



Department of Energy
Washington, DC 20585
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RCRA Docket Information Center (5305W)
U.S. Environmental Protection Agency
Headquarters (EPA) (5305G)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington DC, 20460

EPA Docket Number F-2000-ACAP-FFFFF

Dear Sir or Madam:

Re: 65 FR 51080, "Amendments to the Corrective Action Management Unit Rule"

On August 22, 2000, the U.S. Environmental Protection Agency (EPA) published a notice of proposed rulemaking (NPRM) in the *Federal Register* that proposed a number of amendments to the 1993 rule under the Resource Conservation and Recovery Act (RCRA) on Corrective Action Management Units (CAMUs). Comments were requested by October 23, 2000. This letter forwards the Department of Energy's (DOE) consolidated response to the NPRM.

DOE's comments are enclosed. These comments are divided into two sections: general and specific. The general comments provide overarching reactions to the NPRM. The specific comments relate directly to potential regulatory approaches and issues raised in specific sections of the preamble and/or the proposed rule language. For clarity, each specific comment is preceded by a reference to the section in the NPRM to which it applies, and a brief description is provided in boldface type of the issue within that section to which DOE's specific comment is directed.

If you have any questions or need further clarification of our comments, please contact Jerry Coalgate of my staff at (202) 586-6075 or jerry.coalgate@eh.doe.gov.

Sincerely,

[signed]

Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy and Guidance

Enclosure



**UNITED STATES
DEPARTMENT OF ENERGY**

**COMMENTS ON
PROPOSED AMENDMENTS TO THE
CORRECTIVE ACTION MANAGEMENT UNIT RULE**

**NOTICE OF PROPOSED RULEMAKING
40 CFR Part 260, 264 and 271
(65 FR 51080 - 51135; August 22, 2000)**

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GENERAL COMMENTS

1. The Department of Energy (DOE or the Department) supports the concepts behind the Corrective Action Management Unit (CAMU). As reflected in the Department's comments on the Environmental Protection Agency's (EPA) original Subpart S proposed rule (55 FR 30798, July 27, 1990),¹ DOE favored the creation of a special type of unit (i.e., CAMU) under the Resource Conservation and Recovery Act (RCRA) for management of remediation wastes. DOE remains supportive of the CAMU concept. When EPA indicated its intent to withdraw the CAMU rule as part of the April 1996 Hazardous Waste Identification Rule (HWIR) for media (HWIR-Media) (61 FR 18780, April 29, 1996), DOE indicated its preference that the CAMU provisions be retained.² DOE continues to support the CAMU concept and appreciates EPA's willingness to work with litigants [Environmental Defense Fund vs. EPA (D.C. Cir)] regarding their challenge to the 1993 CAMU rule³.
2. In essence, DOE believes that the proposed CAMU amendments do not appear to change substantively the original provisions established by the 1993 rule. Rather, they provide additional detail as to how the CAMU provisions should be implemented. However, the level of detail outlined in the proposed amendments appears to be excessive in certain instances. EPA decided, as indicated in the 1996 Advance Notice of Proposed Rulemaking for RCRA corrective action (61 FR 19432, May 1, 1996) to not finalize the July 1990 Subpart S proposed rule because it was too prescriptive. The proposed CAMU amendments also appear to be quite prescriptive, and as such, seem somewhat contrary to EPA's previous position relative to the Subpart S proposed rule. Instead of issuing the proposed amendments as a final rule, DOE requests EPA consider issuing them as guidance and to keep the 1993 rule intact. Or, alternatively, issue detailed implementing guidance concurrently with, or shortly after, the final rule.
3. EPA is proposing to grant CAMU-authorized States interim authorization for the proposed

¹ DOE comments regarding 55 FR 30798, *Corrective Action for Solid Waste Management Units (SWMUs at Hazardous Waste Management Facilities)*, November 27, 1990.

² DOE comments regarding 61 FR 18780, *Proposed Hazardous Waste Identification Rule for Contaminated Media (HWIR-Media)*, September 17, 1996.

³ For reference, the 1993 CAMU rule is codified in 40 CFR Part 264, Section 552.

