United States Environmental Protection Agency
Solid Waste and Emergency Response (5305W)
EPA530-R-99-059
PB2000-101 899
February 2000

RCRA, Superfund & EPCRA Hotline Training Module

Introduction to:

RCRA Corrective Action

Updated October 1999

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RCRA CORRECTIVE ACTION

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1. INTRODUCTION

This training module discusses the regulatory and statutory requirements and authorities governing the Resource Conservation and Recovery Act (RCRA) corrective action process. The corrective action program is a cleanup program designed to ensure the remediation of hazardous releases and contamination associated with RCRA-regulated facilities. EPA enforces the program principally through the statutory authorities established by the Hazardous and Solid Waste Amendments of 1984 (HSWA). There are, however, minimal regulatory requirements for the corrective action program.

Rather than implementing a rigid regulatory framework for corrective action, the Agency has developed guidance and policy documents to assist facilities conducting cleanups. Initially EPA proposed to establish a comprehensive regulatory framework for implementing the corrective action program (55 FR 30798; July 27, 1990). However, fundamental disagreements among stakeholders has prevented EPA from finalizing the entire rule. EPA will continue to implement the corrective action program by writing policy documents and guidance, and developing a set of targeted administrative reforms. The Agency recently announced the RCRA Cleanup Reforms, a comprehensive effort to increase the number and efficiency of cleanups, maximize program flexibility, and establish national cleanup goals. Both the finalized portions of the rule and the guidance developed pursuant to statutory authorities are used to structure corrective action requirements in facility permits and orders. This module describes the current statutory and regulatory structure and discusses the status of rulemaking efforts and the RCRA Cleanup Reforms.

When you have completed this training module you will understand the purpose and application of the corrective action program. Specifically, you will be able to:

- List the statutory authorities for corrective action and explain their application
- Identify the existing regulatory authorities for corrective action, and explain their application
- Describe the primary triggers for corrective action
- Define terms that are specific to the corrective action process (e.g., solid waste management units and action levels)
- Describe how EPA is currently implementing the corrective action program and identify significant components of the RCRA Cleanup Reforms.

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- Describe how the corrective action program can apply to generators and other facilities that do not require a permit.

Use this list of objectives to check your knowledge of this topic after you complete the training session.

2. STATUTORY SUMMARY

Prior to HSWA's enactment, EPA had limited authority to require remediation or corrective action measures at facilities regulated under RCRA. Statutory authority was limited to §7003, which gives EPA authority to take action when contamination presents an imminent hazard to human health or the environment. Regulatory authority was limited to 40 CFR Part 264, Subpart F. Subpart F only addressed releases of hazardous waste from regulated units into the uppermost aquifer (see the module entitled Groundwater Monitoring for details).

HSWA added statutory provisions to RCRA that gave EPA substantial statutory authority to develop a broader corrective action program. These provisions include:

- Section 3008(h) - provides authority to require corrective action at interim status facilities
- Section 3004(u) - requires corrective action be addressed as a condition of a facility's Part B permit
- Section 3004(v) - provides authority to require corrective action for releases migrating beyond the facility boundary
- Section 3005(c)(3) - provides authority to include additional requirements in a facility's permit, including corrective action requirements.

These corrective action authorities are implemented on a case-by-case basis in facility permits or orders issued by EPA (§§264.101, 270.1(c), and 270.14(d)). EPA has been unable to promulgate a comprehensive regulatory program describing the corrective action process, and instead has promulgated specific regulations regarding the management of remediation wastes generated during corrective action (64 FR 54604; October 7, 1999). Furthermore, the Agency will continue to define and implement the corrective action process by issuing policy and guidance documents. EPA still uses the following statutory authorities to implement corrective action, but the Agency has also begun to issue policies that encourage facility-initiated corrective action.

2.1 AUTHORITIES

AUTHORITIES FOR PERMITTED FACILITIES

When a facility is seeking a permit, or when a permit is already in place, EPA can incorporate corrective action into the permit requirements. A brief description of each authority's application is provided.

Continuing Releases At Permitted Facilities (§3004(u))

RCRA §3004(u), added by HSWA, requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit (SWMU) at a facility seeking a permit, regardless of when the waste was placed in the unit. A SWMU is any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. This definition includes any area at a facility where solid wastes have been routinely and systematically released. EPA interprets this authority to apply to any facility seeking a permit, including operating permits, post-closure permits, and permits-by-rule, after November 8, 1984 (50 FR 28712, 28715; July 15, 1985). The cleanup must address releases to air, groundwater, surface water, and soil. Furthermore, facilities are required to maintain the permit until corrective action is completed. Section 3004(u) also requires the Agency to include schedules of compliance and financial assurance for completing corrective action in a facility's permit when issued.

