Appropriations for FY1999: Energy and Water Development

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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. In addition, the line item veto took effect for the first time in 1997.

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 Development Appropriations. 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.

This report is updated as soon as possible after major legislative developments, especially following legislative action in the committees and on the floor of the House and Senate.

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Appropriations for FY1999:
Energy and Water Development

Summary

The Energy and Water Development appropriations bill includes funding for civil projects of the Army Corps of Engineers, the Department of the Interior's Bureau of Reclamation, much of the Department of Energy (DOE), and a number of independent agencies, including the Appalachian Regional Commission, the Nuclear Regulatory Commission (NRC), and the appropriated programs of the Tennessee Valley Authority (TVA). The Administration requested $21.7 billion for these programs for FY1999 compared with $21.0 billion appropriated for FY1998 and $19.97 billion for FY1997. The Senate, by a vote of 98-1, approved the Energy and Water bill (S. 2138) on June 18, 1998, for a total of $21.4 billion. The House , by a vote of 405-4 approved its version of the bill (H.R. 4060) on June 22, 1998 for $21.1 billion. The conference agreement, appropriating $21.2 billion, was reported out September 25, 1998. The conference report (H.Rept. 105-749) was approved by the House September 28, 1998, and approved by the Senate September 29, 1998. The President signed the bill October 7, 1998.

Key issues involving the Energy and Water Development appropriations programs included:

- Sharp cuts in the Corps of Engineers construction request. However, the House and Senate prevailed in supporting $1.43 billion, nearly double the amount of the request.

- Significant proposed increases in DOE's research and development programs and in the nuclear weapons program. Increases over FY1998 were approved by Congress, but the amount agreed to was 3.1% below the Administration's request. The nuclear weapons budget was hiked by about $300 million over the FY1998 amount.

- DOE's proposed "accelerated cleanup" of former weapons sites. Environmental cleanup programs were supported at near the level of the DOE request. However, the requested amount for the privatization of DOE waste management projects was cut in half by Congress.

- Increased funding for nuclear energy programs. Congress supported funding for nuclear energy programs at $41 million over FY1998 but $42 million less than the DOE request.

- Continued funding of TVA's non-power programs. Funding for TVA was not included in the Energy and Water Development bill for FY1999.

The FY1999 Omnibus Appropriations Act (P.L. 105-277) added money to several programs funded in the Energy and Water Appropriations bill, including the Corps of Engineers, DOE's renewable energy program and its defense activities program, and TVA. This additional funding is not incorporated in the budget tables that follow, but significant changes are noted in the text under Key Policy Issues.

Key Policy Staff

Area of Expertise	Name	CRS Division	Telephone
Corps/Bureau of Reclamation	Betsy Cody	ENR	7-....
General	(name redacted)	ENR	7-....
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Division abbreviations: ENR = Environment and Natural Resources; STM = Science, Technology, and Medicine.

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Most Recent Developments

The President submitted his budget for FY1999 on February 2, 1998. In it was $21.7 billion for energy and water development programs. The request was larger than the FY1998 appropriation of $21.2 billion. The Senate Appropriations Committee reported out its funding levels for energy and water programs on June 5, 1998 (S. 2138, S.Rept. 105-206). The committee approved funding of nearly $21.4 billion for FY1999. The House Appropriations Committee reported its version on June 16, 1998 (H.R. 4060, H.Rept. 105-581); it would fund energy and water programs at $21.1 billion for FY1999. The figures above do not include scorekeeping adjustments. The Senate approved S. 2138 for $21.4 billion on June 18,1998 by a vote of 98-1. A floor amendment added $70 million to the solar and renewable energy program and offset the increase by reductions in other non-defense energy programs. The House approved its version of the bill (H.R. 4060) by a vote of 405-4 on June 22, 1998 for $21.1 billion. The conference agreement, for $21.2 billion, was reported out (H.Rept. 105-749) on September 25, 1998, approved by the House on September 28, 1998, and approved by the Senate one day later, September 29, 1998. The President signed the bill (P.L. 105-245) October 7, 1998.

The FY1999 Omnibus Appropriations Act (P.L. 105-277) added money to several programs funded in the Energy and Water Appropriations bill, including the Corps of Engineers, DOE's renewable energy program and its defense activities program, and TVA. This additional funding is not incorporated in the budget tables that follow, but significant changes are noted in the text under Key Policy Issues.

Status

Table 1. Status of Energy and Water Appropriations, FY1999

Subcommittee Markup		House	House	Senate	Senate	Conference	Conference Report Approval		
House	Senate	Report	Passage	Report	Passage	Report	House	Senate	Public Law
6/10/98	6/2/98	6/16/98 H.Rept. 105-581	6/22/98 H.R. 4060	6/5/98 S.Rept. 105-206	6/18/98 S. 2138	9/25/98 H. Rept. 105-749	9/28/98	9/29/98	10/7/98 P.L. 105-245

Table 2. Energy and Water Development Appropriations, FY1992 to FY1999

(budget authority in billions of current dollars)*

FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99
21.8	22.2	22.3	20.7	19.3	19.97	21.2	21.2

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

This table includes FY1999 budget request figures and budget totals for appropriations enacted for FY1992 to FY1998. The tables for Titles I, II and III provide budget details for FY1997 - FY1999.

