

CRS Report for Congress

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Appropriations for FY2004: Energy and Water Development

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Resources, Science, and Industry Division

Appropriations are one part of a complex federal budget process that includes budget resolutions, appropriations (regular, supplemental, and continuing) bills, rescissions, and budget reconciliation bills. The process begins with the President's budget request and is bounded by the rules of the House and Senate, the Congressional Budget and Impoundment Control Act of 1974 (as amended), the Budget Enforcement Act of 1990, and current program authorizations.

This report is a guide to one of the 13 regular appropriations bills that Congress passes each year. It is designed to supplement the information provided by the House and Senate Appropriations Subcommittees on Energy and Water. It summarizes the current legislative status of the bill, its scope, major issues, funding levels, and related legislative activity. The report lists the key CRS staff relevant to the issues covered and related CRS products.

NOTE: A Web version of this document with active links is available to congressional staff at: [http://www.crs.gov/products/appropriations/apppage.shtml].

Appropriations for FY2004: Energy and Water Development

Summary

The Energy and Water Development appropriations bill includes funding for civil works projects of the Army Corps of Engineers, the Department of the Interior's Bureau of Reclamation (BOR), most of the Department of Energy (DOE), and a number of independent agencies. The Bush Administration requested \$26.94 billion for these programs for FY2004 compared with \$26.14 billion appropriated for FY2003.

Key issues involving Energy and Water Development appropriations programs include:

- Funding and progress of Corps projects not considered priorities by the Administration;
- Legislative proposals to expand the Corps' use of the Harbor Maintenance Trust Fund and the Inland Waterway Trust Fund;
- Funding for major water/ecosystem restoration initiatives such as Florida Everglades and California "Bay-Delta";
- Funding for developing a new nuclear warhead, the Robust Nuclear Earth Penetrator, and
- DOE's "Nuclear Power 2010" initiative, to "identify the technical, institutional and regulatory barriers to the deployment of new nuclear power plants by 2010."

This report will be updated as events warrant.

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Division abbreviations: RSI = Resources, Science, and Industry; FDT= Foreign Affairs, Defense, and Trade.

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Appropriations for FY2004: Energy and Water Development

Most Recent Developments

The Administration's FY2004 budget request, released February 3, 2003, would fund Energy and Water Development Programs at \$26.94 billion. The FY2003 Consolidated Appropriations Resolution (H.J.Res. 2, P.L. 108-7) and the Emergency Wartime Supplemental Appropriations Act, 2003 (P. L. 108-11) funded these programs at \$26.14 billion.

Status

Table 1. Status of Energy and Water Development Appropriations, FY2003

Subcommittee Markup		House Report	House Passage	Senate Report	Senate Passage	Conf. Report	Conference Report Approval		Public Law
House	Senate						House	Senate	

Overview

The Energy and Water Development bill includes funding for civil works projects of the Army Corps of Engineers, the Department of the Interior's Bureau of Reclamation (BOR), most of the Department of Energy (DOE), and a number of independent agencies, including the Nuclear Regulatory Commission (NRC) and the Appalachian Regional Commission (ARC). The Administration's request was \$26.940 billion for these programs for FY2004, compared with \$26.138 billion appropriated for FY2003.

For the Corps of Engineers in FY2004, the Administration requested \$4.19 billion, almost 10% (\$445 million) less than the amount appropriated for FY2003. The Administration's request focuses funding on construction projects that will be completed in FY2004 and eight projects considered priorities by the Administration, including the Florida Everglades. The request also contemplates legislative proposals for expanding the types of activities funded by the Harbor Maintenance Trust Fund and the Inland Waterway Trust Fund.

The Administration asked for \$885 million for FY2004 for the Department of the Interior programs included in the Energy and Water Development bill — the Bureau of Reclamation and the Central Utah Project. This would be a decrease of \$45 million from the FY2003 funding level.

The FY2004 request for DOE programs in the bill is \$21.689 billion, about \$1.32 billion more than the previous year. The major activities in the DOE budget are energy research and development, general science, environmental cleanup, and nuclear weapons programs. (Funding of DOE’s programs for fossil fuels, energy efficiency, and energy statistics is included in the Interior and Related Agencies appropriations bill. The FY2004 net appropriations request for these programs is \$1.7 billion.)

The request for funding the independent agencies in Title IV of the bill is \$148 million, compared with \$207 million in FY2003.

Table 2 includes budget totals for energy and water development appropriations enacted for FY1997 to FY2003 and the Administration’s request for FY2004.

Table 2. Energy and Water Development Appropriations, FY1997 to FY2004

(budget authority in billions of current dollars^a)

FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04 (Req.)
20.0	21.2	21.2	21.2	23.9	25.2	26.1	26.9

^a These figures represent current dollars, exclude permanent budget authorities, and reflect rescissions.

Tables 3-10 provide budget details for Title I (Corps of Engineers), Title II (Department of the Interior), Title III (Department of Energy) and Title IV (independent agencies) for FY2003 - FY2004.

Title I: Corps of Engineers

The President's request for FY2004 for the civil works program of the U. S. Army Corps of Engineers is \$4.19 billion, a decrease of \$445 million from the FY2003 appropriation. The request also contains legislative proposals for expanding the use of funds from the Inland Waterway Trust Fund and the Harbor Maintenance Trust Fund. (See "Key Policy Issues," below.)

**Table 3. Energy and Water Development Appropriations
Title I: Corps of Engineers**
(\$ millions)

Program	FY2003	FY2004 Request	House	Senate	Conf.
Investigations and Planning	134.1	100.0			
Construction	1,744.6	1,350.0			
Flood Control, Mississippi River	342.3	280.0			
Operation and Maintenance	1,966.6 ^a	1,939.0			
Regulatory	138.1	144.0			
General Expenses	154.1	171.0			
FUSRAP ^b	144.1	140.0			
Flood Control and Coastal Emergencies	14.9	70.0			
Total	4,638.8^a	4,194.0			

^a Includes \$39 million appropriated in Emergency Wartime Supplemental Appropriations Act, 2003, P. L. 108-11.

^b Formerly Utilized Sites Remedial Action Program

Although the budget request would limit funding for the planning and design of new projects, it would fully fund all projects whose construction can be completed in FY2004, and provides substantial funding for eight projects considered by the Administration to be priorities, such as \$33.3 million for construction of the Upper Mississippi River System Environmental Management Program. The total \$1.35 billion request for the construction account is \$395 million (23%) less than the FY2003 appropriation. The Administration's budget would provide some support for 140 other projects, but construction would proceed more slowly than originally planned because these projects are not fully funded. The Administration's request includes funding to complete design of 22 proposed projects, while deferring work on all other design efforts. The \$100 million request for the investigations and planning account was \$34 million (25%) less than the FY2003 appropriations.

The request provided no funds for studies and “environmental infrastructure” projects in the following non-traditional mission areas: wastewater treatment, irrigation water supply, and municipal and industrial water supply treatment and distribution. By not seeking funding for these activities, the Bush Administration was again showing its interest in focusing available federal funding on navigation, flood control, storm damage reduction, and ecosystem restoration projects. The Administration’s budget provided no funding for controversial projects (like construction of the Yazoo Backwater Pump project, the emergency outlet for Devils Lake, North Dakota, and the Delaware River dredging project) that have raised concerns because of their potential environmental damages, but have continued to receive congressional support.

Of the \$1.9 billion sought for the operation and maintenance (O&M) account, \$104 million is planned for protecting facilities from terrorist attack. Of the \$104 million requested, \$91 million is for protecting the projects normally funded from the O&M account. The remaining \$13 million for this O&M account would be spent to protect administration buildings and facilities; projects from the Flood Control, Mississippi River, and Tributaries account; and the Washington Aqueduct drinking water plant that serves the District of Columbia.

The Administration’s \$70 million request for the Flood Control and Coastal Emergencies account was significantly higher than the FY2003 appropriation of \$15 million and the FY2003 request for \$20.2 million. The actual expenditure for activities under this account in previous years has averaged \$70 million, with much of the funding being provided through supplemental appropriations. This account finances response and recovery activities for flood and storm events, preparedness for these events, and the Corps’ support of the Federal Emergency Management Agency (FEMA) through the Federal Response Plan. Because this is an emergency management program, annual costs vary significantly based on actual events and/or changing missions. According to testimony by the Acting Assistant Secretary of the Army for Civil Works, the requested amount of \$70 million ensures sufficient funds to respond to flood and storm emergencies and reduces the likelihood of having to borrow from other accounts or needing to seek emergency supplemental appropriations for recovery efforts.

Key Policy Issues — Corps of Engineers

Funding Level. Funding for the Corps’ civil works program has often been a contentious issue between the Administration and Congress, with final appropriations typically providing more funding than requested, regardless of which political party controls the White House and Congress. For FY2001, for example, Congress added \$480 million (12%) to the \$4.08 billion requested by the Clinton Administration. Similarly, the FY2002 House bill funded the Corps at almost 15% more than requested by the Bush Administration, and the final act appropriated slightly more than that. The FY2003 appropriation followed suit; it was \$466 million (11%) above the requested amount. The FY2004 budget request proposed a 9% cut from current spending. Some Members of Congress expressed their displeasure with the Administration’s proposed cuts for the Corps at FY2004 budget hearings in February and March 2003.

Discretionary Funding Proposals. As previously mentioned, the Administration included in its request legislative proposals to fund more activities through discretionary funding. The Administration's request for FY2003 had been for 76% of the appropriations to come from the general fund and 24% from discretionary sources. The sources of appropriations under the FY2004 request are 70% from the general fund and 30% from discretionary sources. The increase in discretionary funding would come from a broader set of activities being covered by the Inland Waterway Trust Fund and the Harbor Maintenance Trust Fund and direct funding by three power marketing administrations for hydropower maintenance activities. The Administration proposed that for FY2004 these changes be made through the appropriations process. To make the changes permanent, an authorization would typically be sought through the next Water Resources Development Act (WRDA). Because the usually biennial WRDA was not enacted during the 107th Congress, many anticipate a WRDA in 2004.

