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Superfund Fact Sheet

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ARARs Q's & A's

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The 1986 Superfund Amendments and Reauthorization Act (SARA) adopts and expands a provision in the 1985 National Contingency Plan (NCP) that remedial actions must at least attain applicable or relevant and appropriate requirements (ARARs). In section 121(d), SARA requires attainment of Federal ARARs, and of State ARARs in State environmental or facility siting laws when the requirements are promulgated, more stringent than Federal laws, and identified by the State in a timely manner. Under EPA regulation and policy, removal actions must comply with ARARs to the extent practicable.

To implement the ARARs provision, EPA has developed guidance, the CERCLA Compliance With Other Laws Manual (OSWER Directive 9234.1-01), and has provided training to Regions and States on identification of and compliance with ARARs. These "ARARs Q's and A's" are part of a series that provide answers to a number of questions that arose in developing ARARs policies, in ARARs training sessions, and in identifying and complying with ARARs at specific sites. Responses covered here reflect current program practice and include policies and language from the proposed NCP. Changes resulting from finalizing the NCP following public comment may alter some policies or language quoted from the proposed NCP.

General Policy

DEFINITIONS OF "APPLICABLE" AND "RELEVANT AND APPROPRIATE"

"Applicable requirements mean those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site." [Proposed NCP, 53 FR 51435, December 21, 1988] In other words, an applicable requirement is one that a private party would have to comply with by law if the same action was being taken apart from CERCLA authority. All jurisdictional prerequisites of the requirement must be met in order for the requirement to be applicable.

If a requirement is not applicable, it still may be relevant and appropriate. **"Relevant and appropriate requirements mean those cleanup standards [that]... address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site."** [Proposed NCP, 53 FR 51436, December 21, 1988] A requirement that is relevant and appropriate may "miss" on one or more prerequisite but still make sense at the site, given the circumstances of the site and release.

Q1. What difference does it make if a requirement is "applicable" or "relevant and appropriate"? Why make that distinction?

A. While it is true that once a requirement is determined to be relevant and appropriate, it must be complied with as if it were applicable, there are significant differences in the identification and analysis of the two types of requirements. The "applicability" determination is a legal one, while the determination of "relevant and appropriate" relies on professional judgment, considering environmental and technical factors at the site. There is more flexibility in the relevance and appropriateness determination: a requirement may be "relevant," in that it covers situations similar to that at the site, but may not be "appropriate" to apply for various reasons, and therefore not well suited to the site. In some situations, only portions of a requirement or regulation may be judged relevant and appropriate; if a requirement is applicable, all substantive parts must be followed.

For example, if closure requirements under Subtitle C of RCRA are applicable (e.g., a landfill that received RCRA hazardous waste after 1980 or where the Superfund action constitutes disposal of hazardous waste), the landfill must be closed in compliance with one of the closure options available in Subtitle C regulations. These options are closure by removal (clean closure), which requires decontamination to health-based levels, or closure with waste in place (landfill closure), which requires impermeable caps and long-term maintenance.

However, if Subtitle C closure requirements are not applicable, then a "hybrid closure," which includes other types of closure designs, could also be used. The hybrid closure option arises from a determination that only certain closure requirements in the two Subtitle C closure alternatives are relevant and appropriate. (See proposed NCP, 53 FR

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51446, for further discussion of RCRA closure requirements and the concept of hybrid closure.)

Q2. Does an applicable requirement take precedence over one that is relevant and appropriate? In other words, if an applicable requirement is available, will that be the ARAR, rather than one that might otherwise be relevant and appropriate?

A. No, a requirement may be relevant and appropriate even if another requirement legally applies to that situation, particularly when the applicable requirement is not really designed to address the type or magnitude of problems encountered at Superfund sites. For example, RCRA Subtitle D requirements for covers for solid waste facilities may be applicable when RCRA hazardous waste is not present at the site. However, the soil cover required under Subtitle D may not always be sufficient to limit leachate at a Superfund site with substantial amounts of waste similar to RCRA hazardous waste. In such a situation, some Subtitle C closure requirements may be relevant and appropriate to some parts of the site, even though Subtitle D requirements legally apply.

