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Defense Cleanup and Environmental Programs: Authorization and Appropriations for FY2003

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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 conservation. Additionally, the Department of Energy (DOE) is responsible for managing defense nuclear waste and cleaning up contaminated nuclear weapons sites. The Administration requested a total of $11.17 billion for these programs in FY2003, about $390 million more than the FY2002 funding level of $10.78 billion. Some of the ongoing 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 National Defense Authorization Act for FY2003 (P.L. 107-314, H.R. 4546) authorized a total of $1.32 billion for environmental cleanup at current and former military installations. It also authorized $565 million for base closure activities, most of which would be used for cleanup. As in past years, funding was authorized for DOD's other environmental activities as part of several larger accounts. The law also authorized $6.76 billion for DOE's defense nuclear waste management and cleanup responsibilities, and includes an interim exemption from the Migratory Bird Treaty Act for military readiness activities, as well as other environmental provisions.

The Department of Defense Appropriations Act for FY2003 (P.L. 107-248, H.R. 5010) provided $1.31 billion for cleanup at current and former military installations, slightly less than authorized. As in defense authorization legislation, funding was provided for other environmental activities as part of several larger accounts. The Military Construction Appropriations Act for FY2003 (P.L. 107-249, H.R. 5011) provided $561 million for base closure activities, most of which would be used for cleanup, slightly less than authorized. FY2003 appropriations for DOE's management and cleanup of defense nuclear waste are still pending. A series of continuing resolutions have been providing funding for these activities at the FY2002 enacted level of $6.49 billion. The Senate has passed an omnibus appropriations bill for FY2003 as an amendment to H.J.Res. 2, which would provide$6.65 billion. The House did not pass an omnibus appropriations bill in its version of the resolution, and final appropriations for FY2003 will be determined in conference.

In addition to funding, numerous bill were introduced in the 107th Congress to address the environmental impacts of military operations. However, none was enacted prior to adjournment. Among the issues were the underwater cleanup of unexploded ordnance, protection of endangered species on military lands, environmental compliance, reform of Superfund cleanup requirements, military response to environmental emergencies abroad, storage and use of mercury, regulation of air pollution from military aircraft, and use of depleted uranium munitions. Due to ongoing interest in these issues, a similar body of legislation may possibly be introduced in the 108th Congress. This report will be updated as relevant developments occur.

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Introduction

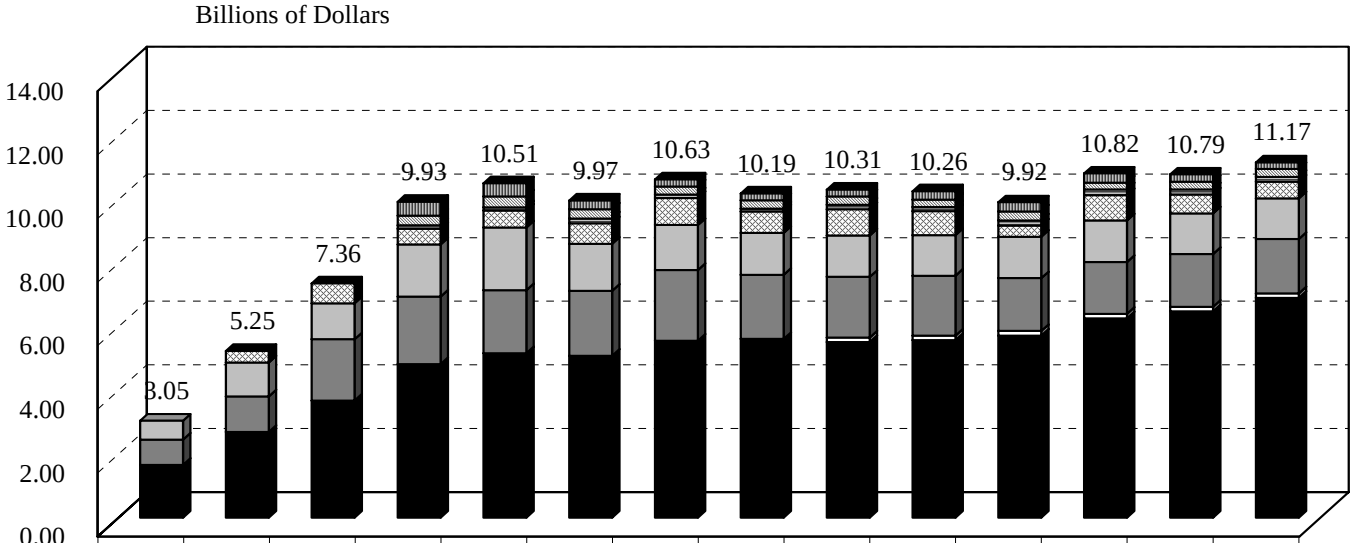
The Department of Defense (DOD) administers five environmental programs that address the cleanup of past contamination on military installations, compliance with environmental laws that apply to ongoing military operations, pollution prevention, environmental cleanup and waste management technologies, and the conservation of military lands. In addition to DOD's environmental programs, the Department of Energy (DOE) is responsible for managing defense nuclear waste, and cleaning up contaminated nuclear weapons sites. The Environmental Protection Agency (EPA) and the states provide oversight to enforce applicable laws. Some of the ongoing issues are the adequacy, cost, and pace of cleanup, whether DOD and DOE adequately comply with environmental laws, and the extent to which environmental requirements restrict military readiness.

Congress authorizes defense-related environmental programs in the annual authorization bill for National Defense, but it funds these programs under three appropriations bills. Cleanup activities at currently active and former military installations, environmental compliance, pollution prevention, environmental technology, and 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 cleanup and management of defense nuclear waste is funded in the annual appropriations bill for Energy and Water Development.

Figure 1 provides a funding history since FY1990. For FY2003, the Administration requested $11.17 billion for all defense-related environmental programs, about $390 million more than the FY2002 funding level of $10.78 billion. Although the FY2003 appropriations bills for the Department of Defense and Military Construction have been signed into law, the 107th Congress did not enact FY2003 appropriations for DOE's management and cleanup of defense nuclear waste. A series of continuing resolutions have been providing funding at the FY2002 enacted level of $6.49 billion, while Congress continues to work on final appropriations for FY2003.

This report provides background information on defense-related environmental programs, analyzes various implementation issues, indicates the President's budget request for FY2003, examines relevant provisions in authorization legislation and appropriations for FY2003, and discusses other relevant legislation in the 107th Congress that could have affected defense-related environmental activities.

