

Defense Nuclear Waste Disposal

Proposed Appropriation Language

For nuclear waste disposal activities to carry out the purposes of Public Law 97-425, as amended, including the acquisition of real property or facility construction or expansion, [\$315,000,000] \$430,000,000 to remain available until expended. (Energy and Water Development Appropriations Act, 2003.)

Note.—A regular 2003 appropriation for this account had not been enacted at the time the budget was prepared; therefore, this account is operating under a continuing resolution (P.L. 107-229, as amended). The amounts included for 2003 in this budget reflect the Administration's 2003 policy proposals.

Explanation of Change

The only change from the language proposed in FY 2003 is the proposed funding amount.

Defense Nuclear Waste Disposal

Program Mission

The goal of the Defense Nuclear Waste Disposal Program is to dispose of high-level waste generated from atomic energy defense activities. The primary focus of this program is to find a long term geological repository for Defense Nuclear Waste. This effort supports the Yucca Mountain Site Characterization Project which is described in detail in the Nuclear Waste Fund Budget Request.

Since passage of the Nuclear Waste Policy Act of 1982, as amended, the Nuclear Waste Fund has incurred costs for activities related to the disposal of high-level waste generated from the atomic energy defense activities of the Department of Energy. At the end of fiscal year 2001, the balance owed by the Federal Government to the Nuclear Waste Fund was \$ 1,350,039,000 (including principal and interest). The Defense Nuclear Waste Disposal appropriation was established to ensure payment of the Federal Government's contribution to the nuclear waste repository program. Through fiscal year 2002, a total of \$ 1,693,129,000 has been appropriated to support nuclear waste repository activities attributable to atomic energy defense activities.

Funding Profile

(Dollars in Thousands)

	FY 2002 Comparable Appropriation	FY 2003 Original Appropriation	FY 2003 Adjustment	FY 2003 Comparable Appropriation	FY 2004 Budget Request
Defense Nuclear Waste Disposal					
Yucca Mountain Site Characterization (Phase 1)	280,000	315,000	0	315,000 ^a	0
Repository Design & Licensing (Phase 2A)	0	0	0	0	430,000

^a Operating under a "Joint Continuing Resolution" H.J. RES. 2, passed by the House of Representatives, January 8, 2003.

Funding by Site ^a

(dollars in thousands)

	FY 2002	FY 2003	FY 2004	\$ Change	% Change
Chicago Operations Office					
Argonne National Laboratory	2,752	2,578	2,501	-77	-3.0%
Oakland Operations Office					
Lawrence Berkeley Laboratory	12,118	12,817	12,048	-769	-6.0%
Lawrence Livermore National Laboratory	17,149	18,029	16,983	-1,046	-5.8%
Total, Oakland Operations Office	29,267	30,846	29,031	-1,815	-5.9%
Albuquerque Operations Office					
Sandia National Laboratory	14,319	14,382	13,663	-719	-5.0%
Los Alamos National Laboratory	12,591	12,785	12,146	-639	-5.0%
Total, Albuquerque Operations Office	26,910	27,167	25,809	-1,358	-5.0%
Nevada Operations Office ^b					
Nevada Test Site	212,193	244,943	333,020	+88,077	+36.0%
Nevada (Yucca Mountain Project Office)	7,550	7,578	7,888	+310	+4.1%
Nevada (Yucca Mountain Project Office)	0	0	0	0	0.0%
Total, Nevada Operations Office	219,743	252,521	340,908	+88,387	+35.0%
Oak Ridge Operations Office					
Oak Ridge National Laboratory	0	0	0		
Oak Ridge National Laboratory	150	537	495	-42	-7.8%
Total, Oak Ridge Operations Office	150	537	495	-42	-7.8%
Richland Operations Office					
Pacific Northwest Laboratory	973	1,351	1,256	-95	-7.0%
Washington Headquarters					
Washington Headquarters	0	0	30,000	+30,000	+100.0%
Total, Program	279,795	315,000	430,000	+115,000	+36.5%

^a On December 20, 2002, the National Nuclear Security Administration (NNSA) disestablished the Albuquerque, Oakland, and Nevada Operations Offices, renamed existing area offices as site offices, established a new Nevada Site Office, and established a single NNSA Service Center to be located in Albuquerque. Other aspects of the NNSA organizational changes will be phased in and consolidation of the Service Center in Albuquerque will be completed by September 30, 2004. For budget display purposes, DOE is displaying non-NNSA budgets by site in the traditional pre-NNSA organizational format.