Title I: Corps of Engineers

Table 3. Energy and Water Development Appropriations
Title I: Corps of Engineers
(in millions of dollars)

Program	FY1998	FY1999 Request	S. 2138	H.R. 4060	P.L. 105-245
Investigations	156.8	150.0	165.4	162.8	161.7
Construction	1,473.4	784.0	1,248.1	1,452.6	1,429.9
Flood Control, Mississippi River	296.2	280.0	313.2	312.0	321.1
Operation and Maintenance	1,740.0	1,603.0	1,667.6	1,640.5	1,653.3
Regulatory	106.0	117.0	106.0	110.0	106.0
Flood Control and Coastal Emergencies	4.0	0	0	0	0
General Expenses	148.0	148.0	148.0	148.0	148.0
FUSRAP	140.0	140.0	140.0	140.0	140.0
Total	4,169.6	3,222.0	3,788.3	3,966.0	3,860.0

Key Policy Issues

Funding for the Corps of Engineers civil programs is often a contentious issue between the Administration and the Congress, with appropriations typically ending up significantly higher than the amount requested. For FY1998, for example, the Congress added $270 million (7%) to the $3.63 billion requested by the Administration.

The FY1999 request of $3.22 billion is more than $800 million less than the amount appropriated last year. Most of that reduction is in the Corps' construction budget, which was cut almost in half compared with FY1998 appropriations. As a result, construction funding has been a major issue in the Corps' appropriation legislation for FY1999. For example, both the House and Senate appropriations Committees described the Administration's request for a limited construction budget as "irresponsible" (H.Rept. 105-581, H.R. 4060; and S.Rept. 105-206, S. 2138).

The House-Senate conference agreement included a total of $3.86 billion for the Corps for FY1999, $638 million more than requested. The conference committee recommendation was $106 million less than recommended by the House and $72

million more than recommended by the Senate. The recommended construction budget was $1.43 billion — nearly double what was requested by the Administration.

The House originally supported a substantial decrease in funding for Columbia River fish mitigation activities on the grounds that previous efforts have shown "no clear evidence" of success. The Administration had requested $117 million for FY1999. The House recommended $7.8 million, limiting expenditures to the completion of the John Day drawdown study and the lower Snake River feasibility study; the Senate recommended $95 million. The conference committee has recommended $60 million for Columbia River fish mitigation. Funds are to be used for phase I of the John Day Reservoir drawdown study, and continuation of the Snake River feasibility study and ongoing construction.

The conference agreement also included $5 million for construction of an emergency outlet from Devils Lake, North Dakota; however, it deletes Senate language describing the appropriation as an emergency requirement. The Senate had recommended up to $8 million for the project.

The FY1999 Omnibus Appropriations Act (P.L. 105-277) added funding to a number of Corps projects, including an additional $35 million for Columbia River fish mitigation. It also added a prohibition on the use of any funds to study or implement a plan to drain Lake Powell or decommission the Glen Canyon Dam.

Title II: Department of the Interior

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

Program	FY1998	FY1999 Request	S. 2138	H. R. 4060	P.L. 105-245
Central Utah project completion	28.8	22.5	28.2	24.2	25.7
Utah reclamation mitigation/conservation account	11.6	17.5*	15.5*	15.5*	15.5
Program administration	.8	1.3	1.3	1.3	1.3
Total, Central Utah Project	41.2	41.0	45.0	41.0	42.5

* Includes funds available for Utah Reclamation Mitigation and Conservation Commission activities and $5 million for the contribution authorized by §402(b)(2) of the Central Utah Project Completion Act (P.L. 102-675).

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

Program	FY1998	FY1999 Request	S. 2138	H. R. 4060	P.L. 105-245
Water and related resources	694.4	640.1*	672.2*	596.3*	617.0
California Bay-Delta (CALFED)	85.0	143.3	65.0	75.0	75.0
Loan program account	10.4	12.4	12.4	12.4	8.4
General Admin. Expenses	47.6	48.0	48.0	46.0	47.0
Central Valley Project (CVP) Restoration Fund	33.1	49.5	39.5	33.1	33.1
Subtotal	870.5	893.3	837.1	762.8	**780.5**
Colorado River Dam Fund (transfer of current authority to WAPA)	(5.6)	0	0	0	0
Gross Current Authority	864.9	893.3	837.1	762.8	**780.5**
CVP Restoration Fund Offset	(25.7)	41.0	**	**	**
Net Current Authority, BuRec	839.2	852.3	837.1	762.8	780.5

* Does not reflect appropriations derived from transfer of $25.8 million from the Working Capital Fund.
** The Office of Management and Budget and the Congressional Budget Office disagree as to whether there is an offset for this fund.

