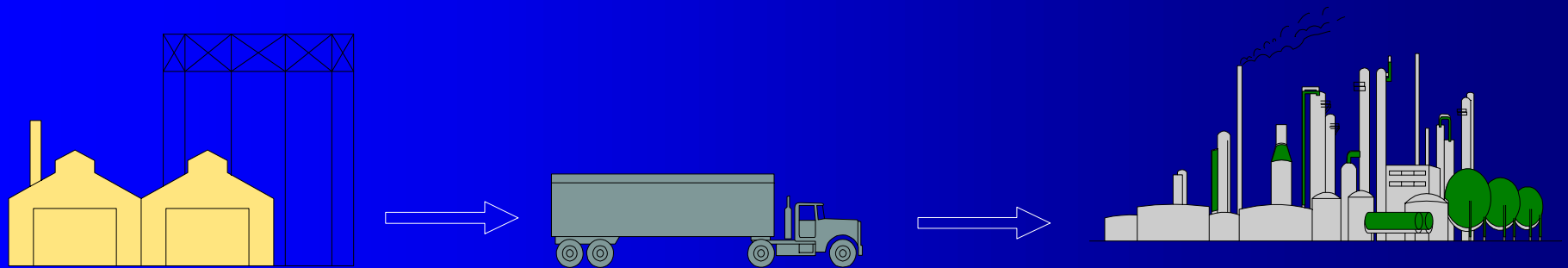




Permitting And Corrective Action

“Cradle-to-Grave” Management



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When does RCRA require a Permit?

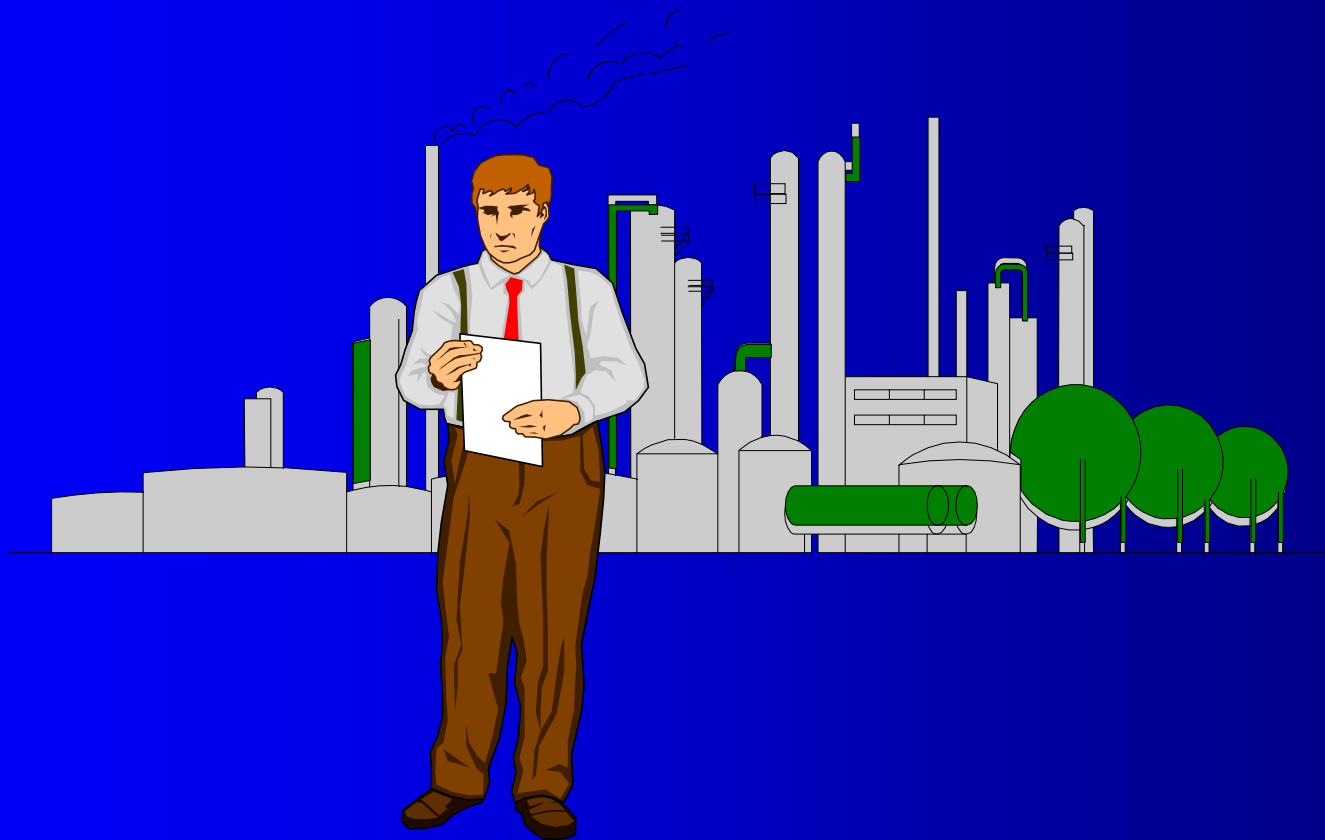
A RCRA Permit is required to conduct:

