

***The U.S. Military's Toxic Legacy:
America's Worst Environmental Enemy***

Executive Summary

The National Toxic Campaign Fund

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This report is part of an organizing campaign to make the U.S. military more accountable and work for environmental security in America. The Military Toxics Network is based in Seattle, Washington and has a number of other publications available including a bi-monthly newsletter, **Touching Bases**, and **Fighting Military Toxics: A Citizens' Organizing Manual**. Contact the National Toxic Campaign Fund's MTN office at:

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Executive Summary

Background

Imagine, for a moment, that a foreign nation has dispatched a band of terrorists to the United States. The intruders silently move across the landscape depositing toxic chemicals at a thousand sites around the country. Some of the toxic compounds quickly enter the rivers and underground reservoirs that supply America with drinking water. Other chemicals contaminate our neighborhoods and backyards where our children play. Still others sit like time bombs, destined to contaminate our water supplies after months, years, or even decades. The toxic chemicals carried by these enemies are the products of the most sophisticated laboratories on Earth. They cause birth defects, liver disease, and cancer. Their effects may be felt for generations.

Unquestionably, if this imagined threat were real, we would turn to the Pentagon to combat this threat to our national security. After all, the Pentagon's job is to defend the nation against outside enemies.

But what do we do when the threat comes, not from abroad, but from the Department of Defense (DOD) itself? What if our own worst enemy is the same institution that is charged with defending us?

The frightening reality is that in the name of "national defense," the United States military has cast a chemical plague over our country and many of our allies through its misuse and disposal of dangerous chemicals. Toxic and radioactive pollution from U.S. military and weapons plants poses a direct and immediate threat to America's security and prosperity. The military has created *fifteen thousand points of blight*, on hundreds of bases and installations that are laced with toxic chemicals—threatening not only our own troops but innocent Americans living in adjoining neighborhoods. This is the military's toxic legacy, a product of forty years of the Cold War.

The military-industrial establishment—that is, the facilities of the DOD, military contractors, and the Energy Department's nuclear weapons production complex¹—has accumulated a monstrous collection of toxic waste sites. What's worse, these same institutions continue to poison our air, land, and water at intolerable rates.

¹The massive environmental problems of the Department of Energy's nuclear weapons laboratories and factories are not featured in this report because they have been well documented elsewhere.

The Department of Defense and Toxic Waste

The U.S. military is the nation's largest polluter. Virtually every major military installation in the U.S., as well as former bases and bases overseas, is responsible for extensive environmental contamination. The Pentagon's cleanup efforts, however, have barely begun.

The military has created far more toxic waste sites than any private corporation. Thus far, the Defense Environmental Restoration Program (DERP) has identified 14,401 likely hot spots at 1,579 military facilities, but it has reported completion of cleanup at only 287 sites. Nearly 100 DOD installations are on the Environmental Protection Agency's (EPA's) "Superfund" National Priorities List (NPL), which means they are among the most hazardous places in America.²

In addition to its own bases, the military is responsible for dangerous contamination elsewhere. The Pentagon is a Potentially Responsible Party (PRP)—that is, it may be held liable for cleanup—at 53 privately owned NPL sites, including dump sites, properties formerly owned by the military, and contractor-owned weapons plants. For example, at least 15 separate military installations sent hazardous waste to the Maxey Flats Nuclear Disposal Site in Morehead, Kentucky, a dump site closed in the late 1970's. Maxey Flats was a "kick and roll" facility: Its operators kicked drums off the backs of their trucks, rolled them into a pit, and covered them with dirt. DOD is currently investigating over 7,000 former properties for potential contamination.

The military's environmental problems do not end with past dumping. In producing, maintaining, testing, and even dismantling military vehicles, explosives, chemical weapons, and rocket fuel, the military generates enormous amounts of deadly, environmentally destructive waste products. In 1989, DOD estimated that it generated about 900 million pounds of hazardous wastes, as well as 17 billion pounds of wastewater, much of it contaminated with toxic chemicals. Furthermore, in 1989, DOD was also responsible for 658 oil and toxic waste spills that required cleanup.

Until recently federal facilities, often exempt from the enforcement powers of environmental regulators and hiding behind a veil of "national security," never developed—in fact, never even considered—sound pollution prevention and waste management practices. By the time neighboring communities discovered their homes were built on toxic trash or their water supplies contained cancer-causing poisons, irreversible damage had been done.

