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Report to Congressional Requesters

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SUPERFUND

EPA's Community Relations Efforts Could Be More Effective

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Resources, Community, and
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The Honorable Frank R. Lautenberg
Chairman, Subcommittee on Superfund,
Recycling, and Solid Waste Management
Committee on Environment and Public
Works
United States Senate

The Honorable Louis Stokes
Chairman, Subcommittee on VA, HUD,
and Independent Agencies
Committee on Appropriations
House of Representatives

The Honorable Jim Chapman
House of Representatives

The primary mission of Superfund, the Environmental Protection Agency's (EPA) program to clean up the nation's most hazardous waste sites, is to protect human health and the environment. However, EPA is also responsible for providing information to residents who live near these sites and involving them in cleanup decisions. In 1986, the Congress formally recognized the importance of the public's input by amending the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund) to require EPA to conduct specific community relations activities, such as public meetings and comment periods, during Superfund cleanups. The agency was also authorized to provide technical assistance grants (TAG) to communities to enable them to participate more fully in cleanup decisions.

In response to your concerns about whether communities are adequately involved in decisions about their local Superfund sites, this report discusses EPA's efforts to give communities a voice in decision-making. You asked that we (1) provide background on the Superfund program's requirements for community relations activities, (2) review the extent to which EPA is fulfilling these requirements, and (3) ascertain community residents' feelings about the adequacy of EPA's efforts.

Results in Brief

Although EPA performed the community relations activities required by the law, many residents with whom we spoke were not satisfied. For sites we

reviewed, EPA provided the statutorily mandated public notices and opportunities for public comment, held meetings, and made information available in locations accessible to the public. In addition, as required by its regulations EPA usually informed residents of the availability of technical assistance grants. In some cases, EPA exceeded the requirements of the law by holding extra meetings, providing bilingual documents, and meeting with families individually. However, given the concerns about health and property values around Superfund sites, achieving consensus about cleanup decisions may be difficult, and EPA may not be able to earn the public's trust even with the best intentions and community relations outreach. In spite of EPA's efforts, most residents we contacted near eight Superfund sites we visited were frustrated because they believed EPA

- undertook its outreach efforts too late or did not involve enough of the affected community members throughout the cleanup process,
- did not listen to residents' input or adequately involve community members in decisions about cleanups in their communities,
- provided information repositories (places where the public has open and convenient access to key documents on a Superfund site) that were not as useful and accessible as they could be,
- did not use the most effective media for disseminating public notices and did not communicate technical information effectively, and
- had experienced high staff turnover, resulting in a lack of continuity and knowledge about sites.

Background, Scope, and Methodology

CERCLA gave EPA the authority and funding to clean up hazardous sites that threaten human health and the environment, and Superfund was reauthorized by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Authorization for the Superfund program has totaled $15.2 billion. Superfund's authorization expires in 1994, and the administration's bill now under consideration proposes changes that will affect many aspects of the program, including community relations.

EPA learns of potentially hazardous sites from state and local officials and the general public. After investigating these sites, EPA places the worst ones on the National Priorities List (NPL) for Superfund cleanup. As of September 30, 1993, the NPL included 1,320 sites. Inclusion on the NPL triggers key Superfund community relations requirements, for such things as public notices and meetings, opportunities for the public to comment on proposed cleanup remedies, and fact sheets to provide information about the site and its cleanup.

We performed our work at EPA headquarters in Washington, D.C., and Regions II (New York), V (Chicago), VI (Dallas), and IX (San Francisco). Regions II and V have the highest number of Superfund sites. In addition to reviewing pertinent laws and regulations, we interviewed community relations officials from EPA headquarters and all 10 regions. We also reviewed files at 15 site information repositories to determine if they contained required documentation on key community relations activities. To assess how community residents view EPA's community relations efforts for sites undergoing remedial cleanup actions, we met with 65 residents living near eight Superfund sites. We first met with groups of residents at three sites in New Jersey. We also held five focus groups, or structured meetings in which participants responded to questions about EPA's community relations efforts, for selected residents at five Superfund sites in the other EPA regions and interviewed other residents individually at these sites. Where possible, at all eight sites we visited, we also interviewed local officials and the parties responsible for conducting the cleanup. We conducted our review between January 1993 and February 1994 in accordance with generally accepted government auditing standards.

EPA Must Provide for Public Input at Most Stages in Superfund Cleanups

To foster opportunities for public involvement in cleanups, the Congress included in SARA minimum requirements for public participation at Superfund sites undergoing remedial cleanup actions. An EPA regulation, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), implements these requirements and specifies how and when the agency will conduct Superfund community relations activities for Superfund sites undergoing both removal actions and more extensive remedial actions.

EPA's community relations handbook, updated in January 1992, includes the public participation requirements in SARA and the NCP, as well as EPA's community relations policies issued since 1983. It also suggests techniques that regional staff can use to supplement the basic requirements. The handbook sets forth the agency's overall community relations objectives: to allow the public to comment on and provide input to technical decisions, to inform the public of planned and ongoing actions, and to identify concerns so that the communities' needs can be better addressed and conflicts can be resolved.

Before beginning the cleanup of a site, EPA requires an in-depth study assessing the contamination at the site, estimating the risks posed to the

surrounding community and environment, and evaluating alternatives for treating or containing the waste. However, prior to the study, the NCP requires EPA to (1) develop a community relations plan describing a community's information needs and outlining activities to meet these needs and (2) identify local officials and interested parties.

SARA authorizes EPA to provide grants of up to $50,000—TAGS—to allow groups affected by a Superfund site to hire experts to help them understand technical information about the site. Under the NCP, EPA is to notify the community about the availability of these grants. SARA also requires EPA to establish an information repository where the public has open and convenient access to key documents on the Superfund site. Finally, EPA must (1) issue public notices in a major local newspaper about planned and final cleanup activities and (2) notify the public about the existence of the information repository.

SARA provides opportunities for public participation when both the proposed and final cleanup plans for a site become available. For the proposed cleanup plan, EPA must provide a reasonable opportunity for public comment, announced by a public notice in a major local newspaper, and a public meeting. A transcript of the public meeting must be made available in the information repository. The final cleanup plan must include a summary of EPA's responses to the comments and questions received as well as a written explanation of any major changes to the proposed plan.

Once EPA has selected the cleanup remedy and completed the design, including technical drawings and specifications, under the NCP it must issue a fact sheet explaining the design. If appropriate, EPA must also hold a public briefing before starting the cleanup—if the cleanup involves burning contaminated soil on-site, for example. Neither SARA nor the NCP requires any community relations efforts during the cleanup design, site cleanup, or ongoing operations and maintenance activities at the site once long-term cleanup has begun. Some maintenance activities go on for a very long or indefinite period of time; for example, groundwater pumping and treatment systems may operate indefinitely and require continuing inspection.

Although EPA headquarters provides regions with guidance on community relations activities, implementation is left to community relations coordinators in the regions. As of February 1994, EPA had three staff members in headquarters providing oversight and developing policy for

the Community Relations Program and about 80 regional coordinators. In some regions, coordinators manage community relations at 20-30 sites, although the work load has been as high as 42 sites. EPA may also delegate community relations responsibilities to the states or responsible parties performing the cleanup. However, EPA is responsible for overseeing their activities.

EPA Met Most Community Relations Requirements

EPA performed the community relations activities required by statute and in some instances made additional efforts. At each of the eight sites where we met with residents, EPA conducted outreach as part of its initial involvement with communities and developed the community relations plan required by its regulations before beginning the site study. For each of the 15 sites reviewed, EPA provided the mandated opportunities for public comment and meetings to discuss the proposed cleanup and also established an information repository in a public library. EPA also published the required public notices announcing its proposed cleanup plans and comment periods in major newspapers and provided other written information such as fact sheets about the cleanup.

In some instances, however, EPA's community relations activities were not performed as effectively as they could have been. For example, EPA did not always contact all nearby residents when early site activities began or include them on the original mailing lists. EPA awarded TAGs to communities to hire experts to help them understand technical information at 2 of the 15 sites reviewed and provided information about TAGs at 9 of these sites. However, the agency could not provide evidence that it had notified residents about the grants at four of these sites as the NCP requires. Furthermore, most of the information repositories that we visited were missing key documents, including community relations plans, information on TAGs, and transcripts of public meetings. We were not able to determine whether the missing documents had not been included by EPA or had been removed by patrons. During our visits to these repositories, we also observed that some of them were cluttered with materials and that documents were stored in boxes making it difficult to find information. While EPA relies on librarians or others to maintain the repositories, the agency is ultimately responsible for them. Finally, although EPA's guidance suggests that public notices be designed to attract attention and displayed in the most widely read section of the newspaper, we had trouble finding some notices because they were in fine print and not prominently displayed.

In other instances, EPA's community relations efforts exceeded the requirements of the law. For example, at the South Bay asbestos site in Alviso, California, EPA conducted public meetings and provided fact sheets in both English and Spanish to ensure that the entire community could participate. (See app. I for more information about the South Bay asbestos site.) Additionally, at the Montclair/West Orange radium site in Essex County, New Jersey, EPA tried to improve communication with local residents by having key EPA staff available at an office in Montclair four days each week. (For more information on the Montclair/West Orange site, see app. II.)

