



CENTER FOR PUBLIC ENVIRONMENTAL OVERSIGHT

A Project of the Pacific Studies Center

278-A Hope Street, Mountain View, CA 94041

Voice: 650-961-8918 or 650-969-1545 Fax: 650-961-8918 <lsiegel@cpeo.org> <http://www.cpeo.org>

REPLENISHING THE SUPERFUND WOULD BE A
GIANT STEP FORWARD IN PROTECTING
AMERICAN PUBLIC HEALTH
AND THE ENVIRONMENT

Testimony by Lenny Siegel
Executive Director
Center for Public Environmental Oversight

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Executive Summary

Over the past quarter century, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, has been an important instrument for protecting public health and the environment in the United States. Its tools—addressing response, compensation, and liability—are like the proverbial three-legged stool. At many sites, CERCLA collapses when one of those tools is missing. Across the country, since the Superfund account was depleted, seriously contaminated sites have suffered from inadequate cleanup, inefficiencies, and inequities.

I highlight four sites, all of which I have visited within the past year, to illustrate what the shortage of Fund money means to the people who live, work, or attend school on or near the some of the nation's most contaminated properties.

- At the Orion Park Military Housing Area, Mountain View, California, the shortage of Fund resources has severely handicapped U.S. EPA's ability to address off-site sources, preventing it from requiring the Navy to conduct on-site cleanup and forcing NASA to expend its own resources on contamination from the site. Contamination prevented the development of new military housing on the site, and military personnel at the planned Armed Forces Reserve training complex will be at long-term risk from vapor intrusion, the migration of subsurface contamination into buildings.
- In Victor, New York trichloroethylene (TCE) from apparent illegal dumping has poisoned private wells and released toxic vapors into homes. A Fund-led cleanup could protect the impacted families, but the Superfund does not have enough money for it to make much sense even to add the site to the National Priorities List (NPL).
- In Ambler, Pennsylvania, EPA successfully capped two asbestos waste pile sites 14 years ago, but remaining piles, not on the NPL, are slated for redevelopment. Neighbors, fearing that current exposures will be increased with the release of development-associated asbestos dust, would like EPA to list the site and fund the response, but as long as the Fund is depleted, this appears unlikely.
- There is consensus support for the dredging of polychlorinated biphenyls (PCBs) from New Bedford Harbor, Massachusetts, a Superfund "mega-site." However, inadequate funding has forced an inefficient start-and-stop cleanup that is currently slated to stretch out a quarter century.

Today, both at sites already dependent upon EPA funding and those that should be added to the National Priorities List, cleanup is slow and inefficient, and expenses are often borne by third parties. Replenishing the fund would be a giant step forward in recognizing, investigating, and remediating the most contaminated sites in America.

CERCLA: A Three-Legged Stool

The Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, is imperfect, but over the past quarter century it has been an important tool for protecting public health and the environment in the United States. It provides tools for determining environmental cleanup strategies and technologies, assessing and assigning responsibility, and providing the resources to remove, treat, and prevent contact with hazardous substances.

All three tools—addressing response, compensation, and liability—are necessary. Like the proverbial three-legged stool, CERCLA collapses when one of its legs is missing. Across the country, since the Superfund account was depleted, seriously contaminated sites have suffered from inadequate cleanup, inefficiencies, and inequities.

From my recent visits to communities with seriously contaminated sites, I have selected four examples. In each of these cases, community members have strong reason to believe that public health and the environment are at risk, and—whether or not the site is currently on the NPL—that the insufficiency of the Superfund is a major factor. I believe that these four case studies each represents many more sites in the NPL universe.

Orion Park Military Housing Area, Moffett Field, California

The Army's plan to build a huge training center at Moffett Field on a site it knows is contaminated with a carcinogenic gas should be halted, at least until warnings from local environmentalists are acknowledged and the dangers are mitigated.—*Mountain View Voice*, September 14, 2007.

