NEW PERSPECTIVES ON A FAMILIAR PROBLEM: THE DEFENSE REFORM ACT OF 1997 ADDRESSES ENVIRONMENTAL HAZARDS AT FEDERAL FACILITIES

Denise J. De Haan*

TABLE OF CONTENTS

I. Introduction

"O beautiful for spacious skies, For amber waves of grain, For purple mountain majesties Above the fruited plain! America! America! . . ."[1] ". . .O'er the land of the free, and the home of the brave."[2] The Grand Canyon, Yellowstone National Park, the Great

* B.A., *Magna Cum Laude*, 1994, Messiah College, Grantham, Pennsylvania; J.D., anticipated 1999, Seton Hall University School of Law, Newark, New Jersey.

[1] KATHARINE LEE BATES, AMERICA, THE BEAUTIFUL (1893).

[2] FRANCIS SCOTT KEY, THE STAR-SPANGLED BANNER (1814).

Smoky Mountains and the Outer Banks of North Carolina are beautiful lands that are symbolic of America and are part of our nation's heritage. They are lands the men and women of our armed forces fought to protect.

Hazardous waste sites, water and air pollution, and soil and groundwater contamination are infamous environmental harms that have also become a part of America's heritage. Those same armed forces which were, and still are, essential for the nation's survival, are also one of the major contributors to this environmental degradation.

Today, the United States is the most powerful country in the world with the most technologically-advanced and highly-trained military of all nations. Yet that superior position did not come without a price. The years of armed conflict, followed by the proliferation of nuclear weapons during the Cold War, as well as ongoing military training and testing, have left their mark on the nation, and specifically the environment.[3] When the Cold War ended in 1989, it brought about a significant change in the global political environment.[4] In response to this political shift, the United States has decreased the size of its active duty military forces.[5] This change in the international political climate has also

---

[3] *See* Major Stuart W. Risch, *The National Environmental Committee: A Proposal to Relieve Regulatory Gridlock at Federal Facility Superfund Sites*, 151 MIL. L. REV. 1, 11-12 (1996). "Decades of improper and unsafe handling, storage, and disposal of hazardous materials while building and maintaining the world's most powerful fighting force have severely polluted America's air, water, and soil." *Id.* at n. 55. *See also* WILLIAM G. HYLAND, THE COLD WAR IS OVER 204-205 (1990) (discussing the Cold War legacy of nuclear weapons).

[4] *See Quadrennial Defense Review: Before the Subcomm. on Personnel of the House Comm. of Nat'l Sec.*, 105th Cong., available in 1997 WL 431631, at *1 (1997) (statement by General Ronald H. Griffith, Vice Chief of Staff, Army). In elaborating on the change in the global environment, General Griffith stated that the focus of the United States' Armed Forces in 1980 was on the defense of Central Europe, specifically a strategy of containment against the Soviet Union and the Warsaw Pact nations. *See id.* at *1-2. With the fall of the Berlin Wall in 1989, the Cold War ended, and today, the nuclear threat has been substantially reduced and national survival is no longer the principal concern. *See id.* American interests have become "more diversified and global" and are no longer limited to just one region of the world. *See id.* at *2.

[5] *See Hearing on Defense Reform: Before the House Comm. on Nat'l Sec.*, available in 1997 WL 87465, at *1 (Feb. 1997) (statement of Chairman Floyd D. Spence (R-SC)) [hereinafter February 1997 Defense Reform Hearing]. Today, United States active duty military "forces are 32 percent smaller than 10 years ago yet they are also busier than at any point during" that period. *Id.* at *1. In contrast,

given the United States the opportunity to address its own legacy of environmental problems, yet any resolutions are made more difficult by national budgetary constraints.[6]

In response to this need for reform of the Department of Defense, Rep. Floyd Spence (R-SC) introduced into the House of Representatives a bill known as the Defense Reform Act of 1997.[7] The purpose of the Defense Reform Act is to make various organizational, structural, environmental, and other policy reforms which would allow the Department of Defense (DOD) and the Department of Energy (DOE) to operate more efficiently and effectively.[8] The Act is divided into four primary sections: Title I - Defense Personnel Reforms, Title II - Defense Business Practice Reforms, Title III - Defense Environmental Reforms, and Title IV - Miscellaneous Additional Defense Reforms.[9] Among the existing environmental statutes which will be affected by Title III of the Defense Reform Act are the Comprehensive Environmental Response, Compensation and Liability Act of 1980,[10] the Solid

---

the size of the staff and support personnel in the Office of the Secretary of Defense has increased by over 40 percent. *See id.* at *3.

In spite of these reductions in the size of the U.S. military forces, the 1997 Quadrennial Defense Review (QDR) recommended additional cutbacks of U.S. armed forces. *See* H.R. REP. NO. 105-133(I), available in 1997 WL 359459, at *39 (1997) [hereinafter H.R. REP. NO. 105-133(I)].

[6] *See generally* H.R. REP. NO. 105-133(I), *supra* note 5. It would require billions of dollars to adequately address the current shortfalls in defense modernization, readiness and quality of life; however, the present budgetary framework does not realistically provide for such expenditures. *See id.* at *39. In addition, federal environmental programs, such as the Department of Defense, must compete with other military programs in order to receive defense funding. *See* Risch, *supra* note 3, at n. 288. The defense budget for fiscal year 1998 represents the 13th consecutive year of a decline in defense spending. *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *39.

[7] *See* H.R. 1778, 105th Cong. (1997).

[8] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *39. The desire to effectively reform the DOD has existed for decades, but previous attempts have resulted in only marginal improvements. *See id.* at *40. In the 104th Congress, reforms in acquisition policy, organization, infrastructure and support services were introduced by the Committee on National Security. *See id.* Yet these efforts encountered resistance and non-compliance. *See id.* However, the present condition of the defense budget has dramatically increased the necessity of improving the operations of the DOD. *See id.* at *39-40. The proposed Defense Reform Act attempts to further develop many of the Committee's prior reform efforts. *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *40.

[9] *See id.* at *1-3.

[10] *See* Comprehensive Environmental Response, Compensation and Liability Act of

Waste Disposal Act,[11] the Clean Air Act,[12] and Title 10 of the United States Code.[13]

This note will examine the reforms proposed by the Defense Reform Act in light of the current statutory environment. Part II provides the legislative history of CERCLA and SARA, including an overview of the statutes themselves and relevant case law. Part II also discusses the unique problems of federal facilities under CERCLA. Part III presents the legislative history of the Defense Reform Act, as well as an analysis of the Act. Based on this analysis, this note will conclude by recommending which of the proposed provisions of the Defense Reform Act appear most necessary to bring about effective environmental reform.

II. Comprehensive Environmental Response, Compensation and Liability Act of 1980

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) was signed by President Jimmy Carter on December 11, 1980.[14] Its purpose was to facilitate the quick and efficient clean-up of hazardous waste sites across the country and to place the costs of those cleanups on the responsible parties.[15] CERCLA also provided for a $1.6 billion

---

1980, 42 U.S.C. §§ 9620, 9621(b).

[11] *See* Solid Waste Disposal Act, 42 U.S.C. § 6924(u), (y).

[12] *See* Clean Air Act, 42 U.S.C. §§ 7401, 7418(a).

[13] *See* Title 10 of the United States Code, 10 U.S.C. § 2701(c).

[14] *See* Arnold & Porter Legislative History: P.L. 96-510, A Legislative History of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [hereinafter Legislative History of CERCLA]. This document was prepared by the Environment and Natural Resources Policy Division of the Congressional Research Service of the Library of Congress for the Committee on Environment and Public Works. *See id.* CERCLA is also known as the "Superfund" law. *See id.*

[15] *See* United States v. Akzo Coatings of America., Inc., 949 F.2d 1409, 1417 (6th Cir. 1991). *See also* In the Matter of Bell Petroleum Servs., Inc., 3 F.3d 889, 894 (5th Cir. 1993); United States v. R.W. Meyer, Inc., 889 F.2d 1497, 1500 (6th Cir. 1989). CERCLA applies "primarily to the cleanup of leaking inactive or abandoned sites and to emergency responses to spills." Akzo, 949 F.2d at 1417 (quoting F. ANDERSON, D. MANDELKER & A. TARLOCK, ENVIRONMENTAL PROTECTION LAW AND POLICY 568 (1984)).

In *United States v. R.W. Meyer, Inc.*, 889 F.2d 1497, 1498 (6th Cir. 1989), defendant Meyer owned property which he leased to Northernair Electroplating Company from 1975 to mid-1981. As part of the electroplating business,

fund, financed "over a five-year period from taxes on petroleum and certain chemicals and from federal appropriations," to pay for the cleanup of these hazardous waste sites.[16]

Northernair used "highly corrosive and caustic substances" including cyanide, zinc, cadmium and chromic acid. *Id.* at 1498. In March of 1983, officials from the EPA inspected the property and found discarded drums full of "caustic and corrosive materials" outside of the building. *Id.* at 1499. The EPA observed drums and tanks containing cyanide inside the building, and discovered that Northernair had discharged electroplating waste into a "catch" basin, from which the waste leaked into the ground. *See id.* at 1499. EPA officials advised Meyer and Northernair of the necessity of a removal action on the property. *See id.* When defendants failed to undertake the project, the EPA conducted the cleanup and demanded reimbursement from Meyer and Northernair. *See id.* Defendants did not respond to this request, and subsequently the EPA filed suit in federal court seeking reimbursement pursuant to CERCLA. *See* R.W. Meyer, 889 F.2d at 1499. The district court granted summary judgment to the government, finding the defendants jointly and severally liable for the government's response costs. *See id.*

On appeal, the court of appeals upheld the district court's finding of joint and several liability. *See id.* at 1507. As the operator of the facility, Northernair was directly responsible for the hazardous substances on Meyer's property. *See id.* at 1507. Meyer's liability was based on ownership of the property under CERCLA § 9607 (b), which provides for strict liability for landowners. *See id.* The appellate court also upheld the costs awarded to the government by the district court. *See id.* at 1503-4. Section 9607 (a) of CERCLA authorizes the government to recover all costs of removal or remedial response actions, and section 9604 (b) includes activities such as planning, legal, engineering, architectural and other studies or investigations necessary to conduct response actions as recoverable under the definition of removal. *See* R.W. Meyer, 889 F.2d at 1501. The court thus concluded that the government was entitled to recover "all of the costs incurred in a remedial or removal action." *Id.* at 1503.

[16] Arnold & Porter Legislative History: P.L. 99-499 Mat'l 173, Report by the Comptroller General to the Congress of the United States, "Cleaning Up Hazardous Wastes: An Overview of Superfund Reauthorization Issues," available in Westlaw, at *6 (1985) [hereinafter Comptroller General's Report].

Originally two funds were established, the Hazardous Substance Response Trust Fund and the Post-Closure Liability Trust Fund, which were later combined into a single Hazardous Substances Superfund. *See* William H. Rodgers, Jr., *Hazardous Wastes and Substances*, 4 ENVTL. L. § 8.1, available in Westlaw, at *5 (1992). Congress felt it was "wholly appropriate and equitable" to require industry to contribute through taxes a portion of the response costs, because industry had generated the wastes and benefited from cheap, inadequate disposal methods. *Id.* at *5. However, the taxing authority provided by CERCLA expired at the end of fiscal year 1985. *See* Comptroller General's Report, *supra* note 16, at *6.

CERCLA prohibits federal facilities from using Superfund money to clean up hazardous wastes sites at their facilities (e.g., hazardous wastes on military bases). *See id.* at *14. Thus, the costs of these cleanups must be paid out of the respective federal agencies' budgets. *See id.*

A. *Legislative History*

As early as the 1970's, legislative action was taken to address the United States' environmental problems. The National Environmental Policy Act of 1969 (NEPA) was signed by President Nixon on January 1, 1970.[17] NEPA established both the Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA).[18]

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) as an amendment to the Solid Waste Disposal Act.[19] The Solid Waste Disposal Act had been enacted in 1965 to regulate the dumping of solid wastes.[20] RCRA provided for federal regulation of hazardous wastes and state regulation of nonhazardous wastes pursuant to federal guidelines.[21] However, a major criticism of RCRA was that it only applied prospectively.[22] RCRA sought to prevent wastes from being released into the environment, but did not provide a means of handling hazardous waste sites created prior to its enactment.[23] Therefore, additional legislation was necessary to address the holes left by RCRA.[24]

---

[17] *See* Risch, *supra* note 3, at 14. NEPA was signed following an oil spill from a Union Oil Company ship off the coast of Santa Barbara. *See id.* at 15. Its purpose was to "declare a national policy encouraging protection of the environment," and today, it is generally considered the "father of the environmental movement." *Id.* at 14-15.