- **Treatment:** Changing physical, chemical, or biological character or composition.
- **Storage:** Holding waste temporarily before treatment, disposal, or storage elsewhere.
- **Disposal:** Discharging, depositing, injecting, dumping, spilling, leaking, or placing any solid or hazardous waste into or on land or water.

Are there any exclusions from permitting?

- A facility subject to the special exemptions for recyclable materials in 40 CFR Part 266
- Generators storing waste on-site in compliance with accumulation requirements
- Owners or operators of “totally enclosed treatment facilities,” “wastewater treatment units,” and “elementary neutralization units”;
- Persons engaged in containment for an immediate response to an emergency
- Transporters storing manifested wastes at a transfer facility for less than 10 days

How do I obtain RCRA authorization to operate my TSDF?



RCRA Provides Two Permitting Approaches:

- Facilities in existence on the effective date of a rule may operate under interim status
- New facilities, and eventually interim status facilities, must apply for a Part B permit (i.e., a full RCRA permit)

What Must I Do for Interim Status?

- Use regulations in 40 CFR 265 to understand requirements that must be met to be allowed to conduct hazardous waste activities.
- Follow provisions in 40 CFR 270 Subpart G
- Use regulations in 40 CFR 270 to understand the permitting process.

Interim Status Facilities Must Submit a Part A Application in Accordance with 40 CFR 270.13 That Includes:

- Activities conducted that require a permit
- Facility name, address, and location
- SIC codes that best reflect type of industry
- Operator's name, address, phone, ownership status, and status as Federal, State, private, public, or other entity
- Name, address, and telephone of facility owner
- Whether the facility is on Indian land
- Whether the facility is new or existing and whether it is a first or revised application

Contents of Part A Application (cont'd)

- Scale drawing and photograph showing structures and TSD areas
- TSD processes to be used
- The hazardous wastes to be managed, their quantities, and processes used for them
- A listing of all permits or approvals under certain other laws
- A topographic map depicting facility intakes, discharges, and wells
- Brief description of the nature of the business

Is that all I need to do to obtain
interim status for my existing facility
. . . . submit a notification and Part A
application?

40 CFR 265 Requirements Include: General Standards for All TSDFs . . .

- Identification number
- Waste analysis plan
- Security
- General inspection requirements (specific requirements for particular units also apply)
- Preparedness and prevention
- Contingency planning
- Manifests