CAMU rule amendments as part of the rulemaking process [proposed 40 CFR 271.24(c)]. This “interim authorization-by-rule” would be effective for all qualifying States on the same date that the CAMU amendments become effective, as opposed to individual State-by-State authorizations. DOE agrees that, due to the essentially equivalent nature of the 1993 rule to the proposed amendments, States authorized for the 1993 CAMU rule should be well-prepared to implement the proposed amendments. However, the proposed rule places a restriction on the eligibility of States for interim authorization-by-rule. Specifically, eligible States cannot have audit privilege and immunity laws that “raise concerns about whether the State provides for adequate enforcement...” (p. 51116, column 1, 2nd paragraph). DOE disagrees with this provision. A State’s ability to enforce a rule should be independent of standing with respect to audit privilege and immunity laws. Further, and more important, the issue of audit privilege and immunity laws is a very complex national issue that has been subject to debate for several years. The controversy deals, among other things, with issues regarding whether regulated entities that perform self-audits should be required to disclose results to the regulator, and also, whether fines and other penalties can (or should) be assessed if violations are discovered during self-audits. Clearly, this issue extends well beyond RCRA corrective action, RCRA compliance in general, and indeed, into all environmental laws implemented by EPA and the authorized states. Therefore, DOE urges EPA to drop the limitation on interim authorization-by-rule from the proposed rule, and instead move to resolve the issue through another vehicle. This issue’s importance is far more significant than the CAMU regulation only, and it deserves attention in a greater venue.

SPECIFIC COMMENTS

II Background

B. Why is EPA Proposing Today’s Amendments

- 1. p. 51083, col. 2 - 51084, col 2 - The preamble to the proposed rule to refers to “minimum treatment requirements,” “minimum technical standards,” “minimum standards,” and “minimum national standards.”**

The proposed rule frequently makes reference to “minimum” technical and treatment standards the term “minimum” when referring to specific provisions of the proposed rule. However, the proposed rule provides for alternatives to the “minimum” standards to reflect unique and site-specific circumstances associated with long-term disposal. These alternatives may be less stringent than the minimum standards identified by the proposed amendments. In this sense, the use of the term “minimum” in this context may be misleading. For example, when all wastes to be placed in a CAMU have constituent levels at or below remedial levels or goals applicable to the site, [proposed 264.552(g)], no treatment or design criteria apply. Use of the term “minimum” to describe the provisions of the proposed rule should be further clarified. For example, DOE suggests EPA clarify the circumstances under which the “minimum” standards are indeed are minimum standards (i.e, when constituent levels exceed remedial goals, etc.).

III Section by Section Analysis

B. Eligibility of Wastes for Management in CAMUs [264.552(a)]

1. p. 51084, col. 3 - 51087, col. 2 - EPA is proposing to change the name of waste eligible for management in a CAMU from “remediation waste” to “CAMU-eligible waste.”

EPA proposes to create a new term, “CAMU-eligible waste,” to replace the term “remediation waste,” for purposes of defining wastes that may be managed in CAMUs. It is unclear why creation of a new term is necessary. While EPA claims that use of the term “CAMU-eligible waste” will help “to avoid confusion on this issue,” in reality, there is only one type of hazardous remediation waste that would be ineligible for management in CAMUs - wastes found (but not excavated) in intact tanks, containers, and other non-land based units [proposed 40 CFR Section 264.552(a)(1)(ii)]. Other types of waste may be managed in CAMUs assuming they facilitate effective treatment of the waste to be placed in the CAMU or performance of the CAMU. With the exception of wastes found (but not excavated) in intact containers, there is no indication that there is any real difference between the specific wastes included under each of the definitions. EPA should reconsider whether yet another RCRA definition for a new waste category is truly necessary. DOE would prefer that the term “remediation waste” be retained. If EPA believes it necessary to restrict certain types of remediation wastes from management in CAMUs, then such remediation waste should be specified as being prohibited from management in CAMUs.

2. p. 51086, col. 1 - col. 2 - EPA is proposing to permit some wastes that are managed during closure to be managed in a CAMU.

The preamble to the proposed CAMU amendments provides additional guidance as to when wastes managed during closure may be managed in CAMUs, but this guidance does not appear to be reflected in the draft proposed rule language. EPA should consider defining in the regulation when wastes managed during closure may be managed in CAMUs.

3. p. 51086, col. 2 - In describing the status of wastes managed during closure, EPA outlines three units—landfills, surface impoundments and land treatment units—that it considers permanent land disposal units, and describes waste piles and other land-based storage units as non-permanent land-based units.

Beyond the discussion of wastes managed during closure, little clarification is presented in the preamble as to the criteria, factors, or guidelines that were used to discriminate permanent from non-permanent land disposal units. For national consistency and planning/design purposes, DOE requests that EPA consider furnishing criteria or other guidelines for determining whether RCRA waste management units are permanent or non-permanent.

