



Corrective Action Management Units and Temporary Units

BACKGROUND: On October 7, 1999, EPA announced its decision to withdraw most of the provisions of the July 27, 1990, Notice of Proposed Rulemaking (NPRM) for corrective action for solid waste management units (SWMUs) at hazardous waste management facilities (64 *FR* 54604). Commonly known as the "Subpart S" proposed rule, this rule would have created a comprehensive set of requirements under 40 CFR Part 264, "Subpart S" of the Resource Conservation and Recovery Act (RCRA) regulations, for conducting corrective action at RCRA facilities. To implement RCRA corrective action, EPA is deferring instead to: (1) its February 16, 1993, final rule on Corrective Action Management Units (CAMUs) and Temporary Units (TUs) (58 *FR* 8658) and the January 22, 2002, CAMU Amendments (67 *FR* 2962); (2) its May 1, 1996, Advance Notice of Proposed Rulemaking (ANPRM) on RCRA corrective action (61 *FR* 19432); (3) its November 30, 1998, final rule on Hazardous Remediation Waste Management Requirements (HWIR-Media) (63 *FR* 65874); and (4) various policy and guidance documents that the Agency has issued since the 1990 Subpart S proposal. In addition, EPA may issue one or more final rules pertaining to targeted jurisdictional issues, such as the definition of the term "facility" for purposes of RCRA corrective action, and supplemental guidance documents in a number of areas pertaining to RCRA corrective action.

The RCRA corrective action program was mandated by the Hazardous and Solid Waste Amendments of 1984 (HSWA). Congress directed EPA to require "corrective action for all releases of hazardous waste or constituents from any solid waste management unit..." [HSWA 3004(u)] and, where necessary, "that corrective action be taken beyond the facility property boundary..." [HSWA3004(v)]. The only aspect of the proposed Subpart S rule that has been finalized is the CAMU/TU rule (58 *FR* 8658, February 16, 1993). Initially, this rule allowed the EPA Regional Administrator or the authorized State to designate areas as CAMUs or TUs for the specific purpose of managing "remediation waste" that has been generated as part of a facility's cleanup activities. EPA changed the applicability of the CAMU regulations, however, as part of the final HWIR-Media rule (63 *FR* 65874, November 30, 1998). More recently, EPA issued its Amendments to the Corrective Action Management Unit Rule; Final Rule (67 *FR* 2962; January 22, 2002), which narrows the types of cleanup wastes that may be managed in an on-site CAMU to "CAMU-eligible waste," and codifies minimum and alternate liner and cap designs and treatment requirements for wastes disposed of in new, replacement, or laterally expanding CAMUs. The purpose of this Information Brief is to provide information on CAMUs and TUs and to discuss the effect of the changes introduced by the HWIR-Media and CAMU Amendments final rules. This Information Brief is one of a series on RCRA corrective action. It has been revised from a previous Information Brief [EH-231-043/0394 (March 1994)].

STATUTES: RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA).

REGULATIONS: 40 CFR 260.10, 40 CFR 264.550 - 264.553. Proposed 40 CFR Part 264, Subpart S (55 *FR* 30798, July 27, 1990), withdrawn on October 7, 1999 (64 *FR* 54604); "Corrective Action Management Units and Temporary Units: Corrective Action Provisions Under Subtitle C" (58 *FR* 8658, February 16, 1993); Advanced Notice of Proposed Rulemaking (ANPRM) "Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities" (61 *FR* 19432, May 1, 1996); "Hazardous Remediation Waste Management Requirements" (HWIR-Media) (63 *FR* 65874, November 30, 1998); "Amendments to the Corrective Action Management Unit Rule" (67 *FR* 2962; January 22, 2002)

- REFERENCES:**
1. "[Amendments to the Corrective Action Management Unit Rule; Final Rule \(67 FR 2962\)](#)," U.S. Department of Energy (DOE), Office of Environmental Policy and Guidance, RCRA/CERCLA Division (EH-413), Regulatory Bulletin, July 2002.
 2. "[RCRA Corrective Action Program Guide \(Interim\)](#)," DOE, Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413), Guidance Manual, DOE/EH-0323, October 2002.
 3. "[Corrective Action Management Units and Temporary Units - CAMU/TU Final Rule Issued](#)," Regulatory Bulletin, DOE Office of Environmental Guidance, RCRA/CERCLA Division, EH-231, May 12, 1993.
 4. "[Management of Remediation Waste Under RCRA](#)," U.S. Environmental Protection Agency, Memorandum to RCRA/CERCLA Senior Policy Managers and Regional Counsels, EPA530-F-98-026, October 1998.