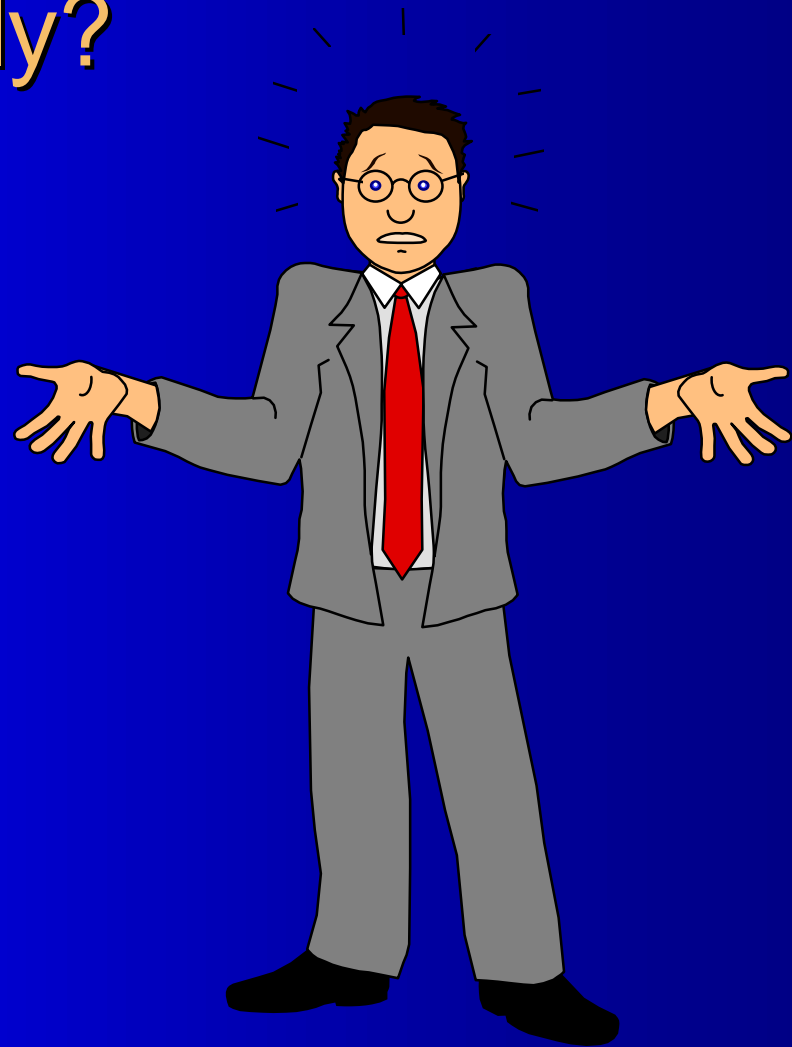
. . . And Specific Design, Operating, and Closure Standards Developed for:

- Containers (40 CFR 265 Subpart I)
- Tanks (40 CFR 265 Subpart J)
- Surface impoundments (40 CFR 265 Subpart K)
- Waste piles (40 CFR 265 Subpart L)
- Land treatment units (40 CFR 265 Subpart M)
- Landfills (40 CFR 265 Subpart N)
- Incinerators (40 CFR 265 Subpart O)
- Thermal treatment (40 CFR 265 Subpart P)

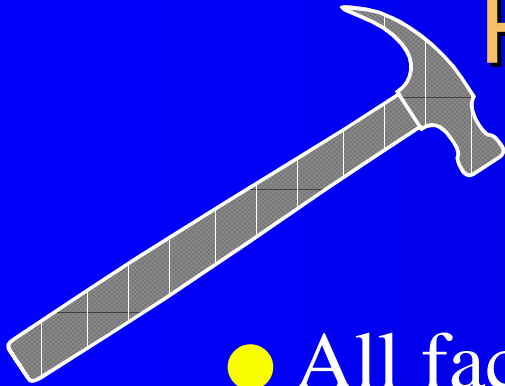
Specific Design, Operating, and Closure Standards Developed for: (cont'd)

- Chemical, physical, and biological treatment (40 CFR 265 Subpart Q)
- Underground injection wells (40 CFR 265 Subpart R)
- Drip pads (40 CFR 265 Subpart W)
- Air emission standards (40 CFR 265 Subparts AA, BB, and CC)
- Containment buildings (40 CFR 265 Subpart DD)
- Munitions and Explosive Storage (40 CFR 265 Subpart EE)

Can TSDFs operate under interim status indefinitely?



HSWA Set Deadlines for Permit Issuance



- All facilities in existence on November 8, 1984, had to apply for permits by November 8, 1988.
- Facilities that failed to apply lost interim status on November 8, 1992.

What is Required for a Part B Permit?

- The information requirements of the Part B permit application (40 CFR 270.14 through 270.27) are tied to TSDF performance standards in 40 CFR 264.
- To obtain a permit, facilities must prepare a permit application that addresses general facility requirements and design and operating standards established in 40 CFR 264.
- After a period of review and modification, EPA/State can issue a Part B permit.