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



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Environmental Technology	n/a	n/a	n/a	0.43	0.41	0.28	0.22	0.21	0.21	0.26	0.29	0.29	0.23	0.21
Pollution Prevention	n/a	n/a	n/a	0.30	0.34	0.29	0.25	0.26	0.26	0.23	0.28	0.21	0.24	0.25
Natural Resource Conservation	n/a	n/a	n/a	0.12	0.10	0.15	0.11	0.09	0.14	0.13	0.16	0.18	0.16	0.15
Base Closure Cleanup	n/a	0.37	0.62	0.49	0.54	0.64	0.85	0.68	0.83	0.76	0.36	0.79	0.59	0.52
Current and Former Site Cleanup	0.60	1.07	1.13	1.64	1.97	1.48	1.41	1.31	1.30	1.27	1.30	1.31	1.28	1.28
Environmental Compliance	0.79	1.11	1.93	2.12	1.98	2.04	2.23	2.02	1.91	1.89	1.66	1.63	1.66	1.71
Corps of Engineers FUSRAP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.14	0.14	0.15	0.14	0.14	0.14
Department of Energy Cleanup	1.66	2.70	3.68	4.83	5.17	5.09	5.56	5.62	5.52	5.58	5.72	6.27	6.49	6.91

Request

Prepared by the Congressional Research Service using data from enacted appropriations, 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. Congressional action for FY2003 is not indicated since there are no comprehensive line-item accounts for compliance, pollution prevention, environmental technology, and conservation. The FY2003 budget for these programs will be derived from appropriations for several larger accounts, and will be indicated in the Administration's budget request for FY2004, which will include funding data for the previous fiscal year.

Department of Defense

DOD administers five environmental programs to comply with various federal environmental laws.[1] In terms of funding, the two largest programs focus on cleaning up past contamination and on complying with environmental laws and regulations that apply to ongoing operations. Three other programs have smaller budgets. They focus on pollution prevention, environmental technology, and conservation. For FY2003, the Administration requested a total of $4.11 billion for all five programs, about $44 million less than the FY2002 funding level of $4.15 billion. DOD reports that the proposed decrease was primarily due to a lack of funding being requested to continue specific projects that received congressionally designated funding in FY2002. (Refer to page 19 for a discussion of authorizing legislation and appropriations for FY2003.) More 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 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

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[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

[4] 42 U.S.C. 6901 et seq.

[5] 10 U.S.C. 2701

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. 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

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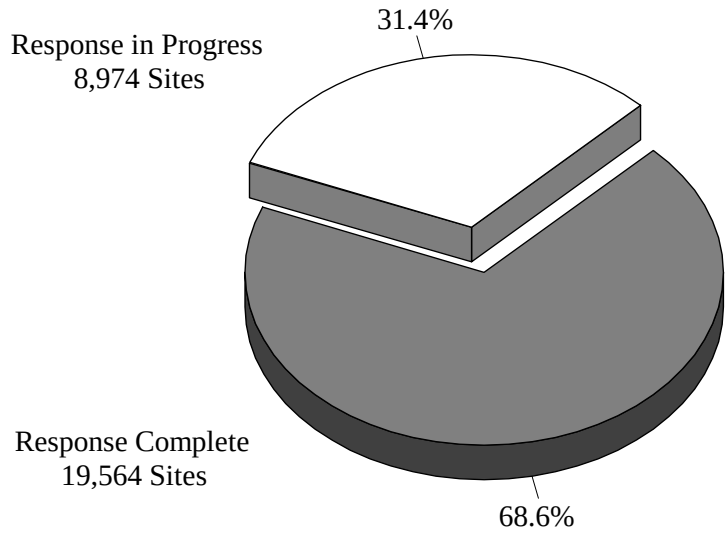
[6] Department of Defense. *Defense Environmental Restoration Program Annual Report to Congress for FY2001*. April 2002. p. B-6-1, p. C-5-1.

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



Prepared by the Congressional Research Service using data from the Department of Defense, *Defense Environmental Restoration Program Annual Report to Congress for FY2001,* April 2002, p. B-6-1, p. C-5-1.

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

[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.

in the past and are now devoted to civilian uses. Many of the FUDS sites were used during the World War II era and prior years.

The Department of Defense Appropriations Act for FY2003 (P.L. 107-248) provides a total of $1.31 billion for the Defense Environmental Restoration Accounts, over $30 million more than the Administration's request and the enacted FY2002 funding level of $1.28 billion. The increase in funding is reserved for improving the pace of cleanup at FUDS sites, which has been criticized for proceeding more slowly than cleanup at currently active installations. (Refer to page 24 for further discussion of P.L. 107-248.)

Cleanup at base closure sites is authorized separately under the Base Realignment and Closure (BRAC) Account in the annual authorization bill for National Defense. Appropriations for base closure activities are provided under the BRAC account in the annual appropriations bill for Military Construction. Congress authorized four rounds of base closures in 1988, 1991, 1993, and 1995, and established a separate BRAC account for each round. These sites are separate from former military properties, known as FUDS, which are discussed above.

The Military Construction Appropriations Act for FY2003 (P.L. 107-249) provides $561 million for the BRAC account, from which funding for cleanup activities will be allocated. The FY2003 appropriation is about $72 million less than the enacted FY2002 funding level of $633 million. As in FY2002, the law does not place a limit on how much of the FY2003 appropriation can be spent on environmental cleanup. Prior to FY2002, Congress had traditionally placed a limitation on such funding. The departure from this budgetary practice is intended to provide DOD with greater flexibility in allocating funding for cleanup needs. Of the FY2003 appropriation of $561 million, the Administration has estimated that it will need $520 million for cleanup activities, about $74 million less than the amount of $594 million obligated for cleanup in FY2002. (Refer to page 24 for further discussion of P.L. 107-249.)

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 legislation or appropriations, 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 $19.6 million in FY2001 on overseas environmental cleanup. The report

also indicated that $13.1 million was available from appropriations in FY2002, and that in FY2003, $18.2 million would be required for overseas cleanup obligations.[8]

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.[9] 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. Although the Safe Drinking Water Act includes similar language, other federal environmental laws do not include the same clarification of compliance requirements.

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 legislation or appropriations bills, 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 requested $1.71 billion for FY2003, about $47 million more than the FY2002 funding level of $1.66 billion. According to DOD, an increase was 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 proposed an overall increase in funding for environmental compliance activities, such funding for

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[8] Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2001*. September 2002. p. 29.

[9] 42 U.S.C. 6961

the Navy and defense-wide facilities would decline due to the completion of one-time projects.