The two trust funds have built up substantial unused balances in recent years, causing concern about why the funds were not being put to use. The House Subcommittee on Water Resources and Environment of the Committee on Transportation during the 107th Congress stated in a hearing announcement that the "committee has been concerned that the balances in these funds from money collected from project users have not been spent to provide the needed maintenance and improvements to the Nation's water navigation system."¹

The Administration's FY2004 budget proposed to expand the use of the Inland Waterway Trust Fund to include operation and maintenance of the inland waterway system. The fund historically has been restricted to funding one-half of construction and major rehabilitation. Under the Administration's proposal, the fund would be used to finance 25% of the O&M costs of eight waterways that have averaged annually more than five billion ton-miles of traffic over the past five years, and 50% of the O&M cost for the Nation's remaining twenty waterways. This would increase the use of the trust fund from \$104 million in FY2002 and an estimated \$84 million in FY2003 to \$256 million in FY2004—\$110 million for construction and \$146 million for O&M. This increased withdrawal would cause the balance in the fund to drop from an estimated \$433 million at the end of FY2003 to \$287 million at the end of FY2004. The fund was authorized under the Inland Waterways Revenue Act of 1978 (P.L. 95-502). Its revenue is derived from a twenty cent per gallon fuel tax imposed on vessels engaged in commercial waterway transportation, plus investment interest.

Similarly, the Administration's request proposed to expand the use of the Harbor Maintenance Trust Fund to include all federal costs associated with coastal port and channel construction. The fund historically has financed all of the Corps' harbor operation and maintenance costs, but no construction activities. Under the Administration's proposal, the fund would be used to finance all federal costs associated with the construction of coastal ports and channels. This would increase the use of the trust fund from \$653 million in FY2002 and an estimated \$769 million

¹ Subcommittee on Water Resources and Environment, "Hearing on The Corps of Engineers' Budget and Priorities for FY2003," Hearing announcement, February 27, 2002.

in FY2003 to \$826 million in FY2004—\$212 million for construction and \$600 million for O&M. The increased withdrawal would not cause the balance in the fund to drop, since revenues are expected to be \$880 million in FY2004, but it would decrease the growth in the fund's balance. The fund was authorized under the Harbor Maintenance Revenue Act of 1986 (P.L. 99-662). Revenue is derived from receipts from a 0.125 percent ad valorem tax imposed upon commercial users of ports.

Port and river trade groups responded quickly to the FY2004 budget request with criticisms that the Administration was raiding these funds for an unprecedented use of the money that had not been endorsed by the users paying the fees. These groups also commented that the Administration's proposals would quickly drain the Inland Waterway Trust Fund, thus resulting in pressure to increase user fees. They argue that any surplus in these funds should be used for their original purposes, not for new purposes.

Another change to the Corps' discretionary funding is the direct funding of hydropower maintenance activities by three power marketing administrations. The proposal is listed in the Corps' budget; however, the related legislative proposal is set out as part of the Department of Energy's budget. Under the proposal, power marketing administrations would be expected to pay the Corps at the beginning of the fiscal year (as opposed to the current practice of paying at the end of the year) for planned and upcoming work related to hydropower maintenance. This process is similar to an existing process for the Bonneville Power Administration. A similar proposal was made by the Administration for FY2003 but was not enacted.

Changes in Corps Operation. There are currently two initiatives to change the operation of the civil works program (and military programs) of the Army Corps of Engineers: the government-wide President's Management Agenda (PMA) and an Army initiative referred to as the Third Wave. Neither initiative specifically targets the Corps, but both encompass the Corps' activities. The PMA was undertaken by the Bush Administration as part of a movement toward more entrepreneurial government; one of the five components of the PMA is a competitive sourcing initiative. The PMA directed executive agencies to competitively source commercial activities in order to produce quality services at a reasonable cost through efficient and effective competition between public and private sources. The Administration mandated for FY2002 and FY2003 the competition of 5% and 10%, respectively, of the commercial positions at agencies, including the Corps.

The Army's Third Wave initiative is broader than the PMA. The Third Wave is searching for ways to not only improve the Army's operations but also focus its energies on its core war-fighting competencies. Under the Third Wave, the Army is reviewing all its commands, including the Corps, to identify how to focus their activities. The Third Wave reviews all positions and functions (i.e., entire areas of responsibilities and missions, such as wetlands regulation) that are not part of the Army's core military competencies. Options that can be considered under the Third Wave for non-core functions and positions include competitive sourcing, transfer of responsibilities to other agencies, and divestiture. A significant portion of the Corps' workforce is included in the current phase of the Third Wave because much of the work performed by the Corps is not considered as essential to the Army's war-fighting competencies. Requests for exemptions from the Third Wave are now being

reviewed by the Army. No implementation actions are anticipated to be undertaken before FY2004. Implementation of the Third Wave is expected to begin in FY2004 and continue through FY2009. The Army may need to seek approval of Congress for actions, especially transfer and divestiture of responsibilities, that it plans to take under the Third Wave.

Division D, Section 109, of P.L. 108-7, the omnibus appropriations bill for FY2003, included language that prohibits the use of funds to study or implement any “plans privatizing, divesting or transferring of any Civil Works missions, functions, or responsibilities” without specific direction by Congress. The Corps’ interpretation of the language is that although privatizing is not allowed, competitive sourcing is permissible. Therefore, the agency is continuing with its competitive sourcing activities under the PMA and limiting its Third Wave review to competitive sourcing and management tools. The Corps interprets the prohibition as not extending beyond FY2003.

Proposed “Reforms” of Corps Processes and Procedures. During the 107th Congress, the Corps came under criticism for the way it evaluates and undertakes projects. Although the issue received media attention, it was not directly addressed through legislation. Bills proposing changes to the project development and authorization process were introduced (*e.g.*, see H.R. 1310 and S. 1987); however, no action was taken. (For more information, see CRS Report RL30928, *Army Corps of Engineers: Reform Issues for the 107th Congress*.) Corps reform may be addressed during consideration of the next WRDA, though it could also be considered as part of the FY2004 Energy and Water Development Appropriations bill, because the request contains various proposals for review and quality control mechanisms.

Some critics of the Corps have called for major agency “reforms”; others have called for review of Corps programs and policies. The 106th Congress, in passing WRDA 2000 (P.L. 106-541, Section 216) directed the Corps to contract with the National Academy of Sciences (NAS) to study the feasibility of establishing an independent review panel for Corps studies. NAS’s July 2002 report recommended that large-scale Corps projects be independently reviewed by experts outside the agency.²

Corps officials gave testimony at FY2004 budget hearings, and at a March 2003 hearing of the Subcommittee on Water Resources and Environment of the House Committee on Transportation and Infrastructure, on how the agency is “transforming” itself in response to these criticisms. In this testimony, the Corps officials defended the integrity of the agency’s review process and detailed recent efforts to further strengthen it, including the use of independent peer review panels for a few complex projects.³ The Administration’s FY2004 budget request included

² National Research Council of the National Academy of Sciences, *Review Procedures for Water Resources Project Planning*, Washington, D.C.: National Academy Press, 2002.

³ Les Brownlee (Acting Assistant Secretary of the Army) and Lieutenant General Robert B. (continued...)

\$3 million for a peer review panel to examine selected projects and \$2 million for *ex post facto* studies of 15 to 25 completed projects to compare the estimated and actual project costs and benefits. In addition, the Corps initiated during FY2002 an additional internal staff review of project justifications by the office of the Assistant Secretary of the Army for Civil Works.

The Corps reform discussions also encompassed concerns raised by critics, the Bush Administration, and some Members of Congress that the expansion of the agency's activities into new areas hurts the agency's efforts in its traditional missions. P.L. 108-7 did not address directly this issue or other Corps reform issues; however, it did authorize and provide limited appropriations for the controversial environmental infrastructure projects previously mentioned.

Missouri River Management. Drought in the Missouri River basin has contributed to an ongoing debate on the operations of the basin's dams. This debate raises some fundamental question about water resources management in the Nation, such as whether some river uses should take precedence over others and if the current institutional arrangements for river management need to be reconsidered. The Missouri River basin is currently in the fourth year of drought, with moderate to extreme drought conditions throughout the basin. Predictions for runoff indicate that to maintain flows for navigation in the summer, Missouri River mainstem reservoir levels, already far below normal, may be drawn down to record lows.

Operations of the mainstem dams of the Missouri River are managed under a Master Manual and annual operating plans. In late January 2003, the Corps published the final 2002-2003 Annual Operating Plan.⁴ The Corps has announced that it will provide only minimum navigation service (a 1-foot shallower channel than under full service) and that the navigation season will be shortened by six days at its close. Although the Corps published the final operating plan, the flow regime to be implemented during the nesting season for threatened and endangered bird species and the overlapping navigation season that begins April 1 has yet to be finalized. The Corps has proposed two options: a steady flow release and a flow to meet navigation targets. The Fish and Wildlife Service (FWS) has expressed concerns with both regimes and is particularly concerned with the need to move nests under the flow-to-target regime. The Corps and the FWS are currently in consultation on the impacts of the flow-to-target release schedule.

³ (...continued)

Flowers (Chief of Engineers) provided testimony before the Subcommittee on Energy and Water Development of the Senate Committee on Appropriations on March 5, 2003, before the Subcommittee on Energy and Water Development of the House Committee on Appropriation on March 26, 2003, and the Subcommittee on Water Resources and Environment of the House Committee on Transportation and Infrastructure on February 27, 2003.