Contents of Part B: General Requirements

- Description of facility and location
- Copy of operator training program
- Closure plan and cost estimate
- Inspection schedule
- Chemical and physical analysis of wastes
- Detailed topographic map
- Detailed groundwater protection information
- Groundwater monitoring information

Closure Plan

- Performance standards for closure include:
 - minimize need for further maintenance
 - control, minimize, or eliminate contaminant escape
 - comply with specific standards for each facility type
- Closure must comply with a detailed closure plan and schedule approved by EPA or the State
- Equipment, structures, and soils must be disposed of or decontaminated OR
- Post-closure monitoring and maintenance must be performed for at least 30 years

Contents of Part B: Specific Requirements

- Containers (40 CFR 270.15 for 264 Subpart I)
- Tank systems (40 CFR 270.16 for 264 Subpart J)
- Surface impoundments (40 CFR 270.17 for 264 Subpart K)
- Waste piles (40 CFR 270.18 for 264 Subpart L)
- Land treatment facilities (40 CFR 270.20 for 264 Subpart M)
- Landfills (40 CFR 270.21 for 264 Subpart N)
- Incinerators (40 CFR 270.19 for 264 Subpart O)
- Drip Pads (40 CFR 270.26 for 264 Subpart W)

Contents of Part B: Specific Requirements (cont'd)

- Process vents (40 CFR 270.24 for 264 Subpart AA)
- Equipment (40 CFR 270.25 for 264 Subpart BB)
- Air emission controls for tanks, surface impoundments, and containers (40 CFR 270.27 FOR 264 Subpart CC)
- Containment Buildings (40 CFR 264 Subpart DD)
- Munitions and Explosives Storage (40 CFR 264 Subpart EE)

Subpart X: Miscellaneous Units

- Covers technologies not covered by other standards such as
 - geologic repositories
 - open detonation units
- Allows permitting based on specific design, operating, and monitoring requirements to be determined case-by-case
- Requires unit-specific permitting information under 40 CFR 270.23 for 264 Subpart X

Subpart X: Miscellaneous Units (cont'd)

- Requires analysis to prove that the design/operating parameters prevent releases that could have adverse affects
- Must consider:
 - waste volume and characteristics
 - hydrogeologic setting
 - groundwater flow
 - groundwater and land use
 - potential migration of released waste constituents through all pathways

Are there other types of permits?

- Permits-by-rule
- Emergency permits
- Hazardous waste incinerator permits
- Land treatment demonstration permits
- Permits for boilers and industrial furnaces burning hazardous waste
- Interim permits for UIC wells
- Research, development, and demonstration permits
- Post-closure permits

What occurs during the permit process?

- Preparing the application
- Conducting a pre-application meeting
- Submitting a permit application
- Reviewing the permit application
- Preparing the draft permit
- Taking public comment
- Finalizing the permit