^b FY 2002-2003 includes Financial Assistance to the State of Nevada and Affected Units of Local Government; and FY 2002-2004 includes funding for contracts administered in Nevada (i.e., Management and Operating Contractor, USGS, National Academy of Sciences, universities, etc.).

Site Description ^a

Argonne National Laboratory

In support of the Design and Engineering budget element, Argonne National Laboratory conducts waste form testing. The laboratory is also the custodian for new spent fuel approved test material.

Lawrence Berkeley Laboratory

In support of the Core Science budget element, Lawrence Berkeley National Laboratory (LBNL) conducts unsaturated zone flow and transport modeling, thermal hydrologic modeling activities, geophysics testing, and supports drift-scale testing. LBNL also performs the seepage tests in the exploratory studies facility alcoves and niches. LBNL supports the abstraction activities needed to conduct the total system performance assessment in support of the license application.

Lawrence Livermore National Laboratory

In support of the Core Science budget element, Lawrence Livermore National Laboratory (LLNL) conducts experiments and modeling activities needed for the repository design and to predict responses of the engineered and natural barrier systems to the heat generated by radioactive waste. The experiments include the drift-scale tests in the ESF and the proposed heater tests in the cross drift. In support of the Design and Engineering budget element, LLNL conducts testing and modeling of the waste package environment, waste package materials and waste forms. LLNL also supports the abstraction activities needed to conduct the total system performance assessment in support of the license application.

Sandia National Laboratory

In support of the Core Science budget element, Sandia National Laboratories conducts in-situ monitoring in the exploratory studies facility (ESF) and in the east-west drift, and performance confirmation testing. The laboratory conducts geoen지니어ing and rock mechanics studies, and backfill analyses in support of the Design and Engineering budget element. The laboratory also supports the Suitability/Licensing and Performance Assessment budget element with performance assessment modeling.

Los Alamos National Laboratory

In support of the Core Science budget element, Los Alamos National Laboratory (LANL) conducts geochemistry, mineralogy, and colloid transport studies. LANL conducts laboratory and field-scale transport tests, including the Busted Butte transport test, and develops radionuclide transport models for the unsaturated and saturated zone groundwaters at the site. LANL corroborates with USGS on isotopic

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and groundwater chemistry investigations needed for transport models. In support of the Operations/Construction budget element, the laboratory coordinates testing at the Yucca Mountain site, including testing in the ESF. LANL also supports the abstraction activities needed to conduct the total system performance assessment in support of the license application.

Nevada Operations Office

In support of the Yucca Mountain Project and the Office of Civilian Radioactive Waste Management (OCRWM) Program Direction budget element, the Nevada Operations Office administers disbursement of external oversight and payments-equal-to-taxes (PETT) funds to affected units of government, and also administers contracts/agreements with the OCRWM Management & Operating (M&O) contractor, support services contracts and all other financial/contract agreements associated directly with Yucca Mountain Site Characterization Office.

Nevada Test Site

In support of the Core Science and Operations/Construction budget elements at the Yucca Mountain site, the Nevada Test Site (NTS), through Bechtel Nevada, provides NTS common site support such as: logistics, fire protection, security, emergency medical services, roads/grounds maintenance, environmental operations, vehicle/construction equipment maintenance, facility maintenance, bus transportation, janitorial and refuse services, and power usage.

Oak Ridge National Laboratory

In support of the Design and Engineering budget element, the Oak Ridge National Laboratory provides support in analyzing commercial reactor criticality data, radiochemical assays and uncanistered fuel design. The laboratory also provides technical support for the disposal criticality topical report, thermal/neutronics model and criticality analysis process report.

Pacific Northwest National Laboratory

In support of the Design and Engineering budget element, the Pacific Northwest National Laboratory provides waste form testing support.