

Report for Congress

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Defense Cleanup and Environmental Programs: Authorization and Appropriations for FY2003

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Defense Cleanup and Environmental Programs: Authorization and Appropriations for FY2003

Summary

The Department of Defense (DOD) administers five environmental programs in response to various requirements under federal environmental laws. These programs include environmental cleanup, environmental compliance, pollution prevention, environmental technology, and natural resource conservation. Additionally, the Department of Energy (DOE) is responsible for managing defense nuclear waste and cleaning up contaminated nuclear weapons sites. For FY2003, the Administration has requested \$10.9 billion for these programs, about \$108 million more than the FY2002 funding level of \$10.8 billion. Some of the principal issues associated with these programs are the adequacy, cost, and pace of cleanup, whether DOD and DOE adequately comply with environmental laws and regulations, and the extent to which environmental requirements encroach upon military readiness.

The House and Senate have passed legislation to authorize national defense programs for FY2003. A conference on the two bills is underway. As passed, H.R. 4546 would authorize \$1.28 billion for environmental cleanup at current and former military installations, whereas S. 2514 would authorize \$1.32 billion for these activities. Funding for DOD's other environmental activities would primarily be authorized under the Operation and Maintenance Accounts. For DOE's management of defense nuclear waste and cleanup of contaminated nuclear weapons sites, H.R. 4546 would authorize \$6.59 billion, while S. 2514 would authorize \$6.87 billion. H.R. 4546 also would exempt military readiness activities from certain requirements under the Endangered Species Act, the Migratory Bird Treaty Act, and the Wilderness Act. As passed, S. 2514 does not include such exemptions.

Action also has begun on legislation to appropriate funding in FY2003 for national defense programs. As passed, H.R. 5010 would provide \$1.28 billion for environmental cleanup at current and former military installations, the same as requested and as the House authorized in H.R. 4546. As passed, H.R. 5011 would provide \$545 million, the same as requested, for base closure activities, which would include the cleanup of environmental contamination. As reported, S. 2709 would provide \$645 million for base closure activities, and the \$100 million increase above the House amount would be reserved for accelerating cleanup activities. The House also has completed subcommittee markup of legislation that would appropriate funding for DOE's defense nuclear waste management and cleanup responsibilities in FY2003, but the bill number or text is not yet available to date.

At least 13 other bills have been introduced in the 107th Congress that address defense-related environmental activities, such as conversion of the Rocky Flats site in Colorado to a National Wildlife Refuge, cleanup of unexploded ordnance, critical habitat protection for endangered and threatened species, military compliance with environmental requirements, reform of Superfund cleanup requirements, military response to environmental emergencies in foreign nations, storage and use of mercury at military installations, regulation of pollution from military aircraft operations, and suspension of the use of depleted uranium munitions. This report will be updated as legislative activity and other relevant developments occur.

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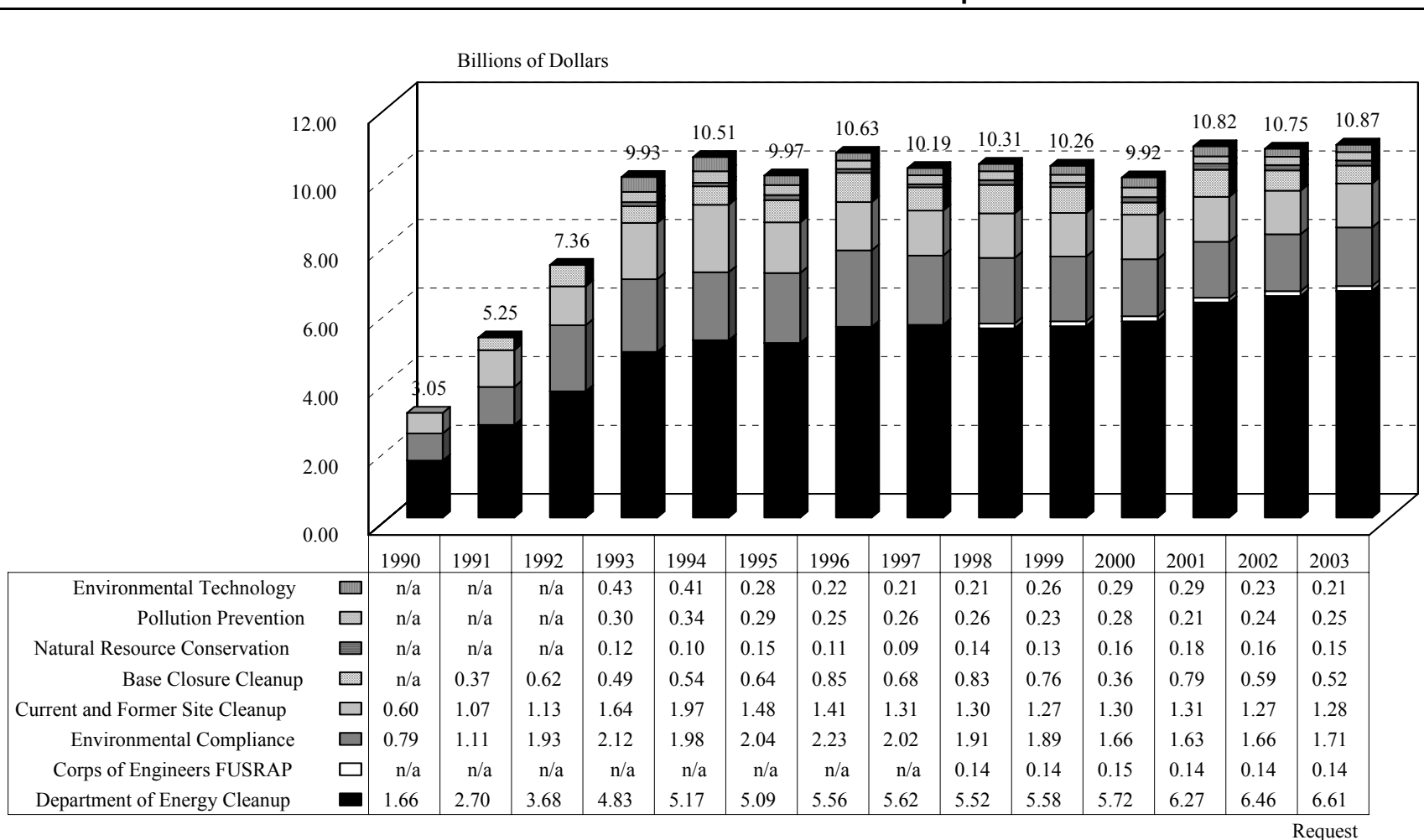
Introduction

The Department of Defense (DOD) administers five environmental programs to clean up past contamination at military installations; comply with environmental laws and regulations to safely dispose of waste and pollutants generated from ongoing military operations; prevent future contamination; develop more efficient and less costly environmental cleanup and waste management technologies; and conserve the natural, historical, and cultural resources of military lands. In addition to DOD's programs, the Department of Energy (DOE) is responsible for managing defense nuclear waste, and cleaning up contaminated nuclear weapons sites. While DOD and DOE are responsible for performing these activities, the Environmental Protection Agency (EPA) and the states provide oversight to enforce applicable laws and regulations, and they have the authority to assess fines and penalties if violations occur. Some of the principal issues associated with these programs are the adequacy, cost, and pace of cleanup, whether DOD and DOE adequately comply with environmental laws and regulations, and the extent to which environmental requirements encroach upon military readiness.

Congress authorizes both DOD's and DOE's defense-related environmental programs in the annual authorization bill for national defense, but it funds these programs under three different appropriations bills. Cleanup activities at current and former military installations, environmental compliance, pollution prevention, environmental technology, and natural resource conservation primarily receive funding in the annual appropriations bill for the Department of Defense, but cleanup at base closure sites is funded in the annual appropriations bill for military construction. DOE's management of defense nuclear waste and cleanup of contaminated nuclear weapons sites is funded in the annual appropriations bill for energy and water development. For FY2003, the Administration has requested nearly \$10.9 billion for these programs, approximately 3% of the total national defense request of \$396.8 billion, and about \$108 million more than the FY2002 funding level of almost \$10.8 billion. See Figure 1 for a funding history since FY1990, as well as the amount requested for each program for FY2003.

This report explains the scope and function of DOD's and DOE's defense-related environmental programs, identifies relevant requirements under federal law, analyzes various implementation issues, indicates the President's budget request for FY2003, examines relevant provisions in authorization and appropriations legislation for FY2003, and discusses additional legislation introduced in the 107th Congress that could affect defense-related environmental activities.

**Figure 1. Funding for Defense Cleanup and Environmental Programs:
FY1990 to FY2002 Enacted and FY2003 Request**



Prepared by the Congressional Research Service using data from enacted appropriations legislation, Operation and Maintenance Overviews of the Department of Defense, and congressional budget justifications of the Department of Energy. N/A = account or program not yet established. FUSRAP = Formerly Utilized Sites Remedial Action Program.

Department of Defense

DOD administers five environmental programs to comply with requirements under various federal environmental laws.¹ In terms of funding, DOD's two largest environmental programs focus on cleaning up past contamination at current, former, and closing military installations, and on complying with environmental laws and regulations to safely dispose of waste and pollutants generated by ongoing military operations. DOD's three other environmental programs have smaller budgets. They focus on pollution prevention, environmental technology, and natural resource conservation. For FY2003, the Administration has requested \$4.11 billion for all five programs, about \$44 million less than the FY2002 funding level of \$4.15 billion. DOD reports that this overall decrease is primarily due to no funding being requested to continue specific projects that received congressionally "earmarked" funding in FY2002. More detailed information on each program is provided below.