Since there are no comprehensive line-item accounts for environmental compliance activities, as there are for cleanup, DOD will develop its final FY2003 budget for environmental compliance from funds appropriated to the accounts for Operation and Maintenance and Procurement in the Department of Defense Appropriations Act for FY2003 (P.L. 107-248). Additional funding for compliance will come from other defense accounts in the Military Construction Appropriations Act for FY2003 (P.L. 107-249). (Refer to page 24 for further discussion of these laws.) Information on the total amount of funding budgeted in FY2003 for compliance activities will not be available until DOD submits its FY2004 Operation and Maintenance Overview, which will include data for the previous fiscal year.

Fines for Violations of Environmental Requirements. Although DOD is required to comply with environmental laws and regulations, and has a dedicated budget for 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 such laws authorize EPA, the states, and local governments to assess fines against DOD for violations. However, a fine 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. Instead, DOD may agree 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.

The National Defense Authorization Act for FY2000 required DOD to include information on environmental fines in its annual report to Congress on the Defense Environmental Quality Program.[10] This information must include the amount of fines assessed and paid during the fiscal year for which the report is submitted, as well as the past four fiscal years. As indicated in **Table 1**, EPA, the states, and local governments assessed $11.8 million in fines against DOD for environmental violations from FY1997 to FY2001.[11] During this same period, DOD paid $11.6 million in cash payments and SEPs as compensation for its violations.[12]

However, the total amount indicated above for assessed fines does not include a penalty of $16 million that EPA raised against the U.S. Army in FY2000 for violations of the Clean Air Act at Fort Wainwright in Alaska. The appropriateness of the amount of the fine is currently in dispute, and it is the single largest penalty that EPA has ever assessed against DOD for an environmental violation. EPA used

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[10] P.L. 106-65, Section 322.

[11] Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2001*. September 2002. Appendix J. p. 19.

[12] Ibid., Appendix J. p. 23.

the criteria of "economic benefit of noncompliance" and "size-of-business" to determine the amount of the fine, which are ordinarily applied to private businesses. The Army argued that "because federal facilities receive their funds from appropriations and must spend the money for the purpose for which it was appropriated, a federal facility cannot realize an economic benefit from non-compliance."[13] The Army also argued that the size-of-business criteria should not be applied, since military facilities are not net assets in the traditional sense and could not be used as a financial resource to pay a fine. On April 30, 2002, the presiding EPA administrative law judge rejected the Army's arguments, and ruled that EPA could apply the criteria of economic benefit of noncompliance and size-of-business to the Army. The Army has requested that the Environmental Appeals Board review this decision, and whether the fine will be reduced remains uncertain at this time.

Table 1. Fines and Penalties Assessed and Paid for Environmental Violations from FY1997 to FY2001

Fiscal Year	Fines and Penalties Assessed	Cash Paid and Cost of SEPs
FY1997	$2,627,828	$5,231,955
FY1998	$2,915,198	$157,920
FY1999	$982,224	$3,298,810
FY2000	$3,656,136	$156,100
FY2001	$1,638,688	$2,761,279
Total	**$11,820,074**	**$11,606,064**

Prepared by the Congressional Research Service with data from the Department of Defense. *Defense Environmental Quality Program Annual Report to Congress for FY2001*. September 2002. Appendix J. p. 19 and p. 23.

Other Environmental Programs

In addition to environmental cleanup and compliance, DOD administers three other programs that focus on pollution prevention, environmental technology, and 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 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. Although 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,

[13] Ibid., Appendix K. p. 10.

environmental technology, or conservation in annual defense authorization legislation or appropriations bills. Instead, funding for these activities comes primarily from the accounts for Operation and Maintenance, Procurement, and Research and Development.

For FY2003, the Administration proposed an increase in funding for pollution prevention, and decreases for environmental technology and conservation. 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 was primarily due to funding needs for Air Force and defense-wide projects. 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 was mostly due to the lack of funding being requested to continue specific projects that received congressionally designated funding in FY2002 under the Research, Development, Test, and Evaluation Accounts. Although 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. Funding for 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 was primarily due to reduced costs for Air Force projects and the lack of funding being requested for projects that received congressionally designated funding in FY2002.

Since there are no comprehensive line-item accounts that fund the programs for pollution prevention, environmental technology, and conservation, DOD will develop its final FY2003 budget for these activities as it has done in past years, from funds appropriated to the Operation and Maintenance, Procurement, and Research and Development Accounts. The Department of Defense Appropriations Act for FY2003 (P.L. 107-248) provides funding for each of these accounts. (Refer to page 24 for further discussion of this law.) Information on the total amount of funding budgeted in FY2003 for the above programs will not be available until DOD submits its FY2004 Operation and Maintenance Overview, which will include funding data for the previous fiscal year.

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. [14] These exemptions provide the President

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[14] 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 (continued...)

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 modifications to numerous environmental statutes that would provide greater flexibility for conducting combat training and other readiness activities without restriction or delay. However, environmental organizations have opposed such modifications and argue 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. The General Accounting Office (GAO) has 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.[15] 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.

Oversight hearings were held during the 107th Congress to examine the impact of environmental requirements on military readiness, and this issue was debated in legislation as well. The National Defense Authorization Act for FY2003 (P.L. 107-314) includes an interim exemption for military readiness activities from the Migratory Bird Treaty Act. DOD had requested this exemption as part of a

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[14] (...continued)
Environmental Response, Compensation, and Liability Act [42 USC 9620(j)], Endangered Species Act [16 USC 1536(j)], Noise Control Act [42 USC 4903], Resource Conservation and Recovery Act [42 USC 6961(a)], and Safe Drinking Water Act [42 USC 300(j)(6)]. For additional information, refer to CRS Report RS21217, *Exemptions for Military Activities in Federal Environmental Laws*, by Robert Meltz.

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

Readiness and Range Preservation Initiative submitted to Congress in April 2002.[16] In addition to the exemption from the Migratory Bird Treaty Act, the House had proposed modifications to the Endangered Species Act, and a targeted exemption from the Wilderness Act, which were not adopted in conference. (Refer to page 20 for further discussion.) Oversight of the issue of environmental encroachment will likely continue in the 108th Congress, as DOD continues to balance military readiness needs with requirements to comply with environmental laws.

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, 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.[17]

The following sections discuss program oversight, cleanup status and costs, appropriations, 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.[18] 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

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[16] 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.

[17] For additional information, refer to DOE's Web site at [http://www.em.doe.gov].