⁴ U.S. Army Corps of Engineers, Northwest Division, *Missouri River Mainstem System 2002-203 Annual Operating Plan*, January 2003 available at: [<http://www.nwd-mr.usace.army.mil/rcc/reports/pdfs/finalaop02.pdf>].

Differing opinions on how to best manage the Missouri River during drought conditions have increased attention on not only the annual operating plan but also the ongoing revision of the Master Manual, which guides the operation of the Missouri River's mainstem dams. The manual has been in revision for 14 years. The Corps' challenge in updating the manual is the multiple competing uses of the river. The timing and the quantity of the water released from the dams affects uses of the river such as barge traffic, threatened and endangered species protection, water supply, and river recreation.

Missouri River management has been raised numerous times during the appropriations process in recent years. An amendment offered by Senator Bond to the omnibus appropriations bill for FY2003 failed. It would have prohibited the FWS from both requiring a steady release flow and preventing the Corps from relocating bird nests along the Missouri River's banks. In the FY2002 Energy and Water appropriations bill after extended debate in both the House and the Senate, Section 116 included Senate language that prohibited the use of funds "to accelerate the schedule to finalize the Record of Decision for the revision of the Missouri River Master Water Control Manual and any associated changes to the Missouri River Annual Operating Plan." The amended provision also directed the Corps to consider views of other federal and non-federal agencies and individuals "to ensure that other congressionally authorized purposes are maintained" in addition to endangered species protection. The provision represented a temporary compromise of an ongoing issue that had led President Clinton to veto the Energy and Water Development appropriations bill for FY2001.

Everglades. A significant addition to the Corps' mission in recent years is its growing role in large environmental restoration programs. The Corps plays a significant coordination role in the restoration of the Central and Southern Florida ecosystem. The Corps is particularly involved in the implementation of the Comprehensive Everglades Restoration Plan (CERP) that was authorized in 2002 by Title VI of WRDA. The annual Energy and Water Development Appropriations bill provides funding for the Corps' participation in these efforts.

The President's request for FY2004 included a total of \$145 million for the Corps' construction projects in the region, compared to \$151 million appropriated for FY2003. The FY2004 request for the Kissimmee River restoration project and the Everglades and South Florida ecosystem restoration project was \$17.7 million and \$14.8 million, respectively. For the Central and Southern Florida project, the Administration requested \$112.5 million (which included \$39.0 million for CERP activities). The final appropriations for FY2003 did not provide the full amount requested by the Administration for this project. The Senate Appropriations Committee explained that the reduction resulted from questions raised about its implementation, specifically concerns that it was too heavily weighted in favor of commercial development of water supplies (S.Rept. 107-220).

Title II: Department of the Interior

For the Department of the Interior, the Energy and Water Development bill provides funding for the Bureau of Reclamation (BOR) and the Central Utah Project Completion Account.

**Table 4. Energy and Water Development Appropriations
Title II: Central Utah Project Completion Account**
(in millions of dollars)

Program	FY2003	FY2004 Request	House	Senate	Conf.
Central Utah project construction	23.5	36.5			
Mitigation and conservation activities	11.2	--			
Oversight & Administration	1.3	1.7			
Total, Central Utah Project	36.0	38.2			

Columns may not total because of rounding.

**Table 5. Energy and Water Development Appropriations
Title II: Bureau of Reclamation**
(in millions of dollars)

Program	FY2003	FY2004 Request	House	Senate	Conf.
Water and Related Resources	832.2 ^a	771.2			
Loan Program Account	–	0.2			
Policy & Admin.	54.5	56.5			
Central Valley Project (CVP) Restoration Fund	48.6	39.6			
California Bay-Delta (CALFED)	–	15.0			
Gross Current Authority	936.3	878.0			
CV Project Collections ^b	-40.0	-30.8			
Net Current Authority	894.3	847.2			

^a Includes \$25 million appropriated in Emergency Wartime Supplemental Appropriations Act, 2003, P. L. 108-11.

^b In presenting its budget justifications, the Bureau lists this amount as an “offset.” (Figures may not total due to rounding.)

Bureau of Reclamation Budget In Brief

For FY2004, the President requested \$38.2 million for the Central Utah Project Completion Account, an increase of \$2 million over the FY2003 request. The FY2004 request for BOR totals \$878 million in gross current budget authority.⁵ This amount is an increase of \$23.1 million from the amended FY2003 request (according to BOR), or \$33.1 million according to congressional sources,⁶ and is approximately \$33.3 million less than enacted for FY2003 in P.L. 108-7. The Bureau has received an additional \$25 million in supplemental appropriations for FY03 for homeland security purposes (P.L. 108-11).

Included in the \$878 million BOR request is \$863 million in current appropriations for agency water resources management activities and \$15 million for the California Bay-Delta Restoration Account (CALFED). The FY2004 request as presented includes a \$30.8 million “offset” for the Central Valley Project (CVP) Restoration Fund, yielding a “net” current authority of \$847.2 million for BOR.

BOR’s single largest account, Water and Related Resources, encompasses the agency’s traditional programs and projects, including operations and maintenance, the Dam Safety Program, Water and Energy Management Development, and Fish and Wildlife Management and Development, among others. BOR requested \$771.2 million for this account for FY2004, \$37 million less than appropriated in P.L. 108-7.

Key Policy Issues – Bureau of Reclamation

Background. Most of the large dams and water diversion structures in the West were built by, or with the assistance of, the Bureau of Reclamation (BOR). Whereas the Corps built hundreds of flood control and navigation projects, BOR’s mission was to develop water supplies, primarily for irrigation to reclaim arid lands in the West. Today, BOR manages hundreds of dams and diversion projects, including 348 storage reservoirs in 17 western states. These projects provide water to approximately 10 million acres of farmland and 31 million people. BOR is the largest supplier of water in the 17 western states and the second largest hydroelectric power producer in the nation. BOR facilities also provide substantial flood control, recreation, and fish and wildlife benefits. At the same time, operations of BOR facilities are often controversial, particularly for their effect on sensitive fish and wildlife species and conflicts among competing water users.

CALFED. Funds have not been appropriated for the California Bay-Delta Restoration Account (Bay-Delta, or CALFED) since FY2000, when the authorization for appropriations expired. However, funds were provided for FY2002 and FY2003

⁵ The BOR budget also includes several permanent appropriations, which when added to the agency’s net current authority results in a grand total of \$927.7 million requested and projected for BOR operations for FY04.

⁶ The BOR budget justifications document for FY2004 shows a requested increase of \$23.1 million in gross budget authority, while tables accompanying the conference report on H.J. Res. 2 (consolidated appropriations for FY03) yield an increase of \$33.1 million.

for activities that support the CALFED program. The Administration has requested \$15 million for this account for FY2004.

The final FY2003 appropriation for BOR provided \$23 million for CVP activities that support the goals of the CALFED program within the Water and Related Resources Account, instead of the \$30 million proposed by the Senate and \$2 million proposed by the House. Several specific activities were identified in the conference agreement, including \$1.75 million for investigations of storage opportunities in the Upper San Joaquin watershed (Friant Division); \$9 million for the Environmental Water Account (under Miscellaneous Project Programs); \$1.5 million to continue planning activities related to the Sites Reservoir (Sacramento River Division); and \$2.5 million for evaluation of potential impacts of raising Shasta Dam (Shasta Division). Division D, Section 215, of the bill specifically authorizes the Secretary, "in carrying out CALFED-related activities," to begin feasibility studies for Sites Reservoir, enlargement of Los Vaqueros Reservoir, and an Upper San Joaquin Storage project.

Security. BOR requested \$28.6 million for continued heightened safety and security efforts at BOR facilities. The bulk of the request is for facility operations/security. Funding covers such activities as administration of the security program, periodic security reviews, and employee training and awareness. An additional \$1 million is being requested for national security cyber systems, under the category of Critical Infrastructure Protection. (For more information on terrorism and security issues involving the water infrastructure sector, see CRS Report RS21026, *Terrorism and Security Issues Facing the Water Infrastructure Sector*, by Claudia Copeland and Betsy A. Cody, updated September 4, 2002; also, see the CRS Terrorism Electronic Briefing Book, updated regularly, accessed at [<http://www.congress.gov/brbk/html/ebter1.shtml>]). The BOR received an additional \$25 million for homeland security expenses in P.L. 108-11.

Sumner-Peck Settlement. The federal government and the Westlands Water District, which receives CVP water, settled a long-standing lawsuit December 10, 2002. The lawsuit concerned the effects of irrigation water buildup beneath private land and the government's obligation to provide irrigation drainage service. The drainage problem has been an ongoing problem within the San Luis Unit of the CVP, where toxins such as selenium have built up in the soil and rendered land unsuitable for farming. The \$107 million settlement (federal share) has been quite controversial both for its initial sum and potential for additional suits from other nearby landowners, as well as for the specific terms of the agreement and how it will be paid. While the land will be retired from farming, Westlands will hold title to the land and water rights, the plaintiffs reserve valuable commodity base acreage, and the federal government receives certain easements and covenants guaranteeing the land will not be used again for farming. A proposal to pay for the first installment of the settlement using appropriated funds from the Energy and Water annual appropriations bill was blocked by a provision in the FY2003 omnibus appropriations bill (§212, Division D of P.L. 108-7), on the grounds that it would reduce funding for other programs. The action caused the Justice Department to reverse its earlier stance and allow the first \$34 million to be paid from the federal government Judgment Fund. However, it is not clear how future settlement payments will be made.

Title III: Department of Energy

The Energy and Water Development bill includes funding for most of DOE's programs. Major DOE activities in the bill include research and development on renewable energy and nuclear power, general science, environmental cleanup, and nuclear weapons programs. The Administration's FY2004 request for DOE programs in the Energy and Water Development bill is \$21.67 billion, about \$780 million more than the amount appropriated for FY2003. (The FY2004 appropriations request for DOE's programs for fossil fuels, energy efficiency, the Strategic Petroleum Reserve, and energy statistics, included in the Interior and Related Agencies appropriations bill, is \$1.7 billion.)