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 (Bureau). Where the Corps has built hundreds of flood control and navigation projects, the Bureau's mission was to develop water supplies and to reclaim arid lands in the West, primarily for irrigation. Today, the Bureau manages more than 600 dams in 17 western states, providing water to approximately 10 million acres of farmland and 31 million people.

The Bureau has undergone many changes in the last 15 years, turning from largely a dam construction agency to a self-described water resource management agency. The agency describes the "intent" of its programs and projects as follows:

- to operate and maintain all facilities in a safe, efficient, economical, and reliable manner;
- to sustain the health and integrity of ecosystems while addressing the water demands of a growing west; and
- to assist states, tribal governments, and local communities in solving contemporary and future water and related resource problems in an environmentally, socially, and fiscally sound manner.

In practice, however, the agency is somewhat limited in how it can address new demands and new priorities because of numerous statutes, compacts, and existing contracts, which together govern the delivery of water to project users. Consequently, any proposal to change Bureau water allocation or water management policies often becomes difficult to implement and extremely controversial.

Key Policy Issues

The Administration requested an appropriation of $852 million for FY1999 (net current budget authority), approximately $13 million more than enacted for FY1998. The Administration has again requested $143.3 million for the California Bay-Delta Ecosystem Restoration program (CALFED). Although funding for the CALFED program has been requested within the Bureau's budget, the appropriation will be allocated among several federal agencies. It is expected that the majority of funding will go to the Bureau and the Corps.

The FY1999 request included no new money for the Animas-La Plata project, a controversial water supply project in southwestern Colorado. Rather, the proposed budget would allocate $3 million in existing appropriations authority for ongoing preconstruction work while changes to the project's construction authorization are under consideration.

The House-Senate conference agreement included $780.5 million in net current authority for the Bureau for FY1999 -- $71.5 million less than requested, and $58.7

million less than enacted for FY1998. The Senate had recommended an appropriation of $837.1 million; the House had recommended an appropriation of $762.8 million.

The conferees agreed upon $75 million for the CALFED program, which is $68.3 million less than requested. On a related matter, the conferees direct the Department of the Interior to provide as soon as possible an implementation plan for the Anadromous Fish Restoration Plan required under the Central Valley Project Improvement Act (CVPIA, P.L. 102-575, Title 34).

The conference agreement included $3 million for resource management and development for the Animas-La Plata project, the same amount as requested.

The Senate Appropriations Committee report took issue with several other items within the Bureau's budget, including: 1) recommending a reduction of $3.5 million in fish and wildlife coordination, mitigation, and native species activities associated with the Central Arizona Project; 2) directing the Department of the Interior to keep constant budget levels for the Grand Canyon Monitoring and Research Center to avoid unauthorized expansion of the program; 3) prohibiting the Bureau from using funds for evaluations of current practices, with an aim towards finding ways to manage competing demands for water; and 4) directing the agency to explore ways to consolidate ecosystem restoration activities carried out under the CVPIA.

The House Appropriations Committee report included language encouraging the Bureau to better coordinate ecosystem activities carried out through the CALFED program and under CVPIA. The House Committee also admonished the Bureau for its declining focus on water resources infrastructure and transformation to a "water resources management and protection" agency; however, it also notes that the West has largely been reclaimed and that "serious consideration is due the question of the Bureau's ... role in this fully developed region ...".

Title III: Department of Energy

Table 6. Energy and Water Development Appropriations Title III: Department of Energy

(in millions of dollars)

Program	FY1998 Approp.	FY1999 Request	S. 2138*	H.R. 4060	P.L. 105-245
Energy Supply R&D					
Solar and Renewable	346.3	437.2	415.3	351.4	365.9
Nuclear Energy	243.0	325.7	308.7	227.8	284.0
Fusion Energy (see General Sci. below)	232.0	228.2	—	232.0	
Other	171.2	155.0	73.6	151.1	175.1
Subtotal	992.5	1,146.0	—	962.3	825.0
adjustments	(85.7)	(17.0)	—	(79.5)	(98)
Subtotal	906.8	1,129.0	797.6	882.8	727.0
Uranium Enrichment					
Uranium Enrichment D&D	220.2	277.0	200.0	225.0	220.2
General Science					
High Energy Physics	680.0	691.0	691.0	696.5	696.5
Nuclear Physics	320.9	332.6	332.6	335.1	335.1
Basic Energy Sciences	668.2	836.1	836.1	779.1	809.1
Bio. & Env. R&D	406.7	392.6	407.6	405.9	443.6
Fusion (see energy supply R&D)	—	—	232.0	—	223.3
Other	255.0	218.2	127.7	182.9	175.3
Subtotal	2,235.7	2,470.5	2,627.3	2,399.5	2,682.9
Environ. Res. & Waste Management, non-defense	497.0	462.0	424.6	466.7	431.2

