



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

John Quarles
Morgan, Lewis, & Bockius
RCRA Corrective Action Project
1800 M Street, NW
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Dear John,

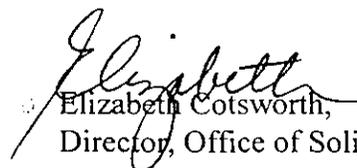
The enclosed document is a written response to the proposed corrective action program reforms received from the RCRA Corrective Action Project (RCAP) in July 1998. As you know there has been considerable dialogue between our offices since July, regarding these suggestions. I appreciate the effort that went into preparing these proposed reforms and emphasize that it is interaction like this that is helping our program focus its priorities and overcome barriers to cleanup at RCRA facilities. Our regular meetings have kept us in tune with industry needs and concerns and made it easier for us to implement change that is going to benefit all stakeholders. We look forward to continuing our dialogue with you and RCAP's members on reforms to the program.

The reforms that RCAP has proposed are largely supported by current EPA guidance and policy. We believe the program is on track toward improving implementation on a regional and state basis. As you know, the RCRA Cleanup Reforms along with the Corrective Action Workshop are our biggest vehicles for "culture change." We believe that by reaching out to a nationwide audience we will establish the flexibility that RCAP mentioned as the "norm" in all programs implementing Corrective Action.

Steve Heare, Bob Hall, and others in the Corrective Action Program Branch, as well as Matt Hale and I look forward to an ongoing dialogue with you as we move the program toward its 2005 goals.

*Thank for
RCAP's support
in our reforms!*

Sincerely yours,


Elizabeth Cotsworth,
Director, Office of Solid Waste

Enclosure

Faxback 14522

Proposed Administrative Reforms for the RCRA Corrective Action Program Submitted by the RCRA Corrective Action Project¹

This document presents a set of proposed Administrative Reforms to the RCRA Corrective Action Program for submission to EPA. The underlying belief of the members of the RCRA Corrective Action Project, which has developed these proposals, is that the corrective action program is in need of fundamental reform if it is to function with success, efficiency, and cost effectiveness. Thus, as a first step, the Environmental Protection Agency must acknowledge the need for substantial modification of the way the current program is implemented and make a major commitment to change. The principal elements of change should be to increase flexibility, sharpen the focus on realistic and practical considerations, emphasize risk-based principles, and enhance cost effectiveness. The scope of reforms should encompass both the investigative and the remedial aspects of corrective action, as well as the procedures governing administration of the process.

Much of what is proposed here is already endorsed in one or more Agency guidance documents or policy statements. However, the challenge is to produce a "cultural" change among the Regions and authorized States so that what is already sanctioned becomes the norm, not the exception, and so that the reforms set forth here are available as an integrated package, not on a piecemeal basis varying randomly from region to region and from authorized state to authorized state. The RCRA Corrective Action Project believes that EPA Headquarters can best achieve this overall objective by issuing a comprehensive new guidance encompassing the reforms set forth herein. That new guidance must explicitly rescind all prior inconsistent guidance and policy statements. In issuing it, EPA Headquarters should emphasize that program performance will be judged on the extent to which the agencies overseeing corrective action can demonstrate that the reforms are being aggressively implemented through effective and efficient interactions with involved facility owner/operators.

¹ The RCRA Corrective Action Project, facilitated by Morgan, Lewis and Bockius, is comprised of individuals representing various industries that have interest in RCRA Corrective Action.

OSW's Response to the Proposed Administrative Reforms for the RCRA Corrective Action Program

The following comments will follow a certain form for readability purposes. The original proposed reforms are listed first with OSW's response following.

RCAP REFORM NO. 1: FOCUS DATA-GATHERING

Goal:

Tailor data-gathering during the RFI to remedial goals and delineate only to those levels that affect remediation decisions.

Reform 1, Action 1

Describe the purpose of the RFI as follows: RCRA Facility Investigation (RFI) - to characterize the nature and extent of releases of hazardous waste and hazardous constituents sufficiently to support selection of plausible corrective measures and/or interim/stabilization measures.