For example, over 1000 residents on the South Side of Tucson, Arizona are suing the U.S. Air Force and Hughes Aircraft because of a high concentration of brain

²We count 97, including Air Force Plant 44 in Tucson, Arizona and the Twin Cities Army Ammunition Plant in Minnesota. Those two sites are often listed as part of larger, civilian NPL sites.

Executive Summary

tumors, cancers, and newborn heart defects among residents. For many years, South Side residents drank well water contaminated with trichloroethylene (TCE), a major portion of which came from Hughes' industrial wastes. The citizens blame water contamination from Air Force Plant 44, where Hughes has produced tactical missiles for nearly 30 years, for their illnesses and deaths. Because TCE is recognized as a mutagen and a probable carcinogen, EPA has established a drinking water standard of five parts per billion. The concentrations of TCE found in South Side drinking water far exceeded the EPA standard.

Military bases across the country continue to threaten surrounding communities with similar toxic releases, ranging from plumes of TCE-contaminated groundwater to acidic emissions from the open burning of solid rocket fuel. In some places, contamination has not yet reached the public — or at least, no knows about it yet.

In 1990, the DOD's Defense Environmental Restoration Program published a glossy annual report, complete with photos and a comprehensive list of facilities requiring cleanup. As required by law, it presented a page of detailed information about contamination and cleanup efforts and plans for each military facility on the National Priorities List. In the report's introduction, President Bush and Defense Secretary Cheney promise that DOD will take a leadership role in environmental protection.

Unfortunately, the Pentagon's environmental record has been abysmal. At facility after facility, DOD has concealed or denied the impact, extent, and even the existence of toxic contamination. Moreover, DOD's growing military cleanup program is dwarfed by the enormity of its other missions. Although certain officials at DOD undoubtedly take the task of toxic cleanup seriously, they are a minority swimming upstream against an inglorious history of military negligence and irresponsibility, as well as a budget which has not been rising sufficiently to the occasion.

The military's foot-dragging, of course, does more than frustrate regulatory agencies. The longer a site remains polluted, the more likely poisons will enter the surrounding soil and groundwater and affect human health. Even in the absence of new leaks or dumping, underground contamination spreads—moving faster than the military bureaucracy responsible for cleaning it up.

Furthermore, the military is often unwilling to spend the money necessary to decontaminate sites. Often it lacks a reliable, appropriate cleanup technology. In many cases, the term "cleanup" is a misnomer. For example, in 1984 the Army drained, capped, and seeded with grass its former toxic effluent lagoons at the Milan Army Ammunition Plant in Milan, Tennessee. Capping reduced the water pressure that was spreading contamination of dinitrotoluene (DNT) and other poisons underground, but the Army decided to save money by letting the hazardous waste indefinitely sit underground.

At other sites, like Jefferson Proving Ground and the Rocky Mountain Arsenal, the military may have created “national sacrifice zones,” where contamination is so severe and cleanup so expensive that they may be fenced off and left for future generations to address.

Finally, DOD “cleanup” can actually increase the immediate threat that sites pose to public health. The Pentagon points with pride to its incineration projects, but the release of deadly poisons into the atmosphere is an unavoidable by-product of incineration. In addition, incineration creates toxic ash, which finds its way into solid waste dumps. At the Rocky Mountain Arsenal, the Army “cleansed” soil poisoned with nerve gas agents and pesticides by aerating it and allowing toxic fumes to waft through a neighboring residential community.

Base Closures and Toxic Contamination

The cleanup task becomes even more urgent as the military decides to close bases and transfer them to private ownership or another public agency. In 1989, Congress approved the recommendations of the Commission on Base Realignment and Closure, agreeing to the closure or partial closure of 36 bases. Although Congress has torn up Defense Secretary Cheney’s 1990 list of 29 proposed base closures, it has established a new commission that will recommend many more shutdowns beginning 1991.

The presence of multiple toxic pollution sites on many of these bases is a major obstacle to conversion to civilian use. If bases cannot be redeveloped, it is practically impossible to overcome the economic losses of closing. The prospect of otherwise valuable land sitting idle while former base workers seek jobs elsewhere is a political nightmare that could undermine the conversion process. Until cleanup is achieved, the military’s toxic legacy may lock up a good portion of the nation’s most desirable real estate.

