I. Background

In 1993, U.S. Environmental Protection Agency announced the first of three rounds of Superfund Reforms. Each round of Reforms consisted of various initiatives and pilots focusing on changes that EPA could implement within the existing statutory framework of the Superfund program. The Reforms were intended to accomplish various goals, ranging from national programmatic changes to changes affecting individual sites at every stage of the cleanup and enforcement processes.

The first round of Reforms responded to common stakeholder concerns about expediting site cleanups and increasing liability fairness. EPA introduced the second round of Reforms in February 1995. Round two Reforms produced both pilot projects and guidance designed to promote economic redevelopment and innovative technology, enhance public involvement, and

Summary of Key Findings

EPA Regions considered 7 of 11 pilots as successful

EPA oversight was low/medium (consistent with intent of reform) at 80% of pilots

Written agreements are in place for all but one of pilots, though roles, responsibilities and requirements are not as clear as desired

Durations for remedial activities were comparable to EPA's historical experience

States selected a broad range of treatment and containment technologies to address soil and groundwater contamination

No supplemental Community Involvement was required by EPA for any pilot

empower States and tribes. In October 1995, EPA announced the third set of Superfund reform initiatives. The goal of this package of Reforms was to promote cost effective cleanup choices, reduce litigation and transaction costs, and ensure that States and communities are informed and involved in cleanup decisions.

"Pilot Remedy Selection by Selected States and Tribes," otherwise known as the State Remedy Selection Reform, was one of the third round Reforms. The objectives of the reform were to pilot State selection of remedy at certain sites, evaluate these pilots, and publicize the lessons learned from experience at the pilot sites. A decision that the State should lead the remedy selection process was based on site- and State-specific circumstances. This reform effort is part of a broader initiative to enhance the role of States and Tribes in the Superfund program and is intended to build State interest and capability to support more broadly distributed program implementation and work sharing.

The activities conducted under this reform included identifying pilot sites where the State would

select the remedy, gathering information for the purpose of evaluating the pilots, reviewing and analyzing experiences of Regions where States lead the remedy selection, and documenting the lessons learned in the State remedy selection process. The information gathered and the lessons learned will be subsumed under EPA's "Plan to Enhance the Role of States and Tribes in Superfund" workgroup for any further work.

II. Purpose of this Report and Limitations

The purpose of this report is to provide lessons learned through an assessment of regional experiences in State remedy selection. The assessment requested facts and opinions from EPA Regional personnel responsible for managing remedy selection pilots to assess the overall status of pilot projects and seek information regarding the degree of success in State remedy selection for these pilots.

The small sample (11 projects) in this study provided an insufficient basis to draw significant conclusions about the possible outcome of any further program in which States select remedies at NPL sites. However, anecdotal evidence collected during this study suggests that the success of State remedy selection varies among the pilots. EPA Regions should consider future State Remedy Selection projects under appropriate conditions and limits as described later in the findings section of this report.

III. Selection of Pilot Sites

In April 1996, EPA's Office of Emergency and Remedial Response (OERR) requested that EPA Regions identify sites to be considered for the State Remedy Selection pilot. Following the issuance of that memorandum, EPA formed a State Remedy Selection reform workgroup. The workgroup developed pilot selection criteria and evaluation factors, and provided them to the Regions in June, 1997.

Six EPA Regions identified a total of 31 sites (11 pilots) to participate in the State Remedy Selection reform. These sites are shown in Table 1. Note that the South Bay pilot in Region 9 consists of 21 sites in the geographical area south of San Francisco Bay. These sites were handled as a group due to their similar contaminant problems, location within the same geographic region, and a similar time-frame for their discovery.

Table 1

Pilot States and Sites		
EPA Region	State	Pilot Site
Region 1	Connecticut	Barkhamsted-New Hartford Landfill
Region 2	New Jersey	Dayco Corporation/L.E. Carpenter
		Hercules, Inc.
	New York	Onondaga Lake
Region 6	Oklahoma	Blackwell Zinc
		National Zinc
	New Mexico	Terrero Mine
Region 7	Kansas	Fourth and Carey
		Obee Road
Region 9	California	South Bay Sites
Region 10	Oregon	McCormick and Baxter Creosoting

IV. Evaluation Process

To evaluate the State Remedy Selection process, EPA identified key areas of the reform on which it wanted regional feedback. OERR prepared a questionnaire to gather information on EPA's oversight, types of agreements adopted for the pilot, the use of EPA regulations and guidance, the extent of community involvement, and lessons learned during the pilots. This survey included background information on the site, including site size, contaminants, current pipeline action, RI/FS lead, selected remedy, and time/cost information. The questionnaire was forwarded to a representative from each EPA Region participating in the pilot. These representatives were then interviewed based on the questionnaire, and their responses were noted.