Residents Are Dissatisfied With EPA's Community Relations Efforts

Even when EPA went beyond the minimum requirements for community relations activities, residents were not necessarily satisfied. Many of the 65 community residents with whom we spoke at eight Superfund sites were generally dissatisfied with EPA's efforts. Residents' comments included the following complaints:

- EPA's outreach efforts did not occur early enough and did not reach everyone.
- EPA did not adequately consider residents' health concerns and preferences when selecting remedies.
- The information repositories were not always useful because they contained too much material or were incomplete, too far away, or difficult to use.
- EPA's printed materials used technical language that made them hard to understand.
- Once site cleanup actually began, residents did not receive updated information, and their concerns and questions about the ongoing cleanup remained unanswered.
- The high level of EPA staff turnover made it difficult for residents to know whom to contact and resulted in a lack of program continuity and staff knowledge about sites.

Early and Thorough Outreach Was Lacking

EPA conducted outreach activities as part of its initial involvement with communities, but residents and local officials we spoke with at several sites believe these efforts did not occur early enough and were not thorough enough. For example, at the Ewan Property Dump in Florence Township, New Jersey, fire officials threatened not to respond to site emergencies because EPA had not provided information about site contamination and activities. (For more information on the Ewan site, see

app. III.) Moreover, EPA did not always contact all nearby residents when early site activities began or include them on the original 1988 mailing lists. At the Texarkana Wood Preserving Company site in Texarkana, Texas, EPA did not contact residents of adjacent Texarkana, Arkansas, during its initial outreach efforts. Nor did EPA include Arkansas residents on its initial mailing list, even though some lived within a mile of the site. The agency included more of the Arkansas residents and added them to the mailing list when it was updated in 1992. (App. IV presents more information on the Texarkana site.)

In addition, many residents we met with had trouble obtaining information on TAGs that could be used to hire experts to help residents understand technical information. For example, residents at the Tri-County Landfill in South Elgin, Illinois, asked us to give them any information we might have on the grants because they were unable to obtain the information from EPA. (App. V contains information on the Tri-County site.) The director of the group that received a grant for the South Bay asbestos site in Alviso, California, said he found out about the grant from a local environmental group, not from EPA. He also complained about the long and frustrating application process and the requirement that costs first be incurred and then submitted to EPA for eventual reimbursement.[1]

EPA headquarters officials in charge of TAGs said that the grant application form and accompanying guidance for applicants have been revised and should be available soon.

The EPA Administrator and others have recognized that many communities near Superfund sites have not been given the opportunity to participate fully in the Superfund process. Community relations coordinators with whom we spoke at their national meeting in February 1994 agreed that outreach should occur earlier and more often at Superfund sites. However, they said that even current outreach efforts strain available program resources. They also noted that public involvement is currently designed to begin when a site is listed on the NPL, which is not early enough. Because many public concerns arise while the site is being investigated for possible inclusion on the NPL, the need for earlier and more extensive public involvement in the Superfund process has been a recurrent theme at meetings with representatives from industry, state and local governments, and communities.

[1]Our November 1992 testimony on TAGs identified requirements that made it difficult for communities to receive and use grants and discussed the small number of grants awarded: EPA's Superfund TAG Program: Grants Benefit Citizens but Administrative Barriers Remain (GAO/T-RCED-93-1, Nov. 10, 1992).

The Superfund reform bill proposed in February 1994 provides for community involvement in the cleanup process from the time a site is identified through cleanup. The proposed bill would (1) establish community working groups as a representative public forum to provide direct, regular, and meaningful input to EPA's decisions about the site and (2) fund offices in each state and on each tribal land affected by a Superfund site to provide citizens and elected officials with information about the site and the Superfund process. Although the bill should help to address communities' concerns, it is obviously too early to tell what overall impact the proposed changes might have.

Residents Believe EPA Does Not Consider Their Input

As mandated by law, EPA has provided opportunities for public comment and meetings to discuss the proposed cleanups, but many residents we met with believe their input was not considered. For example, residents at the South Bay asbestos site said that although they repeatedly told EPA that children played on the contaminated levee, it took years to get a fence and warning signs put up. Residents there also said they have told EPA that the street sweeper kicks up clouds of dust, although it is supposed to be wet-sweeping to control asbestos-contaminated dust. We observed that the street sweeper dampened the street but still generated dust clouds; children following the sweeper were enveloped in these clouds.

Residents we met with at several sites believe that EPA had already made decisions about sites before obtaining their input. For example, at the Texarkana Wood Preserving site, several residents said that EPA had already identified incineration as the remedy when the proposed plan was released. Residents felt that nothing could be done to change EPA's decision and that their input was ignored.

However, according to EPA officials, the agency has changed remedies as a result of community input. Community relations coordinators and EPA headquarters officials also told us communities' receptiveness to site remedies varies. Some communities have accepted controversial remedies, such as incineration; in other communities, even extensive community relations efforts have not gained residents' acceptance of incineration. For example, at the Brio Refining, Inc., site in Houston, Texas, residents opposed the use of incineration as the cleanup remedy. (For more information on the Brio site, see app. VI.)

Information Repositories Are Not Always Useful to Residents

EPA established information repositories in public libraries for all of the 15 sites that we reviewed, but individual residents complained that the repositories were not conveniently located or easy to use. To be most useful to the affected community, an information repository must be near the Superfund site. We found that the location of the repositories ranged from several yards to over 5 miles from the affected community. Residents in Indianapolis, Indiana, complained that the repository for the Reilly Tar and Chemical Company site, located 5 miles from the site, was not convenient and could have been moved when a new public library was built only a few blocks away from the site. (App. VII contains more information about the Reilly site.)

Residents we met with also complained that the large amounts of information contained in the repositories make them difficult to use. Most of the repositories we visited consisted of binders and folders; the Brio site repository included 115 binders. Other repositories included a mix of microfilm rolls or microfiche cards and binders. The Texarkana site repository consisted mainly of microfiche cards, each containing 20-30 pages of text. The cost to photocopy each page was 25 cents. Residents living near this site and two other sites complained about the high photocopying costs.

Community relations coordinators we interviewed said that other Superfund repositories have similar problems. Coordinators have complained at their national meetings that finding locations for repositories is difficult because EPA offers no financial or other incentives to libraries and other groups for housing the documents. Two coordinators agreed that repositories are housed too far from residents or in inadequate locations. One coordinator said that EPA had to purchase shelving for the host library to house site documents. Several coordinators also agreed that once the repositories are established, they do not have enough time and resources to check repositories as frequently as they would like.

Information EPA Provides Is Overly Technical

A number of residents we spoke with at the eight sites complained about the information provided to the community. For example, some said that the public notices were hard to find and suggested that they be more prominently displayed and included in free local papers to reach additional residents. Representatives of the party responsible for cleaning up the site, as well as two residents living near the Reilly Tar and Chemical Company site, thought that EPA should publish notices of public meetings

in the free local newspaper instead of the major Indianapolis newspaper, which they said most residents do not routinely read.

Although the purpose of fact sheets is to inform the public of the status and findings of cleanup actions at Superfund sites, residents we met with at all eight sites said they found the written information about the sites overly technical and hard to understand. Residents we met with at several sites also complained that discussions during public meetings were technically complex and difficult to understand. For example, one resident at the Roebling Steel Company site in Burlington County, New Jersey, said that EPA uses terms, such as "hot spots," that he didn't understand. (App. VIII presents information about the Roebling site.)

To ascertain the approximate educational level required to understand EPA's fact sheets and identify why residents we spoke with find them difficult to understand, we used a computer program to analyze the readability of 20 fact sheets, 2 provided by each of EPA's 10 regions. We found that some college education was needed to understand 16 of them, although a reading level of the 6th to 10th grade is recommended for documents intended for the general public. Given the difficulty of reading these materials, EPA may not be ensuring that all citizens understand the cleanup issues.

We discussed the results of our readability assessment at the national meeting of the Community Relations Coordinators in February 1994, and they were not surprised by our findings. Several said that residents have complained that the fact sheets are too technical but that reviews by EPA legal and technical staff often result in changes that make the fact sheets harder to read. Most coordinators present expressed interest in trying a computerized readability analysis to improve their fact sheets, and one region had already tried using a readability formula in a pilot study.

Even when EPA went beyond the minimum requirements for providing information, many residents we spoke with were not necessarily satisfied with the communication, the remedy selected, or the presence of a Superfund site in their communities. For example, at the South Bay asbestos site, many residents we met with were still concerned about the timing for completing the cleanup and about possible decreases in their property values, even though EPA had provided bilingual information to the community. EPA officials noted that for high-profile or controversial sites, the agency has (1) provided open houses or conducted meetings at which people can talk to agency officials individually, (2) issued flyers and

monthly newsletters, or (3) made public service announcements. In spite of these extra efforts, residents still believe that their input is not considered, the cleanup process is too slow, and health and property values in their community are in jeopardy.

Information Was Not Updated Once Cleanup Began

Several residents said they did not receive ongoing information once cleanup was under way at their sites. For example, at the Montclair/West Orange radium site in Essex County, New Jersey, one resident complained that EPA did not provide information to him while the cleanup was under way because his home is not contaminated. Although he did not have to relocate, the noise and dust from heavy equipment, demolition, and construction activities affected his well-being. (See fig. 1.) EPA could also have allayed the concerns of two residents at the South Bay asbestos site by providing better information during the ongoing site cleanup and removal of the contaminated levee. These residents said they feared that their homes would flood again after the contaminated levee was removed. They were unaware that EPA intended to rebuild the levee with clean soil. EPA's failure to inform them about this aspect of the cleanup created needless anxiety. (See fig. 2.)