Program	FY1998 Approp.	FY1999 Request	S. 2138*	H.R. 4060	P.L. 105-245
Defense Environmental Restoration and Waste Management	4,379.5	4,259.9	4,293.4	4,358.5	4,310.3
Defense Facilities Closure Projects	890.8	1,006.2	1,048.2	1,038.2	1,038.2
Environmental Restoration Privatization	200.0	516.9	241.9	286.9	228.4
National Security (Weapons)	4,146.7	4,500.0	4,445.7	4,142.1	4,400.0
Other National Security	1,638.8	1,667.2	1,658.2	1,761.3	1,696.7
Departmental Admin.(net)	87.4	109.3	102.0	38.8	63.9
Office of Inspector General	27.5	29.5	27.5	14.5	29.0
Power Marketing Admin.					
Alaska	13.5	0	5.0	0	0
Bonneville (non-add, capital obligations)	253.0	258.0	258.0	258.0	
Southeastern	12.2	8.5	8.5	8.5	7.5
Southwestern	25.2	26.0	26.0	24.7	26.0
Western	189.0	215.4	215.4	205.0	203.0
Colorado River Basin (net)	-16.1	-16.1			—
Falcon & Armistad O&M	1.0	1.0	1.0	1.0	1.0
FERC (revenues)	165.6 (165.6)	168.9 (168.9)	168.9 (168.9)	166.5 (166.5)	167.5 (167.5)
Nuclear Waste	350.0	380.0	375.0	350.0	358.0
Adjustments	1.6	0	(27.5)		
Total, Title III	15,943.1	17,070.4	16,474.0	16,203.5	16,423.3

*Senate bill increased solar and renewable funding by $70 million and decreased other programs by 1.6%. Not all line item figures reflect the 1.6% reduction.

Key Policy Issues

Research and Development Programs. For FY1999, DOE requested $6.78 billion for civilian and defense R&D activities, 10.8% above the FY1998 level. For civilian R&D programs, the request was $3.49 billion compared with $3.10 billion for FY1998, and for defense R&D (nuclear weapons) programs, the request was $3.28 billion compared with $3.02 billion for FY1998.

The Senate approved $6.58 billion for R&D, 3% below the request but 8.7% above FY1998. The House approved $6.51 billion for R&D, 3.6% below the request but 6.4% above FY1998. The Conference agreed upon $6.55 billion, 3.4% below the request but 8.1% above FY1998. Of that amount, the conferees directed that about $93.7 million should come from prior year funds. The actions suggest strong congressional support for basic research.

Energy Resource R&D. For programs under this heading, DOE requested a 17.5% increase for FY1999 compared to the FY1998 appropriation. DOE made this program a key element in the Administration's Climate Change Technology Initiative (CCTI) program. During the appropriations process, Congress expressed concern about whether support of the Initiative implied a commitment to the Kyoto accord.

The Senate approved $415.3 million for this program, including the $47.9 million funded under the Basic Energy Sciences (BES) program. An amendment approved on the Senate floor added $69.8 million to the Appropriations Committee recommendation. The appropriation was about 5% below the request but about 20% above FY1998.

The House approved $351.6 million, including the $47.9 million funded by BES. The Committee expressed concern about the CCTI technology choices and urged DOE to focus more on long-term basic research rather than trying to commercialize technologies not yet ready for the market.

The conference approved $365.9 million including the $47.9 million funded by BES. Most of the funds added by a Senate floor amendment were not agreed to by the conferees.

The FY1999 Omnibus Appropriations Act (P.L. 105-277) added $60 million to DOE's renewable energy programs.

Nuclear Energy. For nuclear energy programs — including research and development, closing of surplus facilities, uranium programs, and international nuclear reactor safety — the conference report provides $284 million, about $40 million below the DOE request. The conferees provided $19 million for a new DOE program to support innovative nuclear energy research projects (the "nuclear energy research initiative"), but nothing for a proposed program to improve the economic competitiveness of existing nuclear power plants ("nuclear energy plant optimization").

DOE's nuclear energy request, including the nuclear power initiatives, had been approved essentially intact by the Senate. However, the House had cut the Administration request by nearly $100 million, including a reduction of the nuclear energy research initiative to $5 million and rejection of the nuclear plant optimization program.

DOE justified its efforts to encourage the continued operation of commercial U.S. nuclear plants as an important element in meeting national goals for reducing carbon dioxide emissions, an argument strongly endorsed by the Senate panel. Because nuclear plants directly emit no carbon dioxide, the

United States could reduce its annual emissions of carbon by up to 47 million metric tons if nuclear plants could be operated longer than currently anticipated, according to the DOE budget justification. Opponents have criticized the nuclear energy research proposals as providing wasteful subsidies to a failing industry. A similar nuclear research program proposed by DOE last year was rejected by Congress.