[18] 42 U.S.C. 2121

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 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. DOE has completed compliance agreements with EPA and the states for each of its cleanup and waste management sites, which specify schedules and time frames for specific response actions.[19]

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.[20]

As indicated in **Figure 3**, 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.[21] 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.[22] 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

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

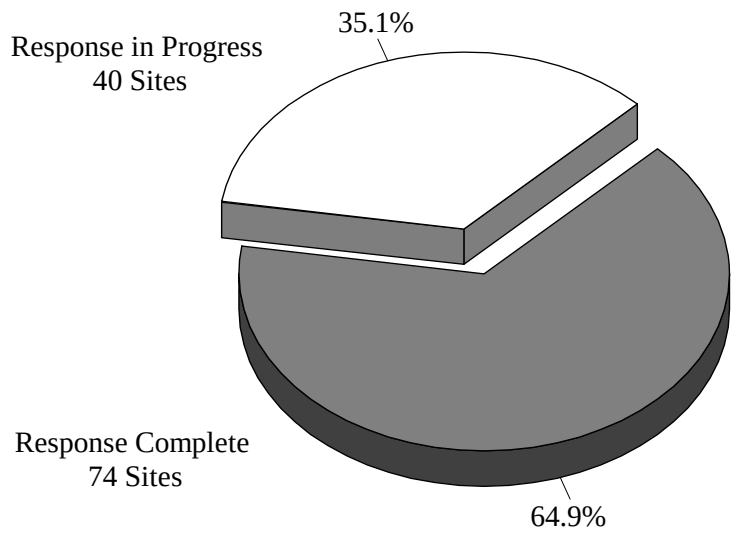
[20] General Accounting Office. *Nuclear Waste: DOE's Accelerated Cleanup Strategy Has Benefits But Faces Uncertainties*. RCED-99-129. April 1999. 21 p.

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

[22] 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.

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.[23]

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



Prepared by the Congressional Research Service using data from the Department of Energy, *A Review of the Environmental Management Program*, February 2002, p. ES-1.

Appropriations Account Structure

Congress authorizes funding for DOE's defense environmental restoration and waste management activities in the annual authorization bill for National Defense, and appropriates funding for them in the annual appropriations bill for Energy and Water Development. Congress has traditionally provided this funding 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.[24]

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[23] Ibid.

[24] 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

(continued...)

The Administration requested a total of $6.91 billion for FY2003 to support DOE's defense environmental restoration and waste management activities, nearly $420 million more than the FY2002 funding level of $6.49 billion. The 107th Congress did not complete consideration of FY2003 appropriations for these activities. A series of continuing resolutions have been providing funding at the FY2002 enacted level of $6.49 billion, while Congress continues to work on final appropriations for FY2003. (Refer to page 23 for further discussion.)

Of the $6.91 billion that the Administration requested for FY2003, about $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 remainder of $1.10 billion would be reserved for a proposed Environmental Management Cleanup Reform Account that would focus on risk reduction to improve program efficiency and reduce costs. In February 2002, the Administration initially requested $800 million for the cleanup reform account, but submitted a budget amendment in August 2002 which included an additional $300 million, increasing the total request for the proposed account to $1.10 billion.

Many concerns have been raised about the Administration's cleanup reform initiative. DOE budgeted the majority of the funding for the proposed account by decreasing support for cleanup at sites that are funded under the Defense Environmental Restoration and Waste Management Account. Under this approach, funding would be restored at these sites only if compliance agreements with EPA and the states are re-negotiated to accelerate cleanup schedules and project milestones. DOE contends that many of the requirements under its existing compliance agreements are too costly, ineffective, and unnecessarily time-consuming, and that its agreements need to be re-examined to explore ways to increase the pace of cleanup and reduce costs. Questions have been raised as to whether EPA and the states might agree to weaker cleanup standards, rather than face the possibility of losing funding that site managers need to fulfill existing agreements. To date, DOE has signed letters of intent with EPA and state regulators to accelerate cleanup at the following sites: the Hanford site in Washington, the Oak Ridge site in Tennessee, the Idaho National Engineering and Environmental Laboratory, the Nevada Test Site, the Savannah River site in South Carolina, the Pantex site in Texas, and the Los Alamos National Laboratory and Sandia National Laboratories in New Mexico.

The largest portion of the cleanup reform funds would be allocated to the Hanford site, which is the largest and most severely contaminated of all of DOE's sites, and is estimated to be the most costly to clean up. Of the cleanup reform request, approximately $433 million, nearly 40%, would be allocated to accelerating cleanup at the Hanford site, increasing its funding to over $2 billion in FY2003.

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[24] (...continued)
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.

Under the letter of intent to accelerate cleanup at the site, DOE, EPA, and the State of Washington have agreed to work together to complete cleanup at Hanford 35 to 45 years sooner than the current estimated completion date of 2070. Subsequently, DOE has completed a performance management plan that outlines six strategic initiatives to achieve this goal. However, the compliance agreement for the Hanford site has not been re-negotiated thus far, and DOE remains legally bound to meeting existing cleanup schedules and other regulatory requirements. Questions have been raised as to whether DOE will seek to expedite cleanup by leaving more radioactive waste at the site than previously planned. State officials want DOE to remove nearly all of the high-level radioactive waste from 177 underground tanks. Environmental organizations and others have expressed concerns that the "reform" agreement would allow more waste to be stabilized, or "grouted," in the tanks and left in place.

During the 107th Congress, the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce held a hearing on DOE's cleanup reform initiative. Jesse Roberson, Assistant Secretary for Environmental Management, testified that the objective of the cleanup reform initiative is to identify and implement more risk-oriented and efficient cleanup approaches, and that the intent is not to weaken any of DOE's compliance agreements. The General Accounting Office (GAO) testified on the status of compliance agreements with EPA and the states at each nuclear waste cleanup site, and indicated that DOE faces challenges in developing and implementing a risk-based method to prioritize cleanup activities due to failed attempts to do so in the past. GAO also indicated that DOE's reform initiative in some cases could involve "potential changes in technology or approach that would result in leaving more of the waste on site than currently planned and thus could significantly reduce cleanup costs. In other cases, it could allocate funding using a greater emphasis on risk reduction, which could shift funding among sites." Representatives from the States of Washington, Idaho, and Tennessee indicated that the letters of intent to re-negotiate compliance agreements in their states would not result in weakened cleanup standards, but would provide a framework for cooperation among the parties involved to establish new cleanup goals.

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. The President signed H.J.Res. 87 into law (P.L. 107-200) on July 23, 2002, clearing the way for 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.