Beyond the Facility Boundary (§3004(v))

While the authority for cleanup under §3004(u) is broad, it only applies to contamination on the contiguous property of a facility and does not address the migration of hazardous constituents beyond the boundaries of the facility seeking the permit. To address these concerns, Congress also amended RCRA with §3004(v). This section gives EPA the authority to require a facility owner and operator to clean up releases that have migrated beyond the facility boundary. Specifically, the owner and operator must institute corrective action wherever necessary to protect human health and the environment unless the owner and operator demonstrate to the satisfaction of the Regional Administrator that despite the owner and operator's best efforts, they were unable to obtain the necessary permission from adjacent property holders to undertake such actions (§264.101(c)). In addition, the Agency has asserted that financial responsibility must be demonstrated for these cleanup actions.

Omnibus Permitting Authority (§3005(c)(3))

The omnibus provision enables EPA to include any requirements deemed necessary in a permit, including the requirement to perform corrective action. This authority is particularly useful at permitted facilities when there is release that is not associated with a solid waste management unit (SWMU).

AUTHORITIES NOT CONTINGENT UPON FACILITY'S PERMIT

EPA also possesses additional authorities to order corrective action at facilities that are not contingent upon a facility's permit. The statutory provisions to issue these corrective action orders are as follows.

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Interim Status Corrective Action (§3008(h))

Under HSWA, Congress also gave EPA the authority to issue orders requiring cleanups at interim status facilities. Interim status facilities are treatment, storage and disposal facilities (TSDFs) that were already in operation when the applicable RCRA standards were established, and that are operating under the standards in 40 CFR Part 265 until they receive a permit. Under §3008(h), as added by HSWA, EPA can issue an administrative order or file a civil action whenever it determines on the basis of any information that there is or has been a release of hazardous waste into the environment from an interim status facility. This applies to facilities that are currently operating under interim status, that formerly operated under interim status, or that should have obtained interim status. It also applies to any release of hazardous waste or constituents from the facility. In addition to requiring cleanup, EPA has the authority under §3008(h) to revoke or suspend interim status. Finally, as with §3004(v), EPA may use §3008(h) to require corrective action beyond the facility boundary and to require proof of financial assurance for cleanup.

Imminent and Substantial Endangerment (§7003)

RCRA §7003 gives EPA broad enforcement authority to abate potential imminent and substantial hazards caused by releases of solid or hazardous waste from any source. Specifically, §7003 provides EPA with the authority to seek legal relief in the appropriate United States District Court, or issue administrative corrective action orders for releases from any site where the handling, storage, treatment, transportation, or disposal of solid or hazardous waste may pose an imminent and substantial endangerment to human health or the environment.

2.2 EXISTING REGULATIONS

EPA has chosen not to finalize a comprehensive regulatory framework to implement the corrective action program. Instead, the Agency implements the corrective action program primarily through guidance documents and statutory authorities. Therefore, the phrase "corrective action program" does not refer to one regulatory section, but rather to the cleanup process under RCRA. There are, however, some codified requirements.

Part 264, Subpart F requires corrective action for releases to groundwater from regulated units (e.g., landfills, surface impoundments). Under these regulations, corrective action is the third step of a three-phase program for detecting, characterizing, and responding to releases to the uppermost aquifer from regulated units. In the corrective action phase, the owner and operator are required to remove or treat in place all contaminants present in concentrations above previously determined protection

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levels (§264.100). This type of corrective action applies only to regulated units (§264.100) as opposed to all SWMUs (§264.101) and follows a slightly different procedure. This procedure is covered in the module entitled Groundwater Monitoring.

Facilities are also required to institute corrective action for releases of hazardous waste or constituents from SWMUs (§264.101). This section essentially reiterates the statutory language of §3004(u). Part 270 requires anyone seeking a RCRA permit to identify, in their permit application, any SWMUs found at their facility (§§270.1(c), 270.14(d)). EPA also promulgated regulations mitigating the regulatory burden of handling remediation wastes generated during the corrective action process (§§264.552 through 264.554).