Figure 1: Removal of Contaminated Soil From Under Houses in Essex County, New Jersey

Figure 2: Workers Covering Contaminated Levee Soil Being Removed From the South Bay Asbestos Site in Alviso, California

While EPA is not required to conduct any formal community relations activities during the actual site cleanup, EPA officials agreed that such activities are often helpful and necessary. In fact, some EPA officials with whom we spoke said that they continue community outreach during this phase. For example, EPA officials in two regions said that they issue fact sheets to keep the public informed during and at the completion of the remedial action.

High Staff Turnover Makes Community Relations Difficult

The high turnover rate of EPA's community relations and technical staff contributed to residents' frustrations and caused a lack of continuity and staff knowledge about sites. Residents we met with at several sites stated that they were often confused about whom to contact because of staff turnover. A woman living near the Texarkana site said that she had had contact with three different coordinators since activities began at the site. Several residents also complained to us that coordinators and managers of remedial projects were not able to answer their questions. We found similar problems in the course of our review. At three of the sites we visited, coordinators could not answer some of our questions because of the short time they had been associated with the sites.

EPA community relations officials concur that staff turnover has been high in the program. They attribute this turnover to the lack of opportunities for promotion as well as the sometimes stressful situations in dealing with the public. Coordinators and managers told us that they have encountered angry people threatening them, picketing, or blocking site entrances. However, EPA officials said that even with a more stable work force and fewer sites assigned to each coordinator, some cleanup decisions would still be controversial.

Conclusions

Although EPA had, for the most part, carried out the required Superfund community relations activities at the sites we reviewed, residents were still not satisfied with EPA's efforts. The residents we spoke with stressed that EPA needs to reach out earlier to communities and to continue that outreach throughout the cleanup activities. We agree that earlier and more complete community outreach would improve EPA's community relations efforts. In the face of residents' concerns about health and property values around Superfund sites, EPA's best community relations efforts may not earn public trust or result in consensus about cleanup decisions. The need for effective and ongoing communication with community members at Superfund sites will grow more pressing in the next few years as more sites reach cleanup status and/or undergo long-term cleanup procedures that could last indefinitely. Conducting the required outreach activities from the time that EPA first becomes actively involved in investigating a site through completion of the cleanup could help ensure that EPA's community relations goals are met.

We recognize that the heavy work load and turnover of the community relations coordinators hampers EPA's achievements. This dilemma is not likely to be resolved quickly because community relations activities must

compete for scarce Superfund dollars with site cleanup efforts, research into new cleanup technologies, and other program needs. Additional resources would likely be needed to carry out some community relations improvements, such as the increased opportunities for community input requested by residents we interviewed and envisioned in the administration's proposed Superfund bill. Nevertheless, many of the residents' complaints cannot be blamed on the agency's resource constraints. For example, more understandable presentation of technical information in fact sheets and at meetings does not require additional resources. To ensure the maximum benefit from the resources it has for community relations, EPA must aggressively seek communities' input into decisions early and throughout the process; make public notices as accessible as possible; pay more attention to information, concerns, and suggestions offered by residents; and explain in simple language the technical reasons for cleanup decisions, especially at sites where residents are in disagreement.

Recommendations

We recommend that the EPA Administrator direct the agency to take the following actions:

- Include the community in cleanup decisions from the time of EPA's earliest active involvement in a site through completion of the cleanup by requiring public meetings, the creation and updating of mailing lists, and opportunities for public comment.
- Explore ways to ensure that the information repositories are more useful and accessible to the public and maintained in a way so that documents are publicly available.
- Make public notices available to a broader segment of the public by redesigning them to make them more visible in newspapers and printing them in local newspapers where available.
- Assess the benefits of routinely performing readability assessments of fact sheets and other documents intended for the general public to make these documents less technical and accessible to a broader segment of the public.
- Assess the current and future work loads of community relations staff to ensure that the work loads are reasonable and develop a plan to help minimize turnover.

Agency Comments

We discussed a draft of this report with the Chief of the State and Local Coordination Branch, the Chief of the State Involvement Section, the

National TAG Coordinator, and the National Community Relations Coordinator in EPA's Office of Solid Waste and Emergency Response, who generally agreed with the facts presented. We incorporated their suggested revisions where appropriate. EPA also said that any recommendation to expand community involvement activities to such early points as site discovery could create a demand for limited Superfund resources that would be difficult to meet. As requested, we did not obtain written agency comments on the draft report.

As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to the Administrator, EPA. We will also make copies available to others on request.

This work was performed under the direction of Peter F. Guerrero, Director, Environmental Protection Issues, who can be reached on (202) 512-6112 if you or your staff have any questions. Major contributors to this report are listed in appendix X.

Keith O. Fultz
Assistant Comptroller General

Contents

Abbreviations

ATSDR	Agency for Toxic Substances and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	Environmental Protection Agency
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
PCBs	polychlorinated biphenyls
SARA	Superfund Amendments and Reauthorization Act
TAG	technical assistance grant

South Bay Asbestos Site, Alviso, California - Region IX

Background

The South Bay asbestos site includes portions of the 14-square-mile community of Alviso, built on shorelands near San Jose at the southern end of the San Francisco Bay. Tidewater marshes surround Alviso, and tidal waterways separate it from San Jose. Alviso has a long history of flooding, in part as a result of the pumping of groundwater for agricultural purposes, which has caused the land in Alviso to settle to about 3 feet below sea level. The community includes about 2,200 residents, about 85 percent of whom speak Spanish, as well as local industries.

Asbestos, a known human carcinogen, poses the major health risk at this Superfund site. Fill used to raise low-lying areas contained asbestos. Additionally, after major flooding in Alviso in 1983, San Jose had a levee built around Alviso to divert flood waters and provide flood protection. The levee soil included serpentine rock containing naturally occurring asbestos fibers. After California officials discovered asbestos during a routine permit inspection of construction work, the site was listed on the National Priorities List (NPL) in October 1984. San Jose and the construction company that built the levee have been identified as the responsible parties and have agreed to carry out site cleanup.

Cleanup Remedy and Site Status

In 1985, the Environmental Protection Agency (EPA) completed emergency response activities to reduce exposure to asbestos fibers in airborne dust by paving part of the schoolyard and an unpaved road that carries heavy truck traffic. Additionally, a temporary dust suppressant has been sprayed on the levee annually since 1986.

Following the completion of the site study in December 1988, EPA divided the site into two areas for cleanup: (1) the levee and (2) the general site, which included other contaminated parts of the community. The levee cleanup plan called for covering most of the levee with clean soil and native vegetation and capping the rest with a concrete-like substance. After citizens expressed concern about the aesthetics and safety of the capped portion, EPA amended the remedy to use soil and vegetation to cover the entire levee. After negotiations with the responsible parties, EPA amended the cleanup plan again in 1991 to include the eventual removal of the levee, appropriate disposal of the levee material, and restoration of wetlands covered by the levee. Warning signs were also installed along the levee, and a portion across the street from the elementary school was fenced to preclude its use as a shortcut by students walking home from school. In the fall 1993, the levee was removed and replaced with a new levee of clean fill dirt. The cleanup plan for the general site included

paving contaminated yards and wet-sweeping Alviso streets monthly to control dust, imposing inspections and deed restrictions on landfills, and routine site monitoring to ensure protection of public health.

EPA's Community Relations Actions

EPA has completed most of the community relations activities in Alviso, including developing a community relations plan, establishing information repositories, holding public meetings and comment periods, and providing information to the public. In March 1993, EPA revised the community relations plan and noted that many of residents' concerns mentioned in the original November 1986 plan were still relevant. In addition to performing the required activities, EPA translated fact sheets into Spanish and provided simultaneous bilingual interpretation for meetings with residents. EPA also conducted an education program through the elementary school, staffing an information booth at a PTA meeting and using assemblies and student information packets to warn children and their parents of the dangers of playing on the levee. Finally, EPA established a toll-free number for residents to contact the agency and extended comment periods to provide residents with additional time to make their views known.

On June 22, 1992, EPA awarded a $50,000 technical assistance grant (TAG) to the Organización de la Comunidad de Alviso to hire independent technical advisers to help citizens understand and comment on technical factors in cleanup decisions that affect the community.

Residents' Concerns and Suggestions

Although EPA has generally completed the required community relations activities and undertaken additional ones, the nine residents and two business owners with whom we spoke were generally frustrated by EPA's lack of responsiveness and the highly technical nature of the information that EPA provided. Several residents expressed concern about the possible health effects of asbestos, slow pace of the cleanup, and impact of the site's designation as a Superfund site on property values.

These residents said that EPA staff mean well but don't listen to suggestions from the community. To decrease dust, one resident asked for signs barring trucks from using Alviso as a shortcut to the local landfill, but instead got warning signs on the levee. The residents we talked with were also concerned about asbestos dust in their homes; one said that EPA has refused to test this dust. Furthermore, two residents said they have told EPA about holes in the levee as a result of squirrels digging, and one added that spraying the levee for dust control is ineffective because the

local squirrels start digging holes before EPA has even finished spraying. One resident also said that EPA has done nothing about street sweepers' dumping dust in piles at the edge of the marshland, from where it blows back into the community. Another resident said she has also notified EPA staff about possible environmental violations by some businesses in the community, but that they were not interested. According to these residents, their complaints to EPA and San Jose are not listened to.