In its fiscal 1991 appropriations, Congress for the first time allocated funds for cleanup at bases undergoing closure. It should continue to budget such funding. Furthermore, to permit the *safe* redevelopment of closed installations, the states and other bodies responsible for land use planning must quickly develop and implement environmental standards for base reuse.

DOD Environmental Programs Are Starved for Funds

The Environmental Protection Agency estimates that the cleanup of domestic DOD facilities will cost \$20 billion to \$40 billion, and will take decades to complete, but

Executive Summary

those projections are likely to rise. The DOD Inspector General's office told the *Los Angeles Times* that the cost could reach \$100 to \$200 billion.³ Affected citizens and government investigators continue to find new contamination, and the public is increasing its demands for decontamination, not just containment, of military toxic sites. These estimates do not include the costs of complying with environmental laws, the development and adoption of pollution prevention technologies, cleanup at foreign bases, or the monumental task of containing wastes at the Department of Energy's nuclear weapons plants.

The failure to provide adequate funds is by far the greatest obstacle to the timely, proper cleanup of military hazardous wastes. Funding by itself will not solve the myriad of Pentagon contamination problems, but without it the Defense Environmental Restoration Program cannot even approach its stated goals. In fiscal year 1990, DERP received about .2 percent of the annual military budget. In 1991, Congressional critics of DOD's slow cleanup effort managed to boost the annual appropriation to over \$1 billion, (still less than .4 percent of the DOD budget), but more will be needed as additional toxic sites move from the investigation stage into the more costly remedial stages.

Now that the "Communist threat" is disintegrating, one might expect funds to flow quickly away from military weapons purchases and toward a comprehensive effort to clean up the mess the military made in this country during the Cold War. Unfortunately, that's not how things work in Washington. As the Pentagon trims its non-Persian Gulf budget, military officials at all levels, as well as their allies in Congress, are circling the wagons to protect their slices of the military-industrial pie. As a result, it will be difficult to secure a significantly larger share for environmental work.

Even if adequate funds were budgeted, the Pentagon still would have trouble getting its environmental work done. Increasingly dependent upon contractors and consultants for technical analysis, planning, and management, government agencies are less capable than ever of making sure that jobs are done right. Overdependence upon private contractors may undermine the quality, reliability, and public confidence in cleanup and oversight.

In response to lobbying by environmental activists, Congress recently ordered DOD to assess the anticipated shortage of environmental professionals and to initiate additional training programs. It is too soon to evaluate the adequacy of these initiatives.

Training military personnel for environmental cleanup and research into safer materials management would also address the problem of finding work for troops and DOD employees who are displaced by the downscaling, at home and abroad, of the U.S. military.

³John Broder, "Report Faults Pentagon on Toxic Cleanup," *Los Angeles Times*, July 11, 1990, p. A14.

Are Toxics “Missing in Action”?

Just as staggering as the military's toxic wastes are the inconsistencies and gaps in government data pertaining to them. Reliable information systems are essential for tracking toxics from cradle to grave and implementing pollution prevention, but the Defense Department does not really know how much hazardous waste it generates, nor what happens to it.

In 1986, Congress passed the Community Right to Know Act, which requires companies to report their toxic chemical releases to the air, water, and land and to develop plans for chemical accident emergencies. Unfortunately, DOD has exempted itself from reporting its toxic chemical releases under the Act's Toxic Release Inventory (TRI). Consequently, there is no unified reporting of DOD toxic emissions. Indeed, different Defense agencies and commands—even different facilities within commands—use different measurement standards. Regulators and the public have been presented with overall Pentagon waste generation figures that are more like “guesstimates” than the hard numbers such a serious issue demands. At most individual bases, no data is available at all.

For instance, in its 1989 Defense Environmental Status Report (DESR), the DOD reported generating 876 million pounds of concentrated solid and liquid toxic wastes.⁴ DESR contains no site-specific information, so the data cannot be cross-checked or applied to particular sites. Even worse, DOD's own environmental staff considers the DESR estimates insupportable, and they may stop collecting the numbers in the future. If this occurs, DOD will be even less accountable for its toxic waste generation.