This site, in my own community of Mountain View, California, is particularly complicated. Originally part of the Moffett Naval Air Station, its 72 acres sit between NASA Ames Research Center and Stevens Creek. It was transferred to the Air Force as a result of the 1991 Base Realignment and Closure (BRAC) round and re-transferred to the Army after BRAC 1995. Despite the earlier discovery of other local groundwater plumes of (VOCs), the Orion Park plume escaped detection until 1999, when NASA detected trichloroethylene under its adjacent, downgradient property. Subsequent sampling found widespread TCE readings in the hundreds of parts per billion range, in the top two aquifers.

Though the Navy argued that the contamination did not pose a risk to the hundreds of military families who lived above the plume, U.S. EPA conducted its own sampling, demonstrating that vapors from the groundwater plume were rising into an unknown percentage of the homes. This probably contributed to the Army's decision to replace the housing in partnership with a private builder, under the Residential Communities Initiative. However its private partner decided not to build homes at Orion Park, because of the contamination.

As an alternative, the Army proposed—and the 2005 BRAC Commission agreed—to construct an Armed Force Reserve Center training complex—on thirty acres at Orion Park. 413 full-time employees will staff the facilities, which will also support a total of 1,500 Soldiers for weekend classroom and administrative training. To resist the intrusion of toxic vapors, the Army plans to build engineering controls into all of its new buildings, but **there is no cleanup planned for the site**. In fact, no complete investigation is planned. Meanwhile, NASA is planning a major treatment system, an air-sparging barrier to intercept the toxic chemicals as they flow onto Ames Research Center property. This will cost over \$1 million, plus long-term operation and maintenance expenses.



Orion Park Military Housing Area, Moffett Field, California

Why has the Orion Park response stalled? After all, within a few miles of my house there are at least a dozen National Priorities List sites, including Moffett Field. At those sites, the regulators, responsible parties, and the community have worked together successfully to address the contamination. But Orion Park is an exception.

For one, the Navy does not accept EPA's determination that Orion Park is part of the Moffett NPL site. More important, it argues that all of the contamination originates off site, south of Bayshore Freeway (U.S. 101), probably from abandoned businesses. Most of the other stakeholders, including NASA, EPA, and community activists, have concluded from site sampling that TCE and other poisons were released both at Orion Park and south of 101. Before EPA considers trying to force the Navy to follow CERCLA at the site, it believes the off-site area needs to be thoroughly assessed. The Navy says it cannot legally conduct upgradient groundwater sampling, so the task has fallen to EPA.

TRICHLOROETHYLENE (TCE)

Breathing small amounts may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating.

Drinking small amounts of trichloroethylene for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear.—U.S. Agency for Toxic Substance and Disease Registry

The evidence on cancer and other health risks from TCE exposure has strengthened since 2001....—National Research Council, July 2006

And that's where the Superfund comes into play. EPA must pay for any sampling it conducts from the Fund. But there isn't enough money to pay for the required investigation. And for sure, there is not enough money to prevent additional contamination from migrating under the freeway to Orion Park. EPA cannot insist that the already recalcitrant Navy—or the current owner, the Army—undertake cleanup until it addresses the off-site source.

Thus, the long-term protection of Army personnel who will work above a shallow groundwater plume on an NPL site is handicapped because the Superfund cupboard is bare. Furthermore, NASA's Ames Research Center continues to spend its own federal money to address contamination that should have been captured and treated by other federal agencies.

Modock Road Springs Site, Victor, New York

It's been six months since news broke of the contamination. It's been 17 years that it existed. Why would I think that anything would be accomplished? I sit here in my home, with my family and pray every day that someone will listen. That someone will care. That *someone* has the *compassion* to do something about this. *For God's sake*, there has been death, illness and who knows what else is here. My family has been called names, told we exaggerate, are trying to stain this town's image, issued directives to, and for what? Is this not serious enough for you? Is this some kind of joke? It isn't a joke. It is serious. This is our lives.... — Jackie Barry, Victor, New York.