Funding for "electrometallurgical treatment" of DOE spent fuel has also drawn controversy. The conferees provided $45 million for the technology in FY1999. In that treatment process, metal fuel is melted and highly radioactive isotopes are electrically separated from uranium and plutonium. DOE contends that such treatment may be the best way to render certain types of spent fuel — particularly from the closed Experimental Breeder Reactor II in Idaho — safe for long-term storage and disposal.

Opponents contend that such treatment is unnecessary and that the process could be used for separating plutonium to make nuclear weapons. They note that the process uses much of the same technology and equipment developed for the plutonium-fueled Integral Fast Reactor, or Advanced Liquid Metal Reactor, which was canceled by Congress in 1993 partly because of concerns about nuclear weapons proliferation.

The conferees provided $3 million from the fissile materials control and disposition program for a joint U.S.-Russian project to develop an advanced reactor technology — the gas-turbine modular helium reactor — to destroy weapons plutonium. Russia would have to provide matching funds or equivalent in-kind contributions.

Science. DOE asked for an 11.1% increase for the basic research programs making up the science category. The largest increase, $167.6 million or 25.1%, was for the Basic Energy Sciences program. Most of that increase, $130 million, would be to begin construction of the spallation neutron source (SNS), which is designed to provide neutrons for use in research ranging from genetics to advanced materials. The facility is to cost $1.3 billion when completed in 2005. The High Energy Physics program requested a $30 million increase — to $65 million — for the U.S. contribution to the large hadron collider project at the Center for European Nuclear Research (CERN). Overall the HEP program asked for an $11 million increase.

The Senate appropriated $2.67 billion for the DOE for the science programs including the entire request for the SNS project for FY1999. This amount includes the Fusion Energy Sciences program account, which the Senate moved from the Energy Supply R&D account to the Science account. It also includes a 1.585% cut imposed by the amendment to help offset increased funding for solar and renewable energy R&D. Finally, another amendment adopted by the Senate added $7 million to the science total recommended by the Senate Appropriations Committee. The final appropriation was about 6% over the FY1998 appropriation.

The House appropriated $2.42 billion, 2.8% below the request, but 5.6% above FY1998. In making the recommendation, the Committee noted its strong support for DOE basic research programs. The House, while supporting the SNS, cited budget constraints in approving $100 million for FY1999 compared to the $157 million request. The House also declined to fund the request for DOE's portion of the Next Generation Internet initiative.

The conference agreed to $2.70 billion, 2.5% below the request but 7.1% above FY1998. The large increase above the House-approved amount was due primarily to the transfer of the Fusion Energy Science program from the Energy Supply R&D programs to the Science programs. The

conferees approved $130 million for the SNS, $27 million below the request but above the House approved amount. In the fusion budget, the conferees included funds to complete R&D on the International Thermonuclear Reactor (ITER) project, but directed DOE not to sign an extension of the ITER agreement without written consent of Congress. The conferees also approved the House mark for the high energy and nuclear physics programs, which would provide a small increase above the request. The conferees did not provide any funds for DOE's portion of the Administration's Next Generation Internet initiative.

National Security R&D. DOE requested an 11.5% increase for Stockpile Stewardship and Maintenance (SSM) over FY1998. The Stockpile Stewardship program, which is charged with developing the scientific basis for maintaining the safety, reliability, and performance of the existing nuclear weapons stockpile in the absence of nuclear testing, requested a 17.8% increase over FY1998, most of which would go to the accelerated strategic computing initiative (ASCI) and continued construction of the national ignition facility (NIF). The ASCI program is designed to develop computer facilities and codes that are capable of simulating nuclear weapon explosions including changes in the explosion characteristics resulting from aging of the stockpile.

The Senate approved a reduction of $25 million from the request for the Stockpile Stewardship program, all of which would be in the ASCI account. The Senate expressed concern that the ASCI effort is growing faster than justified and that such growth may adversely affect other parts of the program.

The House supported a reduction of $65 million for the Stockpile Stewardship program from the request. The House committee expressed concern about the management of the program and existence of extraneous activities. The reduction, it stated, could be absorbed by greater efficiencies and management improvements. The House also directed that $305 million of prior year carryover balances be used for the FY1998 appropriation.

The conferees agreed on $2.14 billion for the Stockpile Stewardship program, half-way between the House and Senate marks. The reduction below the request, $40 million, was directed at the ASCI program and construction of new facilities. The conferees directed DOE to undertake an independent cost assessment of the latter projects before expending any FY1999 funds on them.