2.3 IMPLEMENTING THE CORRECTIVE ACTION PROGRAM TODAY

One of the keys to understanding the RCRA corrective action program is knowing when a facility becomes subject to the corrective action. A facility can enter the corrective action program in a variety of ways — a facility is not simply thrust into the program every time a spill of hazardous waste occurs. There are primarily four ways a facility becomes subject to corrective action. Facilities can enter the corrective action program by EPA instruction under statutory authorities and enforcement orders, by volunteering to perform cleanups, or after detecting statistically significant increases of contamination according to the groundwater monitoring requirements in 40 CFR Part 264, Subpart F.

It is also important to understand how facilities investigate and remediate contamination. Currently, EPA is shifting the program focus to encourage faster, more focused cleanups. In the past, corrective action has emphasized a structured, linear approach, known as the corrective action process. EPA intended the corrective action process to provide for structured investigation and cleanup of contamination at RCRA facilities. However, experience has revealed that the corrective action process often does not provide the flexibility necessary to address variability at contaminated sites. Sites requiring cleanup can vary significantly, depending on the type and extent of contamination, potential risk for exposure, climate and soil conditions, and numerous other factors. Experience has also demonstrated that cleanup waste, or remediation waste, can be less dangerous than hazardous waste generated from on-going hazardous waste operations. Regulatory provisions that provide adequate protection for on-going hazardous waste operations, such as permitting, land disposal restrictions (LDR), and minimum technical requirements (MTR), are not always suitable for remediation waste.

Therefore, EPA is shifting the focus of the corrective action program away from the structured, linear corrective action process, and emphasizing results-based corrective action. The Agency encourages facilities to focus on accomplishing the cleanup and not

on specific paperwork milestones. In other words, the corrective action process should be modified to accommodate the site-specific needs.
Facilities conducting corrective action are not excluded from RCRA requirements, though, and still need to fulfill permitting, LDR, and MTR obligations. EPA has promulgated regulations that allow for flexibility in the cleanup process, such as alternative LDR soil standards in 40 CFR §268.49. You will learn more about flexible regulatory provisions for remediation waste in Section 2.6 of this module.

2.4 THE ORIGINAL CORRECTIVE ACTION PROCESS

In the past, EPA has used the corrective action process to evaluate and document the nature and extent of contamination, identify the physical and geographic characteristics of the facility, and identify, develop, and implement appropriate corrective measures. The conditions at contaminated sites vary significantly, making it difficult to adhere to one rigid process. Consequently, the corrective action process is designed to be flexible; and the Agency will use only those portions of the process that are appropriate at a given site. While EPA no longer emphasizes the original corrective action process, this section of the module discusses the corrective action steps familiar to the regulated community.

The original corrective action process of investigation and remedy selection and implementation generally comprises six activities (Figure 1). These activities are not always undertaken as a linear progression towards final facility cleanup, but can be implemented flexibly to most effectively meet site-specific corrective action needs. These activities are not dictated by the regulations but are used by EPA in guidance documents relevant to corrective action. These six activities are:

- RCRA Facility Assessment (RFA) — identifies potential or actual releases from SWMUs
- National Corrective Action Prioritization System (NCAPS) Ranking — prioritizes the cleanup of the site relative to other sites
- Interim/Stabilization Measures — implements measures to achieve high-priority, short-term remediation needs
- RCRA Facility Investigation (RFI) — compiles information to fully characterize the release
- Corrective Measures Study (CMS) — identifies appropriate measures to address the release