Earlier this year, the Rochester, New York *Democrat and Chronicle* headlined that private wells in Victor, New York were still contaminated by TCE. Furthermore, as at Orion Park and many other sites across New York state and across the country, contamination was also volatilizing into local homes. The contamination, apparently caused by illegal dumping at the Syracuse Sand & Gravel mine, was first detected and confirmed in 1999!

This year New York's Department of Environmental Conservation (NY DEC) began to pay more attention to the site. But progress has been handicapped by the

absence of a viable responsible party, to pay for required investigation and cleanup. **That is, DEC has finally interrupted the most egregious pathways, but actual cleanup is a long way off.**



Apparent source of the Victor, New York TCE plume

In March, therefore, the area's Congressman called upon EPA to step in and "take the lead." EPA, according to the newspaper, said that it was "poised to help if the situation warranted it." An impacted resident reported: "We recall a meeting that I held at my home with our State Senator. In this meeting he described his experience in several environmental litigation cases as a lawyer (prior to being an elected official) and his knowledge of the EPA, National Priorities List and the federal Superfund. He wondered why the site hadn't been put on the NPL and then went on to suggest that even if we had, that right now it was best to have the DEC doing the work because of minimal resources in the federal Superfund."

In Victor and many other sites in the U.S., people are exposed in their own homes to serious levels of harmful substances released by polluters, in many cases decades ago. We have a program for dealing with that: CERCLA. But today impacted communities are told time and time again: Joining that program won't help because Superfund has no money.

BoRit Asbestos Piles, Ambler, Pennsylvania

If you can make your presentation to Congress and the Senate, now would be a good time because we are desperate down here. Development on asbestos waste of this magnitude has never been done before. Ambler can not afford an experiment of this type, especially if it goes awry. *Please help me.* - Sharon McCormick, Ambler, Pennsylvania

Ambler, Pennsylvania, 15 miles northwest of Philadelphia, is the birthplace of the American asbestos industry. Ambler itself grew up as a company town for the Keasby and Mattison Company (K&M), one of the nation's leading manufacturers of asbestos products such as electrical insulation, brake linings, piping, roofing shingles, and cement siding. K&M operated in Ambler from 1897 to 1962. K&M disposed of defective products and manufacturing wastes at several locations within the community. In 1986 EPA placed the piles on Locust Street and at the K&M main plant on the NPL—listed aptly as the Ambler Asbestos Piles—and it completed the response, primarily capping, in 1993.



BoRit Pile with McDonalds barely visible in background

ASBESTOS

Significant exposure to any type of asbestos will increase the risk of lung cancer, mesothelioma and nonmalignant lung and pleural disorders, including asbestosis, pleural plaques, pleural thickening, and pleural effusions....

Health effects from asbestos exposure may continue to progress even after exposure is stopped.—U.S. Agency for Toxic Substance and Disease Registry

However, no action was taken at the similar 38-acre BoRit site, three parcels along the eastern bank of Wissahickon Creek, less than a mile from the piles on the NPL. A developer owns a six-acre parcel just across a small creek, Tannery Run, from three commercial buildings: Sons of Italy, an auto repair shop, and McDonalds. The second parcel is a reservoir currently owned by the Wissahickon Watershed Authority. The Wissahickon Valley Watershed Association hopes to acquire the reservoir and improve it as a waterfowl preserve. To the northwest of the reservoir is the former Wissahickon Whitpain Park, owned by the adjacent township of Whitpain. This triangular park was closed more than twenty years ago because of asbestos releases.



Wissahickon Whitpain Park with housing just across the street

Over the past year or so, EPA's Environmental Response Team and the Pennsylvania Department of Environmental Protection have been investigating the site. Residents have told me that the entire site is proposed for redevelopment, and that the environmental response would take place under the brownfields model. Frequently passing signs warning not to create dust, **they are concerned that any earth movement would release hazardous chrysotile asbestos into their neighborhood as well as the creeks**, which feed into Philadelphia's water supply. They favor capping, as at the nearby NPL site. But there is no plan to place the piles on the NPL, apparently because EPA doesn't have the money to contain the risk. A local activist explained, "I was told both by my Congresswoman and by my EPA region that listing BoRit on the Superfund list wouldn't help, because Superfund has no money."