Environmental Management. DOE's Environmental Management Program (EM) is responsible for cleaning up environmental contamination and disposing of radioactive waste at DOE nuclear sites. The conferees voted to provide $5.58 billion for EM activities at defense-related sites, and $431 million for non-defense sites, both about the same as the DOE request. The defense-related funding includes $228 million for the "privatization" of DOE waste management projects, such as the solidification of high-level radioactive waste at Hanford, Washington — less than half the DOE request.

The FY1999 EM budget request was the first to reflect the program's new accelerated cleanup strategy, which attempts to maximize the number of sites that can be completely cleaned up by 2006. DOE managers contend that substantial long-term savings can be gained by focusing on completing work at those sites, allowing the earliest possible termination of infrastructure costs. Based on that strategy, the budget request was divided into three major segments:

- Site closure. Under the conference agreement, this account provides $1 billion for cleanup of sites that can be completely closed by 2006, including Rocky Flats, Colorado; Fernald, Ohio; and Grand Junction, Colorado.

- Site/project completion. The $1 billion in this account was provided for individual cleanup projects that can be completed by 2006, but are located at DOE sites that will continue operating after 2006.

- Post-2006 completion. Despite the accelerated cleanup plan, several large EM projects are projected to continue well after 2006. As a result, this is the largest EM funding area, totaling $2.74 billion. Many of the large waste management projects included in the separate privatization funding request would also continue operating after 2006.

The accelerated cleanup plan has drawn opposition from some environmental groups because of concerns that its focus on 2006 might result in insufficient cleanups. In the program's FY1999 budget justification, DOE maintained that the requested funding would be sufficient to meet environmental requirements at most sites, although it added, "At some sites, there is a small gap between compliance requirements and available funding. EM therefore is striving for additional efficiencies and other measures to close this gap."

Two-thirds of the EM privatization funding request would go for Phase 1 of the Hanford Tank Waste Remediation System, consisting of a pilot vitrification plant that would turn liquid high-level waste into radioactive glass logs for eventual disposal. Other major privatized projects include a project to treat "mixed" radioactive and hazardous waste at the Idaho National Engineering and Environmental Laboratory, and waste treatment, storage, and disposal facilities at Oak Ridge, Tennessee.

The EM privatization effort is intended to reduce costs by increasing competition for cleanup work and shifting a portion of project risks from the federal government to contractors. Profits to contractors would depend on their success in meeting project schedules and holding down costs; potentially, profits could be substantially higher than under traditional DOE contracting arrangements.

In a typical non-privatized DOE project, a contractor would be hired to build and operate a facility with government funds. DOE would approve and pay all the contractor's costs, and then award the contractor a profit based on performance. Under the privatization initiative, a contractor would be expected to raise almost all funding for necessary facilities and equipment for a project. The contractor would recover that investment and earn a profit by charging previously negotiated fees to DOE for providing services under the contract, such as solidification of radioactive waste. The contractor could earn higher profits by reducing costs, but the contractor could lose money if project costs were higher than expected or the required services were not delivered.

DOE requested more than $1 billion last year for privatized projects, but Congress provided only $200 million. The strong congressional resistance to the request stemmed largely from concerns about providing such a large amount of up-front funding for contracts that had not yet been fully negotiated in many cases. The contracts are to spell out such crucial details as how much risk for project cost overruns and other problems that DOE would continue to bear.

In response to such criticism, DOE promised in the FY1999 budget justification to submit proposed privatization contracts to Congress for review at least 30 days before they are signed. Contract information submitted for such reviews is to include anticipated costs and fees, performance specifications, activities to be carried out, project schedules, goods or services to be delivered, and estimated cost savings. DOE also promised to establish its own review teams to examine requests for proposals and contracts for privatization projects, to procure and disseminate independent cost-

savings estimates, to increase training for DOE oversight of privatized contracts, and to assure that contractors hire sufficiently experienced personnel. Nevertheless, the conferees cut the DOE privatization request by more than half.

Civilian Nuclear Waste Disposal. The conference report provides $358 million in FY1999 for developing a disposal site for highly radioactive spent fuel from nuclear power plants and weapons-related high-level waste — about the same as the FY1998 level. The Senate had voted to cut the request by $5 million, while the House, citing "severe budget constraints" held the program to level funding.

The FY1999 budget request was issued shortly after DOE missed a statutory deadline of January 31, 1998, to begin taking waste from nuclear plant sites. The Department currently expects to begin receiving waste at an underground disposal facility at Yucca Mountain, Nevada, by 2010 if the site is found suitable. 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.

The House and Senate passed similar bills last year (S. 104, H.R. 1270) to require DOE to build an "interim" waste storage facility near Yucca Mountain that could begin operating within the next few years. The Clinton Administration has threatened to veto the legislation, contending that Yucca Mountain should not be selected for waste storage until the site has been determined to be acceptable for permanent disposal. DOE plans to complete a "viability assessment" of the site in 1998 and, if the site is found suitable, submit a license application to the Nuclear Regulatory Commission in 2002. Passage of the nuclear waste legislation in the 105th Congress was blocked by the Senate's rejection of a cloture motion on H.R. 1270 on June 2, 1998.