[18] *See id.* at 15-16. The CEQ is a staff office located in the Executive Office of the President. *See id.* Both the CEQ and the EPA were intended to be "environmental watchdogs." *Id.* at 16.

[19] *See* Risch, *supra* note 3, at 18.

[20] *See id.* at 13 n.61.

[21] *See* Randolph L. Hill, *An Overview of RCRA: The "Mind-Numbing" Provisions of the Most Complicated Environmental Statute*, 21 ENVTL. L. REP. 10254 (1991). Subtitle C, which regulates hazardous wastes, is often described as a "cradle-to-grave" regulatory scheme because it regulates hazardous waste from the point of its generation to its disposal. *Id.* at 10261. Generators of hazardous waste, transporters of hazardous waste, and treatment, storage and disposal facilities (TSDFs) all must comply with RCRA's regulations. *See id.* at 10261-62.

[22] *See* Risch, *supra* note 3, at 20.

[23] *See id.* at 20-21.

[24] It should be noted that the Superfund legislation was created by the same committees that drafted the 1980 Amendments to RCRA. *See* Rodgers, § 8.1, *supra* note 16, at *3. It "picks up where RCRA leaves off," in that it applies to emergencies, as well as spills at inactive sites. *Id.* CERCLA is also linked to RCRA in a number of ways, e.g., in the definition of "hazardous substance" and in the standards to be followed during a cleanup. *See id.* at *3.

The original proposal for new legislation sought to address three problems at once: 1) oil spills, 2) spills of hazardous substances, and 3) releases from abandoned waste disposal sites.[25] The 95th Congress was confronted with two different legislative approaches for addressing these problems.[26] One proposal was a Senate measure and the other was a joint effort by the Senate and the House.[27] However, the second session of Congress ended before any agreement on the proposed bills could be reached.[28]

The 96th Congress faced additional pressure to enact effective environmental legislation during the late 1970's as a result of the heightened public awareness of the dangers inherent in the nation's newly discovered toxic waste sites.[29] Several pieces

---

CERCLA also illustrates the so-called "copy-cat" phenomenon of environmental statutes. *Id.* at 3. CERCLA adopts "almost verbatim" language of Section 311 of the Clean Air Act by extending the oil spill provisions of Section 311 to other hazardous substances. *Id.*

[25] *See* Legislative History of CERCLA, *supra* note 14 .

[26] The 95th Congress was in session during 1977-78. *See id.*

[27] *See id.* The Senate bill, S. 2900, was designed to enhance "the existing oil and hazardous substance provisions of the Clean Water Act." *Id.* The joint effort of S. 2083 and H.R. 6803 proposed "a new area of law for oil pollution liability and compensation." *Id.*

[28] *See id.* The Senate's provisions on hazardous substance spills were the primary cause of dissension between the House and the Senate, and these proposals were consistently rejected by the House. *See* Legislative History of CERCLA, *supra* note 14.

[29] *See id.* Some of the most infamous hazardous waste sites which gained national attention during the late 1970's included the Love Canal in Niagara Falls, New York; the Valley of the Drums in Sheperdsville, Kentucky; the Picillo Pig Farm in Coventry, Rhode Island; and the W.R. Grace properties in Woburn, Massachusetts. *See* Rodgers, § 8.1, *supra* note 16, at *2.

After the initial discovery of the Love Canal and the other aforementioned contaminated sites, the EPA and other agencies conducted various investigations and studies which revealed that these sites were only "the tip of the iceberg." Risch, *supra* note 3, at 23. Based on its studies, the EPA concluded that between 32,000 and 50,000 hazardous waste sites existed in the United States at that time, and many of these sites represented potentially serious health risks to the public. *See id.* at 24.

It should be noted that the Superfund law was well on its way to enactment "before the Love Canal burst into public prominence." Rodgers, § 8.1, *supra* note 16, at *2. The Love Canal contributed to the enactment of CERCLA, but its role was more of a reinforcer of public opinion, instead of a source of new ideas. *See id.* at *2. Part of Love Canal's influence was felt in the "ticking time bomb" metaphor. *See id.* at *2. From the middle of May, 1980, to the middle of June of that same year, Love Canal was "virtually a daily feature of network newscasts." *Id.*

of legislation were introduced during this period. Representative Mario Biaggi (D-NY) introduced H.R. 85 on January 15, 1979,[30] which passed the full House in September 1980 in the form of an amended bill.[31] This amended bill provided for the creation of two funds, one to provide compensation for oil spills in navigable waters, and the other for chemical spills in navigable waters.[32] On April 2, 1980, Representative James Florio (D-NJ) introduced H.R. 7020,[33] which was enacted by the House in September.[34] This bill created a fund which would help finance government responses to releases of hazardous substances from inactive waste sites.[35]

The most prominent Senate bill, S. 1480, was introduced by the leaders of the Senate Committee and two subcommittees on July 11, 1979.[36] After review and amendment by various Senate

---

[30] *See* Exxon Corp. v. Hunt, 475 U.S. 355, 365 (1986). H.R. 85 was considered by both the Merchant Marine and Fisheries Committee and the Public Works and Transportation Committee. *See* Legislative History of CERCLA, *supra* note 14. The two Committees' versions of the bill were then combined by the Ways and Means Committee. *See id.*

[31] *See Exxon Corp.*, 475 U.S. at 365.

[32] *See Exxon Corp.*, 475 U.S. at 366. H.R. 85 created two funds, with each fund worth $369 million. *See* Legislative History of CERLA, *supra* note 14. These funds would be financed from taxes on petroleum and chemical feedstocks. *See Exxon Corp.*, 475 U.S. at 366. Under the bill, individuals and governments could recover damages for cleanup costs and some economic losses, and owners and operators of vessels and other facilities were subject to strict liability. *See id.* It is important to note that the two funds covered spills in navigable waters only; they did not apply to hazardous substance releases on land. *See id.*

[33] *See id.* at 366. An amendment presented by the Energy and Commerce Committee was reported on May 16, 1980. *See* Legislative History of CERCLA, *supra* note 14. As part of H.R. 7020, the Commerce Committee had proposed the creation of a $600 million fund. *See id.* The bill was then referred to the Ways and Means Committee for consideration, and that committee doubled the size of the proposed fund to $1.2 billion. *See id.* The Ways and Means Committee proposed a change in the percentage of contribution to the fund by industry and government, from 50/50 to 75% from industry and 25% from government. *See id.*

[34] *See* Legislative History of CERCLA, *supra* note 14.

[35] *See Exxon Corp.*, 475 U.S. at 366. The fund created by H.R. 7020 was financed from a tax on oil and chemicals, as well as from general revenues. *See id.* The fund did not apply to spills in navigable waters, and it did not provide compensation for economic losses. *See id.*

[36] *See* Legislative History of CERCLA, *supra* note 14; *see also Exxon Corp.*, 475 U.S. at 366. The Senators who were responsible for S. 1480 were Jennings Randolph, Committee Chairman; Robert Stafford, Ranking Minority Member of the full committee; Edmund Muskie, Chair of the Subcommittee on Environmental Pollution; and John Culver and John Chafee, Chairmen of the Subcommittee on Resource Protection. *See* Legislative History of CERCLA, *supra* note 14.

committees, the bill was favorably reported to the full Senate on November 18, 1980.[37] This bill, as amended, established a no-fault victim compensation scheme, provided for a $4 billion fund, and mandated strict joint and several liability for persons responsible for releases of hazardous substances.[38]

This environmental legislation met with resistance in the Senate and none of the three proposed bills were accepted.[39] A compromise to S. 1480 was introduced by the Environment Committee, which the Senate passed as an amendment to H.R. 7020 on November 24.[40] The House passed the Senate amendments on December 3, and President Jimmy Carter signed the legislation, known as the Comprehensive Environmental Response, Compensation and Liability Act, into law on December 11, 1980.[41]

---

[37] *See* Legislative History of CERCLA, *supra* note 14. S. 1480 was considered jointly by the Senate Environmental and Public Works Subcommittees on Environmental Pollution and Resource Protection. *See id.* After amendment by both the subcommittees and the full committee, the bill was reported to the Senate on July 11, 1980. *See id.* The bill was referred to the Committee on Finance on October 1 and reported back to the Senate on November 18 without amendment or recommendation. *See id.*

[38] *See* Legislative History of CERCLA, *supra* note 14. S. 1480 did not apply to oil spills, but its toxic substance coverage was broader than previous bills in that it applied to any release into the environment of any hazardous substance. *See id.* The fund was to be financed from general revenues and from taxes on petroleum and chemicals. *See Exxon Corp.*, 475 U.S. at 366.

[39] *See Exxon Corp.*, 475 U.S. at 366. H.R. 85 and H.R. 7020 were rejected for being too weak, and S. 1480 was seen as too comprehensive. *See id.* at 366.

[40] *See* Legislative History of CERCLA, *supra* note 14. *See supra* note 33 discussing H.R. 7020. The compromise to S. 1480 was introduced on November 14 by Senators Stafford and Randolph. *See* Legislative History of CERCLA, *supra* note 14. This bill, Amendment No. 2622, would have cut S. 1480's proposed $4 billion fund to $2.7 billion. *See id.* However, the Senate raised objections to consideration of the bill, and a motion to table it lost by a vote of 29-50. *See id.* Thereafter, additional concessions were made by the bill's sponsors. *See id.* The fund was reduced to $1.6 billion and the provision providing compensation for medical expenses for victims of environmental disasters was deleted (Amendment 2631). *See id.* The Senate passed Amendment 2631 by a 78-9 vote. *See id.*

[41] *See* Legislative History of CERCLA, *supra* note 14. In the House, the bill was passed "after a very limited debate." Rodgers, § 8.1, *supra* note 16, at *1. In order to facilitate passage of the bill, House rules had been suspended to prevent the introduction of additional amendments. *See id.* The House basically had a "take it-or-leave it" option, and thus, the bill was passed by a 274-94 vote. *See id.* at *1; Legislative History of CERCLA, *supra* note 14. After CERCLA was signed by the President, it became Public Law No. 96-510. *See id.*

B. *Overview of CERCLA*

CERCLA mandates the cleanup of hazardous waste sites and sets the standards to be applied in those cleanup actions.[42] CERCLA achieves these goals through the use of four basic methods: (1) an information-gathering and reporting system; (2) the federal government's authority to respond to hazardous waste emergencies and to clean up inactive dump sites; (3) the creation of the Superfund to finance the cleanup of inactive sites; and (4) a scheme of strict liability.[43]

CERCLA requires the President to establish a National Contingency Plan (NCP).[44] The NCP identifies the federal and state governments' responsibilities in addressing hazardous waste

---

[42] *See* Risch, *supra* note 3, at 27.

[43] *See* Rodgers, § 8.1, *supra* note 16, at *3. These four methods are briefly described as follows:

(1) part of CERCLA's information-gathering and reporting function, subsection 103(c) requires owners of inactive hazardous dump sites to inform the EPA "of the existence of [the] facility," and to provide details about "the amount and type of hazardous substance" located at the site, as well as any known, suspected or threatened releases from the facility. *Id.* at *4. Failure to report the release of a hazardous substance is a criminal offense under CERCLA, yet ninety to ninety-five percent of hazardous substance releases still remain unreported. *See id.* at *4.

(2) Subsection 104(a)(1) authorizes the President to take removal or remedial action, consistent with the National Contingency Plan ("NCP"), "whenever there is a release or threat of release of a hazardous substance." *Id.* at *4. The President has delegated most of his authority under CERCLA to the EPA. *See* In the Matter of Bell Petroleum Servs., Inc., 3 F.3d 889, 894 (5th Cir. 1993).

(3) A $1.6 billion fund, known as the Superfund, was created from a tax on the petroleum and chemical industries. *See* Risch, *supra* note 3, at 27-28. This fund was initially intended to be in use for five years. *See id.* Congress' intent was that the Superfund would be used only when the party responsible for the release could not be found. *See id.* at 28.

(4) Section 107 creates four classes of potentially responsible parties (PRPs) who are held strictly liable for any costs connected with the release of hazardous substances: (a) current owners/operators of hazardous waste facilities; (b) former owners/operators of hazardous waste facilities, if they owned or operated the facility at the time of disposal of any hazardous substances; (c) generators of hazardous substances; and (d) transporters of hazardous substances. *See* Risch, *supra* note 3, at 30-31.