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

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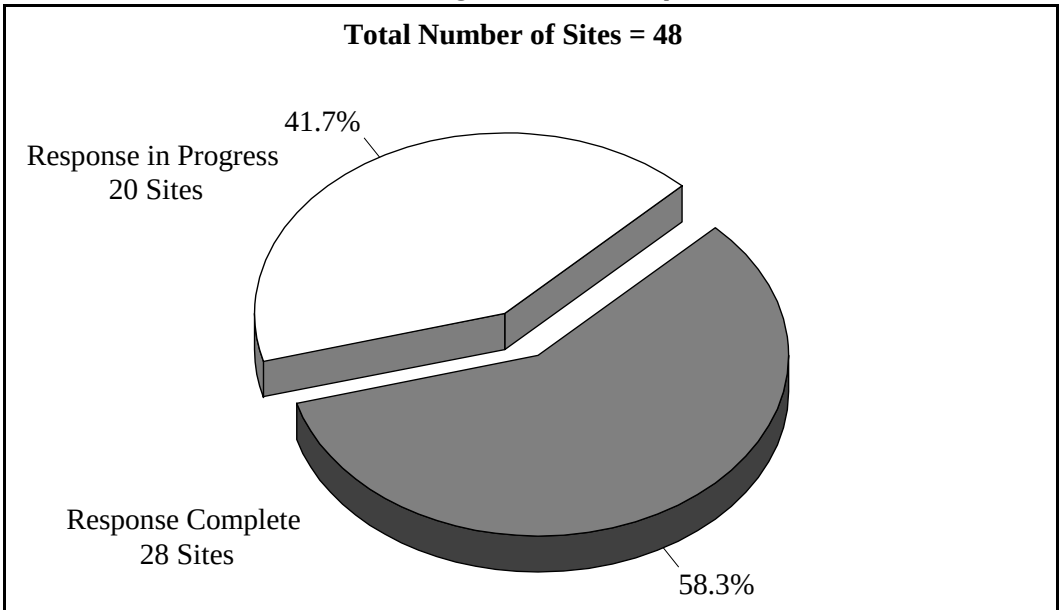
[25] For further information on this issue, refer to CRS Issue Brief IB92059, *Civilian Nuclear Waste Disposal*, by Mark Holt.

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 2 years. After that time, the site is transferred back to DOE for continuing any necessary monitoring and maintenance.

As indicated in **Figure 4**, 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 eight 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 requested $141 million for FY2003. The 107th Congress did not complete consideration of FY2003 appropriations for the FUSRAP program. A series of continuing resolutions have been providing funding at the FY2002 enacted level of $140 million, while Congress continues to work on final appropriations for FY2003. (Refer to page 23 for further discussion.)

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



Prepared by the Congressional Research Service using data from the U.S. Army Corps of Engineers. *History of the Formerly Utilized Sites Remedial Action Program: Fact Sheet.* October 2001. p. 2.

[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].

Authorizing Legislation for FY2003

The second session of the 107th Congress completed consideration of legislation to authorize funding for national defense programs in FY2003, including defense-related environmental programs administered by DOD and DOE. The House passed the conference agreement on this legislation, the Bob Stump National Defense Authorization Act for FY2003 (H.R. 4546, H.Rept. 107-772), on October 12, 2002. The Senate passed the conference agreement on H.R. 4546 on October 13, 2002. The President signed the bill into law (P.L. 107-314) on December 2, 2002. Major environmental provisions of the law are discussed below.

Department of Defense

P.L. 107-314 authorized specific funding levels for the cleanup of environmental contamination at current, former, and closing military installations. However, there are no line-item accounts for DOD's other environmental activities, including compliance, pollution prevention, environmental technology, and conservation. Funding for these activities was authorized as part of the Operation and Maintenance, Procurement, and Research and Developments Accounts. The law also includes several other environmental provisions, which address military readiness issues, natural resource conservation, procurement practices, and the use and disposal of obsolete naval vessels.

Environmental Cleanup. Section 301 of P.L. 107-314 authorized a total of $1.32 billion for environmental cleanup at current and former military installations. This amount is approximately $40 million more than Administration's FY2003 request and the enacted FY2002 appropriation of $1.28 billion. The increase was devoted to the cleanup of FUDS sites. The pace of cleanup at these sites has been an ongoing concern, since cleanup activities have historically proceeded more slowly than at currently active installations. Regarding the use of defense funds for cleanup, Section 313 requires the Secretary of Defense to fund environmental cleanup projects only with environmental restoration funds, and not as military construction projects.

Section 2404 authorized $565 million for base closure activities, which includes the cleanup of environmental contamination at such sites. This amount is $20 million more than the Administration's FY2003 request of $545 million, and is $68 million less than the enacted FY2002 appropriation of $633 million. The conference report indicated that the increase above the request is only to be used for environmental cleanup, rather than general activities related to closure. For the sake of clarity, there also appears to be conflicting language in the conference report regarding the amount authorized for base closure activities. Although report language indicates an amount of $561 million, the law specified $565 million, which would be the actual authorization since it is stipulated in statutory language.

In addition to comprehensive funding for cleanup at military facilities, Section 301 authorized 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 subsequently 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, Section 312 requires the Secretary of Defense to establish a program manger who will serve as the single point of contact for policy and budgeting issues involved in characterizing, remediating, and managing UXO and other munitions at defense sites. The conferees also included report language which directs DOD to submit a consolidated budget proposal for each of the next four fiscal years on the amount of funding that would be necessary to address the environmental impacts of UXO. As discussed earlier, DOD has established a Military Munitions Response Program to address the cleanup of UXO. DOD is in the process of identifying contaminated sites and estimating the amount of funding that will be necessary for environmental restoration.

Military Readiness Issues. The extent to which environmental requirements restrict or delay military readiness activities was a significant issue in the debate over H.R. 4546. As discussed earlier on page 11, DOD requested exemptions from, or modifications to, several environmental statutes as part of a Readiness and Range Preservation Initiative submitted to Congress in April 2002. DOD argued that certain exemptions and modifications are needed to provide greater compliance flexibility, in order to prevent environmental requirements from imposing restrictions on military readiness capabilities. Some Members of Congress and numerous environmental organizations opposed the initiative and argued that existing exemption authorities are adequate to protect training needs.

In passing H.R.4546, the House approved an exemption from the Migratory Bird Treaty Act and modifications to the Endangered Species Act, which were requested as part of DOD's proposed initiative. The House also approved a targeted exemption from the Wilderness Act for military overflights on the Utah Test and Training Range. The Senate did not propose any environmental exemptions in passing its version of the bill. The conference committee on H.R. 4546 did not adopt the provisions regarding the Endangered Species Act or the Wilderness Act, but did approve a modified version of the exemption from the Migratory Bird Treaty Act, which is contained in Section 315 of P.L. 107-314.[27]

Conflicts between military training needs and the protection of migratory birds arose as a result of a federal court ruling, which indicated that the Navy had violated the Migratory Bird Treaty Act by incidentally taking migratory birds without a permit during training exercises in Guam. 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.[28] The law authorizes the Secretary of the Interior to regulate the taking of migratory birds, but current regulations may only authorize permits for intentional takings for specific purposes, such as hunting within designated seasons as well as numerous other activities.