Several residents with whom we spoke raised questions about the responsiveness of EPA staff. While EPA staff visit about once a year, residents said that little has happened with the site cleanup until recently. The director of the TAG group suggested that more frequent contact with residents would be helpful. Furthermore, one resident said that staff turnover has caused problems because EPA staff give different answers to questions. Both residents and business owners complained that EPA staff have not returned their phone calls or responded to their requests for information. For example, one resident said that after he repeatedly asked EPA to send him the results of asbestos sampling performed on his family's property, he has hired an attorney to help him obtain the information but still doesn't have it.

These residents voiced a number of health and other concerns about the levee removal, which was occurring at the time of our visit. They said that over the years, EPA had told them to take precautions, such as wet-mopping the inside and hosing down the outside of their homes to avoid contact with asbestos. However, they were confused because EPA said they didn't need to close doors and windows or stay indoors during the levee removal. One resident noted that workers were dressed in moonsuits, but that children played and residents watched the removal just across the street with no protection. Two other residents we interviewed were fearful about the removal of the levee because of the approaching rainy season and the possiblity of flooding without the levee. They were unaware that the levee was being replaced with clean fill until we explained this to them.

The residents we met with said that EPA has provided a lot of information but that much of it, including the fact sheets, is too technical and is therefore hard for many of them to understand. The fact sheets about the site are also sometimes outdated. For example, one resident said that the fact sheets given out at a school ice cream social were about 6 months old. Two residents suggested that fact sheets would be helpful if they were less technical and issued more frequently. Some residents did, however,

acknowledge the usefulness of EPA's translating documents and meetings for the largely Spanish-speaking population.

EPA established information repositories within the community at the local public library and the Family Health Foundation. The director of the group that holds the TAG and a few residents with whom we spoke had used the repositories, but the director noted that photocopying costs are high. We readily located the documents in the library, although we were unable to find the community relations plan or any information notifying residents about the TAGs. The librarian said that some files were in a shed because of a shortage of space at the one-room library.

Several residents who participated in our focus group and two local business owners expressed concern about an environmental lawsuit filed against local businesses by the group that has the TAG and the Environmental Law Foundation. Some residents said that while they were also concerned about health issues and the businesses, they did not like the divisive effect the lawsuit was having on their community and questioned the extent to which the TAG group informs and represents the community as a whole. Some residents and business owners also raised questions about whether the TAG moneys were being used to help fund the lawsuit against local businesses. We have referred questions raised about the use of TAG moneys's to EPA's Office of Inspector General for review.

Montclair/West Orange Radium Site, Essex County, New Jersey - Region II

Background

The Montclair/West Orange radium site is one of two NPL sites located in suburban Essex County in northeastern New Jersey: 32,000 people live within a mile of the two sites. The site covers approximately 39 acres, and about 350 homes in older, well-established residential neighborhoods. Numerous homes and surrounding areas are contaminated with radioactive wastes.

Many residents have lived in the area for over 30 years, but younger families have moved to the area in search of affordable and convenient housing. The once highly industrialized region has maintained a small, yet diverse, manufacturing and service base. Land use has shifted since the 1950s to include fewer new industries and more residential properties.

In 1979, the New Jersey Department of Environmental Protection began a program to identify and investigate former radium-processing facilities within the state. Concerned about possible off-site disposal of radium by-products and waste material, New Jersey requested that EPA conduct an aerial survey to detect any areas with elevated levels of gamma radiation. EPA's 1981 survey of Essex County identified approximately 53 areas of possible radioactive contamination. After further investigation, New Jersey and EPA identified the three communities of Montclair, West Orange, and Glen Ridge as possibly containing radioactive waste material. New Jersey selected 12 homes for initial cleanup, relocated nine families, and began excavation. Cleanup consisted of removing radioactive soil, which sometimes involved tearing up yards, driveways, and basements. When New Jersey exhausted its cleanup funds after resolving soil disposal problems, it abandoned the project, leaving the cleanup of four homes unfinished. According to an EPA official, three of the four homes eventually had to be demolished. The residents, who had moved out with the promise of being able to return to their homes, were permanently relocated.

According to an EPA official responsible for the site, all credibility within the community was lost by the time the site was returned to EPA for cleanup and community outreach. The angry community residents considered the state and federal governments to be one and the same. During the time when the state was responsible for work at the site, EPA maintained oversight of community relations activities.

Cleanup Remedy and Site Status

As a result of EPA's phased approach for this site, some homes are undergoing cleanup while others are still in the cleanup design phase. EPA has completed construction for the second of five cleanup phases and has

a small amount of restoration remaining for this phase. EPA has linked its community relations activities to activities in progress, such as design efforts, construction of the remedy, the relocation of residents, and the restoration of the houses. The pilot project phase targeted the 4 homes mentioned above plus 10 other properties; the first phase targeted 40 properties in West Orange and Glen Ridge (the nearby site); the second and third phases target an additional 80 and 54 homes, respectively; while the final phases target the remaining approximately 50 contaminated homes in the area. EPA has subcontracted with the U.S. Army Corps of Engineers to oversee the relocation of families and the cleanup.

EPA's Community Relations Actions

According to a 1992 revised community relations plan and the Community Relations Coordinator, EPA has completed the community relations activities in Montclair and West Orange. In addition to developing the community relations plan, EPA has established information repositories, provided information to the public, and held public meetings and comment periods. The plan, which EPA revised for the cleanup design and actual cleanup phases, noted that residents' concerns mentioned in the original plan were still relevant. These concerns included the potential health effects of long-term exposure, dust dispersed during soil removal, and eating garden vegetables; the negative effects on residential property values and the area's tax base; anxieties about soil disposal, temporary relocation, and property damage during cleanup; and a lack of access to information. The plan stated that most concerns about health effects had diminished. According to an EPA official, the agency has gone beyond the mandated community relations activities by meeting with families individually at different phases of the project to discuss site issues, as well as to address each resident's unique concerns.

EPA gives the site high priority and views it as one of its successful community relations sites. In addition, EPA has established a contact office in Montclair to improve communication at the two sites in the area. According to an EPA official, the Community Relations Coordinator and/or the Remedial Project Manager are located on-site four days a week. This EPA official also told us that this on-site office is the only one of its kind that EPA has set up in New Jersey.

Residents' Concerns and Suggestions

We spoke with three West Orange residents who lived on a dead-end street where 10 homes were located. Two of these residents were relocated temporarily during cleanup activities. EPA did not consider the third

resident to be an "affected" citizen since his home was not contaminated and he did not have to relocate. He was upset because although his home was not contaminated, he had to contend with torn up streets and with noise and dust resulting from heavy equipment, street sweepers, and work crews that were placing steel pilings into the ground. He stated that EPA did not notify him about the work that needed to be done until after the fact and provided very vague information. He also said that the contractor performing the work would not provide any answers to his questions. He felt that he had a fair knowledge about the site, but, he said, it was only because he asked for information.

The two other West Orange residents we spoke with felt that although EPA provided their community with an opportunity to provide input to the cleanup decision, the federal government was going to do whatever it wanted no matter what they said. These two residents also felt that EPA had adequately informed them about the extent of contamination. One resident considered the home renovations to be excellent. In general, these residents felt that EPA was very helpful to individuals but not to the community as a whole.

According to the Chairman of the Montclair Radon Task Force, EPA is good about providing information in the form of newsletters. However, in his view, EPA's efforts usually come too late. He also stated that the Corps of Engineers lacks sensitivity and expertise in providing assistance to families to be relocated. He added that high staff turnover within EPA and other government offices involved with the site has been disruptive.

According to the Chairman of the Montclair Radon Task Force, although EPA offered the group a TAG, the task force declined to apply for the grant. The task force believed its members had enough expertise to understand the information EPA provided to the community.

Ewan Property Dump, Burlington County, New Jersey - Region II

Background

Ewan Property Dump is situated over a major source of drinking water. The 43-acre site, located in the New Jersey pinelands, is surrounded by forest, agricultural land, and residential areas. Residential developments are located both north and east of the site. Private wells provide drinking water for about 250 area residences.

In 1982, local residents discovered and reported the site to the Burlington County Health Department and the New Jersey Department of Environmental Protection. The site was investigated by Burlington County in September 1982, by New Jersey in December 1982, and by EPA in September 1984. EPA added the site to the NPL in September 1983 and began the site study in 1985.

EPA concluded that one 4-acre area on the site contained approximately 500 to 8,000 drums of industrial waste that had been buried from 1974 to 1975. Automotive undercoating, paint residues, and other products were buried in trenches and covered with dirt. However, as the ground settled, the drums became exposed. During the December 1982 inspection, officials from New Jersey sampled the exposed drums, and test results showed the presence of heavy metals, volatile organic substances, and polynuclear hydrocarbons. In March 1983, New Jersey directed the property owner to clean up the site. The owner denied knowledge of the dumping and, therefore, would not take responsibility for the cleanup. However, EPA has identified and notified approximately 30 potentially responsible parties. EPA has ordered 17 parties to remove contaminated materials and drums. EPA is overseeing these activities to ensure that they are conducted in accordance with existing laws and regulations.