In addition, DOE notes that RCRA Subpart X (miscellaneous) units refer to a wide range of different types of units that may be used for treatment, storage or disposal. These units could be classified as a “permanent land disposal units” or an “other land-based storage unit” (non-permanent land-based units). DOE believes that EPA should indicate, as pertains to CAMU eligibility, whether specific types of Subpart X units qualify as a “permanent land disposal units” or an “other land-based storage units” (non-permanent land-based units). This determination is significant because the CAMU-eligibility of wastes managed during closure of a Subpart X units hinges on whether the unit is considered “managed for implementing cleanup.” DOE also requests that EPA clarify whether it expects such determinations to be made prospectively as conditions set

forth in the RCRA Subpart X permit applications, or whether they are more appropriately considered when the unit is closed or closing.

4. **p. 51086, col. 2 - As indicated in the above specific comment, in defining which wastes may be managed in a CAMU, EPA distinguishes between wastes managed during closure of “permanent land-disposal units” versus those managed during closure of “non-permanent land-based units.” The Agency clarifies that it considers closure by removal for permanent disposal units to be “cleanup” (i.e., the wastes are CAMU-eligible wastes). In contrast, EPA does not generally consider closure of a non-permanent land-based unit to be “cleanup” and these wastes typically are not CAMU-eligible.**

Disqualifying wastes managed during closure of waste piles from being CAMU-eligible wastes appears to deviate from the 1993 CAMU rule (58 FR 8666). In accordance with the preamble to the 1993 rule, waste piles were included within the group of “regulated units” whose wastes, closure or otherwise, would have qualified as CAMU-eligible waste. Also, it is unclear how the distinction between wastes managed during closure of “permanent land-disposal units” versus those managed during closure of “non-permanent land-based units” applies to closed or closing hazardous waste tank systems that are not equipped with secondary containment and are eligible for closure as a landfill (40 CFR 246.197).

In justifying what appears to be a narrowing of scope, it appears that EPA relies on its newly defined *permanent land disposal units*, which includes “those units for which the regulations provide a closure in place option (e.g., landfills, surface impoundments and land treatment units).” EPA also attributes this distinction to its view that removal of wastes from waste piles is part of normal operations. Therefore, EPA believes it would typically be inappropriate to consider removal of wastes from these non-permanent land-based units to be “cleanup.”

The Department suggests that the wastes removed from closing waste piles and tank systems be designated as cleanup wastes and CAMU-eligible. Alternatively, EPA should afford the Regional Administrator the flexibility to make this decision on a unit-specific basis. In contrast to EPA’s view of the types of units that constitute permanent land disposal units, historically, waste piles have been recognized as land disposal. For example, EPA includes waste piles within the scope of “land disposal facilities” subject to the Hazardous and Solid Waste Amendments of 1986 (HSWA), and loss of interim status (LOIS) provisions (50 FR 38947; September 25, 1985). Additionally, owners/operators of permitted/interim status tank systems and permitted waste piles are required to include in their closure plan a contingent post-closure plan for closing the unit as a landfill. That is, the regulations found in 40 CFR 264/265.197(c) and 264.258(c), respectively, provide a closure in place option. DOE requests that EPA reconsider this decision since there may be situations, especially at large Federal facilities possessing a variety of waste management units and areas of contamination (AOCs), where wastes managed during waste pile closure might be more efficiently and cost-effectively handled if they are CAMU-eligible. DOE also requests that EPA clarify the status of wastes managed during closure of a hazardous waste tank system that does not have secondary containment, has localized contamination, and is being considered for closure as a landfill.

5. **p. 51086, col. 2 - 51087, col. 1 - EPA is proposing that wastes found during cleanup in**

intact or substantially intact containers be excluded from management in CAMUs, unless such wastes are excavated during cleanup.

While the proposed rule prohibits management in CAMUs of wastes that are found during cleanup in intact or substantially intact containers, it also provides that containers excavated during cleanup are CAMU eligible. The usage of the terms “found” and “excavated” in the proposed rule does not provide a clear distinction as to when wastes in containers are CAMU-eligible. EPA should provide a clearer distinction as to when wastes in containers are CAMU-eligible. The distinction between “found” and “excavated” should be reflected in the rule.

6. p. 51087, col 2 - EPA requests comment on whether the exception proposed for buried containers should also apply to buried tanks that are excavated during cleanup.