The Defense Reutilization and Marketing Service (DRMS), the DOD agency responsible for the off-site transfer, storage, and disposal of hazardous wastes, received 178 million pounds in 1989. DRMS not only fails to publicly document its waste management activities, but its internal records do not accurately track the wastes. In fact, the DRMS disposal database couldn't account for 72 million pounds of hazardous waste, 40 percent of the total transferred to DRMS. In addition, DRMS could not supply the name of a contractor that it hired to dump 1.5 million pounds of toxic waste in South Carolina, Illinois, Ohio, and Puerto Rico.

Much of DRMS's failure stems from its original function, which has always been to transfer unnecessary military equipment to “Army-Navy surplus” wholesalers. In fact, dangerous surplus chemicals have turned up leaking, in storage areas owned or leased by private surplus wholesalers, because DRMS has sold them without proper controls. But what may be an excusable inaccuracy for Army boots becomes ludicrous in the management of toxic waste.

⁴This includes PCB's (polychlorinated biphenyls) and used oil.

Executive Summary

The problems at DRMS are only the tip of the DOD hazardous waste data management iceberg. There is no central management system whatsoever for an estimated 700 million pounds out of 900 million generated in 1989.

Who Is Guarding the Fort?

Scores of military installations are violating federal environmental laws. Yet the number of violations detected only reveals a fraction of the DOD's environmental noncompliance, since the EPA lacks the both the staffing and the clear authority needed to oversee rigorously DOD environmental practices.

Congress' General Accounting Office (GAO) recently found that on average about 22 percent of DOD's major wastewater dischargers were violating the Clean Water Act in any given three-month period, compared with a 15 percent rate among other federal facilities and a 10 percent violation rate among major private industrial facilities. Many, but not all, violations involve toxic substances, including un-permitted releases of cyanides, acids, metals such as cadmium, chromium, zinc, and copper, and phenol. More specific information was not available because out of about 400 military installations with water discharge permits, fewer than 12 percent reported toxic releases to EPA.

The Navy has a particularly bad record. Since pollution from ships at sea is exempt from Clean Water Act coverage, the Navy is accustomed to dumping waste "overboard." During a two-year period, at least 65 percent of its major permitted installations were out of compliance with priority Clean Water Act program requirements for at least one quarter.

Federal facilities are supposed to comply both procedurally and substantively with the same hazardous waste management and cleanup legislation that applies to private industry. However, the ability of the EPA and the states to enforce those laws is a point of contention. While EPA officials seek authority to clamp down on Federal hazardous waste violators, the Justice Department invokes the theory of the "unitary executive," which argues that disputes must be resolved administratively. The Justice Department refuses to bring suits against the military on behalf of the EPA.

The states and many members of Congress assert that states can order the Pentagon, Energy Department, and other Federal agencies to comply with hazardous waste laws. But the Justice Department contends that Federal agencies are exempt from state enforcement under the doctrine of "sovereign immunity." Several important cases on this issue are awaiting adjudication in Federal court.

Unwilling to wait for the courts to fully resolve the issue, the states and territories want Congress to clarify that sovereign immunity does not apply to hazardous waste law

enforcement. Other environmental legislation, such as the Clean Air Act, explicitly waives sovereign immunity in its enforcement provisions.

In 1989, the House overwhelmingly passed HR 1056, which would have given EPA and the states clear authority to enforce hazardous waste laws, but the Senate version, the Federal Facilities Compliance Act (S. 1140), never came to a vote. DOD opposed this legislation because, its spokesmen argued, it would, in effect, give outsiders control of the limited DOD environmental budget.

Military Contractors Are Above the Law

Military contractors make up a large and influential segment of the U.S. industrial economy. The largest military contractors include well-known aerospace corporations, such as Lockheed, McDonnell Douglas, and General Dynamics, major manufacturers such as General Motors, General Electric, and IBM, and oil companies such as Chevron, Exxon and Shell Oil.

Many defense contractors are listed as Potentially Responsible Parties for NPL hazardous waste sites, which means, under the Superfund Law, that they will be billed for cleanup. Some of the nation's wealthiest defense companies pose the gravest threat to environmental security. For example, the top 10 military contractors are listed 133 times by the EPA as PRP's at the nation's 100 most serious Superfund sites. General Electric tops the list with 47 sites where it is a PRP.

