



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

AUG 22 1997

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

OSWER No. 9200.4-23

**MEMORANDUM**

**SUBJECT:** Clarification of the Role of Applicable, or Relevant and Appropriate Requirements in Establishing Preliminary Remediation Goals under CERCLA

**FROM:** Timothy J. Fields, Jr., Acting  
Assistant Administrator

A handwritten signature in black ink that reads "Timothy J. Fields, Jr." with a stylized flourish at the end.

**TO:** Addressees

**PURPOSE**

This memorandum clarifies the relationship between the two key remedy selection mandates of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA): 1) the requirement to protect human health and the environment; and 2) the requirement to attain, or waive if justified based on site-specific circumstances, applicable or relevant and appropriate requirements (ARARs). Specifically, this memorandum clarifies that, in rare instances, the Agency may establish preliminary remediation goals (PRGs) at levels more protective than required by ARARs, even at sites that do not involve multiple contaminants or pathways of exposure.

This document provides guidance to Regional staff, in dealing with the public and the regulated community, regarding how EPA intends to implement the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It describes national policy. This document is not a substitute for EPA's statutes or regulations, nor is it a regulation itself. Thus, it cannot impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances.

## **BACKGROUND**

In administering the CERCLA program since the promulgation of the 1990 revisions to the NCP, questions have periodically arisen over the relationship between the statutory mandates to: 1) protect human health and the environment; and, 2) attain, or waive if justified based on site-specific circumstances, ARARs. Specifically, questions have arisen over the circumstances under which it is appropriate to establish PRGs that are more protective than ARARs. It has been EPA's policy that "compliance with a chemical-specific ARAR generally will be considered protective even if it is outside the [cancer] risk range (unless there are extenuating circumstances such as exposures to multiple contaminants or pathways of exposure)."<sup>1</sup>

## **FURTHER EXPLANATION OF POLICY**

It remains EPA's policy that ARARs will generally be considered protective absent multiple contaminants or pathways of exposure. However, this Directive clarifies that, in rare situations, EPA Regional offices should establish PRGs at levels more protective than required by a given ARAR, even absent multiple pathways or contaminants, where application of the ARAR would not be protective of human health or the environment. This judgment should be made based on a review of the level of risk associated with application of the ARAR; the soundness of the technical basis for the ARAR; and other factors relating to the ARAR or to its application at an individual site.

This balanced approach most fully implements the requirements of the NCP and the CERCLA. On one hand, it was clearly EPA's intention in promulgating the NCP that PRGs would generally be based on ARARs in the absence of multiple contaminants or pathways. (See 40 CFR 300.430(e)(2)(I)(D); 55 Fed. Reg. at 8712.) This approach is sound; the protectiveness of health-based regulatory levels should not routinely be re-evaluated in individual CERCLA remedy selection decisions.

On the other hand, ARARs cannot be an absolute upper bound on cleanup levels in every case in the absence of multiple pathways or contaminants. CERCLA and the NCP establish separate requirements to be protective and meet ARARs. (CERCLA § 121(d)(1), (2); 40 CFR § 300.430(f)(1)(I)(A).) Indeed, protecting human health and the environment is the paramount objective of the Superfund program. (See 55 Fed. Reg.

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<sup>1</sup>OSWER Directive 9355.0-30, "Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions" (April 22, 1991). This policy is consistent with the NCP. (See 40 CFR 300.430(e)(2)(I)(D) (authorizing consideration of the cancer risk range where attainment of ARARs will result in cumulative cancer risk of greater than  $10^{-4}$  due to multiple pathways or contaminants). See also 1990 NCP Preamble, 55 Fed. Reg. at 8712 ("[w]hen health-based ARARs are not available or are not sufficiently protective due to multiple exposures or multiple contaminants, EPA sets remediation goals" based on site-specific risk-based factors, such as the cancer risk range).)

8700 (the NCP remedy selection process “is founded on CERCLA’s overarching mandate to protect human health and the environment”).) Furthermore, CERCLA requires that remedial actions attain ARARs “at a minimum,” clearly contemplating that remedial actions may be more protective than required by ARARs when circumstances so require. (CERCLA § 121(d)(2)(A).)

EPA’s policy of generally establishing PRGs based on ARARs, in the absence of multiple pathways or contaminants, is based on the assumption that individual ARARs will be protective. For example, the NCP expressly authorizes consideration of the cancer risk range in setting PRGs where attainment of ARARs would result in a cumulative risk in excess of  $10^{-4}$  due to multiple contaminants or pathways. (40 CFR 300.430(e)(2)(I)(D).) The assumption underlying this provision is plainly that individual ARARs would achieve a risk of  $10^{-4}$  or less. Similarly, the NCP preamble explains that EPA will modify PRGs to be protective where cumulative risks “make ARARs nonprotective” (55 Fed. Reg. at 8713); again, the assumption is that individual ARARs would be protective absent these cumulative risks. In cases where, based on available information, this assumption is not accurate, PRGs should be set at levels more protective than required by the ARAR in order to ensure protection of human health and the environment.

## **IMPLEMENTATION**

In the rare circumstances where, based on available information, application of an ARAR would not be protective of human health or the environment, EPA should establish PRGs at levels that are more protective than required by the ARAR even absent multiple pathways or contaminants. As noted above, in deciding whether a PRG should be established at a level more protective than required by an ARAR, consideration should be given to the level of risk associated with application of the ARAR; the soundness of the technical basis for the ARAR; and other factors relating to the ARAR or to its application at an individual site.

Before making a site-specific determination that an ARAR at a given site is not protective of human health and the environment and should not be used as the basis for establishing PRGs, the site decision maker should consult with Headquarters, unless a prior determination has been made by Headquarters that a particular ARAR should not generally be used to establish PRGs at CERCLA sites.<sup>2</sup> The subject matter specialist for this guidance is Robin Anderson of OERR and Brian Grant of OGC. General questions about this guidance should be directed to 1-800-424-9346.

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<sup>2</sup>For an example of a Headquarters determination that the numerical limits established by a particular ARAR should not generally be used as the basis to establish PRGs at CERCLA sites, see the memorandum from Stephen D. Luftig titled: “Establishment of cleanup levels for CERCLA sites with radioactive contamination” (OSWER Directive 9200.4-18), August 1997, p. 3.

**Addressees**

National Superfund Policy Managers  
Superfund Branch Chiefs (Regions I-X)  
Superfund Branch Chiefs, Office of Regional Counsel (Regions I-X)  
Radiation Program Managers (Regions I, IV, V, VI, VII, X)  
Radiation Branch Chief (Region II)  
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