UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OCT 15 1993

HAZARDOUS WASTE DIVISION

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SOLID WASTE AND EMERGENCY RESPONSE

OSWER Directive 9320.2-07A

MEMORANDUM

SUBJECT: Additional Guidance on "Worst Sites" and "NPL Caliber Sites" to Assist in SACM Implementation

FROM: Richard J. Guimond,
Assistant Surgeon General, USPHS
Acting Assistant Administrator

TO: Addressees

OBJECTIVES

This document is intended to assist the Regions by giving clear guidance as to what constitutes NPL caliber sites and to assist in minimizing the potential for "false positive" NPL packages. It also sets forth the actions needed to support our efforts to implement SACM and encourage appropriate data gathering to support NPL listing and RI/FS decisions. The end result should be that we take more early actions to reduce risks and clean up sites, that the RIs to support long term actions begin earlier in the process, and that the risks of starting action earlier in the assessment process are acceptable. This document supplements guidance issued by OERR on August 26, 1993 (OSWER Directive 9320.2-072).

BACKGROUND

The focus of the Superfund program under the Superfund Accelerated Cleanup Model (SACM) continues to be reducing risk at sites posing the worst health and environmental threats. Through integrated assessment and the Regional Decision Teams' (RDTs) actions to identify worst sites and take early and long-term actions, SACM focuses the Regions' efforts on one list of the worst sites requiring response action. This list of worst sites would include NPL caliber sites as well as other sites that may be eligible for removal actions.

Regional concerns have been raised regarding the need to better define the term "NPL caliber sites." The Regions have been encouraged to begin RIs at prospective NPL sites as soon as they identify them rather than waiting until a site has been proposed for the NPL. Some Regions have expressed concerns about the risks involved. We recognize that this approach carries some

risk that the site will not score above 28.5 on the Hazard Ranking System (HRS). The Regions clearly want to avoid spending considerable resources and time preparing HRS packages and starting RI/FS's on sites that do not deserve priority remedial action.

There are, moreover, some basic constraints that the Agency will always face in selecting priority sites:

• PA/SIs and the HRS are screening processes designed to make decisions on thousands of potential sites each year, based on limited data, to save assessment costs. In dealing with such large numbers, the potential for false positives (sites that initially appear to qualify for the NPL but, upon further review, do not) cannot be totally avoided.

• NPL listing is a legal process that entails comment and potential legal challenge. Interested parties have the right to present data during the comment period to refute the site score. In some instances, this new information may result in a conclusion that the site does not qualify for the NPL.

Given these constraints, EPA can still take action to better define priority sites and reduce the number of potential false positives. While it is not possible to eliminate the risk of false positives, we can reduce those risks to acceptable levels.

IMPLEMENTATION: ACTIONS TO BETTER DEFINE NPL CALIBER SITES

We have previously issued guidance ("Guidance on Setting Priorities for NPL Candidate Sites," OSWER Directive 9203.1, October 28, 1992) encouraging Regions to set priorities for screening among the worst sites for NPL listing. Regions should be assessing their CERCLIS inventory of sites to identify those posing the greatest present and potential threats, and therefore most deserving the time, resources, and priority involved in NPL listing. Such priority screening should result in NPL packages more likely to score above the cut-off score and should identify sites posing the greatest health and ecological risks.

In addition, the fact sheet "Assessing Sites Under SACM -- Interim Guidance" (OSWER Directive 9203.1-05I, Vol. 1 No. 4 December 1992) offers examples of NPL caliber sites. Those examples include sites where:

- Public drinking water supplies are contaminated with a hazardous substance
- Private wells are contaminated with a hazardous substance above a health-based benchmark
- Soils on school, daycare center, or residential properties are contaminated by a hazardous substance above background levels

- A hazardous substance is detected above background in an off-site air release in a populated area.

- A highly toxic substance known to bioaccumulate (e.g., PCBs, mercury, dioxin, PAHs) is discharged into surface waters.
- Sensitive environments (e.g., critical habitats for endangered species) are contaminated with a hazardous substance above background levels.

Some percentage of sites that have those characteristics will, upon review, not score above 28.5 due to the small number of targets, small waste quantity, etc. Expressed in general terms, sites where significant human exposures to hazardous substances have been documented or where sensitive environments have become contaminated should be considered NPL caliber sites.

A preliminary evaluation should be performed to determine whether significant human or environmental exposure is likely, and thus a score of 28.5 would result. If the results of this preliminary evaluation show that the score will only marginally exceed 28.5, the Region should confirm the adequacy of scoring data. If additional information is required, this information could be requested from the PRP or obtained from other sources. If any additional information on the type of contamination, its constituents, pathway and transport characteristics, or other factors is determined to be appropriate, it should be provided to the RDT for use in confirming the importance of the site.

The RDT will review all potential NPL sites to ensure appropriate data are gathered to support the HRS package, as well as for use in preparing the risk assessment and determining the need for long-term remediation. Once the data have been gathered, the RDT will ensure the site is one of the priority "worst sites" in the Region before submitting the NPL package to Headquarters or initiating a response action. For setting Regional priorities, the RDT can consider concentrations of hazardous substances, risk assessment information where available, human exposure or potential exposure, States' priorities, environmental equity and other community concerns. The RDT should ensure that the priority setting approach set forth in the "Guidance on Setting Priorities for NPL Candidate Sites" is followed. The attached flow chart on integrated assessments depicts the role of the RDT and the various checks built into the assessment process.

