

IMPLEMENTING THE NEW SUPERFUND

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Summary

Several months have now passed since congress enacted the Superfund Amendments and Reauthorization Act ("SARA") of 1986. Congress used SARA to codify EPA's off-site disposal policy for CERCLA waste, and CERCLA compliance with other environmental laws. These policies were previously published by EPA and were being implemented prior to the enactment of SARA. In addition, technical criteria established by SARA include "permanent remedies" and "alternative technologies to significantly reduce toxicity, mobility, or volume of the waste".

Remedy selection

EPA is attempting to define each of these terms in the remedial decision process. The Agency's interpretation focuses on four criteria central to remedy selection. They include:

- Protection of public health and the environment.
- Applicable and/or relevant and appropriate standards ("ARRARs").
- Cost-effective solutions.
- Consideration of permanent remedies or alternative technologies, where practicable, to significantly reduce volume, mobility, or toxicity of the waste.

These criteria are inter-related to a great extent. To be effective, the remedy must protect public health and the environment. In evaluating how well a particular remedy protects public health and the environment, EPA assesses the ability of that remedy to comply with the ARARs. In the absence of ARARs, the agency will use a risk assessment approach (the acceptable risk level may vary from 10^{-4} to 10^{-7} excess cancer deaths with other site parameters such as host geology, waste characteristics, receptor location, etc.).

The next item in EPA's decision process is the cost, including both capital cost and the Operation and Maintenance cost of each alternative remedy. The effect of this approach is to integrate three of the four criteria. Because of the potentially extreme financial impact of a remedial decision, all companies involved in one or more Superfund sites should monitor closely the implementation of SARA.

The fourth criterion, dictating consideration of alternative technologies

wherever possible in order to achieve permanent remedies, is the "wild card" in the Superfund remedy selection process. Although policies and approaches in this area are not yet fully developed, it is already clear that alternative technologies, where available, will be studied completely through the feasibility analysis phase. The basis for deciding whether or not an alternative technology is practicable should be the life cycle cost differential between an alternative technology and other remedies which satisfy the first three criteria. However, it would seem, based on several public notices issued by the EPA, that thermal destruction is being proposed as the post-SARA remedy even though it means substantial increase in life cycle cost. This seems to confirm a concern expressed by many Potentially Responsible Parties (PRPs) immediately following enactment of SARA. If this trend for thermal destruction remedies continues on a large scale, it will present serious problems. Even the \$8.5-billion fund will be rapidly exhausted as thermal destruction remedies can range in estimated cost from \$75–200 million. PRPs hope the process of balancing PRP settlements with Superfund financed remediation will bring about some practical decisions in the remedy selection process. In addition, many states may have difficulty appropriating the necessary matching funds for their obligatory 10% share (50% for state owned or operated sites).

These considerations accent the need to make remedial decisions at each Superfund site based upon specific conditions at that site. The alternative use of a particular technology without considering site-specific conditions may require exorbitant costs out of balance with the risk presented by the site to public health and the environment. Some sort of balancing would seem to be the "rational" approach to Superfund remediation decisions. Unfortunately, as all who have experience in dealing with the Superfund "Tar Baby" have found, many decisions are made on an emotional basis, rather than on a rational basis.

Public approach

One step toward a rational approach would be to implement a public education process. A better educated public might help to dampen the waves of emotion provoking Congress to mandate EPA to implement some extreme programs. However, experience has shown that educating the general public in the highly technical matters that surround hazardous waste issues and risks is a difficult prospect. To provide more effective communication, some PRP groups have recently retained public relations firms. The PRPs public relations firm acts in concert with EPA's community relations program to insure that risks associated with their individual site are communicated as accurately as possible.

A related issue affecting PRPs is the requirement that EPA review, at least every five years, each Superfund site on the National Priorities List where *any*

hazardous substances remain. The strong implication of this mandate is that anything less than a permanent remedy at a Superfund site will be subject to a periodic review by the Agency and additional remediation may be required in the future. Thoughtful consideration must, therefore, be given to balancing reductions of long-term liability against a higher life cycle cost for chosen remedies.

Operable unit

A concept now commonly used by EPA in Superfund site remediation is that of an operable unit. An operable unit is a discrete response measure consistent with a permanent remedy, but not the permanent remedy itself. Operable units can entail surface clean-up, a storage alternative in the absence of available technology, site stabilization by capping and/or diking, and so forth. This concept is key to the PRPs overall remediation strategy. Various settlement concepts provided by SARA, such as de minimus settlement (buyouts) and mixed funding are now important to individual PRPs as well as to a PRP group. These concepts are most appropriately handled by an experienced environmental attorney involved in Superfund negotiations.

PRPs should also be aware of the Special Notice provisions. Under these provisions, EPA may choose to force a decision by a group of PRPs regarding their participation either in the Remedial Investigation/Feasibility Study (RI/FS), or in the implementation of the selected remedy for a site. The agency can issue a Special Notice letter establishing a sixty-day deadline for a decision/commitment by the PRP group to conduct the RI/FS. If at the end of the sixty-day period the PRPs have made a good faith commitment, the agency may then extend the period for no longer than an additional thirty-days, for a total of ninety-days (the thirty-day extension is at the option of EPA). A similar Special Notice provision exists regarding remedy implementation. However, the timeframe for the initial decision is ninety-days with the same thirty-day extension possible when PRPs come forth with a good faith commitment.

Concluding remarks

It is impossible to cover in-depth the many requirements and subtleties of SARA in this brief article. If your involvement in the Superfund program requires a more in-depth understanding, you may find useful the Superfund Handbook. This Handbook was produced through the joint efforts of ERT, A RESOURCE ENGINEERING COMPANY, and the Law Firm of Sidley and Austin. This Handbook provides a "question and answer" approach to the many facets of the Superfund program. You may contact ERT at 800-722-2440 for a complimentary copy.