Table 6. Energy and Water Development Appropriations
Title III: Department of Energy
(\$ millions)

Program	FY2003	FY2004 Request	House	Senate	Conf.
Energy Supply R&D					
Solar and Renewable	422.3	444.2			
Nuclear Energy	261.7	387.6			
Other	22.7	30.0			
Adjustments	–	(3.0)			
Total, Energy Supply	696.9	861.8			
Non-Defense Environmental Management	213.6	–			
Non-Defense Site Acceleration Completion^b	–	170.9			
Non-Defense Environmental Services^b	–	292.1			
Uranium Facilities Maintenance & Remediation	453.4	–			
Uranium Decontamination and Decommissioning Fund^b	– (442.0)	418.1 (452.0)			
General Science					
High Energy Physics	727.0	738.0			
Nuclear Physics	384.4	389.4			
Basic Energy Sciences	1,030.0	1,008.6			
Bio. & Env. R&D	530.0	499.5			
Fusion	250.0	257.3			
Advanced Scientific Computing	172.6	173.5			

Program	FY2003	FY2004 Request	House	Senate	Conf.
Other	236.3	244.6			
Adjustments	(24.4)	(4.4)			
Total, General Science	3,272.3 ^a	3,310.9			
National Nuclear Security Administration (NNSA)					
Weapons	5,981.4 ^a	6,378.0			
Nuclear Nonproliferation	1,168.8 ^a	1,340.2			
Naval Reactors	702.2	768.4			
Office of Administrator	325.1	348.0			
Total, NNSA	8,177.6	8,834.6			
Defense Activities					
Defense Environmental Management					
Environ. Restoration	5,434.8 ^a	–			
Defense Facilities Closure Projects	1,130.9	–			
Environ. Restoration Privatization	158.4	–			
Defense Site Accel. Completion ^b	–	5,814.6			
Defense Environmental Services ^b	–	995.2			
Total, Defense Env. Man.	6,723.1	6,809.8			
Other Defense Activities	515.7 ^a	522.7			
Defense Nuclear Waste	313.0	430.0			
Total, Defense Activities	15,729.3	16,522.1			
Departmental Admin. (net)	85.3	179.6			
Office of Inspector General	37.4	39.5			
Power Marketing Administrations (PMA's)					
Southeastern	4.5	5.1			
Southwestern	27.2	28.6			
Western	167.8 (22.0)	171.0 (22.0)			
Falcon & Armistad O&M	2.7	2.6			
Total, PMA's	202.3	207.3			

Program	FY2003	FY2004 Request	House	Senate	Conf.
FERC (revenues)	192.0 (192.0)	199.4 (199.4)			
Civilian Nuclear Waste	144.1	161.0			
Total, Title III	20,370.4	21,689.4			

^a Includes funding appropriated in the Emergency Wartime Supplemental Appropriations Act, 2003, P. L. 108-11.

^b New program structures proposed for FY2004. See “Environmental Management” section, below.

Key Policy Issues — Department of Energy

Renewable Energy. The Administration’s FY2004 budget request for DOE finds that hydrogen energy is the “most promising long-term revolution in energy use that can help the nation “liberate itself from dependence on imported oil.” The request for DOE’s Renewable Energy Program elaborates that its aim is to “accelerate progress” and make hydrogen technologies “cleaner, safer, and lower in cost.” Further, it stresses that the new National Climate Change Technology Initiative will create “competitive solicitations” in applied research that aims to reduce greenhouse gas emissions and will “complement” existing R&D programs.

More specifically, the request for the Renewable Energy Program under DOE’s Office of Energy Efficiency and Renewable Energy (EERE) seeks \$444.2 million (excluding funding for retirements), which is \$27.7 million more than the FY2003 appropriation of \$416.5 million. It includes \$49.4 million more for Hydrogen (as part of the President’s Hydrogen Fuel Initiative) and \$15.0 million more for a National Climate Change Technology Initiative. It would terminate the Concentrating Solar Power Program and cut the Biomass and Biorefinery Program (which the FY2003 appropriations bill, P.L. 108-7, formed by combining the former biofuels and biopower subprograms) by \$17.0 million. The request presents a new budget structure that follows from a major reorganization of the EERE Office.

Nuclear Energy. For nuclear energy research and development – including advanced reactors, fuel cycle technology, and nuclear hydrogen production – the Administration is requesting \$387.6 million for FY2004. That request is substantially higher than the \$261.7 million appropriated for FY2003, but about \$110 million of the increase is related to the transfer of primary responsibility for the Idaho National Engineering and Environmental Laboratory (INEEL) to the nuclear energy program from DOE’s environmental management program.

“Nuclear energy, which is already a vital component of our balanced energy portfolio, presents some of our most promising solutions to the world’s long-term energy challenges,” according to DOE’s FY2004 budget justification. However, opponents have criticized DOE’s nuclear research program as providing wasteful

subsidies to an industry that they believe should be phased out as unacceptably hazardous and economically uncompetitive.

Within the nuclear energy budget, the Administration is requesting \$48 million for the nuclear energy technologies program, which focuses on development of new reactors. That request is \$3.0 million above the FY2003 appropriation. The program includes \$35.0 million for an initiative to encourage construction of new commercial reactors by 2010 (“Nuclear Power 2010”) and \$9.7 million for advanced (“Generation IV”) reactor designs that could be ready for deployment after 2010.

According to the DOE budget justification, the Nuclear Power 2010 program “will achieve near-term deployment of new power plants in the United States through cost-shared demonstration of the new, untested regulatory processes and cost-shared development of advanced reactor technologies.” The program seeks to deploy both a water-cooled reactor (similar to most existing commercial plants) and a gas-cooled reactor. The current phase of the initiative includes site approval, reactor design certification, license applications, detailed design work, and development of improved construction techniques. DOE is soliciting proposals for joint DOE/industry teams in which DOE will pay up to half the cost of these activities.

DOE’s Generation IV program is focusing on six advanced designs that could be deployed after 2010: two gas-cooled, one water-cooled, two liquid-metal-cooled, and one molten-salt concept. Some of these reactors would use plutonium recovered through reprocessing of spent nuclear fuel. The Administration’s May 2001 *National Energy Policy* report contends that plutonium recovery could reduce the long-term environmental impact of nuclear waste disposal and increase domestic energy supplies. However, opponents contend that the separation of plutonium from spent fuel poses unacceptable environmental risks and, because of plutonium’s potential use in nuclear bombs, undermines U.S. policy on nuclear weapons proliferation.

The development of plutonium-fueled reactors in the Generation IV program is closely related to the nuclear energy program’s Advanced Fuel Cycle Initiative (AFCI), for which \$63.0 million is requested for FY2004 – about \$5 million above the FY2003 appropriation. According to the budget justification, AFCI will “develop advanced proliferation-resistant fuel treatment and fabrication technologies that could be deployed by 2015,” as well as technologies that could reduce the long-term hazard of spent nuclear fuel. Such technologies would involve separation of plutonium, uranium, and other long-lived radioactive materials from spent fuel for re-use in a nuclear reactor or for transmutation in a particle accelerator. AFCI includes a previously funded research program on accelerator transmutation called Advanced Accelerator Applications. The program also includes longstanding DOE work on electrometallurgical treatment of spent fuel from the Experimental Breeder Reactor II (EBR-II) at INEEL.

In support of President Bush’s program to develop hydrogen-fueled vehicles, DOE is requesting \$4.0 million in FY2004 for a new “Nuclear Hydrogen Initiative.” According to DOE’s budget justification, the program would investigate the use of high-temperature nuclear reactors to make hydrogen from water in a thermo-chemical process. According to DOE, “preliminary estimates indicate that hydrogen produced using nuclear-driven thermo-chemical processes would be only slightly more

expensive than gasoline” and result in far less air pollution. Activities planned in FY2004 include development of a “roadmap” for developing nuclear hydrogen technologies and laboratory testing of thermo-chemical processes and related research. Even if the technology is successful, however, DOE officials have predicted that significant quantities of nuclear-produced hydrogen would not become available until 2020-2030.⁷

The Nuclear Energy Research Initiative (NERI) provides grants for research on innovative nuclear energy technologies. DOE is requesting \$12.0 million for NERI in FY2004, about half of the FY2003 appropriation. According to the budget justification, no new grants will be awarded in FY2003 and FY2004, with new program funding to be used only for completing previously initiated projects.

DOE proposes no new funding in FY2004 for the Nuclear Energy Plant Optimization program (NEPO), which received \$5.0 million in FY2003. The program supports cost-shared research by the nuclear power industry on ways to improve the productivity of existing nuclear plants.

Science. The DOE Office of Science conducts basic research in six program areas: basic energy sciences, high-energy physics, biological and environmental research, nuclear physics, fusion energy sciences, and advanced scientific computing research. Through these programs, DOE is the third-largest federal supporter of basic research and the largest federal supporter of research in the physical sciences.

For FY2004, DOE requested \$3.311 billion for Science. After adjusting for rescissions and the transfer of two programs from the Office of Science to the new Department of Homeland Security, the comparable FY2003 appropriation was \$3.261 billion.⁸ On this basis, the FY2004 request is a net increase of 1.5%. Within this overall funding, three of the six program areas would receive increases, and three would receive decreases; the largest change in either direction would be 4.2%.