EPA Response:

The Corrective Action Workshop has adopted a definition for site characterization along the lines the RCAP suggested. Specifically, the Workshop states that site characterization should, "describe the facility and identify and describe the releases and potential releases of hazardous waste and hazardous constituents at the facility, including releases from solid waste management units and material posing principal threats, as necessary to enable identification and implementation of interim and/or final remedies and/or determining that Corrective Action is complete." This definition is consistent with the Corrective Action for Solid Waste Management Units at Hazardous Waste Management Facilities; Advanced Notice of Proposed Rulemaking (ANPR), May 1, 1996 (61 FR 19432) which stated, "... some level of characterization is necessary to ascertain the nature and extent of contamination at a site and to gather information necessary to support selection and implementation of appropriate remedies." However, the more recent language in the Workshop places even more emphasis on "necessary data" rather than on defining nature and extent of contamination. This emphasis is similar to the proposed RCAP definition for an RFI. The flexibility is meant to require the owner/operators to do only data collection necessary to support remedial decisions.

Reform 1, Action 2

Eliminate a requirement for detailed SWMU-by-SWMU studies. Establish a preference for studies that move from the general to the more specific (by SWMU or group of SWMUs where appropriate, based on similarity of constituents, geographic proximity, common hydrogeology, etc.) as more data are gathered, with data needs limited to those necessary to make risk and remedial determinations. Use risk-based screening levels to tailor and focus studies and appropriately limit data collection. Study ground water as a separate "area of concern" rather than on an inefficient and largely irrelevant SWMU-by-SWMU basis.

EPA Response:

In the ANPR as well as the Workshop we encourage implementers to view Corrective Action holistically, rather than on a SWMU by SWMU basis. One of the objectives for Corrective Action outlined in the ANPR was to "Create a Consistent, holistic approach to cleanups at RCRA facilities." In the Workshop, the focus is placed on "problems" that warrant responses rather than on whether or not a release has occurred at SWMUs. This focus on "problems" allow program implementors to deal with contaminant occurrence in a flexible manner for both facility investigations and remediation. Additionally, the Program's focus on two site-wide Environmental Indicators allow implementors to take a site-wide approach to evaluating whether "Current Human Exposures are Under Control" and whether "Migration of Contaminated Groundwater is Under Control"

Regarding the suggestion to use risk-based screening levels, the ANPR described the Agency's continued support of using action levels. Furthermore, the Agency also indicated in the ANPR that it was acceptable to use non-residential screening levels where and when appropriate. Specifically, the ANPR stated support for using action levels based on industrial land uses where appropriate. The Agency believes that using non-residential based action levels at operating RCRA-regulated facilities may be particularly helpful to focus site characterization on whether the Human Exposures Controlled Environmental Indicator has been achieved.

Reform 1, Action 3

Require delineation of contamination only to land-use appropriate screening levels, and in that regard, establish a presumption that current land use is future land use absent other reasonably foreseeable future uses. Except in truly unique circumstances, do not require delineation to below residential scenario-based screening levels. Apply direct contact based screening levels only to surficial soils where such exposure can reasonably be expected to occur. Apply screening values based on the soil to ground water pathway with caution in situations where significant or widespread ground water contamination is present and is unlikely to be remediated to MCLs in the near term.

EPA Response:

As indicated in the response to Action 1 above, a major focus of the new Workshop is to collect

information only as necessary to support identification and implementation of interim or final remedies and to make completion decisions. As stated in response to Action 2, we also recognize that non-residential screening levels are appropriate in certain circumstances. Additionally, we have stated in the ANPR that delineation below protective cleanup levels (e.g., background) may not be necessary in all cases. However, we are concerned with RCAP's suggestion to adopt a formal presumption that "current use is future land use." While the Agency believes that non-residential based land use decisions will likely be applicable to many operating facilities subject to RCRA Corrective Action, it continues to support the guidance conveyed in the ANPR regarding land use decisions which is also conveyed in the Workshop. Specifically, the ANPR stated, "EPA cautions against automatically restricting assumptions of future land use to extrapolations of the current use or relying on designated zoning or industrial use codes to establish land use assumptions." Guidance referenced in both the ANPR and the workshop states the importance of involving all interested stakeholders in predicting future land uses that could impact Corrective Action decisions. Stakeholder input in making land use decisions is another important reason to involve the public early and throughout Corrective Action.