DOE contends that under current law it has no authority to take waste for temporary storage, so the FY1999 budget request did not include funding for near-term waste acceptance activities, despite the recent court rulings on the missed disposal deadline. Instead, storage and transportation funds were requested only for "long-lead time activities that must precede removal of spent nuclear fuel (SNF) from reactor sites once a Federal facility becomes available."

The conferees directed that $165 million of the nuclear waste program's funding come from the Nuclear Waste Fund, which holds fees assessed on nuclear power generation to pay for spent fuel disposal. Another $189 million would be appropriated from general revenues, under "Defense Nuclear Waste Disposal," to cover disposal costs for high-level radioactive waste from nuclear weapons production. The remaining $4 million would come from general revenues to pay for research on treating high-level radioactive waste with advanced particle accelerators. Such treatment would be intended to transmute long-lived radioactive waste into shorter-lived isotopes.

The conference agreement rejected all but $250,000 of DOE's nearly $5 million request for funds for the State of Nevada to monitor the Yucca Mountain Project. Congress denied all such funding for FY1998 because of concerns that the state was using it to fight the waste program. The conferees provided $5.5 million to be disbursed directly to local governments near Yucca Mountain to monitor the project.

National Security Programs — Russian Plutonium and Uranium. The FY1999 Omnibus Appropriations Act (P.L. 105-277) added $525 million for DOE's "other defense activities" to address the issue of uranium and plutonium from excess Russian nuclear weapons. The uranium is

to be purchased for DOE stockpiles, while the plutonium funding would help pay for facilities in Russia to begin converting plutonium components from warheads into fuel for nuclear reactors.

The bill provides $325 million for purchasing natural uranium that is associated with ongoing purchases of highly enriched uranium (HEU) from Russian warheads. Under the HEU agreement, the U.S. Enrichment Corporation (USEC) buys the enriched Russian uranium and gives back an equivalent amount of natural (unenriched) uranium, which the Russians can then sell. However, the Russians have complained that the price for natural uranium has been depressed by USEC's plans to sell large amounts of natural uranium on the world market. USEC, formerly a government corporation, received that uranium from DOE stockpiles as part of its recent privatization.

To keep the Russians from backing out of HEU agreement, the new funding would allow DOE to purchase the natural uranium associated with Russia's 1997 and 1998 deliveries of enriched uranium deliveries to USEC. However, the DOE natural uranium purchases cannot be made until Russia reaches a long-term agreement for the commercial sale of natural uranium associated with all enriched uranium deliveries after 1998.

Regarding Russian plutonium, the bill provides $200 million to begin implementing a U.S.-Russian accord on disposition of plutonium from surplus nuclear weapons. Presidents Clinton and Yeltsin signed a joint statement of principles on the issue in September 1998, with the goal of reaching a detailed bilateral agreement by the end of the year. The funding is expected to help Russia design and construct facilities to convert plutonium weapons components into mixed-oxide fuel for nuclear reactors, but the details of the program will not be known until the U.S.-Russian agreement is finalized. As a result, the bill withholds the plutonium funding until DOE submits a detailed budget justification and receives approval from the House and Senate Appropriations Committees.

Title IV: Independent Agencies

Table 7. Energy and Water Development Appropriations
Title IV: Independent Agencies
(in millions of dollars)

Program	FY1998 Approp.	FY1999 Request	S. 2138	H.R. 4060	P.L. 105-245
Appalachian Regional Commission	170.0	67.0	67.0	65.9	66.4
Nuclear Regulatory Commission	472.8	486.9	466.0	462.7	465.0
(Revenues)	(454.4)	(152.3)	(416.0)	(444.7)	(444.8)
Net NRC	18.0	334.5	50.0	18.0	20.2
Tennessee Valley Authority (gross)	70.0	76.8	70.0	—	0
Defense Nuclear Facilities Safety Board	17.0	17.5	17.5	16.5	16.5
Nuclear Waste Technical Review Board	2.6	3.0	2.6	2.6	2.6
Total	277.6	498.8	227.1	103.0	105.7

Key Policy Issues

Tennessee Valley Authority. The Tennessee Valley Authority (TVA) was established as a federal corporation in 1933 to bring electricity and development to a region encompassing the entirety of Tennessee, and portions of Kentucky, Virginia, North Carolina, Georgia, Alabama, and Mississippi. The agency's electric power operations are entirely self-supporting and receive no appropriation.

However, TVA is also responsible for certain non-power functions that are intended to further the agency's mission to develop and conserve the region's natural resources. These include flood control, recreation, navigation, and an Environmental Research Center. Among these, TVA operates more than 50 dams and reservoirs and a 170,000 acre recreational area in Kentucky and Tennessee, Land Between the Lakes. The congressional appropriation for these programs was $106 million for FY1997, representing 2% of the agency budget.