[44] *See* B&B Tritech, Inc. v. United States Envtl Protection Agency, 957 F.2d 882, 883 (DC Cir. 1992). The EPA has been delegated the responsibility for formulating the NCP regulations. United States of America v. City and County of Denver, 100 F.3d 1509, 1511 (10th Cir. 1996).

releases and establishes cleanup procedures.[45] The NCP also directs the EPA to establish a National Priorities List (NPL) of known or threatened releases throughout the United States.[46] The EPA has several options when undertaking a response action.[47] The EPA can conduct the cleanup action itself, or it can seek an injunction to compel the potentially responsible parties to take the necessary action.[48]

---

[45] *See City of Denver*, 100 F.3d. at 1511. Once a hazardous waste site is discovered, the EPA has two response options, either a "removal" or a "remedial" action. *See* Comptroller General's Report, *supra* note 16, at *7. A removal action is an interim or short-term response to an immediate threat, while a remedial action is a long-term or permanent solution. *See id.* at *7, 43. *See also Bell Petroleum Servs.*, 3 F.3d at 894.

[46] *See B&B Tritech*, 957 F.2d at 883. The EPA uses a mathematical system, called the Hazard Ranking System (HRS) to evaluate proposed NPL sites. *See id.* at 883. In addition to listing sites based on their HRS scores, each state is entitled to choose one site of automatic NPL inclusion. *See* Comptroller General's Report, *supra* note 16, at *7.

Once a site is placed on the NPL, a Remedial Investigation and Feasibility Study (RI/FS) is conducted to evaluate the threat posed by the release and identify potential remedies. *See* United States v. Akzo Coatings of America, Inc., 949 F.2d 1409, 1417 (6th Cir 1991). Based on the RI/FS, the EPA proposes a remedy, and a remedial action plan (RAP) must then be published and made available for public comment. *See id.* The plan is then finalized, and the EPA issues a Record of Decision (ROD) setting forth the remedy. *See id.*

[47] *See* New York v. Shore Realty Corp., 759 F.2d 1032, 1041 (2nd Cir. 1984). In addition to the federal government's responsibilities, states are permitted to enter into a cooperative agreement with the EPA. *See id.* at 1041. A cooperative agreement allows both a state and the EPA to take cleanup action while sharing the costs of those actions. *See id.* States may also sue responsible parties for response costs if the state's cleanup actions were "not inconsistent with the NCP." *Id.* CERCLA does preclude a party from recovering the same removal costs under both CERCLA and state laws. *See id.*

[48] *See* Risch, *supra* note 3, at 29. If the EPA performs the cleanup itself, and either no PRPs have been identified or private resources are inadequate, the Superfund will be used to fund the action. *See Shore Realty*, 759 F.2d at 1041. However, if the EPA has conducted the action and solvent PRPs are found, the EPA can sue the PRPs for reimbursement of its cleanup costs. *See id.* at 1041. PRPs will be held jointly and severally liable, unless it is possible to apportion the damages among the parties. *See* Risch, *supra* note 3, at 32.

There are only three affirmative defenses that a party can raise under CERCLA: acts of God, acts of war, or acts of a third party. *See id.* at 32. A PRP's claims of good faith efforts, exercise of due care or engaging in lawful activities are not defenses to liability under CERCLA. *See id.* Congress intentionally limited the possible defenses to CERCLA to prevent the parties responsible for causing hazardous waste sites from escaping liability. *See id.* at 32-33. Congress wanted to prevent courts from considering other common defenses which could otherwise be used to release a party from liability. *See id.* at 32. Thus, if a party was determined

Soon after its enactment, it became apparent that CERCLA contained numerous problems.[49] The Act was a product of its environment, having been hastily drafted, negotiated and approved by Congress.[50] At the time of its enactment, Congress was operating under a limited understanding of the extent of the nation's hazardous waste problem.[51] The long-term effects of hazardous waste releases had not yet been realized, thus, the fund originally established under CERCLA (the Superfund) to finance cleanups was limited to $1.6 billion over five years.[52]

One of the major criticisms of CERCLA was that it was not comprehensive.[53] A second complaint was that many of its provisions were vague or ambiguous.[54] In addition, Congress had

---

to be a PRP under one of the four broad statutory groups, that party would be held liable. *See id. See also supra* note 43 discussing the four classes of PRPs under section 107.

[49] *See* Risch, *supra* note 3, at 33. Shortly after it was enacted, the chairman of the House subcommittee responsible for CERCLA criticized the bill, stating that it was "enormously costly, grossly inefficient, patently unfair, and short on results." John Nagle, Seton Hall School Of Law Environmental Law Course Supplementary Syllabus Materials, 183 (Fall 1997) (quoting *Superfund Reauthorization (Part 2): Hearing Before the Subcomm. on Commerce, Trade, and Hazardous Materials of the House Commerce Comm.*, 104th Cong., 1st Sess 135 (1995)(testimony of Rep. Oxley)) (on file with author).

[50] *See Akzo*, 949 F.2d at 1417. As indicated above, the final version of CERCLA was an "eleventh hour compromise" created mostly by Senate leaders. *See supra* note 41. There are no committee reports to provide details of this final compromise, but the bill does contain many provisions similar to terms from earlier drafts. *See Shore Realty*, 759 F.2d at 1040.

[51] *See Akzo*, 949 F.2d at 1417. In the 1980's, both Congress and the EPA believed they were dealing with a "relatively limited problem," and that "cleaning up a site was relatively inexpensive and involved removing containers or scraping a few inches of soil off the ground." Rodgers, § 8.1, *supra* note 16, at *3.

[52] *See* Arnold and Porter Legislative History, P.L. 99-499 Mat'l 170, Report Approved for Release by the Technology Assessment Board, "Superfund Strategy" [hereinafter Superfund Strategy]. CERCLA had a "self-destruct" provision of September 30, 1985. *See also* In the Matter of Chicago, Milwaukee, St. Paul & Pacific R.R. Co., 78 F.3d 285, 289 (7th Cir. 1996). In other words, September 30, 1985 was the date on which CERCLA's taxing and funding authority would expire. *See* Risch, *supra* note 3, at 33.

[53] *See* Risch, *supra* note 3, at 33. CERCLA was criticized for its failure to compensate victims of hazardous waste releases, for leaving liability to be determined by common law, and for providing a fund that was only nine percent of the estimated amount necessary to clean up all hazardous waste "posing a danger to public health and the environment." *Id.* at 33.

[54] *See id.* at 34.

severely underestimated the number of sites requiring cleanup.[55] The EPA also received criticism, both for the way it used its delegated authority[56] and for the slow rate of the cleanups.[57] Federal facilities, which are treated differently under CERCLA, had not fared any better than private facilities.[58] As a result of CERCLA's inadequacies, in the mid-1980's, Congress began the process of amending CERCLA.[59]

C. *Superfund Amendments and Reauthorization Act of 1986*

The process of renewing the Superfund began in 1984.[60]

---

[55] *See Akzo*, 949 F.2d at 1417. Under the original Superfund program, the EPA was to establish an NPL of at least 400 sites that required remedial cleanup action. *See* Superfund Strategy, *supra* note 52. As of December 31, 1984, the EPA had identified 19,368 hazardous waste sites, with 538 of them being given priority status. *See* Comptroller General's Report, *supra* note16, at *2.

[56] *See Akzo*, 949 F.2d at 1417. The EPA was accused of failing to provide remedies that would protect the environment and public health, and for alleged "sweetheart" deals that reduced industries' cleanup costs at public expense. *See id.* at 1417.

[57] *See id.* Of the 538 sites surveyed in 1984, 194 of them had no cleanup action in progress or in the planning stages. *See* Comptroller General's Report, *supra* note 16, at *2. Prior to its reauthorization in 1986, CERCLA had accomplished the long-term cleanup of only 14 sites. *See In the Matter of Chicago*, 78 F.3d at 289.

The EPA's cleanup efforts are limited to priority sites, thus the EPA will not address a site unless it is identified as posing an emergency threat. *See* Comptroller General's Report, *supra* note 16, at *3. The states have the opportunity to play a role in cleaning up non-priority sites. *See id.* However, since there are no national standards for cleanup actions and each state has different capabilities and resources, such state actions provide varying degrees of effectiveness. *See id.*

[58] *See* Comptroller General's Report, *supra* note 16, at *14. As of September 30, 1984, the Department of Defense, under the Installation Restoration Program started in 1975, had identified 473 bases that required studies to identify the existence of inactive hazardous waste disposal sites. *See id.* Of those 473 initial investigations, 356 had been completed and 58 were still in progress. *See id.*

[59] *See* Risch, *supra* note 3, at 35. As part of the process of reauthorizing the Superfund program, the Office of Technology Assessment conducted a study to examine the "lessons learned" from the original program. *See* Superfund Strategy, *supra* note 52. Two of the principal goals of the report released by the Office of Technology Assessment were to understand (1) future Superfund needs and (2) how permanent cleanups could be accomplished in a cost-effective manner for different types of sites. *See id.* Some of the concerns which were addressed included the number of sites needing cleanup, possible cleanup methods, and the amount of money necessary to effectuate the cleanups. *See id.*

[60] *See* Timothy B. Atkeson et al., *An Annotated Legislative History of the*

Both the Senate Environment and Public Works Committee and the House Energy and Commerce Committee conducted reviews of Superfund.[61] The House took a more active early role in the renewal process,[62] and on August 9 and 10, the House was presented with a proposed Superfund amendment.[63]

In April 1985, the Office of Technology Assessment (OTA) published its Superfund Strategy report, which indicated major discrepancies between the EPA and the OTA's assessments of the situation.[64] The Reagan Administration also sponsored proposals for the amendment of CERCLA.[65] Two Reagan proposals were introduced in February 1985 and both provided for a fund of $5.3 billion for another five years.[66] The Senate debated the proposed Superfund amendments in September 1985,[67] and three months

---

Superfund Amendments and Reauthorization Act of 1986 (SARA), 16 ENVTL. L. REP. 10363, available in Westlaw, at *12 (1986). In President Reagan's State of the Union speech on January 25, 1984, he informed the American public that he had already taken steps to prepare for the extension of the Superfund law. *See id.* at *12.

[61] *See* Atkeson, *supra* note 60, at *12. The Senate Environment and Public Works Committee filed a report, but the Senate did not take any further action at this time. *See id.* at *12.

[62] *See id.* The House Energy and Commerce Committee filed a report, and the Ways and Means Committee submitted a proposal on replenishment issues. *See id.*

[63] *See id.* The issue which caused the most controversy was a proposal to enact a federal cause of action for claims for injury from hazardous substances. *See id.* This proposal was defeated on August 9, 1984 by a 208-200 vote. *See* Atkeson, *supra* note 60, at *12.

[64] *See id.* at *14. The EPA estimated that the number of sites on the NPL would not exceed 2,000, while the OTA estimated that number to be 10,000 or more. *See id.* The OTA also estimated that Superfund costs could reach $100 billion and take up to 50 years. *See id.* at *14-15. Contributing to the OTA's high estimates was their opinion that EPA's "remedial cleanups" were only producing a temporary solution, and thus were likely to require further action in the future. *See id.* at *14.

[65] *See id.* at *12. The two Reagan proposals were S. 494 and H.R. 1342. *See id.*

[66] *See* Atkeson, *supra* note 60, at *12. In support of the proposed $5.3 billion fund, EPA Administrator Thomas predicted "that by the end of fiscal year 1990 engineering studies would have been started on 1,500 sites," actual construction would be in progress or completed at more than 900 sites, and emergency cleanup actions would have taken place at over 1,700 sites. *See id.* at *12-13. Based on those statistics, Thomas claimed that the EPA would not need a five year Superfund larger than $5.3 billion. *See id.* at *13.
Throughout 1985, the EPA spoke to seven congressional committees regarding Superfund renewal issues, and all of the committees filed reports. *See id.*

[67] *See id.* at *13. The Senate debate took place from September 17 through 26,

later the House held its floor debate on the proposed amendments.[68]

These debates revealed the presence of many issues which still required resolution.[69] In February 1986, the Conference Committee began working through these problems and filed its report on the Superfund Amendments and Reauthorization Act of 1986 (SARA) on October 3, 1986.[70] The Committee's report provided for a funding level of $8.5 billion.[71] The Senate passed the Conference Committee's Report that same day; it passed the House on October 8, 1986, and the bill, H.R. 2005, was sent to the President for his signature.[72] However, the President did not support this legislation,[73] and his failure to sign it would have resulted in a pocket veto of the bill.[74] Since it was nearing the end of the Congressional term, Congress threatened to remain in session for an additional week or two in order to prevent a pocket veto.[75] In addition, bipartisan representatives from Congress,

---

1985. *See id.* The Senate Environment and Public Works Committee report endorsed most of the Administration's proposals. *See* Atkeson, *supra* note 60, at *15. As an alternative to the chemical and petroleum tax, the Senate Finance Committee proposed imposing an excise tax as a method of funding the Superfund. *See id.*

[68] *See id.* at *13. The House debates occurred on December 5, 6, and 10, 1985. *See id.* The day before the start of the House debates, the five House committees that had submitted proposals reached a compromise, which was presented in the form of H.R. 3852. *See id.* at *15. During the House debate, Representative Frank (D-Mass.) submitted a proposal to create a federal cause of action for damage caused by the release of hazardous substances. *See id.* Senator Frank's proposal was rejected by a vote of 261 to 162. *See* Atkeson, *supra* note 60, at *15.