In response to the suggestion that direct contact based screening levels apply only to surficial soils where such exposure can reasonably be expected to occur, current Agency guidance allows this flexibility. The Superfund Risk Assessment Guidance states that "sample depth should be applicable for the exposure pathways and contaminant transport routes of concern." Regarding the suggestion to use caution in applying "screening values based on the soil to ground water pathway" we agree in the near term that such characterization may not be necessary especially if the data gathering is focused on the two environmental indicators, or if a determination has already been made that restoring the groundwater is not warranted or is technically impracticable. However, characterization of subsurface soils may be necessary depending on long term remedial objectives. Additionally, we believe subsurface soil characterization may be warranted to provide information regarding soil vapors that could lead to unacceptable human exposures.

Reform 1, Action 4

Establish that ecological risk assessment does not apply to an engineered active pond, or a drainage ditch, retention pond, or other area used for routine waste management, unless such an area constitutes critical habitat for a listed endangered species. Where ecological assessment is appropriate under such circumstances, or otherwise, allow use of a qualitative approach absent site-specific factors clearly warranting a quantitative assessment.

EPA Response:

Ecological Risk is addressed in the ANPR which states, "some form of ecological risk assessment will generally be necessary at all corrective action facilities." While we understand that in many cases areas used for waste management may not require ecological risk assessments,

we have concerns regarding RCAP's suggestion that ecological risk assessments should generally not apply to engineered or constructed areas of facilities. However, we agree that a qualitative ecological risk assessment (e.g., ecologic screening), may be warranted at any area of a facility that supports or could support ecologic receptors, including engineered or inactive retention ponds, or other areas used for routine waste management. The need for a subsequent quantitative risk assessment should be based on the potential for these types of sites to provide potential habitat (i.e., shelter, food, and/or water) for ecological receptors or for the sites to have the potential to impact ecological resources or areas where there are ecological receptors.

RCAP REFORM NO. 2: ESTABLISH REALISTIC, RISK-BASED CLEANUP GOALS

Goal:

Assure that decision making on cleanup goals is grounded in realistic site-specific scenarios for potential human exposure and extant ecological receptors and is based on current and reasonably foreseeable future use scenarios.

Reform 2, Actions 1 and 2

Provide common sense flexibility in establishing the point of compliance without undue regard for regulated and/or non-regulated unit boundaries, particularly in the context of large industrial sites.

Allow setting the point of compliance ("POC") where exposure is probable under the site-specific current or reasonably foreseeable future use scenario. When establishing the POC, take account of current and reasonably foreseeable land use and uses of ground water (through reference to state comprehensive groundwater protection plans where they exist) and the effects of monitored natural attenuation on limiting migration.

EPA Response:

In general we support a common sense approach to foreseeable groundwater use. However, as you know, the Agency still maintains the expectation to restore contaminated ground water to its designated beneficial uses. For example, if groundwater is identified as a potential source of drinking water then our expectation is to restore the groundwater to drinking water standards throughout the plume (at least up to unit boundary). As for the suggestion to allow the POC to be established without undue regard for unit boundaries, the Program currently has the flexibility to establish the POC around several units that are in close proximity to one another.

We believe that much of the flexibility pertaining to groundwater that RCAP is seeking could be obtained in situations where the groundwater is not classified/designated as a source of drinking water. EPA has encouraged States to use the Comprehensive State Ground Water Protection Program (CSGWPP) process to adopt reasonable classifications systems based on a current and

future use, value, vulnerability, etc.; however, we recognize relatively few states have pursued that approach. In the context of a natural attenuation remedy, our position as stated in the Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites guidance (OSWER Directive, 9200.4-17P) is that it is those plumes that have stopped moving or are retreating where natural attenuation could be appropriate.

Lastly, one approach that provides some flexibility is the Program's focus on Environmental Indicators. Specifically, the "Migration of Contaminated Groundwater Under Control" EI focuses on the current limits of the plume on a site-wide basis, rather than the potentially numerous contributing sources. This focus allows flexibility, at least on an interim basis, to look at a site holistically rather than on a strict SWMU-by-SWMU basis.

Reform 2, Action 3

Encourage use of Alternate Concentration Limits ("ACLs") for ground water cleanup of regulated unit SWMUs wherever consistent with site-specific current or reasonably foreseeable future use scenarios. Make clear that ACLs (or a substantive equivalent thereto) can also be used with respect to non-regulated unit SWMUs as part of an integrated approach to ground water cleanup.