Though governed by the same environmental laws that regulate other private industries, military contractors present unique problems by virtue of their cozy relationship with the federal government. Many military-oriented companies behave as environmental outlaws, and then they expect the Pentagon to bail them out once their reckless environmental practices come to light.

The Boeing Corporation's deal with the Air Force illustrates this point. Boeing dumped 24 million gallons of toxic waste into two Seattle-area landfills over the course of thirty years. Both sites are now on the Superfund NPL, and Boeing, as the largest dumper, has accepted liability for most of the cleanup costs at these sites. However, the company has also convinced the Air Force to reimburse cleanup costs of up to \$27 million if the company's insurers don't cover this liability.

The Air Force, which has already paid nearly \$13 million, says that cleanup is a normal cost of doing business. The Pentagon has reportedly agreed to reimburse Boeing's cleanup teams at several other sites nationwide, including a plant in Wichita, Kansas with extensive TCE groundwater contamination.

Executive Summary

Other firms, such as Aerojet-General and Lockheed, are also sending the bill to American taxpayers to clean up their toxic messes. Lockheed expects the Pentagon to reimburse it for cleanup at its company-owned plants at Harbor Island (Seattle, Washington), Burbank (California), and Sunnyvale (California), as well as the Operating Industries landfill in Monterey Park, California, where Lockheed is a PRP.

Government-Owned Contractor-Operated (GOCO) facilities are also among the Pentagon's biggest toxic headaches. Sixty of DOD's sixty-six GOCO's show up on the Defense Environmental Restoration Program list of cleanup installations. Because they work so closely with the DOD, the private GOCO contractors often escape accountability for their environmental mistakes.

William Parker, until recently the Pentagon's top administrator for environmental affairs, told Congress why DOD bails out its GOCO contractors:

The Department funds most cleanup costs for sites created by past practices at GOCO's. In effect, the responsible contracting officers in the DOD components [the armed services and Defense Logistics Agency] have determined that the operating contractors were using facilities provided by the government in ways commonly accepted as reasonable business practices at the time the contamination occurred. If we subsequently determine, however, that the contamination was caused by illegal activities or grossly negligent contractor operations, we will seek reimbursement.⁵

Given the abysmal environmental records at numerous GOCO's, the Pentagon's standard for "gross negligence" must be remarkably high. In contrast, as Congressman Mike Synar (D-Oklahoma) pointed out to DOD officials, owners and operators of civilian Superfund sites are not excused from financial responsibility because they used methods that were "acceptable at the time of disposal."

In some cases, the Pentagon has actually rewarded contractors for their pollution. For example, the Air Force hired Hughes Aircraft to clean up the groundwater it poisoned in Tucson, so Hughes made a profit correcting its own mistakes. In fact, Hughes "gold-plated" its cleanup operation, building an expensive computerized control center.

The bottom line is that the American taxpayer has been stuck with a monumental bill for decades of environmental wreckage by both DOD and its military contractors.

⁵*Overview of DoD Environmental Activities*, Hearings, Environmental Restoration Panel, House Armed Services Committee, May 2, 1989, pp. 265-266.

The Military's Chemical Connection

A part of the military's destruction of the American environment extends far beyond the 1500 installations where contamination is now known to exist. Military purchasing power is, in fact, driving much of the environmentally destructive behavior of our entire economy.

The military is a major consumer of hazardous materials. Military purchases directly account for 13 to 16 percent of the U.S. final-demand chemical market. In addition, military contractors, particularly weapons manufacturers, are major buyers of chemicals and other hazardous materials. For example, in 1986 the U.S. military and its contractors purchased half of the 150 million pounds of CFC-113 (chlorofluorocarbon-113, also known as Freon) used in the U.S. CFC-113 vapors break down the ozone layer, in the upper atmosphere, that protects the Earth from deadly ultra-violet solar radiation. In 1988, military contractors were responsible for 55 percent of the industrial CFC-113 releases in Florida. In 1986, the Navy and Air Force accounted for 16 percent of the combined U.S. emissions of two other ozone-depleting chemicals, Halon 1211 and Halon 1301. Thus, in the name of national defense, the military has been a major culprit in destroying the Earth's protective shield.