[69] *See id.* at *13.

[70] *See id.* The Committee had reached agreement regarding funding and various other substantive issues on July 31, 1986. *See id.* at *15. However, final agreement on all issues was delayed until October because several of the committees were sidetracked with general tax reform legislation matters. *See id.*

[71] *See id.*

[72] *See* Atkeson, *supra* note 60, at *13.

[73] *See id.* at *15-16. The White House had made it clear that it was opposed to the excise tax as a new source of funding, stating that the tax was "an ideologically unacceptable value-added tax." William H. Rodgers, Jr., *Hazardous Wastes and Substances*, 4 ENVTL. L. § 8.2, available in Westlaw, at *1 (1992). The Administration also objected to the size of the proposed new fund, saying that it was too big and thus too expensive. *See id.*

[74] *See* Atkeson, *supra* note 60, at *15-16. If the President did not sign the proposed legislation, it would effectively kill the bill, because the Conference Report was filed shortly before the end of the Congressional term. *See id.* at *16.

[75] *See id.* Both houses of Congress had passed SARA with margins large

industry and environmental interests put pressure on the President to sign the bill.[76] President Reagan signed SARA on October 17, 1986.[77]

SARA expanded and amended, as well as upheld CERCLA.[78] It has five titles[79] and is one of the longest pieces of United States environmental legislation.[80] Arguably the most important feature of SARA was the establishment of new cleanup standards.[81] SARA also increased the Superfund to $8.5 billion and extended the program for another five years.[82] In addition, SARA expanded

---

enough to override a presidential veto. *See* Rodgers, § 8.2, *supra* note 73, at *1.

[76] *See* Atkeson, *supra* note 60, at *16. Additionally, Republican congressional candidates announced that a veto of SARA would decrease their chances at reelection, and 50 senators gave the President a written pledge that they would "support his vetoing of either a general purpose broad-based tax, or an increase in the amount of this special purpose tax to provide funding for the Superfund program." *Id.* at *16.

[77] *See* Rodgers, § 8.2, *supra* note 73, at *1-2. Upon signing SARA, President Reagan stated that his "overriding concern has been the continuation of our progress to clean up hazardous waste sites that endanger the health and safety of our citizens." Atkeson, *supra* note 60, at *16.

[78] *See* United States v. Akzo Coatings of America., Inc., 949 F.2d 1409, 1417 (6th Cir. 1991).

[79] *See* Rodgers, § 8.2, *supra* note 73, at *6-7. The five titles of SARA are:
Title IResponse and Liability
Title IIMiscellaneous Subjects
Title IIIEmergency Planning and Community Right-to-Know Act of 1986
Title IVRadon Gas and Indoor Air Quality Research Act of 1986
Title VSuperfund Revenue Act of 1986
See id. at *6-7.

[80] *See* Rodgers, § 8.2, *supra* note 73, at *1. Rather than being considered a single piece of legislation, SARA is often viewed as "an omnibus collection of five or six separate statutes." *Id.* at *2.

[81] *See* Risch, *supra* note 3, at 39. SARA answered the question of "How clean is clean?" with the establishment of more detailed cleanup standards. *See id.* The EPA was required to conduct remedial actions that conformed with "any standard, requirement, criteria, or limitation under" Federal or State environmental law. *Id.* SARA also stated that permanent reduction actions were favored over actions which did not result in permanent reduction. *See* In the Matter of Chicago, Milwaukee, St. Paul & Pacific R.R. Co., 78 F.3d 285, 289 (7th Cir. 1996).

[82] *See* Risch, *supra* note 3, at 37. Under SARA, recoverable costs were expanded to include contribution actions, health assessments, and interest from the payment demand date. *See In the Matter of Chicago*, 78 F.3d at 289. In addition, the Act set forth schedules requiring the EPA to complete certain activities, such as preliminary assessments, site investigations and final evaluations, within the specified time "to the maximum extent practicable." Risch, *supra* note 3, at 37-38.

Other important changes brought about by SARA include: (1) the "innocent

and defined the states' role in cleanup actions[83] and addressed the problem of federal facilities by making their cleanup a national priority.[84]

D. *Relevant Case Law*

The Defense Reform Act of 1997 amends Sections 120 and 121 of CERCLA.[85] The issue of governmental liability arises under section 120 of CERCLA, and is illustrated in *FMC Corp. v. United States Dep't of Commerce.*[86] Two primary issues arise under section 121 of CERCLA. These issues are the role of the states in remedy selection and the preemption of state law. Both of these issues are addressed in *United States v. Akzo Coatings of America, Inc.*[87]

FMC Corp. v. United States Dep't of Commerce involved a 440-acre manufacturing site that was used to produce high tenacity rayon during World War II.[88] In 1982, carbon bisulfide[89] was discovered

---

landowner" defense for current owners; (2) the granting of settlement authority and the authority to issue "nonbinding preliminary allocation of responsibility" decisions to the EPA; (3) community right to know and emergency planning provisions, *See id.* at 40-41; and (4) the establishment of a citizen suit provision. *See* Rodgers, § 8.2, *supra* note 73, at *3.

[83] *See Akzo*, 949 F.2d at 1417. By requiring the EPA to comply with all state cleanup standards, the states now had an active role in deciding what standards to apply and how they should be applied. *See* Rodgers, § 8.2, *supra* note 73, at *2-3. The states became "EPA's partner at each stage of the cleanup or settlement." Risch, *supra* note 3, at 41.

[84] *See* Rodgers, § 8.2, *supra* note 73, at *3.

[85] *See generally* H.R. Rep. No.105-133(I), *supra* note 5. *See also* 42 U.S.C. §§ 9620, 9621.

[86] 29 F.3d 833 (3d Cir. 1994).

[87] 949 F.2d at 1409 (6th Cir. 1991).

[88] *See FMC Corp.*, 29 F.3d at 835. The plaintiff, FMC Corporation, purchased the plant, located in Front Royal, Virginia, from American Viscose Corporation in 1963. *See id.* at 835. American Viscose is no longer in business. *See id.* at 836. The plant was owned by FMC from 1963 to 1976, and by Avtex Fibers - Front Royal, Inc. from 1976 to 1989. *See id.* at 836. At the time of this opinion, Avtex Fibers was in bankruptcy reorganization. *See id.*

American Viscose purchased the Front Royal site in 1937, and began manufacturing textile rayon at the site in 1940. *See id.* at 835. During World War II, the War Production Board commissioned American Viscose to convert its operations to the production of high tenacity rayon. *See FMC Corp.*, 29 F.3d at 835. Prior to World War II, American Viscose's machines had not been equipped to manufacture high tenacity rayon. *See id.* at 835. However, as the War developed and Japan took over much of Asia, the United States lost 90% of its

in the plant's ground water, subjecting current owner FMC to potential liability under CERCLA.[90] FMC filed suit in 1990, alleging that as a result of the federal government's actions during World War II, the United States was jointly liable with FMC as an "owner" and "operator" of the facility, and as an "arranger for disposal" of hazardous waste.[91] In February 1992, the federal district court concluded that the United States government was liable as an owner, operator and arranger.[92]

---

crude rubber supply. *See id.* at 836. In order to decrease its use of natural rubber, the United States began to depend on synthetic substitutes, such as high tenacity rayon. *See id.* at 836. High tenacity rayon was used for manufacturing war-related products, including aircraft and truck tires. *See id.* After Pearl Harbor, the government decided to increase the nation's production of high tenacity rayon. *See id.* at 835. The WPB designated high tenacity rayon as "one of the most critical [products] in the entire [war] production program." *FMC Corp.*, 29 F.3d at 836. Since the anticipated demand was greater than the expected available supply, the government, acting through the WPB, commissioned private companies in order to meet its needs. *See id.* at 835. Plants such as American Viscose, which were required to modify their facilities in order to produce high tenacity rayon, were considered "war plants" by the government and were subject to its maximum control. *Id.* at 836.

[89] Carbon bisulfide is a chemical used in manufacturing high tenacity rayon. *See id.* at 835.

[90] *See FMC Corp.*, 29 F.3d at 835.

[91] *See id.* at 835. FMC filed suit against the Department of Commerce under section 113(f) of CERCLA, 42 U.S.C. § 9613(f), and the Declaratory Judgment Act, 28 U.S.C. §§ 2201-02. *See id.* FMC argued that the government's presence at the facility was so pervasive that it "effectively operated the plant along with American Viscose," and thus was partially responsible for the response costs. *Id.* The government filed a motion to dismiss, claiming that since its activities at the facility were regulatory in nature, it could not have been acting as an "operator or arranger for disposal." *See id.* at 835-836.

[92] *See id.* at 836. The district court based its decision on the following factual findings: (1) the government required American Viscose to start producing high tenacity rayon; (2) the government dictated the amount, specifications and selling price of the rayon; (3) the government owned the equipment used in making the rayon; (4) the government supervised the production process and the workers; and (5) the government was aware of the waste being generated and the methods of disposal being used. *See FMC Corp.*, 29 F.3d at 838.

The district court ordered a trial to allocate the liability between FMC and the government. *See id.* at 838. However, FMC and the United States government negotiated a settlement before the trial, with the United States admitting its liability as an owner of the property at the plant and accepting an allocation of 8% of the cleanup costs as an owner. *See id.* at 838. But the government disputed the court's conclusion that it should also be liable as an operator and arranger, and filed a notice of appeal in November 1992. *See id.*

In contrast, the federal district court in *Rospatch Jessco Corp. v. Chrysler*

On appeal, the government argued that the United States did not waive its sovereign immunity under CERCLA for causes of action resulting from its "wartime regulatory activities," despite the provision for governmental liability in § 9620(a)(1) of CERCLA.[93] The Court of Appeals for the Third Circuit disagreed

---

Corp., did not hold the Air Force or the United States liable under CERCLA for hazardous waste cleanup costs incurred by the current owner of a manufacturing plant formerly used to manufacture military aircraft engines. 962 F. Supp. 998, 1009 (W.D. Mich. 1995). The plant in question was bought by Kaiser-Frazer Corporation (K-F), an automobile producer, in 1947, and used as a foundry by K-F until early 1951. *See id.* at 1000. The court found several factors which distinguished *Rospatch* from *FMC Corp. See id.* at 1005-1006. First, in *Rospatch*, the United States did not force K-F to manufacture aircraft engines, rather, K-F voluntarily bid and entered into several contracts with the Air Force to produce the engines. *See id.* at 1000, 1005. (K-F later changed the name of one of its subsidiaries to Kaiser Manufacturing Corporation (KMC) and assigned the defense contracts to that subsidiary. *See id.* at 1001.) Second, the Air Force did not interfere or have any involvement with KMC's management decisions. *See id.* at 1005. For the most part, the Air Force had only one representative stationed at KMC's plant for the purpose of monitoring quality control to ensure that the engines met the contract specifications. *See Rospatch Corp.*, 962 F. Supp. at 1001, 1006. Third, the court found no evidence that the United States involved itself in KMC's manufacturing methods. *See id.* at 1006. Fourth, KMC purchased its own supplies for the maintenance of the plant and production of the engines from suppliers of its choice. *See id.* at 1006. Based on these four factors, the court concluded that the Air Force had not exercised "substantial control over," nor "actively involve[d] itself in," the activities of KMC, and thus was not subject to operator liability under CERCLA. *Id.*

[93] *See FMC Corp.*, 29 F.3d at 838-39. On appeal in *FMC Corp.*, the issues the appellate court faced were whether FMC's suit against the United States was barred by the government's sovereign immunity, and, if the United States did not have immunity, whether the government was liable as an operator, arranger or both. *See id.* at 835. The United States' position was that the waiver in CERCLA § 9620(a)(1) was express but limited, and therefore the waiver must be narrowly interpreted. *See id.* at 839.

CERCLA § 120(a)(1) states "each department, agency, and instrumentality of the United States . . . shall be subject to, and comply with, this chapter in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under section 9607 of this title." CERCLA, 42 U.S.C. § 9620(a)(l).