DOE notes that buried tanks are often associated with cleanup activities, especially those associated with building operations, such as septic tanks that have received industrial waste. Further, buried tanks potentially contain large volumes of waste. Many (if not all) of the CAMU considerations described for buried containers appear similarly applicable to buried tanks. Furthermore, DOE wishes to suggest there are practical difficulties associated with assessing the integrity of buried tanks and managing the waste contained in such tanks. Finally (and perhaps most importantly), Regional Administrators/Directors can impose additional requirements beyond the minimum CAMU standards and, moreover, retain final discretion as to whether a particular unit/area qualifies as a CAMU. Therefore, to ensure the necessary flexibility is available to facilities that encounter buried tanks, DOE suggests EPA extend the exception for buried containers to buried tanks that may be excavated during the course of cleanup, provided this action is protective of human health and the environment.

7. p. 51087, col. 3 – EPA clarifies that “historic waste would be CAMU-eligible if they were found in a *land-based unit*” (emphasis added).

In this context, DOE questions EPA’s use of the term “land-based unit.” Although this usage appears broader and more consistent with the Department’s expectations, DOE requests that EPA clarify its use. More specifically, DOE requests that EPA clarify whether it intentionally includes as CAMU-eligible, wastes managed during closure of waste piles or other non-permanent land-based units, simply because they were used or are being used to manage “historic wastes.” DOE also requests that EPA clarify its approach relative to historic wastes. In particular, DOE requests clarification as to whether “historic wastes” would include hazardous/mixed remediation wastes resulting from a DOE site’s former nuclear weapons production operations starting in the World War II era and continuing throughout the Cold War period. In the Department’s view, this would appear to be a logical extension of EPA’s approach concerning “historic wastes.”

8. p. 51088, col. 1 - In proposing to allow the use of non-hazardous as-generated waste in CAMUs, EPA describes two common practices in which non-hazardous as-generated waste is used to facilitate treatment of cleanup wastes or facilitate the performance of disposal units.

The Department supports EPA’s proposal to expand the types of wastes eligible for management in

a CAMU to include the use of non-hazardous as-generated waste when it is being used to facilitate treatment or the performance of the CAMU. However, DOE requests that EPA clarify that “non-hazardous as-generated waste” includes non-hazardous radioactive (e.g., low-level) as-generated waste subject to appropriate Atomic Energy Act controls and conditions.

D. Information Submission [264.552(d)]

- 1. p. 51090, col. 3 - EPA discusses its interpretation of existing Section 264.552(d), and clarifies that its intent with regard to use of the word “criteria” in this provision was meant to indicate that information relating to all aspects of implementation of the CAMU under Section 264.552 is required, not just that associated with Section 264.552(c).**

DOE agrees with the stakeholders that Section 264.552(d) is unclear with regard to the specific information required in a CAMU submission. A strict reading of Section 264.552(d), and interpretation of the word “criteria” in that section, may lead to the conclusion that only those criteria in 264.552(c) are being referred to. However, DOE disagrees with EPA that the confusion does not warrant a change in the regulatory language. DOE urges EPA to modify Section 264.552(d) to specify exactly what information is required. This will help ensure that CAMU submissions are complete from the start.

F. Amendments to Design Standards for CAMUs

- 1. p. 51091, col. 2-3 - EPA proposes minimum liner and cap requirements.**

The proposed rule specifies minimum national technical standards for CAMU liners, a leachate collection system, and caps. Although the proposed rule provides an opportunity for alternate liner designs to be applied based on site-specific considerations, the default is nevertheless established as a minimum standard for a composite liner, a leachate collection system, and a cap. While these provisions do not make the proposed amendments more stringent than the 1993 CAMU rule, this action nevertheless represents a significant departure from the original performance-based 1993 CAMU rule. DOE believes that CAMU design should be site- and situation-specific. Specification of a minimum standard should be reconsidered. DOE favors the performance-based approach outlined in the original 1993 rule.

- 2. p. 51091, col. 2 - 51094, col. 3 - EPA proposes minimum liner and cap requirements. A provision is included for alternate design standards for liners. A provision is also provided for alternate design standards for caps, but this provision is clearly limited to situations where biotreatment is intended to occur in the CAMU.**

The provision for alternate CAMU design for liners is broad and would allow any alternate design that, considering site-specific factors, would prevent migration of hazardous constituents at least as effectively as the liner and leachate collection system specified in the proposed amendments. In contrast, the provision for alternate design of unit caps is clearly limited to permitting increased cap infiltration in cases where biotreatment is intended. DOE believes that, like the liner standard, the provision for alternate design should be similarly broad to allow any design that prevents migration of hazardous constituents at least as effectively as the cap design specified in the proposed amendments. DOE urges EPA to broaden the alternate provisions for CAMU caps in a

manner similar to that applied for liners.