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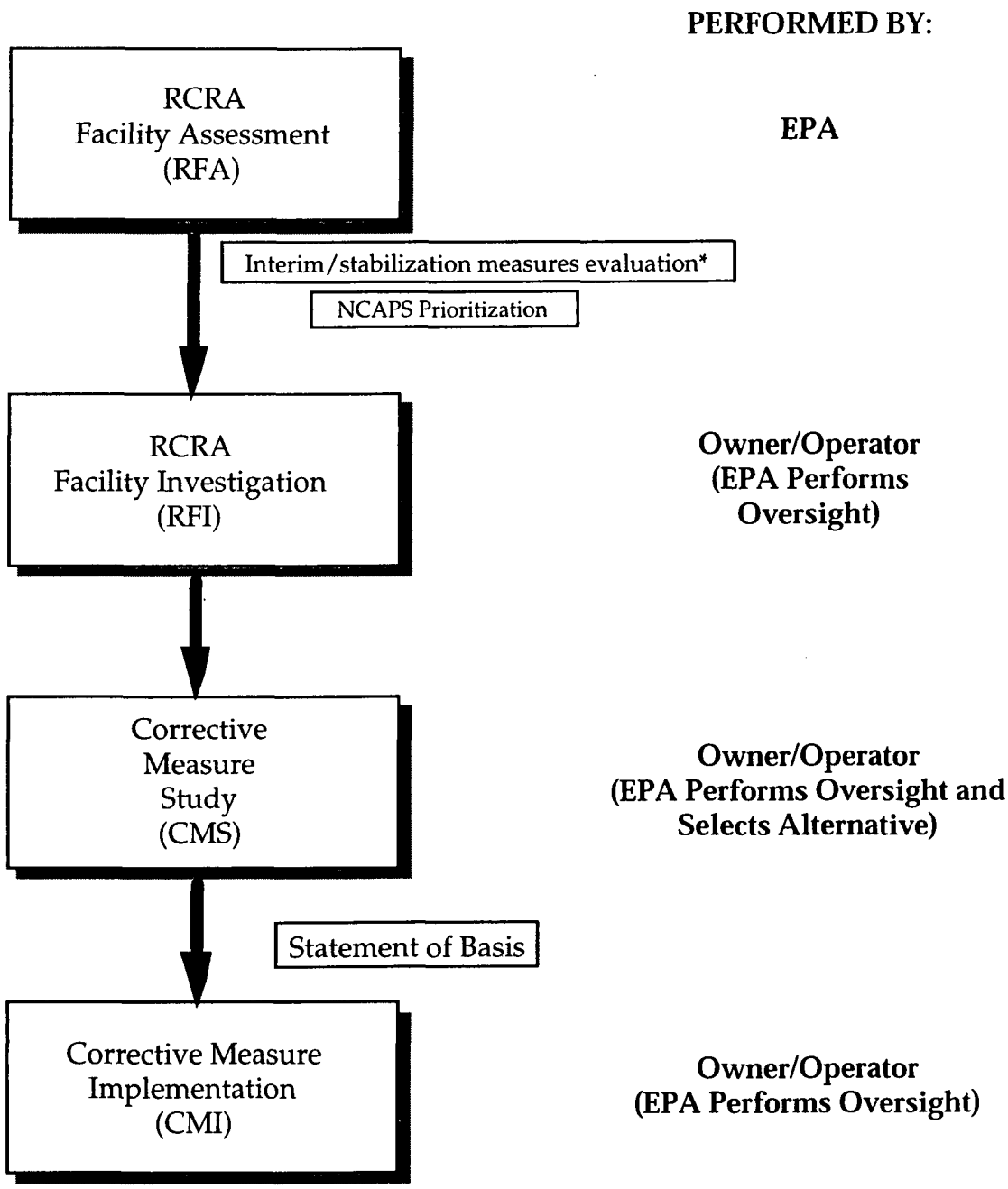
- Corrective Measures Implementation (CMI) — designs and implements the remedy.

Figure 1
CORRECTIVE ACTION PROCESS



* Stabilization evaluations may occur after an RFA or after an RFI, and interim/stabilization measures may be taken throughout the corrective action process.

RCRA FACILITY ASSESSMENT

Often the first activity in the original corrective action process is the RFA. The objective of the RFA is to identify potential and actual releases from SWMUs and make preliminary determinations about releases, the need for corrective action, and interim measures. The RFA is conducted by the regulatory agency and generally occurs prior to permit issuance. If the facility is in interim status and is not seeking a permit, the RFA may take place before the facility closes. The RFA begins with a file review of information about the facility. The regulatory agency may then conduct a visual site inspection to confirm available information on SWMUs and to note any visual evidence of releases. Finally, a sampling visit may be performed to confirm or disprove suspected releases before an RFI is conducted.

NATIONAL CORRECTIVE ACTION PRIORITIZATION SYSTEM

It is EPA's policy to address the greatest corrective action needs first. Therefore, after initially assessing a site, EPA usually ranks the site's relative environmental cleanup priority and uses that ranking to allocate EPA resources. EPA uses NCAPS to rank and compare sites in the corrective action process. NCAPS is a computer-based ranking system that considers a variety of environmental factors in assessing the priority of sites. Environmental factors considered in the prioritization include types and volumes of wastes present, contaminant release pathways, and the potential for human and ecosystem exposure to contaminants. NCAPS generates a high, medium, or low ranking for each facility. The ranking is based on an evaluation of four pathways of actual or potential contamination (groundwater, surface water, air, and soils) and nationally established criteria for defining high, medium, and low. The information needed to assess a site by applying this system is usually obtained from the RFA and other available information, such as that from permit applications.