EPA Response:

While the specific regulatory provisions for ACLs are still available for Corrective Action of regulated units, OSW recognizes they have seen limited use. We believe ACLs may have wider use as States more clearly identify those ground waters that are not designated for drinking water as discussed in response to Reform 2, Actions 1 and 2. ACLs and their use will also be addressed in the new Groundwater Guidance being developed under the recently announced Corrective Action Reforms.

Reform 2, Action 4

Identify corrective action sites nationwide where remediation levels are based on industrial future use scenarios. Prepare a compendium of these examples for use by States and Regions in implementing the guidance of the May 1, 1996 Advance Notice of Proposed Rulemaking on this issue.

EPA Response:

We agree that such a compendium would be useful, but we are not currently in a position due to both resources as well as Information Collection Request constraints to develop one. An alternative would be for the private sector to conduct this exercise. We'd likely be happy to participate in the effort and refer program implementors to the finished compendium. Also, it

may be helpful if this effort captured cleanups conducted under Superfund, as well as other cleanup programs. This compendium clearly wouldn't have to address every site, but should focus on those that reflect the diversity of issues that come up in recognizing non-residential use exposure scenarios.

Reform 2, Action 5

Integrate regulated unit closure with corrective action for non-regulated unit SWMUs so that cleanup goal decision making is carried out consistently on the basis of risk, not arbitrarily based on cleanup to background.

EPA Response:

The final Post-Closure rule, promulgated on October 22, 1998 (63 FR 56710), provides regulators flexibility to replace the closure requirements with site-specific corrective action requirements, under certain circumstances. This flexibility can be used in situations where regulated units and SWMUs are located in the same area a release has occurred, and there is a likelihood that both the regulated units and the SWMUs have contributed to the release. EPA believes this rule is a significant step toward integrating the closure and corrective action requirements at cleanup sites. The rule also provides regulators flexibility to replace the Subpart F groundwater requirements with site-specific requirements in the same situations described above. This flexibility provides some of the relief requested in actions 1 and 3 under this same reform.

RCAP REFORM NO. 3: EMPLOY REALISTIC REMEDIES

Goal:

Assure that Corrective Measures selection process considers only practical, probable remedies for the facility in question. Remove from the outset the consideration of impracticable remedies.

Reform 3, Action 1:

Allow the owner/operator to propose a single remedy for consideration by the overseeing agency unless site-specific factors warrant examination of multiple remedies. Where consideration of multiple remedies is warranted by site-specific factors, assure that impracticable remedies are eliminated from further consideration early in that process. Do not require "scoping," extensive documentation, etc., where the general outlines of a remedial technology are well known and obvious.

EPA Response:

The Corrective Action Workshop offers guidance regarding the evaluation of single remedies.

The CA Workshop directly addresses the option of using remedy selection evaluation/balancing criteria to look at a single remedy and offers guidance concerning "uncertainty management." Also, the ANPR encourages program implementors to focus on a single plausible remedial approach where obvious and appropriate. The Workshop is highlighting this program policy.

Reform 3, Action 2

Assure that monitored natural attenuation, containment, and similar remedies are given fair consideration on a site-specific basis. In that regard, assure that technical impracticability waivers from more "aggressive" approaches also are fairly considered where appropriate based on site-specific factors.

EPA Response:

The most recent guidance addressing natural attenuation is conveyed in the Monitored Natural Attenuation (MNA) Directive. One of the goals was to ensure that MNA was given a fair opportunity provided it had the ability on a site-specific basis to achieve remedial objectives. Regarding containment vs. treatment, the Corrective Action program promotes remedies that are consistent with the remedial expectations conveyed in the ANPR dealing with these issues. Specifically, the Agency prefers remedies that use treatment to address "principal threat" contamination and expects that containment would be used more often for wastes or contaminated media that can be reliably contained, pose relatively low long-term threats, or for which treatment is impracticable.