What are remediation wastes?

CAMUs and TUs were units initially created specifically for the management of “remediation wastes.” Hence, the definition of remediation wastes is central to the applicability of CAMUs and TUs. The February 16, 1993, final CAMU/TU rule defined remediation waste as “those wastes that are managed for the purpose of implementing corrective action and include the following: 1) those that are solid and hazardous wastes and 2) any remediation-derived debris and media (including groundwater, surface water, soils, and sediments) that contain listed hazardous wastes or exhibit a hazardous waste characteristic” (40 CFR 260.10). The February 16, 1993, final CAMU/TU rule indicated that remediation wastes must originate within the facility boundary, unless they result from remediation of releases that have migrated beyond the facility boundary (see 58 *FR* 8664).

The November 30, 1998, final HWIR-Media rule modified this definition, however, to clarify that remediation wastes included wastes managed at offsite locations, even if they are removed from their “point of origin.” Accordingly, remediation waste became “all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that contain listed hazardous wastes or that themselves exhibit a hazardous characteristic and are managed for implementing cleanup” (63 *FR* 65937, codified at 40 CFR 260.10).

Following promulgation of the HWIR-Media rule, concerns surfaced regarding the phrase “that contain listed hazardous wastes or that themselves exhibit a hazardous characteristic.” Commenters felt it might unintentionally limit the scope of remediation waste to hazardous media and debris only. Thus, in the CAMU Amendments, EPA again revised its definition of remediation waste by removing this phrase. The EPA also used the revised terminology to establish a separate subcategory of remediation waste known as CAMU-eligible waste (67 *FR* 2966-67; January 22, 2002).

What is “CAMU-eligible waste”?

CAMU-eligible waste [40 CFR 264.552(a)(1)] is based on EPA’s definition of remediation waste and includes wastes, media, and debris that are managed for implementing cleanup. This definition, however, more explicitly identifies those wastes that cannot be placed in CAMUs, including as-generated waste (except non-hazardous waste used to facilitate treatment or unit performance) and hazardous waste found in intact or substantially intact non-land-based units.

What is a CAMU?

The February 16, 1996, the CAMU/TU final rule defined a CAMU as “a land area within a facility regulated under RCRA Subtitle C (i.e., facilities with permitted or interim status) that is designated by the EPA Regional Administrator or the authorized State for the purpose of managing remediation wastes generated from corrective action activities” (40 CFR 260.10). The November 30, 1998, final HWIR-Media rule retained the CAMU regulations, but broadened their applicability. Specifically,

the EPA wanted to clarify that a CAMU can be designated at a remediation-only facility that operates under a remedial action plan (RAP) or other permit, even though such a facility is not subject to the corrective action provisions as codified in 40 CFR 264.101 or RCRA section 3008(h). The EPA also wanted to clarify that CAMUs are not restricted to wastes generated solely through specific RCRA regulatory mechanisms, or to clean-up wastes generated solely at RCRA treatment, storage, or disposal facilities. Accordingly, the HWIR-Media final regulations changed the CAMU definition to mean “an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility” (63 *FR* 65880; 63 *FR* 65937, codified at 40 CFR 260.10).

The January 2002 CAMU Amendments establish more detailed design, operating, and treatment standards for, and narrowed the scope of cleanup wastes that may be disposed of in new, replacement, or laterally expanded CAMUs (67 *FR* 2962; January 22, 2002) “Grandfathered CAMUs,” however, remain subject to the 1993 CAMU performance-based design, operation and closure standards, and may continue receiving remediation waste (40 CFR 264.551).

What advantages does designation of a CAMU offer?

By definition, placing remediation wastes into or within a CAMU does not constitute land disposal (see 58 *FR* 8665) [40 CFR 264.552(a)(4)], and the land disposal restrictions (LDRs) do not apply to such activities. In addition, waste disposal units located within CAMUs need not be designed in accordance with minimum technology requirements (MTRs) [40 CFR 264.552(a)(5)], such as liners and leachate collection systems.