The following actions should also help us to focus our efforts on the highest priority NPL sites in the future:

- For those SACM pilot sites where the scores were found to be lower than the Regions had expected, Headquarters (HQ) will work with the Regions to evaluate what caused the problem - i.e.

what changed from the early priority determination to the later listing issues. Changing chemical toxicity/characteristics during package development is an example of such a problem. HQ recommends that the Regions develop draft HRS scores based on several of the worst chemicals present. This would support both having a worst site as well as likelihood of scoring above 28.5 in the NPL package. The Regions should also recognize the risks of basing an HRS package on a single substance.

• Several Regions (e.g. Region IV, VIII, and X) have developed and implemented Regional geographical information systems to correlate data on aquifers, populations, sensitive environments, etc. This helps them screen sites for priority assessments. This should be a fruitful area for cross-Regional cooperation in how to incorporate environmental, geophysical, and population data to better screen for worst sites likely to be placed on the NPL.

• Actual environmental contamination receives higher weight in scoring than potential contamination under the revised HRS. Since this puts priority on sampling and analysis results, Regions should coordinate chemical analysis and sampling among all the potential data users and do this early in the process. The Delivery of Analytical Services (DAS) focus on a customer service function for analytical services will greatly assist in guiding the screening process to those sites with definitive data on contaminated pathways.

• SACM calls for an integrated assessment process, and we have established HQ-Regional work groups for that purpose. One workgroup is considering data quality needs of the assessment, removal, and remedial processes. We will issue fact sheets later this year to allow a better common understanding and common use of data to support SACM implementation in FY 94. This should encourage integrated decision-making, emphasis on worst sites, and the ability to support either early or long-term response action.

• Cross-training of site assessment and removal staff is also critical in promoting a consistent process for screening sites for NPL caliber potential. Region IV has a one day training course on each program to assist this integration. All Regions need to address this need.

CONCLUSION

Our efforts to better define NPL caliber sites are critically dependent on Regional experiences to date and our interaction with our Regional clients. Our national conferences and continuing SACM workgroups should continue to provide us with that interaction.

The major concern addressed here is how EPA will identify the worst sites that are most worthy of either early action or long- term action as part of SACM. Actions to support identifying worst sites include: (1) focus on actual contamination; (2) using more than one chemical for HRS scoring; (3) use of GIS; (4) coordinating analytical data collection; and (5) training across the programs. We should be moving towards the same criteria for worst sites, regardless of whether we use removal or remedial authorities to address them. Our efforts to integrate EE/CA data requirements with HRS/RI/FS data requirements should allow us to pursue both approaches concurrently until we're sure which authority we want to use.

Attachment

ADDRESSEES:

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cc: Tim Fields
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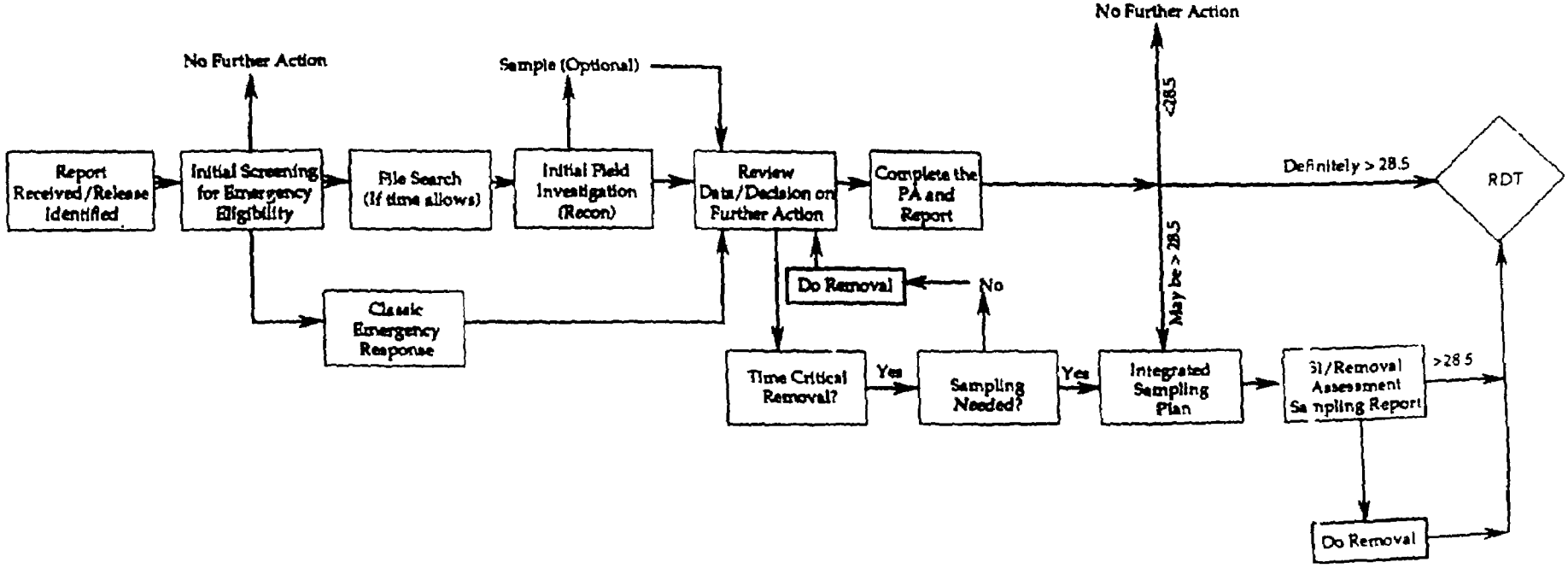
Integrated Assessment