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[27] For a legal analysis, 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.

[28] 16 U.S.C. 703 et. seq.

To address the lack of permit authority for incidental takings and prevent possible restrictions on training in the future, Section 315 of P.L. 107-314 requires the Secretary of the Interior to "prescribe" regulations, within one year of enactment, that would exempt military readiness activities from the protections under the Migratory Bird Treaty Act. The conference report did not explain whether "prescribe" means propose or finalize, however, it appears that "prescribe" means final promulgation of the regulations, when the section is read as a whole. The law defines readiness activities as all training and operations of the Armed Forces that are related to combat, as well as the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use.

While the new regulations are being developed, the law grants an interim exemption from the Migratory Bird Treaty Act in order to allow any potentially affected training operations to proceed. During the interim period, the Secretary of Defense is required to consult with the Secretary of the Interior to monitor, minimize, and mitigate any adverse impacts on migratory birds, whenever practicable. Interim exemption authority will expire when the new regulations become effective and all litigation challenging them has been resolved. To restrict the amount of time during which legal challenges could be raised, the law limits judicial review by a federal court to 120 days from the date that the regulations are published.

Although P.L. 107-314 does not include modifications to the Endangered Species Act, the conference report on H.R. 4546 expressed concern that designating additional critical habitat areas on training ranges could adversely affect military readiness capabilities. The House originally would have amended 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".[29] The conferees expressed their support for the level of cooperation between DOD and the Department of the Interior to prepare effective INRMPs to protect threatened and endangered species, and indicated their concerns about questions as to whether INRMPs provide sufficient protection to eliminate the need for further critical habitat designations. The conferees encouraged the Department of the Interior and DOD to cooperate in the management of natural and cultural resources on military lands, and directed the Secretary of Defense to recommend legislative proposals to accomplish these goals.

Procurement Practices. Various laws, regulations, and executive orders require federal agencies to procure recycled or environmentally preferable items whenever it is practical to do so. Section 314 requires the Secretary of Defense to establish a tracking system to identify the extent to which the Defense Logistics Agency procures items that are environmentally preferable or are made with

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[29] 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.

recovered materials. This provision also requires the Secretary of Defense to assess the need for training and educating military personnel to ensure that they are aware of any requirements, preferences, or goals for the procurement of environmentally preferable items, or those made with recovered materials. Related to procurement, Section 827 authorizes multi-year authority for procuring services related to the cleanup of environmental contamination on military installations. Since, many types of cleanup remedies are long-term actions, multi-year authority is often more practical than annual authorizations.

Natural Resource Conservation. P.L. 107-314 includes two natural resource conservation provisions that address the impacts of land development on military installations. In many areas, wildlife populations have increased on military lands as surrounding open spaces and habitat have diminished due to property development. DOD argues that environmental requirements to protect endangered and threatened species have risen as a consequence, and that such requirements have placed limitations on the use of certain lands. To prevent further land development and help ease the burden of habitat preservation on military lands, Section 2811 authorizes the Secretary of Defense to enter cooperative agreements with states and private entities to acquire or obtain interest in nearby properties to preserve open space and protect critical habitat. Such properties would serve as a buffer to help eliminate or relieve restrictions on training, testing, or other operations, that might otherwise be imposed if the availability of open space and wildlife habitat were limited to military lands due to surrounding property development. To meet this same objective, Section 2812 authorizes the Secretary of Defense to convey surplus property to state or local governments, or non-profit conservation organizations, to preserve open space or natural resources in perpetuity.

Use and Disposal of Obsolete Naval Vessels. Section 3504 authorizes financial assistance to states for preparing obsolete vessels from the National Defense Reserve Fleet for use as artificial reefs. The law does not specify how much funding is authorized, and the amount of assistance would depend on the availability of appropriations. Eligible activities include removing hazardous materials from a vessel, towing it to the target location, and sinking it. The amount of assistance awarded to a state would depend on numerous factors, such as the cost-effectiveness of "reefing" a vessel compared to other disposal options. No later than September 30, 2003, the Maritime Administration and EPA are required to jointly develop environmental best management practices to serve as a national guideline for preparing vessels as artificial reefs. In addition to the use of artificial reefs as a disposal option, Section 3504 directs the Maritime Administration to carry out a pilot program to explore alternatives for exporting obsolete naval vessels abroad to be dismantled and recycled. The Maritime Administration already has the authority to export vessels for these purposes, and the pilot program is intended to identify more effective and safer practices for disposal abroad.

Department of Energy

Section 3101 authorized a total of $6.76 billion for DOE's management of defense nuclear waste and cleanup of contaminated nuclear weapons sites. This amount is about $148 million less than the Administration's amended request of $6.91 billion, and is nearly $271 million more than the FY2002 appropriation of

$6.49 billion. Of the authorization of $6.76 billion, approximately $4.51 billion was reserved for the Defense Environmental Restoration and Waste Management Account, nearly $1.11 billion was allocated to the Defense Facilities Closure Projects Account, and about $158 million was aside for the Defense Environmental Management Privatization Account.

The remaining authorization of $982 million was devoted to a new Defense Environmental Management Cleanup Reform Account. This amount is approximately $100 million less than the Administration's amended request of $1.1 billion. As discussed earlier, the Administration had requested funding for this account to support a new initiative that would accelerate cleanup schedules and reduce costs. Although there have been long-standing concerns over the pace and cost of cleanup at defense nuclear waste sites, some Members of Congress criticized DOE for not providing adequate information on how the goals of accelerated cleanup and lowered costs would be achieved under this initiative. There also were concerns regarding how these goals could be attained without weakening cleanup standards or other environmental protections.

To address the above concerns and ensure adequate oversight, Section 3145 requires the Secretary of Energy to submit a performance management plan to Congress for each affected site prior to the allocation of funds. Once allocated to a site, funds could not be obligated or expended until 30 days after the Secretary of Energy submits to Congress a description of the activities to be carried out under the performance management plan. To provide opportunities for additional oversight, Section 3179 requires the Secretary of Energy to submit a report to Congress on the progress of activities to accelerate the reduction of environmental risks at defense nuclear waste sites that have helped to increase the pace of cleanup and reduce costs. The law directs the Secretary to submit this report along with DOE's budget justification for FY2004.