The requested funding for the largest program, basic energy sciences, is \$1.009 billion, a decrease of \$8 million below the comparable FY2003 appropriation. The request includes \$125 million for continued construction of the Spallation Neutron Source, a large facility at Oak Ridge National Laboratory for research in physics, materials science, and other fields. The FY2003 appropriation for the Spallation Neutron Source was \$209 million; the reduction reflects the planned construction schedule, with completion planned for 2006, not a delay or scaling back of the project. A growth area in basic energy sciences is nanoscience, for which the FY2004 budget requests \$193 million, of which \$85 million would fund construction of three Nanoscale Science Research Centers.

The FY2004 request for high-energy physics is \$738 million, an increase of \$20 million above the comparable FY2003 appropriation.

⁷ EnergyWashington.com Daily Updates, February 5, 2003.

⁸ All figures in the text of this section are adjusted in this manner.

The requested funding for biological and environmental research is \$500 million, a decrease of \$4 million below the comparable FY2003 appropriation. Activities within this program relating to microbial pathogens, with FY2003 funding of \$20 million, were transferred to the Department of Homeland Security on March 1, 2003.

The request for nuclear physics is \$389 million, an increase of \$10 million above the comparable FY2003 appropriation.

The request for fusion energy sciences is \$257 million, a \$10 million increase above the comparable FY2003 appropriation. In early 2003, the United States rejoined negotiations on construction of the International Thermonuclear Experimental Reactor (ITER), a fusion facility whose other participants include Canada, China, the European Union, Japan, and Russia. About \$12 million of the requested FY2004 budget for fusion energy sciences would be devoted to ITER. The budget impact of ITER in future years, once construction actually begins, depends on the outcome of the ongoing negotiations; the U.S. share is generally expected to be in the range of \$50 million to \$100 million per year.

The smallest Science program, advanced scientific computing research, would receive \$173 million in the FY2004 request, an increase of \$6 million above the comparable FY2003 appropriation. The portion of this program that was located at Lawrence Livermore National Laboratory, with FY2003 funding of approximately \$3 million, was transferred to the Department of Homeland Security on March 1, 2003.

Nuclear Weapons Stockpile Stewardship. Congress established the Stockpile Stewardship Program in the FY1994 National Defense Authorization Act (P.L. 103-160) “to ensure the preservation of the core intellectual and technical competencies of the United States in nuclear weapons.” The program is operated by the National Nuclear Security Administration (NNSA), a semiautonomous agency established by Congress in the FY2000 National Defense Authorization Act (P.L. 106-65, Title XXXII) within DOE. It seeks to maintain the safety and reliability of the U.S. nuclear stockpile.

Stockpile stewardship consists of all activities in NNSA’s Weapons Activities account. Appropriations were \$4,908.7 million for FY2001 and \$5,560.2 million for FY2002; Table 7 provides FY2003 and FY2004 data. The three main elements of stockpile stewardship, described next, are Directed Stockpile Work, Campaigns, and Readiness in Technical Base and Facilities. NNSA manages two major programs outside of Weapons Activities: Defense Nuclear Nonproliferation, discussed in a subsequent section of this report, and Naval Reactors. Table 7 presents the main elements of the Weapons Activities program.

Table 7. Funding for Weapons Activities

(\$ millions)

Program	FY2003	FY2004 Request	House	Senate	Conf.
Directed Stockpile Work	1,198.6	1,364.8			
Campaigns	2,086.6	2,395.5			
Readiness	1,794.0	1,613.5			
Other ^a	903.2	1,004.3			
Total	5,981.4	6,378.0			

^a Includes Facilities and Infrastructure Recapitalization Program, Secure Transportation Asset, Safeguards and Security, use of prior year balances, and other adjustments. Figures may not add due to rounding.

Most stewardship activities take place at the nuclear weapons complex, which consists of three laboratories (Los Alamos National Laboratory, NM; Lawrence Livermore National Laboratory, CA; and Sandia National Laboratories, NM and CA), four production sites (Kansas City Plant, MO; Pantex Plant, TX; Savannah River Site, SC; and Y-12 Plant, TN), and the Nevada Test Site. NNSA manages and sets policy for the complex; contractors to NNSA operate the eight sites.

Directed Stockpile Work (DSW). This program involves work directly on nuclear weapons in the stockpile, such as monitoring the condition of weapons; maintaining them through repairs, refurbishment, life extension, and modifications; R&D in support of specific warheads; and dismantlement. The FY2004 DSW request would support life extension programs for four nuclear warheads: B61 (gravity bomb), W76 (for Trident I and II submarine-launched ballistic missiles), W80 (for cruise missiles), and W87 (for Minuteman III and MX/Peacekeeper intercontinental ballistic missiles).

Robust Nuclear Earth Penetrator (RNEP). Within DSW, NNSA plans to conduct a study for the RNEP, for which \$15.0 million was appropriated for FY2003; another \$15.0 million is requested for FY2004. Warheads of this type would burrow into the ground before detonating in order to destroy underground targets with less explosive yield than a surface-burst weapon would require. This warhead is controversial. Supporters argue that it is needed to attack hard and deeply buried targets (such as leadership bunkers or chemical weapons production facilities) in countries of concern, thereby deterring or defeating such nations; critics reply that RNEP would lower the threshold for use of nuclear weapons and prompt other nations to develop nuclear weapons to deter U.S. attack. (See CRS Report RS20834, *Nuclear Earth Penetrator Weapons*.) The FY2003 National Defense Authorization Act, P.L. 107-314, fully funded the \$15.0 million request but barred obligation of FY2003 funds for the NNSA study until 30 days after the Department of Defense submits a study on RNEP, including military requirements, employment policy, targets, and conventional weapon alternatives. (The study was sent to Congress on

March 19, 2003.) The Consolidated Appropriations Resolution for FY2003, P.L. 108-7, provided the amount requested.

Campaigns. These are “multi-year, multi-functional efforts” that “provide specialized scientific knowledge and technical support to the directed stockpile work on the nuclear weapons stockpile.” For FY2004, there are 16 campaigns. Examples are: Enhanced Surveillance (\$74.9 million appropriated for FY2003, \$94.8 million requested for FY2004), which seeks to assess lifetimes of weapons components and predict defects resulting from aging; Advanced Design and Production Technologies (\$72.0 million appropriated for FY2003, \$79.9 million requested for FY2004), which seeks to develop new technologies and processes to improve manufacturing in the nuclear weapons complex; Advanced Simulation and Computing (\$683.9 million appropriated for FY2003, \$750.6 million requested for FY2004), which aims to advance the state of the art of nuclear weapon simulation, apply these advances to current stockpile tasks, and deliver by FY2008 “a high fidelity, full-system physics characterization of a nuclear weapon”; and Tritium Readiness (\$124.8 million appropriated for FY2003, \$134.9 million requested for FY2004), which is making preparations to use a commercial light water reactor to produce tritium, an isotope of hydrogen that is a key ingredient in nuclear weapons.

Pits. Pits are the fissile cores of nuclear warheads that trigger the thermonuclear secondary stage. DOE has had no facility to produce pits for use in stockpiled weapons since it suspended pit production at the Rocky Flats Plant (CO) in 1989. As a result, the United States has been unable to make all-new nuclear warheads of existing or advanced new designs. The Pit Manufacturing and Certification Campaign supports two pit projects: installation of a low-capacity pit production facility, and supporting R&D, at Los Alamos National Laboratory; and planning for a higher-capacity Modern Pit Facility.

This campaign has attracted much congressional interest. For FY2002, the House Appropriations Committee recommended the requested amount, \$128.5 million, but asserted that DOE cannot show “that it has a viable plan to manufacture and certify pits on the schedule dictated by national security needs,” criticized the project as “years behind schedule and hundreds of millions of dollars over the original cost estimate,” and stated that it would judge NNSA’s success on how well the pit project succeeds. (H.Rept. 107-112.) The Senate Appropriations Committee for FY2002 recommended increasing funding substantially to “fully fund” all relevant activities, viewing the then-current schedule, which would not certify a pit for use in the stockpile until FY2009, as “unacceptable.” (S.Rept. 107-39.) In its FY2003 request, NNSA stated its plans to “certify a W88 pit built at [Los Alamos National Laboratory] without underground nuclear testing by FY 2009, with a goal of achieving an earlier date of FY 2007.” Further, NNSA planned to defer detailed design of a Modern Pit Facility until FY2004, “with FY 2003 funding used to continue manufacturing concepts.” The FY2002 appropriation for this campaign was \$219 million.

The FY2003 request was \$194.5 million. The request included \$112.5 million for manufacturing the pit for the W88 warhead, one of the two types of warheads used on the Trident II missile, \$78.0 million for W88 pit certification, \$2.0 million

for pit activities not specifically supporting the W88, and \$2.0 million for planning for the Modern Pit Facility.

In its report on FY2003 energy and water appropriations, the Senate Appropriations Committee recommended \$246.0 million for pit manufacturing and certification, an increase of \$51.5 million over the request. The sum includes the requested \$2.0 million for pit activities and \$2.0 million for the Modern Pit Facility. The committee, however, “remains greatly concerned about the NNSA’s refusal to request funds consistent with its own project plan submitted less than 1 year ago.” Because this was not done, which would have resulted in a lower request for this important project, “the Committee has been forced to reduce other items in the budget.” The Senate Appropriations Committee directed NNSA to revise the plan and report to Congress before the end of the current fiscal year and then annually. (S.Rept. 107-220.) The House Appropriations Committee provided \$194.5 million, the requested amount, for pit manufacturing and certification. The final appropriation provided \$220.6 million for pit manufacturing and certification. According to the joint explanatory statement of the Committee of Conference, “The increase will ensure that the NNSA maintains its commitment to produce a certifiable W88 pit by 2003 and a certified W88 pit by 2007.” The statement directed NNSA “to provide a revised pit production and certification plan to the relevant Congressional committees by March 31, 2003, and annually thereafter.” (H.Rept. 108-10.)