Environmental Cleanup

In 1975, DOD established an Installation Restoration Program to investigate and clean up sites on military lands where past waste management practices had led to environmental contamination. A few years later, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) created the Superfund program to clean up hazardous waste sites that pose the greatest risk to public health and the environment in the United States, and it created the National Priorities List (NPL) to track them.² The law also established a formal framework for the identification, investigation, and cleanup of hazardous substances. Initially, the extent to which DOD had to comply with these requirements was unclear. However, the Superfund Amendments and Reauthorization Act of 1986 (SARA) specified that DOD and all other federal agencies are subject to CERCLA's requirements for identifying, evaluating, and cleaning up NPL sites under their jurisdiction.³ The Resource Conservation and Recovery Act (RCRA) also requires DOD and all other federal agencies to perform corrective actions to clean up

¹ For additional information on each program, refer to the Defense Environmental Network and Information Exchange (DENIX) web site at [<http://www.denix.osd.mil>].

² 42 U.S.C. 9601 et. seq.

³ 42 U.S.C. 9620

contamination at sites with active hazardous waste management or solid waste disposal facilities operating with permits issued under RCRA.⁴

In addition to specifying the applicability of CERCLA, SARA expanded the Installation Restoration Program, and renamed it the Defense Environmental Restoration Program, to centralize DOD's efforts in cleaning up hazardous waste sites at domestic military installations where past actions led to contamination.⁵ As a complement to this program, DOD established a Military Munitions Response Program to fulfill requirements under Sections 311 and 312 of the National Defense Authorization Act for FY2002 (P.L. 107-107) to identify, investigate, and clean up unexploded ordnance (UXO) and other munitions at nonoperational training ranges in the United States. This program is in its initial stage, and only a portion of contaminated sites have been identified thus far. As DOD continues to identify additional sites and investigate the extent of contamination, more information will be available on the actions and costs that will be necessary to address the safety and environmental hazards presented by UXO. The following sections explain the role of EPA and the states in conducting oversight of DOD's cleanup activities, indicate cleanup status and costs, explain appropriations account structure, and discuss cleanup efforts at overseas military installations.

Oversight of Cleanup Activities. While DOD is responsible for funding and conducting cleanup actions at its sites, EPA and the states conduct oversight of these actions to determine whether DOD complies with the law. Generally, EPA takes the lead in performing oversight of DOD sites being cleaned up under CERCLA, and EPA delegates federal authority to the states for conducting oversight of corrective actions taken under RCRA. However, cleanup requirements under CERCLA and RCRA apply only within the United States. The cleanup of contamination at overseas military installations is subject to requirements specified within the Status of Forces Agreement with each host nation. These requirements are generally not as strict as CERCLA and RCRA, and their stringency varies widely from country to country. Unlike domestic cleanup actions, EPA does not have the authority to conduct oversight at military installations abroad. Rather, overseeing DOD's actions to ensure that the requirements of a Status of Forces Agreement are met is the responsibility of each host nation.

Cleanup Status and Costs. Until FY1994, DOD primarily concentrated its cleanup efforts on identifying and investigating contaminated sites to determine the level of remediation that would be necessary to protect human health and the environment. As the majority of sites were identified and subsequent investigations were completed, DOD began to focus the bulk of its efforts on actual cleanup. In FY1996, DOD also developed specific cleanup goals to prioritize its sites, based on threats of exposure. As indicated in Figure 2, DOD had identified a total of 28,538 contaminated sites as of the end of FY2001.⁶ These sites are located on 5,046 current, former, and closing military installations in all 50 states and several U.S.

⁴ 42 U.S.C. 6901 et seq.

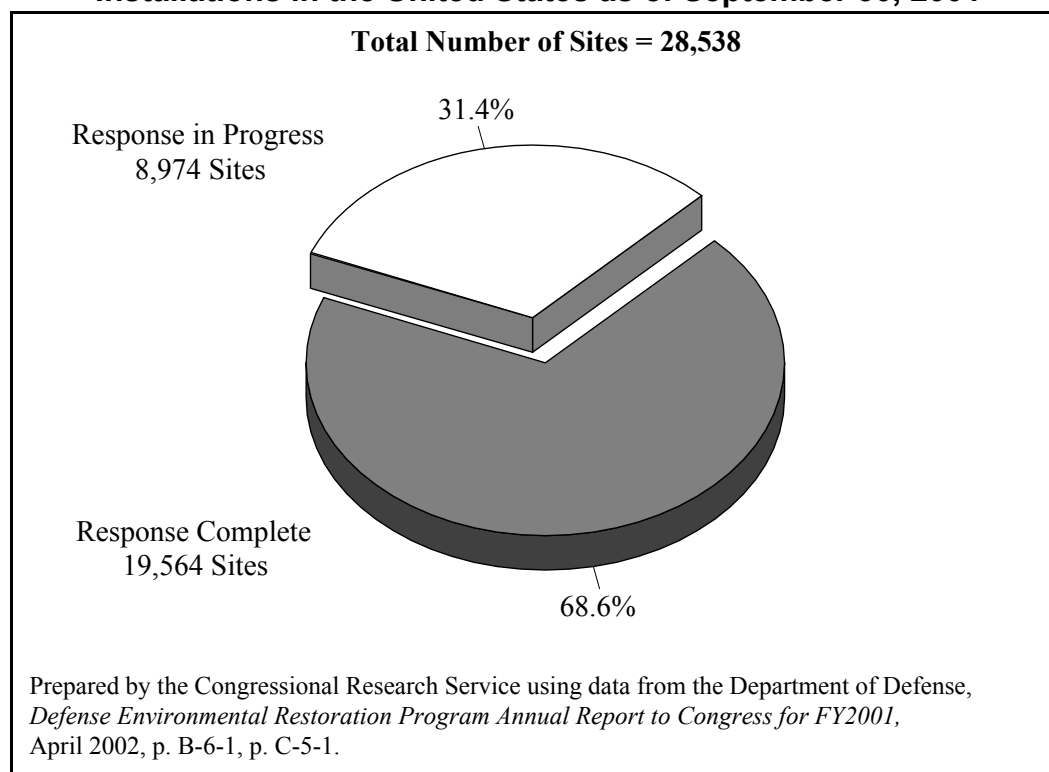
⁵ 10 U.S.C. 2701

⁶ Department of Defense. *Defense Environmental Restoration Program Annual Report to Congress for FY2001*. April 2002. p. B-6-1, p. C-5-1.

territories. As of that time, DOD had completed cleanup at 19,564 of its contaminated sites (nearly 69% of total sites) at a cost of \$18.6 billion, and reported that almost \$31.0 billion would be necessary to finish cleanup at the remaining 8,974 sites from FY2002 to site completion.

Even though less than 1/3 of contaminated sites are still in need of cleanup, the above estimates of future cleanup costs are substantially higher than has already been spent due to the severity of contamination at these remaining sites and the resources that likely will be necessary to address UXO contamination. DOD expects that estimates of funding needs will likely increase in future years as additional sites with UXO contamination are identified and the extent of such contamination is determined. Funding needs for cleanup also may rise in future years as additional military bases are selected for closure. The National Defense Authorization Act for FY2002 (P.L. 107-107) authorized a new round of military base closings in 2005. The amount of funding that would be necessary to accelerate cleanup at new base closure sites, and transfer them to other uses, would depend on the type and extent of contamination present at such installations. Costs to accelerate cleanup could be high if the bases selected for closure contain some of the more severely contaminated sites that are on the NPL and are subject to cleanup under CERCLA.

Figure 2. Cleanup Status at Current, Former, and Closing Military Installations in the United States as of September 30, 2001



Appropriations Account Structure. Cleanup costs at domestic military sites are funded by several centralized accounts structured by category of installation. Funding for cleanup at current and former military installations is authorized under five Defense Environmental Restoration Accounts in the annual authorization bill for national defense, and is appropriated to these accounts in the annual appropriations

bill for the Department of Defense. Three of these accounts reserve funding for the Army, Navy, and Air Force. One devotes funding to a more general category of Defense-Wide sites, and another is dedicated to cleaning up Formerly Used Defense Sites (FUDS).⁷ Typically, FUDS are sites on properties that DOD owned or leased in the past and are now devoted to civilian uses. Many of the FUDS sites were used during the World War II era and are separate from military bases that have been designated for closure since 1988. Cleanup at base closure sites is authorized under the Base Realignment and Closure (BRAC) Account in the annual authorization bill for national defense, and is appropriated under this account in the annual appropriations bill for military construction.⁸ The Administration has requested a total of \$1.80 billion for DOD's cleanup activities in FY2003, approximately \$65 million less than the FY2002 funding level of \$1.86 billion. Of the requested amount, nearly \$1.28 billion would be allocated to the Defense Environmental Restoration Accounts for current and former military installations, and about \$520 million would be reserved under the BRAC account for cleanup at base closure sites.

Overseas Military Installations. As discussed above, there are several centralized accounts to fund cleanup activities at domestic military installations. However, there are no line-item accounts in the President's annual budget submission, or in annual defense authorization or appropriations legislation, to conduct cleanup actions at overseas military installations. Rather, these projects are funded on an installation-by-installation basis out of the general operational budget for each foreign base, and DOD does not have the authority to transfer funding from the cleanup accounts for domestic installations to address contamination abroad. Further, DOD is not required to report to Congress on the status of cleanup actions at overseas military installations, as the agency is required to do for domestic facilities in its annual report on the Defense Environmental Restoration Program. The only type of information that DOD is required to submit to Congress regarding overseas cleanup is a statement of the amounts expended, and anticipated to be expended, as part of its annual report to Congress on the Defense Environmental Quality Program. The most recent version of this report indicated that DOD spent a total of \$12.6 million in FY2000 on overseas environmental cleanup, more than double the amount of \$5.7 million in FY1999. The report also indicated that \$19.6 million was available from appropriations in FY2001, and that in FY2002, \$13.1 million would be required for overseas cleanup obligations.⁹

⁷ Congress first appropriated funding to the Defense Environmental Restoration Account in FY1984. Subsequently, the National Defense Authorization Act for FY1997 (P.L. 104-201) divided the account into four subaccounts: Army, Navy, Air Force, and Defense-Wide. Since then, Congress also has specified the amount of funding reserved for cleaning up FUDS sites, and the National Defense Authorization Act for FY2001 (P.L. 106-398) established a FUDS subaccount to conform with this budgetary practice.