Appropriations for FY2003

In addition to the authorization of funding, the second session of the107th Congress completed consideration of the two appropriations bills that fund DOD's environmental programs. The Department of Defense Appropriations Act for FY2003 (P.L. 107-248, H.R. 5010) provided funding for environmental cleanup at current and former military installations, as well as numerous other environmental activities. The Military Construction Appropriations Act for FY2003 (P.L. 107-249, H.R. 5011) provided funding for the cleanup of environmental contamination at base closure sites. The 107th Congress did not complete action on FY2003 appropriations for DOE's management and cleanup of defense nuclear waste. A series of continuing resolutions have been providing funding for these activities at the FY2002 enacted level of $6.49 billion, while Congress continues to work on FY2003 appropriations. In the 108th Congress, the Senate has passed an omnibus appropriations bill for FY2003 as an amendment to H.J. Res. 2, which would provide funding for DOE and other federal agencies. The House did not include an omnibus appropriations measure in passing its version of the resolution, and final appropriations for FY2003 will be determined in conference. Additional discussion is provided below.

Department of Defense

The Department of Defense Appropriations Act for FY2003 (P.L. 107-248, H.R. 5010) provided specific funding levels for environmental cleanup activities, but as in defense authorization legislation, there are no comprehensive line-item accounts for DOD's other environmental activities, including compliance, pollution prevention, conservation, and environmental technology. DOD will determine its FY2003 budget for these programs mostly from funds appropriated to the accounts for Operation and Maintenance, Procurement, and Research and Development. The final amounts allocated for these activities in FY2003 will be indicated in DOD's Operation and Maintenance Overview for FY2004, which will include funding data for the previous fiscal year.

P.L. 107-248 provided a total of $1.31 billion for the cleanup of environmental contamination at current and former military installations, about $6 million less than the enacted authorization of $1.32 billion, and over $30 million more than the FY2002 appropriation of $1.28 billion. The increase will be devoted to increasing the pace of cleanup at FUDS sites, which has been criticized for proceeding more slowly than cleanup at currently active installations. The law provided an additional $75 million to clean up unexploded ordnance on Kaho'olawe Island in Hawaii, $50 million more than the enacted authorization and the Administration's request of $25 million. The law provided another $10 million to mitigate the environmental impacts of military activities on Indian lands, the same as the Administration requested.

On a cleanup-related matter, the law limits the use of "indefinite delivery/indefinite quantity" contracts to no more than 35% of the total funding obligated for environmental cleanup projects in FY2003. The law also includes another environmental provision that prohibits the use of FY2003 funds to upgrade the 939th Combat Search and Rescue Wing of the Air Force Reserve, until the Secretary of the Air Force certifies to Congress that certain conditions are met. Among these conditions are the requirement that any new aircraft assigned to the unit must comply with local environmental and noise standards.

The law does not include two environmental provisions that were considered during the debate over H.R. 5010. First, the law does not include the Senate provision that would have provided up to $2.5 million to dispose of sediments at inland sites from dredging operations at Earle Naval Station in New Jersey. Sediments from dredging operations are typically disposed of in the ocean, due to the comparatively high costs of inland disposal. Interest in inland disposal has been rising due to concerns over the potentially adverse effects of ocean disposal on coastal water quality. Second, the law does not include the House provision that would have established a commission to assess the "adverse impacts" of encroachment factors, including environmental requirements, on military training.

Military Construction

The Military Construction Appropriations Act for FY2003 (P.L. 107-249, H.R. 5011) allocated $561 million to the BRAC account for base realignment and closure activities in the United States, $4 million less than the enacted authorization of $565

million, and about $72 million less than the FY2002 appropriation of $633 million. The Administration had requested $545 million. Funding under this account includes support for the cleanup of environmental contamination in order to prepare realigned or closed properties for transfer to other uses. Of the enacted appropriation of $561 million, $20 million is reserved for a new Environmental Cleanup Acceleration Initiative to address the backlog of environmental remediation requirements that have not been met. The funding for the initiative will be allocated accordingly: $11 million to the Navy, $6 million to the Air Force, and $3 million to the Army.

As in FY2002, the law does not place a limitation on how much funding can be spent on environmental cleanup. Prior to FY2002, Congress had traditionally placed a limitation on environmental cleanup funding under the BRAC account. The departure from this practice is intended to provide DOD with greater flexibility in allocating funding for cleanup needs. The Administration estimated that it will need $520 million to support cleanup activities at base closure sites in FY2003, about $74 million less than the amount of $594 million obligated for cleanup in FY2002. Related to cleanup funding, the law directs DOD to accurately reflect the anticipated costs of environmental restoration, waste management, and compliance activities in future budget requests for base closure activities. This provision was included to address the issue of funding needs for environmental activities that DOD had not adequately identified in previous budget submissions.

In addition to specifying funding for base closure activities, the law includes a provision which provides greater flexibility for the payment of environmental cleanup costs associated with the upkeep of certain types of military housing. The law limits the cost of maintaining and repairing general and flag officer quarters to $35,000 per unit annually, unless Congress is notified 30 days in advance that costs will exceed this amount. However, if the additional costs are solely for environmental cleanup activities that could not be reasonably anticipated at the time of the budget submission, the law authorizes DOD to notify Congress of the additional costs "after-the-fact". Providing an exception from early notification requirements for unforseen environmental costs could help to ensure that cost limitations do not prevent DOD from taking timely action to comply with requirements to remove hazardous materials or reduce the threat of exposure.

Energy and Water Development

The Senate amendment to H.J. Res. 2 would appropriate a total of $6.65 billion for DOE's management and cleanup of defense nuclear waste. However, the amendment also includes an across-the-board rescission, estimated at nearly 2.9%, which could reduce this amount. The proposed appropriation of $6.65 billion is $110 million less than the enacted authorization of $6.76 billion, $254 million less than the Administration's amended request of $6.91 billion, and $168 million more than the FY2002 enacted appropriation of $6.49 billion. Of the $6.65 billion that the Senate has proposed for FY2003, about $5.37 billion would be reserved for the Defense Environmental Restoration and Waste Management Account, $1.13 billion would be allocated to the Defense Facilities Closure Projects Account, and $158 million would be devoted to the Defense Environmental Management Privatization Account.