These purchases are guided by military specifications (mil-specs), which dictate exactly what types of materials and products military installations and contractors may purchase. Military procurement regulations have defined the market for a number of widely used, environmentally destructive materials, such as cadmium, TCE, and ozone-destroying CFC-113.

William Parker, while Deputy Assistant Defense Secretary, explained the far-reaching impact of the Pentagon's requirement for CFC-113 use:

A shift away from CFC-113 is difficult, especially for the production of military equipment, because U.S. military specifications for soldering and cleaning as written discourage the use of alternative non-ozone depleting materials. These specifications have become the de facto world standard for electronic equipment manufacture...⁶

The military market comprises such a large portion of the US economy that major pro-environment shifts in purchasing could help to redirect industrial practices throughout the US and even worldwide to promote safer materials use and pollution prevention.

⁶William H. Parker, III [Deputy Assistant Secretary of Defense (Environment)], "CFC's and Halon Use Reduction within the Department of Defense," paper presented to the United Nations Environmental Programme seminar on "Substitutes and Alternatives to Chlorofluorocarbons (CFC's) and Halons," October 20, 1988.

Executive Summary

Unfortunately, DOD's efforts to reduce CFC use, like most changes in Pentagon policy, is proceeding at a snail's pace. Commercial manufacturers of printed circuit boards have already implemented alternate, water-based cleaning methods, but the Pentagon has not yet given them the mil-spec stamp of approval.

Over There: Environmental Contamination at Bases Overseas

Published U.S. government reports on hazardous waste management and contamination routinely ignore the U.S. military's roughly 120 major foreign installations. However, the grim truth has begun to surface: U.S. overseas bases are leaving a trail of toxic contamination around the globe. With no effective mechanism for enforcing, let alone monitoring, environmental compliance, overseas bases have run up a cleanup and compliance bill which could add billions of dollars to the Pentagon's liabilities if the U.S. accepts responsibility, and which could estrange us from our closest allies if we do not.

The *Los Angeles Times* reports, "The Air Force has acknowledged that it has polluted the soil, streams, or ground water at every one of its airfields in Europe."⁷ The Army has identified 358 contaminated sites in West Germany alone. Of the total, at least 30 are on bases slated for closure. The Army, which tends to underestimate cleanup costs during the initial assessment of contamination, figures that 26 hot spots will require more than a million dollars each to clean up.

Despite some progress in changing its domestic environmental practices, the Pentagon bureaucracy has stonewalled abroad. In 1986 the General Accounting Office studied the hazardous waste activities of foreign facilities, but the Pentagon has classified its report as "confidential." Another GAO study, now underway, is also secret.

In its internal documents, the Army estimates its long-term German cleanup bill to be \$162 million. Yet in official military budget submissions known as A-106 reports, DOD projects spending only \$1 million dollars on cleanup in Germany over the next five years, and a miserly \$2 million worldwide. The Pentagon also plans to spend about \$83 million on sewage treatment facilities at 83 projects in Germany in the same time frame. Ironically, the government is spending more on sewage treatment in Germany over the next five years than it is to clean up Boston Harbor.

Germany, with the greatest concentration of U.S. troops abroad over the last two decades, may have the most widespread toxic contamination of American foreign bases, but problems are found almost everywhere U.S. forces have made camp. Landowners in Iceland, for example, are seeking restitution for damage caused by toxic

⁷John Broder, "U.S. Military Leaves Toxic Trail Overseas," *Los Angeles Times*, June 18, 1990, p. A15.

waste dumping more than twenty years ago at a mountaintop U.S. radar site. The Philippines, with the largest U.S. bases abroad, may have the worst problems. David Berteau, a top Pentagon official, has said: "If there's a horror story out there...Subic [Bay Naval Station] may be it."⁸ Subic's ship repair facility, a major industrial complex, has reportedly released tons of chemical wastes into the bay. However, it doesn't have to worry about meeting environmental standards because the Philippine Republic has none.

Most hazardous waste is disposed of or sold in the country in which it's generated, but certain particularly hazardous materials, such as PCB's and ammunition boxes treated with pentachlorophenol (PCP) are often "retrograded" to the U.S. or sent to other countries. Furthermore, the U.S. currently ships military toxic wastes from Turkey, Greece, the Azores, and Iceland to England for disposal. Though the British people are unaware of their country's lethal imports, the Pentagon says this practice meets British requirements.