INTERIM/STABILIZATION MEASURES

Contaminated sites often present serious and immediate hazards which EPA must address quickly during the corrective action process. This process is called stabilization. The actions used to achieve the goal of stabilization are called interim measures or interim/stabilization measures. Interim/stabilization measures are short-term actions taken to respond to immediate threats to human health or prevent damage or contaminant migration to the environment. EPA evaluates the need and feasibility of interim/stabilization measures by conducting a stabilization evaluation. EPA may perform the stabilization evaluation after an RFA or after an RFI. Interim or stabilization measures may be taken at any time in the corrective action process and should be consistent with the final remedy.

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RCRA FACILITY INVESTIGATION

Another activity in the corrective action process is the RFI. The RFI may take place when a release has been identified and further investigation is necessary. The purpose of the RFI is to gather enough data to fully characterize the nature, extent, and rate of migration of contaminants to determine the appropriate response action.

The investigation typically focuses on the specific units, releases, and exposure pathways identified as problematic earlier in the process to avoid unnecessary and unproductive investigations. Permitees may be required to submit a plan for conducting an RFI, which will be overseen by the implementing agency.

CORRECTIVE MEASURES STUDY

After the RFI is completed, and the regulatory agency determines based on available information that cleanup is necessary, the regulatory agency may request the owner and operator to conduct a CMS. The purpose of the CMS is to identify and evaluate cleanup alternatives for releases at the facility. The owner and operator identifies the appropriate corrective measures to address the threats posed by the releases, including measures to control the source of contamination and actions to abate problems caused by migration of contaminants from the source. The recommended measures are reviewed by EPA or the state and EPA selects the best remedy given site-specific considerations. EPA may request additional information or additional alternatives throughout this process. When a remedy is selected, the facility's permit is modified to include the remedy and a schedule of compliance. At that time the remedy is subject to public review and comment. In certain cases, a formal CMS may not be necessary; for example, when the remedy will clearly involve excavation or removal and other alternatives need not be considered.

STATEMENT OF BASIS

In addition to the permit modification EPA may also publish a statement of basis. This document describes the basis for EPA's remedy selection and an explanation for the cleanup levels chosen, and provides the public with an opportunity to comment on the remedy.

CORRECTIVE MEASURES IMPLEMENTATION

Once the implementing agency has selected a remedy, the facility enters the CMI phase of corrective action. During the CMI, the owner and operator of the facility implement the chosen remedy. This phase includes design, construction, maintenance, and monitoring of the chosen remedy, all of which are performed by the facility owner and operator with Agency oversight. A remedy may be implemented through a phased approach. Phases could consist of any logically connected set of actions performed

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sequentially over time or concurrently at different parts of a site. For example, if groundwater contamination is currently extending beyond the facility boundary it may be most important to address this problem first and address the larger remediation areas after the plume is under control.

2.5 FINANCIAL ASSURANCE

Under RCRA §3004(a)(6), EPA has broad authority to require that facilities subject to corrective action demonstrate financial assurance. On October 24, 1986, EPA proposed to formally codify these requirements for financial assurance at permitted facilities undergoing corrective action; however, these regulations were never finalized (54 FR 37854). As a result, financial assurance for corrective action at permitted and interim status facilities is currently instituted through a permit or an order. Pursuant to §§3004(u), 264.101(b), 264.101(c), and 264.92(a)(2), EPA can require permitted facilities to demonstrate financial assurance for corrective action. Similarly, financial assurance for corrective action at interim status facilities may be required through a §3008(h) order. As stated in the May 1, 1996, advance notice of proposed rulemaking, EPA is considering other formal options regarding financial assurance for corrective action (61 FR 19432). For more information on this advanced notice of proposed rulemaking, see Section 4 of this module.