For FY2004, the Administration requests a substantial increase to items in this campaign: \$126.8 million for manufacturing the pit for the W88 warhead, \$108.6 million for W88 pit certification, \$19.7 million for pit activities not specifically supporting the W88, and \$22.8 million for planning for the Modern Pit Facility. In addition, \$42.4 million is requested for “subcritical experiments [at Nevada Test Site] which support the certification of the W88 pit.” For FY2004, this funding element was transferred into the Pit Manufacturing and Certification Campaign from Directed Stockpile Work; its FY2003 request was \$41.5 million. Thus the total request for FY2004 is \$320.2 million, an increase of 35.7% over the FY2003 request of \$236.0 million (with both figures including subcritical experiments supporting W88 pit certification).

National Ignition Facility (NIF). This facility, under construction at Lawrence Livermore National Laboratory, is to be the world’s largest laser. It is a key project for the stockpile stewardship program. NIF is intended to help solve weapons problems, attract top physicists to the nuclear weapons program, and advance the quest for fusion power. A top priority of the facility is to achieve “ignition,” in which nuclear fusion of deuterium and tritium (isotopes of hydrogen) would release more energy than was provided by the laser to achieve fusion.

Over the years, various reports have been highly critical of NIF on such grounds as technical problems, delays, and cost overruns.⁹ In 1999, the NIF Project identified

⁹ For links to reports criticizing NIF, see Natural Resources Defense Council, “National Ignition Facility and Science-Based Stockpile Stewardship Resource Page,” available at (continued...)

several problems with the original cost estimates and notified DOE that NIF could not be completed for the original estimated cost. The project was rebaselined and revalidated in 2000, adding approximately \$1 billion to the cost and several years to the schedule. Since mid-2001, criticism of NIF has fallen sharply; for example, the Natural Resources Defense Council's NIF resources page was last updated February 7, 2000, and the most recent General Accounting Office report on NIF was dated June 1, 2001.¹⁰ The NIF Project Office stated in 2002 that the project was on the schedule and budget set forth in the new baseline, and that no technical obstacles remained. The FY2004 budget document shows the total project cost of NIF to remain at \$2,248.1 million, plus \$1,200.0 million in other related costs, with physical construction to be completed in the fourth quarter of 2008; these dates and costs are the same as the FY2001 amended budget request. The document further states that the NIF project "continues to meet all major milestones on or ahead of schedule," and that the first stockpile stewardship experiments on NIF are planned for 2004.

In its report on FY2003 energy and water development appropriations, the Senate Appropriations Committee expressed concern over changes to the project's scope implied by the request. The title of the campaign changed from "Inertial Confinement Fusion and High Yield" to "High Energy Density Physics," which the committee felt marked a shift "from a focus on achieving the specific goal of ignition to a generalized physics research program."

The Senate panel was also concerned that the performance criteria for acceptance testing of the laser beams could be reduced "significantly below what is required to support ignition experiments." The Committee expressed its "impression that NNSA is not committed to the NIF Project and might down scope the project to the point where laser performance that is needed to evaluate ignition targets would never be realized." In response, "[t]he Committee rejects this re-prioritization and down-scoping. Ignition is now and will remain the primary objective" for NIF. In part because of concern that the Administration did not request certain funds for equipment and technology essential for ignition, the committee added \$35.0 million to the FY2003 request for inertial confinement fusion, for a total of \$487.3 million. (S.Rept. 107-220.)

The House Appropriations Committee provided \$498.8 million, and also expressed concern that NNSA was changing the focus "from the specific goal of ignition to a generalized physics research program." Accordingly, it "direct[ed] NNSA to re-establish ignition as the primary objective and justification for the NIF." (H.Rept. 107-681.)

The final figure for FY2003 was \$489.7 million for inertial confinement fusion, including \$214.0 million, the same as the request, for continued construction of NIF.

⁹ (...continued)

[<http://www.nrdc.org/nuclear/nif/nifinx.asp>]. See also U.S. General Accounting Office. *National Ignition Facility: Management and Oversight Failures Caused Major Cost Overruns and Schedule Delays*, Report GAO/RCED-00-141, August 2000, 45 p.

¹⁰ U.S. General Accounting Office. *Department of Energy: Follow-up Review of the National Ignition Facility*. Report GAO-01-677R, June 1, 2001, 18 p.

The conferees' statement did not provide further guidance on the focus of the inertial confinement fusion program.

For FY2004, the Administration requests \$466.8 million for the Inertial Confinement Fusion Ignition and High Yield Campaign, including \$150.0 million for NIF construction. The title of the campaign reflects congressional concerns. Further, Everet Beckner, Deputy NNSA Administrator for Defense Programs, testified to the House Armed Services Committee on March 6, 2003, that NIF's "mission is to obtain fusion ignition."¹¹

Readiness in Technical Base and Facilities (RTBF). This program provides infrastructure and operations at the nuclear weapons complex sites. The request includes seven subprograms. By far the largest is Operations of Facilities (\$1,001.0 million appropriated for FY2003, \$972.8 million requested for FY2004). Others include Program Readiness, which supports activities occurring at multiple sites or in multiple programs (\$213.6 million appropriated for FY2003, \$131.1 million requested for FY2004), and Material Recycle and Recovery, which recovers plutonium, enriched uranium, and tritium from weapons production and disassembly (\$100.8 million appropriated for FY2003, \$76.2 million requested for FY2004). Construction is a separate category within RTBF; \$310.9 million was appropriated for FY2003, and \$273.4 million is requested for FY2004.

Of particular interest is the RTBF element Nuclear Weapons Incident Response, for which \$88.4 million was appropriated for FY2003 and \$89.7 million is requested for FY2004. This activity provides for a technical response to a nuclear or radiological emergency within DOE, in the United States, or abroad. In addition, the RTBF element Operations of Facilities included \$32.5 million appropriated for FY2003 for the National Center for Combating Terrorism. The FY2004 request contains no funds for the center "due to the uncertainty about the ultimate sponsor, scope, and size of the mission for this facility."

Nuclear Testing and Enhanced Test Readiness. A key issue is whether the United States can and should continue to maintain its weapons through the Stockpile Stewardship Program without nuclear testing. While that program has sought to do so, statements in early 2002 implied a reduced commitment to that approach. Secretary of Defense Donald Rumsfeld reportedly said that nations with nuclear weapons have "a responsibility to see that they are safe and reliable. To the extent that can be done without testing, clearly that is the preference. And that is why the President has concluded that, thus far, that is the case."¹² J.D. Crouch, Assistant Secretary of Defense for International Security Policy, stated that there is "no change in the Administration's policy at this point on nuclear testing. We continue to oppose

¹¹ Testimony of Everet Beckner, Deputy Administrator for Defense Programs, NNSA, on the FY2004 budget request for the Office of Defense Programs, before the Subcommittee on Strategic Forces of the House Armed Services Committee, March 6, 2003.

¹² Walter Pincus, "Nuclear Arms Plan: Saving, Not Scrapping," *Washington Post*, January 9, 2002: 4.

CTBT [Comprehensive Test Ban Treaty] ratification. We also continue to adhere to a testing moratorium.”¹³

The FY2004 budget request contains \$303.5 million for Weapons Activities at the Nevada Site Office, vs. \$292.5 million for FY2003¹⁴. Much of this is for operation of the site, safeguards and security, and operation and maintenance of experimental facilities at NTS.

Of particular interest regarding testing is Test Readiness, a component of the Program Readiness element of RTBF. Since the inception of the U.S. moratorium on nuclear tests in September 1992, U.S. policy has been that NNSA (or DOE prior to NNSA’s establishment) should be ready to conduct a nuclear test within 24 to 36 months from the time the order is given. Recent studies identified work needed to reduce this time to 18 months. These studies were funded by “Enhanced Test Readiness.” The FY2004 budget document states, “The DoD and the NNSA agreed to transition to an 18-month test readiness posture while continuing to review the optimum posture. The actions necessary for moving toward an 18-month posture are expected to begin upon completion of the final FY 2003 appropriation.” The Senate Armed Services Committee’s bill for FY2004 national defense authorizations, S. 1050, section 3132, requires an 18-month posture unless the Secretary of Energy determines that a different posture is preferable. Meanwhile, through FY2003, funds in the “Nevada Site Readiness” account maintained the 24- to 36-month posture with ongoing work at the Nevada Test Site. Because no policy decision had been reached on reducing the time needed to test, the Enhanced Test Readiness and Nevada Site Readiness accounts had to be kept separated. With the move to an 18-month test readiness posture, the enhanced posture will become the current posture, making this separation unnecessary. Accordingly, the two accounts are expected to be merged into “Test Readiness” beginning in FY2004, depending on congressional language, though the FY2004 NNSA budget request volume does not reflect that merger.

The FY2003 appropriation for enhanced test readiness was \$15.0 million. Conferees on the Consolidated Appropriations Resolution for FY2003 directed DOE to notify the Appropriations Committees before obligating any of these funds in FY2003. (H.Rept. 108-10.) Notification is pending. The FY2004 request for Test Readiness is \$24.9 million, and for Nevada Site Readiness is \$39.6 million.

Budget Process Issues. NNSA issued its first Future Years Nuclear Security Program (FYNSP) in March 2002. The House Appropriations Committee, however, criticized that effort. The committee, in its FY2003 report on Energy and Water Development Appropriations (H.Rept. 107-681), stated,

¹³ U.S. Department of Defense. News Transcript. *Special Briefing on the Nuclear Posture Review*, presented by J.D. Crouch, Assistant Secretary of Defense for International Security Policy, January 9, 2002.