3. **p. 51092, col. 3 - EPA establishes an alternate provision for liners and leachate collection systems [proposed 40 CFR 264.552(e)(3)(ii)], when “alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as the [standard liner and leachate collection system].”**

DOE agrees with this alternate provision but believes that the standard should be based on health risk, not on a determination that an alternate design will perform as well as the minimum liner requirements. The test should be whether the alternate design is sufficiently protective of human health and the environment. In many cases, DOE believes, the Subtitle D liner (p. 51093, Column 3) will be overly protective and not cost effective. Protection of human health and the environment should be the primary objective. DOE urges EPA to revise the standard appropriately.

G. Proposed Approach to Treatment

1. **p. 51095, col. 2 - 51108 col. 3 - EPA proposes minimum treatment requirements.**

The 1993 CAMU rule was flexible in that it required that treatment technologies be used, when appropriate, to enhance the long-term effectiveness of remedial actions by reducing mobility, toxicity, or volume of wastes that will remain in place after CAMU closure [40 CFR 264 Section 552(c)(6)].

EPA indicates that treatment was applied at more than 70% of the CAMUs that have been approved in accordance with the 1993 rule, and that the CAMUs that have been approved to date reflect a reasonable balance between treatment and containment (p. 51096, Column 1). The economic analysis performed also concluded that, of the 39 SWMUs evaluated, no additional treatment would be required by imposition of the proposed new “minimum” treatment requirements (p. 51123, Exhibit VIII-1). Thus, the system established by the 1993 rule appears to be working as designed. With this in mind, the need for imposing minimum treatment requirements seems unclear. EPA should clarify, explain and confirm the reason for imposing such minimum treatment requirements, or reconsider whether such requirements are necessary.

2. **p. 51096, col. 2 - EPA proposes minimum treatment requirements. EPA indicates in the preamble that its goal for treatment was to “provide a meaningful level of treatment and be achievable, but should not be so onerous as to discourage clean-up.”**

This goal appears to contradict EPA’s mission and the general basis upon which Congress developed the RCRA program. Treatment should not be conducted for treatment’s sake, but rather, only where, and to the extent necessary, to protect human health and the environment. This should be EPA’s primary goal in establishing treatment standards. Specification of a minimum national standard will not necessarily achieve this goal, and may result, in some cases, in treatment where it is not required to protect human health and the environment. Treatment should be considered on a site-specific basis, as in the original 1993 CAMU rule.

3. **p. 51096, col. 3 - EPA explains that Primary Hazardous Constituents (PHCs) would include only those constituents that would be subject to the LDR treatment requirements if the waste were placed in a land-based unit other than a CAMU. EPA specifically enumerates these constituents as follows: “for listed wastes, ‘regulated hazardous constituents’ (see Section 268.40, Table ‘Treatment Standards for Hazardous Wastes’); for characteristic wastes, all ‘underlying hazardous constituents’ [see Section 268.40(e), Section 268.2(c)]; for soil, ‘constituents subject to treatment’ [see Section 268.49(d)].”**

For the purposes of complying with the LDR program, each generator/treater is responsible for determining, at the initial point of generation, any and all of the listings and characteristics that apply. Thus, some CAMU-eligible wastes will carry the waste code(s) for any applicable listing, as well as one or more of the characteristic waste codes (D001 - D043), where the waste also exhibits a characteristic. One exception to this occurs when the LDR treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste-the listed waste’s treatment standard specifically addresses the constituent that causes the waste to exhibit a characteristic (40 CFR 268.9(b)). DOE requests that EPA clarify whether, in these instances, PHCs will be designated only for the listed waste’s regulated hazardous constituents (as would be the case under the LDR program), or whether the scope of CAMU treatment standards would be expanded beyond the LDR treatment standard requirements by designating for treatment both the regulated hazardous constituents and any UHCs.

4. **p. 51096, col. 3 - 51097 col. 2 - PHCs would be identified as those constituents that pose a risk that is substantially higher than the cleanup levels or goals at a site. Treatment requirements would be established for these PHCs**

Typically, the constituents of concern and the cleanup level or goal at a site is based on a risk assessment that examines the site, release characteristics, exposure pathways, and effects on human health and the environment. However, the intent with respect to the CAMU should be to identify constituents of concern and, to determine if treatment is required for these constituents of concern, based on an assessment of what is needed to protect human health and the environment for a specific CAMU with a specific set of design standards. The risk assessment that is conducted to determine if clean-up of a contaminated area or unit is required, and the extent of such cleanup, is fundamentally different from the risk assessment that should be performed to identify constituents of concern and to determine if treatment is required for placement in a CAMU. DOE considers that, in some cases, it may not be appropriate to identify constituents and to determine the need for and extent of treatment, on the basis of the risk assessment performed to determine the need for and extent of cleanup. PHCs should be identified and treatment requirements should be established based on a site-specific risk assessment that reflects placement of the waste in the CAMU. The proposed rule does provide [40 CFR 264.552(e)(4)(i)(B)] that PHCs will also be designated, as appropriate, “based on risks posed by the potential migration of constituents in wastes to groundwater, considering such factors as constituent concentrations, and fate and transport characteristics under site conditions.” Risk under site conditions, however, should be the primary basis for the establishment of PHCs and treatment requirements, coupled with unit type, design and site-specific factors (e.g., depth to groundwater).