⁸ Congress authorized four rounds of military base closures in 1988, 1991, 1993, and 1995, and established a separate BRAC account for each round. Congress has traditionally placed a limit on the amount of funding that can be spent on environmental cleanup out of the annual appropriation for each BRAC account.

⁹ Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2000*. November 2001. p. 6.

Environmental Compliance

DOD and all other federal agencies are required to comply with environmental laws and regulations to the same extent as any other entity. Typically, environmental compliance projects at military installations include routine operations such as storing and disposing of solid and hazardous waste, upgrading and monitoring waste water treatment plants, and testing and replacing underground storage tanks. The following sections provide information on environmental compliance requirements under federal law, examine funding trends for military compliance activities, and indicate the amount of fines and penalties assessed against, and paid by, DOD for environmental violations.

Compliance Requirements under Federal Law. The federal environmental statutes that most commonly apply to the military's routine operations include the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act (RCRA), and Safe Drinking Water Act. The Federal Facility Compliance Act of 1992 amended RCRA to clarify in detail that DOD and all other federal facilities are subject to penalties, fines, permit fees, reviews of plans or studies, and inspection and monitoring of facilities in connection with federal, state, interstate, or local solid or hazardous waste regulatory programs.¹⁰ The Act also authorized and directed EPA to take enforcement actions under RCRA against any federal agency to the same extent that it would against any other entity. While the Safe Drinking Water Act includes similar language, other federal environmental laws do not include the same clarification of compliance requirements. In the first session of the 107th Congress, legislation (H.R. 2154) was introduced to extend this clarification language to other environmental laws, discussed on page 25.

Funding Trends. DOD did not begin to comprehensively track the amount of funding spent on environmental compliance activities until FY1990. However, there are no centralized accounts for these activities in annual defense authorization and appropriations legislation, as there are for environmental cleanup activities. Instead, funding for compliance primarily comes from the accounts for Operation and Maintenance, Military Construction, and Procurement. DOD's budget for environmental compliance has ranged from \$790 million in FY1990 to a high of \$2.23 billion in FY1996. The Administration has requested \$1.71 billion for FY2003, about \$47 million more than the FY2002 funding level of \$1.66 billion. According to DOD, an increase is being requested to meet environmental requirements for certain Air Force activities and to implement waste water and drinking water treatment projects at the Massachusetts Military Reservation in Falmouth, Massachusetts. The safety of drinking water has been an ongoing concern among communities surrounding the reservation, since groundwater contamination was discovered in private and municipal drinking water wells. While the Administration is proposing an overall increase in funding for environmental compliance activities, such funding for the Navy and defense-wide facilities would decline due to the completion of one-time projects.

¹⁰ 42 U.S.C. 6961

Fines and Penalties. While DOD is required to comply with environmental laws and regulations, and has a dedicated budget to fund such activities, the extent to which DOD fulfills these responsibilities has been a longstanding issue. As explained above, federal environmental laws require federal facilities to comply with all federal, state, interstate, and local environmental requirements and authorize EPA, the states, and local governments to assess fines and penalties against DOD for environmental violations. However, a fine or penalty is not always paid in the same year that it is assessed, and in some cases, DOD does not make a cash payment to satisfy a fine or penalty. Instead, DOD sometimes agrees to perform a Supplemental Environmental Project (SEP) in lieu of a cash payment. Under such an agreement, DOD not only corrects its actions to comply with the environmental requirement at hand, but also performs an additional project that enhances environmental quality. Regulatory agencies frequently prefer the performance of SEPs to cash payments due to the environmental benefits reaped from such projects. DOD is required to include information on the amount of environmental fines and penalties assessed and paid for the past 5 fiscal years in its annual report to Congress on the Defense Environmental Quality Program. As indicated in Table 1, EPA, the states, and local governments assessed \$9.7 million in fines and penalties against DOD for environmental violations from FY1995 to FY2000.¹¹ During this same period, DOD paid \$15.9 million in cash payments and SEPs as compensation for its violations.¹²

Table 1. Fines and Penalties Assessed and Paid for Environmental Violations from FY1995 to FY2000

Fiscal Year	Fines and Penalties Assessed	Cash Paid and Cost of SEPs
FY1995	\$835,042	\$3,809,525
FY1996	\$856,708	\$3,212,050
FY1997	\$2,498,139	\$5,231,955
FY1998	\$2,921,653	\$157,920
FY1999	*\$923,889	\$3,298,810
FY2000	\$1,692,845	\$156,100
Total	\$9,728,276	\$15,866,360

*This amount does not include a fine of \$16 million assessed against DOD for violations under the Clean Air Act at Ft. Wainwright, Alaska, which was legally challenged due to the criteria used to determine the amount.

Prepared by the Congressional Research Service with data from the Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2000*. November 2001. Appendix J. p. 16 and p. 20.

¹¹ Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2000*. November 2001. Appendix J. p. 16.

¹² Ibid., Appendix J. p. 20.

Other Environmental Programs

In addition to environmental cleanup and compliance, DOD administers three other programs that focus on pollution prevention, environmental technology, and natural resource conservation. The purpose of the pollution prevention program is to reduce or eliminate solid or hazardous waste from being generated and prevent environmental problems before they occur. The environmental technology program supports research, development, testing, and demonstration of more efficient and less costly methods to clean up and manage solid and hazardous waste. The natural resource conservation program aims to protect the natural, historical, and cultural resources of the 25 million acres of public land that DOD administers, including the protection of endangered species. DOD began tracking the budget for these programs in FY1993. While these programs are an integral part of DOD's environmental strategy, their funding is significantly smaller than the programs for environmental cleanup and compliance. Like compliance, there are no centralized accounts for pollution prevention, environmental technology, or natural resource conservation in annual defense authorization or appropriations legislation. Instead, funding for these activities comes primarily from the accounts for Operation and Maintenance, Procurement, and Research and Development.

For FY2003, the Administration has proposed an increase in funding for pollution prevention, and decreases for environmental technology and natural resource conservation. First, the budget for pollution prevention would increase by \$6.2 million, from \$241.3 million in FY2002 to \$247.5 million in FY2003. According to DOD, the proposed increase is primarily due to funding needs for Air Force and defense-wide projects. Second, funding for environmental technology would decline by \$20.5 million, from \$225.6 million in FY2002 to \$205.1 million in FY2003. DOD reports that the proposed decrease is mostly due to the lack of funding being requested to continue specific projects that received congressionally "earmarked" funding in FY2002 under the Research, Development, Test, and Evaluation Accounts. While the overall budget for environmental technology would decline under the Administration's proposal, there would be a \$7.8 million increase for the Environmental Technology Certification program to accelerate the development of new ways to detect and clean up UXO and other munitions. The development of such technologies will likely be crucial in efforts to accurately identify and assess contaminated sites under the new Military Munitions Response Program, discussed earlier. Third, funding for natural resource conservation would decline by \$11.7 million, from \$163.7 million in FY2002 to \$152.0 million in FY2003. According to DOD, the proposed decrease is primarily due to reduced costs for Air Force projects and the lack of funding being requested for projects that received congressionally "earmarked" funding in FY2002.

Military Readiness Issues

A major issue associated with the implementation of DOD's environmental programs is the extent to which environmental requirements restrict military readiness capabilities. While most federal environmental laws specify their applicability to federal facilities, Congress included exemptions in several statutes to ensure that military training needs would not be restricted to the extent that

national security would be compromised.¹³ These exemptions provide the President with the authority to suspend compliance requirements for actions at federal facilities on a case-by-case basis. Such exemptions may be granted if doing so would be either in the “paramount interest of the United States” or in the “interest of national security”. Most of these exemptions are limited to one year, but can be renewed. The Safe Drinking Water Act does not impose a time limit on exemptions from compliance. Under the Endangered Species Act, a special committee “shall grant” an exemption if the Secretary of Defense finds it necessary for national security. This committee may place a time limit on an exemption, but it is not required to do so under the law.

The adequacy of existing exemptions to meet national security needs has become a controversial issue. DOD argues that existing exemptions are too onerous and time-consuming to obtain on a case-by-case basis due to the vast number of training exercises that it conducts on hundreds of military installations across the country. DOD also argues that the time limitations placed upon most exemptions are not compatible with many training activities, due to their ongoing or recurring nature. Instead, DOD favors broader exemptions that would allow it to conduct training exercises and other readiness activities without restriction or delay. However, environmental organizations have opposed broader exemptions for military readiness activities and claim that existing exemptions are sufficient to accommodate combat training needs.

The cumulative effect of environmental requirements on military readiness capabilities is difficult to determine due to the lack of a system to comprehensively track individual cases in which training has been restricted or compromised. In a recent evaluation, the General Accounting Office (GAO) found that DOD’s readiness reports do not indicate the extent to which environmental requirements restrict combat training activities, and that such reports indicate a high level of readiness overall.¹⁴ However, GAO noted individual instances of environmental encroachment at numerous military installations, and in light of this fact, recommended that DOD’s reporting system be improved to more accurately identify any shortfalls in training that might be attributed to restrictions imposed by environmental requirements.

The House and Senate Armed Services Committees, the House Government Reform Committee, and the Senate Environment and Public Works Committee, have held oversight hearings during the 107th Congress to examine the issue of environmental encroachment, and debate will likely continue as DOD attempts to balance its readiness needs with requirements to comply with environmental laws. The House included broader environmental exemptions from certain requirements under the Endangered Species Act, the Migratory Bird Treaty Act, and the Wilderness Act in passing the National Defense Authorization Act for FY2003

¹³ Specific exemptions from compliance requirements for federal facilities are included in the Clean Air Act [42 USC 7418(b)], Clean Water Act [33 USC 1323(a)], Comprehensive Environmental Response, Compensation, and Liability Act [42 USC 9620(j)], Endangered Species Act [16 USC 1536(j)], Resource Conservation and Recovery Act [42 USC 6961(a)], and Safe Drinking Water Act [42 USC 300(j)(6)].