The United States based its claim of sovereign immunity on the principle that the federal government cannot be sued unless "it consents to be sued," and that consent by the government "cannot be implied but must be unequivocally expressed." *FMC Corp*,. 29 F.3d at 839 (quoting United States v. Testan, 424 U.S. 392, 399 (1976)). The government also claimed that the CERCLA waiver does not apply to regulatory actions that only the federal government can perform. *See id.* at 839. Since most of the WPB's activities were regulatory, the government believed those actions should not contribute to the liability of the United States. *See id.* In addition, it claimed the non-regulatory actions of the WPB did not so

with the government's interpretation of CERCLA and held that when the government participates in activities that would impose liability on a private party, the government is liable, even if private parties "could not in fact engage" in those particular activities.[94] Thus, the court concluded, if the United States operates a hazardous waste facility as a regulator or in any other capacity, it should be held responsible for cleanup costs in the same way that a private party would be liable.[95]

---

involve the government with American Viscose as was needed to establish CERCLA liability. *See id.*

[94] *See FMC Corp.* 29 F.3d at 840. According to the appellate court, section 120(a)(1) does not say that regulatory activities cannot create liability, but it provides that "the government is liable in the same manner and to the same extent as any nongovernmental entity." *Id.* at 840. For example, the government bears the liability for cleanup costs on its military bases, because even though private parties cannot own military bases, those parties would be liable for costs if they did own one. *See id.* As an illustration of this proposition, *see* United States v. Allied Corp., 1990 U.S. Dist. LEXIS 20061, at *7-9 (N.D. Cal. 1990) (holding the United States Navy liable under CERCLA for the clean up of hazardous waste on one of its naval bases, because the Navy had authorized the demolition which released the hazardous substances).

The court's opinion in *FMC Corp.* rests on the plain language of the statute. *See FMC Corp.*, 29 F.3d at 840. The courts' general approach to statutory construction is to "read plain language to mean what it says." *Id.* In *Indian Towing Co. v. United States*, 350 U.S. 61, 67 (1955), the Supreme Court interpreted § 2674 of the Federal Tort Claims Act (28 U.S.C. § 2674) as waiving sovereign immunity, even in situations where a private party could not act. *See FMC Corp.*, 29 F.3d at 840. The Third Circuit Court of Appeals found *Indian Towing Co.* to still be good law. *See id.* at 840.

The appellate court also relied on the broad purposes of CERCLA, in particular the goal of making those responsible for hazardous waste problems bear the burden of cleanup actions. *See id.* The court found that the government's "regulatory exception" was inconsistent with CERCLA's purpose of "making those responsible for problems caused by the disposal of chemicals bear the costs and responsibility for remedying the harmful conditions they created." *Id.* at 840 (quoting Lansford-Coaldale Joint Water Auth. v. Tonolli Corp., 4 F.3d 1209, 1221 (3d Cir. 1993)).

[95] *See FMC Corp.*, 29 F.3d at 840-841. *See also* Crowley Marine Serv., Inc. v. Fednav Ltd., 915 F. Supp. 218 (E.D. Wash. 1995) (applying CERCLA § 9620(a)(4), which provides that "state laws concerning removal and remedial action, . . ., shall apply to facilities of the United States," and finding that Washington's Model Toxics Control Act applied to the site owned and operated by the Army Corps of Engineers).

Daigle v. Shell Oil Co., is a toxic tort case centered around the clean up of the Rocky Mountain Arsenal near Commerce City, Colorado. 972 F.2d 1527, 1530 (10th Cir. 1992). In 1956, the Army built Basin F, a ninety-three acre hazardous waste impoundment, on the grounds of the Arsenal. *See id.* at 1531. The Army used the Basin to store hazardous waste generated from its chemical warfare

In *United States v. Akzo Coatings of America Inc.*, an 110-acre parcel of land in Michigan known as the Rose Site had been the site of illegal liquid and solid industrial waste dumping during the

---

production activities. *See id.* The Army also leased use of the Basin to Shell for storage of wastes generated from its pesticide and herbicide manufacturing activities. *See id.* Army officials have estimated that the Arsenal has 120 contamination sites containing liquid and solid wastes, and the Arsenal is considered "one of the worst hazardous waste pollution sites in the country." *Id.* A Remedial Investigation and Feasibility Study pursuant to CERCLA § 104 was conducted in 1984 to identify contamination sites and determine the potential of proposed responses. *See id.* at 1531-32. Fourteen sites were identified as needing Interim Response Actions (IRAs) to protect "human health and the environment," and these IRAs were begun in 1988. *See Daigle*, 972 F.2d at 1532. As a result of the cleanup effort, many of the contaminants were stirred up, causing "noxious odors and airborne pollutants" to blow over neighboring communities. *See id.* at 1532. Many of the residents affected by the odors filed complaints by December 1988, but the government decided that the odors were an "intermittent discomfort which was outweighed by the long-term benefit . . . of the removal activity. . .". *Id.* However, residents who were not satisfied with the government's explanation filed suit, alleging that this "intermittent discomfort" resulted in property and economic damages and a variety of ailments, including the possibility of latent disease. *Id.* The district court held that the Army's cleanup activities fell within the discretionary function exception to the waiver of sovereign immunity. *See id.* at 1527, 1539. Under the Federal Tort Claims Act (FTCA), the government's sovereign immunity is waived for certain personal injury claims against government employees. *See id.* at 1537. *See also* 28 U.S.C.A. § 1346(b). However, the government retains its sovereign immunity for claims that are "based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, . . ." *Daigle*, 972 F.2d at 1537. *See also* 28 U.S.C.A. § 2680(a) (this section is often referred to as the "discretionary function exception".)

On appeal, the plaintiffs argued that the Army did not have the discretion under the statutory provisions in CERCLA to release toxic gases into the community which created an "imminent and substantial endangerment to their health and welfare," and asserted that the Army could have done a better job in achieving the public health and safety goals of CERCLA. *Daigle*, 972 F.2d at 1540-41. Plaintiffs specifically cite to CERCLA § 9621(d)(1), which requires that any overall remedial action "attain a degree of cleanup . . . at a minimum which assures protection of human health and the environment." *Id.* at 1540. The appellate court ruled that the question of whether the Army substantially endangered plaintiff's health is irrelevant to the discretionary function determination. *See id.* Rather, the proper analysis is whether the Army's actions involved violations of specific, mandatory instructions. *See id.* The court concluded that the Army's actions at the Arsenal involved "the translation of CERCLA's general health and safety provisions into 'concrete plans'." *Id.* at 1541. That type of decisionmaking is the type of policy choice which is covered by the discretionary function exception. *See id.* at 1541. Therefore, the appellate court affirmed the district court's dismissal of the claim against the government. *See Daigle*, 972 F.2d at 1542.

late 1960's.[96] The site was placed on the NPL in 1983.[97] In August of 1988, the EPA and the twelve defendant PRPs signed a consent decree utilizing soil flushing[98] as a remedy for the site.[99] The United States District Court for the Sixth Circuit approved the consent decree and ordered its enforcement on August 9, 1989.[100]

---

[96] *See Akzo*, 949 F.2d at 1418. The site is located in Rose Township, Michigan, and in 1979 the Michigan Toxic Substance Control Commission declared the Rose Site a "toxic substance emergency." *Id.* at 1416, 1418. The Commission removed 5,000 drums of toxic waste from the site. *See id.* at 1418. It was later determined that the drums contained, among other chemical compounds, "PCB's, phthalates, organic solvents, oil and grease, phenols and heavy metals." *Id.* at 1418-19.

[97] *See id.* at 1419. In accordance with CERCLA, a RI/FS was conducted to identify the release and possible remedies. *See id. See also* 42 U.S.C. § 9620(e)(1). *See supra* note 46 for a discussion of RI/FS procedures for NPL sites.

The RI/FS of the Rose Site was conducted by the Michigan Department of Natural Resources in cooperation with the EPA and was completed in June of 1987. *See Akzo,* 949 F.2d at 1419. The results of the study indicated two principal areas of contamination: (1) an area of less than an acre containing contaminated groundwater and surface soils; and (2) twelve acres in the southwest corner of the Rose Site containing contaminated surface soils, subsurface soils and groundwater. *See id.* at 1419.

The EPA issued its ROD in September 1987, recommending a remedy based on the RI/FS. *See id.* at 1419. The State of Michigan assented to the proposed remedy which included: (1) excavation of approximately 50,000 cubic yards of contaminated soil; (2) incineration of soil contaminated with PCBs; and (3) extraction and on-site treatment of contaminated ground water. *Id.*

[98] *See id.* at 1420. Soil flushing is a method by which the contaminated soil is flushed with water, and the resulting "flushate" is treated to designated cleanup levels and reinjected into the soil. *See id.* at 1419. This method previously had been found to be ineffective at the Rose Site. *See Akzo*, 949 F.2d at 1419.

[99] *See id.* at 1420. These settlement negotiations had begun in June of 1987, before the EPA issued its September 1987 ROD. *See id.* at 1419. After publication of the proposed consent decree, the EPA received objections to the proposed soil flushing from both state and private interests, including the Michigan Department of Natural Resources and the Michigan Toxic Substances Control Commission. *See id.* at 1421. The only comments received in support of the changes were from the settling defendants. *See id.* at 1421.

As a result of these objections, the EPA issued an amended ROD in January 1989. *See id.* The amended ROD adopted soil flushing on the condition that "pilot testing" proved this method was as protective as thermal destruction. *See Akzo,* 949 F.2d at 1421.

[100] *See id.* at 1422. In February 1989, the State of Michigan had filed a complaint and motion to intervene in the action between the EPA and the settling defendants pursuant to CERCLA § 9621(f)(2)(B), which provides that if a state does not concur in the selection of a remedial action, the state may intervene as a matter of right to seek to have the remedial action conform to the standards which have been established by the state. *See id. See also* 42 U.S.C. § 9621(f)(2)(B). Although the District Court granted Michigan's motion and permitted Michigan to file a brief opposing the entry of the consent decree, the court granted the EPA's motion for entry of the consent decree on July 18, 1989. *See Akzo*, 949

The State of Michigan appealed the entry of the consent decree.[101] The issue of whether state law is preempted by the consent decree is directly related to CERCLA § 9621.[102] The Sixth Circuit concluded that Congress did not intend for federal remedies to always preempt state environmental laws.[103] The court interpreted the text of § 9621 as establishing the federal minimum, not the maximum, level of required environmental protection, and any state laws which require higher standards are not preempted by CERCLA.[104] In addition, the court stated that neither the EPA nor the federal courts could disregard state standards when choosing cleanup remedies.[105]

F.2d at 1422. In its opinion, the court stated that the consent decree containing the soil flushing remedy did not violate Michigan's own applicable environmental laws, and that CERCLA's provisions permitting the EPA to settle claims for remedial action with defendants preempted Michigan from imposing additional remedial action requirements under Michigan law. *See id.* The court also concluded that the EPA's action was not arbitrary or capricious. *See id.*

[101] *See id.* at 1422. Michigan raised five issues on appeal, which were: (1) what is the proper standard of review for consent decrees; (2) is this consent decree arbitrary and capricious; (3) is this consent decree fair, reasonable and adequate; (4) does this consent decree comply with CERCLA's and Michigan's environmental provisions; and (5) does this consent decree preempt state law? *Id.* at 1422-23.

[102] *See id.* at 1423, 1454. Preemption of state law can occur in three situations: (1) when Congress states in express terms its intent to preempt; (2) when a federal regulation so occupies the field as to leave no room for supplementary state regulation; and (3) when a state law conflicts with a federal law. *See Akzo,* 949 F.2d at 1454.

CERCLA provides that once a consent decree is entered by a federal court, the decree has the force of law, and any other state remedies are no longer available. *See id.* at 1454-55. The confusion in this case over the preemption issue arose because although the state law remedies were preempted, it was by the federal consent decree and not by CERCLA. *See id.* at 1455.

[103] *See id.* According to Senator Stafford, an original co-sponsor of CERCLA, the statute's provisions in section 9621 were developed to establish a cleanup system which must "accommodate itself to the requirements of Federal and State laws." *Id.* There is no authority in section 121 [42 U.S.C. § 9621] for Federal preemption of "applicable and appropriate State law." *Id.* (quoting 132 CONG. REC. S17,136 (Oct.17, 1986)).

Senator Mitchell, one of the drafters of SARA, also spoke on the preemption issue. He stated in October 1986, "None of our other environmental statues, . . ., are preemptive . . . and we have stated repeatedly in this bill that there is no preemption." *Akzo*, 949 F.2d at 1455 (quoting 132 CONG.REC. S17,212 (Oct. 17, 1986)).