Regarding technical impracticability (TI), first of all, the RCRA Program does not have a specific statutory "waiver" provision as does the Superfund Program, so in the context of Corrective Action, we typically refer to a TI determination and not a TI waiver. As for our current position on TI, the Agency has not changed its position since the ANPR which conveyed support for technically justified and protective TI decisions. However, we do recognize that TI has not been widely used in RCRA Corrective Action. We believe the lack of use has been associated with the Program's emphasis on interim measures that are for the most part "technically practicable" rather than final measures which are associated more often with restoration objectives. As more final remedies are selected, we believe more TI decisions will be made provided they are supported by sound science. We would be interested in hearing of situations where RCAP believes TI is appropriate and the regulatory program was unwilling to take advantage of this flexibility. RCAP should keep in mind that the Agency maintains the position that for RCRA Corrective Action facilities, a TI determination is an acknowledgment of current conditions; therefore, the overseeing regulatory program retains the ability to revisit a remedy in the event that technologies become available that would make achieving the applicable remedial objectives technically practicable.

Reform 3, Action 3

Encourage use of "contained-out" decisions to allow management outside of subtitle C of remediation wastes that pose little risk due to relatively low levels of hazardous constituents.

EPA Response:

The Agency's current policy regarding "Contained-in Policy" is available in the "Management of Remediation Waste Under RCRA" memorandum issued October 14, 1998. It states that "EPA considers contaminated environmental media to no longer contain hazardous waste: (1) when they no longer exhibit a characteristic of hazardous waste; and (2) when concentrations of hazardous constituents from listed hazardous wastes are below health-based levels." There are a few exceptions that are also listed in the memo but the RCRA program feels this offers some flexibility for owner operators to negotiate with regulators.

Reform 3, Action 4

Designate an expert "circuit-rider" from EPA Headquarters to be available to assist regional or authorized state personnel in reviewing corrective measure(s) proposals and to assist in personnel training and fostering other aspects of an efficient and effective "front-line" RCRA corrective action program.

EPA Response:

We believe that many of the activities we are already conducting achieve many similar objectives. For example, we have assigned individuals within the Corrective Action Program Branch to serve as key contacts for each of EPA's 10 regions. These individuals are available to regulators as well as the regulated community to address any Corrective Action issue, including assistance on a site-specific basis. Additionally, we visit at least 5 regions and select states within those regions each year to discuss program implementation issues with both staff and management. Also, we believe the new Workshop focuses on providing the "front-line" implementors with tools that significantly improve both efficiency and effectiveness. While we believe these approaches can help, we think the more formal circuit rider idea is excellent and we would hope to implement the concept more formally if additional resources become available in the future.

Reform 3, Action 5

Use circuit rider proposed above and other means to promote broader nationwide implementation of the promulgated Corrective Action Management Unit ("CAMU") rule.

EPA Response:

The CAMU rule is currently under litigation and active settlement discussions, but the Agency continues to encourage approval of CAMUs when they are appropriate given the site-specific

conditions. Additionally, we have assigned an individual within the Corrective Action Program Branch to both promote and track CAMU implementation.

RCAP REFORM NO. 4: TAILOR OVERSIGHT

Goal:

Tailor oversight to scope the corrective action activity and the experience and viability of the owner/operator.

Reform 4, Action 1

Survey Regions/Authorized States for specific examples of successful application of the tailored oversight guidance, Corrective Action Oversight, OSWER 9902.7, January 1992, and other examples of particularly effective interaction between regulators and facility owner/operators. Develop and circulate a compendium of these examples to encourage their more widespread implementation.

EPA Response:

While we don't have a compendium of examples, the Region 1 progress made with voluntary (or owner/operator initiated Corrective Action) has been well documented. Region 1's success along with that of Region 9 in getting Chevron to enter into a voluntary corrective action was recognized not only through the RCRA Corrective Action Notable Achievement Awards but also in industry press as Chevron made the successful arrangement a cover story for their company magazine. The RCRA Corrective Action News (RCRA CAN) is another outlet that will be recognizing successful interactions between owner/operators and regulators. The Results Based Approaches for RCRA Corrective Action Guidance that was mentioned earlier also deals with reduced oversight and the benefits it provides to both the regulator and stakeholder. We believe that the Internet may also be a means to solicit as well as advertise successful approaches which we intend to pursue in the near future.

Reform 4, Action 2

Incorporate U.S. Department of Energy Principles of Environmental Restoration into USEPA Headquarters corrective action training programs for regional and state personnel:

- (a) Building an effective core team is essential
- (b) Clear, concise, and accurate problem identification and definition are critical
- (c) Early identification of likely response actions is possible, prudent, and necessary
- (d) Uncertainties are inherent and will always need to be managed

EPA Response: