

Secure Transportation Asset

Program Mission

The mission of the Secure Transportation Asset (STA) program is to move nuclear weapons, special nuclear material, selected non-nuclear weapons components, limited-life components, and any other Department materials requiring safe, secure transport to and from military locations, between nuclear weapon complex facilities, and to other government locations within the continental United States.

Program Goal

The goal of the Secure Transportation Asset is to provide safe secure transportation of shipments from shipping point to destination at the time they are required and to ensure the safety of the public from any danger related to the release of radioactive materials in the cargoes being transported.

Program Objectives

The Secure Transportation Asset provides support to all of the DOE Strategic Plan objectives requiring the safe, secure transport of nuclear weapons, special nuclear material, selected non-nuclear weapons components, limited-life components and other Department materials. These DOE Strategic Plan objectives are managed by programs throughout the Department including Defense Programs, Environmental Management, Defense Nuclear Nonproliferation and Nuclear Energy.

Performance Measures

Maintain the DOE Secure Transportation Asset for safe, secure transport of nuclear weapons, special nuclear materials, and weapon components. (NS3)

Performance will be measured by the successful completion of the following detailed performance measures:

- # Maintain the DOE Secure Transportation Asset for the safe and secure transport of nuclear weapons, special nuclear material and weapon components.
- # Achieve safer transportation of nuclear weapons, weapons components and Special Nuclear Material by increasing thermal protection, and improving braking and handling so as to minimize personnel hazard.
- # Improve security of transportation by enhancing the defensive posture of convoys, improved communications, and more robust control.
- # Successfully complete the second year security upgrades included in the classified "Get Well Project Plan."

Significant Accomplishments and Program Shifts

The Secure Transportation Asset is a Departmental support asset providing safe and secure transportation capabilities to the Department. The STA also provides its assets to other government agencies, primarily the Department of Defense, although this work for other agencies represents a relatively small portion of STA's workload.

As the primary historic user of the STA, Defense Programs is currently the sole Department funding source for the program and federal staff. The staff is organized within the Office of Transportation Safeguards at the

Albuquerque Operations Office. Of the approximately 360 federal OTS staff, about two-thirds are couriers with the balance providing management and support.

Several recent actions have been taken by the Department to upgrade the capabilities of the Asset. Based on a review and report, the Department made two changes to the courier salary and benefits structure to increase morale, provide a continued ability to attract high quality applicants to the program, and respond to a high rate of disability retirements among the couriers. First, the Department upgraded the grade structure of the couriers in FY 1999, increasing pay rates on average by about 2 pay grades. Second, DOE requested and received approval from the Congress to move the couriers into a 20-year retirement cycle. In FY 2002, Defense Programs will make the fourth of five annual payments of \$3.5 million to the Office of Personnel Management to fund this retirement cycle conversion.

In FY 2000, the Department also committed itself to increasing the security posture of the Asset. The upgrades, to take place over five years, will entail bringing on a new courier recruitment class of about 20 individuals each year, upgrading the training of current and new couriers, accelerating the replacement of the Safe Secure Transport (SST) fleet with the next generation SafeGuards Transporters (SGT), and providing enhanced equipment for the transportation convoys. Additional information on these upgrades is included below in the Detailed Program Justification.

Funding Profile

(dollars in thousands)

	FY 2000 Comparable Appropriation	FY 2001 Original Appropriation	FY2001 Adjustments	FY 2001 Comparable Appropriation	FY 2002 Request
Secure Transportation Asset					
Operations and Equipment	69,772	79,055	-174	78,881	77,571
Program Direction	34,691	36,316	-80	36,236	44,229
Total, Secure Transportation Asset	104,463	115,371	-254	115,117	121,800

Public Law Authorization:

Public Law 106-398, "Floyd D. Spence National Defense Authorization Act for FY 2001"
 Public Law 106-377, "Energy and Water Development Appropriation Act for FY 2001"

Funding by Site

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Albuquerque Operations Office	104,463	115,117	121,800	6,683	5.8%
Total, Albuquerque Operations Office	104,463	115,117	121,800	6,683	5.8%

^aSee Table STA-1 for detailed explanation of FY 2001 Adjustments.

Table STA-1

**Secure Transportation Asset
FY 2001 Adjustments & Comparabilities**

(Dollars in Thousands)

	FY 2001 Original Appropriation	General Reduction	Safeguards & Security Amendment	Accounting & Technical Adjustments	FY 2001 Omnibus Rescission	Internal Reprogramming SOAR Awards	FY 2001 Adjustments (Subtotal)	FY 2001 Comparable Appropriation
Operations and Equipment	79,357	-302	0	0	-174		-476	78,881
Program Direction . .	36,316	0	0	0	-80		-80	36,236
Total, Secure Transportation Asset	115,673	-302	0	0	-254	0	-556	115,117

Operations and Equipment

Mission Supporting Goals and Objectives

The mission of the Secure Transportation Asset (STA) Program is to move nuclear weapons, special nuclear material, selected non-nuclear weapons components, limited-life components, and any other Department materials requiring safe, secure transport to and from military locations, between nuclear weapon complex facilities, and to other government locations within the continental United States.

Funding Schedule

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Materials Transportation	21,742	26,820	25,384	-1,436	-5.4%
Fleet Maintenance	17,665	19,131	19,177	46	0.2%
Communications and Equipment	9,460	10,255	10,279	24	0.2%
Security Upgrades to Equipment and Vehicles	3,639	3,944	3,954	10	0.3%
SafeGuards Transporter	17,266	18,731	18,777	46	0.2%
Total, STA - Operations and Equipment . .	69,772	78,881	77,571	-1,310	-1.7%

Detailed Program Justification

(dollars in thousands)

	FY 2000	FY 2001	FY 2002
Materials Transportation	21,742	26,820	25,384
Provide for the transportation of Department materials in a safe and secure manner.			
Fleet Maintenance	17,665	19,131	19,177
Provide for the maintenance and repair of the transporter fleet.			
Communications and Equipment	9,460	10,255	10,279
Provide for necessary communications and communications equipment.			
Security Upgrades to Equipment and Vehicles	3,639	3,944	3,954
Provide for upgrades to equipment and escort vehicles required to upgrade the security posture of the Secure Transportation Asset.			
Safeguards Transporter	17,266	18,731	18,777
Provide for the replacement of the Safe Secure Transport (SST) with the SafeGuards Transporter on an accelerated basis			
Total, Secure Transportation Asset - Program	69,772	78,881	77,571

Explanation of Funding Changes from FY 2001 to FY 2002

FY 2002 vs. FY 2001 (\$000)

Operations and Equipment **-1,310**

Maintains support of current shipment schedules, provides for equipment and fleet upgrades as called for in the "Get Well" plan, and maintains schedule to convert the entire trailer fleet to SafeGuards Transporters by 2005.

Capital Operating Expenses & Construction Summary

Capital Operating Expenses ^a

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
General Plant Projects	1,216	1,200	1,200	0	0%
Capital Equipment	1,366	730	730	0	0%
Total, Capital Operating Expenses . .	2,582	1,930	1,930	0	0%

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Appropriations	FY 2000	FY 2001	FY 2002	Unappropriated Balance
Total, Construction	0	0	0	0	0	0

^a Since funds are appropriated for Operations and Maintenance, which includes operating expenses, capital equipment and general plant projects, we no longer budget separately for capital equipment and general plant projects. FY 2001 and FY 2002 funding shown reflects estimates based on actual FY 2000 obligations.

Secure Transportation Asset - Program Direction

Mission Supporting Goals and Objectives

The mission of the Secure Transportation Asset (STA) Program is to move nuclear weapons, special nuclear material, selected non-nuclear weapons components, limited-life components, and any other Department materials requiring safe, secure transport to and from military locations, between nuclear weapon complex facilities, and to other government locations within the continental United States.

Funding Schedule

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Salaries & Benefits	32,053	33,179	40,943	7,764	23.4%
Travel	2,586	2,966	3,200	234	7.9%
Support Services	0	0	0	0	0.0%
Other Related Expenses	52	91	86	-5	-5.5%
Subtotal, Secure Transportation Asset - Program Direction	34,691	36,236	44,229	7,993	22.1%
Federal Staffing	302	361	394	33	9.1%

Detailed Program Justification

(dollars in thousands)

	FY 2000	FY 2001	FY 2002
Salaries and Benefits	32,053	33,179	40,943
• Federal Salaries and Benefits.	28,543	29,669	37,433
<p>Provides for the federal salaries and benefits of the Office of Transportation Safeguards of the Albuquerque Operations Office. Recruit new courier classes in FY 2001 and FY 2002, of about 20 individuals each.</p>			
• 20-Year Retirement Conversion Payments.	3,510	3,510	3,510
<p>Provide payments to the Office of Personnel Management to convert the nuclear materials couriers to a 20-year retirement schedule (requires 5 annual payments ending in FY 2003).</p>			
Travel	2,586	2,966	3,200
<p>Provide for travel associated with STA shipments and training.</p>			
Other Related Expenses/Training	52	91	86
<p>Provides required training for the nuclear materials courier force</p>			
Total, Secure Transportation Asset - Program Direction	34,691	36,236	44,229

Explanation of Funding Changes from FY 2001 to FY 2002

	FY 2002 vs. FY 2001 (\$000)
Salaries and Benefits	7,764
<p>Supports the FY 2001 and FY 2002 new recruit classes to respond to increased retirements resulting from the conversion to a 20-year retirement schedule and to increase the overall number of couriers consistent with the "Get Well" plan.</p>	
Travel and Other Related Expenses	229
<p>Supports increased travel necessary to recruit, hire and train new recruit classes as well as to support the planned shipment schedules for FY 2002.</p>	
Total, Secure Transportation Asset - Program Direction	7,993

Other Related Expenses

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Other Related Expenses/Training	52	91	86	-5	-5.5%
Contractual Services					
Rental Space/Facility Maintenance	0	0	0	0	0.0%
Software Procurement/Maintenance Activities/ Capital Acquisitions	0	0	0	0	0.0%
Other	0	0	0	0	0.0%
Total, Contractual Services	0	0	0	0	0.0%
Total, Other Related Expenses	52	91	86	-5	-5.5%

Weapons Safeguards and Security

Program Mission

Weapons Safeguards and Security (S&S) provides funding for all S&S activities at National Nuclear Security Administration (NNSA) landlord sites, specifically the Lawrence Livermore, Los Alamos, and Sandia National Laboratories; the Nevada Test Site; the Kansas City, Pantex, and Y-12 Plants; and the Savannah River Site Tritium Facilities. These critical NNSA sites are secured by multiple layers of high security measures. Each site has a specifically designed Safeguards and Security Site Plan (SSSP) or a facility Master Security Plan, as well as a Cyber Security Plan addressing the depth and breadth of protection planning for classified information, nuclear weapons, weapons components, and special nuclear materials. In addition, Personnel Security Programs insure the continuing reliability of employees having access to classified matter at all NNSA sites.

Program Goal

The goal of the Weapons Safeguards and Security program is to protect the personnel, weapons and special nuclear material (SNM) physical plant, and sensitive and classified information of the Stockpile Stewardship Program and National Nuclear Security Administration landlord facilities.

Program Objectives

The objectives of the Weapons Safeguards and Security program is to provide 1) a **Physical Security** through a combination of operational and security equipment, personnel, and procedures to protect facilities, material and information against theft, sabotage, diversion, or other criminal acts; 2) a **Cyber Security** program that is responsible for defining policies and procedures for information protection and the design, development, integration, and deployment of all cyber security-related and infrastructure components of the Stockpile Stewardship Program and other activities at NNSA landlord sites; and 3) ensure **Personnel Security** through appropriate processes for determining that individuals are eligible for access to classified matter and/or special nuclear material.

Performance Measures

Ensure that the Department's nuclear weapons, materials, facilities, and information assets are secure through effective safeguards and security policy, implementation, and oversight. (NS6)

Performance will be measured by the successful completion of the detailed performance measures included in the Detailed Justification section of Weapons Safeguards and Security.

Significant Accomplishments and Program Shifts

As part of the Department's efforts to increase the overall performance of its safeguards and security functions,

Weapons Safeguards and Security became a direct funded program (as opposed to being funded through site overhead accounts) in FY 2001. The program acts as a site landlord, providing all safeguards and security activities at National Nuclear Security Administration (NNSA) landlord sites, specifically the Lawrence Livermore, Los Alamos, and Sandia National Laboratories; the Nevada Test Site; the Kansas City, Pantex, and Y-12 Plants; and the Savannah River Site Tritium Facilities.

The conversion to direct funding has had a number of immediate benefits, primarily related to the increased “ownership” of site-wide safeguards and security activities now exercised by the National Nuclear Security Administration (NNSA). Specifically, NNSA has been able to increase its quantification and oversight of site-wide security efforts, as documented in Safeguards and Security Site Plans or other appropriate site security plan and the initiation a five year program, documented in the Integrated Cyber Security Initiative Program Plan, to significantly upgrade our Cyber Security posture.

However, the conversion to direct funding has also raised several management issues which the NNSA and the Department continue to work. Included in these issues is the need to increase our planning capabilities sufficiently to compensate for the loss of real-time funds re-allocation to match changing program activities that had been available with the use of overhead funds. Included in our request is a significant increase in program management funds to work this issue.

One deviation from NNSA direct funding safeguards and security activities should be detailed. The Department has determined that the NNSA is responsible for funding clearance processing, pre-screening (including being appropriately reviewed for access to classified and sensitive matter and materials), visitor control, and security training for current employees, new hires, and visitors having access to NNSA sites. However, the actual security investigations funding for reimbursement to the Office of Personnel Management and the Federal Bureau of Investigation is included in the budget of the Office of Security and Emergency Operations (SO). Security Investigations are a mission critical factor in that the security investigation funding needed for NNSA personnel to be cleared to the proper level of access, has to be consistent with the personnel needed to accomplish NNSA program mission work.

Funding Profile

(dollars in thousands)

	FY 2000 Comparable Appropriation	FY 2001 Original Appropriation	FY 2001 Adjustments ^a	FY 2001 Comparable Appropriation	FY 2002 Request
Weapons Safeguards and Security					
Operations and Maintenance	379,044	356,840	17,114	373,954	439,281
99-D-132, Nuclear Materials Safeguards and Security Upgrade Project, LANL	11,257	18,043	-40	18,003	9,600
88-D-123, Security Enhancements Project, Pantex Plant	3,487	2,713	-6	2,707	0

^aSee table S&S-1 for detailed explanation of FY 2001 Adjustments.

Total, Safeguards & Security . .	393,788	377,596	17,068	394,664	448,881
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Public Law Authorization:

Public Law 106-398, "Floyd D. Spence National Defense Authorization Act for FY 2001"

Public Law 106-377, "Energy and Water Development Appropriations Act for FY 2001"

TABLE S&S-1

**Safeguards & Security
FY 2001 Adjustment and Comparabilities**

(dollars in thousands)

	Revised FY 2001 Appropriation	FY 2001 Omnibus Rescission	Internal Reprogramming Y-12 S&S	FY 2002 Structure Comparabilities			Subtotal, Adjustment s	FY 2001 Comparable Appropriation
				Internal	External			
				Federal Personnel	EM S&S in Weapons Activities (ID ATR)	Work for Others S&S Recovery		
Operations & Maintenance	356,840	-785	5,000	-11,607	-4,417	28,923	17,114	373,954
<i>Construction:</i>								
99-D-132, Nuclear Materials S&S Upgrades Project, LANL	18,043	-40					-40	18,003
88-D-123, Security Enhancements Project, PX	2,713	-6					-6	2,707
<i>Subtotal, Construction</i>	20,756	-46	0	0	0	0	-46	20,710
Total, Safeguards & Security .	377,596	-831	5,000	-11,607	-4,417	28,923	17,068	394,664

Weapons Safeguards & Security

Mission Supporting Goals and Objectives

Weapons Safeguards and Security (S&S) provides funding for all S&S activities at National Nuclear Security Administration (NNSA) landlord sites, specifically the Lawrence Livermore, Los Alamos, and Sandia National Laboratories; the Nevada Test Site; the Kansas City, Pantex, and Y-12 Plants; and the Savannah Rivers Site Tritium Facilities. These critical NNSA sites are secured by multiple layers of high security measures. Each site has a specifically designed Safeguards and Security Site Plan (SSSP) or a facility Master Security Plan, as well as a Cyber Security Plan addressing the depth and breadth of protection planning for classified information, nuclear weapons, weapons components, and special nuclear materials. In addition, Personnel Security Programs insure the continuing reliability of employees having access to classified matter at all NNSA sites.

Funding Schedule

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Operations & Maintenance					
Physical Security	329,803	330,540	364,323	33,783	10.2%
Cyber Security	36,501	28,844	58,000	29,156	101.1%
Personnel Security	12,740	14,570	16,958	2,388	16.4%
Subtotal, Operations & Maintenance	379,044	373,954	439,281	65,327	17.5%
Construction					
99-D-132, Nuclear Materials Safeguards and Security Upgrade Project, LANL	11,257	18,003	9,600	-8,403	-46.7%
88-D-123, Security Enhancements Project, Pantex Plant	3,487	2,707	0	-2,707	-100.0%
Total, Safeguards & Security	393,788	394,664	448,881	54,217	13.7%

Performance Measures

Performance will be demonstrated by:

- # Completing a review of all DOE S&S policies to determine their applicability to NNSA;
- # Initiation of an Integrated Safeguards and Security Management (ISSM) program within NNSA to systematically integrate S&S into management and work practices at all levels to ensure that program missions are accomplished securely;
- # Completing implementation of “Higher Fences” to enhance the protection of certain Restricted Weapons Data within DOE and DoD;

- # Putting in place a five year planning process for S&S initiatives and equipment/system life cycle replacements.
- # Initiation of the Integrated Cyber Security Initiative Program and FY 2002 Implementation Plans;
- # Developing and implementing advanced cyber security policies and practices, including enterprise security testing and certification;
- # Identification of nuclear weapons information assets and the information flows between components of the nuclear weapons complex;
- # Development of prototype software for enterprise-wide access controls for nuclear weapons information.

Detailed Program Justification

(dollars in thousands)

FY 2000	FY 2001	FY 2002
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Operations and Maintenance

Physical Security **329,803** **330,540** **364,323**

Physical Security is the combination of operational and security equipment, personnel, and procedures used to protect facilities, information, documents, or material against theft, sabotage, diversion, or other criminal acts. The status of each site’s protection effectiveness is to be quantified in their Site Safeguards and Security Plan (SSSP) or other appropriate site security plan. Adequate performance will be validated through the security plan approval process, conduct of security surveys, and/or independent review.

Protective Forces 203,069 210,768 222,788

Protective Forces are the Special Police Officers and other specialized personnel that directly provide security at NNSA sites. Funding is requested to provide an appropriately sized force with adequate materials, supplies, equipment, facilities, training, and management to meet site security objectives. This category provides for annual force on force exercises required to assess adequate performance during a security emergency. The increase in FY 2002 of \$12.0 million is to address contract cost increases at the Y-12 and Pantex Plants, to hire additional Protective Forces to reduce overtime costs across the NNSA complex that are averaging 27%, and to provide enhanced Protective Force qualification training.

Physical Security Systems 53,054 53,187 63,920

Physical Security Systems provide intrusion detection, barriers, access controls, tamper protection monitoring, and performance testing of security systems according to the approved site performance testing plan. The increase in FY 2002 of \$10.7 million will address the immediate need for upgrades to S&S monitoring systems at the Los Alamos National Laboratory and the Kansas City and Y-12 Plants.

Intra-Site Transportation 208 192 378

Transportation provides for intra-site transportation of security assets in a safe, secure fashion. The increase in FY 2002 of \$0.2 million supports a planned increase in the number of intra-site shipments at the Los Alamos and Sandia National Laboratories.

(dollars in thousands)

	FY 2000	FY 2001	FY 2002
Information Security	19,877	18,533	22,094

Information Security provides information protection, classification and declassification of information, critical infrastructure, technical security countermeasures (TSCM), and operations security. Through the periodic review of classified and sensitive information, Information Security ensures proper document marking, storage and protection of information. The increase in FY 2002 of \$3.6 million supports the ongoing efforts to implement information security improvements which include training and a classified material audit program to enhance record reporting on statistics of classified documents.

Technology Research and Development	0	0	0
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This activity is funded by the Office of Security and Emergency Operations.

Materials Control and Accountability	21,614	19,937	23,716
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Material Control and Accountability provides for control and accountability of special nuclear materials in accordance with approved site security plans. The increase in FY 2002 of \$3.8 million will increase material accountability efforts at the Y-12 Plant. Improvement in the physical inventory controls that are being restored to an active status are to provide assurance that important SNM inventory is secured.

Program Management	31,981	27,923	31,427
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Program Management provides policy oversight and administration, planning, training, and development for security programs. Activities include the assessment of security implementation efforts through the review of updated security plans. The increase in FY 2002 of \$3.5 million reflects the continuing emphasis on the Integrated Safeguards and Security Management System and the "Higher Fences" initiatives.

Cyber Security	36,501	28,844	58,000
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The NNSA Cyber Security program is responsible for defining policies and procedures for information protection and the design, development, integration, deployment, and certification of all cyber security-related and infrastructure components of the Stockpile Stewardship Program (SSP) and other activities at NNSA landlord sites. NNSA has initiated a five year program, documented in the Integrated Cyber Security Initiative Program Plan, to significantly upgrade our cyber security posture.

On-Going Base Program	16,501	28,844	28,000
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Provides for ongoing cyber security activities to ensure compliance at NNSA landlord sites with Department and NNSA security policies and practices. The decrease in FY 2002 of \$0.8 million recognizes increased costs associated with recently implemented security enhancements, while taking advantage of the enhancements provided by the Integrated Cyber Security Initiative Program Plan.

(dollars in thousands)

FY 2000	FY 2001	FY 2002
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Integrated Cyber Security Initiative Program 20,000 0 30,000

Provides for **planning and design efforts** for implementation plans, maintaining the NNSA Cyber Security Threat Statement and Policies document, developing and implementing project plans encompassing host, local area network (LAN) and site intrusion detection, and defining information assets sharing requirements; the **ESN Test & Certification Laboratory** to evaluate and test networks, systems and services in an isolated, non-production, controlled environment; the **Need-to-Know Project** to define, demonstrate and test software products to manage need-to-know access to all information and computing resources across the enterprise; the **Information Assets Project** to identify the electronic information assets and flow of those assets across the enterprise; **Cyber Security Enhancements** to deploy cyber security advancements including diskless workstations, Keyboard Video and Monitor only configurations, and vault type rooms; **Enterprise Intrusion Detection Research and Development** to investigate state of the art host-based, network-based, and enterprise-based intrusion detection systems; **Cyber Security Implementation** efforts to improve enterprise user authentication services and secure mail and file transfer; and the **Integrated Cyber Security Initiative (ISCI) education and awareness program** to provide mandatory annual user training and certification. The increase in FY 2002 of \$30 million reflects the first year of in-cycle funding for the Integrated Cyber Security Initiative following its initiation with supplemental funding late in FY 2000.

Personnel Security 12,740 14,570 16,958

Personnel Security encompasses the processes for administrative determination that an individual is eligible for access to classified matter, or is eligible for access to, or control over, special nuclear material. Although the National Nuclear Security Administration is responsible for ensuring that all personnel with access to NNSA sites (including current employees, new hires, and visitors) have been appropriately reviewed for access to classified and sensitive matter and materials, funding for security clearance reviews by the Federal Bureau of Investigation and the Office of Personnel Management are included in the Office of Security and Emergency Operations request.

Access Authorizations 12,740 14,570 16,958

Access Authorizations supports NNSA site personnel with clearance program processing, security awareness training, and visitor control.

Security Investigations 0 0 0

Security Investigations supports NNSA requirements for investigations for new federal and contractor employees and the periodic reinvestigation of currently-cleared personnel, as well as Security Investigations for all other M&O contractor employees at NNSA landlord sites. Security clearances are a NNSA mission critical factor in that NNSA personnel, cleared to the proper level of access, are required to accomplish NNSA program mission work. Funding for Security Investigations is included in the Office of Security and Emergency Operations request.

Subtotal, Operations & Maintenance 379,044 373,954 439,281

Construction

99-D-132, Nuclear Material Safeguards & Security Upgrades, Los Alamos National Laboratory	11,257	18,003	9,600
88-D-123, Security Enhancements Project, Pantex Plant	3,487	2,707	0
Total, Construction	14,744	20,710	9,600
TOTAL, WEAPONS SAFEGUARDS & SECURITY	393,788	394,664	448,881

Explanation of Funding Changes from FY 2001 to FY 2002

FY 2002 vs FY 2001 (\$000s)

Operations & Maintenance

Physical Security 33,783

Protective Forces 12,020

The increase in FY 2002 of \$12.0 million is to address contract cost increases at the Y-12 and Pantex plants, to hire additional Protective Force personnel to reduce overtime rates across the NNSA complex that are averaging 27%, and to provide enhanced Protective Force qualification training.

Physical Security Systems 10,733

The increase in FY 2002 of \$10.7 million will address the immediate need for upgrades to S&S monitoring systems at the Los Alamos National Laboratory and the Kansas City and Y-12 Plants.

Intra-Site Transportation 186

The increase in FY 2002 of \$0.2 million supports a planned increase in the number of intra-site shipments at the Los Alamos and Sandia National Laboratories.

Information Security 3,561

The increase in FY 2002 of \$3.6 million supports the ongoing efforts to implement information security improvements which include training and a classified material audit program to enhance record keeping and statistical reporting of classified documents.

Materials Control and Accountability 3,779

The increase in FY 2002 of \$3.8 million reflects increased emphasis at the Y-12 Plant to strengthen physical security inventory controls.

FY 2002 vs FY 2001 (\$000s)

# Program Management	3,504
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The increase in FY 2002 of \$3.5 million reflects the continuing emphasis on the Integrated Safeguards and Security Management System and the "Higher Fences" initiatives.

Cyber Security	29,156
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Provides for FY 2002 investments necessary to support the NNSA Cyber Security Program. The Cyber Security Program is responsible for defining policies and procedures for information protection and the design, development, integration, deployment, and certification of all cyber security-related and infrastructure components of the Stockpile Stewardship Program (SSP) and other activities at NNSA landlord sites.

Personnel Security	2,388
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Continues support for NNSA site personnel with clearance program processing, security awareness training, and visitor control.

Subtotal, Operations and Maintenance	65,327
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Construction

# 88-D-123, Security Enhancements Project, Pantex Plant	-2,707
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Received final year appropriations in FY 2001.

# 99-D-123, Nuclear Materials Safeguards and Security Upgrades, Los Alamos National Laboratory	-8,403
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Scheduled funding decrease.

Subtotal, Construction	-11,110
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Total, Weapons Safeguards and Security	54,217
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Safeguards and Security Funding by Site

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Kansas City Plant					
Protective Forces	4,099	4,623	4,624	1	0.0%
Physical Security Systems	3,307	3,355	4,438	1,083	32.3%
Transportation	0	0	0	0	0.0%
Information Security	434	636	523	-113	-17.8%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	0	0	0	0	0.0%
Program Management	354	293	400	107	36.5%
Subtotal, Physical Security	8,194	8,907	9,985	1,078	12.1%
Cyber Security	2,270	749	868	119	15.9%
Personnel Security	661	413	950	537	130.0%
Subtotal, Operations & Maintenance	11,125	10,069	11,803	1,734	17.2%
Construction Line Items	0	0	0	0	0.0%
Total, Kansas City Plant	11,125	10,069	11,803	1,734	17.2%
Lawrence Livermore National Laboratory					
Protective Forces	24,648	29,978	26,677	-3,301	-11.0%
Physical Security Systems	12,143	12,895	16,700	3,805	29.5%
Transportation	0	0	0	0	0.0%
Information Security	4,846	4,075	4,197	122	3.0%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	6,586	6,983	7,134	151	2.2%
Program Management	10,145	7,249	7,651	402	5.5%
Subtotal, Physical Security	58,368	61,180	62,359	1,179	1.9%
Cyber Security	5,635	12,817	12,617	-200	-1.6%
Personnel Security	5,117	4,918	5,435	517	10.5%
Subtotal, Operations & Maintenance	69,120	78,915	80,411	1,496	1.9%
Construction Line Items	0	0	0	0	0.0%
Total, Lawrence Livermore National Laboratory	69,120	78,915	80,411	1,496	1.9%
Los Alamos National Laboratory					
Protective Forces	47,955	48,410	50,607	2,197	4.5%
Physical Security Systems	15,680	15,325	15,427	102	0.7%
Transportation	159	188	322	134	71.3%
Information Security	3,869	4,181	4,961	780	18.7%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	2,344	3,343	3,640	297	8.9%
Program Management	5,253	5,774	5,172	-602	-10.4%
Subtotal, Physical Security	75,260	77,221	80,129	2,908	3.8%
Cyber Security	4,402	3,330	3,995	665	20.0%
Personnel Security	1,516	1,687	3,259	1,572	93.2%
Subtotal, Operations & Maintenance	81,178	82,238	87,383	5,145	6.3%
Construction Line Items	11,257	18,003	9,600	-8,403	-46.7%
Total, Los Alamos National Laboratory	92,435	100,241	96,983	-3,258	-3.3%

Safeguards and Security Funding by Site

(continued)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Nevada Test Site					
Protective Forces	20,994	19,048	21,554	2,506	13.2%
Physical Security Systems	2,351	2,606	2,704	98	3.8%
Transportation	0	0	0	0	0.0%
Information Security	1,450	1,614	1,673	59	3.7%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	2,988	0	0	0	0.0%
Program Management	0	3,062	3,040	-22	-0.7%
Subtotal, Physical Security	27,783	26,330	28,971	2,641	10.0%
Cyber Security	1,970	508	508	0	0.0%
Personnel Security	1,014	2,201	1,138	-1,063	-48.3%
Subtotal, Operations & Maintenance	30,767	29,039	30,617	1,578	5.4%
Construction Line Items	0	0	0	0	0.0%
Total, Nevada Test Site	30,767	29,039	30,617	1,578	5.4%
Pantex Plant					
Protective Forces	44,004	45,469	49,952	4,483	9.9%
Physical Security Systems	7,102	6,938	8,146	1,208	17.4%
Transportation	0	0	0	0	0.0%
Information Security	687	654	975	321	49.1%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	2,371	2,398	2,470	72	3.0%
Program Management	2,842	2,837	3,740	903	31.8%
Subtotal, Physical Security	57,006	58,296	65,283	6,987	12.0%
Cyber Security	3,705	2,105	2,105	0	0.0%
Personnel Security	366	367	878	511	139.2%
Subtotal, Operations & Maintenance	61,077	60,768	68,266	7,498	12.3%
Construction Line Items	3,487	2,707	0	-2,707	-100.0%
Total, Pantex Plant	64,564	63,475	68,266	4,791	7.5%
Sandia National Laboratories					
Protective Forces	18,833	21,885	23,310	1,425	6.5%
Physical Security Systems	5,498	5,708	9,294	3,586	62.8%
Transportation	49	0	52	52	100.0%
Information Security	6,626	5,422	7,641	2,219	40.9%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	2,112	1,972	2,073	101	5.1%
Program Management	3,319	6,230	3,372	-2,858	-45.9%
Subtotal, Physical Security	36,437	41,217	45,742	4,525	11.0%
Cyber Security	14,749	8,304	6,775	-1,529	-18.4%
Personnel Security	2,911	3,919	4,202	283	7.2%
Subtotal, Operations & Maintenance	54,097	53,440	56,719	3,279	6.1%
Construction Line Items	0	0	0	0	0.0%
Total, Sandia National Laboratories	54,097	53,440	56,719	3,279	6.1%

Safeguards and Security Funding by Site

(continued)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Savannah River Site					
Protective Forces	3,570	3,357	3,458	101	3.0%
Physical Security Systems	2,777	2,106	2,169	63	3.0%
Transportation	0	4	4	0	0.0%
Information Security	190	133	137	4	3.0%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	568	1,689	1,740	51	3.0%
Program Management	1,291	1,342	1,382	40	3.0%
Subtotal, Physical Security	8,396	8,631	8,890	259	3.0%
Cyber Security	1,242	61	134	73	119.7%
Personnel Security	187	149	153	4	2.7%
Subtotal, Operations & Maintenance	9,825	8,841	9,177	336	3.8%
Construction Line Items	0	0	0	0	0.0%
Total, Savannah River Site	9,825	8,841	9,177	336	3.8%
Y-12 Plant					
Protective Forces	38,966	37,998	42,606	4,608	12.1%
Physical Security Systems	4,196	4,254	5,042	788	18.5%
Transportation	0	0	0	0	0.0%
Information Security	1,775	1,818	1,987	169	9.3%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	4,645	3,552	6,659	3,107	87.5%
Program Management	1,080	1,136	1,170	34	3.0%
Subtotal, Physical Security	50,662	48,758	57,464	8,706	17.9%
Cyber Security	2,528	970	998	28	2.9%
Personnel Security	968	916	943	27	2.9%
Subtotal, Operations & Maintenance	54,158	50,644	59,405	8,761	17.3%
Construction Line Items	0	0	0	0	0.0%
Total, Y-12 Plant	54,158	50,644	59,405	8,761	17.3%
Headquarters					
Protective Forces	0	0	0	0	0.0%
Physical Security Systems	0	0	0	0	0.0%
Transportation	0	0	0	0	0.0%
Information Security	0	0	0	0	0.0%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	0	0	0	0	0.0%
Program Management	7,697	0	5,500	5,500	100.0%
Subtotal, Physical Security	7,697	0	5,500	5,500	100.0%
Cyber Security	0	0	30,000	30,000	100.0%
Personnel Security	0	0	0	0	0.0%
Subtotal, Operations & Maintenance	7,697	0	35,500	35,500	100.0%
Construction Line Items	0	0	0	0	0.0%
Total, Headquarters	7,697	0	35,500	35,500	100.0%

Safeguards and Security Funding by Site

(continued)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Total, Weapons Safeguards & Security					
Protective Forces	203,069	210,768	222,788	12,020	5.7%
Physical Security Systems	53,054	53,187	63,920	10,733	20.2%
Transportation	208	192	378	186	96.9%
Information Security	19,877	18,533	22,094	3,561	19.2%
Technology Development	0	0	0	0	0.0%
Materials Control and Accountability	21,614	19,937	23,716	3,779	19.0%
Program Management	31,981	27,923	31,427	3,504	12.5%
Subtotal, Physical Security	329,803	330,540	364,323	33,783	10.2%
Cyber Security	36,501	28,844	58,000	29,156	101.1%
Personnel Security	12,740	14,570	16,958	2,388	16.4%
Subtotal, Operations & Maintenance	379,044	373,954	439,281	65,327	17.5%
Construction Line Items	14,744	20,710	9,600	-11,110	-53.6%
Total, Weapons Safeguards & Security	393,788	394,664	448,881	54,217	13.7%

Capital Operating Expenses & Construction Summary

Capital Operating Expenses ^a

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
General Plant Projects	50	50	50	0	0%
Capital Equipment	50	50	50	0	0%
Total, Capital Operating Expenses . .	100	100	100	0	0%

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Appropriations	FY 2000	FY 2001	FY 2002	Unappropriated Balance
99-D-132, Nuclear Materials Safeguards & Security Upgrade Project, Los Alamos Nation Laboratory	61,143	9,700	11,257	18,003	9,600	12,583
88-D-123, Security Enhancements Project, Pantex Plant	131,200	128,493	2,707	0	0	0
Total, Construction	192,343	138,193	13,964	18,003	9,600	12,583

^a Since funds are appropriated for Operations and Maintenance, which includes operating expenses, capital equipment and general plant projects, we no longer budget separately for capital equipment and general plant projects. FY 2001 and FY 2002 funding shown reflects estimates based on actual FY2000 obligations.

99-D-132, Nuclear Materials Safeguards and Security Upgrades Project, Phase I, Los Alamos National Laboratory, New Mexico

(Changes from FY 2001 Congressional Budget Request are denoted with a vertical line [§] in the left margin.)

Significant Changes

- # Addition of a collective protection system in the scope of NMSSUP Phase I.
- # External independent project review and associated actions delayed the project start from November 1998 to September 1999.
- # The project TPC, schedule and funding profile has changed to reflect the scope addition and start delay.

1. Construction Schedule History

	Fiscal Quarter				Total Estimated Cost (\$000) ^a	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete		
FY 1999 Budget Request	1Q 1999	1Q 2001	3Q 2000	3Q 2004	60,746	70,920
FY 2000 Budget Request (Preliminary Estimate)	2Q 1999	1Q 2001	3Q 2000	3Q 2004	60,746	70,920
FY 2001 Budget Request	4Q 1999	2Q 2002	4Q 2000	4Q 2005	61,143	74,634
FY 2002 Budget Request (Current Baseline Estimate)	1Q 2000	1Q 2003	3Q 2001	2Q 2005	61,143	73,951

^a TEC and Financial Schedule reflects Phase I only. Future cost estimates and funding profiles will be completed as part of future conceptual design efforts.

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
1999	9,700	9,700	0
2000	11,257 ^a	11,257	7,356
2001	18,003 ^b	18,003	17,600
2002	9,600	9,600	20,400
2003	8,900	8,900	10,200
2004	3,683	3,683	3,600
2005	0	0	1,987

3. Project Description, Justification and Scope

The Nuclear Material Safeguard and Security Project (NMSSUP) replaces the existing Los Alamos National Laboratory (LANL) security system, addresses Special Nuclear Material (SNM) facility requirements, and addresses malevolent vehicle threats at key nuclear facilities. Assessments of the LANL safeguards and security system have identified numerous system deficiencies due to aging equipment and outdated technologies. The NMSSUP will provide a reliable safeguards and security system to ensure the protection and control of SNM, classified matter, and Departmental property supporting current missions at LANL.

The NMSSUP is separated into multiple phases to accomplish the project goals. Phase 1 will provide for the replacement of safeguard and security control systems (computers/ communications links, etc.) and modification of related facilities. Later phases will replace the Perimeter Intrusion Detection and Assessment System (PIDAS) and interior alarms at two key nuclear material facilities. Future phases will protect classified parts, upgrade other facility alarms and replace the site-wide fire alarm system.

This project is to provide necessary upgrades to the existing Laboratory-wide security systems to bring them into compliance with DOE Order 5632.1C and to address deficiencies cited in the Los Alamos National Laboratory (LANL) Site Safeguards and Security Plan (SSSP). The systems being upgraded have been in operation for up to 14 years, have exceeded their useful design life, and are in need of replacement. Funding is required to continue safe, secure, economical operation of the Laboratory.

^a Original appropriation was \$11,300,000. This was reduced by \$43,000 for the FY 2000 rescission enacted by P.L. 106-113.

^b Original appropriation was \$18,043,000. This was reduced by \$40,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act. There is no change to the TEC due to a corresponding increase to the FY 2004 appropriation amount.

Phase 1

A new security system will be installed to include multiple host computers, operator interface consoles, upgrades to existing facilities, and a dedicated communications trunk. Existing facilities will be upgraded to serve as a Central Alarm Station (CAS) and Secondary Alarm Station (SAS) which will house the host computers and security monitoring personnel. To support the transition of the TA-55 local assessment facility for operation as the new CAS, an un-staffed assessment console room at TA-64-1 will be provided. Additional detail is provided below.

Control System

The project will replace the existing Laboratory security system; (Basic Rapid Alarm Security System (BRASS)), computers and software with Argus, a security system provided by Lawrence Livermore National Laboratory (LLNL). The CAS and SAS will be reconfigured, and minor remodeling of the badging office will be performed to accommodate Argus enrollment stations.

Facilities

CAS (TA-55-142) will be upgraded to house the host system computer and new operator consoles. A small utility building will be constructed to accommodate facility support equipment, and provide space for supervisory personnel.

SAS (TA-3-440) will be upgraded to house the host system computer and new operator consoles. A small utility building will be constructed to accommodate facility support equipment. Limited Area fencing and barricades will be installed to enclose the SAS to provide proper security. This facility will also house the training console to support the Argus system.

A collective protection system has been added to the CAS & SAS to protect the buildings against infiltration of aerosol and gas incapacitating agents.

The Central Guard Facility at TA-64-1 will be upgraded to house a new un-staffed assessment console to support the transition of the TA-55-142 local assessment room to operation as the CAS.

Communications System

A new fiber optic communications network will replace the existing telephone circuits connecting the security control computers to the field concentrators. Phase 1 will install the portion of the communications system that connects the new host computers to the security concentrators at LANL's Category I SNM facilities TA-55 and TA-18. In addition, the communications circuits needed to connect the computers in the CAS, SAS, and the assessment console room will be installed in Phase 1. Because Phase 1 involves installing fiber-optic bundles from the CAS and SAS, those bundles will be sized with adequate capacity in Phase 1 to accommodate the number of fibers needed to support future Phases.

Project Milestones:

Critical Decision 2	4QFY99
Date A/E Work Initiated	4QFY99
Date Title II Completed	2QFY01
Critical Decision 3	1QFY01
Date Physical Construction Starts	4QFY01
Date Construction Ends	2QFY05
Critical Decision 4 - Facility	2QFY03
Critical Decision 4 - ARGUS	2QFY04

4. Details of Cost Estimate

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	7,870	4,063
Design Management costs (2.4% of TEC)	1,492	1,963
Project Management costs (6.2% of TEC)	3,793	2,409
Total, Design Costs (21.5% of TEC)	13,155	8,435
Construction Phase		
Improvements to Land	0	364
Buildings	5,337	8,059
Special Equipment	16,570	17,027
Standard Equipment	3,720	4,348
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	2,112	1,926
Construction Management (5.8% of TEC)	3,518	1,904
Project Management (8.2% of TEC)	5,010	1,830
Total, Construction Costs (59.3% of TEC)	36,267	35,458
Contingencies		
Design Phase (3.8% of TEC)	2,329	2,450
Construction Phase (15.4% of TEC)	9,392	14,800
Total, Contingencies (19.2% of TEC)	11,721	17,250
Total, Line Item Costs (TEC) ^a	61,143	61,143

^a Escalation rates taken from FY 1999 DOE escalation multiplier tables. TEC/TPC and Financial Schedule reflect Phase I only. Phase 2 will be completed as part of a future project.

5. Method of Performance

Engineering, design and inspection will be accomplished under a negotiated architect-engineer (A-E) contract. Construction and procurement will be accomplished by fixed-price contracts awarded on the basis of competitive bidding. The computer system will be procured and installed through a cooperative agreement with Lawrence Livermore National Laboratory.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2000	FY 2001	FY 2002	Outyears	Total
Project Cost						
Facility Cost						
Design	0	7,356	4,700	2,000	1,744	15,800
Construction	0	0	12,900	18,400	14,043	45,343
Total, Line item TEC	0	7,356	17,600	20,400	15,787	61,143
Total, Facility Costs (Federal and Non-Federal)	0	7,356	17,600	20,400	15,787	61,143
Other Project Costs						
Conceptual design cost	1,075	0	0	0	0	1,075
NEPA documentation costs	67	0	0	0	0	67
Other ES&H costs	23	0	220	240	280	763
Other project-related costs	2,823	1,057	1,920	2,480	2,623	10,903
Total, Other Project Costs	3,988	1,057	2,140	2,720	2,903	12,808
Total, Project Cost (TPC)	3,988	8,413	19,740	23,120	18,690	73,951

7. Related Annual Funding Requirements

(FY 2004 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs	1,874	1,874
Annual facility maintenance/repair costs	902	902
Utility costs	59	59
Total related annual funding (operating from FY 2004 through FY 2023)	2,835	2,835

Program Direction

Program Mission

Weapons Program Direction provides for all Defense Programs (DP) Federal personnel at the Department of Energy (DOE) Headquarters and the Albuquerque, Nevada, Oak Ridge, Oakland, and Savannah River Operations Offices, except for those necessary to support the Secure Transportation Asset. At the Albuquerque, Nevada and Oakland Operations Offices, Defense Programs also provides for technical and administrative Federal support for other DOE programs, as the Lead Program Secretarial Office for these offices.

Program Goal

The goal of Weapons Program Direction is to provide the federal personnel and resources necessary to plan, manage and oversee the Stockpile Stewardship Program and to ensure compliance with all environment, safety, health, safeguards and security regulations, laws, Defense Nuclear Facilities Safety Board recommendations, and Department Executive Orders.

Performance Measures

Conduct a program of Directed Stockpile Work that supports stockpile refurbishment activities; completes surveillance, maintenance, design, and manufacturing activities necessary for the refurbishment and certification of the stockpile; and applies improved technologies and tools developed by the Campaigns to achieve Directed Stockpile Work performance measures. (NS1)

Conduct a series of science and computing Campaigns pertaining to: certifications of primaries, secondaries and weapon engineering; materials properties; advanced radiography; weapon performance in hostile environments; inertial confinement fusion and ignition; and simulation and computing. This includes developing simulation and modeling tools and capabilities to implement virtual testing of nuclear weapons and components in the absence of underground nuclear testing. Conduct a series of applied science and engineering campaigns pertaining to: advanced design and production technologies; enhanced surveillance; enhanced surety. Also conduct readiness campaigns pertaining to: pit and secondary manufacturing; high explosives manufacturing and weapon assembly/disassembly; non-nuclear components; and tritium production. (NS2)

Provide an appropriately-sized, cost effective, safe, secure, and environmentally-sound enterprise for national nuclear security programs; maintain nuclear test readiness, in accordance with Presidential direction; implement recommendations of the Commission on Maintaining U.S. Nuclear Weapons Expertise; continue restructuring, modernizing, and implementing integrated safety and security management throughout the national nuclear security enterprise; and continue construction of new facilities such as the Tritium Extractions Facility, computing facilities, and the National Ignition Facility (NIF). Ensure the physical infrastructure and facilities are operational, safe, secure, compliant and that a defined state of readiness is sustained at all needed. Maintain the DOE Secure Transportation Asset for safe, secure transport of nuclear weapons, special nuclear materials, and weapon components. Ensure that the capability to resume underground nuclear testing is maintained in

accordance with presidential directive through a combined experimental and test readiness program. Ensure the availability of a workforce with the critical skills necessary to meet long-term requirements. Maintain robust emergency response assets in accordance with presidential directive and Executive Order 12656 and Federal emergency plans. (NS3)

Ensure that the Department's nuclear weapons, materials, facilities, and information assets are secure through effective safeguards and security policy, implementation, and oversight. (NS6)

Performance will be measured by the successful completion of the following detailed performance measures:

- # Fully supporting implementation of the National Nuclear Security Administration, transferring funding for all NNSA/DP staff into the Weapons Program Direction account, establishing and staffing the Y-12 Area Office as an NNSA organization, and transferring Program Secretarial Officer responsibility for the Oakland Operations Office to Defense Programs.
- # Ensuring the availability of a federal workforce with the critical skills necessary to meet long term mission requirements;
- # Providing the necessary program, policy, and operational oversight to ensure that Defense Programs' FY 2002 Presidential Performance Agreement is successfully completed; and
- # Re-engineering the Defense Programs federal staff to ensure the staff is right-placed and right-sized to most efficiently and effectively carry out the Stockpile Stewardship mission.

Significant Accomplishments and Program Shifts

Defense Programs is requesting an increase in program direction funding of \$20.6 million, an 8.2% percent increase over the FY 2001 comparable appropriation (a discussion of the FY 001 comparabilities is included below). This increase will provide an additional \$12.3 million in salaries and benefits to support the FY 2002 DP federal staff; \$5.0 million to provide a replacement federal facility for the Los Alamos Area Office; and another miscellaneous \$3.3 million increases.

In our FY 2001 Congressional Budget Request, Defense Programs requested funds to implement a number of initiatives to re-engineer, re-size and re-site **the federal workforce**. DP is now proceeding with these initiatives, with the expectation that they will result in an additional 62 DP positions during FY 2001. Twenty-five of these positions will be used to about double the number of DP staff assigned to the Y-12 Area Office (YAO) of the Oak Ridge Operations Office, and will be used primarily to improve oversight of Y-12 operations. The YAO was established by the Department as part of implementing the National Nuclear Security Administration (NNSA), and some of the additional staff are necessary to prevent many of the "dual hatting" and NNSA staff independence issues that have concerned Congress. Similarly, the Oakland Operations Office is increasing its staffing level by 13 during FY 2001 to enhance its facility oversight capabilities, and the Albuquerque Operations is also increasing its staffing level by 21 to enhance facility operations oversight staff at the Los Alamos, Amarillo, Kirtland, and Kansas City Area Offices. Also included are 3 backfill positions at the Savannah River Operations Offices.

With two exceptions, we anticipate that overall Defense Programs staffing levels will remain stable in FY 2002. The exceptions are staffing increases at the Albuquerque Operations Office reflecting the transfer of funding

responsibility for 42 landlord staff from the Office of Environmental Management to Defense Programs and at Headquarters for the transfer of 4 federal staff associated with the Office of Aviation Management. Since the Department has determined that these transfers do not constitute comparabilities, the transfers appear as a net increase in our comparable staffing levels from FY 2001 to FY 2002.

The current **Los Alamos Area Office (LAAO) facility** is no longer suitable and needs to be replaced. The facility, originally built over 50 years ago, is too small to house the expanded staffing levels planned for the Area Office. Further, the facility suffers from a number of safety and environmental deficiencies which are not cost effective to resolve, including the lack of a sprinkler system, presence of asbestos and lead based paint, failing heating and HVAC systems, and a failing roof. Based on these considerations, DP is requesting \$5 million in general plant project (GPP) funding to build a new facility. The new facility will house approximately 100 people within a two-story, 25,000+ sq. ft. building and be located on currently DOE-owned land. The parcel of land on which the current facility stands will be surplus and transferred to the County of Los Alamos (see Readiness in Technical Base and Facilities/Special Projects for a discussion of the Los Alamos land transfer activities).

FY 2002 Program Changes and FY 2000 and FY 2001 Comparabilities

This request includes three significant changes to be implemented in FY 2002: the restoration of DP safeguards and security federal staff into the unified program direction account, capturing NNSA staff currently paid for in non-NNSA accounts into Weapons Program Direction, and the return of management responsibility for the emergency response assets to DP from the Office of Security and Emergency Operations. A table is provided, following this section, that shows the FY 2002 funding associated with these changes and the comparable funding levels assumed for FY 2000 and FY 2001.

In FY 2001, consistent with the Department's amended budget request that was intended to segregate and direct fund safeguards and security activities, Congress appropriated funding for **DP safeguards and security federal staff** in three different accounts: Weapons Activities Program Direction (Headquarters); Weapons Activities Safeguards and Security (Albuquerque and Nevada Operations Offices); and Science Safeguards and Security (Oakland and Oak Ridge Operations Offices). For FY 2002, the Department has included two adjustments to this arrangement. The first is to move all NNSA/DP safeguards and security staff funded in the Science Account into the Weapons Activities account, consistent with implementation of the NNSA. The second is to reconsolidate all DP federal staff into a single program direction account.

The FY 2002 also requests funds to support the implementation of the National Nuclear Security Administration (NNSA) by transferring funding to the Weapons Activities Program Direction account for **NNSA/DP landlord staff currently funded by non-NNSA organizations**. 42 Office of Environmental Management (EM) funded positions at the Albuquerque Operations Office have been identified as NNSA positions. The transfer of funding responsibility for these positions is needed to make sure that all NNSA positions at AL are funded within NNSA accounts. Likewise, the FY 2002 request provides funds to transfer Oakland Operations Office landlord responsibilities (156 positions) from the Office of Science to Defense Programs. Finally the Office of Aviation Management, with a Headquarters staff of 4, will be returning to Defense Programs (The Department has directed that the transfers of the NNSA staff at AL and the Office of

Aviation Management not be treated as comparabilities and thus the transfers are reflected as increases to activities within this request).

Also as part of implementing the National Nuclear Security Administration, the FY 2002 Weapons Program Direction account includes funding for transfer from the Office of Security and Emergency Management of 79 federal staff associated with oversight and management of the Department’s Emergency Response assets (e.g., Nuclear Emergency Search Team, Aerial Measurements Survey) and emergency management programs. Additional information on these transferred programs is included in the Readiness in Technical Base and Facilities/Weapons Incident Response narrative.

Funding Profile

	FY 2000 Comparable Appropriation	FY 2001 Original Appropriation	FY 2001 Adjustments	FY 2001 Comparable Appropriation	FY 2002 Request
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Weapons Program Direction	238,005	224,071	26,495	250,566	271,137
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Public Law 106-398, “Floyd D. Spence National Defense Authorization Act for FY 2001”
 Public Law 106-377, “Energy and Water Development Act, FY 2201”

Table Program Direction-1

Program Direction
 FY 2001 Adjustment and Comparabilities

(Dollars in Thousands)

Weapons Program Direction, FY 2001 Original Appropriation	224,071
Appropriation Adjustments	
General Reduction	-529
Spread of Safeguards & Security Amendment	-20,938
FY 2001 Omnibus Rescission	-446
FY 2001 Reprogrammings	0
FY 2002 Structure Comparabilities - Internal	
Federal Personnel in Weapons Safeguards & Security	11,607
FY 2002 Structure Comparabilities - External	
NNSA Landlord Personnel at Oakland Operations Office	18,720
NNSA Landlord Personnel at Albuquerque Operations Office	0
NNSA S&S Federal Staff at Oak Ridge and Oakland Operations Offices included in Science Safeguards & Security	5,851
Emergency Response and Management from the Office of Security and Emergency Management	12,230
DOE Office of Aviation Management from Management Administration	0
Subtotal, FY 2001 Adjustments	26,495
Total, FY 2001 Comparable Appropriation	250,566

Weapons Program Direction

Mission Supporting Goals and Objectives

Weapons Program Direction provides for all Defense Programs (DP) Federal personnel-related expenses at the Department of Energy (DOE) Headquarters and the Albuquerque, Nevada, Oak Ridge, Oakland, and Savannah River Operations Offices, except for those necessary to support the Secure Transportation Asset. At the Albuquerque, Nevada and Oakland Operations Offices, Defense Programs also provides for technical and administrative Federal support for other DOE programs, as the Lead Program Secretarial Office for these offices. Funding is also provided for technical support throughout the Defense Programs complex in the areas of environment, safety, and health; safeguards and security; National Environmental Policy Act compliance; and compliance with Federal and state legislation, Defense Nuclear Facilities Safety Board recommendations, Departmental Executive Orders, and departmental federal staffing initiatives.

Funding Schedule

(dollars in thousands, whole FTEs)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Albuquerque					
Salaries & Benefits	66,527	72,833	80,889	8,056	11.1%
Travel	3,242	3,800	3,838	38	1.0%
Support Services	9,902	10,125	10,125	0	0.0%
Other Related Expenses	13,453	13,942	19,964	6,022	43.2%
Total, Albuquerque	93,124	100,700	114,816	14,116	14.0%
Federal Staffing	753	774	805	31	4.0%
Nevada					
Salaries & Benefits	20,310	21,022	22,386	1,364	6.5%
Travel	567	654	827	173	26.5%
Support Services	5,982	6,230	6,418	188	3.0%
Other Related Expenses	6,751	8,094	7,671	-423	-5.2%
Total, Nevada	33,610	36,000	37,302	1,302	3.6%
Federal Staffing	232	232	234	2	0.9%

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Oakland					
Salaries & Benefits	20,493	21,578	21,071	-507	-2.4%
Travel	1,164	1,355	1,400	45	3.3%
Support Services	2,801	2,865	2,971	106	3.7%
Other Related Expenses	5,554	5,894	7,659	1,765	29.9%
Total, Oakland	30,012	31,692	33,101	1,409	4.4%
Federal Staffing	219	232	232	0	0.0%
Oak Ridge					
Salaries & Benefits	3,457	4,786	7,222	2,436	50.9%
Travel	238	242	643	401	165.7%
Support Services	825	2,123	2,129	6	0.3%
Other Related Expenses	2,697	747	884	137	18.3%
Total, Oak Ridge	7,217	7,898	10,878	2,980	37.7%
Federal Staffing	33	58	62	4	6.9%
Savannah River					
Salaries & Benefits	2,568	2,650	2,858	208	7.8%
Travel	214	240	232	-8	-3.3%
Support Services	68	180	180	0	0.0%
Other Related Expenses	105	130	130	0	0.0%
Total, Savannah River	2,955	3,200	3,400	200	6.3%
Federal Staffing	24	27	27	0	0.0%

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Emergency Response and Management					
Salaries & Benefits	4,515	6,632	7,537	905	13.6%
Travel	435	437	460	23	5.3%
Support Services	1,290	2,336	1,291	-1,045	-44.7%
Other Related Expenses	2,825	2,825	2,969	144	5.1%
Total, Emergency Response and Management . .	9,065	12,230	12,257	27	0.2%
Federal Staffing	79	79	79	0	0.0%
Headquarters					
Salaries & Benefits	33,873	31,304	31,142	-162	-0.5%
Travel	2,087	1,695	1,900	205	12.1%
Support Services	17,114	17,131	17,251	120	0.7%
Other Related Expenses	8,948	8,716	9,090	374	4.3%
Total, Headquarters	62,022	58,846	59,383	537	0.9%
Federal Staffing	254	254	258	4	1.6%
Total Weapons Activities					
Salaries & Benefits	151,743	160,805	173,105	12,300	7.6%
Travel	7,947	8,423	9,300	877	10.4%
Support Services	37,982	40,990	40,365	-625	-1.5%
Other Related Expenses	40,333	40,348	48,367	8,019	19.9%
Total, Program Direction	238,005	250,566	271,137	20,571	8.2%
Federal Staffing	1,594	1,656	1,697	41	2.5%

Detailed Program Justification

(dollars in thousands)

FY 2000	FY 2001	FY 2002
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Salaries and Benefits

151,743 160,805 173,105

Provide for the salaries and benefits for National Nuclear Security Administration/Defense Programs (NNSA/DP) federal staff, including annual cost of living increases, time-in-service increases, promotions, and performance awards.

Continuing Staff Levels 151,743 159,305 165,545

Provide for the salaries and benefits for current National Nuclear Security Administration/Defense Programs (NNSA/DP) federal staff. Increase of \$6.24 million provides funding for anticipated annual cost of living pay increases and planned pay schedule step and grade promotions.

Support Establishment of Y-12 Area Office (YAO) 0 1,500 3,375

As part of the implementation of NNSA and to enhance federal oversight of the Y-12 Plant, the Department is establishing the Y-12 Area Office (YAO). The staffing plan for the new area office calls for 29 additional staff to be hired in FY 2001 and FY 2002. FY 2002 increase of \$1.875 million provides full year funding for 25 FY 2001 new hires and partial year funding for 4 FY 2002 new hires.

NNSA Staff at Albuquerque Operations Office 0 0 4,185

In FY 2002 Defense Programs is assuming responsibility for funding 42 staff at the Albuquerque Operations Office previously funded by the Office of Environmental Management. Funding responsibility for funding these staff is being transferred to insure that NNSA employees are funded within NNSA program direction accounts. The Department is not treating this transfer as a comparability.

Travel

7,947 8,423 9,300

Provides for DP federal staff travel, including permanent changes of station (PCS). The FY 2002 increase of \$0.877 million includes an increase of \$0.343 million to support the transfer of NNSA staff at the Albuquerque Operations Office, and an increase of \$0.534 to otherwise maintain current levels of oversight travel.

FY 2000	FY 2001	FY 2002
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Support Services

37,982 40,990 40,365

Technical Support 18,242 19,947 20,158

Technical support includes: services to determine feasibility of design considerations; development of specifications, system definition, system review and reliability analyses; economic and environmental analyses; test and evaluation; and surveys or reviews to improve the effectiveness, efficiency, and economy of technical operations. Included in this category in FY 2002 is \$700,000 to provide central support and direction of Project Management by the Office of the Controller and \$200,000 for central support of Facilities Management/Infrastructure by the Office of the Controller. The FY 2002 increase of \$0.211 million will maintain current levels of technical support.

Management Studies 1,340 124 124

Management Support services include analysis of workload and work flow, directives management studies, automatic data processing, manpower systems analyses, assistance in the preparation of programs plans, training and education, and any other reports or analyses directed toward improving the effectiveness, efficiency, and economy of management and general services.

Automated Data Processing (ADP) Support 12,138 13,599 13,776

ADP Support provides for information technology landlord support at Headquarters and the Albuquerque, Nevada, and Oakland Operations Offices (and associated Area Offices), and DP share of costs at the Oak Ridge and Savannah River Operations Offices. Costs include the maintenance and operation of site computing networks (open and classified) and the procurement of “help desk” services. The FY 2002 increase of \$0.177 million will maintain the current level of ADP support.

Administrative Support 6,262 7,320 6,307

Administrative Support provides clerical support, other non-technical support such as operation of mailrooms (open and classified), and maintenance of various databases and process such as the Department’s travel approval and tracking system. The FY 2002 decrease of \$1.013 million reflects an overall decline in contractor support activities procured by the Emergency Response and Management programs.

FY 2000	FY 2001	FY 2002
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Other Related Expenses **40,333** **40,348** **48,367**

Rental Space/Facility Management 20,725 20,221 26,785

Rental Space/Facility Management 20,725 20,221 21,785

Rental Space/Facility Management provides for rental space for federal employees; facility operations charge-back costs at DOE/Contractor shared space (e.g., DOE share of facility costs associated with the Kansas City Area Office within the Bannister Federal Complex); and operations and maintenance of rented and owned federal space, including utilities, telecommunications, and minor construction costs (e.g., office space reconfiguration, wall painting, and heating and cooling system upgrades). DP provides “landlord” services at the Albuquerque, Nevada and Oakland Operations Offices – and associated Area Offices – for other DOE programs. (Facility Management costs for Headquarters are included below, within “Department Working Capital Fund”.) The FY 2002 increase of \$0.984 million will maintain the current level of facility support.

Replacement Los Alamos Area Office Facility (GPP) 0 0 5,000

The current Los Alamos Area Office (LAAO) facility is no longer suitable and needs to be replaced. The facility, originally built over 50 years ago, is too small to house the expanded staffing levels planned for the Area Office. Further, the facility suffers from a number of safety and environmental deficiencies which are not cost effective to resolve, including lack of sprinkler system, presence of asbestos and lead based paint, failing heating and HVAC systems, and a failing roof. Based on these considerations, DP is requesting \$5 million in general plant project (GPP) funding to build a new facility. The new facility will house approximately 100 people within a two-story, 25,000+ sq. ft. building and be located on currently DOE-owned land. The parcel of land on which the current facility stands will be surplus and transferred to the County of Los Alamos (see Readiness in Technical Base and Facilities/Special Projects for a discussion of the Los Alamos land transfer activities).

Software Procurement and Maintenance/ Computer Acquisitions . . . 3,507 3,155 2,435

Software Procurement and Maintenance/Computer Acquisitions supports the acquisition of computing platforms and software. This includes support of Department-wide systems (e.g., financial information reporting systems), site-wide systems and networks, and desktop computers and software. The FY 2002 decrease of \$0.720 million reflects anticipated savings to be achieved by Defense Programs as the Department begins to implement the new Business Management Information System (BMIS).

Training 1,534 1,727 1,872

Provides for necessary training and skills maintenance of the DP federal staff. An additional \$0.145 million is requested in FY 2002 to support the increased emphasis on maintaining and improving the technical skills and qualifications of the federal staff.

	FY 2000	FY 2001	FY 2002
Department Working Capital Fund	7,652	7,980	8,771
<p>Working Capital Fund provides for Defense Program's share of common headquarters infrastructure support (e.g., rents and utilities) as well as procurement of specific DP Headquarters infrastructure requirements through the Department (e.g., telephone lines, printing and reproduction, general office space modifications and construction). The FY 2002 increase of \$0.791 million supports increased billing charges as well as expanded Department requirements.</p>			
Northern New Mexico Pueblos	750	750	750
<p>Provide support to Northern New Mexico tribal governments to aid them in their ongoing efforts to protect Tribal rights and assist departmental decision-making relative to the Los Alamos National Laboratory</p>			
Other Activities/Miscellaneous Procurements	6,165	6,515	7,754
<p>Other Activities/Miscellaneous Procurements provides funding for all other activities required to support DP's federal personnel, but not included in other categories. Activities include minor procurements (e.g., office supplies, door locks) and DP's allocated share of various shared Department resources such as contract close-out auditing, Small Business Administration Certification, and the Foreign Visits and Assignments Program database. The FY 2002 increase of \$1.239 million will support an increased number of Department cost-shared assets.</p>			
Total, Program Direction	238,005	250,566	271,137

Explanation of Funding Changes from FY 2001 to FY 2002

	FY 2002 vs FY 2001 (\$000)
Salaries & Benefits	
# For current staff levels, an increase of \$6.240 million provides funding for anticipated annual cost of living pay increases and planned pay schedule step and grade promotions	6,240
# In support of the establishment of the Y-12 Area Office, an increase of \$1.875 million provides full year funding for 25 FY 2001 new hires and partial year funding for 4 FY 2002 new hires	1,875
# In FY 2002 Defense Programs is assuming responsibility for funding 42 staff at the Albuquerque Operations Office previously funded by the Office of Environmental Management. Funding responsibility for these staff is being transferred to insure that NNSA employees are funded within NNSA program direction accounts. The Department is not treating this transfer as a comparability	4,185
Total, Salaries and Benefits	12,300

FY 2002 vs FY 2001 (\$000)

Travel

# The FY 2002 increase of \$0.877 million will support current levels of oversight travel and travel for the 42 transferred personnel at the Albuquerque Operations Office	877
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Support Services

# An increase of \$0.211 million will support current levels of technical support.	211
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# An increase of \$0.177 million will support current levels of ADP support.	177
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# A decrease of \$1.013 million in administrative support services reflects an overall decrease in contract support services used by the Emergency Response and Management programs.	-1,013
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Total, Support Services	-625
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Other Related Expenses

# The FY 2002 increase of \$1.564 million will maintain the current level of federal facility support	1,564
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# Provide general plant project funding to replace the current Los Alamos Area Office federal facility and to allow the current land parcel to be transferred to the County of Los Alamos	5,000
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# The FY 2002 decrease of \$0.720 million for Software Procurements/Computer Acquisitions reflects anticipated savings from the Department's implementation of the Business Management Information System (BMIS)	-720
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# An additional \$0.145 million in FY 2002 will support an increased emphasis on maintaining and improving the federal staff's technical skills and qualifications	145
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# An increase of \$.791 million supports increased billing charges as well as expanded Department requirements within the Working Capital Fund	791
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# An increase of \$1.239 million will support an increased number of Department cost-shared assets.	1,239
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Total, Other Related Expenses	8,019
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Total Funding Change, Program Direction	20,571
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Support Services

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Technical Support Services	18,242	19,947	20,158	211	1.1%
Management Support Services					
Management Studies	1,340	124	124	0	0.0%
ADP Support	12,138	13,599	13,776	177	1.3%
Administrative Support Services	6,262	7,320	6,307	-1,013	-13.8%
Total, Management Support Services	19,740	21,043	20,207	-836	-4.0%
Total, Support Services	37,982	40,990	40,365	-625	-1.5%

Other Related Expense

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Other Related Expenses/Training	1,534	1,727	1,872	145	8.4%
Contractual Services					
Rental Space/Facility Maintenance	20,725	20,221	26,785	6,564	32.5%
Software Procurement/Maintenance Activities/ Capital Acquisitions	3,507	3,155	2,435	-720	-22.8%
Other	6,165	6,515	7,754	1,239	19.0%
Total, Contractual Services	30,397	29,891	36,974	7,083	23.7%
Department Working Capital Fund (WCF) Estimate	7,652	7,980	8,771	791	9.9%
Other Services procured through WCF				0	??
Total, Working Capital Fund	7,652	7,980	8,771	791	9.9%
Northern New Mexico Pueblos	750	750	750	0	0.0%
Total, Other Related Expenses	40,333	40,348	48,367	8,019	19.9%

Capital Operating Expenses & Construction Summary

Capital Operating Expenses ^a

(dollars in thousands)

	FY 2000	FY 2001	FY 2002	\$ Change	% Change
General Plant Projects	0	0	5,000	5,000	100.0%
Capital Equipment	383	380	380	0	0.0%
Total, Capital Operating Expenses . .	383	380	5,380	5,000	1315.8%

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Appropriations	FY 2000	FY 2001	FY 2002	Unappropriated Balance
Total, Construction	0	0	0	0	0	0

^a Since funds are appropriated for Operations and Maintenance, which includes operating expenses, capital equipment and general plant projects, we no longer budget separately for capital equipment and general plant projects. FY 2001 and FY 2002 funding shown reflects estimates based on actual FY2000 obligations.

Cerro Grande Fire Activities

Emergency funding was provided in the FY 2001 Energy and Water Development Appropriations Act to provide for necessary expenses to remediate damaged Department of Energy facilities and for other expenses associated with the Cerro Grande Fire in New Mexico. The Department was directed, in Conference Report 106-907, to include construction project data sheets for the Cerro Grande projects in the fiscal year 2002 budget request.

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Approp- riations	FY 2000	FY 2001	FY 2002	Unapprop- riated Balance
01-D-701, Site-wide Fire Alarm System Replacement, LANL . . .	24,945	0	0	24,945	0	0
01-D-702, Emergency Operations Center Replacement and Relocation, LANL	19,956	0	0	19,956	0	0
01-D-703, TA-54 Waste Management Mitigation, LANL . .	29,036	0	0	29,036	0	0
01-D-704, Office Building Replacement Program for Vulnerable Facilities, LANL	9,978	0	0	9,978	0	0
01-D-705, Multi-channel Communications System, LANL	7,982	0	0	7,982	0	0
97-D-102, Dual-Axis Radiographic Hydrotest Facility (DARHT), LANL	6,087	0	0	6,087	0	0
Total, Construction	97,984	0	0	97,984^a	0	0

^a The FY 2001 appropriation amounts reflect the rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act as follows:

- 01-D-701: original appropriation of \$25,000,000 was reduced by \$55,000.
- 01-D-702: original appropriation of \$20,000,000 was reduced by \$44,000.
- 01-D-703: original appropriation of \$29,100,000 was reduced by \$64,000.
- 01-D-704: original appropriation of \$10,000,000 was reduced by \$22,000.
- 01-D-705: original appropriation of \$8,000,000 was reduced by \$18,000.
- 97-D-102: original appropriation of \$6,100,000 was reduced by \$13,000.

01-D-701, Site-wide Fire Alarm System Replacement (SWFASRP), Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # This is a new Cerro Grande Fire Rehabilitation project. Funding was provided in the FY 2001 Energy and Water Development Appropriations Act which required submission of a Construction Project Data Sheet for the project with the FY 2002 budget. Funding estimates are preliminary and do not represent validated baselines.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$25,000,000 to \$24,945,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	1Q 2002	4Q 2002	3Q 2002	4Q 2003	24,945 ^a	27,920

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	24,945 ^a	0	0
2002	0	20,000	18,525
2003	0	4,945	6,420

^a Original appropriation was \$25,000,000. This was reduced by \$55,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

3. Project Description, Justification and Scope

In order to address damages from the Cerro Grande Fire and risk mitigation against future loss, a reliable fire alarm system is required. Fire alarms across the 2000-plus buildings at LANL have proven to be unreliable. The stress of the Cerro Grande fire on the aging system has confirmed that replacement with a comprehensive, site-wide, fire alarm system, using off-the-shelf components, is critical to life safety and must be planned and implemented as quickly as possible. (The existing system sustained damage and repairs to the existing system are proposed under the “Emergency Response Fire Alarms” category in FY 2000. This line-item project would replace and modernize the entire fire alarm system between FY 2001 and FY 2003.)

The primary objective of the Site Wide Fire Alarm System Replacement Project (SWFASRP) is to separate the fire alarm system from the Basic Rapid Alarm Security System (BRASS) system. To accomplish this a star configuration communications system will be set up. This will require that a certain (as yet undetermined) number of communications (dedicated telephone) lines will be added to the LANL system in accordance with National Fire Protection Association 72. In addition, certain panels that do not have an “autodial” capability will have to be replaced.

Project Milestones:

FY 2002:	Start Design	1Q
	Start Construction	3Q
	Complete Design	4Q
FY 2003:	Complete Construction	4Q

4. Details of Cost Estimate

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	2,000	0
Design Management Costs (0.8% of TEC)	200	0
Project Management Costs (1.5% of TEC)	375	0
Total Design Costs (10.3% of TEC)	2,575	0
Construction Phase		
Utilities	1,000	0
Standard Equipment	10,000	0
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	2,800	0
Construction Management (1.5% of TEC)	375	0
Project Management (3.0% of TEC)	750	0

(dollars in thousands)

	Current Estimate	Previous Estimate
Total Construction Costs (59.8% of TEC)	14,925	0
Contingencies		
Design Phase (12.0% of TEC)	3,000	0
Construction Phase (17.8% of TEC)	4,445	0
Total Contingencies (29.8% of TEC)	7,445	0
Total, Line Item Costs (TEC)	24,945	0

5. Method of Performance

Design, construction, and procurement will be accomplished by a competitive best value fixed-price design-build contract. Design-build is a project delivery system where a single entity performs both the design and construction. Some advantages of design-build include a single source for construction activities, cost control and accountability. The site services contractor under fixed price contracts will perform the final tie-in to existing utilities.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	0	5,575	0	0	0	5,575
Construction	0	12,950	6,420	0	0	19,370
Total, Line item TEC	0	18,525	6,420	0	0	24,945
Total Facility Costs (Federal and Non-Federal)	0	18,525	6,420	0	0	24,945
Other Project Costs						
Conceptual design costs	460	0	0	0	0	460
NEPA documentation costs	150	40	30	0	0	220
Other project-related costs	965	420	910	0	0	2,295

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Total, Other Project Costs ^a	1,575	460	940	0	0	2,975
Total Project Cost (TPC)	1,575	18,985	7,360	0	0	27,920

^a Project Execution Plan, Feasibility Studies, Conceptual Estimating Support, Scheduling and Controls Support, Safeguards and Security Analysis, Design-Build Source Selection Committee Work, Value Engineering Study, Fire Hazards Assessment, Site Surveys, Soil Reports, Permits, Administrative Support, Operations and Maintenance Support, ES&H Monitoring, Operations Testing, and Readiness Assessment.

**Cerro Grande Fire Activities/Construction/
01-D-701—Site-wide Fire Alarm System
Replacement (SWEASRP)**

FY 2002 Congressional Budget

7. Related Annual Funding Requirements

(FY 2003 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs ^a	1,084	0
Annual facility maintenance/repair costs ^b	1,330	0
Programmatic operating expenses directly related to the facility ^c	651	0
Utility costs	10	0
Total related annual funding (operating from FY 2003 through FY 2023)	3,075	0

^a When the facility is operational in the 4th Quarter of FY 2003, costs will average \$1,084,000 for labor and material per year. An average of 5 staff years will be required to operate the system.

^b Based on projected annual costs for LANL site services subcontractor as derived from historical maintenance and repair costs for the \$1,330,000 system.

^c Annual programmatic operating expenses are estimated at \$650,400 based on representative operating expenses of 3 people. This is not a specific program, but rather an institutional infrastructure activity.

01-D-702, Emergency Operations Center Replacement and Relocation (EOC), Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # This is a new Cerro Grande Fire Rehabilitation project. Funding was provided in the FY 2001 Energy and Water Development Appropriations Act which required submission of a Construction Project Data Sheet for the project with the FY 2002 budget. Funding estimates are preliminary and do not represent validated baselines.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$20,000,000 to \$19,956,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	4Q 2001	4Q 2002	1Q 2002	4Q 2003	19,956 ^a	22,416

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	19,956 ^a	15,956	1,260
2002	0	4,000	10,000
2003	0	0	8,696

^a Original appropriation was \$20,000,000. This was reduced by \$44,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

3. Project Description, Justification and Scope

In order to address damages from the Cerro Grande Fire and risk mitigation against future loss, replacement and relocation of the Emergency Operations Center is required. The Emergency Operations Center (EOC) was designed to accommodate 16 people and is insufficient to serve as the command center during an emergency such as the Cerro Grande Fire. For several weeks, 75 persons engaged in emergency response activities, with a prohibition against further occupancy, occupied the EOC continuously. Cramped spaces, limited communications, and a vulnerable location have made the EOC a potentially dangerous place during emergencies, limiting its effectiveness significantly. During the Cerro Grande Fire the EOC was burned over twice, putting both its occupants and the entire emergency response effort for the Laboratory at substantial risk. Replacement with a modern, well-equipped and well-designed facility is critical to avert potential disaster in future emergencies.

The EOC has demonstrated that it fails to provide the minimum capability or capacity to meet requirements expected at Los Alamos National Laboratory (LANL). The existing EOC is located inside emergency planning zones that renders it inaccessible to key individuals during specific emergencies. In addition, the EOC is located in the basement of a building that does not meet seismic requirements, can accumulate heavier than air gases, and does not have the required escape routes for its occupants.

An operable EOC is a core requirement for LANL. The current EOC cannot be economically upgraded to meet minimum requirements.

The EOC will house Emergency Management, Facility Operations, Emergency Assessment, Protective Action Formulation and Joint Dispatch Operations. Current planning is based on combining these functions with the County of Los Alamos to provide synergism among the various emergency response organizations. The EOC will accommodate Site, Federal, State, and Tribal interfaces and their related functions. It must be sited where it is accessible to personnel required to staff and control the emergency. The EOC will be designed and constructed to meet and withstand any anticipated emergency including natural phenomenon events; it cannot be jeopardized by the emergency itself. The EOC will be capable of sustaining the occupants for an extended period of time; it requires breathable air, appropriate shielding, and back-up building services and utilities.

Project Milestones:

FY 2001:	Start Design	4Q
FY 2002:	Start Construction	1Q
	Complete Design	4Q
FY 2003:	Complete Construction	4Q

4. Details of Cost Estimate

(dollars in thousands)		
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	1,400	0
Design Management Costs (0.8% of TEC)	160	0
Project Management Costs (1.5% of TEC)	300	0
Total Design Costs (9.3% of TEC)	1,860	0
Construction Phase		
Improvements to Land	600	0
Buildings	7,240	0
Utilities	1,600	0
Standard Equipment	1,200	0
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	600	0
Construction Management (1.5% of TEC)	300	0
Project Management (3.0% of TEC)	600	0
Total Construction Costs (60.8% of TEC)	12,140	0
Contingencies		
Design Phase (12.0% of TEC)	2,400	0
Construction Phase (17.8% of TEC)	3,556	0
Total Contingencies (29.8% of TEC)	5,956	0
Total, Line Item Costs (TEC)	19,956	0

5. Method of Performance

Design, construction, and procurement will be accomplished by a competitive best value fixed-price design-build contract. Design-build is a project delivery system where a single entity performs both the design and construction. Some advantages of design-build include a single source for construction activities, cost control and accountability. The site services contractor under fixed price contracts will perform the final tie-in to existing utilities.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	1,260	3,000	0	0	0	4,260
Construction	0	7,000	8,696	0	0	15,696
Total, Line item TEC	1,260	10,000	8,696	0	0	19,956
Total Facility Costs (Federal and Non-Federal)	1,260	10,000	8,696	0	0	19,956
Other Project Costs						
Conceptual design costs	595	0	0	0	0	595
NEPA documentation costs	190	30	10	0	0	230
Other project-related costs	475	410	750	0	0	1,635
Total, Other Project Costs ^a	1,260	440	760	0	0	2,460
Total Project Cost (TPC)	1,855	10,440	9,456	0	0	22,416

7. Related Annual Funding Requirements

(FY 2003 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs ^b	3,252	0
Annual facility maintenance/repair costs ^c	272	0

^a Project Execution Plan, Feasibility Studies, Conceptual Estimating Support, Scheduling and Controls Support, Safeguards and Security Analysis, Design-Build Source Selection Committee Work, Value Engineering Study, Fire Hazards Assessment, Site Surveys, Soil Reports, Permits, Administrative Support, Operations and Maintenance Support, ES&H Monitoring, Operations Testing, and Readiness Assessment.

^b When the facility is operational in the 4th Quarter of FY 2003, costs will average \$3,252,000 for labor and material per year. An average of 15.0 staff years will be required to operate the facility.

^c Based on projected annual costs for LANL site services subcontractor as derived from historical maintenance and repair costs for the existing EOC.

Programmatic operating expenses directly related to the facility ^d	1,000	0
Utility costs	250	0
Total related annual funding (operating from FY 2003 through FY 2023)	<u>4,774</u>	<u>0</u>

^a Annual programmatic operating expenses are not expected to be required for other than emergency situations and would be event specific. For this reason annual programmatic costs are estimated as a lump sum of \$1,000,000 at this time.

01-D-703, TA-54 Waste Management Mitigation (WMRMP), Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # This is a new Cerro Grande Fire Rehabilitation project. Funding was provided in the FY 2001 Energy and Water Development Appropriations Act which required submission of a Construction Project Data Sheet for the project with the FY 2002 budget. Funding estimates are preliminary and do not represent validated baselines.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$29,100,000 to \$29,036,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	4Q 2001	4Q 2002	1Q 2002	4Q 2003	29,036 ^a	31,436

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	29,036 ^a	5,000	2,500
2002	0	24,036	12,100
2003	0	0	14,436

^a Original appropriation was \$29,100,000. This was reduced by \$64,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

3. Project Description, Justification and Scope

The objective of this project is to mitigate the damages to waste management operations that have occurred, or may occur in the event of a fire or other fire-related natural disaster at Los Alamos National Laboratory (LANL). During the Cerro Grande Fire in May 2000, various demonstrated vulnerabilities arose that presented unacceptable risk to LANL's waste operations. This project will result in modifications and/or replacement of existing equipment, facilities and/or operations that will mitigate such risk.

This project is currently evaluating a set of several subprojects. Each of these subprojects, identified by Facility Waste Operations (FWO), is designed to mitigate waste management risks that may arise in event of a fire or fire-related event. The various subprojects are planned for implementation at two Technical Areas (TAs) within LANL – TA-50 and TA-54. The TA-50 site manages radiological liquid waste (RLW) while the TA-54 location manages radioactive solid waste (RSW). A brief description of each of the potential subprojects at these two areas is presented below:

TA-50 Subprojects. Following is a summary of potential subprojects at TA-50 that may best mitigate RLW-associated risk during a fire or other fire-related natural disaster. The seven subprojects being evaluated represent upgrades to the existing RLW treatment facility (TA-50-01).

1. Fire Resistant Surfaces. This potential subproject adds fire-resistant surfaces (e.g., asphalt, concrete, etc.) around the existing RLW Treatment Facility (TA-50-01). The addition of fire-resistant surfaces reduces a fire ground path to the facility.
2. Remote RLW Monitors and Controls. This potential subproject adds remote monitoring and control equipment that will measure flows and/or incoming waste characteristics, and allow remote control of RLW. The existing RLW collection system is not remotely monitored or controlled. Sudden or “spike” releases from upstream facilities (e.g., TA-55, CMR) cannot be detected to allow flow diversion or other control actions. During the Cerro Grande Fire, the lack of remote monitoring and control required operators to be on-site during high-risk, fire conditions. Addition of such equipment will minimize the need for operators to be on-site during fire or other natural disaster.
3. Membrane Process Unit. The existing RLW Facility has one ultra filtration membrane process unit. This unit is needed to ensure discharge permit requirements are satisfied. The unit has no redundancy, represents the most complex operating unit, and represents a critical single point of failure in the overall RLW treatment process. During the fire, operation of this unit was required, however, parts and service were not available. Potential addition of a redundant unit will eliminate the single point of failure and help ensure waste discharge requirements are reliably satisfied.
4. RLW Holding Tankage. This potential subproject adds RLW storage capability. The additional capacity is intended to allow RLW to be stored for an extended period without the need for on-site operation and, reduce the water makeup requirements for the overall system. During the Cerro Grande Fire, plant operators were required to operate the facility because RLW was nearing the storage limit of the facility. Additional storage would reduce the need for operators to be at TA-50 during such high-risk periods.

5. HVAC Upgrades. This potential subproject upgrades the existing RLW HVAC system to increase its overall reliability and to allow remote monitoring in the event of a fire or other fire-related disaster. The existing HVAC system has no remote ambient air monitoring capability, has exceeded its useful life, and requires repair to ensure reliable safe operating conditions. Remote ambient air monitoring (internal to the building) will allow operations personnel to remain off-site and monitor the facility, as well as safely plan for re-entry into the facility following a fire or other fire-related disaster.
6. RLW Pump Station. This potential subproject replaces the existing RLW pump station with a new pump station. The existing station does not accommodate flows that may be realized during a fire (e.g., flows from fire sprinklers at remote locations). Furthermore, the pumps, critical to the overall facility operation, have no redundancy and have exceeded their useful life. A new station ensures reliable operation during a natural disaster and reduces the potential of RLW releases.
7. Replace Single-Wall RLW Piping. This potential subproject replaces existing single-wall piping at the RLW facility. Replacement of such piping will decrease the risk of untreated RLW release during a fire or other natural disaster.

TA-54 Subprojects. The potential TA-54 subprojects being evaluated are:

1. Over-Package Containers. This potential subproject re-packages (through exterior over-packing) radioactive solid waste (RSW) to minimize adverse impacts from a fire. Some of the existing RSW at TA-54 is stored in containers that contain combustible material and/or the containers themselves are combustible (e.g., plywood). Over-packaging this waste to remove the combustible material mitigates waste management risks during a fire.
2. Fire-Resistant Surfaces. This potential subproject adds fire-resistant surfaces (e.g., asphalt, concrete, etc.) around the existing RSW storage domes and other facilities at TA-54. The addition of fire-resistant surfaces reduces a fire ground path to the facility.
3. Fire-Rated Dome Fabric. This potential subproject replaces the existing fabric on the TA-54 waste storage domes with fabric that has a National Fire Protection Association (NFPA) minimum 1-hour fire rating. The existing fabric is fire-resistant; however, it is not fire-rated. During the Cerro Grande fire, damage to these types of domes was observed, demonstrating the vulnerability of the existing fabric. Replacement of the fabric with a fire-rated fabric will reduce the vulnerability.
4. Upgrade Drum Vents. This potential subproject replaces existing RSW drum vents with new vents that will ensure ventilation from the drums during a fire or other high-thermal event. The existing drum vents have gasket material that is projected to melt and thereby seal off the vent capability during a high thermal event. During such an event, gas production in the drums is likely to occur. Without a properly designed vent, the drums could rupture or explode as the internal drum pressure increases to the point of drum failure.
5. Extended Decontamination Volume Reduction System (DVRS) Operations. This potential subproject extends the operation time of the existing DVRS. During the Cerro Grande fire, the mass of stored

RSW presented a significant radiological emission source. Extending the DVRS operation to multiple shifts rapidly decreases on-site waste mass and thereby, reduces the mass of potential radiological emissions.

6. TRU Waste Re-characterization. This potential subproject adds new equipment and operations to re-characterize RSW. During the Cerro Grande fire, the mass of stored RSW presented a significant radiological emission source. A significant portion of this waste, if re-characterized and re-packaged, could be disposed of at TA-54, rather than stored in above-grade domes awaiting shipment to the Waste Isolation Pilot Plant (WIPP). Re-characterizing rapidly decreases on-site RSW mass, and thereby reduces the mass of potential radiological emissions.

Project Milestones:

FY 2001:	Start Design	4Q
FY 2002:	Start Construction	1Q
FY 2003:	Complete Construction	4Q

4. Details of Cost Estimate

(dollars in thousands)		
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	3,800	0
Design Management Costs (3.1% of TEC)	900	0
Project Management Costs (3.8% of TEC)	1,100	0
Total Design Costs (19.9% of TEC)	5,800	0
Construction Phase		
Improvements to Land	400	0
Buildings	5,000	0
Utilities	3,000	0
Standard Equipment	3,200	0
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	600	0
Construction Management (5.1% of TEC)	1,500	0
Project Management (3.1% of TEC)	900	0
Total Construction Costs (50.3% of TEC)	14,600	0
Contingencies		
Design Phase (5.1% of TEC)	1,500	0
Construction Phase (24.6% of TEC)	7,136	0
Total Contingencies (29.7% of TEC)	8,636	0
Total, Line Item Costs (TEC)	29,036	0

5. Method of Performance

The method of performance for this project is anticipated to include a combination of performance vehicles. For upgrades to existing facilities, or where considerable risk with unknown existing conditions, a conventional design, procure and build performance method is envisioned. Pre-qualified Architect-Engineering companies will be secured for design; construction will be performed by a combination of the on-site support services contractor and general contractors using fixed-price agreements. Design-build is a project delivery system where a single entity performs both the design and construction. Some advantages of design-build include a single source for construction activities, cost control and accountability. The design-build approach will be implemented where feasible.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	2,500	4,800	0	0	0	7,300
Construction	0	7,300	14,436	0	0	21,736
Total, Line item TEC	2,500	12,100	14,436	0	0	29,036
Total Facility Costs (Federal and Non-Federal)	2,500	12,100	14,436	0	0	29,036
Other Project Costs						
Conceptual design costs	800	0	0	0	0	800
NEPA documentation costs	100	50	100	0	0	250
Other project-related costs	100	425	825	0	0	1,350
Total, Other Project Costs ^a	1,000	475	925	0	0	2,400
Total Project Cost (TPC)	3,500	12,575	15,361	0	0	31,436

7. Related Annual Funding Requirements

(FY 2003 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs ^b	3,000	0

^a Project Execution Plan, Feasibility Studies, Conceptual Estimating Support, Scheduling and Controls Support, Safeguards and Security Analysis, Design-Build Source Selection Committee Work, Value Engineering Study, Fire Hazards Assessment, Site Surveys, Soil Reports, Permits, Administrative Support, Operations and Maintenance Support, ES&H Monitoring, Operations Testing, and Readiness Assessment.

^b Estimates are based on upgrades to existing TA-50 and TA-54 only.

Annual facility maintenance/repair costs ^a	500	0
Programmatic operating expenses directly related to the facility ^b	1,000	0
Utility costs	250	0
Total related annual funding (operating from FY 2003 through FY 2023)	<u>4,750</u>	<u>0</u>

^a Estimates are based on upgrades to existing TA-50 and TA-54 only.

^b Annual programmatic operating expenses are not expected to be required for other than emergency situations and would be event specific. For this reason annual programmatic costs are estimated as a lump sum.