The most controversial element of the appropriations debate regarding DOE's defense nuclear waste management and cleanup activities has been the Administration's proposal to establish an Environmental Management Cleanup Reform Account. This new account would fund activities to accelerate cleanup and reduce costs at defense nuclear waste sites. As discussed earlier, the National Defense Authorization Act for FY2003 authorized nearly $1 billion to establish this account. However, the Senate Amendment to H.J. Res. 2 would not appropriate any funding for it. The amendment indicates that the reform account would not be funded due to concerns about how DOE would allocate the money among various sites.

Instead of funding the new account, the amendment would increase funding for the Defense Environmental Restoration and Waste Management Account by $826 million above the Administration's request of $4.54 billion. The increase to this account would be allocated among contaminated sites based on the letters of intent to accelerate cleanup that DOE has signed and on reasonable expectations to accelerate cleanup at sites where an agreement is not yet in place. To the extent that such funding would be in excess of the allocations in FY2002, DOE would be directed not to release any additional funds for cleanup reform to individual sites or laboratories until a final revised cleanup agreement and performance management plan are completed. The amendment also would direct DOE to identify the amount of funding that would be necessary to fulfill re-negotiated cleanup agreements in its future budget submissions to Congress. During the 107th Congress, the Senate Appropriations Committee approved a similar action, whereas the House Appropriations Committee would have funded the reform account at the fully requested level of $1.1 billion.

Related to the management of defense nuclear waste, the Senate amendment to H.J.Res. 2 would provide $336 million for the site characterization of Yucca Mountain to develop a centralized repository for high-level defense and civilian nuclear waste. This amount is $257 million less than the Administration's request of $593 million. In the 107th Congress, the Senate Appropriations Committee approved a similar action, whereas the House Appropriations Committee would have provided $525 million for the site characterization of Yucca Mountain. In addition to funding for DOE, the Senate amendment to H.J.Res. 2 would appropriate approximately $140 million for the FUSRAP program, the same as requested. The Senate Appropriations Committee approved a similar action in the 107th Congress, but the House Appropriations Committee would have provided $150 million. As discussed earlier, the FUSRAP program addresses low-level radioactive contamination at sites that were primarily owned by private contractors who processed and stored uranium and thorium ores during the early years of the U.S. nuclear weapons program.

Other Relevant Legislation in the 107th Congress

Other relevant legislation was introduced in the 107th Congress that was not enacted prior to adjournment. These bills addressed a variety of environmental issues related to military activities. Due to ongoing interest in these matters, a similar body

of legislation may possibly be introduced during the 108th Congress. Among the principal issues were the underwater cleanup of UXO and other military munitions, critical habitat protection for endangered and threatened species on lands administered by DOD, military compliance with environmental laws, reform of Superfund cleanup requirements for federal facilities, 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. Each bill in the 107th Congress that addressed the above issues is discussed below.

Removal and Remediation of Unexploded Ordnance

Representative Anibal Acevedo-Vila introduced the Underwater Unexploded Ordnance Removal Act of 2001 (H.R. 3212) on November 1, 2001. The bill would have directed 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 have required 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 have required 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 have required 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 have clarified 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 have waived any immunity of the United States with respect to requirements under federal and state environmental laws, and it would have required 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 have extended their applicability to all other federal

environmental laws and state statutes as well. These provisions were similar, but broader in scope, to legislation introduced in the 106th Congress.

H.R. 2154 also would have specified the applicability of the National Environmental Policy Act to the development and procurement of weapons systems that require congressional authorization. Additionally, the bill would have permitted 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 have allowed 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.

Superfund Reform

Representative Sherwood Boehlert introduced the Recycle America's Land Act of 2001 (H.R. 324) on January 31, 2001. The bill included numerous reforms to the Superfund program that could have affected DOD's cleanup activities. First, it would have revised the remedy selection process which might have helped to reduce cleanup expenses at some sites. However, other provisions related to the state role at DOD's cleanup sites could have caused costs to rise. The bill would have granted states the legal authority to make final determinations on which cleanup remedies are used at hazardous waste sites on defense and other federal facilities that are being cleaned up under CERCLA through interagency agreements. Cleanup costs at such sites could have been higher if states insisted on measures that were more expensive to implement than those preferred by federal agencies. States would have been 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 have granted 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 have been assessed against DOD or other federal agencies for not complying. These provisions were 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 have expanded 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. This authority would have applied to "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 have authorized 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 was 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 have been authorized to acquire mercury from these sources for transfer to a designated military installation. The bill also would have directed 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 have been 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 have been transferred back from DOD to the new facilities.

Three other bills sought to reduce emissions of mercury from various sources to reduce the threat of human exposure, including activities conducted by DOD. Representative Thomas Allen introduced the Omnibus Mercury Emissions Reduction Act of 2001 (H.R. 2729) on August 2, 2001. The bill would have required 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 have included 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 have required DOD to submit a report to Congress on the use of mercury and mercury compounds for national defense purposes. However, the Senate bill included provisions that would have prohibited the sale of mercury from the National Defense Stockpile, domestically or internationally, for commercial or industrial use. This prohibition would have been intended to limit the supply of mercury, and thereby prevent its use and any possible contamination in the future resulting from such use.

The Senate Committee on Environment and Public Works reported the Mercury Reduction Act of 2002 (S. 351, S.Rept. 107-243), on August 28, 2002, and the Senate passed the bill, as amended, on September 5, 2002. While the bill would have focused primarily on reducing the release of mercury from thermometers, it also would have established a federal task force to recommend more effective means to collect, store, and dispose of mercury from various sources to prevent releases into the environment. The Secretary of Defense would have served as a member of the task force to recommend long-term plans for managing DOD's stockpile of mercury, as well as participate in the recommendation of alternative methods and technologies to safely collect and store mercury.

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 have required 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 have been required to establish a working group, including DOD, to conduct the study. As one of many areas of consideration, the study would have addressed issues involved in identifying and regulating air and noise pollution that are unique to military air bases and stations. EPA would have been 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 have required 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 have required DOD to suspend all uses of depleted uranium munitions due to potential threats to human health. The findings of the bill indicated 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. While many have speculated that exposure to these munitions may have affected the health of military personnel and civilian populations, there has been no medical evidence to support such claims. The suspension proposed by the bill would have remained in effect until the Secretary of Health and Human Services certified 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 proposing a suspension of the use of depleted uranium munitions, H.R. 3155 would have required 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 map for each site. EPA would have been 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 have included information on the extent of such contamination, made site-specific recommendations for the mitigation and cleanup of each contaminated site, and made general recommendations on the cleanup of sites where depleted uranium munitions have been used on foreign lands. Based on EPA's report, DOD would have been 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 have been required to report to Congress on the

status of cleanup progress. The bill would have required cleanup actions to be carried out according to the National Environmental Policy Act.

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