[104] *See Akzo*, 949 F.2d at 1454. *See also* 42 U.S.C. § 9621 (d)(2)(A).

[105] *See Akzo*, 949 F.2d at 1455. In applying the law to the facts of the case, the

E. *Treatment of Federal Facilities*

The United States military is as guilty as private industry of failing to adequately protect the environment.[105] The Department of Defense (DOD) is the largest industrial organization in the country, manufacturing ammunition, chemicals and other products, many of which create hazardous by-products.[107] As illustrated in *FMC Corp. v. United States Dep't of Commerce*,[108] the federal government's methods of hazardous waste disposal have often proven to be environmentally inadequate.[109] As a result of the actions of the past, today almost every major United States military base is plagued with some form of contamination.[110]

Federal facilities faced two problems under CERCLA which

---

appellate court held under CERCLA section 9621 that the State of Michigan did have the right to challenge the proposed remedy before the entry of the consent decree. *See id.* at 1456. *See supra* note 100, discussing a state's right to challenge a proposed remedy only if the remedy does not meet state standards. In *Akzo*, the appellate court upheld the district court's decision to allow Michigan to intervene to determine if the proposed remedy, soil flushing, met Michigan's standards. *See* 949 F.2d at 1456. However, the court found that Michigan had "failed to show by substantial evidence" that the disputed remedy would not satisfy all of the state's applicable environmental standards. *Id.* at 1456. Although the purpose of section 9621 is to protect state standards from preemption by federal remedies, the court does not have to include an alternate state-selected remedy unless it finds by "substantial evidence" that the EPA remedy does not satisfy the appropriate state standards. *Id.* Thus section 9621 did not apply, and the appellate court upheld the dismissal of Michigan's complaint. *See id.* at 1456, 1459.

[106] *See* Risch, *supra* note 3, at 42. From the mid 1800's to the 1980's, the United States experienced a dramatic shift from an "agricultural-based economy" to an industrialized economy. *Id.* at 10-11, n.47. This expansion of private industry resulted in the production of large amounts of toxic wastes. *See id.* at 11. In addition, after WWI, the military expanded its chemical and non-chemical weapons production, which contributed to the nation's hazardous waste problem. *See id.* at 11-12, n.54.

[107] *See* Risch, *supra* note 3, at 42-43. Since the mid-1900's, federal agencies have been disposing of toxic materials at federal facilities in every state. *See id.* at 2. Some of those hazardous materials include "toxic and hazardous wastes, fuels, solvents and unexploded ordinance." *Id.* at 2. In 1990, the military generated "more tons of hazardous waste each year than the top [five] U[nited]S[tates] chemical companies combined." *Id.* at 42 n.230.

[108] *See supra* notes 88-95 discussing *FMC Corp. v. United States Dep't of Commerce*, 29 F.3d 833 (3d Cir. 1994).

[109] *See* Risch, *supra* note 3, at 43. Even during the relatively recent Cold War, the government was forced to disregard environmental issues as "national security concerns took precedence over ecological ones." *Id.* at 43-44.

[110] *See id.* at 44.

hampered early cleanup efforts.[111] First, CERCLA § 120 held federal facilities liable for any contamination from hazardous wastes on their sites.[112] As a result, the DOD had to develop cleanup methods which would satisfy CERCLA's requirements and could be used by all branches of the military.[113] Second, CERCLA provided that Superfund money could only be used to fund remedial actions at nonfederal sites on the NPL.[114] Thus, agency operations and maintenance (O&M) funds had to be used to pay for the military's environmental programs.[115] Since O&M funds were already strained with regular expenses, the environmental programs often did not receive adequate funding.[116]

In response to the military's funding problems, Congress created the Defense Environmental Restoration Account (DERA) in 1984.[117] The DERA is a separate account which provides money for response actions at active military bases.[118] It receives capital from two sources: appropriated funds from Congress and money rewarded through judgments against liable PRPs.[119] Congressional appropriations for the DERA started at $150 million in 1984 and increased to $1.9 billion by fiscal year 1994.[120] However, in 1995,

---

111 *See id.* at 46.

112 *See id.*

113 *See id.* The Army created the Installation Restoration Program (IRP) in 1975 to handle its environmental problems. *See* Risch, *supra* note 3, at 46. The IRP was expanded in 1976 to include the entire DOD. *See id.* However, under the IRP, each branch of the military had implemented different procedures, resulting in inconsistent results. *See id.*

114 *See id.* at 46-47.

115 *See id.* at 47.

116 *See id.* Ordinary O&M expenses include training, maintenance, oil, gas, electricity and food. *See* Risch, *supra* note 3, at 47. All of these expenditures competed with the environmental programs for funding. See *id.*

Congress first responded to the military's funding issues in 1983 by creating an environmental restoration account. *See id.* The purpose of the account was to provide the military with resources to enable it to meet CERCLA's response requirements. *See id.*

117 *See id.* at 50.

118 *See id.* Another account, the Base Closure Account, only provides funding for cleanup actions at locations slated for closure by the Base Realignment and Closure Commission. *See* Risch, *supra* note 3, at 51.

119 *See id.* at 50. In lawsuits against PRPs, the government receives reimbursement for cleanup costs paid by the DOD. *See id.* at 50-51.

120 *See id.* at 51-52.

the DERA's budget was cut to $1.48 billion, and was further reduced to $1.41 billion for fiscal year 1996.[121] Yet the DOD's budget is small in comparison to the number of remaining problems.[122] A report released by a Clinton Administration task force on federal facilities environmental restoration indicated that it will cost "between $234 billion and $399 billion to clean up 61,000 sites."[123]

In an additional attempt to aid the DOD in addressing its environmental problems, Congress through SARA established the Defense Environmental Restoration Program (DERP) in 1986.[124] The DERP mandates the "investigations and cleanup of contaminated defense sites and formerly used properties," and describes the procedure which the DOD should follow in carrying out these actions.[125] The DERP requires federal facilities to conduct cleanup actions that are consistent with section 120 of CERCLA.[126] In addition, the DOD's programs must also be consistent with the NCP.[127] Therefore, DOD agencies are basically

---

[121] *See id.* at 53. Major Risch cites several reasons for the 1995-96 decreases in the DERA budget. *See id.* The DERA was a highly visible program, yet its progress was slow, causing Congress to regard it as a waste of money. *See* Risch, *supra* note 3, at 53. In addition, Congress was attempting to balance the defense budget by decreasing defense spending. *See id.* at 53-54. One method Congress used was to place "traditional" military programs, such as research, testing and development, procurement, O&M and quality of life programs in direct competition with "nontraditional" programs, such as environmental. *See id.* at 54.

[122] *See id.* at 55.

[123] *See id.* at 55-56. The task force, named the "Federal Facilities Group," is an interagency panel which was appointed by President Clinton in 1993. *See id.* at 55 n.294. Their report also indicated a need for statutory (CERCLA and RCRA), regulatory (land-use), and management (workforce and funding) reforms, as well as increased technology development and use. *See* Risch, *supra* note 3, at 55 n. 294.

[124] *See id.* at 47. The DERP combined two separate programs, the IRP and the Other Hazardous Waste Operations Program. *See id.* at 48. The purpose of the DERP was to "promote and coordinate efforts for the evaluation and cleanup of contamination at DOD installations." *Id.* at 47-48.

[125] *Id.* at 48. The goals of the DERP included: (1) addressing hazardous waste contamination; (2) correcting other environmental damage; and (3) demolishing and removing unsafe buildings and structures. *See id.* at 48-49. *See also* 10 U.S.C. §2701(b)(1) - (3).

[126] *See* Risch, *supra* note 3, at 49. Section 120 of CERCLA states that federal facilities must "comply with the provisions of CERCLA in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity." *Id.* at 49.

[127] *See id.* Thus, for NPL sites, the DOD must satisfy all of CERCLA's

responsible for acting in compliance with "all applicable or relevant and appropriate federal and state laws."[128]

The issue of environmental restoration of inactive federal facilities, and inactive military bases in particular, was one of the topics debated during the June 1997 hearings on defense reform.[129] When a military base is being closed, the current

---

requirements, and for non-NPL sites, the DOD must meet all applicable state standards. *See id.* at 49-50.

[128] *Id.* at 50.

The case of *United States v. State of Colorado* illustrates the problems that can arise at federal facilities from the conflict of federal and state environmental laws. 990 F.2d 1565, 1568-69 (10th Cir. 1993). This case involves Basin F in the Rocky Mountain Arsenal, which is the same hazardous waste site discussed in the *Daigle* case. *See supra* note 95. However, in *Colorado*, the United States filed a declaratory action seeking an order declaring that the compliance order issued by the Colorado Department of Health (CDH) be "null and void" and enjoining CDH from enforcing it. *See Colorado,* 990 F.2d at 1573. The compliance order required the Army to submit all cleanup plans for Basin F to CDH, and also provided that the Army was not to begin any work until the plans were approved by CDH. *See id.* at 1573. The State of Colorado had been given authority by the EPA in 1984 to enforce the provisions of the Colorado Hazardous Waste Management Act (CHWMA) at its hazardous waste sites, instead of RCRA. *See id.* at 1571. However, the Army sought to apply CERCLA's requirements to its cleanup efforts at Basin F, which had been added to the NPL in March of 1989. *See id.* at 1573. The district court held that Colorado could not enforce CHWMA against the Army, because in order for Colorado to enforce the Act's provisions, the court would have to review the Army's remedial action while it was in the process of being completed, and "such a review is expressly prohibited by CERCLA § 9613(h)." *Id.* at 1574.

The appellate court found that the district court had implicitly relied on CERCLA § 9620(a)(4) in reaching its decision. *See id.* at 1579. Section 9620 (a)(4) provides that "state laws concerning removal and remedial action, . . . , shall apply to removal and remedial action at facilities owned or operated by . . . the United States when such facilities are not included on the NPL." *Colorado*, 990 F.2d at 1579-80. However, even the United States conceded that this interpretation was incorrect. *See id.* at 1580. Although § 9620(a)(4) may determine which law controls, it does not determine federal court jurisdiction over a state's actions. *See id.* To overcome its concession of the lower court's error, the United States argued that CERCLA § 9621, which grants the President authority to select the remedy and allow for state input, bars Colorado from enforcing state law independently of CERCLA. *See id.* The court cited §§ 9614(a) and 9652(d), which expressly retain the states' RCRA authority, and concluded that the government's argument was without merit. *See id.* In fact, the court did not find any of the United States' arguments convincing and ultimately reversed the district court's ruling. *See id.* at 1584. The case was remanded to the district court with instructions to vacate the order against CDH and for further proceedings on the matter. *See Colorado*, 990 F.2d at 1580.

[129] *See* Hearing on the Defense Reform Act Before the House Comm. on Nat'l

procedure is to perform an environmental risk evaluation and conduct any necessary cleanup actions before transferring the base to private owners.[130] During the June hearing, the issue arose of why the government should have to spend millions of dollars to clean up former military bases before giving the land to private entities, when those same bases were previously considered environmentally safe enough for the military and civilian personnel who served there.[131] One explanation was that the nation's active installations are *not* environmentally acceptable, either, but the government has not yet had the opportunity to restore all of its active bases.[132] As part of its goal of making the nation's active installations environmentally sound, the government currently spends about fifty percent more on the restoration of active bases than inactive bases.[133] The DOD's second rationale for spending money on inactive bases is so that the property can be put back into productive use.[134] In most cases the new private owners will be using the property for purposes that are much different from its former function as a military base and so the DOD must tailor its cleanup remedies to fit the land's proposed new use.[135]

Sec., available in 1997 WL 331912, at *46-48 (June 1997) [hereinafter June 1997 Defense Reform Act Hearing]. The cleanup of inactive military bases is an issue that is driven by budgetary concerns. *See generally* June 1997 Defense Reform Act Hearing at *46-48.

130 *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *47.

131 *See id.* at *46-47. This issue was raised by Representative Roscoe Bartlett (R-MD). *See id.* at *46-47. One of Representative Bartlett's objections is that often the government is spending more money on the cleanup process than the property is actually worth. *See id.* at *48.

132 *See id.* at *47.

133 *See id.* Approximately $1.2 billion to $1.3 billion a year is allocated for the cleanup of active bases, while about $700 million or $800 million is invested at inactive bases. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *47. Responses to Rep. Bartlett's question were provided by Ms. Sherri Goodman, Deputy Undersecretary of Defense for Environmental Security. *See generally* June 1997 Defense Reform Act Hearing, *supra* note 129, at *47-48.