V. Site Characteristics and Project Administration

The information below summarizes key characteristics of the 31 sites selected for the State Remedy Selection reform.

A. NPL Status

One of the site selection factors was whether the site is on the NPL or could be listed on the NPL. The majority of the pilot sites (22 sites, or 71 percent) were final or proposed to the NPL prior to the beginning of the pilot. Nine sites (29 percent) were not on the NPL.

B. Lead

At all 31 sites, the State, rather than EPA, had a lead role during the RI/FS stage. At 29 of the sites (94 percent), the potentially responsible party (PRP) performed the RI/FS under State direction. At the remaining two sites, the State managed the RI/FS. Regional personnel indicated that the cooperation of PRPs during the RI/FS was among the most important factors contributing to the success of the reform.

C. Types of Agreements

EPA and the States used three types of agreements to define the roles and responsibilities and the conditions for participating in the State Remedy Selection pilot. EPA and the States negotiated Memoranda of Agreement at five sites. EPA and the States signed cooperative agreements that covered activities under four pilots, including the 21 South Bay sites which were addressed under one multi-site cooperative agreement. An enforcement agreement was used at one site. EPA and the State did not sign an agreement at one site where the PRPs are doing the work under State direction. Both EPA and the State will write remedy decision documents for this site.

D. EPA Oversight

EPA's oversight was considered "low" if EPA only reviewed final documents and attended meetings at the State's request. Oversight was considered "medium," if EPA reviewed drafts of major deliverables and participated in key meetings held by the State. Oversight was considered "high," if EPA reviewed all deliverables, concurred on acceptability, and assisted in ROD preparation.

Most Regional personnel reported either a low or medium level of EPA oversight during their pilot (9 of 11 pilots). Oversight for the pilot sites was less than the oversight typically provided for traditional State-lead sites where EPA selected the remedy.

Only two pilots reported a high level of oversight. At one pilot, EPA oversight was high because the issues at the site were complex. At the other pilot, the PRPs were performing the RI/FS before EPA's guidance was final; as a consequence, EPA oversight was high during the remedy selection phase.

Regions reported that at four pilots, EPA oversight decreased over time, as the State gained

experience and EPA gained confidence that the cleanup at the site was proceeding on track. At one site, EPA increased its oversight because the proposed plan was not fully consistent with CERCLA and the NCP. Subsequent coordination with the State ensured that the PRP was in compliance with the RD/RA order, and the action is now consistent with EPA requirements.

Oversight also differed by activity at the site, often depending on the State's experience with a particular activity. At one site, for example, EPA provided more oversight during the design of the remedy than during construction. Overall, the amount of EPA oversight provided was based on site- or State-specific needs, although no clear trend was evident throughout or among the pilots.

E. Community Involvement

At five of the 11 pilots, the Regions reported a medium level of community involvement. Three sites reported high and three sites reported low levels of community involvement. High levels were largely the result of controversy at the site, whether it was related to the cost of cleanup or the cooperativeness of the PRPs. In general, community involvement was high because of site-specific conditions and not because the State was selecting the remedy.

In some cases, the level of community involvement changed during the course of the pilot. In most cases, the community was more involved during the remedy selection phase and less involved during the design and construction phases.

EPA generally adjusted its level of involvement with the community to suit site-specific conditions. If community interest was high, EPA stayed more involved and active at the site. During the pilot program, none of the Regions had to conduct additional community involvement activities to fulfill the requirements of the NCP. In general, involving the community in the decision-making process made the pilot more successful.

F. Durations

The majority of RD and RA projects were complete in under two years. These durations are roughly comparable to the duration of remedial activities conducted by EPA at NPL sites.