2.6 REMEDIATION WASTE

Cleaning up RCRA facilities under the corrective action program may involve the management of large amounts of waste such as contaminated soils, water, debris, and sludges which contain a listed waste or exhibit a characteristic of hazardous waste. Such "remediation wastes" (§260.10) that are managed for the purpose of implementing corrective action requirements are generally subject to the same management standards as newly generated RCRA hazardous waste, including treatment, storage, and disposal facility standards and land disposal restrictions (LDR). These management standards are sometimes counterproductive when applied to cleanups because they may unnecessarily slow the corrective action process and increase the cost of corrective action without providing a concomitant level of protection of human health and the environment. In order to mitigate the impact of these management standards on the corrective action program, EPA promulgated regulations that allow the use of alternative permit and unit standards in management of remediation waste. These alternative standards ensure cleanups are fully protective while eliminating some of the regulatory hurdles associated with waste management. To provide some regulatory relief from permit requirements, EPA has made a distinction between remediation waste management sites and facilities managing as-generated waste process wastes as part of ongoing facility operations.

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Remediation waste management sites are those facilities that would require a permit only to treat, store, or dispose of remediation waste generated from facility cleanup. The process of obtaining a permit can be time consuming and expensive, and may not be the most efficient way to conduct the cleanup activity. Therefore, the Agency recently promulgated a modified version of a permit, the remedial action plan (RAP). Unlike the traditional RCRA permit, the RAP is tailored to the needs of the remediation waste management site.

EPA also provided options for increased cleanup flexibility by establishing three remediation waste management units: temporary units (TUs), corrective action management units (CAMUs), and staging piles. Each of these units may be used at cleanup facilities to manage remediation waste on site, or within contiguous property under the control of the owner and operator. Owners and operators may not, however, use the units to manage as-generated process waste, to manage waste generated off-site, nor can the units themselves be used at off-site facilities. It is important to note that these units may be used at remediation waste management sites, regardless of whether the facilities are subject to §§264.101, 3004(u) or 3008(h). Although the units require some form of a permit, the owner and operator do not need to conduct facility-wide corrective action. The owner and operator may choose the unit that most appropriately fulfills the needs of the cleanup.

TUs are tanks or container storage areas that EPA designated to be used solely for the treatment or storage of remediation wastes during cleanups. By designating a tank or container storage area as a temporary unit, EPA may modify the design, operation, and closure technical standards normally applicable for such units for up to one year, unless EPA grants an extension. The TU must comply fully with all specific alternative unit standards set out in the facility permit.

CAMUs are physical, geographic areas within a facility designated for treatment, storage, or disposal of remediation wastes during cleanup activity (§260.10). By designating an area as a CAMU, EPA exempts that area from LDR and the land disposal unit minimum technology requirements (MTR). The status of the CAMU has recently been subject to litigation. Environmental groups petitioned EPA because they felt the CAMU provisions do not adequately protect human health and the environment. The CAMU regulations are currently effective, but the litigation discussions may require modifications to reflect the concerns of stakeholders.

A staging pile is an accumulation of solid, non-flowing remediation waste unit designated by EPA as a temporary storage area for remediation waste during cleanups. Once EPA has designated the staging pile, MTR and LDR do not apply to the remediation waste or the unit. Owners and operators may not place any liquids in the staging pile, and cannot conduct any treatment. Remediation waste may be stored in the staging pile for a maximum of two years, with the possibility of one 180-day extension.

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3. SPECIAL ISSUES

The following two topics briefly address interface issues, first within the RCRA regulatory scheme and secondly between statutory programs.

3.1 CORRECTIVE ACTION VS. POST-CLOSURE PERMITS

The corrective action process is often closely interrelated with the closure process. Frequently, a closing unit has caused contamination of environmental media that necessitates corrective action during the post-closure period. Usually this corrective action is addressed through a post-closure permit pursuant to §3004(u). EPA has finalized provisions to remove the requirement to address post-closure care through a post-closure permit when appropriate (63 FR 56711; October 22, 1998). The final rule grants the implementing agency the freedom to use the most appropriate authority (e.g., §3008(h), groundwater monitoring corrective action pursuant to §264.100, CERCLA, state cleanup programs) to remediate the site (see the module entitled Closure and Post-Closure).

3.2 COORDINATION OF CLEANUP PROGRAMS

There are many instances where a contaminated hazardous waste site can be cleaned up under different regulatory programs. For example, there may be RCRA, CERCLA, or other state/tribal cleanup programs that EPA can use to address contamination. The Agency prefers to address such contaminated sites under a single program, but often individual program requirements prevent complete deferral. In instances where complete deferral from one program to another is not appropriate, EPA emphasizes coordination of cleanup programs in order to avoid duplication of efforts and second-guessing of remedial decisions.