In theory, U.S. bases abroad are required to meet the environmental standards of stateside installations. In reality, no U.S. or foreign agency has the authority to enforce, or even monitor, environmental compliance at foreign U.S. installations. In late 1990, Congress ordered the Pentagon to devise a policy for determining applicable foreign environmental compliance requirements, and it called for a report describing the financial and personnel costs of such compliance.

Despite its growing awareness of military environmental problems abroad, Congress decided that "the environmental restoration of bases used by the United States in foreign countries is a host nation responsibility." While such liability may eventually be negotiated with many host country governments, telling foreign governments that they must pay to clean up pollution caused by U.S. forces may drive a wedge between the U.S. and many of its allies.

Our Best Defense

In the brief history of environmental politics, one principle stands clear: The best defense against the environmental offenses of the military establishment is public awareness and action. Environmental conditions improve when the people affected or threatened by environmental degradation insist upon democratic participation in "environmental security" decisions that threaten their lives.

In many parts of the country, environmental groups have organized effectively to clean up military sites—publishing reports, mounting demonstrations, filing lawsuits, and

⁸*Ibid.*, p. A16.

Executive Summary

pressuring legislators. But many of the military's worst polluting installations have escaped attention, and critics have focused on only one of many environmental problems at numerous facilities. Even if citizens succeed in enacting ideal pollution prevention legislation and win adequate funding for restoration programs, the DOD will need watchdogs on the ground to ensure that all the branches of the military industrial complex act responsibly.

People threatened by toxic contamination should have a right to know exactly what poisons were released into their neighborhoods, how much, and when the release occurred. Moreover, they should have the right to inspect and monitor military bases with their own experts. Finally, they should have the right to negotiate with base officials and contractors about environmental protection.

To allow citizens to fully participate in environmental protection around federal facilities, the Defense Department should offer up to \$100,000 in Technical Assistance Grants to community groups at all military toxics sites, whether or not they are listed by Superfund, to allow them to monitor cleanup, compliance, and pollution prevention, and to cover the costs of community health and safety training by experts designated by those groups.

Despite its historical disregard for the environment, the Pentagon may, in the long run, be more responsive to public pressure than most other major polluters. After all, the American people are its sole "stockholders."

Today, the Pentagon has begun to acknowledge its environmental misdeeds of the past, and it has, at least on paper, committed itself to cleaning up its mess. In addition, DOD is working to reduce the amount of hazardous waste it actually generates. Moreover, Congress has decided to enlist the military's surveillance capability and research labs in the war on environmental degradation. At the urging of Senate Armed Services Committee chairman Sam Nunn (D-Georgia), it established the \$150 million Strategic Environmental Research and Development Program.

In September, 1990, the Pentagon staged the Defense and the Environment Initiative (D&EI) conference in Bethesda, Maryland, bringing together several hundred people from government, industry, and environmental groups to highlight DOD's new environmental consciousness. Though the Pentagon locked grass roots activists out of the official plenary agenda, it displayed its new sensitivity by giving environmentalists unprecedented access to high-level military brass and DOD administrators in small group discussions.

Notwithstanding these efforts to reorient the military, however, the DOD's programs to reduce, control and clean up its hazardous wastes remain mired in bureaucracy and incompetence. The President and Congress have simply not provided sufficient funds to meet DOD's environmental goals. The once-promising Defense and

the Environment Initiative, without a staff, has not yet even sent reports to its conference participants.

Before public policy-makers can seriously consider proposals to use the military's technical expertise to fight a "war on pollution," the DOD must prove itself capable of cleaning up its own backyard and using its tremendous influence in procurement policies to redirect the U.S. economy toward sustainable production.

If America is ever to set high standards for environmental protection and restoration, government agencies must serve as a model, by taking strong, visible steps to involve the public in environmental decisions to prevent pollution and to restore polluted air, land, and water. Pentagon leaders now say they want DOD to play such a role, but its record of environmental carnage and institutional arrogance doesn't inspire much confidence.

Now that the Berlin Wall has fallen and the threat from the Communist nations has all but disappeared, it is time for America to re-examine its continued reliance on a massive military-industrial complex, especially one that is itself a grave threat to our environmental security.