During the summer of 1983, New Jersey installed five monitoring wells. Analysis of the drum liquids, soil samples, and samples from the monitoring wells showed contamination. New Jersey was concerned that the drums might leak and contaminate the area's sole source of groundwater, so the state requested the immediate removal of the drums in December 1983. However, EPA determined that the site did not meet the requirements for an immediate removal action because there was no immediate health threat.

Since the site was discovered, local residents have actively pursued local, state, and federal help in controlling the problem. Residents living in local developments have held meetings, signed petitions, and written letters to the agencies and to elected officials in an effort to promote government action on the site. Soon after the site's discovery, residents went onto the

site and dug up some drums to try to determine how many were buried there. The residents have also worked with the Coalition Against Toxics, an environmental group.

Cleanup Remedy and Site Status

According to EPA officials, EPA divided the cleanup of the Ewan Property site into two phases. The first phase, which was in remedial design during our spring 1993 visit, addresses the buried drums and the heavily contaminated soil nearby. Activities in this phase include, among other things, providing a buffer zone and constructing an access road and site facilities. At the time of our visit, EPA expected cleanup to begin sometime in April 1993. The second cleanup phase, which is scheduled to begin after the first phase is complete, will address groundwater contamination and less contaminated soil.

EPA's Community Relations Actions

EPA has completed the community relations activities at the site, including developing a community relations plan, establishing an information repository, holding public meetings and comment periods, and providing information to the public. According to the site's April 1985 community relations plan, the residents' primary concern is getting the site cleaned up. The plan also stated that residents believe that the site is a "blight" on their community and that homes have decreased in value by 10 to 15 percent since the site was discovered. Some residents were also concerned about the future quality of drinking water from private wells. Finally, the plan indicated that the residents' more general concerns are knowing how many drums are buried at the site and whether there are any health risks associated with the contaminants found on the site.

Residents' Concerns and Suggestions

Although EPA met the community relations requirements and provided other requested services, residents are still not satisfied with EPA's activities at the site, according to our interviews with seven people in the community. Some of the residents we interviewed feel that EPA operates in a reactive mode; that is, EPA personnel provide information only if residents telephone to complain. Some of the residents we interviewed also feel that there is no one on-site they can approach with their concerns or contact in case of an emergency. Some of these residents said they do not trust EPA and that EPA does not consider their comments and suggestions.

According to township officials, EPA did not initially respond to the township's and community's concerns about the migration of contaminated groundwater, the impact on traffic, and fire safety. The township's solicitor stated that at one point, the township's committee was pressing for legal action because it was concerned about groundwater migration and the impact of trucks on rural traffic. EPA did not talk to the community or the township early in the process to obtain information about their concerns. He also stated that EPA needs to recognize the importance of early community involvement. One local fire official said his department initially resorted to threatening not to respond to site emergencies if EPA did not provide information about site activities and contamination. He added that his relationship with the current EPA staff is good and that he knows what the plans are for the site.

As noted in the community relations plan, residents are still concerned about getting the site cleaned up and the impact of the site on their property values and their ability to sell their homes. Residents stated that they would like for EPA to provide information on a regular basis, preferably quarterly. According to information provided by EPA staff, community residents requested this during a series of public meetings in the fall of 1992. EPA has been providing site information on a quarterly basis since that time.

Three of the residents we spoke with could not recall EPA's providing information on TAGs. One resident stated that she had heard about TAGs from another source and requested the brochure on the grants. In her view, the brochure was not very clear and further explanation was needed. According to EPA's records, the agency informed the community about TAGs during a public meeting in 1989.

According to EPA personnel, their relationship with community residents is very fragile, and they have been working to improve the situation by meeting residents' demands to the extent possible. The residents requested that EPA provide a buffer zone between the residential development and the access road to reduce the noise level caused by trucks going in and out of the site. The residents also requested that EPA build the access road 50 feet from the original road, which currently borders a residential development. However, some of the residents we interviewed do not feel that their suggestions for alternative access roads to the site were taken into consideration. In addition, residents asked EPA to put a fence up between the residential development and the access road used by the trucks to transport hazardous wastes in order to ensure the

safety of children and the public, but the road is still not completely fenced in.

Some of the residents we spoke with also stated that unlike current EPA personnel, past personnel were unresponsive to the community's needs and concerns. Residents noted that past EPA personnel also (1) gave residents the impression that they did not want to be at the public meetings, (2) were not very informative, and (3) did not relate well to the public.

According to EPA officials, the site has also had problems with vandalism and with union picketers protesting the fact that nonunion employees were working at the site.

Texarkana Wood Preserving Company Site, Texarkana, Texas - Region VI

Background

The Texarkana Wood Preserving Company site is located in the extreme northeast corner of Texas, just south of the city limits of Texarkana. Texarkana, the largest city in Bowie County, is located 178 miles east of Dallas on the Texas/Arkansas state line. The Texarkana site has been used for wood preserving operations since the early 1900s. The entire site is located on the 100-year floodplain of Days Creek. About 1,000 people live within a 1-mile radius.

The Texarkana site covers approximately 25 acres and consists of surface holding areas for liquids, processing areas, and former work areas. Low areas that tend to be swampy lie just north of the main processing area and in the southeast corner of the site.

The soil surrounding these areas and the shallow groundwater are contaminated with the wood preserving wastes pentachlorophenol and creosote, as well as with mercury and dioxin. Pentachlorophenol is one of the most heavily used pesticides in the United States. Animal studies indicate that short-term high-level exposure to pentachlorophenol can damage the liver, kidneys, skin, lungs, nervous system, and gastrointestinal tract. Animals exposed to this chemical show an increased risk of cancer. Creosote is primarily made up of polynuclear aromatic hydrocarbons, some of which are considered probable carcinogens.

Cleanup Remedy and Site Status

EPA selected incineration as the remedy to be used to treat contamination in the soil and shallow groundwater at Texarkana. This method will be used to eliminate contaminants from 77,000 cubic yards of soil and 16 million gallons of groundwater. At the time of our meetings with Texarkana and Arkansas officials, the design of the remedy was almost complete.

EPA's Community Relations Actions

EPA has completed most of the community relations activities in Texarkana, including developing a community relations plan, establishing information repositories, holding public meetings and comment periods, and providing information to the public. Although EPA fulfilled these requirements, the 10 residents we spoke with were dissatisfied because they felt they were not made a part of the cleanup process. They said that EPA had not involved them early enough, that mailing lists were incomplete, that the information repository is not easily accessible and/or available, that EPA is unresponsive, and that the selected remedy (incineration) is unacceptable.

The comments that EPA received from residents during the comment period led the agency to believe that the public supported incineration as the remedy but preferred off-site incineration. However, the summary of the public comments on the proposed remedy prepared by EPA states that Texarkana residents thought that incineration would adversely affect the health of those who live in the area.

Residents' Concerns and Suggestions

Although EPA has generally completed the required community relations activities, the residents with whom we spoke were frustrated by EPA's unresponsive behavior and lack of outreach. These residents distrust EPA, believe they were not involved early enough in the cleanup process, and worry that incineration may endanger their health.

The residents we spoke with thought that EPA did not conduct early and thorough outreach when beginning community relations activities at this site in 1988. The Arkansas residents noted that EPA did not contact them during its initial outreach efforts even though site activities would also affect them. Three residents said that they had personally canvassed their area to determine how many people knew about site-related activity and found that most people and institutions—such as an elementary school, churches, and a day care center—had not been informed. The residents sent EPA a list with the names of approximately 2,000 individuals who live near the site, but they still did not receive any information. EPA added the names to the updated mailing list in 1992.

According to these residents, their complaints led the Arkansas Attorney General to file a complaint arguing that EPA had violated certain community relations requirements by failing to (1) notify Arkansas state officials and residents and (2) conduct a study that adequately assessed the proposed remedy of incineration. This suit was dismissed in 1993 because the parties agreed to resolve their dispute out of court. Incineration has not yet begun at the site.

The residents also complained that the repository is located in the genealogy section of the public library, a heavily used section. They believe that the library does not have the space or the staff to maintain the repository. For example, the residents told us that envelopes and packages of information on the site that are shipped to the library are not filed, but remain on the shelves. Some of these residents said they had spent thousands of dollars in telephone calls, time, labor, and research at the library just trying to keep up with technical information. Some of the

residents said that documents are all mixed up and that no one in the library has any idea where anything is.

During our review, we found the Texarkana repository overwhelming. We counted 62 microfiche cards related to EPA's decision to use incineration alone; another shelf was full of microfiche cards on other related site documents. Each microfiche card could contain 20-30 pages of text. The library has two microfiche viewers, but only one has photocopying capability. The charge is 25 cents per page to make a photocopy.

Most of the residents we spoke with stated that they believe that emissions from the on-site incinerator will somehow harm their health. Residents stated that in this area, the winds blow to a greater degree towards Arkansas. Some of these residents believe that they have already been affected by the site, and they are concerned about their children's illnesses.

Other residents also expressed concern that EPA did not choose another cleanup technology. A local businessman is marketing a remedy that he states will do the job just as effectively as incineration with less threat to the general public. The residents we talked with have presented this option to EPA, hoping the agency will change the selected remedy.