5. **p. 51096, col. 3 - 51097 col. 2 - EPA indicates that it expects that the concentrations**

present in wastes would be compared to cleanup levels or goals that assume that individuals are directly exposed to the constituents in the waste.

While this approach may be appropriate, in some cases, for remedial decision making, it may not always be appropriate for the determination of the level of treatment required for wastes prior to placement in a CAMU. Direct exposure following CAMU closure is highly unlikely. DOE suggests assessments performed to identify PHCs and establish treatment levels should be based on a plausibly occurring exposure scenario. Direct exposure is not a plausibly occurring exposure scenario for CAMUs. Even if the containment system were to fail, exposure would occur as a function of fate and transport over some distance to an eventual receptor. DOE requests that EPA reconsider the proposed approach.

6. **p. 51098, col. 3 - EPA indicates that, in accordance with proposed Section 264.552(e)(4)(i)(B), PHCs will also be designated, where appropriate, based on risks posed by the potential migration of constituents in wastes to groundwater, considering such factors as concentration and fate and transport under site conditions.**

As indicated in Specific Comment 4 above, DOE believes that risk in the disposal environment, considering site-specific factors, should be the primary consideration in identifying PHCs and establishing treatment requirements.

7. **p. 51099, col. 2 - 51101 col. 2 - EPA proposes that treatment standards established for hazardous contaminated soil in the LDR Phase IV rule (Section 268.49, 63 FR 28556) be applied to wastes managed in CAMUs.**

While the “90% capped by 10x the UTS” seems a reasonable standard, as indicated in Comments 4 and 6 above, risk in the disposal environment, considering site-specific factors, should be the primary consideration in identifying PHCs and establishing treatment requirements.

8. **p. 51101 col. 2 - EPA requests comment on the appropriateness of using tests other than the Toxicity Characteristic Leaching Procedure (TCLP), including the Synthetic Precipitation Leaching Procedure (SPLP), for assessing whether the treatment standard specified for metals has been met.**

Application of leaching tests and measurement of constituents within the simulated leachate is typically used as a source term for models used to determine risk via groundwater, and ultimately, for selection of the appropriate type of leaching controls (e.g., liner type, leachate detection, leachate collection). The leaching test is an important input parameter with direct consequences as to type of control and level of protection that is afforded to human health and the environment. The proposed rule currently identifies the SPLP as a potential alternative to the TCLP, but does not discuss other leaching tests that could be applied, or even present criteria upon which to base selection of a test. These items warrant additional attention. In consideration, DOE recommends that EPA explicitly identify and recommend certain types of leaching tests, or specify criteria for selection of leaching tests for site-specific application (e.g., based on unit type, waste type, environmental setting).

In addition to the above, DOE agrees with EPA that it is inappropriate to apply the TCLP for

estimating leachate composition for the intended application. This test was explicitly developed for use in the RCRA Toxicity Characteristic as a co-disposal model for leaching in a municipal landfill (40 CFR Part 261.24). DOE also considers it inappropriate to use the SPLP to determine treatment effectiveness for all CAMUs. DOE notes that EPA's own Science Advisory Board (SAB) voiced a number of concerns over misuse of the TCLP and other tests⁴, including their use for estimating site-specific leaching potential, and that EPA has embarked on a program to re-examine the TCLP and other leaching tests, and their uses.⁵ In consideration, DOE recommends that the EPA develop a leaching test, or series of leaching tests, that are reflective of site-specific conditions, as recommended by the SAB.

Furthermore, the Department is also concerned that in broadening the scope of allowable testing, Regional Administrators/Directors may determine that another evaluation approach is warranted after the facility has begun using specific leaching tests to assess a treatment technology. Therefore, DOE also requests that, should EPA elect to issue regulations allowing the use of specific leaching tests, it clarify that the testing approach for determining acceptable treatment should be defined at the onset of CAMU consideration, and that the evaluation approach will not be revised after treatment standards and technologies have been established.