However, one factor that affects whether a requirement is relevant and appropriate is whether another requirement exists that more fully matches the circumstances at the site. In some cases, this might be a requirement that was directly intended for, and is applicable to, the particular situation. For example, Federal Water Quality Criteria will generally not be relevant and appropriate when there is an applicable State Water Quality Standard promulgated specifically for the pollutant and water body, which therefore "more fully matches" the situation.

Q3. Is compliance with ARARs required for a "no action" decision?

A. No. Section 121 cleanup standards, including compliance with ARARs, apply only to remedial actions the Agency determines should be taken under CERCLA Section 104 and 106 authority. A "no action" decision can only be made when no remedial action is necessary to reduce, control, or mitigate exposure because the site or portion of the site is already protective of human health and the environment. See Guidance on Preparing Superfund Decision Documents (OSWER Directive 9355.3-02) for further discussion of "no action" decisions.

Q4. Does an ARAR always have to be met, even if it is not necessary to ensure protectiveness?

A. Yes. Attainment of ARARs is a "threshold requirement" in SARA, as is the requirement that the remedies be protective of human health and the environment. If a requirement is applicable or relevant and appropriate, it must be met, unless one of the six waivers is used. ARARs represent the minimum that a remedy must attain; it may sometimes be necessary to go beyond what ARARs require to ensure that a remedy is protective.

ON-SITE VS. OFF-SITE ACTIONS

The requirements under CERCLA for compliance with other laws differ in two significant ways for on-site and off-site actions. **First, the ARARs provision only applies to on-site actions; off-site actions must comply fully only with any laws that legally apply to that action.** Therefore, off-site actions need only comply with "applicable" requirements, not with "relevant and appropriate" requirements; ARAR waivers are not available for requirements that apply to off-site actions.

Second, on-site actions must comply only with the substantive portions of a given requirement, or those that pertain directly to actions or conditions in the environment; on-site activities need not comply with administrative requirements, such as obtaining a permit or recordkeeping and reporting. **Off-site actions must comply with both substantive and administrative requirements.**

Q5. If wastes from non-contiguous sites are combined on one site for treatment, is the treatment viewed as off-site activity, and the unit therefore subject to permitting?

A. Sites may be combined for remedial action if it is cost-effective to do so and the following statutory criteria [CERCLA Section 104(d)(4)] are met: the sites must be geographically close or pose similar threats to public health and the environment. Combined remedies must also be cost-effective and should not result in any significant additional short-term impacts on public health and the environment. The combined remedial action constitutes on-site action, and compliance with permitting or other administrative requirements would not be required. (See OSWER Directive 9347.0-1 and 40 FR 37076, September 21, 1984)

Q6. Are environmental resource laws, such as the Endangered Species Act, the National Historic Preservation Act (NHPA), and the Wild and Scenic Rivers Act, potential ARARs for CERCLA actions?

A. Yes, requirements in these laws are potential ARARs. However, these laws frequently require consultation with and, under some laws, concurrence of other Agencies or groups, such as the Fish and Wildlife Service or the Advisory Council on Historic Preservation. Administrative requirements such as consultation or obtaining approval are not required for on-site actions. However, it is strongly recommended that the lead agency nevertheless consult with the administering agencies to ensure compliance with substantive requirements, e.g., the NHPA requirement that actions must avoid or minimize impacts on cultural resources.

Q7. *Are environmental standards and requirements of Indian tribes potential ARARs?*

A. Yes. Indian tribal requirements as potential ARARs for CERCLA actions taken on tribal lands are treated consistently with State requirements. Tribal requirements that meet the eligibility criteria for State ARARs, i.e., they are promulgated (legally enforceable and of general applicability) and more stringent than Federal requirements, are potential ARARs.