G. Remedy Selection

At a majority of sites the selected remedy addressed soil and groundwater contamination, although sediment contamination was also a problem at several sites. In some cases, a site had more than one operable unit, and each operable unit addressed more than one medium during the remedy selection process..

VI. Findings

When asked to rate the level of success of the pilot, regional personnel at seven of the 11 pilots (64 percent) reported that the State Remedy Selection pilot was "Successful" or "Highly Successful". Note that in the analysis of the findings, the South Bay sites are presented as one pilot.

The Regions identified the following factors as keys to the success:

- Cooperative and financially viable PRPs (3 pilots);
- Good working relationships between the PRPs and the State (3 pilots) and between the States and EPA (2 pilots); and
- Regions generally considered the pilots to be successful if the States were capable of undertaking the action and either knew, or quickly learned, the Superfund program, performed the cleanup at a reasonable pace, and maintained a good flow of communication with EPA.

Regional personnel managing four of the pilots rated them "Somewhat Successful." One Region reported that the biggest problem was inconsistencies between State and Federal requirements; at two sites, the State originally signed a ROD that was not entirely consistent with CERCLA and the NCP. At both these sites EPA oversight increased and both sites achieved consistency. Another Region reported that while the State took early action at the site, the remedy took longer to construct under the State's direction than expected by the Region.

During the evaluation interviews, regional personnel generally agreed that a formal agreement between EPA and the State was one of the keys to success. However, the presence of a formal agreement did not eliminate all the issues associated with remedy selection. At a number of pilot sites, the roles, responsibilities, and requirements that apply to the selection of the remedy were not clearly defined in the agreement. As a result, EPA has learned that agreements between EPA and States need to be clear to ensure that remedies selected are consistent with Federal requirements, and that EPA concurs in the selected remedy.

VII. Lessons Learned

The foregoing analysis of the pilots led to the following recommendations and actions which should be considered during future efforts on the State remedy selection:

• EPA Regions should perform an analysis of State laws, regulations, and guidance, and identify areas where there may be inconsistencies with Federal requirements and guidance before entering into agreements for state remedy selection. Resolving inconsistencies is particularly important when they may result in CERCLA or NCP requirements not being met for a specific cleanup action.

- EPA has entered into memoranda of agreement (MOA) with States on the use of their Voluntary Cleanup Programs (VCP) to address the cleanup of sites not on the NPL. This report is not intended to affect the current policies of EPA as they relate to VCP memoranda of agreement.
- EPA and the State should identify specific roles and responsibilities, levels of EPA oversight needed, the desired level of community involvement activities the State will conduct, requirements for a CERCLA-equivalent cleanup, and planned use of EPA guidance on remedy selection.
- EPA should concur on the Record of Decision in coordination with State officials, and consistent with the NCP, to reduce complications during the deletion process.
- EPA Regions should consider a higher level of involvement during early planning and scoping efforts, and during ROD development. As the State begins the RI/FS and remedy selection process, higher EPA involvement and oversight helps to build State capability and increases EPA's confidence in the protectiveness of the remedy selected. EPA and the State should outline oversight responsibilities in the agreement. When the State has substantial CERCLA experience, the anticipated remedy is not complex, or when a State has a proven track record of successful Superfund cleanups, lower levels of oversight may be appropriate.

VIII. Recommendations

Based on the findings and the lessons learned in the remedy selection pilots, the State Remedy Selection reform provides valuable information on the State remedy selection approach and implementation. Though the number of participants in the pilot program was small, an important finding is that States were able to successfully take the lead role for many of the pilots. OERR recommends that EPA Regions continue to seek further opportunities to enter into agreements with States authorizing them to select remedies at appropriate sites. Because EPA will take further action under this State remedy selection administrative reform through EPA's "Plan to Enhance the Role of States and Tribes in Superfund," the Agency may use the process provided in that plan to evaluate further State remedy selection candidates. The experiences of the Regions and States that participated in the reform will be valuable in the ongoing and future efforts to expand the State role in the remedy selection effort.

IX. Contact

For more information on the State Remedy Selection reform, the evaluation process, and this report, please contact Kirby Biggs: (703) 308-8506, e-mail: Biggs.Kirby @ EPA.GOV