This means remediation wastes generated either within or outside a CAMU, as a result of corrective action or CERCLA response action (see 58 *FR* 8679) at a DOE facility, can be consolidated into the CAMU without triggering LDRs and MTRs. Also, the remediation wastes can be moved between two or more CAMUs at the site without triggering LDRs or MTRs. Likewise, the “replacement” scenario, where remediation wastes are excavated from a CAMU, treated in a separate unit (which could be located inside or outside the CAMU at the facility), and redeposited into the CAMU, is not a new “disposal” event that triggers LDRs. Also, MTRs do not apply to the excavated area receiving the redeposited material. Designating a CAMU, however, does not change the authority of EPA or an authorized State to establish or approve clean-up levels, determine media-specific points of compliance to be applied to a facility’s remediation, and make other remedy-selection approval decisions [40 CFR 264.552(k)].

EPA uses the term “remediation-only facility” to refer to facilities that require RCRA permits solely for the purposes of treating, storing or disposing remediation wastes. [63 *FR* 65880, note 3]

Because CAMUs are exempt from LDRs, innovative technologies may be more readily utilized to treat wastes managed in CAMUs and design requirements can be tailored to the material managed in the CAMU and other site-specific considerations.

What is a TU?

Unlike the definition of CAMU, the November 30, 1998, final HWIR-Media rule did not change the definition of a TU. The February 16, 1993, final CAMU/TU rule defined a TU as a “tank or container storage unit, located within a facility’s boundaries, but not necessarily within a CAMU’s boundaries, that the EPA Regional Administrator or the authorized State has designated to be used for treating and storing remediation wastes generated at the facility.” A TU may not be operated for longer than one year without an approved extension (40 CFR 264.553).

What advantages does designation of a TU offer?

The advantage of designating a container or tank as a TU is that EPA or the authorized State may impose standards that are less stringent than the full 40 CFR Part 264 standards for these type units; and that utilization of TUs will facilitate remediation at permitted facilities with continuing releases, facilitate corrective action beyond the facility boundary, aid facilities in complying with RCRA 3008(h) orders, and promote the development and implementation of innovative treatment technologies. The EPA or the authorized State can replace the Subtitle C standards for tanks and container storage units designated as TUs with alternative requirements, as long as human health and the environment are protected (a hypothetical example would be to allow the substitution of high berms for leak detection equipment or double-lined tanks) [40 CFR 264.553(a)]. The alternative requirements are based upon site-specific considerations and remediation waste characteristics.

What other provisions of the November 30, 1998, final HWIR-Media rule could effect the management of remediation wastes?

The HWIR-Media final rule has the following additional elements:

- A new type of RCRA permit [i.e., a Remedial Action Plan (RAP)] with a streamlined permitting process is established for governing treatment, storage, and disposal of hazardous remediation wastes. The process for obtaining a RAP is delineated in 40 CFR Part 270, Subpart H (63 FR 65941).
- A definition for the term “remediation waste management site” is added to 40 CFR 260.10. A “remediation waste management site” is defined as “a facility where an owner or operator is or will be treating, storing or disposing of hazardous remediation waste.” (63 FR 65937, codified at 40 CFR 260.10). Remediation waste management sites differ from those governing other hazardous waste management facilities in the following three respects (63 FR 65882):

- Remediation waste management sites can be permitted using either the new RAP, or a traditional RCRA permit.
- If a remediation waste management site is located at a remediation-only facility, facility-wide corrective action is not required [63 FR 65938, codified at 40 CFR 264.1(j) and 264.101(d)].
- Remediation waste management sites must comply with newly stated performance standards that address general facility requirements, preparedness and prevention, and contingency planning and emergency procedures [63 FR 65938, codified at 40 CFR 264.1(j)].

- A new type of hazardous waste management unit, the staging pile, is created for accumulation and temporary storage of solid, non-flowing hazardous remediation waste. Although not included under the definition of TU, a staging pile is very similar to a TU. The HWIR-Media final rule defines a “staging pile” as “an accumulation of solid, nonflowing remediation waste [as defined in (40 CFR) §260.10] that is not a containment building and is used only during remedial operations for temporary storage at a facility” [63 FR 65939, codified at 40 CFR 264.554(a)]. This definition is added to 40 CFR 260.10.
- An exemption from the requirement that a facility needing a RCRA permit must conduct facility-wide corrective action is added to 40 CFR 264.101 for remediation waste management sites located at remediation-only facilities, whether the remediation waste management site is permitted using a traditional RCRA permit or a RAP.
- An exclusion from the definition of hazardous waste is added to 40 CFR 261.4 for dredged material subject to a permit that has been issued under section 404 of the Federal Water Pollution Control Act of 1977 (CWA), or under section 103 of the Marine Protection, Research, and Sanctuaries Act (MPRSA, also known as the Ocean Dumping Act).
- Abbreviated procedures are added whereby an application for a change to a previously authorized State RCRA program is not required to contain all of the components delineated in 40 CFR the end of the extension period, management of waste in the unit must cease until the retrofitting has been completed. Retrofitting of a TU at the end of the operating time limit must be approved through modifications to the applicable permit or order (58 FR 8676).