EPA did its job at the nearby NPL site, but it doesn't have the resources to do it here. Inadequate Superfund funding is forcing a brownfields-type response, placing the public at risk.

New Bedford Harbor, Massachusetts

My little girls Phoebe and Payton are very young, three years and eleven months respectively. At the current rate of \$15 million a year for Acushnet River Superfund remediation, Phoebe will be twenty-nine years old, just three years younger than I am now, before it's clean enough for parents to feel safe about it. So they won't have childhood memories of playing amongst the rocks at the hurricane barrier like I do. Those are some of my fondest childhood memories, too.—Henry Bousquet, New Bedford, Massachusetts.

One of the nation's Superfund "mega-sites," the 18,000-acre New Bedford Harbor's sediment contains high concentrations of polychlorinated biphenyls (PCBs) in several areas. Over 100,000 people live within three miles of the site. Though there were many sources, the largest appears to have been Aerovox, a manufacturer of electrical capacitors and transformers, which operated on the harbor's edge from about 1940 to 1977. There are supposed to be signs along the waterfront warning people not to eat fish, but they often disappear and must be replaced.

Each summer sediment is dredged, de-sanded, de-watered, and shipped to a licensed PCB-landfill in Michigan. The Army Corps of Engineers, under contract to U.S. EPA, started dredging harbor hotspots as early as 1994. The Corps is just finishing its fourth year of full-scale dredging, with only about 40 days in the field each year. Based upon the numbers I was given when I visited, this year the Corps removed 25,000 cubic yards of contaminated sediment, treated 20-million gallons of water, and shipped 16,000 tons of residue by train to Michigan.

There is consensus support for the remedy, but this is far from a success story. Community members express serious concern at the anticipated duration of the project. **At the current rate, dredging will continue for an estimated 25 years.** The problem isn't capacity or weather, but money.



In New Bedford Harbor, Massachusetts the dredge is towed by cables from the shore

Over the life of the project, EPA has spent over \$235 million for “planning, engineering, and construction” at New Bedford Harbor. Reportedly, over \$100 million has come from private responsible parties. However, the remaining funding—nearly \$300 million more—will have to come from EPA’s depleted Superfund. At \$15 million per year, the project proceeds slowly and suffers significant inefficiencies from the imposed start-and-stop response.

Activists are concerned about continuing public exposures to PCBs through water, air, and food chain pathways. Even though the entire inner harbor and thousands of acres of the outer harbor have been closed to shellfish harvesting and fishing since 1979, residents are known to harvest and eat fish, lobster and shellfish from the harbor, exposing themselves to potential risks from PCB ingestion. Local residents would like subsistence fishing to resume safely. And they point out that as long as the harbor is contaminated, the once valuable lobster fishery and hard shell clam industry—which brought in some five million dollars to the regional economy—will remain sidelined and the comprehensive redevelopment of otherwise attractive shoreline brownfields properties will be difficult in New Bedford and other communities on the harbor.

POLYCHLORINATED BIPHENYLS (PCBs)

In summary, PCBs have been demonstrated to cause a variety of serious health effects. PCBs have been shown to cause cancer and a number of serious non-cancer health effects in animals, including effects on the immune system, reproductive system, nervous system, and endocrine system. Studies in humans provide supportive evidence for the potential carcinogenicity and non-carcinogenic effects of PCBs. The different health effects of PCBs may be interrelated, as alterations in one system may have significant implications for the other regulatory systems of the body.—U.S. EPA

Conclusion

While U.S. EPA's CERCLA program has always had significant room for improvement, it has protected public health and improved the natural environment in hundreds of communities across the United States. Today, however, both at sites already dependent upon EPA funding and those that should be added to the National Priorities List, cleanup is slow and inefficient, and expenses are often borne by third parties. Many vapor intrusion sites—with completed pathways but without responsible parties—are not getting the attention they deserve. Replenishing the fund would be a giant step forward in recognizing, investigating, and remediating the most contaminated sites in America.