Resource Conservation and Recovery Act (RCRA)

Q8. *How can RCRA listed waste be "delisted" when wastes will remain on-site?*

A. If a listed waste is "delisted," it is no longer considered a "hazardous waste" and is subject to Subtitle D requirements for solid waste, rather than the more stringent Subtitle C requirements.

Only the substantive requirements for delisting a RCRA hazardous waste must be met for wastes that will remain on-site and will not be handled as hazardous. These are the standards in 40 CFR 260.22(a)(1) and (2), which state that a waste that "does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste" and for which there is no "reasonable basis to believe that factors (including other constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste" is 'delistable.' Administrative requirements, which include requirements to undergo a petition and rulemaking process and to develop and supply specific information, need not be met on-site.

Wastes containing constituents at health-based levels, assuming direct exposure, will meet the standards for delisting. Wastes with constituents at higher levels may also be delistable, since the RCRA delisting process allows fate and transport modeling, generally based on the waste being managed in a solid waste facility. The models used by the RCRA program for delisting should be used in determining whether constituent concentrations above health-based levels are delistable, e.g., for wastes that will be land disposed (See 50 FR 4886, November 27, 1985 and 51 FR 41082, November 13, 1986). The Assistance Branch in the Office of Solid Waste can also provide assistance and advice in delisting a waste.

The expectation that the waste will meet delisting levels should be documented in the RI/FS and the ROD and supported by information comparable to that required for delisting, as appropriate for the waste and site (see the guidance "Petitions to Delist Hazardous Waste," EPA 530-SW-85-003, April 1985). Generally, the constituent levels that must be achieved in order for the waste to be considered non-hazardous should be identified in the ROD. Unless treatability studies done during the RI/FS make delisting reasonably certain, the ROD should also address how the waste will be handled if it does not achieve delistable levels, based on full-scale treatability studies or actual performance of the remedy during RD/RA. If the waste cannot be delisted, an explanation of significant differences should be issued to notify the public that the contingency remedy will be implemented.

Q9. *Are RCRA financial responsibility requirements potential ARARs for Superfund?*

A. No, because they do not pertain directly to actions or conditions in the environment. Rather, the requirements support implementation of RCRA technical standards by ensuring that RCRA facility owners or operators have the financial resources available to address releases and comply with closure and post-closure requirements. CERCLA agreements with PRPs, and ultimately the Fund itself, achieve essentially the same purpose.

Q10. *RCRA hazardous waste is placed into an existing pit that had received hazardous waste in the past, but is not subject to RCRA Subtitle C regulations because the pit closed before 1980. Would the minimum technology requirements (MTR) be applicable for the pit because it is a "new unit"?*

A. No, the pit is not considered a "new unit." MTR will not apply when disposing of waste in an existing unit or area of contamination, although a lateral expansion of the unit would have to meet MTR. (Note: both new and existing surface impoundments are subject to MTR if they receive waste after November 1988. In addition, the land disposal restrictions (LDR) can trigger MTR indirectly. LDR restricts placement of a "soft hammer" waste and a restricted waste under a capacity variance to units in compliance with MTR. If such a waste is placed in the existing waste pit, the pit would have to comply with MTR, even though it is not a "new unit.")

Clean Water Act (CWA) Safe Drinking Water Act (SDWA)

Q11. *Do antidegradation laws for ground water, increasingly common in State laws, mean that the aquifer must be restored to its original quality before contamination from the site occurred?*

A. Generally, antidegradation laws are prospective and are intended to prevent further degradation of water quality. At a CERCLA site, therefore, a State ground water antidegradation law might preclude the injection of partially treated

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water into a pristine aquifer. It would not, however, require cleanup to the aquifer's original quality prior to contamination, nor would it preclude reinjection of partially treated water back into the already contaminated portion of the aquifer, as long as the reinjection does not increase the existing level of contamination.

ARARS FOR GROUND WATER CLEANUP

MCLs promulgated under SDWA generally will be the relevant and appropriate standard for ground water that is or may be used for drinking, considering its use, value, and vulnerability as described in the EPA's Ground-water Protection Strategy (August 1984), e.g., for Class I and II aquifers.