¹⁴ General Accounting Office. *Military Training: DOD Needs a Comprehensive Plan to Manage Encroachment on Training Ranges*. GAO-02-727T. May 2002. p. 2.

(H.R. 4546), discussed on page 17. DOD had requested the exemptions related to the protection of endangered species and migratory birds as part of a Readiness and Range Preservation Initiative submitted to Congress in April 2002.¹⁵

Department of Energy

In the late 1980s, the United States ceased its production of radioactive materials used in the construction of nuclear weapons due to military projections that the nuclear weapons stockpile was sufficient to protect national security and respond to future threats. However, environmental problems associated with producing and storing these radioactive materials continue to pose a risk to human health and safety today. Since the beginning of the U.S. atomic energy program, DOE and its predecessors have been responsible for managing defense nuclear weapons and related waste. In later years, DOE expanded its efforts to include the environmental restoration of radioactive sites and those with other hazardous contamination in buildings, soil, and water to ensure their safety for future uses. In 1989, the Bush Administration established an Environmental Management Program within DOE to consolidate the agency's efforts in cleaning up contamination from defense nuclear waste, as well as waste from civilian nuclear energy research.¹⁶ The following sections discuss program oversight, cleanup status and costs, appropriations account structure, and related topics such as the selection of Yucca Mountain for an underground nuclear waste repository and the cleanup of smaller radioactive waste sites that were transferred from DOE to the Army Corps of Engineers.

Oversight of Cleanup and Waste Management Activities

The Atomic Energy Act of 1954 is the primary authority governing the management of defense nuclear waste. The law requires DOE to safely store, process, transport, and dispose of radioactive and other hazardous waste resulting from the production of defense nuclear materials.¹⁷ Waste disposal typically involves cleanup actions, such as the decontamination of buildings and structures and the removal of contaminated soil. DOE is also subject to requirements under various federal environmental laws in carrying out its responsibilities under the Atomic Energy Act. CERCLA and RCRA are the two main federal environmental statutes that apply to cleanup activities at defense nuclear waste sites. CERCLA primarily applies to cleanup actions at inactive waste sites which present the highest risk of exposure and are listed on the NPL. RCRA requires DOE to clean up contamination at sites with active solid and hazardous waste disposal facilities for which an operating permit has been issued under RCRA. EPA and the states are responsible for conducting oversight of DOE's actions in order to determine compliance with

¹⁵ In response to concerns over the perceived increase in training restrictions imposed by environmental requirements, DOD submitted a Readiness and Range Preservation Initiative to Congress which proposed broader exemptions for military readiness activities from certain requirements under the Clean Air Act, Comprehensive Environmental Response, Compensation, and Liability Act, Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and Solid Waste Disposal Act.

¹⁶ For additional information, refer to DOE's web site at [<http://www.em.doe.gov>].

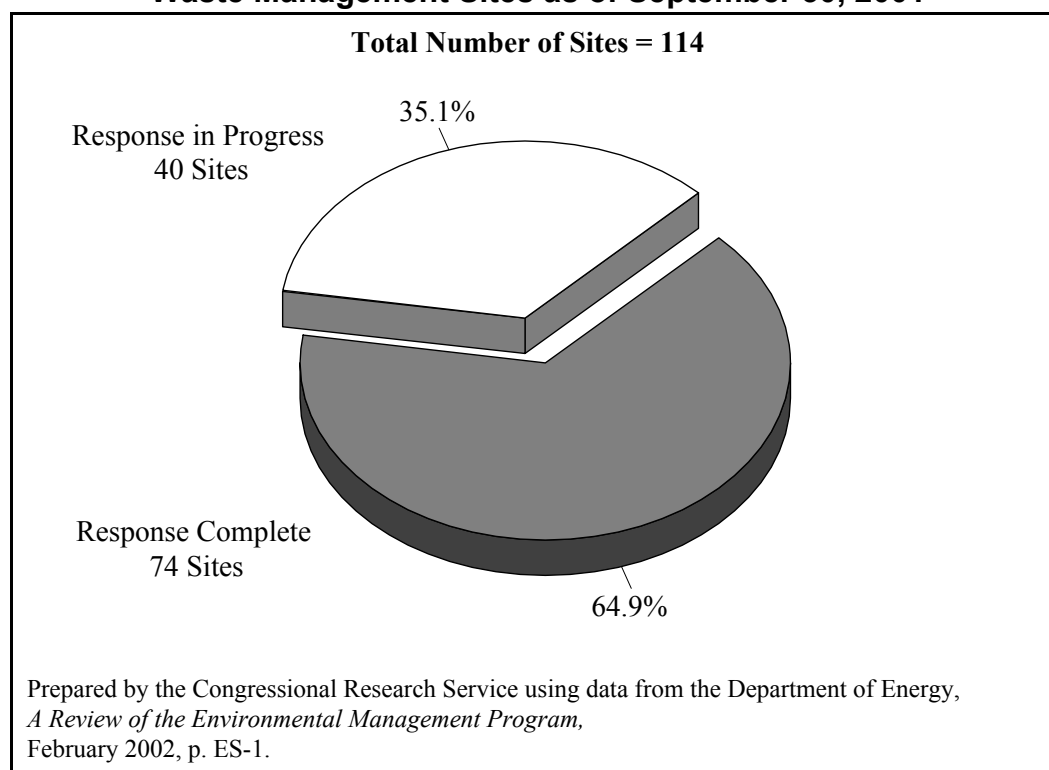
¹⁷ 42 U.S.C. 2121

environmental laws and assess fines and penalties if violations occur. Generally, EPA takes the lead in performing oversight of cleanup actions at DOE sites required under CERCLA, and EPA delegates federal authority to the states for conducting oversight of actions required under RCRA. To date, DOE has completed over 100 compliance agreements with EPA and the states, which specify cleanup and waste management requirements at individual sites.¹⁸

Cleanup Status and Costs

The pace and cost of cleanup at defense nuclear waste sites has been a long-standing issue. GAO has conducted numerous audits of DOE's Environmental Management Program, which in many cases have assessed cleanup schedules and cost estimates as being overly optimistic. GAO's assessment of DOE's 1998 strategy to accelerate cleanup concluded that cleanup schedules and estimates of funding needs are sometimes inaccurate because they are based on project assumptions that may change, such as the capacity to pack and ship vast quantities of waste for disposal, cleanup levels that have yet to be finalized under regulatory agreements, the types of waste management and cleanup technologies that will be used, and the exclusion of additional costly activities related to cleanup.¹⁹

Figure 3. Cleanup Status at DOE Environmental Restoration and Waste Management Sites as of September 30, 2001



¹⁸ For information on each compliance agreement, refer to DOE's web site at [<http://www.em.doe.gov/compliance.html>].

¹⁹ General Accounting Office. *Nuclear Waste: DOE's Accelerated Cleanup Strategy Has Benefits But Faces Uncertainties*. RCED-99-129. April 1999. 21 p.

As indicated in Figure 3 above, DOE reports that there are 114 large geographic sites where the past production of atomic materials used to construct nuclear weapons led to severe contamination.²⁰ These sites encompass a total land area of over 2 million acres, which is equal to the states of Rhode Island and Delaware combined. As of the end of FY2001, DOE reports that it had completed all response actions at 74 sites, at a cost of over \$60 billion, and that response actions were underway at the remaining 40 sites.²¹ However, the sites that have been cleaned up are relatively small and are among the least hazardous, and the sites where cleanup was underway contain some of the most severely contaminated areas. DOE currently estimates that cleanup at the remaining 40 sites may take 70 years to complete, and that total cleanup costs may range from \$220 billion to \$300 billion if program reforms are not initiated, substantially higher than the estimate of \$147 billion made in 1998.²²

Appropriations Account Structure

Congress traditionally authorizes funding for DOE's defense environmental restoration and waste management activities in the annual authorization bill for national defense, and appropriates funding for it in the annual appropriations bill for energy and water development. Funds are authorized and appropriated for the program under three centralized accounts. First, the Defense Environmental Restoration and Waste Management Account funds cleanup and waste management activities at nuclear weapons sites where all response actions are projected to continue beyond 2006. Second, the Defense Facilities Closure Projects Account supports cleanup and waste management activities at sites where all response actions are scheduled to be complete by the end of 2006. Third, the Defense Environmental Management Privatization Account reserves funding for cleanup projects that have been completed under "privatization" contracts.²³

²⁰ Department of Energy. *A Review of the Environmental Management Program*. February 2002. p. ES-1.

²¹ Ibid. One of the remaining sites, the Waste Isolation Pilot Plant in New Mexico, is a waste disposal facility rather than a cleanup site that requires response actions. Based on recent projections, it will remain active and receive waste shipments through 2039.

²² Ibid.

²³ Under privatization contracts, a private entity is responsible for financing the entire cost of a cleanup project, and is not paid by DOE until the project is completed and performed according to contractually specified requirements. This type of contract differs from the traditional approach of paying a contractor a fixed amount upfront and offering additional cash incentives to encourage the completion of a project within a certain time frame. Privatization contracts have the potential to provide the contractor with a greater incentive to control costs, work more efficiently, and finish a project successfully, since payment is not rendered until performance is complete and the cleanup objective has been achieved.

For FY2003, the Administration has requested a total of \$6.61 billion for the above accounts, nearly \$152 million more than the FY2002 funding level of \$6.46 billion.²⁴ Of the requested amount of \$6.61 billion, approximately \$4.56 billion would be reserved for the Defense Environmental Restoration and Waste Management Account, \$1.09 billion would be set aside for the Defense Facilities Closure Projects Account, and \$158 million would be allocated to the Defense Environmental Management Privatization Account. The remaining requested amount of \$800 million would be reserved for a new cleanup reform account that would fund efforts to improve program efficiency and reduce cleanup costs.