¹⁴ U.S. Department of Energy. *FY2004 Congressional Budget Request: Laboratory Tables (Preliminary)*, p. 74. A final appropriation figure for the Nevada Site Office was not available as of May 15, 2003. NNSA budgets by program, not by site, and as of that date not all FY2003 appropriations had been distributed to the sites pending programmatic decisions.

the FYNSP has several fundamental weaknesses that limit its usefulness for Congressional oversight. ... The NNSA budget and the FYNSP are built around activities rather than programs and products. ... The FYNSP includes a laundry list of performance targets – few of which are the same as an identifiable program – and there is no specific funding associated with any of the performance targets. Thus, it is impossible to determine how a specific resource allocation will impact performance. ... It is difficult for the Congress to determine what NNSA proposes to accomplish with these funds. ... [Accordingly, the] Committee directs the Department to conduct an independent assessment of the NNSA’s PPBS [planning, programming, and budgeting system] process and structure, including its comparability to that of the Department of Defense.

Conferees agreed with the House language and “direct[ed] the NNSA to contract for an independent assessment of the NNSA’s planning, programming, and budgeting system, including its comparability to that of the Department of Defense.”

In its FY2003 budget request document, NNSA stated, “We are implementing a new PPBE [program planning, budgeting and evaluation] process that offers the potential for significant improvements in our resource management and decision making while still meeting all of the DOE’s and Congress’ requirements for information ... [beginning] with the FY 2004 budget cycle” and noted that DOE “is considering a parallel PPBES process.” Accordingly, the FY2004 request document provided a five-year projection for NNSA’s budget (Table 8):

Table 8. NNSA 5-Year Budget Projection
(\$ millions)

	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009
Office of Admin.	348	337	344	353	355	362
Weapons Activities	6,378	6,661	6,961	7,277	7,518	7,651
Nonproliferation	1,340	1,356	1,371	1,389	1,322	1,346
Naval Reactors	768	808	795	811	819	834
Total	8,835	9,162	9,471	9,830	10,014	10,193

Nonproliferation and National Security Programs. DOE’s nonproliferation and national security programs provide technical capabilities to support U.S. efforts to prevent, detect, and counter the spread of nuclear weapons worldwide. These nonproliferation and national security programs are included in the National Nuclear Security Administration.

Funding for these programs in FY2003 was provided in the Consolidated Appropriations Resolution (H.J. Res. 2, P.L. 108-7), which appropriated the amount requested by the Administration, \$1.1136 billion. For FY2004, the Administration has requested \$1.3402 billion.

In particular, the Nonproliferation and Verification R&D program, which received a total of \$283 million for FY2003 (less \$79 million for programs transferred to the Department of Homeland Security, for a total of \$204 million), would be funded at \$204 million in the Administration FY2004 request. Nonproliferation and International Security programs, formerly called “Arms Control,” would receive \$102 million in the request, compared with \$93 million in FY2003. These programs include international safeguards, export controls, and treaties and agreements.

Table 9. DOE Defense Nuclear Nonproliferation Programs
(\$ millions)

Program	FY2003	FY2004 Request
Nonproliferation and Verification R&D	222.5 ^a	203.9
Nonproliferation and International Security	114.1 ^a	101.7
International Materials Protection, Control and Accounting (MPC&A)	331.6 ^a	226.0
Russian Transition Initiative	39.0	40.0
International Nuclear Safety	14.5	14.1
Elimination of Weapons-Grade Plutonium Production	49.0	50.0
HEU Transparency Implementation	17.1	18.0
Accelerated Materials Disposition	–	30.0
Fissile Materials Disposition	445.1	656.5
Adjustments	-64.0	–
Total, Defense Nuclear Nonproliferation	1,168.9^a	1,340.2

^a Includes \$148 million total appropriated in Emergency Wartime Supplemental Appropriations Act, 2003, P. L. 108-11: \$20 million in R&D, \$22 million in Nonproliferation and International Security, and \$106 million in MPC&A.

International Materials Protection, Control and Accounting (MPC&A), which is concerned with reducing the threat posed by unsecured Russian weapons and weapons-usable material, would receive \$226 million, compared to \$233 million (less \$4 million transferred to DHS) appropriated for FY2003. Two programs in the former Soviet Union, Initiatives for Proliferation Prevention (IPP) and the Nuclear Cities Initiatives (NCI), which comprise the “Russian Transition Initiative,” would receive \$40 million, compared to the FY2003 appropriation of \$39.3 million.

Requested funding for the Fissile Materials Disposition program for FY2004 is \$656.5 million, compared with \$448 million in FY2003. The increased funding is for disposal of U.S. surplus weapons plutonium by converting it into fuel for commercial power reactors, including construction of a facility to convert the plutonium to reactor fuel at Savannah River, SC.

(For details on these programs, see CRS Issue Brief IB10091, *Nuclear Nonproliferation Issues*.)

Environmental Management. The amount of time and money needed to clean up environmental contamination resulting from the production of nuclear weapons during the Cold War has been a longstanding issue. Since the beginning of

the U.S. atomic energy program, DOE and its predecessors have been responsible for administering the production of nuclear weapons and managing radioactive and other hazardous waste. In later years, DOE expanded its efforts to include the environmental restoration of radioactive sites and those with other hazardous contamination in buildings, soil, and water to ensure their safety for future uses. In 1989, the George H. W. 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. DOE is responsible for complying with numerous federal environmental laws and regulations in administering the program, and is subject to fines and penalties for violations of these requirements. Consequently, DOE has signed numerous legally binding compliance agreements with the Environmental Protection Agency (EPA) and the states to perform cleanup activities and dispose of waste according to specific deadlines.

DOE reports that there are 114 geographic sites in 31 states and one U.S. territory where the production of nuclear weapons, and civilian nuclear energy research and development activities, resulted in radioactive and other hazardous contamination. Together, these sites occupy approximately 2 million acres, which is equivalent to the land area of Rhode Island and Delaware combined. DOE reports that all response actions were complete at 75 sites as of the end of FY2002 at a cost of over \$60 billion, and that cleanup is expected to be complete at two additional sites by the end of FY2003. However, the sites that have been cleaned up are relatively small and are among the least hazardous, and the sites where cleanup remains underway contain some of the most severely contaminated areas. DOE estimates that, if program reforms are not initiated, cleanup at the remaining sites may take 70 years to complete, and that total cleanup costs may range from \$220 billion to as high as \$300 billion.

Five accounts within the annual appropriations bill for Energy and Water Development have traditionally funded DOE's Environmental Management Program. 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* calendar year 2006. The Defense Facilities Closure Projects Account supports cleanup and waste management activities at nuclear weapons sites where all response actions are scheduled to be complete by the *end* of calendar year 2006. The Defense Environmental Management Privatization Account funds cleanup and waste management projects at nuclear weapons sites that are performed under "privatization" contracts. This contracting approach relies on the private sector to construct and operate facilities or conduct cleanup actions on a fixed-price, fee-for-service basis. The Non-Defense Environmental Management Account funds cleanup and waste management activities at civilian nuclear energy research and development sites. Lastly, the Uranium Facilities Maintenance and Remediation Account funds the cleanup of uranium and thorium processing sites.

For FY2004, DOE has requested a total of \$7.2 billion for its Environmental Management Program, \$241 million more than the FY2003 enacted level of nearly \$7.0 billion. While an increase has been proposed, the budget request would alter the existing appropriations account structure in order to focus funding on efforts to accelerate cleanup schedules and lower costs. These efforts are part of DOE's

cleanup reform strategy which is based on assessing the risk of exposure to determine which cleanup remedies are selected. Risk is currently one of many factors that DOE uses to select cleanup remedies. Altering the current process to use risk as the primary factor could result in decisions to contain waste on site as a means of preventing exposure, rather than removing it. While containment can often be accomplished more quickly and at less cost, the possibility of future exposure remains if the method of containment fails over time.

The proposed accounts are structured according to the purposes of “Site Acceleration Completion” and “Environmental Services,” and there would be separate “Defense” and “Non-defense” accounts for each category. The Site Acceleration Completion accounts represent nearly \$6.0 billion of the total request, and would fund efforts to complete cleanup and close contaminated facilities at a faster pace than previously scheduled. The Environmental Services accounts would fund activities that indirectly support the mission of accelerated cleanup and closure, such as policy development and coordination, and the integration of mission activities across the complex of sites. DOE estimates that its cleanup acceleration strategy could save between \$50 billion and \$100 billion in total cleanup costs over the long term, and that the time frame for total site cleanup could be moved from 2070 to 2035.

While there has been widespread concern about the amount of time and money needed to clean up nuclear waste sites, questions have been raised as to how DOE would use a risk-based approach to accomplish its goals of faster and less costly cleanups without weakening environmental protection. Some have drawn attention to the possibility that basing the selection of cleanup remedies on risk alone might result in more contamination being left on site, rather than it being removed. Because of the substantial amount of time required for radioactive decay to occur, arguments have been raised that contamination left in place may migrate in unexpected ways over the long-term, and result in pathways of exposure that could not have been predicted when the remedy was originally selected. Others counter that completely removing radioactive contamination from all sites to permit unrestricted future land use, and eliminate all future pathways of exposure, would not be economically feasible, and in some cases would be beyond the capabilities of current cleanup technologies.

DOE first proposed a risk-based cleanup reform strategy as part of its FY2003 budget request. Numerous questions were presented during the FY2003 appropriations debate as to whether the use of risk-based approaches would provide adequate environmental protection. Prior to final action on FY2003 appropriations, DOE signed letters of intent with EPA and the states to accelerate cleanup at most of its sites. Some Members criticized DOE’s attempt to implement its cleanup reform strategy prior to the appropriation of funds as premature. While Congress did appropriate funding to honor these agreements, it provided the funds under the existing account structure rather than under a separate cleanup reform account that DOE had proposed. Some Members expressed concern about how the funds would have been distributed among the sites if DOE had been given an unallocated lump sum under a new account. Similar criticisms about the use of risk-based approaches to clean up nuclear waste sites, and DOE’s proposal to significantly alter the structure

of existing appropriations accounts to fund such approaches, may be raised during the FY2004 appropriations debate.