- 9. p. 51103 col. 1-3 - In accordance with adjustment factor B (consistency with site cleanup levels), EPA is proposing at Section 264.552(e)(4)(v)(B) that treatment may be adjusted to a higher or lower level where levels or methods of treatment would result in concentrations of hazardous constituents that are significantly above or below cleanup standards applicable to the site.**

First, DOE believes that rather than referring to "hazardous constituents," this provision should refer to "PHCs." Because PHCs are the primary risk drivers, and because PHCs (a subset of the total hazardous constituents) are the designated measure of CAMU performance, DOE suggests EPA's reference to hazardous constituents rather than PHCs may have been an oversight. DOE requests that the rule language refer to PHCs.

- 10. p. 51104 col. 1 - 51108 col. 1 - EPA proposes a series of factors for adjusting treatment to a higher or lower level considering engineering design and controls. These factors include whether treatment standards are substantially met, cost-effective treatment has been used, cost-effective treatment is reasonably available, and whether PHCs are of very low mobility.**

Proposed Section 264.552(e)(4)(v)(E) may be unnecessarily complex, and as a result, be difficult to follow. DOE suggests that the standard should indicate simply that treatment standards may be adjusted considering CAMU design, engineering controls and operation, whether cost-effective treatment is reasonably available, whether treatment standards are substantially met, and the mobility of PHCs in the CAMU environment. In addition, DOE suggests that consideration of characteristics such as physical, chemical and biological degradation may be appropriate under

⁴ EPA Science Advisory Board Commentary, October 1991 and EPA Science Advisory Board Letter to Carol M. Browner, Administrator, November 1, 1998.

⁵ EPA Public Meeting on Development of New Waste Leaching Procedures Under the RCRA Program, July 22-23, 1999, Washington DC.

certain circumstances.

I. Treatment and Storage Only CAMUs [264.552(f)]

- 1. p. 51109, col. 1 - 51111, Col. 2 - EPA provides separate standards for treatment and storage only CAMUs.**

Requirements for treatment-and-storage-only CAMUs are specifically included in the proposed CAMU rule. Although CAMUs for treatment and storage were not specifically included in the 1993 CAMU rule, neither were they excluded by the 1993 CAMU rule. The 1993 CAMU rule also included provisions for Temporary Units (TUs) (40 CFR 264.553). In addition, the HWIR-Media rule created staging piles (63 FR 65874). All these types of units (CAMUs, treatment-and-storage-only CAMUs, TUs and staging piles) may be used to facilitate corrective action. DOE requests that EPA provide additional guidance, as to how and under what conditions each type of these units (CAMUs, treatment-and- storage-only CAMUs, TUs and staging piles) should be employed for specific situations.

J. Grandfathering CAMUs (264.550 and 264.551)

- 1. p. 51111, col. 2 - In discussing two classes of CAMUs that would remain subject to the 1993 CAMU regulations (i.e., CAMUs that would be “grandfathered”), EPA includes CAMUs which were not approved prior to the effective date of the final amendments, but for which substantially complete applications (*or equivalents*) were submitted to the Agency on or before 90 days after the publication date of the proposed rule” (emphasis added).**

As stated in the 1993 CAMU rule, EPA expects that the substantive requirements for CAMUs will serve as applicable or relevant and appropriate requirements (ARARs) for remediation at CERCLA sites involving the management of RCRA hazardous wastes (58 FR 8679). The Agency clarifies that CAMU requirements that are designated as ARARs would be incorporated into CERCLA decision documents rather than RCRA permits or orders (58 FR 8679).

DOE agrees that CAMUs may be useful as part of a CERCLA response action to address principal threats posed by a site. Furthermore, the Department recognizes that CERCLA decision documents, including Federal Facility Agreements/Interagency Agreements (FFAs/IAGs) that coordinate applicable RCRA and CERCLA requirements, may serve as the vehicle for explicitly defining the procedural and technical requirements for corrective action and CAMUs. DOE believes that the term “equivalents” is intended to encompass CERCLA decision documents, and requests EPA clarification.

- 3. p. 51112, col. 2 - EPA suggests using the proposed amendments as guidance (prior to finalization of the amendments) when developing proposals for CAMUs which are neither expected to be approved by the effective date of the CAMU amendments, nor expected to meet the proposed “substantially complete” test by the proposed deadline. EPA then indicates that it will keep the regulated community apprised of likely changes and seeks comments on its approach to address the timing of CAMU applications and grandfathering of CAMUs.**

DOE suggests EPA consider an approach similar to that used for permit actions [40 CFR 124.10(c)] to keep the regulated community apprised of likely changes. Specifically, EPA should develop and maintain a mailing list of interested persons that reflects the individuals, organizations, and entities that submit comments or participate in hearings or meetings pertaining to the August 22, 2000, notice or CAMU-related litigation. For substantive programmatic changes that will affect the universe of CAMUs or CAMU-eligible wastes, DOE suggests EPA send a message or distribute a fact sheet, as warranted, to each person on this list.