There are other instances where deferral from one regulatory cleanup program to another is appropriate. Because the RCRA corrective action process and the CERCLA remedial process are very similar programs and follow roughly parallel procedures in responding to releases of contaminants (Figure 2), it may be more appropriate to address a site under RCRA rather than CERCLA (or vice versa). For example, where a contaminated site is an active RCRA-permitted facility, the Agency may decide that deferral to RCRA (instead of using CERCLA authorities) is most appropriate to accomplish cleanup of the site.

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The Agency's position has been that a site that can be addressed by RCRA Subtitle C corrective action should be deferred from placement on the National Priorities List (NPL) unless it falls within certain exceptions, such as:

- The inability or unwillingness of the owner and operator to pay for addressing the contamination at the site
- Inadequate financial responsibility guarantees to pay for such costs
- EPA or state priorities for addressing RCRA sites would defer prompt action and delay could result in further significant contamination.

The NPL Deferral/Deletion policy also applies to federal facilities (62 FR 62523; November 24, 1997).

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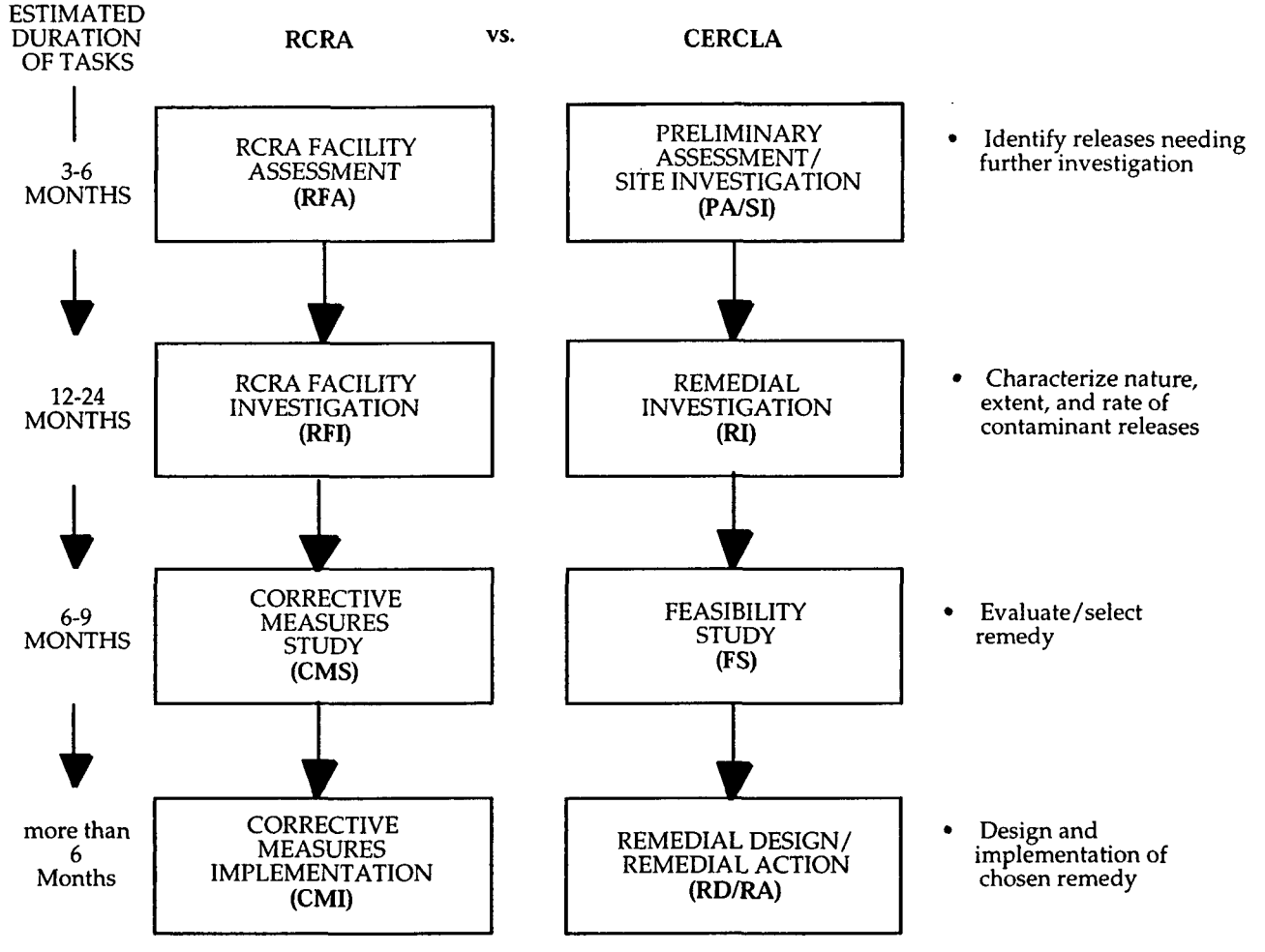
Figure 2
COMPARISON OF RCRA CORRECTIVE ACTION AND CERCLA REMEDIAL PROCESSES*



