ▶ Managed by Office of Enforcement and Compliance Assurance (OECA) and implemented by EPA Regions & authorized states



[www.epa.gov/compliance](http://www.epa.gov/compliance)



## Enforcement

## Enforcement program consists of four main elements

- ▶ **Compliance assistance**—helps the regulated community understand and meet environmental obligations
- ▶ **Compliance incentives**—policies and programs that reduce or waive penalties under certain conditions for facilities that voluntarily discover, promptly disclose, and expeditiously correct environmental problems
- ▶ **Compliance monitoring**—actions that determine compliance and evaluate activities
- ▶ **Enforcement actions**—punishes members of the regulated community that violate regulations (e.g., fines)



Enforcement

## EPA provides compliance assistance and incentives

- ▶ Compliance assistance:
  - Compliance assistance centers
  - Industry sector notebooks
  - Audit protocols
  
- ▶ Compliance incentives:
  - Self-auditing policy
  - Project XL
  - National Performance Track Program

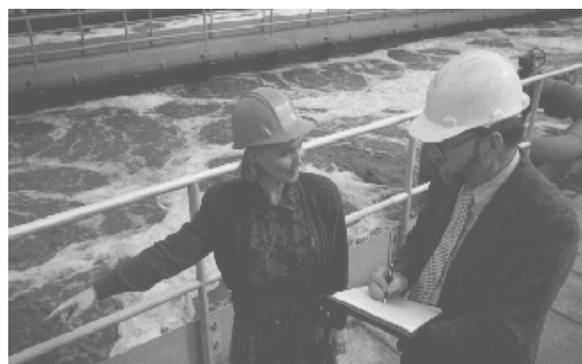
ComplianceAssistance  
Centers



Enforcement

## RCRA grants EPA compliance monitoring authority

- ▶ **RCRA §3007**—allows EPA to collect information from the regulated community through information requests and inspections
- ▶ **RCRA §3013**—allows EPA to request or obtain monitoring data, testing analysis, and reports from RCRA facilities



[www.epa.gov/compliance/monitoring/index.html](http://www.epa.gov/compliance/monitoring/index.html)



Enforcement

## EPA enforcement actions deter violations

- ▶ Bring handlers into compliance with applicable regulations
- ▶ EPA has a range of enforcement options, depending on the severity of the problem
  - **Administrative actions** either informal (e.g., letter) or formal (e.g., administrative order filed with Administrative Law Judge)
  - **Civil or criminal judicial actions** initiated by EPA and subsequently referred to the Department of Justice (DOJ)



In FY2001, EPA issued 3,228 administrative orders and field citations



Enforcement

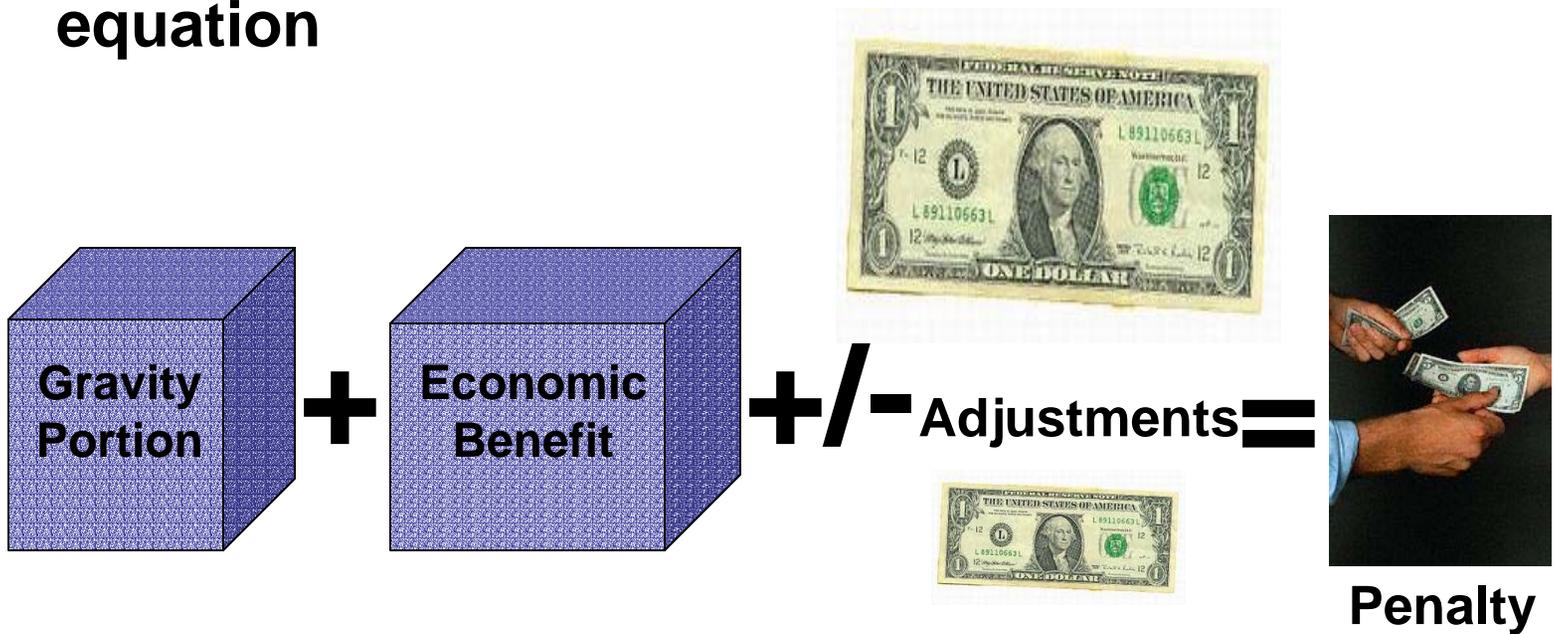
## Penalty amounts depend on various factors

- ▶ Statute establishes **maximum** penalty amounts
- ▶ *Civil Penalty Policy*—describes how EPA should rate violations to ensure consistency
- ▶ *Supplemental environmental project (SEP)*—site-specific adjustment that provides EPA with flexibility in assessing penalties



Enforcement

# EPA calculates a typical civil penalty using this equation



In FY2001, \$101.6 million in civil penalties were assessed



## EPA implements RCRA using five mechanisms

- ▶ A **permit** functions as an operating license for hazardous waste management
- ▶ **Closure** requirements ensure that facilities close properly
- ▶ TSDFs must maintain **financial assurance**
- ▶ **Corrective action** addresses cleanup of contamination
- ▶ **Enforcement** program promotes compliance with RCRA requirements