Yucca Mountain

A prominent issue related to DOE's Environmental Management Program is the perceived need for a long-term centralized repository for high-level defense nuclear waste. While the Waste Isolation Pilot Plant in New Mexico serves as a centralized repository for low-level and transuranic (plutonium-contaminated) defense nuclear waste, high-level waste is currently stored at individual sites. Many interests have argued that centrally storing high-level waste in a location that lacks a potential pathway for immediate exposure would be safer and more secure from potential terrorist threats. In response to such concerns, the Nuclear Waste Policy Act of 1982, as amended in 1987, required DOE to study the suitability of Yucca Mountain in Nevada for constructing an underground geological repository for high-level defense nuclear waste, as well as civilian radioactive waste generated by nuclear power plants. The federal government and the nuclear power industry contribute funding to support the study and development of such a repository.

The State of Nevada has strongly opposed the selection of Yucca Mountain for an underground repository due to numerous safety concerns, such as the possibility of seismological disturbances and underground flooding, and the potential for groundwater contamination over time. DOE contends that scientific evidence indicates that the conditions at Yucca Mountain would likely be suitable for long-term underground waste storage and that efforts to study the site should continue. Environmental organizations have opposed the development of a centralized repository due to concerns over the safety of transporting high-level radioactive waste across many states to one location and the potential for terrorist threats, along with environmental concerns about the site that are similar to those of the State of Nevada.

Taking these concerns into consideration, President Bush recommended Yucca Mountain for site selection on February 8, 2002. However, Nevada Governor Kenny Guinn submitted a notice of disapproval to Congress on April 8, 2002, as permitted under the Nuclear Waste Policy Act. The House passed a resolution (H.J.Res. 87) on May 8, 2002, to overturn the "state veto", and the Senate passed H.J.Res. 87 on July 9, 2002. Upon the President's signature, the resolution will clear the way for

²⁴ As passed by the House, H.R. 4775 would provide a supplemental appropriation of nearly \$84 million for FY2002 to enhance safeguards and security at several nuclear waste cleanup sites as protection against potential terrorist threats. As passed by the Senate, H.R. 4775 would provide \$40 million for these activities. The Administration did not request a supplemental appropriation for enhancing security at defense nuclear waste sites.

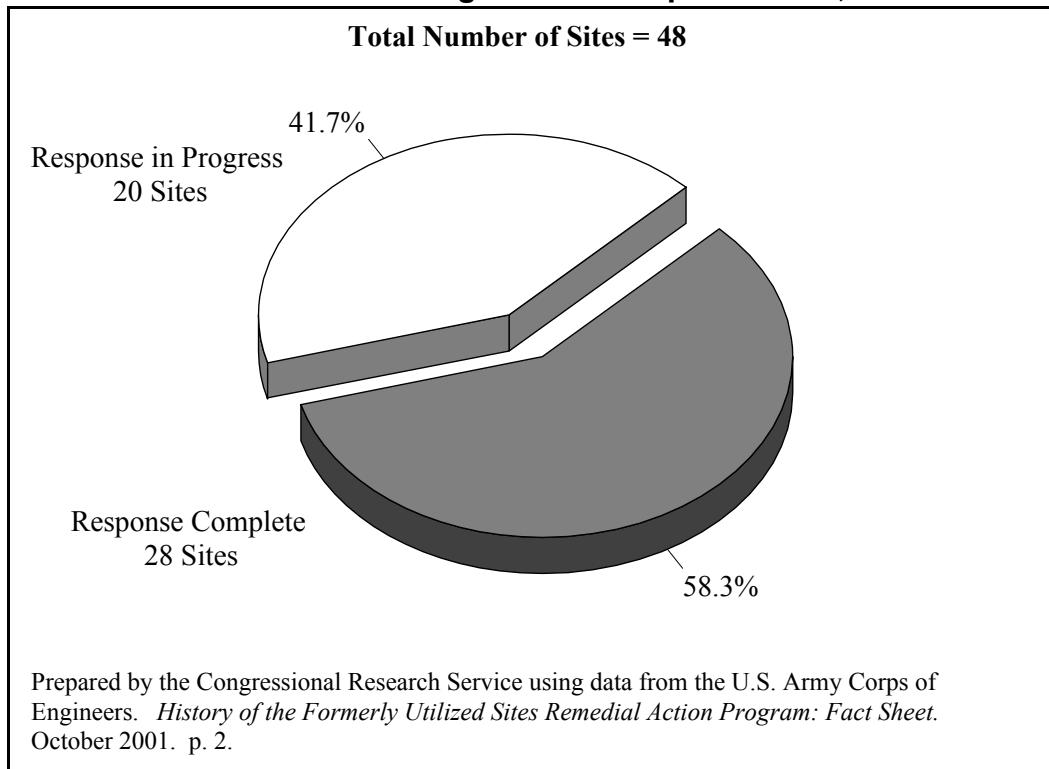
DOE to proceed with its plans to prepare and submit a license application to the Nuclear Regulatory Commission for the construction of a nuclear waste repository at Yucca Mountain. DOE plans to submit a license application in 2004, and expects to begin receiving waste shipments in 2010. Despite congressional approval, opponents of the development of Yucca Mountain may attempt to halt or delay the project through other avenues, including the appropriations process, oversight of the Nuclear Regulatory Commission's review of the license application for the site, and litigation over numerous aspects of the site characterization and development process.²⁵

Formerly Utilized Sites Remedial Action Program

In addition to the federal facilities that are being cleaned up under DOE's Environmental Management Program, there are other smaller sites contaminated with low-level radiation from the processing and storage of uranium and thorium ores during the early years of the U.S. nuclear weapons program from the 1940s to the 1960s. The majority of these sites were owned and operated by private contractors, and cleanup at these sites is performed under the Formerly Utilized Sites Remedial Action Program (FUSRAP). The Atomic Energy Commission, DOE's predecessor agency, established the program in 1974 under authorities provided in the Atomic Energy Act, and actual cleanup began in 1979. In response to concerns over the pace and cost of cleanup, Congress included provisions in the Energy and Water Development Appropriations Act for FY1998 (P.L. 105-62) to transfer the FUSRAP program to the Army Corps of Engineers. This transfer was considered potentially advantageous since the Corps had extensive experience in cleaning up hazardous waste at former defense sites that were in operation during this same time period.

²⁵ For further information on this issue, refer to CRS Issue Brief IB92059, *Civilian Nuclear Waste Disposal*, by Mark Holt.

Figure 4. Cleanup Status under the Formerly Utilized Sites Remedial Action Program as of September 30, 2001



The Energy and Water Development Appropriations Act for FY1999 (P.L. 105-245), requires the Corps to follow CERCLA's requirements in cleaning up sites under the program. DOE collaborates with the Corps to determine the eligibility of new sites, since it must perform the historical research to ascertain whether such sites were part of the early nuclear weapons program. Once all response actions at a site are complete, the Corps is responsible for monitoring and maintaining cleanup remedies for two years. After that time, the site is transferred back to DOE for continuing any necessary monitoring and maintenance. As indicated in Figure 4 above, the Corps reported that 28 sites had been cleaned up under the program as of the end of FY2001, and cleanup was planned or ongoing at 20 sites in 8 states.²⁶ Before FY1998, cleanup at these sites was funded out of DOE's Defense Environmental Restoration and Waste Management Account, and the prior Atomic Energy Defense Activities Account. Since the creation of the FUSRAP account and transfer of the program to the Corps in FY1998, Congress has provided approximately \$140 million in annual funding, and the Administration has requested \$141 million for FY2003.

²⁶ These states include Connecticut, Maryland, Massachusetts, Missouri, New Jersey, New York, Ohio, and Pennsylvania. For further information, refer to the Army Corps of Engineers web site at [<http://www.hq.usace.army.mil/cecw/fusrap/index.htm>].

Authorization Legislation for FY2003

The second session of the 107th Congress is considering legislation to authorize national defense programs for FY2003, including DOD's and DOE's defense-related environmental programs. The House Armed Services Committee reported the "Bob Stump National Defense Authorization Act for FY2003" (H.R. 4546, H.Rept. 107-436) on May 3, 2002, and the House passed H.R. 4546, as amended, on May 10, 2002. The Senate Armed Services Committee reported its version of the bill (S. 2514, S.Rept. 107-151) on May 15, 2002. The Senate passed S. 2514, as amended, on June 27, 2002, and incorporated this measure in H.R. 4546 as an amendment. A conference is underway. Differences in funding levels for environmental cleanup and whether to adopt the House's proposal to exempt military readiness activities from certain environmental requirements are among the major environmental issues to be resolved in conference. Each authorization bill is discussed below.

H.R. 4546

As passed, H.R. 4546 would authorize the requested amount of \$1.28 billion for environmental cleanup at current and former military installations. The bill also would authorize the requested amount of \$25 million for the Kaho'olawe Island Conveyance, Remediation, and Environmental Restoration Trust Fund. DOD ceased its use of Kaho'olawe Island as a training range in 1995 and returned the land to the State of Hawaii. The trust fund provides support for environmental cleanup and the removal of UXO and other munitions. Related to the cleanup of UXO in general, the bill also would require DOD to designate a single point of contact for policy and budgeting issues involved in characterizing, remediating, and managing UXO and other munitions at all defense sites.

For DOE's management of defense nuclear waste and cleanup of contaminated nuclear weapons sites, H.R. 4546 would authorize a total of \$6.59 billion, about \$14 million less than the request of nearly \$6.61 billion. The House authorization of \$6.59 billion includes the Administration's request of \$800 million for defense environmental management cleanup reform efforts. The bill would direct DOE to establish a program to distribute these funds to sites that have completed plans for accelerating the reduction of environmental risk and lowering cleanup costs. Thus far, three sites have completed such plans.²⁷ The bill also would require DOE to submit a report to Congress, along with its budget justification materials for FY2004, that examines the progress of efforts to streamline certain environmental management activities and improve program efficiency.