Tri-County Landfill, South Elgin, Illinois - Region V

Background

Tri-County Landfill is a 46-acre inactive landfill that was used for solid waste disposal from April 1968 until December 1976. A prairie path separates Tri-County from an active landfill. The rural community of South Elgin, which has a population of over 7,000, includes a mix of agricultural activities and light industrial, commercial, and residential developments.

The primary public health and environmental concern is that contamination from the landfill could leach into the groundwater that supplies local drinking water wells and adversely affect nearby surface waters, such as the Fox River. Public water supply wells are located within 1 mile of the site, and rural residents use private wells. Residents use the Fox River for recreational activities, such as fishing, boating, and swimming.

Beginning in 1971, residents living nearby have filed several complaints against Tri-County with the Illinois Environmental Protection Agency. The complaints concerned the appearance of surface water contamination and the potential for drinking water contamination. Several residents and local officials had also observed suspicious late night and early morning dumping at the landfill.

Cleanup Remedy and Site Status

EPA proposed a cleanup plan for Tri-County in July 1992. This plan included a combination of remedies for the various contaminated media: draining standing surface water on the landfill and a small portion of the wetland area to the south; consolidating contaminated sediments and the drill cuttings stored in drums in the landfill area; and, finally, capping the landfill. The landfill cap will consist of 2 feet of permeable clay topped by 8 inches of topsoil to support vegetation. A groundwater collection system will be installed to collect contaminated groundwater as it leaves the site. Contaminated groundwater located off-site will not be collected, even if it is contaminated above EPA's maximum allowable levels. The cleanup remedy also includes an active collection system to capture landfill gases. The remedy also includes institutional controls, such as site fencing, deed restrictions, and a groundwater monitoring program. Currently, the site is in the final design stage.

EPA's Community Relations Actions

EPA has completed most of the community relations activities at the Tri-County site, including developing a community relations plan, establishing an information repository, holding public meetings and comment periods, and providing information to the public.

Residents' Concerns and Suggestions

On June 30, 1993, we held a focus group discussion with 10 community residents regarding EPA's community relations program. The residents with whom we spoke were frustrated about the slow pace of the cleanup, the overwhelming nature of the information in the repository, and a lack of information from EPA. The 10 residents we spoke with thought that the Superfund cleanup process was too lengthy and that EPA generally moved too slowly. These residents stated that EPA is wasting too much time doing additional studies of the site when enough studies have already been done. One resident stated that when she moved into her house 16 years ago, the real estate agent and other homeowners told her that Tri-County, which is visible from her kitchen window, would be a park in just 2 years. Another resident said that, after feeling ignored by county and state environmental officials, they had hoped that EPA would help them. However, their requests for information on the Tri-County Landfill site were either ignored or unanswered by EPA. Of the 10 residents who participated in our discussion, 7 residents had filled out requests to have their names placed on EPA's mailing list. Only three of these seven residents received information from EPA. One resident recalled writing several letters, but she never received any response and was not placed on the mailing list. Another resident stated that because of the lack of two-way communication, residents believed they had no input to the decision-making process.

Residents who had used the information repository thought it was not very useful, either because the information was not easily accessible or because they could not understand the information. One resident mentioned that in the past it was difficult to use the repository because it was kept in closed stacks, which meant materials could only be retrieved with the assistance of the librarian. After searching through volumes of information, this resident finally called the remedial project manager and requested specific chapters of the documents he could not locate. The project manager then sent the requested chapters to the resident. Another resident said he spent more than $24 photocopying information on the site but could not interpret the information.

Some of the residents we talked with were aware of the availability of TAGs to hire independent experts to help them understand the technical aspects of the cleanup but were unable to get additional information. One resident said that she called her Senator and Congressman to inquire about the grants; when she was told that there were no such grants, she did not ask EPA.

These residents believe that the turnover of EPA staff is another barrier to communication with the community. They stated that from one meeting to the next, they encountered a new group of EPA personnel to deal with. They believe that when turnover is high, progress is upset and nothing gets accomplished. In one example they cited, two attorneys who represented EPA at a public meeting could not answer technical questions. Another resident also complained that the allotted time to speak during a meeting (5 minutes) was not enough.

According to these residents, EPA is at a disadvantage when dealing with the massive garbage industry in nearby Chicago. One resident referred to EPA as David and the garbage industry as Goliath. The residents expressed concern that EPA does not have the resources to fight industry. One resident stated that the landfill operator's rights were being protected to a greater degree than those of the residents.

The residents we spoke with suggested several ways in which EPA could improve its community relations program. First, they said EPA should provide a layman's summary of the information, especially the very technical information, given at public meetings. They believe that if EPA holds a meeting, it should provide the public with understandable information. These residents felt inadequately prepared to comment on remedies and other site decisions because they had difficulty understanding the technical information. One resident thought that roundtable or small group discussions would be more productive than the format EPA uses. The residents also believe that potentially responsible parties should not be invited to public meetings because they are accompanied by their lawyers, and the residents feel too intimidated to ask questions. Finally, these residents suggested that EPA be required to generate reports, either quarterly, semiannually, or annually, describing the status of the cleanup and other relevant activities.

Brio Refining, Inc., Site, Harris County, Texas - Region VI

Background

The Brio Refining, Inc., site is located in southern Harris County, approximately 20 miles southeast of Houston, Texas. The Brio site occupies about 58.1 acres. The area is heavily populated, with about 5,800 people living within a mile of the site. Residences, businesses, a hospital, and a school are located within a half mile of the site.

An oil refinery and various owners operated at Brio between 1957 and 1982. From 1957 to 1969, the major industrial operation included the regeneration of assorted metals and recovery of chemicals. In the operation, pits were used to store both raw materials and process wastes. Between 500,000 and 700,000 cubic yards of soil on-site are contaminated with hazardous materials, such as heavy metals, volatile organic compounds, and fuel oil residues. In addition, the groundwater contains high levels of volatile organic compounds. The results of a site investigation conducted by the state of Texas led EPA to propose the site for the NPL in October 1984. The site was added to the NPL in March 1989.

Cleanup Remedy and Site Status

In June 1985, EPA and the responsible parties agreed to conduct a site study with EPA's oversight. In 1988, EPA proposed excavation and incineration of contaminated soil as the remedy for the site. EPA held a public meeting on February 9, 1988, to accept public comments on the proposed plan. Approximately 350 people attended the public meeting. EPA then selected incineration as the method that would best protect public health and the environment, finalizing the cleanup decision on March 31, 1988. On April 4, 1991, EPA and the responsible parties signed a consent decree, an agreement detailing how the selected remedy will be implemented at the site. At the time of this review, the remedial design had been completed and the construction of the incinerator was near completion.

The Agency for Toxic Substances and Disease Registry (ATSDR) has also been actively involved in the cleanup. ATSDR is determining any health impacts of releases from the Brio site and advising EPA of any health consequences of the site's remediation. In February 1989, ATSDR conducted a public health assessment on the site. In 1990, ATSDR funded a University of Texas School of Public Health review of health findings from a local citizens' health survey and environmental data for the site. On the basis of the preliminary health findings from that review, ATSDR is conducting a full health investigation that consists of a cross-sectional symptom and illness prevalence study and a reconstruction of the rates at which congenital defects occurred in one subdivision near the site between 1981 and 1992.

Furthermore, in 1992, ATSDR established a Community Assistance Panel, a group of 16 area residents, to help gather the community's health concerns.

EPA's Community Relations Actions

EPA has completed most of the community relations activities at Brio, including developing a community relations plan, establishing the information repository, holding public meetings and comment periods, and providing information to the public. On January 31, 1991, EPA awarded a TAG to a group called Homes, Environment and Lives in Peril to hire technical advisers to help citizens understand and comment on the technical factors in the cleanup decisions. A member of this group noted that on numerous occasions, he had tried to get EPA to meet with residents and the group's technical adviser to discuss issues of concern, but EPA said such a meeting would be time-consuming and expensive to plan and would lead to unproductive discussion about the selected remedy. An EPA official we spoke with said that the agency had not held a public meeting since the site's remedy was chosen about 2 years ago.

EPA site officials said that community members openly oppose incineration as the remedy and are concerned about groundwater contamination and effects on health and property values. Residents had also been concerned about their children's attending the Weber Elementary School, located in a subdivision adjacent to the site and closed in 1991. At the time of our review, the subdivision was nearly empty, with few residents. According to EPA, the citizens of the subdivision have filed a class-action lawsuit, and the developer is in the process of buying up their homes.

In addition to EPA's community relations activities, a group of potentially responsible parties, the Brio Site Task Force, has its own community relations effort. Since 1985, the task force has conducted outreach activities to keep the community informed. Task force officials we spoke with said that they have been very aggressive in conducting community relations activities such as conducting community meetings, maintaining the information repository, issuing fact sheets and press releases, and holding open houses. In addition, the task force established the Community Leadership Group, which meets monthly to discuss issues of concern. The group's meetings, which are not open to the public, include representatives from four subdivisions, two cities, a college, a hospital, and the county government.

Residents' Concerns and Suggestions

On September 21, 1993, we held a focus group discussion with seven community residents and spoke separately with two community leaders regarding EPA's community relations program. Although EPA generally met key community relations requirements, most of the residents and community leaders with whom we talked believe that EPA has not done a good job at the site. Five of the seven residents believe that the site should have been investigated and cleaned up many years ago. One resident noted that when he first became interested in site activities, he was confused about who worked for whom and what everyone's role was in the cleanup. Some residents said that the newsletters distributed by the responsible parties were mistakenly believed to be from EPA. Another resident said that the telephone number listed on the responsible parties' newsletters for additional information was also assumed to be an EPA number and that they had to call a long-distance number to contact officials in EPA's Region VI.