In January 1997, TVA Chairman Craven Crowell proposed that TVA prepare to become a higher-profile player in a deregulated market for electricity. Crowell's proposal was that Congress no longer appropriate funds to TVA for non-power activities beginning in FY1999. An internal TVA task force would recommend which functions would be transferred to other agencies and which would be eliminated. The Administration proposed a reprogramming of FY1997 funds appropriated

to the Corps of Engineers to jointly study with TVA how the agency's assets and functions should be reassigned to the Corps and other appropriate agencies.

Chairman Crowell's proposal not only stirred up considerable controversy, it also exposed the existence of TVA itself to challenge. While representatives from the Tennessee Valley region are averse to any risk to non-power programs, the Chairman's proposal to shed non-power programs, TVA opponents have argued, would be an abrogation of TVA's mission. If the mission is no longer appropriate, the argument extends, neither is the agency.

The unintended consequence of Chairman Crowell's proposal was that the conferees on the FY1998 Energy and Water Appropriations recommended an appropriation of $70 million for FY1998, but stipulated that TVA would thereafter absorb the entire cost of these programs through "internally generated revenues and savings." Despite the language in the conference report, and pending further consideration of the future of TVA and its non-power programs, the Administration requested $77 million for TVA non-power programs for FY1999.

The Senate funded TVA at $70 million while the House bill provided no funding. The conferees adhered to the House position and, in addition, provided no funding for Land Between the Lakes. Additionally, the conferees required that if, in the absence of an appropriation, TVA deemed a rate increase necessary to fund these programs, a report would have to be submitted to Congress assessing whether transferring stewardship of facilities along the Tennessee River to the Army Corps of Engineers would alleviate or eliminate the need for a rate increase. The conferees further required that this report be submitted 6 months before the rate increase would go into effect.

The FY1999 Omnibus Appropriation Act (P.L. 105-277) restored $50 million to TVA non-power programs. In addition, the Act includes a debt-refinancing plan that would enable TVA to prepay its obligations to the Federal financing Bank without penalty, estimated to save the agency $100 million in interest payments during each of the next 10 years.

The consequences of this turnaround for TVA when the 106th Congress considers electricity deregulation legislation are difficult to predict. TVA's critics may continue to urge that TVA be extensively reorganized as part of any deregulation package. On the other hand, supporters suggest that if TVA takes full advantage of the opportunity to reduce its debt and operates more efficiently, the agency may come under less intense pressure in the next Congress.

Nuclear Regulatory Commission. The conference agreement gives the Nuclear Regulatory Commission (NRC) $470 million for FY 1999, about $20 million below the budget request. Major activities conducted by NRC include regulation of commercial nuclear reactors, licensing of nuclear waste facilities, and oversight of nuclear materials users. The funding also includes about $5 million for the NRC inspector general's office.

The Senate voted to appropriate $466 million to NRC — $2 million below the FY1998 level. The Senate Energy and Water Development Subcommittee would have reduced the funding by $90 million, a cutback that would have eliminated 700 of NRC's approximately 3,000 employees over the next two years. Although the full Committee reversed that cut, its report strongly criticized NRC for allegedly failing to overhaul its regulatory system in line with improvements in nuclear industry safety. The Committee contended, among other problems, that NRC's regional offices were inconsistent with one another, that NRC was inappropriately interfering with nuclear plant management, and that numerous NRC review processes were outdated and unnecessary.

Slightly lower funding, $463 million, was supported by the House, whose report contained similar criticisms to those of the Senate panel. The House declared itself "strongly supportive" of the Administration's plans for NRC to eventually take over safety regulation of major DOE nuclear facilities, which currently are regulated by DOE itself. The conferees gave NRC $3.2 million for regulatory reviews of DOE facilities. Both House and Senate also provided $4.8 million for the NRC inspector general's office.

To ensure that NRC's budget would continue to be mostly offset by fees on nuclear power plants and other licensed entities, the conferees included a one-year extension of the agency's current fee-collection authority. As in the past, DOE would reimburse NRC for oversight of DOE's high-level nuclear waste disposal program.

For Additional Reading

CRS Issue Briefs

CRS Issue Brief 92059. *Civilian Nuclear Waste Disposal*.

CRS Issue Brief 97031. *Renewable Energy: Key to Sustainable Energy Supply?*

CRS Issue Brief 91039. *The DOE Fusion Energy Science Program.*

CRS Reports

CRS Report 97-54. *Department of Energy Programs: History, Status, Options.*

CRS Report 97-464. *The National Ignition Facility and Stockpile Stewardship.*

CRS Report 96-212. *Civilian Nuclear Spent Fuel Temporary Storage Options.*

CRS Report 98-256. *The Department of Energy FY1999 Research and Development Budget.*