H.R. 4546 also includes provisions which would exempt combat training activities from certain environmental requirements that DOD reports have restricted

²⁷ DOE, EPA, and respective states have completed agreements to accelerate cleanup at three nuclear waste cleanup sites, including Hanford in the state of Washington, Oak Ridge in the state of Tennessee, and the Idaho National Engineering and Environmental Laboratory in the state of Idaho. Funding for these plans is dependent on congressional approval of the Administration's request of \$800 million for an account dedicated to defense environmental management cleanup reform efforts. For additional information, refer to DOE's Environmental Management web site at [<http://www.em.doe.gov>].

military readiness capabilities. As discussed on page 10, DOD requested exemptions from the Endangered Species Act, Migratory Bird Treaty Act, and several other federal environmental laws as part of its Readiness and Range Preservation Initiative. However, the House only included exemptions from the Endangered Species Act and the Migratory Bird Treaty Act in passing H.R. 4546, as well as a targeted exemption from the Wilderness Act for military readiness activities at the Utah Test and Training Range. Each environmental exemption provision in H.R. 4546 is examined below.²⁸

Migratory Bird Treaty Act Exemption. Section 311 of H.R. 4546 would amend the Migratory Bird Treaty Act of 1918 to make it lawful for DOD to “take” migratory birds during a “military readiness activity”. Readiness activities are defined as all training activities and military operations related to combat and the testing of equipment for combat use. The Migratory Bird Treaty Act was established to control the mass slaughter of migratory birds for commercial purposes and to promote the sustainable management of such birds.²⁹ The law authorizes the Secretary of the Interior to regulate the taking of migratory birds, but current regulations may only authorize permits for the intentional taking of migratory birds for specific purposes, such as hunting within designated seasons as well as numerous other activities. A recent federal court ruling indicated that the Navy had violated the Migratory Bird Treaty Act by incidentally taking migratory birds without a permit during training exercises near Guam. House report language indicates that the exemption provision is intended to address the lack of permit authorization for incidental takings, so that essential training exercises may proceed. However, it appears that bill language would not authorize the issuance of permits, but more broadly would state that the part of the Migratory Bird Treaty Act that articulates unlawful behavior does not apply to a military readiness activity.

Endangered Species Act Exemption. Section 312 of H.R. 4546 would amend the Endangered Species Act to prohibit the designation of new critical habitat areas on military installations for which an Integrated Natural Resource Management Plan (INRMP) has been approved under the Sikes Act, if the plan “addresses special management considerations or protection”.³⁰ DOD reports that it has completed INRMPs for 349 installations, and that 30 more plans are under development. These plans would not necessarily provide the same level of protection for endangered or threatened species as critical habitat designations, and enforcement of management plans could be an issue. However, the bill would not exempt DOD from other requirements under the Endangered Species Act, and any actions that would result

²⁸ For additional information, refer to CRS Report RL31415, *The Endangered Species Act, Migratory Bird Treaty Act, and Department of Defense Readiness Activities: Current Law and Legislative Proposals*, by Pamela Baldwin.

²⁹ 16 U.S.C. 703 et. seq.

³⁰ As amended in 1997, the Sikes Act (16 U.S.C. 670a) requires DOD to develop an INRMP for each military installation in the United States, unless the Secretary of Defense determines that the absence of significant natural resources on a particular installation makes the preparation of such a plan inappropriate. The law requires DOD to cooperate with the U.S. Fish and Wildlife Service and state fish and wildlife agencies in the preparation of these plans to reach a mutual agreement on the conservation, protection, and management of fish and wildlife resources.

in the extinction or taking of endangered or threatened species would still be prohibited. The bill also would require the consideration of the impacts of designating new critical habitat areas on national security, when considering such designations in any location nationwide. Presently, economic impact is the only category of impact that must be considered. Under current law, the Endangered Species Act provides for an exempting procedure for reasons of national security (16 U.S.C. 1536j), but this authority has not been used to date.

Wilderness Act Exemption. Title XIV of H.R. 4546 would specify that the Wilderness Act, or other land management laws generally applicable to federally designated wilderness areas or wilderness study areas, shall not restrict or preclude military overflights, designation of flight paths and training routes, emergency access and response activities, and control or restriction of public access in the Utah Test and Training Range. While the Wilderness Act does not specifically prohibit overflights or other readiness activities, it does define wilderness as lands upon which the imprint of man's work is "substantially unnoticeable" and which has "outstanding opportunities for solitude". In 1990, the Bureau of Land Management recommended approximately 200,000 acres of land within the Utah Test and Training Range for federal designation as a wilderness study area.³¹ Subsequently, there has been increasing public opposition to military overflights and related training exercises within this portion of the range due to the intrusion of noise and other disturbances. DOD has expressed concerns that its readiness capabilities have been restricted by threatened litigation over the lawfulness of conducting military training exercises on or near wilderness study areas, when such activities interfere with the solitude nature of the wilderness experience. House report language indicates that the Wilderness Act provisions in H.R. 4546 are intended to protect DOD from such challenges and preserve the capacity to conduct training exercises within the range.

Title XIV also includes provisions that would designate certain federal lands in Box Elder County, Utah, as the Pilot Range Wilderness Area, and in Tooele County, Utah, as the Cedar Mountain Wilderness Area. These lands are part of the Bureau of Land Management's wilderness inventory, and as such, are described as having significant wilderness characteristics due to their remoteness and lack of development. Thus far, neither area has been designated as federally protected wilderness under the Wilderness Act. These lands are located near the Utah Test and Training Range, and DOD has expressed concerns over the need for continued access to the airspace over these areas to conduct overflights and related training activities. As passed, H.R. 4546 would extend the exemption from the Wilderness Act for military readiness activities to these areas as well. The House Committee on Resources reported legislation (H.R. 2488, H.Rept. 107-269) on November 5, 2001,

³¹ In various laws, Congress has directed federal land management agencies to study the wilderness potential of certain types of areas and of specific locations. Areas under review, referred to as wilderness study areas, are generally to be managed to preserve their wilderness characteristics, and are protected under the Wilderness Act, until Congress decides whether to include them in the National Wilderness Preservation System. The Federal Land Policy and Management Act of 1976 directed the Bureau of Land Management to review the wilderness potential of its roadless areas, and most of its recommendations are still pending. For further information, refer to CRS Report RS21052, *Wilderness Study Areas and Release Language for BLM Lands*, by Ross W. Gorte.

which proposed to designate the Pilot Range lands as federally protected wilderness, and included exemptions for military readiness activities that are similar to those in H.R. 4546. Stand alone legislation regarding the Cedar Mountain area has not been introduced to date.

S. 2514

As passed, S. 2514 would authorize a total of \$1.32 billion for environmental cleanup at current and former military installations, \$40 million more than the House proposed and the Administration requested. The increase would be devoted to accelerating the pace of cleanup at FUDS sites. The bill also would authorize \$25 million for the Kaho'olawe Island Conveyance, Remediation, and Environmental Restoration Trust Fund, the same as the House. The original authorization for the cleanup of UXO on Kaho'olawe Island was for 10 years, and such authorization expires in FY2003. S. 2514 would extend this authority until 100% of the land area is inspected and assessed, 75% of the surface area is generally cleared, and 25% of the surface area is adequately cleared to be suitable for specific land uses, including human habitation. This provision would override the original cleanup agreement, which requires that 100% of the surface area, instead of 75%, would be generally cleared. Report language states that the original goal was based on insufficient data and that recent information indicates a need for modifying it to reflect the extent to which cleanup can realistically be accomplished.

S. 2514 also would authorize a total of \$6.87 billion for DOE's management of defense nuclear waste and cleanup of contaminated nuclear weapons sites, \$275 million more than the House amount of \$6.59 billion and \$261 million more than the Administration's request of \$6.61 billion. Of the Senate amount, \$1 billion would be authorized for environmental management cleanup reform efforts, \$200 million more than the House authorization and the Administration's request of \$800 million. However, report language indicates the concern of the Senate Armed Services Committee that the Administration has not provided any details on how the goals of accelerated cleanup and reduced costs would be achieved, or how the funds would be spent. In response to these concerns, S. 2514 would require DOE to establish criteria for selecting the sites that would most benefit from this funding. If DOE does not establish such criteria, the \$1 billion in reform funds would be distributed among all sites according to the same proportion as allocated in FY2002. DOE has selected six sites to receive funding for cleanup reforms: Hanford in the State of Washington, Oak Ridge in Tennessee, the Idaho National Engineering and Environmental Laboratory, the Nevada Test Site, and the Los Alamos National Laboratory and Sandia National Laboratories in New Mexico. These sites presumably would be required to undergo the selection process again if the Senate provisions are enacted.

In addition to authorizing funding, S. 2514 includes several other environmental provisions that would:

- authorize the Secretary of Defense to enter into cooperative agreements, lasting up to two years, with federal, state, and local agencies, and Indian Tribes, for providing services to carry out environmental cleanup activities;

- clarify the authority of the Secretary of Defense to carry out construction projects necessary for environmental response actions, and to fund such projects out of the Defense Environmental Restoration Accounts;
- require the Secretary of Defense to establish a program for the acquisition of procurement items that are “environmentally preferable” or constructed out of “recovered materials”;
- clarify the permanent procurement authority of the Secretary of Defense to enter multi-year contracts for environmental remediation services; and
- authorize the Secretary of Defense to conduct a cooperative program with countries in the Arctic and Pacific regions, focusing primarily on technology projects and activities related to addressing radiological threats and contamination.