Two residents and a community leader with whom we spoke said that EPA was unresponsive to their requests for public meetings. They said that they had been asking EPA for the past 2 years to meet with the community, but EPA refused. They reported that EPA staff said that it would take too much time away from their work. However, according to the residents, EPA staff usually attended the monthly meetings sponsored by the responsible parties' Community Leadership Group. They did not understand why EPA staff had time to attend the responsible parties' monthly meetings, which included only selected members of the community, but did not make time to meet with the general public.

Two residents said that EPA should have conducted the site study itself and not have allowed the responsible parties to do it even though the study was conducted with EPA's oversight. These residents said that they did not trust the responsible parties to conduct the study and propose how the site will be cleaned up since they were responsible for contaminating the site. They believed that EPA should conduct the site study and select and implement the remedy, while the responsible parties should just be responsible for the cleanup costs.

These residents suggested several ways in which EPA could improve community relations. In their view, EPA should first speed up the cleanup process by setting some rigid timetables for completion of specific cleanup activities. Next, in cases in which a site is known to be or can be expected to be controversial, EPA should take a leadership role and decrease the role of the responsible parties. At these sites, EPA should conduct the site study,

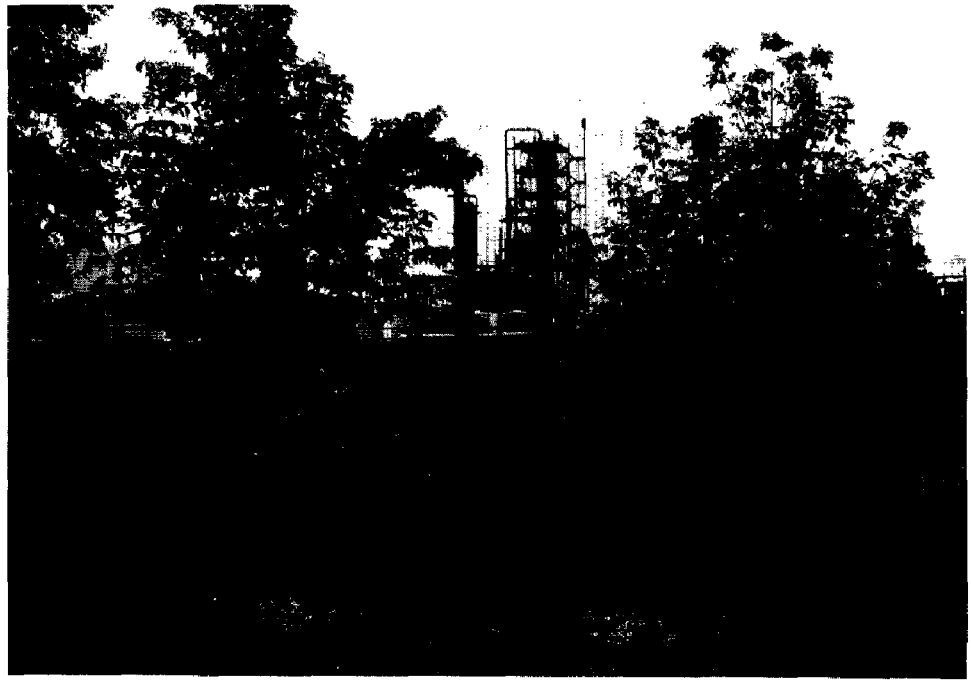
design, and remedy; otherwise, EPA will not have the community's confidence. At difficult sites, EPA must also set up a local office as early in the process as possible. Finally, EPA should use other federal government agencies that are already capable of doing research and helping with the cleanup.

Reilly Tar and Chemical Corporation Site, Indianapolis, Indiana - Region V

Background

The Reilly Tar and Chemical Corporation site is located on approximately 120 acres of land just outside of Indianapolis. A mix of industrial, commercial, and residential properties surround the site. Residential areas lie immediately to the north and east of the site and, at a distance, to the southeast. Approximately 450 households lie within three-quarters of a mile of the site. (Figure VII.1 shows the proximity of the site to one household in Indianapolis.)

Figure VII.1: View of the Reilly Tar and Chemical Corporation Site From Resident's Backyard in Indianapolis, Indiana



The Reilly Tar and Chemical Corporation has produced specialty chemicals and related products since the early 1950s, and Reilly Industries has ongoing operations at the site. Until 1972, a coal-tar refining and wood-treatment facility using creosote operated on the site. The site contains a trench, a landfill, a lime pond with cooling water from a boiler, and several pits used to dispose of wastes. The plant produces pyridine, alkyl pyridines, niacinamide, vinyl pyridine, alpha picoline, beta picoline, and gamma picoline. Problems at the site include the contamination of groundwater and surface water with creosotes and ammonia. Volatile

organic compounds, including toluene, contaminate the soil. At the recommendation of the state, EPA included the site on the NPL in 1984.

Cleanup Remedy and Site Status

In 1987, Reilly Industries agreed to conduct a site study and recommend cleanup alternatives. Reilly conducted the site study in three phases between 1988 and 1990. On June 30, 1992, EPA selected a cleanup remedy for controlling groundwater contamination at the site. Reilly also conducted a risk assessment that showed potential risks to public health from contact with contaminated soil; EPA approved this risk assessment. In July and August 1993, EPA held a public comment period on a proposed plan to address several areas that contributed to soil and groundwater contamination, including the lime pond, and various disposal pits. In its proposed plan, EPA recommended that low-temperature thermal desorption be used to clean up contaminated soil in four of these areas.[2] The recommended remedy at the remaining area, the landfill, will depend on the results of further tests of the sludge.

EPA's Community Relations Actions

EPA has completed most of the community relations activities at Reilly, including developing a community relations plan, establishing an information repository, holding public meetings and comment periods, and providing information to the public. EPA's final community relations plan notes that there has been considerable controversy about the site since 1955. Nearby residents complained frequently to local and state authorities in 1980 about odors, waste-handling practices that could potentially contaminate groundwater, and other nuisances and possible hazards at the site. According to EPA and state records, and interviews with area residents, complaints about ongoing site operations have been filed and investigated.

In addition to EPA's community relations activities, Reilly Industries has its own community relations program. Reilly officials we spoke with said that they began outreach activities in January 1991, when they held a meeting with residents to discuss groundwater contamination. Reilly has also established and recruited community members to join the Neighborhood Involvement Council. The purpose of the council is to inform residents about site activities. Reilly has also sent flyers to residents and met with them before EPA's public meetings to explain site-related issues.

[2]This process heats waste in a controlled environment and causes organic compounds to vaporize from the waste.

Residents' Concerns and Suggestions

On August 11, 1993, we held a focus group discussion with nine community residents regarding EPA's community relations program. Although EPA generally met key community relations requirements, residents with whom we spoke were frustrated by the slow pace of the cleanup, the location of the information repository, and a lack of information from EPA. Three residents said that although the site was declared a Superfund site 9 years ago, it has not yet been cleaned up. They were not certain why EPA had, in their view, done nothing to expedite the cleanup process and had taken years to decide what to do. They noted that children in a nearby area play on the Reilly property and said that EPA should clean up the area. One resident said that, had EPA cleaned up the area earlier, many people would not have moved out of the neighborhood.

Two residents we spoke with said that the information repository was not in a convenient location. The repository is currently located in a public library in downtown Indianapolis, about 5 miles from the community. These residents said that they wished EPA would place the same information in the West Indianapolis Library in their neighborhood so that they could get to it more easily.

Two of the residents with whom we spoke were not aware that EPA maintained a mailing list for the site. They said that they had not received any information from EPA even when the agency said it would mail information to residents. Two residents noted that they had tried to get on EPA's mailing list but were still not included on it to the best of their knowledge. Furthermore, the responsible party and two residents we talked with suggested that EPA use the free area newspaper to advertise meetings instead of the major newspaper because a lot of people in the neighborhood do not read the Indianapolis paper and may therefore not be aware of EPA's meetings and activities.

These residents suggested several other ways in which EPA could improve community relations. First, in their view, EPA should set up a local office in the area so that an EPA representative could be present. (EPA's Region V office is located about 4 hours away in Chicago.) Next, EPA could work more aggressively and increase the pace of the cleanup. Third, EPA should stop delegating part of its authority to the state, since the state program is being cut back drastically. These residents believe that since EPA started the job at the site, the agency should also finish it and not delegate it to someone else. Finally, in order to inform everyone of upcoming meetings, they said that EPA should select the whole zip code or a quadrant of a specific neighborhood and mail everyone in that area a postcard. These

residents said that doing so would not cost very much since there are only between 200 and 300 hundred homes. They noted that under this approach, all residents would have information in their mailboxes.