K. Public Participation [264.552(h)]

- 1. p. 51112, col. 3 - 51113, col. 1 - The proposed rule would expand on the requirements for public input into the establishment of CAMUs by making prior public notice and opportunity to comment on CAMU decisions mandatory, whether implemented through the permit modification process or through corrective action orders. The rationale for any proposed adjustment to the treatment standards must be included in the public notice.**

DOE does not believe that it would be appropriate to include the rationale for adjustment of treatment standards in the public notice. There can be a number of reasons for such adjustments to the treatment standards, and the rationale for an adjustment can be quite difficult to explain in a short notice. Thus, DOE recommends that EPA revise proposed Section 264.552(h) to explain that the notice should indicate whether adjusted treatment standards are proposed, and refer the public to more detailed information available at the facility.

- 2. p. 51113, col. 2 - In discussing public participation, EPA seeks comment on whether to apply the public participation procedures in the “RCRA Expanded Public Participation Rule” (60 FR 63417, December 11, 1995) to all CAMU decisions.**

DOE does not consider some elements of the public participation rule to be directly applicable to CAMU decisions. For example, pre-application public meetings apply to initial and renewal RCRA Part B applications. Currently, they do not apply at sites requesting permit modifications or when applications are submitted for the sole purpose of conducting post-closure activities [40 CFR 124.31(a)]. These appear to be two areas of RCRA permitting that are expected to experience a significant amount of CAMU-related activity. DOE suggests EPA consider the appropriateness of the approach it took for non-permit mechanisms (i.e., generally enforcement orders compelling corrective action) in the Post-closure Rule (63 FR 56719; October 22, 1998). This approach is designed to assure “meaningful opportunity for public involvement” by requiring regulators to provide, at a minimum, ample time for public notice and an opportunity to comment during three stages:

- When the regulators become involved in a remediation at the facility as a regulatory or enforcement matter;
- When the preferred remedy and its underlying assumptions (e.g., future land use, site characterization) are proposed; and
- Prior to making the final decision that the remedial action is complete (i.e., no further action is required).

The Post-closure Rule, however, does not limit public involvement to these three stages of cleanup; rather, it encourages early, open, and continuous involvement of the public when alternate authorities are used (63 FR 56720).

3. **p. 51113, col. 3 - The proposed rule preamble indicates that public participation in the overall RCRA corrective action program is currently being discussed as part of EPA's RCRA cleanup reforms.**

DOE supports this approach for evaluating the public participation procedures and requirements that should apply to CAMU decisions (i.e., discussing the degree of public involvement as part of the Agency's cleanup reform effort). With this in mind, DOE recommends that EPA suspend the proposed Section 264.552(h) pending further discussion of public participation in the overall context of RCRA corrective action as part of the cleanup reforms.

V How Would Today's Proposed Regulatory Changes Be Administered and Enforced in the States?

C. Interim Authorization-by-Rule for States Currently Authorized for the CAMU Rule

1. **p. 51116, col. 1-3 - EPA indicates that due to the nature of the proposed amendments, EPA believes that states which have received authorization from EPA for the existing 1993 CAMU rule have regulations that are substantially equivalent to the proposed amendments.**

DOE agrees with EPA that it appears that states authorized for the 1993 rule have regulations that are substantially equivalent to the proposed amendments. As such, it is unclear why re-authorization for the new amendments would be required. States authorized for the 1993 rule have already been determined by EPA to have substantially equivalent programs.

VI Effective Date

1. **p. 51118, col. 2-3 - EPA proposes that the amendments to the CAMU rule become effective 90 days after promulgation. This is in comparison to the typical six month period provided in RCRA Section 3010(b). EPA indicates that the typical 180 days is not needed because EPA is proposing to grandfather existing CAMUs and CAMUs that are substantially within the review and approval process.**

DOE does not agree that a 90 day effective date provides adequate time for facilities to prepare adequate documentation to support new CAMUs, especially since identification of PHCs and determination of treatment values, including adjusted values, is required. DOE also expects that the final rule will reflect changes for the comments received on the proposed rule. In consideration, DOE requests that EPA defer to the typical six month period before the rule would become effective.