S. 2514 does not include the provisions of H.R. 4546 that would exempt DOD from certain environmental requirements under the Endangered Species Act, the Migratory Bird Treaty Act, or the Wilderness Act, nor does it include exemptions from other environmental laws that DOD had requested as part of its Readiness and Range Preservation Initiative, discussed earlier on page 10. The Senate Armed Services Committee referred DOD’s initiative to the Senate Environment and Public Works Committee, which has jurisdiction over the environmental laws that would be amended. On July 9, 2003, the full committee held a hearing on DOD’s proposed initiative, which was included in the Administration’s FY2003 defense authorization bill (S. 2225). Representatives of the Air Force, Army, Navy, and Marine Corps testified that DOD has not requested broad exemptions from all environmental laws, but argued that clarifications of the applicability of certain requirements to routine training operations are necessary to ensure that readiness capabilities are not prohibited or restricted.

Chairman James Jeffords questioned the need for such clarifications since many environmental laws already contain environmental exemptions for the purposes of national security. Chairman Jeffords also noted the lack of information to demonstrate the need for further environmental exemptions, and due to this reason, stated his opposition to the adoption of the House’s environmental exemptions in the conference on H.R. 4546. Senator Joseph Lieberman, who is on the conference committee on H.R. 4546, also expressed his opposition to the House’s environmental exemptions during the July 9th hearing.

While S. 2514 does not include the environmental exemptions proposed by the Administration, the bill does address two conservation-related elements that DOD had requested under its Readiness and Range Preservation Initiative. First, a total of \$20 million would be authorized for a Range Enhancement Initiative Fund to permit the Secretary of Defense to enter agreements with private entities to acquire interests in lands adjacent to military installations. Such lands would be used to create a buffer zone between military training areas and surrounding civilian

populations. Senate report language indicates that these zones also may help to reduce the burden on DOD to provide essential habitat for endangered and threatened species that have been forced onto military lands due to surrounding urban development and population growth. Second, S. 2514 would authorize the Secretary of Defense to convey surplus military property to state or local governments, or private entities, for promoting the conservation of open space and natural resources.

Appropriations Legislation for FY2003

In addition to the authorization legislation discussed above, the House and Senate also have begun consideration of legislation to appropriate funding for national defense programs in FY2003. The House has passed the Department of Defense Appropriations Act for FY2003, which would fund environmental cleanup at current and former military installations, as well as numerous other environmental activities. The House also has passed the Military Construction Appropriations Act for FY2003, which would fund the cleanup of contamination at base closure sites, and the Senate Appropriations Committee has reported its version of the bill as well. Each of these bills is discussed below. Additionally, the House has completed subcommittee markup of legislation to appropriate funding for energy and water development in FY2003, which would include support for DOE's defense nuclear waste management and cleanup responsibilities, but the bill number or text is not yet available to date.

Department of Defense

The House Appropriations Committee reported the Department of Defense Appropriations Act for FY2003 (H.R. 5010, H.Rept. 107-532) on June 25, 2002, and the House passed H.R. 5010, as amended, on June 27, 2002. The bill would provide \$1.28 billion for environmental cleanup at current and former military installations, the same as the House authorized in H.R. 4546 and the Administration requested. The bill also would provide \$25 million to clean up unexploded ordnance on Kaho'olawe Island in Hawaii, and \$10 million to mitigate the environmental impacts of military activities on Indian lands. As in authorization legislation, there are no line-item accounts for DOD's other environmental activities, and their funding would primarily come from the accounts for Operation and Maintenance, Procurement, and Research and Development.

H.R. 5010 also would establish a commission to assess the "adverse impacts" of encroachment factors, including requirements of environmental laws, on military training. As discussed earlier on page 9, the extent to which environmental requirements affect military readiness capabilities has become a prominent issue. Other language in H.R. 5010 would limit the use of "indefinite delivery/indefinite quantity" contracts to no more than 35% of the total funding obligated for environmental cleanup projects in FY2003. A similar provision regarding such contracts was included in the Department of Defense Appropriations Act for FY2002 (P.L. 107-117). In addition to bill language in H.R. 5010, the House Appropriations Committee included report language which recommends \$2.5 million to continue a bioreactor environmental technology research and development initiative to treat military and industrial waste water and protect water supplies that could be attacked

by biological and chemical terrorism, and \$1.65 million to conduct research on the health effects of low level exposure to hazardous chemicals.

Military Construction

The House Appropriations Committee reported the Military Construction Appropriations Act for FY2003 (H.R. 5011, H.Rept. 107-533) on June 25, 2002, and the House passed H.R. 5011, as amended, on June 27, 2002. As passed by the House, H.R. 5011 would provide \$545 million for base realignment and closure activities in the United States, which would include the cleanup of environmental contamination in order to prepare realigned or closed properties for transfer to other uses. As in FY2002, the bill does not place a limitation on how much of this funding could be spent on environmental cleanup. Congress had traditionally placed a limitation on environmental cleanup funding under the BRAC account in FY2001 and prior years. The departure from this practice is intended to provide DOD with greater flexibility in allocating funding for cleanup needs. The Administration estimates that it will need \$520 million to support cleanup activities at base closure sites in FY2003.

In addition to providing funding, the House Appropriations Committee included report language which urges the Army to continue its efforts to develop, demonstrate, and validate technologies to address the remediation of lead-based paint, asbestos, and polychlorinated biphenyls at the former Fort Ord in California. Such technologies may prove to have broad utility in remediating similar contaminants at other base closure sites. The committee also expressed concerns over the state of technologies to detect and remove UXO at closing installations. The committee directed DOD to continue funding the development of UXO detection and removal technologies to ensure the productive use of former military sites in the future, provide annual inventories of BRAC sites that are contaminated with UXO, and report annually on the costs to clean up such contamination. As discussed earlier on page 3, DOD has established a Military Munitions Response Program to prepare an inventory of all current and active military installations with UXO contamination on non-operational training ranges, and to prepare estimates of the costs to clean up such sites. This information is included in DOD's annual report to Congress on the Defense Environmental Restoration Program.

The Senate Appropriations Committee approved its version of the Military Construction Appropriations Act for FY2003 (S. 2709) on June 27, 2002, and filed its report on the bill (S.Rept. 107-202) on July 3, 2003, during the July 4th recess. As reported, S. 2709 would provide \$645 million for base closure activities, \$100 million more than the amount of \$545 million that the House passed and the Administration requested. Like the House, the Senate did not include a limitation on how much of this funding could be spent on environmental cleanup, which would provide DOD with the flexibility to use any portion of the appropriated amount to comply with cleanup requirements.

However, report language indicates that the \$100 million increase would be reserved exclusively for a new Base Realignment and Closure Environmental Cleanup Acceleration Initiative to address the backlog of critical environmental remediation requirements at bases that have been closed or realigned. The Navy

would receive \$55 million of the \$100 million increase, and the Air Force would receive \$25 million. The remaining \$20 million would be allocated to the Army. The committee indicated that this funding would be intended to help address a total of \$237 million in unfunded BRAC cleanup requirements that the Army, Navy, and Air Force have identified. In response to these unmet funding needs, the committee included bill language which would direct DOD to accurately reflect the anticipated costs of environmental restoration, waste management, and compliance activities in future budget requests for the BRAC account.

In addition to providing funding for environmental cleanup at BRAC sites, the report on S. 2709 would direct DOD to exclude unforeseen environmental costs to remove hazardous materials, such as asbestos, radon, and lead-based paint, from limitations on cost increases for military construction and family housing projects. Certain limitations on cost increases apply to projects for which Congress has specifically reduced funding in the past. The exclusion of unforeseen environmental costs from the budget for such projects is intended to ensure that cost limitations do not prevent DOD from complying with environmental requirements to remove hazardous materials due to a lack of available funding.

Other Relevant Legislation in the 107th Congress

At least 13 other bills have been introduced in the 107th Congress that are related to defense environmental activities. These bills would address matters such as conversion of the Rocky Flats site in Colorado into a National Wildlife Refuge, cleanup of UXO and other military munitions, critical habitat protection for endangered and threatened species, military compliance with environmental laws, reform of Superfund cleanup requirements, military response to environmental emergencies in foreign nations, storage and use of mercury at military installations, regulation of pollution from military aircraft operations, and suspension of the use of depleted uranium munitions. The two bills which address the Rocky Flats site and UXO cleanup were modified and incorporated into the National Defense Authorization for FY2002 (P.L. 107-107). No further action has been taken on the other bills to date. Each bill is discussed below.

Making the Rocky Flats Site a National Wildlife Refuge

Representative Mark Udall introduced the Rocky Flats National Wildlife Refuge Act of 2001 (H.R. 812) on March 1, 2001, and Senator Allard introduced companion legislation (S. 425) on the same day in the Senate. This legislation was modified and included as Subtitle F of Title XXXI in the National Defense Authorization Act for FY2002 (P.L. 107-107). As introduced, H.R. 812 and S. 425 proposed to transfer the management of the Rocky Flats nuclear waste cleanup site in Colorado from DOE to the Department of the Interior for the purpose of establishing a national wildlife refuge. Cleanup at the site is scheduled to be complete by 2006, and there has been an ongoing interest in converting the site into a national wildlife refuge because of the habitat that it provides for many threatened and endangered species and the perceived need for the preservation of open space for surrounding communities in the Denver metropolitan area.

DOE would retain jurisdiction, authority, and control over portions of the site that are necessary for conducting long-term treatment and control of contamination. Upon transfer of the site to the Department of the Interior, local communities would be permitted to comment on decisions regarding habitat management and public access to the land. Additionally, both bills would authorize DOE to establish a Rocky Flats museum to commemorate the contribution of the site and its work force to the “winning of the Cold War” and the impact that this contribution has had on surrounding communities and the State of Colorado. While P.L. 107-107 incorporated the major provisions of both bills, it included additional language which prevents the transfer from occurring until EPA certifies that DOE has completed all cleanup and closure activities (excluding the operation and maintenance of response actions) and that all cleanup remedies are in place and adequately functioning.