Roebling Steel Company Site, Florence Township, New Jersey - Region II

Background

The Roebling Steel Company site is an inactive factory that produced steel products from 1906 until 1982. More recently, the site has housed a variety of storage and recycling operations that produced raw materials and waste products now stored or buried on-site. The complex 200-acre site includes 55 buildings, two inactive sludge pits, a steel furnace slag pile, a building containing bagged dust from plant emissions, electrical transformers that contain oil tainted with PCBs (polychlorinated biphenyls), trailer trucks with unknown contents, soil soaked with oils, storage tanks, drums containing potentially hazardous materials, an abandoned landfill, and a slag pile. (See fig. VIII.1.) The site is next to the Delaware River, and the groundwater lies only about 10 feet below the surface. For their drinking water, approximately 12,000 local residents depend on groundwater drawn from wells within 3 miles of the site, and many use the river and adjacent wetlands for recreation.

Figure VIII.1: Pile of Debris at the Roebling Steel Company Site in Florence Township, New Jersey

Chemical and physical hazards at the site pose serious health threats that are made worse by vandalism and trespassing. People on or near the site could come into contact with or accidentally breathe contaminated materials from exposed asbestos and chemical dust, aboveground storage tanks, piles of chemicals, or the PCB-containing transformers. The transformers have also leaked oils tainted with PCBs onto the ground.

Groundwater under the site is potentially contaminated with heavy metals, including chromium, lead, cadmium, nickel, zinc, and copper. Sediments at the site may be contaminated with lead and polycyclic aromatic hydrocarbons. The soil at the site and an adjacent playground are contaminated with lead and other heavy metals. Sporadic vandalism has resulted in the partial or total destruction of several buildings, as well as tire fires. The closest homes are only about 100 feet from the site's boundaries. Children swim and ice skate at the site. Rainwater runoff from the site may have contaminated the adjacent Delaware River.

Cleanup Remedy and Site Status

EPA's approach includes both emergency removal actions and longer-term cleanup actions because of the site's size and complexity. The New Jersey Department of Environmental Protection removed explosive chemicals in 1985. In 1987 and 1988, EPA stabilized the site's most hazardous areas by removing materials for recycling or for shipping to approved disposal facilities. The actions included securing 37 tons of baghouse dust with tarpaulins and barriers and wrapping or containing exposed asbestos. In 1990, EPA removed additional contaminated materials and developed plans to install a fence to restrict access to the slag pile. The plans also call for the removal and disposal of lead contamination from the playground.

EPA will clean up the remaining contamination in two phases. The first phase will address on-site hazards that require expedited cleanup but that were too complex and expensive to clean up under the emergency removal program. These areas include the remaining drums and exterior tanks, the transformers, a baghouse dust pile, chemical piles, and tires. In this phase, EPA excavated lead-contaminated soil in an adjacent park and replaced it with soil and vegetation. EPA also conducted soil tests for lead and other contaminants on properties across the street from the park and arranged for a blood testing program for children residing nearby. In the second phase, EPA will determine the nature and extent of contamination over the entire site. EPA is now planning a site study in which the agency will examine soils, surface water, groundwater, sediments, air, lagoons, and other remaining contamination sources.

EPA's Community Relations Actions

EPA has completed most of the community relations activities at the site, including developing a community relations plan, establishing an information repository, holding public meetings and comment periods, and providing information to the public. The March 1989 community relations plan noted that residents showed a high level of interest during

the removal of hazardous materials and during other incidents, such as fires. The plan listed the following specific areas that citizens are concerned about:

- the need for more frequent and complete information from EPA;
- health and safety concerns about children who play on the site and about potential hazards released by fires or the eventual cleanup; and
- frustration at not having local union contractors involved in cleanup efforts at the facility.

Residents' Concerns and Suggestions

Although EPA has generally completed the required community relations activities, the six residents and two local officials with whom we spoke wanted more information from EPA and were anxious to have the cleanup completed. These residents and officials expressed dissatisfaction with the information EPA provided and the frequency with which it was provided. They want more information from EPA, especially about when and how the site will be cleaned up. According to these residents, EPA promised to provide quarterly newsletters to the community, but they had not received a newsletter in over a year. Limited staff resources prevented EPA from providing the detailed quarterly status reports in nontechnical language that were requested by town officials, according to EPA staff.

The Fire Commissioner said that he received about two mailings each year but that they were vague, saying only that EPA is cleaning up the site. He said that he had to give EPA an ultimatum stating that if he could not get better information about contamination at the site and better access to EPA personnel, the fire department would be unable to respond to emergencies at the site. He also noted that EPA had not reimbursed the department for about $8,000 worth of fire equipment lost while responding to a site fire. According to EPA staff, the agency has since provided a site contaminant list to the fire department and other officials, has conducted special site tours, and has constructed a special gate to allow fire trucks easier access to a local creek to obtain water in the event of fire on the site.

The residents and officials we interviewed expressed concern about the cleanup time frames. Constituents have asked the mayor about the site's cleanup status and voiced concerns about having the land remain idle when the community needs jobs. The mayor said he could not respond to their questions because he does not have answers about the site from EPA and is not even on EPA's mailing list. One individual also said that residents are frightened because EPA has not explained why cleanup dates keep

changing. Another resident said that he has attended at least three of EPA's meetings and has found them quite informative, but that information is needed on when the cleanup will start. Residents with whom we spoke believe EPA is dragging its feet and spending too much time doing studies. One resident said that in meetings EPA uses technical terms he doesn't understand, such as "hot spots." Most of the residents with whom we spoke said they didn't know the Community Relations Coordinator.

Five residents who are also members of the Department of Economic Development said that they feel EPA did not consider the community's input in making decisions about the site. They said that EPA had planned its agenda before asking for community input. They said that their primary concerns are the time lag between various phases of the Superfund process, the site's impact on the tax base, the negative image of having a Superfund site in the community, and the potential impact of the contamination on groundwater.

One resident interviewed was unfamiliar with the information repository, located in the municipal building, while several others did not find its contents helpful. For example, the Fire Commissioner said that the technical information is not very helpful because he has to go through the file and pull out bits and pieces to obtain the information he needs. The mayor, who had been given documents from the information repository by the township's administrator, said that the documents may provide answers to at least some of his questions but that the administrator told him that EPA sends little information to the files and sends it infrequently.

Finally, not all residents or officials were aware of TAGs. The Fire Commissioner said that he had never heard of these grants. Other residents said that although EPA mentioned the availability of the grants at the first public meeting, nothing had been mentioned about them subsequently.

Objectives, Scope, and Methodology

The Chairman of the Subcommittee on Superfund, Recycling, and Solid Waste Management, Senate Committee on Environment and Public Works, requested that GAO review EPA's community relations program. In addition to providing background on the requirements for community relations activities in the Superfund program, GAO was asked to assess the extent to which EPA is fulfilling these requirements and to ascertain community residents' feelings about EPA's efforts. The Chairman and one Member of the Subcommittee on VA, HUD, and Independent Agencies, House Committee on Appropriations, asked to be joint requesters of the report and specifically asked that we review community relations at the Texarkana Woodpreserving Superfund site in Texarkana, Texas.

We performed our work at EPA headquarters in Washington, D.C., and Regions II (New York), V (Chicago), VI (Dallas), and IX (San Francisco). We selected regions Regions II and V because they have the largest number of Superfund sites, and Regions VI and IX provide geographical diversity. We also selected Region VI to see what differences, if any, exist in regions with a small number of sites, sites that are spread out geographically, and a small number of community relations staff. Although we wanted to meet with residents in Region VIII, the region with the fewest Superfund sites, an insufficient number of residents agreed to participate.

To provide background on EPA's responsibilities for involving communities in Superfund cleanups and assess EPA's compliance with the requirements, we reviewed pertinent laws and regulations. We obtained and reviewed guidance and directives that headquarters and the regions issued to assist community relations staff in conducting community relations activities. We also interviewed community relations officials from EPA headquarters' Office of Solid Waste and Emergency Response/Hazardous Site Control Division and all 10 regions about how EPA involves communities in the Superfund decision-making process. We also reviewed files at 15 information repositories in Regions V, VI, and IX to determine if they documented key required community relations activities. Our review focused on remedial cleanup phases between the time of inclusion on the NPL and completion of the cleanup.

To determine how various communities view the timing and quality of EPA's community relations efforts for Superfund sites undergoing remedial cleanup actions, we conducted five focus groups in Regions V, VI, and IX. In a focus group, 8-10 people participate in a structured meeting and respond to questions administered by a moderator and assistant

moderator. The focus group session usually lasts about an hour and a half and is recorded by a transcriber to ensure that responses are accurately documented. Our focus group participants were primarily community residents who have attended EPA's meetings and/or who have otherwise shown interest in their local Superfund site. Participants were also recommended by EPA, selected by GAO from EPA's mailing list for the site, or recommended by other residents. We also interviewed other parties involved with the sites where we held focus groups to obtain their views on EPA's community relations efforts. For example, we interviewed potentially responsible parties on their views of EPA's efforts and local officials to determine if the information EPA provided them was adequate to assist them in emergency responses. Although we did not conduct focus groups in Region II, we talked with community members at three different Superfund sites in that region.

Finally, because of EPA's crucial role in conveying technical information about site conditions and cleanup to the public, we analyzed the readability of EPA's fact sheets, which are intended to provide basic information on a site to the general public. Using a computer program, we performed a readability assessment of 20 fact sheets, 2 from each region, to determine how easy or difficult the information EPA provided to communities is to understand. We obtained information on average sentence length and number of syllables per word, passive versus active voice, and other readability factors to determine whether the information presented in the fact sheets can be understood by the general public.

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