134 *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *47. The DOD's primary purpose of restoring active bases is to protect the health and safety of the military personnel and civilians who live and work there. *See id.* at *47. When a base is closed, the DOD feels it is necessary to provide the same level of safety to the subsequent owners. *See id.*

135 *See id.* For example, at Fort Mead, Maryland, a portion of the base containing an Army airfield is being closed. *See id.* The field was formerly used as a bombing range, thus there are numerous unexploded bombs on the property

III. Defense Reform Act of 1997

A. *Legislative History*[136]

On June 4, 1997, the Defense Reform Act of 1997 (DRA), H.R. 1778, was introduced in the House of Representatives by Representative Floyd Spence (R-SC) and Representative Ronald V. Dellums (D-CA).[137] The proposed act addressed some of the current issues facing the Department of Defense, including work force reductions, business practice reforms, and environmental reform.[138] The bill was referred to the Committee on National Security (hereinafter the Committee), which held a hearing on June 17, 1997 to consider the provisions of the DRA.[139] In his presentation of the DRA to the Committee, Representative Spence recommended the separation of the environmental provisions from the rest of the defense reform provisions contained in H.R. 1778.[140]

The DOD did not agree with many of the environmental provisions proposed in the DRA.[141] Although the DOD supported

---

which have to be located and removed before the land will be safe enough for public access. *See id.* Other areas of the former Fort Meade have already been converted into a wildlife refuge and park, and these areas did not require as extensive a cleanup process as the airfield. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *48.

[136] Prior to the introduction of the Defense Reform Act, the Committee on National Security held a hearing on defense reform in February 1997. *See generally* February 1997 Defense Reform Hearing, *supra* note 5. The three topics of discussion were (1) acquisition policy reform; (2) infrastructure and support services reform; and (3) organizational and structural reform of the Department of Defense. *See id.* at *2-3. It should be noted that environmental reforms were not a topic at this first hearing on defense reform.

[137] *See* H.R. 1778, 105th Cong., (1997).

[138] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *3. Opening statements of Representative Floyd Spence.

[139] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *39.

[140] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *4. Rep. Spence was aware that the environmental provisions would be controversial, and he felt that putting the environmental reforms in an independent amendment would prevent environmental conflicts from affecting the rest of the bill. *See id.* at *4.

[141] *See id.* at *14. One of the DOD's concerns was that the reform process be structured in such a way as to incorporate the views of relevant congressional communities and community stakeholders. *See id.*

Ms. Sherri Goodman, Deputy Undersecretary of Defense for Environmental Security presented the DOD's position at the hearing. *See id.* at *2. Ms. Goodman, along with the DOD, has worked closely in the past with the National Security

reform of the Superfund law, it felt that some of the provisions of the DRA were either unnecessary or complicated the work of the DOD.[142] The DOD also recommended that the new law not treat federal facilities differently than private sites.[143] In the past, federal facilities had been at a disadvantage under the Superfund law.[144] According to the DOD, federal sites should be subject to the same policies, and also benefit from the same reforms, as their private counterparts.[145] The DOD's position was that the Superfund provisions in H.R. 1778 should serve as merely the starting point for further discussion on the matter.[146]

The Committee also heard testimony from John F. Spisak, a representative of private and industrial interests.[147] Mr. Spisak provided a critical analysis of the Superfund program, citing numerous inefficiencies, failures and incidences of waste.[148]

Committee to bring about environmental reforms. *See id.* at *13. Ms. Goodman stated that in 1996, the DOD worked with the House and Senate defense committees to pass legislation to speed cleanup at inactive military bases. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *13. The DOD also secured authority to refrain from listing on the NPL DOD sites that are participating in a cleanup program under other laws. *See id.*

[142] *See id.* at *14, 23. For example, Ms. Goodman cited section 314, the provision that addresses Clean Air Act standards for military sources. *See id.* at *14. The DOD is concerned that the standards proposed in this section would not provide the level of protection the DOD requires. *See id.*

[143] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *24. Most of the Superfund provisions in Sections 301 to 312 of the DRA deal specifically with federal facilities. *See id.* at *25. *See also* H.R. 1778.

[144] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *25. *See also* notes 112-116 and accompanying text discussing problems that are unique to federal facilities under CERCLA.

[145] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *24.

[146] *See id.* at *14, 26.

[147] *See* Testimony of John F. Spisak on Superfund and H.R. 1778 Before the House Comm. on Nat'l Sec., available in 1997 WL 329528, at *1 (June 1997) [hereinafter Spisak Testimony]. Mr. Spisak is the President and Chief Executive Officer of Terranext, Inc., a national environmental engineering and remediation firm located in Lakewood, Colorado. *See id.* at *1. Terranext specializes in cleaning up Superfund sites and other contaminated land. *See id.* Mr. Spisak is a chemist and a biologist and has 16 years of experience with Superfund. *See id.* He is also a member of Superfund Reform '95, a broad-based coalition working to achieve comprehensive and structural reform of Superfund. *See id.*

[148] *See* Spisak Testimony, *supra* note 147, at *2-3. In terms of statistics, after 16 years and $30 billion of spending, only 30% of the more than 1,300 NPL sites have been cleaned up, and of the 30% (410 sites) completed, only 124 sites (9% of the NPL) have been removed from the NPL. *See id.* at *3. Spisak refers to

In Mr. Spisak's opinion, the federal government has the most to gain from successful Superfund reform, because the government's potential liability at federal and non-federal facilities is much greater than that of any other public or private entity in the United States.[149] Mr. Spisak believed that a complete overhaul of the Superfund program is necessary, but he saw Title III of the DRA as a "substantial improvement in the area of remedy reform," which should be "welcome by federal and non-federal parties."[150] He concluded by urging the Committee to make every attempt to complete this legislation and implement the reforms.[151]

Written testimony was received by the Committee from the Attorney General of Colorado, Gale Norton,[152] and the Attorney General of Texas, Dan Morales.[153] Both officials voiced objections to Title III of H.R. 1778 and requested that it be deleted from the bill.[154] Ms. Norton objected to the fact that the public, the states, and other affected parties had not been given an opportunity to review and comment on the bill.[155] In addition, Ms. Norton saw

---

Superfund's liability provision as the "cornerstone of this system," then goes on to say that this system worked better in theory than in the "real world." *Id.* at *2. To illustrate, he explains how people with minimal or no responsibility for the actual pollution are held liable because they have some connection to the waste site. *See id.* In addition, Spisak testified that the only successful part of Superfund is its emergency removal program, and the reason it has worked so well is because usually the government does the cleanup and pays for it before addressing the issue of liability for payment. *See id.* at *3-4.

[149] *See* Spisak Testimony, *supra* note 147, at *6. Although the DOE and DOD bear most of the federal liability, the Departments of Transportation, Commerce and Agriculture also face "hundreds of millions of dollars in liability." *Id.* at *6.

[150] *Id.* at *8. Specifically, Spisak mentions the need for Superfund reform in the areas of liability, natural resource damages, and transfer of power to the states. *See id.* He also speaks in favor of Superfund reform for all parties, not just for federal agencies. *See id.* at *9-10.

[151] *See id.* at *10.

[152] *See* Testimony of Gale Norton on H.R. 1778 Before the House Comm. on Nat'l Sec., available in 1997 WL 345157, at *1 (June 1997) [hereinafter Norton Testimony].

[153] *See* Testimony of Dan Morales on H.R. 1778 Before the House Comm. on Nat'l Sec., available in 1997 WL 341743, at *1 (June 1997) [hereinafter Morales Testimony].

[154] *See* Norton Testimony, *supra* note 152, at *1, 8. *See also* Morales Testimony, *supra* note 153, at *1, 7.

[155] *See* Norton Testimony, *supra* note 152, at *1. Ms. Norton believed that all affected parties should have an opportunity to fully and adequately review the

Title III as containing some unnecessary provisions, and as having the effect of putting the federal government in a better position than private entities with regard to cleanup actions.[156] Mr. Morales voiced several strong objections to the Defense Reform Act.[157] He suggested that provisions such as section 304 are too restrictive on the states.[158] According to Mr. Morales, by preempting state law in certain situations and exempting federal facilities from various environmental standards, Title III creates "a double standard" for federal facilities to the disadvantage of the states.[159]

The Committee on National Security approved H.R. 1778, as amended on June 11, 1997.[160] On June 17, the Committee referred the amended DRA to the Committee on Commerce, the Committee on Transportation and Infrastructure, and the Committee on Government Reform and Oversight.[161] All of these committees were given until March 30, 1998 to reach a decision regarding the DRA.[162] On June 4, 1998, the DRA was discharged

---

proposed provisions of Title III before it can be included in the bill. *See id.* at *1-2.

[156] *See id.* at *1. As an example of an unnecessary provision, Ms. Norton cites section 303 of the DRA, which would establish a criminal liability exemption for federal employees in situations where there is not enough money to comply with environmental standards. *See id.* at *7. No governmental employee has been prosecuted in the past five years for not meeting environmental requirements because of inadequate funding, and state prosecutors have indicated their reluctance to bring such an action. *See id.* As for giving federal facilities an advantage over private facilities, under the DRA, private parties would be required to comply with state laws, but the federal government would not be required meet state standards. *See id.*

[157] *See* Morales Testimony, *supra* note 153, at *1. Mr. Morales summarized his argument by stating that Title III "attempts to solve problems that do not exist" and to "save money that is not being wasted." *Id.*

[158] *See id.* at *4. Mr. Morales says that the restrictions in Title III are "contrary to the spirit of cooperation that the states have encouraged in the Superfund Reauthorization process." *Id.*

[159] *See id.* at *4-5. Under section 304 of the DRA, if a state chose to enforce CERCLA at a site, it would lose the right to enforce its own environmental laws at that site, in effect resulting in preemption of state law. *See id.* at *4.

[160] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *39.

[161] Telephone interview with the United States Congress' Legislative Information Service (Jan. 8, 1998). The Committee on Commerce subsequently referred the DRA to several of its subcommittees, including Energy and Power, Health and Environment, and Telecommunications. *See id.* The Committee on Transportation and Infrastructure subsequently referred the DRA to its subcommittee on Water Resources and Oversight. *See id.*

[162] Telephone interview with the United States Congress' Legislative

out of the committees and placed on the House's Union calendar, where it is currently waiting to be heard.[163]

B. *Analysis of Title III of the Defense Reform Act*

The purpose of Title III of the Defense Reform Act is to implement much-needed reform of current environmental law and the DOD's environmental programs.[164] Many of the provisions in Title III relating to CERCLA have specific application to federal facilities.[165] Title III is divided into two subtitles.[166] Subtitle A contains sections 301 through 304 and addresses general Superfund reforms.[167] Subtitle B consists of sections 311 through 315 and deals with reforms to both the Superfund and other environmental laws, specifically the Solid Waste Disposal Act, the Clean Air Act, and Title 10 of the United States Code.[168] The following analysis will provide a brief overview of the pertinent reforms the Act seeks to achieve.

1. Subtitle A.

Section 301 of the DRA proposes to amend section 121 of CERCLA to eliminate the statute's current preference for implementing permanent remedies at contaminated sites.[169] Although remedies would still be required to provide protection

---

Information Service (Jan. 8, 1998).

[163] Telephone interview with the United States Congress' Legislative Information Service (Oct. 7, 1998).

[164] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *3. According to the bill's sponsor, Rep. Spence, the changes Title III will make in existing law will allow the DOD to operate more efficiently and intelligently. *See id.* at *3. The DOD's current budget for environmental cleanup actions is $12 billion a year. *See id.*

[165] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *25.

[166] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *2.

[167] *See id.* at *2.

[168] *See id.* at *2, 26-28.

[169] *See id.* at *49. Section 121 of CERCLA encourages utilization of remedial actions which result in a permanent reduction or elimination of contaminants at hazardous waste sites, as opposed to remedial actions which do not have a permanent effect. *See* In the Matter of Chicago, Milwaukee, St. Paul & Pacific R.R. Co., 78 F.3d 285, 289 (7th Cir. 1996).

for "human health and the environment," Section 301 would require that preferential treatment be given to the clean up of "hot spots" at facilities, instead of automatic application of permanent remedies.[170]

Section 302 of the DRA recommends making future land use the primary factor to be considered when a remedy is being chosen at a federal facility.[171] This provision would require the President, through the EPA, to take into account the "reasonably anticipated future land use" of a Superfund site before selecting a remedy.[172] Section 303 proposes to release federal employees and

---

[170] H.R. REP. NO. 105-133(I), *supra* note 5, at *49. "Hot spot" is defined as "a discrete area within a facility that contains hazardous substances, pollutants or contaminants (I) that are present in high concentrations, are highly mobile, and cannot be reliably contained; or (II) that would present a significant risk to human health or the environment." *Id.* at *20 (quoting DRA section 301(2)(C)(i)). When determining a remedy for "hot spots," the reasonableness of cost factor is permitted to be judged by a higher threshold than non-hot spots. *Id.* at *21.