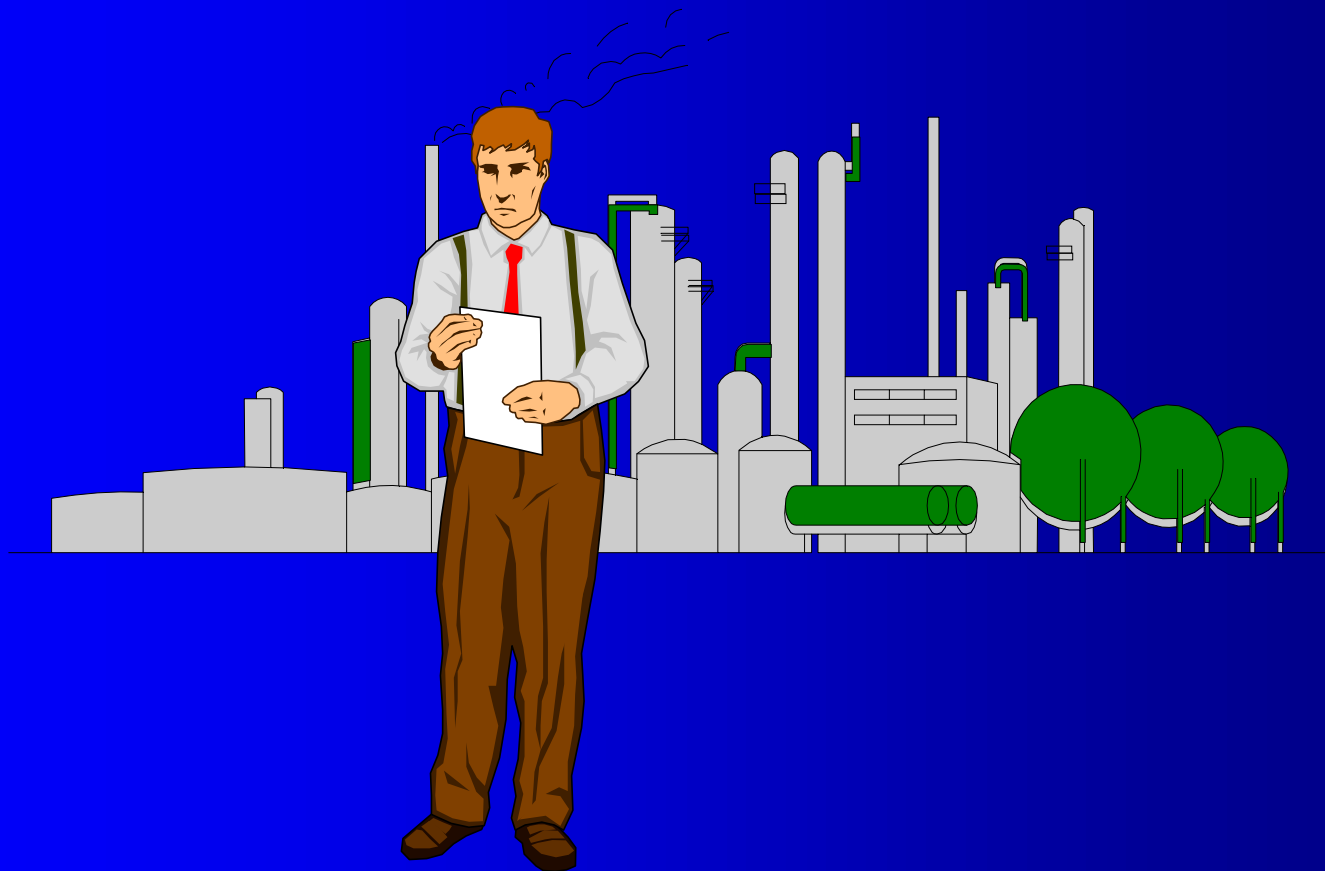
Public Involvement

- The public must be notified at least 30 days prior to pre-application meetings.
- Regulators notify the public of the application.
- The public must be notified (by the regulators) and allowed at least 45 days to comment on a draft permit/application denial.
- The public must be notified (by the regulators) at least 30 days before a public hearing.

Public Involvement (cont'd)

- Any interested person may submit written comments.
- A written request stating the issues to be raised at the hearing must be submitted for a public hearing.
- Public comment may be reopened to expedite the decision-making process.
- The public must be notified of final permit decisions.
- Permits are effective 30 days after notification of the decision to grant the permit.

OK, I've got my permit and I'm all set for the next 10 years . . . Right?



Permit Modifications (OR Nothing Stays the Same) (40 CFR 270.41)