01-D-704, Office Building Replacement Program for Vulnerable Facilities (OBRP), Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # This is a new Cerro Grande Fire Rehabilitation project. Funding was provided in the FY 2001 Energy and Water Development Appropriations Act which required submission of a Construction Project Data Sheet for the project with the FY 2002 budget. Funding estimates are preliminary and do not represent validated baselines.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$10,000,000 to \$9,978,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	4Q 2001	3Q 2002	1Q 2002	4Q 2003	9,978 ^a	10,463

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	9,978 ^a	7,978	1,000
2002	0	2,000	6,230
2003	0	0	2,748

^a Original appropriation was \$10,000,000. This was reduced by \$22,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

3. Project Description, Justification and Scope

As a result of the Cerro Grande fire, over 200 employees were displaced due to the fact that their office trailers were destroyed or severely damaged by the fire. As such, the housing of Los Alamos National Laboratory (LANL) employees in fire susceptible trailers is a demonstrated vulnerability. Damage to permanent structures in the same areas during the Cerro Grande fire was much less severe and limited mostly to smoke damage due to the electrical fluctuations. To provide permanent office space for displaced employees and to further decrease the number of office trailers present at LANL, two permanent office buildings are needed at the two Technical Areas (TA-46 and TA-16) that have suffered the greatest loss of office space. Other fire vulnerable office trailers will remain at the Laboratory and will be replaced as additional funding is made available.

The structures will be constructed to standard commercial building practices and will only provide office space for employees. No light laboratory or other types of space will be constructed with the exception of the required conference room space.

Project Milestones:

FY 2001:	Start Design	4Q
FY 2002:	Start Construction	1Q
	Complete Design	3Q
FY 2003:	Complete Construction	4Q

4. Details of Cost Estimate

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	800	0
Design Management Costs (0.8% of TEC)	80	0
Project Management Costs (1.5% of TEC)	150	0
Total Design Costs (10.3% of TEC)	1,030	0
Construction Phase		
Improvements to Land	400	0
Buildings	4,220	0
Utilities	200	0
Standard Equipment	400	0
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	300	0
Construction Management (1.5% of TEC)	150	0

(dollars in thousands)

	Current Estimate	Previous Estimate
Project Management (3.0% of TEC)	300	0
Total Construction Costs (59.8% of TEC)	5,970	0
Contingencies		
Design Phase (12.0% of TEC)	1,200	0
Construction Phase (17.8% of TEC)	1,778	0
Total Contingencies (29.8% of TEC)	2,978	0
Total, Line Item Costs (TEC)	9,978	0

5. Method of Performance

Design, construction, and procurement will be accomplished by a competitive best value fixed-price design-build contract. Design-build is a project delivery system where a single entity performs both the design and construction. Some advantages of design-build include a single source for construction activities, cost control and accountability. The site services contractor under fixed price contracts will perform the final tie-in to existing utilities.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	1,000	1,230	0	0	0	2,230
Construction	0	5,000	2,748	0	0	7,748
Total, Line item TEC	1,000	6,230	2,748	0	0	9,978
Total Facility Costs (Federal and Non-Federal)	1,000	6,230	2,748	0	0	9,978
Other Project Costs						
Conceptual design costs	340	0	0	0	0	340
NEPA documentation costs	15	0	0	0	0	15
Other project-related costs	60	35	35	0	0	130

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Total, Other Project Costs ^a	415	35	35	0	0	485
Total Project Cost (TPC)	1,415	6,265	2,783	0	0	10,463

^a Project Execution Plan, Feasibility Studies, Conceptual Estimating Support, Scheduling and Controls Support, Safeguards and Security Analysis, Design-Build Source Selection Committee Work, Value Engineering Study, Fire Hazards Assessment, Site Surveys, Soil Reports, Permits, Administrative Support, Operations and Maintenance Support, ES&H Monitoring, Operations Testing, and Readiness Assessment.

7. Related Annual Funding Requirements

(FY 2003 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs ^a	1,270	0
Annual facility maintenance/repair costs ^b	0	0
Utility costs	750	0
Total related annual funding (operating from FY 2003 through FY 2023)	2,020	0

^a When both facilities are operational in the 4th Quarter of FY 2003, costs will average \$650,000 for labor and material per year. An average of 3.0 staff years will be required to operate both facilities.

^b Based on projected annual costs for LANL site services subcontractor as derived from expected maintenance and repair costs for the FITS system.

01-D-705, Multi-channel Communications System, Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # This is a new Cerro Grande Fire Rehabilitation project. Funding was provided in the FY 2001 Energy and Water Development Appropriations Act which required submission of a Construction Project Data Sheet for the project with the FY 2002 budget. Funding estimates are preliminary and do not represent validated baselines.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$8,000,000 to \$7,982,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	4Q 2001	4Q 2002	1Q 2002	4Q 2003	7,982 ^a	8,417

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	7,982 ^a	1,982	360
2002	0	6,000	3,424
2003	0	0	4,198

^a Original appropriation was \$8,000,000. This was reduced by \$18,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

3. Project Description, Justification and Scope

During the Cerro Grande Fire, communication and information systems, including radio communications between multiple agencies, were either difficult or impossible to use to respond to the Cerro Grande Fire. The Los Alamos National Laboratory (LANL), Department of Energy (DOE), Los Alamos County, National Guard, and Forest Service personnel had difficulties in both communication and emergency response because the communication systems were non-standard, were antiquated, or had limited communication ranges. Radio channels were on multiple frequencies, and radio communication systems had varying and limited ranges of service. These issues made it difficult or impossible for local state and federal agencies to communicate with LANL emergency response personnel and the present communication systems were not adequate to respond to the fire. Information systems were also antiquated or limited. Personnel in the Emergency Operations Center (EOC) had difficulty obtaining up-to-date information on many subjects, including facilities, location of hazardous materials and external conditions. It became clear that this demonstrated vulnerability in communications and information systems would make it difficult or impossible to respond or communicate during future emergencies or catastrophic events.

This line-item project will address this demonstrated vulnerability and provide multi-channel communication systems and information systems to support emergency operations at LANL and their use by other agencies, as necessary, to respond to future emergencies. The scope of this line-item construction project will purchase new communications equipment that will have the capability and flexibility to communicate with Los Alamos Fire and Police departments and dispatch centers, DOE, U.S. Forest Service, National Guard, and other Federal agencies during emergencies.

These communications and information systems will also provide the flexibility to communicate between the LANL EOC and external entities to respond to future emergencies. The intent is to provide a comprehensive communications system to respond to future emergencies and be available for use by emergency response personnel.

The multi-channel communications systems will also provide broad bandwidth (5MHz-2GHz) radio communications and other wired and wireless communication services, as necessary, to respond to future emergencies and catastrophic events. The multi-channel communications system will be designed for maximum versatility and flexibility with respect to LANL site-wide communications systems and information exchange systems to respond to emergencies.

Project Milestones:

FY 2001:	Start Design	4Q
FY 2002:	Complete Design	4Q
	Start Construction	1Q
FY 2003:	Complete Construction	4Q

4. Details of Cost Estimate

(dollars in thousands)		
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and Final Design costs (Design Drawings and Specifications)	640	0
Design Management Costs (0.8% of TEC)	64	0
Project Management Costs (1.5% of TEC)	120	0
Total Design Costs (10.3% of TEC)	824	0
Construction Phase		
Utilities	320	0
Standard Equipment	3,200	0
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	896	0
Construction Management (1.5% of TEC)	120	0
Project Management (3.0% of TEC)	240	0
Total Construction Costs (59.8% of TEC)	4,776	0
Contingencies		
Design Phase (12.0% of TEC)	960	0
Construction Phase (17.8% of TEC)	1,422	0
Total Contingencies (29.8% of TEC)	2,382	0
Total, Line Item Costs (TEC)	7,982	0

5. Method of Performance

Design, construction, and procurement will be accomplished by a competitive best value fixed-price contract using communications expertise at LANL and other Architect-Engineer contractors.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	360	1,424	0	0	0	1,784
Construction	0	2,000	4,198	0	0	6,198
Total, Line item TEC	360	3,424	4,198	0	0	7,982
Total Facility Costs (Federal and Non-Federal)	360	3,424	4,198	0	0	7,982
Other Project Costs						
Conceptual design costs	350	0	0	0	0	350
NEPA documentation costs	0	10	10	0	0	20
Other project-related costs	45	10	10	0	0	65
Total, Other Project Costs ^a	395	20	20	0	0	435
Total Project Cost (TPC)	755	3,444	4,218	0	0	8,417

7. Related Annual Funding Requirements

(FY 2002 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs ^b	434	0
Annual facility maintenance/repair costs ^c	150	0
Utility costs	3	0
Total related annual funding (operating from FY 2002 through FY 2023)	587	0

^a Project Execution Plan, Feasibility Studies, Conceptual Estimating Support, Scheduling and Controls Support, Safeguards and Security Analysis, Design-Build Source Selection Committee Work, Value Engineering Study, Fire Hazards Assessment, Site Surveys, Soil Reports, Permits, Administrative Support, Operations and Maintenance Support, ES&H Monitoring, Operations Testing, and Readiness Assessment.

^b When both facilities are operational in the 4th Quarter of FY 2003, costs will average \$433,600 for labor and material per year. An average of 2.0 staff years will be required to operate the facility.

^c Based on a Rough Order of Magnitude projection of the annual costs for LANL site services subcontractor.

97-D-102, Dual-Axis Radiographic Hydrodynamic Test Facility (DARHT), Los Alamos National Laboratory, Los Alamos, New Mexico

Significant Changes

- # Funding in this construction project data sheet addresses only the impacts from the Cerro Grande fire. The remainder of funding for this project has already been appropriated in the Weapons Activities Appropriation account.
- # The TEC for this project was reduced by the FY 2001 Consolidated Appropriations Act from \$6,100,000 to \$6,087,000. The rescission will be absorbed within project contingency and, therefore, will not affect the project scope.

1. Construction Schedule History

	Fiscal Quarter				Total Estimate d Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Constructio n Start	Physical Constructio n Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>) ^a	N/A	N/A	3Q 2000	2Q 2003	6,087 ^b	6,087

^a The Physical Construction Complete date reflects completion of the DARHT project which has been changed to reflect fire impacts.

^b Original appropriation was \$6,100,000. This was reduced by \$13,000 for a rescission enacted by Section 1403 of the FY 2001 Consolidated Appropriations Act.

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2000	0	0	0 ^a
2001	6,087 ^b	5,141	5,154
2002	0	946	933

3. Project Description, Justification and Scope

In May 2000, the Cerro Grande prescribed burn got out of control and became the Cerro Grande wildfire, which burned over 7,500 acres within the Department of Energy/Los Alamos National Laboratory (DOE/LANL) boundaries. The DARHT project is being constructed in Technical Area 15 (TA-15), an area designated for hydrotesting. The nature of hydrotesting requires that these facilities be located in remote areas with sizeable undeveloped space surrounding it as a buffer zone. These buffer zones tend to be heavily wooded and susceptible to fire. TA-15 was one of the areas most heavily impacted by the Cerro Grande fire.

There were a number of direct and indirect impacts to the DARHT project resulting from the fire. Most of the project team was unable to return to their offices after May 5, 2000, until June 1, 2000, with some returning even later. A substantial amount of material and equipment in storage and ready for installation was destroyed. The recovery effort, which includes unplanned work, such as damage assessments and walking down safety systems to ensure performance, had the indirect impact of a loss of productivity when planned work did resume.

The fire impacts will delay project completion. These delays have inflationary impacts and delayed completion of the work. The delays at LANL will also delay the work by the partner laboratories Lawrence Berkeley National Laboratory (LBNL) and Lawrence Livermore National Laboratory (LLNL). These Laboratories are responsible for designing, procuring, fabricating and assembling about 40% of the Phase 2 scope. Their work includes delivering components to LANL, technology transfer and providing teams to support installation and start-up. Because of the delays at LANL due to the fire, LBNL and LLNL will not be able to complete their work as planned and must therefore retain their staff for the length of the delay.

There is no change to the scope or deliverables for the DARHT project resulting from the fire. The scope of work in this budget request is simply to account for damages caused by the Cerro Grande fire. This includes labor costs incurred while people were not allowed on site; the labor costs incurred for the project's recovery

^a Some cost impacts (approximately \$2.66 million) occurred immediately after the fire in May 2000 before this emergency funding was provided. Funding in the main DARHT line item for planned work that was delayed by the fire and project contingency funding were used to cover the costs in the interim before receipt of this FY 2001 appropriation. This funding will be used in FY 2001 to restore funds to the project for the costs incurred due to the impacts of the fire.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Project Cost						
Facility Costs						
Design	0	0	0	0	0	0
Construction	5,154	933	0	0	0	6,087
Total, Line item TEC	5,154	933	0	0	0	6,087
Total Facility Costs (Federal and Non-Federal)	5,154	933	0	0	0	6,087
Other Project Costs ^a						
Conceptual design costs	0	0	0	0	0	0
NEPA documentation costs	0	0	0	0	0	0
Other ES&H costs	0	0	0	0	0	0
Total, Other Project Costs	0	0	0	0	0	0
Total Project Cost (TPC)	5,154	933	0	0	0	6,087

7. Related Annual Funding Requirements ^b

(FY 2000 dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs	0	0
Total related annual funding (operating from FY 2000 through FY 2002)	0	0

^a All of the Other Project Costs are included with the 97-D-102 data sheet included under the Weapons Activities appropriation account in the FY 2001 Budget.

^b The Annual Funding Requirements are included with the 97-D-102 data sheet included under the Weapons Activities appropriation account in the FY 2001 Budget.