Can CAMUs and TUs be used at CERCLA sites?

CAMUs and TUs constitute applicable or relevant and appropriate requirements (ARARs) for remediating many CERCLA sites. In the CERCLA context, CAMU and TU requirements that are designated to be ARARs would be incorporated into CERCLA decision documents rather than RCRA permits or orders. The EPA anticipates

that the increased flexibility offered by CAMUs and TUs will allow EPA or the authorized State to expedite protective and cost-effective remedies at CERCLA sites where they are ARARs, such as at Federal facilities on the National Priorities List. Environmental restoration program managers at DOE sites that are CERCLA sites should investigate whether CAMU and TU final regulations will be ARARs at their sites.

When can DOE request the designation of sites as CAMUs and TUs?

Before a DOE site can integrate one or more CAMUs/TUs into its site-wide cleanup strategy, the State in which the site is located must, at a minimum, adopt the CAMU/TU provisions. Thus, DOE personnel at each site will need to determine whether the CAMU/TU final rule, as modified by the HWIR-Media and CAMU Amendments final rules, can be applied in their respective State.

In 1993, EPA determined that the CAMU and TU regulations were less stringent than existing Federal corrective action requirements (58 FR 8677). Thus, the 1993 CAMU and TU regulations did not apply in States authorized for the HSWA corrective action program until the States adopted comparable provisions. Furthermore, these authorized States were not required to adopt the 1993 CAMU/TU rule because it was less stringent than existing corrective action requirements. Thus, the rule has taken effect only in (1) States that are not authorized for the RCRA base program, (2) States that are authorized for the RCRA base program, but are not yet authorized for HSWA corrective action, and (3) States that obtained authorization for the 1993 CAMU/TU rule.

More recently, minimum design, operating, and treatment standards for CAMUs issued in the CAMU Amendments are viewed as more stringent than those appearing in the 1993 CAMU/TU rule (67 FR 3007; January 22, 2002). Relative to other HSWA corrective action provisions, however, these CAMU Amendments continue to be viewed as less stringent. Therefore, States that are authorized for corrective action but have not received authorization for the 1993 CAMU/TU rule are not required to seek authorization for the CAMU Amendments. States that have already been granted authorization for the 1993 CAMU/TU rule, however, must revise their programs so that they are not less stringent than the federal program. Table 1 illustrates which agency (EPA or State), if either, will implement the 1993 CAMU/TU rule and the CAMU Amendments.

EPA has strongly urged the States to adopt the final CAMU and TU regulations because of the potential benefits from expediting the management of remediation and CAMU-eligible waste. As of March 31, 2002, 46 States have adopted and 39 States have received authorization for HSWA corrective action, 41 States have adopted and 29 States have received authorization for the 1993 CAMU/TU rule, and no states have adopted/authority for the CAMU Amendments.

Table 1. State Implementation of the 1993 CAMU/TU Rule and the CAMU Amendments

Status of State Authorization	1993 CAMU/TU Rule	CAMU Amendments
States with Neither RCRA Base Program nor HSWA Corrective Action Authorization	EPA implements unless and until State becomes authorized for <i>both</i> RCRA base and corrective action programs	EPA implements unless and until State becomes authorized for <i>both</i> RCRA base and corrective action programs
States with RCRA Base Program Authorization but not HSWA Corrective Action Authorization	EPA implements unless and until State becomes authorized for corrective action program	EPA implements unless and until State becomes authorized for corrective action program
States with RCRA Base Program and HSWA Corrective Action Authorization, but not 1993 CAMU/TU Rule Authorization	Neither EPA nor State will implement unless and until State becomes authorized for 1993 CAMU/TU Rule	Neither EPA nor State will implement unless and until State becomes authorized for 1993 CAMU/TU Rule
States with RCRA Base Program and HSWA Corrective Action Authorization, Including 1993 CAMU/TU Rule Authorization	Authorized State will implement	EPA implements unless and until State obtains interim authorization-by-rule or final

Questions of policy or questions requiring policy decisions will not be dealt with in EH-413 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subject material covered in This Information Brief to:

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