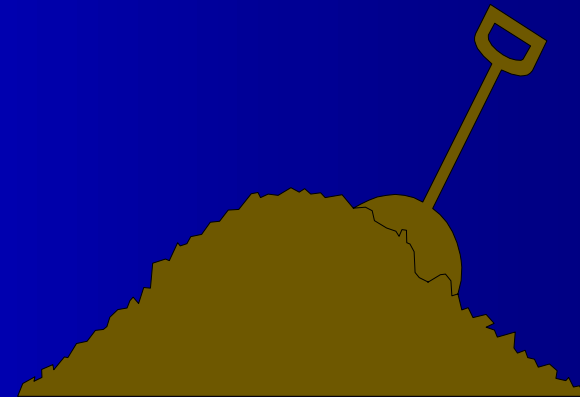
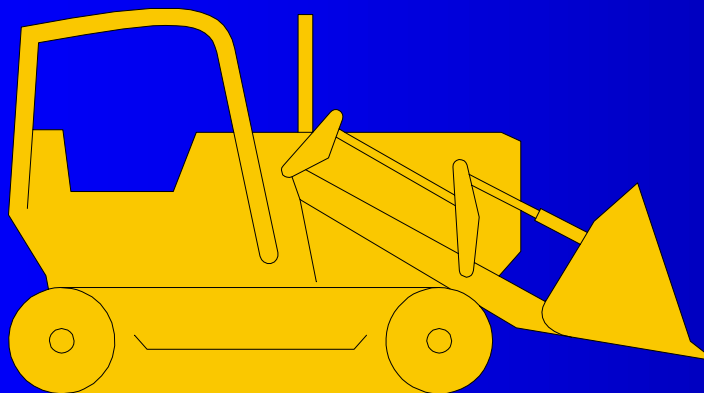
- Alterations of facility or activity
- Availability of new information that would have justified the application of different permit conditions
- New requirements
- Good cause (i.e., act of God, strike, etc.) to modify compliance schedules

Classes of Modifications: Examples

- CLASS 1
 - Administrative and informational changes
 - Equipment replacement or upgrade
- CLASS 2
 - Changes in number, location, depth, or design of wells
 - Extension of the post-closure care period
- CLASS 3
 - Reduction in post-closure care period

What Else Does the Permit Require?

Corrective Action For Solid Waste
Management Units (SWMUs)

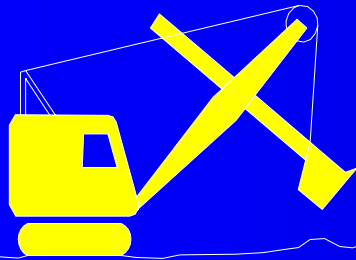


What Is A SWMU?

Any discernible unit where any solid waste was placed at any time and from which hazardous constituents are being released.

How Are SWMUs Cleaned Up?

- A permit or, for interim status facilities, an enforcement order imposes corrective action (i.e., cleanup) requirements
- Permits must contain schedules of compliance to address releases
- Corrective action efforts around the country may encompass thousands of TSDFs



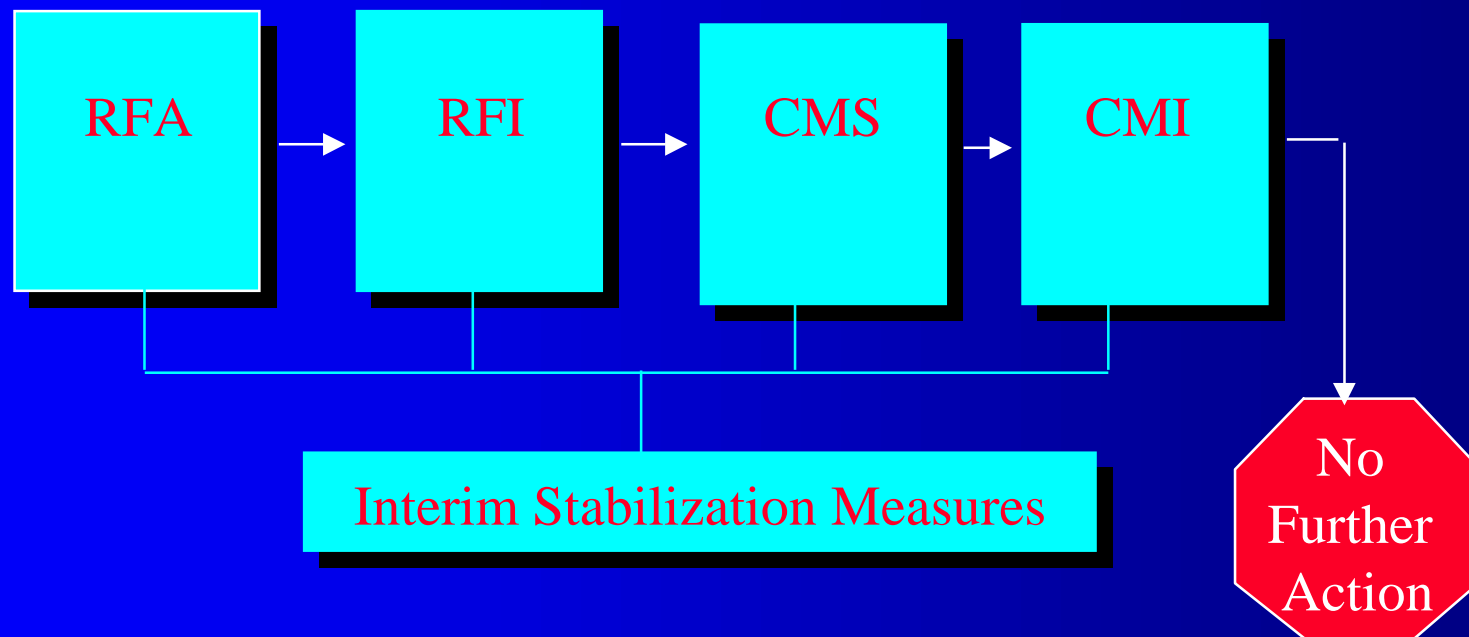
What Are The Primary Corrective Action Authorities?