*Interim Measures may be performed at any point in the corrective action process

4. PROGRAM DEVELOPMENTS

On July 27, 1990, EPA proposed a comprehensive, systematic approach to corrective action, which would be codified as Part 264, Subpart S (55 FR 30798). This rule proposed regulations detailing the substantive and procedural requirements to implement the corrective action program. One of the main goals of the proposal was to promote national consistency. The 1990 proposal received significant public comment. As a result, EPA did not finalize the bulk of the proposal, and instead finalized only a few sections, such as the provisions promulgating regulations for CAMUs and TUs (see Section 2.6 of this module for more information).

EPA then reevaluated this proposal based on the experience of implementing the corrective action program since 1990, and published an advance notice of proposed rulemaking (61 FR 19432; May 1, 1996). The advance notice introduced EPA's strategy for promulgation of corrective action regulations, and expanded on the Agency's philosophy and priorities. The advance notice opened a dialogue with the regulated community on ways to make the corrective action process shorter and cost-effective for the regulated community and for the Agency; to create more consistent, less compartmentalized cleanups; to establish protective but "common sense" cleanup expectations; and to shift more responsibility for compliance to states and the regulated community. EPA intended the advance notice to be used as guidance for implementing the corrective action program.

Ultimately, fundamental disagreements among stakeholders prevented EPA from finalizing the comprehensive, regulatory corrective action framework discussed in the 1990 proposal. On October 7, 1999 (64 FR 54604), EPA formally withdrew all provisions of the 1990 proposal, except for a few jurisdictional issues and the elements finalized in the Corrective Action Management Unit (CAMU) Rule (58 FR 8658; February 16, 1993). The withdrawal notice was intended to eliminate uncertainty for states and owner/operators created by the potential promulgation of detailed federal regulations, thereby clearing the way for implementation of more flexible corrective action approaches. Through the withdrawal action, EPA further clarified that it does not intend to finalize a process-oriented corrective action approach, and to confirm that the 1996 Advanced Notice of Proposed Rulemaking remains the primary corrective action program guidance.

Instead of finalizing the 1990 proposal, the Agency has finalized a limited number of provisions to facilitate faster, more efficient cleanups. For example, EPA has established alternative LDR soil treatment standards, harmonized the sometimes duplicative closure and corrective action requirements, and used HWIR-Media to increase flexibility for "cleanup only" facilities by developing a streamlined RCRA permit, removing the obligation for facility-wide corrective action, and introducing the staging pile.

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In addition, EPA has decided to focus on writing policy documents and guidance on corrective action, and to develop a set of targeted administrative reforms. These reforms, also known as the RCRA Cleanup Reforms, are EPA's comprehensive effort to remove obstacles to efficient cleanups, maximize program flexibility, and initiate progress toward a set of ambitious national cleanup goals.

The national cleanup goals, established to fulfill the requirements of the Government Performance and Results Act (GPRA), focus on 1,712 RCRA corrective action facilities identified by EPA and states. The two near-term measures of progress in the RCRA corrective action program are known as environmental indicators. The environmental indicators for the RCRA corrective action program are "migration of contaminated groundwater under control" and "current human exposures under control." These environmental indicators are designed to aid facility decision makers by clearly showing where risk reduction is necessary, thereby helping regulators and facility owner/operators reach agreement earlier on stabilization measures or cleanup remedies that must be implemented. The goals set by EPA under GPRA are that by 2005, the states and EPA will verify and document that 95 percent of these 1,712 RCRA facilities will have "current human exposures under control," and 70 percent of these facilities will have "migration of contaminated groundwater under control."

EPA will continue to publish information regarding the RCRA Cleanup Reforms as well as guidance to assist facilities in implementing the corrective action program.

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