Removal and Remediation of Unexploded Ordnance

Representative Earl Blumenauer introduced the Ordnance and Explosives Risk Management Act (H.R. 2605) on July 24, 2001. The bill would require DOD to appoint a program manager who would serve as the single point of contact for policy and budgetary issues involved in characterizing, remediating, and managing UXO and other munitions on former military training ranges. DOD would be required to

develop, maintain, and annually update an inventory of sites that are known or suspected to contain UXO and other munitions that pose a threat to human health and safety. DOD would also be required to prioritize the sites for response activities, based on the overall conditions of each range, and develop security plans to restrict public access and inform the public about the risks of handling unexploded munitions. Additionally, the bill would establish a new “Abandoned Military Munitions Account” to authorize funding for the removal and cleanup of identified sites, and it would require DOD to establish an independent review panel to report to Congress on the progress of the program and recommend improvements. The National Defense Authorization Act for FY2002 (P.L. 107-107) included similar provisions related to creating an inventory of military sites that are known or suspected to contain UXO and a response priority list for removal and remediation. As discussed earlier, DOD created the Military Munitions Response Program to carry out these requirements.

In addition to H.R. 2605, Representative Anibal Acevedo-Vila introduced the Underwater Unexploded Ordnance Removal Act of 2001 (H.R. 3212) on November 1, 2001. The bill would direct DOD to include underwater portions of live firing areas in its efforts to identify and remove UXO and address related environmental contamination. The bill also would require DOD to specify the amount of funding that would be necessary to address the underwater removal and remediation of UXO in its annual budget submission to Congress. DOD issued an “unfavorable executive comment” on H.R. 3212 on March 19, 2002.

Endangered and Threatened Species

Senator Gordon Smith introduced the Endangered Species Recovery Act of 2001 (S. 911) on May 17, 2001. It would require the Secretary of the Interior to grant priority consideration to plans for the conservation and recovery of endangered and threatened species which, among other factors, would reduce conflict with military training and operations. The bill also would require the Secretary of the Interior to consider the impacts on military training and operations when designating “critical habitat” for the protection of endangered and threatened species. This latter provision is similar to language that the House included in passing its version of the National Defense Authorization Act for FY2003 (H.R. 4546).

Compliance with Federal and State Environmental Laws

Representative Bob Filner introduced the Military Environmental Responsibility Act (H.R. 2154) on June 13, 2001. The bill would clarify that DOD and other defense-related agencies (including DOE, the Nuclear Regulatory Commission, the Office of Naval Reactors, and any other federal agency designated by the President) are subject to substantive and procedural requirements under federal and state environmental laws to the same extent as other entities. The bill also would waive any immunity of the United States with respect to requirements under federal and state environmental laws, and it would require the federal agencies responsible for administering such laws to take enforcement actions against DOD and other defense-related agencies to the same extent as other entities. Similar provisions for clarifying federal compliance requirements and waiving immunity are already included in the Resource Conservation and Recovery Act and the Safe

Drinking Water Act. H.R. 2154 would extend their applicability to all other federal environmental laws and state statutes as well. These provisions are similar, but broader in scope, to legislation introduced in the 106th Congress.

As introduced, H.R. 2154 also would specify the applicability of the National Environmental Policy Act to the development and procurement of weapons systems that require congressional authorization. Additionally, the bill would permit the use of cleanup funding under the Defense Environmental Restoration Accounts to pay fines and penalties for violations of non-cleanup environmental laws, and it would allow the use of funding under these accounts for waste treatment, storage, or disposal activities under the Army Corps of Engineers' Formerly Utilized Sites Remedial Action Program, discussed on page 15.

Superfund Reform

Representative Sherwood Boehlert introduced the Recycle America's Land Act of 2001 (H.R. 324) on January 31, 2001. The bill includes numerous reforms to the Superfund program that could affect DOD's cleanup activities. First, it would revise the remedy selection process which might help to reduce cleanup expenses at some sites. However, other provisions related to the state role at DOD's cleanup sites could cause costs to rise. The bill would grant states the legal authority to make final determinations on which cleanup remedies are used at hazardous waste sites on DOD and other federal facilities that are being cleaned up under CERCLA through interagency agreements. Cleanup costs at such sites could be higher if states insist on measures that are more expensive to implement than those preferred by federal agencies. States would be permitted to make the final determination on remedy selection in cases where a consensus could not be reached with a federal agency through dispute resolution. The bill would grant states the legal authority to bring civil action in a United States district court to compel a federal agency to implement a state's preferred remedy, and penalties of up to \$25,000 per day could be assessed against DOD or other federal agencies for not complying. These provisions are similar to legislation that was introduced during the 106th Congress.

Military Response to Environmental Emergencies in Foreign Nations

Representative Mark Udall introduced the International Environmental Defense Act of 2001 (H.R. 1976) on May 23, 2001. The bill would expand the Secretary of Defense's current authority to transport humanitarian relief supplies to foreign nations to include the authority to transport supplies intended for responding to, or mitigating the effects of, a condition or event, such as an oil spill, that threatens to seriously harm the environment in foreign nations. This authority would be applicable in what the bill refers to as "appropriate circumstances" under which an international response to an environmental emergency would be in the national interest of the United States.

Storage and Use of Mercury at Military Installations

Representative Thomas Allen introduced the Mercury Storage and Safe Disposal Act of 2001 (H.R. 2266) on June 21, 2001. The bill would authorize DOD to temporarily accept and store mercury from private sector sources until a safe disposal method or storage facility is developed for private sector use. Certain military installations already have the infrastructure available to store mercury since this substance is part of the National Defense Stockpile. The bill is primarily aimed at providing safe storage for large private sector sources which have an inventory of mercury weighing in excess of 35,000 pounds. EPA would be authorized to acquire mercury from these sources for transfer to a designated military installation. The bill also would direct EPA to establish a Task Force on Safe Mercury Disposal to identify the best methods to ensure that mercury is not released into the environment, assess the technologies and measures that would be required to safely dispose of and store mercury over the long-term, and identify the research, development, and demonstration of technologies that would be necessary to accomplish this objective. The task force would be required to submit a report to Congress on its progress within one year of its first meeting, and to transmit a final plan for safe mercury disposal by 2003. Once safe disposal and storage facilities were available, the private sector inventory of mercury would be transferred back from DOD to the new facilities.

Two other bills would seek to reduce emissions of mercury from various sources, including activities conducted by DOD, to reduce the threat of human exposure. Representative Thomas Allen introduced the Omnibus Mercury Emissions Reduction Act of 2001 (H.R. 2729) on August 2, 2001. The bill would require DOD to submit a report to Congress by December 31, 2002, on the use of mercury and mercury compounds in activities conducted by DOD. This report would include information on measures that DOD is taking to reduce the use and emissions of mercury and mercury compounds in military operations, to stabilize or recycle discarded mercury or mercury-containing products, and to stabilize and retire the national defense stockpile of mercury. Senator Patrick Leahy introduced similar legislation (S. 1875) on December 20, 2001. Like the House bill, S. 1875 would require DOD to submit a report to Congress on the use of mercury and mercury compounds for national defense purposes. However, the Senate bill includes provisions that would prohibit the sale of mercury from the National Defense Stockpile, domestically or internationally, for commercial or industrial use. This prohibition would be intended to limit the supply of mercury, and thereby prevent its use and any possible contamination in the future resulting from such use.

Regulation of Pollution from Military Aircraft Operations

Representative Steve Rothman introduced the Right to Know About Airport Pollution Act of 2002 (H.R. 3886) on March 6, 2002. The bill would require EPA to study the feasibility of comprehensively regulating air, noise, water, and solid waste pollution at commercial and military airports based on aggregate pollutant levels, measured as if the various sources were a single source. EPA would be required to establish a working group, including DOD, to conduct the study. As one of many areas of consideration, the study would address issues involved in identifying and regulating air and noise pollution that are unique to military air bases

and stations. EPA would be required to complete the study within 3 years of enactment and to submit a report to Congress on its findings and recommendations. The bill also would require EPA to promulgate regulations that require commercial and military airports to report releases of toxic chemicals involved in the operation and maintenance of aircraft and supporting vehicles.

Suspension of the Use of Depleted Uranium Munitions

Representative Cynthia McKinney introduced the Depleted Uranium Munitions Suspension and Study Act of 2001 (H.R. 3155) on October 17, 2001. The bill would require DOD to suspend all uses of depleted uranium munitions due to potential threats to human health. The findings of the bill indicate that depleted uranium munitions have been used at numerous military installations, proving grounds, and testing facilities in the United States, and also were used during the Persian Gulf War and during the conflicts in the former Federal Republic of Yugoslavia. DOD has acknowledged that stocks of depleted uranium munitions have been contaminated with plutonium and other radioactive elements, which are extremely toxic and carcinogenic, and many have speculated that exposure to such munitions may have affected the health of military personnel and civilian populations. The suspension that would be required under the bill would remain in effect until the Secretary of Health and Human Services certifies that the use of current stockpiles of depleted uranium in future conflicts would not pose a likely long-term or residual threat to the health of United States or NATO military personnel, and would not jeopardize the health of civilian populations within the areas of such use.

In addition to requiring a suspension of the use of depleted uranium munitions, H.R. 3155 would require DOD to provide EPA with a list of all sites in the United States where depleted uranium munitions have been used or produced, as well as a site-specific map for each site. EPA would be required to study the possible contamination of soil, air, water, and vegetation at each site, and report its findings to DOD and Congress. The report would include information on the extent of such contamination, make site-specific recommendations for the mitigation and cleanup of each contaminated site, and make general recommendations on the cleanup of sites where depleted uranium munitions have been used on foreign lands. Based on EPA's report, DOD would be required to develop a plan for mitigating and cleaning up each site and to establish a prioritized list of cleanup actions to be taken. DOD also would be required to report to Congress on the status of cleanup progress. The bill would require cleanup actions to be carried out according to the National Environmental Policy Act.

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