- 3004(u) gives EPA the authority to require corrective action for past releases
 - applies to all facilities seeking a permit
 - RCRA permits contain compliance schedules for corrective action
- 3004(v) also gives authority to require corrective action beyond the facility boundary
- 3008(h) provides for corrective action at interim status facilities

What Are The Steps In The Corrective
Action Process?

How Do These Steps Compare To
Those In CERCLA (i.e., Superfund)?

The Major Components of Corrective Action



RCRA

- RCRA Facility Assessment
- RCRA Facility Investigation
- Corrective Measures Study
- Permit Modification
- Corrective Measures Implementation

CERCLA

- Preliminary Assessment/Site Investigation
- Remedial Investigation
- Feasibility Study
- Record of Decision
- Remedial Design/Remedial Implementation

Regulatory Requirements for Corrective Action

- Proposed rule July 27, 1990
- Creates new subpart - 40 CFR 264 Subpart S
- Would establish new comprehensive regulatory framework for 3004(u) and (v) addressing both procedural and substantive requirements

Corrective Action Management Units and Temporary Units

- First phase of corrective action final rule published Feb. 16, 1993
- Established a practical regulatory structure for managing remediation wastes at TSDFs
- Provides relief from land disposal restrictions and minimum technology requirements (MTRs)

EPA's Subpart S Initiative

- Published May 1, 1996 (61 FR 19432)
- Introduces EPA's strategy for promulgating Subpart S
- Provides context for corrective action revisions
- Emphasizes flexibility in current program

Other Regulatory Initiatives Affecting Corrective Action: HWIR-Media Rule

- Proposed April 29, 1996 (61 FR 18780)
- Will affect contaminated media (e.g., soil, groundwater, and sediment) from cleanup
- May revise land disposal restrictions, minimum technological requirements (MTRs), and permitting for contaminated media disposal
- Intended to provide flexibility to tailor requirements for managing contaminated media to risks

Other Regulatory Initiatives Affecting Corrective Action: Post-Closure Proposal

- Proposed November 8, 1994 (59 FR 55778)
- Would add options in addition to post-closure care permits at closing interim status facilities
- Provides alternatives to post-closure care permits such as state cleanup authorities or CERCLA authority
- Would not otherwise modify the applicable cleanup requirements for these facilities.

Legislative Initiatives Affecting Corrective Action

- Land Disposal Program Flexibility Act of 1996
- Superfund reauthorization
- Superfund reform initiatives

What Could Corrective Action Mean For You?

- RCRA imposes requirements for cleanup that could apply to CERCLA wastes.
- RCRA and CERCLA do not replace each other.
- RCRA corrective action and closure, as well as CERCLA response actions can all apply.
- Therefore, RCRA corrective action can contribute to uncertainty over which agency is in the lead and which requirements must be met.

Permitting in Summary

- RCRA provides two avenues for operation: interim status and final (part B) permitting.
- The permit establishes the conditions of operation for TSDFs.
- Permit requirements in 40 CFR Part 270 are tied to facility standards in 40 CFR Part 264.
- Permitting goes through a seven-stage process that affects regulator, permittee, and public.
- RCRA contains provisions for permit modifications.
- Permittees must consider corrective action.