Q12. There are some situations where an aquifer that is a current or potential drinking water source, treatable to MCLs at the tap, cannot be remediated to MCLs in the aquifer, e.g., where background levels of contaminants are above MCLs. Would MCLs still be relevant and appropriate?

A. The MCLs are generally relevant and appropriate for any aquifer that is a potential drinking water source. If the MCLs cannot be attained (e.g., because of complex hydrogeology due to fractured bedrock), an ARAR waiver for technical impracticability should be used. The same approach should be followed if attainment of MCLs is impracticable because background levels of chemicals subject to CERCLA authority (e.g., man-made chemicals) are higher than MCLs, and no area-wide remediation of the aquifer is feasible.

Q13. Many new MCLs will be promulgated or existing ones revised in upcoming years. Will new or revised MCLs, when promulgated, need to be incorporated into the remedy, possibly altering it? Should a proposed MCL be used as the remediation goal in the ROD?

A. Under EPA policy, if a new ARAR is promulgated after the ROD is signed, the remedy should be examined in light of the new requirement to ensure that the remedy is still protective. If the remedy is still protective, it would not have to be modified, even though it does not meet the new requirement.

Since MCLs often are a key component in defining protective remediation levels, new or revised MCLs may reveal that the remedy chosen is not protective. In such cases, the remedy would have to be modified accordingly. This could occur at any time after the ROD is signed — during remedial design, remedial action, or at the five-year review.

However, a new MCL will not always mean the remedy must be changed. If the existing remedy is still within the risk range, even considering the new MCL, the remedy would not have to be modified because the remedy is still protective. For example, if the new MCL represents a risk of 10^{-6}, while the selected remediation level results in a 10^{-5} risk, the remedy is still protective.

At some sites, however, a new MCL will require significant changes to the remedy, changes that can be very costly after implementation of the remedy has begun. Therefore, if a proposed MCL is available before the ROD is signed, the preferred remedy should be evaluated to determine how the MCL, if promulgated as proposed, would affect the remedy. Will the preferred remedy achieve the proposed MCL? Could the remedy achieve the proposed MCL with minor design modifications? Would the proposed MCL require significant changes, such as requiring remediation in ground water that is currently deemed fully protective because it meets all MCLs?

As a general rule, the proposed MCL should be used as a TBC to establish the remediation level in the ROD when the proposed MCL is more stringent than the existing one or regulates a new chemical (unless the MCL is controversial and therefore likely to change). This reflects the importance of MCLs in Superfund's determination of protectiveness and as a cleanup standard for the community. It also minimizes the need for later changes to the remedy when changes may be more difficult and costly to make.

Q14. If there are MCLs for some, but not all, of the significant contaminants at a site, should the 10^{-4} point of departure be used for all the contaminants, or should the MCLs be used where available and the remediation levels for the other contaminants adjusted accordingly?

A. Generally, the MCLs should be used to set the remediation levels when available, provided the MCLs cumulatively are within the risk range. The levels for other chemicals should be set to ensure that they do not significantly increase the total risk associated with the chemicals with MCLs and that the cumulative risk from all chemicals is within the risk range. The 10^{-6} point of departure is used when there are no MCLs or, when risks are summed, when the MCLs for the chemicals in the medium are not sufficiently protective under the circumstances.

For example, if the risk from chemicals with MCLs totals 1×10^{-5}, the remediation levels for the other chemicals should generally be set so that the total cumulative risk does not exceed that risk level. Final levels for the chemicals without MCLs may also be driven by the treatment necessary to attain the MCLs.

For some mixtures of chemicals, it may be necessary or more technically practicable to adjust the remediation levels even of those chemicals with MCLs to more stringent levels. Even in such cases, the final remediation levels cannot exceed the respective MCLs, since the MCL are ARARs, and the total risk of all contaminants should be within the risk range to ensure the remedy is protective.

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