This report documents the last battle of the Cold War—the military's battle against the environment and the American public. We hope it serves to sound the alarm for a redefinition of national security to include environmental security, since without a safe environment and healthy communities we can never truly be free and secure.

Key Recommendations

There are seven basic principles that summarize most of the report's recommendations:

1. The Pentagon, the Nation's Largest Polluter, Should Clean Up Its Own Mess First.

The Department of Defense is responsible for 14,401 toxic waste sites at 1,579 domestic facilities, nearly 100 of which have already been placed on the Superfund National Priorities List. Even after its critics forced a doubling of cleanup funding, DOD is still spending less than .4 percent of its annual budget on environmental restoration. Before the Pentagon unleashes its exotic technical capabilities to fight the war on pollution, as Senator Nunn has suggested, it should clean up its own backyard first, without endangering surrounding communities.

2. End the Double Standard: Stop the Military's Exemption from State and EPA Oversight.

Executive Summary

Due to gray areas in Federal law, the DOD has been exempt from hazardous waste law enforcement by the Environmental Protection Agency and state regulatory authorities. We expect private companies to be accountable to environmental regulation while the government remains above the law. This double standard must end. The military must accept the authority of states and the EPA to enforce environmental compliance. Congress should speedily enact the Federal Facilities Compliance Act.

3. Stop Promoting the Toxic Economy: Change Military Specifications and Procurement Policies.

Through its procurement specifications, the DOD requires the use of ozone-destroying chemicals and other dangerous materials. By the end of 1991, DOD should review all military specifications requiring the use of toxic or dangerous substances and plan to eliminate, on a set timetable, requirements for substances that cause or probably cause cancer, birth defects, genetic mutations, neurological problems, and other serious health problems. In addition, to build the market for environmentally sound products, DOD should require its components to purchase large quantities of non-polluting vehicles, photovoltaic cells, recycled paper and other goods, and even fruits and vegetables grown without any cancer-causing pesticides and herbicides.

4. Stop the Cover-up of Foreign Base Contamination.

DOD has kept secret the full story of its tremendous overseas toxic waste problems, even blocking the public release of completed government reports. DOD should come clean with this information and make all reports and records available for public review. DOD should include foreign bases in its Defense Environmental Restoration Program.

5. Recognize Citizens' Right to Know and Right to Participate in Environmental Protection.

Every military installation should immediately begin reporting its toxic chemical releases into the air, water and land under the Toxics Release Inventory (TRI) of the Community Right to Know law. Without this information, neither the public nor the military itself will ever know the full extent of the DOD's environmental problems or its progress toward reducing chemical wastes. In addition, DOD should recognize the rights of citizens to inspect military bases, take samples, and negotiate with base officials about environmental cleanup and pollution prevention.

6. Provide Sufficient Funds to Support "Environmental Security."

A. America needs a fully funded **Defense Environmental Security Budget** that clearly describes all Pentagon programs for environmental restoration, environmental protection, pollution prevention, and environmental research and development.

B. A Defense Environmental Compensation Fund, with its own, one-stop administrative system, should be established to meet the urgent needs of people whose health and property have been harmed by military contamination. These monies should be made available without forcing victims to sue to obtain them, and they should cover such needs as medical care and screening, replacement water supplies, and relocation. Victims' recourse through this fund should not preclude later recourse through the courts.

C. A Defense Environmental Retraining Program—a new version of the “GI Bill”—is needed to ease the conversion of the nation's labor force to a peacetime, environmentally sound economy. Funding should be provided for retraining and transitional support for both military and contractor employees. The program should retrain these employees for cleanup, research and development, or other “environmental security” work.

7. Establish a High-Level Environmental Program at the DOD

DOD should consolidate supervision of its environmental programs, including pollution prevention and hazardous waste data management, in an office headed by an Assistant Secretary of Defense. DOD should remove the Defense Reutilization and Marketing Service from any responsibility for managing hazardous waste for DOD. Despite its efforts to overcome a history of incompetence, DRMS is not an appropriate agency for hazardous waste management. Finally, the consolidated environmental program should set standards for working with the neighbors of military bases, requiring each base to negotiate “Good Neighbor Agreements” to protect surrounding communities and reduce its use and disposal of hazardous materials.