Civilian Nuclear Waste. The Bush Administration is requesting \$591 million for the DOE civilian nuclear waste disposal program for FY2004, a 30% boost over FY2003. The increased budget is intended primarily to pay for preparing a construction permit application for a national nuclear waste repository at Yucca Mountain, Nevada. DOE expects to submit an estimated 10,000-page application to the Nuclear Regulatory Commission (NRC) in December 2004. The additional funds are also needed for detailed repository design work, repository performance studies, and transportation planning, according to DOE.

DOE contends that it cannot meet its 2010 target date for shipping nuclear waste to Yucca Mountain without receiving its entire FY2004 budget request for the program. Between FY2005 and FY2010, funding will have to further increase to an average of \$1.3 billion per year, according to the budget justification. The Administration is proposing that discretionary spending caps be adjusted to accommodate the program's higher future funding.

The Nuclear Waste Policy Act of 1982 (NWPAct, P.L. 97-425) as amended, names Yucca Mountain as the sole candidate site for a national geologic repository. Following the recommendation of Energy Secretary Abraham, President Bush on February 15, 2002, recommended to Congress that DOE submit an application to NRC to construct the Yucca Mountain repository. Nevada Governor Guinn then exercised his right under NWPAct to submit a "notice of disapproval" (or "state veto") to Congress. Under NWPAct, the state disapproval would have blocked the Yucca Mountain site if a congressional approval resolution had not been signed into law within 90 days of continuous session. The approval resolution was signed July 23, 2000 (H.J.Res. 87, P.L. 107-200), allowing the Yucca Mountain project to proceed to the licensing phase.

Funding for the nuclear waste program comes from two sources. Under the FY2004 budget request, \$161.0 million would be provided from the Nuclear Waste Fund, which consists of fees paid by nuclear utilities, and \$430.0 million from the defense nuclear waste disposal account, which pays for disposing of high-level waste from the nuclear weapons program in the planned civilian repository.

The 2010 target for opening a permanent repository is 12 years later than the Nuclear Waste Policy Act deadline of January 31, 1998, for DOE to begin taking waste from nuclear plant sites. Nuclear utilities and state utility regulators, upset over DOE's failure to meet the 1998 disposal deadline, have won two federal court decisions upholding the Department's obligation to meet the deadline and to compensate utilities for any resulting damages. Utilities have also won several cases in the U.S. Court of Federal Claims, although specific damages have not yet been determined. (For details see CRS Issue Brief IB92059, *Civilian Nuclear Waste Disposal*.)

The State of Nevada has filed a variety of lawsuits to block the Yucca Mountain project, including a contention that the federal government lacks authority under the Constitution to force Nevada to accept the nation's nuclear waste.

Power Marketing Administrations. DOE's four Power Marketing Administrations (PMAs) developed during the 1930s out of the construction of dams and multi-purpose water projects that are operated by the Bureau of Reclamation and the Army Corps of Engineers. The original intention behind many of these projects was conservation and management of water resources, including irrigation, flood control, recreation and other objectives. However, many of these facilities generated electricity for project needs. The PMAs were established to market the excess power; they are the Bonneville Power Administration (BPA), Southeastern Power Administration (SEPA), Southwestern Power Administration (SWPA), and Western Area Power Administration (WAPA).

The power is sold at wholesale to electric utilities and federal agencies "at the lowest possible rates ... consistent with sound business practice," and priority on PMA power is extended to "preference customers," which include municipal utilities, co-ops and other "public" bodies. The PMAs do not own the generating facilities, but they generally do own transmission facilities, except for Southeastern. The PMAs are responsible for covering their expenses and repaying debt and the federal investment in the generating facilities.

The 104th Congress debated sale of the PMAs and did, in 1995, authorize divestiture of one PMA (the Alaska Power Administration Act, P. L. 104-58). There has been no press to dispose of the remaining PMAs, and none seems likely given the broader uncertainties governing electric utility restructuring.

Congress enacted a funding level of \$203.5 million in the FY2003 Consolidated Appropriations Resolution (P.L. 108-7), including an additional \$6.1 million for WAPA above the Administration's FY2003 request. The request for FY2004 is \$207.3 million – \$5.1 million for SEPA, \$28.6 million for SWPA, \$171 million for WAPA, and \$2.6 million for operation of hydroelectric facilities at the Falcon & Amistad Dams located on the Rio Grande River between Texas and Mexico. The increase in the FY2004 request over the enacted FY2003 spending level may be attributed to an increase of nearly \$10 million for Program Direction at WAPA. Workload requirements attributed to certain orders from the Federal Energy Regulatory Commission (FERC), and additional hires are cited as the justification for an increase of nearly 10% in higher salaries and benefits for WAPA in FY2004.

BPA receives no annual appropriation, but funds some of its activities from permanent borrowing authority, which was increased in FY2003 from \$3.75 billion to \$4.45 billion (a \$700 million increase). BPA is not requesting additional borrowing authority in FY2004. BPA intends to borrow \$528 million in FY2004, down from \$630.8 million in FY2003, to be used for generation and transmission services, conservation, energy efficiency, fish and wildlife, and capital equipment programs.

Title IV: Independent Agencies

Independent agencies that receive funding from the Energy and Water Development bill include the Nuclear Regulatory Commission (NRC), the Appalachian Regional Commission (ARC), and the Denali Commission.

**Table 10. Energy and Water Development Appropriations
Title IV: Independent Agencies**
(in millions of dollars)

Program	FY2003	FY2004 Request			
Appalachian Regional Commission	70.8	33.1			
Nuclear Regulatory Commission (Revenues)	585.0	626.1			
Net NRC	(526.5) 58.5	(545.6) 80.5			
Defense Nuclear Facilities Safety Board	18.9	19.6			
Nuclear Waste Technical Review Board	3.2	3.1			
Denali Commission	47.7	9.5			
Delta Regional Authority	7.9	2.0			
Total	206.7	147.9			

Key Policy Issues — Independent Agencies

Nuclear Regulatory Commission. The Nuclear Regulatory Commission (NRC) is requesting a total budget of \$626.1 million for FY2003, including \$7.3 million for the NRC inspector general’s office. The funding request would provide a 8.3% increase over FY2003. Major activities conducted by NRC include safety regulation and licensing of commercial nuclear reactors, licensing of nuclear waste facilities, and oversight of nuclear materials users.

In the wake of the September 11, 2001, terrorist attacks against the United States, NRC has focused additional attention on the security of nuclear power plants and other users of radioactive material. NRC’s FY2004 budget request includes \$53.1 million for activities related to homeland security, a 50% increase over FY2003. During FY2003, NRC plans to finish revising the nuclear plant security “design-basis threat” – the potential attacks that nuclear plants must be capable of withstanding. In FY2004, NRC intends to begin conducting “full security

performance reviews, including force-on-force exercises, at each nuclear power plant on a 3-year cycle instead of the 8-year cycle that the agency used before September 11, 2001.” (For more information on protecting licensed nuclear facilities, see CRS Report RS21131, *Nuclear Power Plants: Vulnerability to Terrorist Attack*.)

NRC proposes to spend \$33.5 million on licensing activities for possible new commercial reactors, which are being encouraged by DOE’s Nuclear Power 2010 program. The FY2003 appropriation provided about \$25 million for new reactor licensing, up from \$10 million in FY2002. According to the NRC budget justification, the funding will be used for early site permits (sites approved for future reactors), reactor pre-licensing and licensing reviews, and updating the nuclear licensing infrastructure.

For the decade before FY2001, NRC’s budget was offset 100% by fees on nuclear power plants and payments by other licensed activities, such as the DOE nuclear waste program. The nuclear power industry had long contended that the fee structure required nuclear reactor owners to pay for a number of NRC programs, such as foreign nuclear safety efforts, from which they did not directly benefit. To account for that concern, the FY2001 Energy and Water Development Appropriations Act (P.L. 106-377) included an NRC proposal to phase down the agency’s fee recovery to 90% during the subsequent 5 years – two percentage points per year. As a result, 92% of the FY2004 NRC request – minus \$33.1 million transferred from the Nuclear Waste Fund to pay for waste repository licensing – would be offset by fees on licensees.

For Additional Reading

CRS Issue Briefs

CRS Issue Brief IB88090. *Nuclear Energy Policy.*

CRS Issue Brief IB92059. *Civilian Nuclear Waste Disposal.*

CRS Issue Brief IB10041. *Renewable Energy: Tax Credit, Budget, and Electricity Production Issues*

CRS Issue Brief IB10019. *Western Water Resource Issues.*

CRS Issue Brief IB10072. *Endangered Species: Difficult Choices.*

CRS Issue Brief IB10091. *Nuclear Nonproliferation Issues.*

CRS Reports

CRS Report RS20702. *South Florida Ecosystem Restoration and the Comprehensive Everglades Restoration Plan.*

CRS Report RL30928. *Army Corps of Engineers: Reform Issues for the 107th Congress.*

CRS Report RS20569. *Water Resource Issues in the 107th Congress.*

CRS Report RS20866. *The Civil Works Program of the Army Corps of Engineers: A Primer.*

CRS Report RL31116. *Water Infrastructure Funding: Review and Analysis of Current Issues.*

CRS Report RL31215. *Bonneville Power Administration's Authority to Borrow from the U.S. Treasury.*

CRS Report RL30478. *Federally Supported Water Supply and Wastewater Treatment Programs.*

CRS Report RS21026. *Terrorism and Security Issues Facing the Water Infrastructure Sector.*

CRS Report RS21131. *Nuclear Powerplants: Vulnerability to Terrorist Attack.*

CRS Report RL31098. *Klamath River Basin Issues: An Overview of Water Use Conflicts.*