In his testimony, Mr. Spisak characterized the statute's definition of "hot spots" as "unworkable," because in his opinion it does not make clear which sites should be entitled to treatment. Spisak Testimony, *supra* note 147, at *9. For example, some sites containing high concentrations of hazardous substances may not necessarily be hazardous to human health, yet under the DRA they would be entitled to "hot spot" treatment. *See id.* at *8-9. In contrast, just about any site on the NPL could be considered to present a risk to human health, thus increasing the number of sites entitled to this special treatment. *See id.* at *9.

[171] *See* Norton Testimony, *supra* note 152, at *2. Under current federal policy, future land use at active installations is primarily determined by the DOD. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *29. The DOD makes an initial assessment of the property, which is then reviewed by a restoration advisory board. *See id.* at *29. Both the EPA and the relevant state are members of the board, as well as citizens with an interest in the outcome. *See id.* At bases scheduled for closure, the local re-development authority develops a re-use plan. *See id.* at *29. That plan is then reviewed by officials from the DOD, the EPA, and the state. *See id.*

[172] H.R. REP. NO. 105-133(I), *supra* note 5, at *50. If adopted, this provision would be added to the end of section 121(b) of CERCLA. *See id.* at *22. Several factors that would be considered when determining future land use include zoning requirements, potential for redevelopment, land use history of the facility, location of the contamination, and the views of the community. *See id.* at *22-23.

"Reasonably anticipated future land use" is an important factor to consider because the prospective use will have an impact on cleanup costs. Norton Testimony, *supra* note 152, at *2. The costs of making property safe for residential use often greatly exceed the costs incurred when cleaning up property for future commercial or industrial use. *See id.* at *2. Thus, it is not reasonable to incur extra costs to clean up property to a residential level of safety if it is not "reasonably anticipated" that the property will be put into residential use. *Id.*

However, the DOD considers Section 302 to be an unnecessary provision

officials from criminal liability for failure to respond under CERCLA if appropriated funds were not available to perform the appropriate response action.[173]

Section 304 attempts to redefine the role of states in cleanup action at federal sites.[174] This provision would amend CERCLA § 120 to allow states to apply to the EPA for authority to manage the cleanup procedures at federal facilities within the state.[175] In addition, an authorized state would be permitted to oppose the remedy selected by the EPA, and if no agreement could be reached, the state would be permitted to make the final decision.[176] However, the state would be required to pay any extra costs resulting from its remedy selection.[177]

---

which would have the effect of hampering the Department's efforts at determining future land use. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *30. Ms. Goodman testified that the EPA has been actively revising its policy regarding future land use, and she felt that substantial progress had been made in the last three years. *See id.* at *29-30. The perception of Section 302 is that it eliminates the flexibility that is currently part of the DOD's land use determination process. *See id.* at *30. The DOD's current land use process is supported by the environmental regulators, communities and citizens. *See id.*

[173] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *50. This provision would be added to the end of current CERCLA section 120. *See id.* at *23. To be eligible for this defense from criminal liability, the federal official must also have taken steps to ensure that the necessary funds had been requested as part of the President's budget. *See id.*

This provision is considered unnecessary in light of the various protections already provided to federal officials under federal law. *See* Morales Testimony, *supra* note 153, at *5. For example, the Federal Facilities Compliance Act of 1992 contains an exemption for federal officials from personal liability for civil penalties under hazards waste laws, if the officials' actions were within the scope of their authorized duties. *See id.* at *5. *See also supra* note 156 for additional discussion of the necessity of section 303.

[174] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *50.

[175] *See id.* States would receive approval if the EPA found that the state had the ability and experience to carry out the cleanup under CERCLA. *See id.* The EPA would also have the right to withdraw the state's new cleanup authority if the state was not executing its duties in accordance with CERCLA. *See id.*

[176] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *25, 50. If the EPA and the state can not agree on a remedy, the parties must participate in a formal dispute resolution process. *See id.* at *25. If agreement is not reached through this process, then the state may make the final decision. *See id.*

[177] *See id.* This provision has been highly criticized, especially for the additional costs it places on the states. *See* Norton Testimony, *supra* note 152, at *4. *See also* Morales Testimony, *supra* note 153, at *4. Under current CERCLA provisions, states are entitled to independently enforce their own environmental laws at Superfund sites. *See* Norton Testimony, *supra* note 152, at *7. But

2. Subtitle B.

Subtitle B begins with section 311, which proposes to lower the standards the DOD must achieve when cleaning up certain federal sites.[178] Under section 311, if a federal facility is not listed on the NPL, the DOD's remedial action at that site would not be required to attain the "relevant and appropriate standard[s]" required by CERCLA § 121.[179] Section 312 would permit the Secretary of Defense to end the long-term maintenance of a completed remedial action at any location where the EPA has determined that the threat to "human health or the environment" has been removed.[180] Sections 314 and 315 would continue to grant exemptions to the armed forces from various regulatory requirements under the Clean Air Act and the Solid Waste Disposal Act.[181]

---

although states would still be permitted to select remedies under proposed section 304, the state would be required to bear the additional costs if its remedy had a higher standard than the federal remedy. *See id.* at *6-7.

[178] *See* Morales Testimony, *supra* note 153, at *5. Section 2701 of Title 10 of the United States Code establishes an Environmental Restoration Program for the DOD. *See* 10 U.S.C.A. § 2701. This program requires the DOD to conduct its investigations, research, cleanup and response actions in accordance with the requirements of CERCLA. *See* 10 U.S.C.A. § 2701(a)(2).

[179] H.R. REP. NO. 105-133(I), *supra* note 5, at *26. Section 311 would be added at the end of Title 10, section 2701(c). *See id.* at *26. Currently, while the federal government is required to meet appropriate and relevant standards (ARARs) at non-NPL sites, private parties are not required to attain these standards. *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *32. However, under the proposed DRA provision, the DOD would not be required to clean up groundwater to meet the relevant Clean Water Act water quality criteria at non-NPL facilities, yet those standards would have to be complied with at NPL sites. *See* Morales Testimony, *supra* note 153, at *5.

[180] H.R. REP. NO. 105-133(I), *supra* note 5, at *26. The Secretary of Energy would be authorized to make this decision when a Department of Energy facility, as opposed to a DOD facility, was involved. *See id.* at *51. This provision would save valuable resources by enabling the government to stop spending money on sites that have been made environmentally safe. *See* Spisak Testimony, *supra* note 147, at *10.

[181] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *51-52. Property owned or operated by the military is not required to meet all of the Clean Air Act standards. *See id.* at *51. *See also* 42 U.S.C. § 7401. By continuing to grant these exemptions, section 314 recognizes the significance of military necessity and the importance of not impairing military operations, such as "live fire exercises" or off-road training, that may cause a temporary breach of air quality standards. H.R. REP. NO. 105-133(I), *supra* note 5, at *52.

C. *Financial Impact of the Defense Reform Act*

The Congressional Budget Office (CBO) prepared and submitted a cost estimate of the financial effects of the Defense Reform Act to the House Committee on National Security.[182] The CBO estimated that enactment of H.R. 1778 could reduce the cost of specific Superfund site cleanups, but that an overall reduction in CERCLA-related federal costs would not be achieved for several years.[183] Currently, most of the responsibility for the government's hazardous waste reduction programs belongs to the DOD and DOE.[184] According to CBO estimates, the revisions in H.R. 1778 relating to the selection of remedies have the potential to reduce the cost of Superfund cleanup efforts at federally owned sites.[185] However, sites where remedies have already been chosen and the work has already begun are not likely to see any decrease in spending, whereas facilities where remedial action will begin in two to four years will receive the most benefit from the DRA.[186] The CBO also predicts that the bill will not affect the EPA's Superfund costs over the next several years, thus, it is not likely that the EPA's budget will be reduced.[187]

In addition, "unexpended military munitions" are exempt from regulation under the Solid Waste Disposal Act, if those munitions "are subject to management under another federal law or regulation which is sufficient to ensure protection of human health and the environment." *Id.* at *52. *See also* 42 U.S.C. § 6924.

[182] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *59. The CBO Estimate, dated June 13, 1997, was submitted in compliance with section 403(a) of the Congressional Budget Act of 1974. *See id.*

[183] *See id.* at *62. One reason given for the lack of immediate overall results is that any savings realized at individual sites would merely be applied to the backlog of sites still needing cleanup action. *See id.*

[184] *See id.* The DOD and DOE have identified thousands of sites requiring decontamination, including former nuclear weapons manufacturing facilities. *See id.* In 1997, approximately $3.7 billion had been budgeted for the Superfund programs of these two departments. *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *62. Of this $3.7 billion, about 60 percent is used for remedial actions, while the remaining 40 percent pays for investigations and studies. *See id.* Prospectively, the Department of the Interior and the Forest Service expect to incur significant Superfund cleanup liabilities sometime after the year 2000. *See id.*

[185] *See id.*

[186] *See id.*

[187] *See id.* Although private parties are responsible for cleanup costs of nonfederal sites under CERCLA, the EPA uses its funds to administer the Superfund program, conduct research, enforce CERCLA, and clean up nonfederal sites when necessary. *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *62-63.

In contrast to the CBO's estimates, John Spisak painted a brighter picture of the savings which the DRA reforms could produce.[188] Mr. Spisak testified that the DOE's $5.9 billion budget for cleanup actions at federal facilities in fiscal year 1995 was almost 400 percent of the EPA's $1.5 billion budget for Superfund activities.[189] Based on this finding of inequitable distribution of funds, Mr. Spisak concluded that any savings achieved in Superfund itself will be "magnified fourfold" when applied to the government's liabilities at non-Superfund federal facilities.[190] In addition, based on the 1995 figures, Mr. Spisak estimated that by achieving a 35 percent "remedy savings" at federal and non-federal facilities, the DOD and DOE could have saved "over $930 million in that one year."[191]

IV. Conclusion

At this time, there appears to be more criticism than support for Title III of the Defense Reform Act. Due to the many conflicting interests involved, environmental reform is often difficult to achieve. However, while there may not be agreement on the methods to be used, there does seem to be a consensus that environmental reform, especially in relation to the DOD, is desperately needed. Perhaps, as Deputy Undersecretary of

---

188 *See* Spisak Testimony, *supra* note 147, at *7. Although Mr. Spisak states that he has not seen actual remedy savings estimates for Title III, many of the proposed reforms are similar in nature to other proposals which he has worked with in the past. *See id.*

189 *See* Spisak Testimony, *supra* note 147, at *7. Mr. Spisak relied on the October 1995 "Report of the Federal Facilities Group" as his source for this information. *See id.* at *6. Participants in the study that lead to the Report were the Council on Environmental Quality, the Office of Management and Budget and eight other federal agencies. *See id.* The Report indicated that the federal government spent approximately $9 billion a year on cleanup actions. *See id.* The Report also estimated that total federal agency costs could range from $234 to $389 billion over the next 75 years. *See id.* The DOE's portion of that total was estimated at $200-350 billion, and the DOD's share was $26 billion. *See id.* at *6-7.

190 Spisak Testimony, *supra* note 147, at *7.

191 *Id.* Mr. Spisak is also a proponent of administrative reform within the Superfund program, especially within the legal process. *See id.* For 1995, such reforms could have produced "non-cleanup overhead" savings of over $134 million for DOD and DOE. *Id.*

Defense Goodman indicated, the provisions of the DRA may merely be the beginning of the reform process.[192]

It appears that in order to be successful, any proposed environmental reform measures must first adequately seek to protect "human health and the environment."[193] Second, to eliminate the appearance of a double standard, federal facilities should be held to standards that are at least comparable to those that private facilities are required to meet under environmental regulations. However, it may be necessary to grant some exemptions from various regulatory requirements for military installations in order to avoid unduly hampering military training. In those situations, balancing the importance of the training exercises against the benefits of the environmental regulations may be the best course of action. Lastly, it appears that the role of the states, as well as the reasonably anticipated future land use should be considered when selecting cleanup remedies at federal facilities.

In conclusion, let us hope that the drafters of the DRA will not become discouraged by its poor reception, but will take its criticisms as a challenge to continue searching for effective measures to address the myriad of environmental problems which have become a part of the United States' legacy.

---

[192] *See* June 1997 Defense Reform Act Hearing, *supra* note 129, at *14, 26. *See supra* note 146 and accompanying text.

[193] *See* H.R. REP. NO. 105-133(I), *supra* note 5, at *49.