Safeguards and Security

Overview

The Department of Energy's (DOE) Office of Science (SC) Safeguards and Security (S&S) program is designed to ensure appropriate security measures are in place to support the SC mission requirements of open scientific research and to protect critical assets within SC laboratories. Accomplishing this mission depends on providing physical controls that will mitigate possible risks to the laboratories' employees, nuclear and special materials, classified and sensitive information, and facilities. The SC S&S program also provides funding for cybersecurity for the laboratories' information technology systems to protect computers, networks, and data from unauthorized access.

Highlights of the FY 2022 Request

The FY 2022 Request for S&S is $170.0 million. The FY 2022 Request supports sustained levels of operations in S&S program elements including Protective Forces, Security Systems, Information Security, Cyber Security, Personnel Security, Material Control and Accountability, and Program Management.

The Request also includes an additional $43.74 million in Cyber Security to address long standing gaps in infrastructure, operations, and compliance to ensure adequate detection, mitigation, and recovery from cyber intrusions and attacks against DOE laboratories.

The FY 2022 Request ensures that the S&S program's highest priority is accomplished, which is to provide adequate security for the special nuclear material housed in Building 3019 at the Oak Ridge National Laboratory (ORNL).

The 2018 revision of DOE's Design Basis Threat (DBT) and the then Deputy Secretary's DOE International Science and Technology Engagement Policy (S&T Policy) have shifted DOE's security direction. The DBT addresses protection measures for a more encompassing range of threats and assets than just special nuclear material and classified matter. This revised DBT mandates additional risk assessments and security planning for the protection of chemicals and radioactive sources that could affect persons on-site, whereas the previous protection standard only addressed quantities that could have an impact off-site. The DBT also calls for "Active Shooter" and "Insider Threat" mitigation. The S&T Policy is designed to protect U.S.-funded research and technologies from sensitive nations who pose high security risks. This includes denying access to restricted areas within DOE laboratories as well as including foreign visitor's Curriculum Vitae (CV) in the Foreign Access Central Tracking System (FACTS).

Implementing both the revised DBT and the S&T Policy is the near- and long-term basis for S&S program and risk mitigating funding decisions at SC laboratories. SC completed implementation planning for the DBT in March 2019 through rigorous Security Risk Assessments and full compliance (based on the most complex laboratories milestones) is expected by September 30, 2022. The S&S program received funding in FY 2020 to begin initial implementation by installing and updating automated access controls to ensure the protection of personnel and intellectual property at SC laboratories.

Description

The S&S program is organized into seven program elements: Protective Forces, Security Systems, Information Security, Cyber Security, Personnel Security, Material Control and Accountability, and Program Management.

Protective Forces

The Protective Forces program element supports security officers that control access and protect S&S interests, along with their related equipment and training. Activities within this program element include access control and security response operations as well as physical protection of the Department's critical assets and SC facilities. The Protective Forces mission includes providing effective response to emergency situations, random prohibited article inspections, security alarm monitoring, and performance testing of the protective force response to various event scenarios.

Security Systems

The Security Systems program element provides DBT and S&T policy implementation through the physical protection of Departmental personnel, material, equipment, property, and facilities, and includes fences, barriers, lighting, sensors, surveillance devices, entry control devices, access control systems, and power systems operated and used to support the protection of people, DOE property, classified information, and other interests of national security.

Information Security

The Information Security program element provides support to ensure that sensitive and classified information is accurately, appropriately, and consistently identified, reviewed, marked, protected, transmitted, stored, and ultimately destroyed. Specific activities within this element include management, planning, training, and oversight for maintaining security containers and combinations, marking documents, and administration of control systems, operations security, special access programs, technical surveillance countermeasures, and classification and declassification determinations.

Cyber Security

SC is engaged in protecting the enterprise from a range of cyber threats that can adversely impact mission capabilities. The Cyber Security program element includes central coordination of the strategic and operational aspects of cybersecurity and facilitates cooperative efforts such as the Joint Cybersecurity Coordination Center (JC3) for incident response and the implementation of Department-wide Identity, Credentials, and Access Management (ICAM).

Personnel Security

The Personnel Security program element encompasses the processes for employee suitability and security clearance determinations at each site to ensure that individuals are trustworthy and eligible for access to classified information or matter. This element also includes the management of security clearance programs, adjudications, security education, awareness programs for Federal and contractor employees, and processing and hosting approved foreign visitors.

Material Control and Accountability

The MC&A program element provides assurance that Departmental materials are properly controlled and accounted for at all times. This element supports administration, including testing performance and assessing the levels of protection, control, and accountability required for the types and quantities of materials at each facility; documenting facility plans for materials control and accountability; assigning authorities and responsibilities for MC&A functions; and establishing programs to detect and report occurrences such as material theft, the loss of control or inability to account for materials, or evidence of malevolent acts.

Program Management

The Program Management program element coordinates the management of Protective Forces, Security Systems, Information Security, Personnel Security, Cyber Security, and MC&A to achieve and ensure appropriate levels of protections are in place.

Safeguards and Security
Funding

(dollars in thousands)

	FY 2020 Enacted	FY 2021 Enacted	FY 2022 Request	FY 2022 Request vs FY 2021 Enacted
Safeguards and Security				
Protective Forces	43,545	44,200	46,710	+2,510
Security Systems	16,960	20,180	22,490	+2,310
Information Security	4,356	4,420	4,490	+70
Cyber Security	33,346	37,520	81,260	+43,740
Personnel Security	5,444	5,500	5,750	+250
Material Control and Accountability	2,431	2,465	2,500	+35
Program Management	6,618	6,715	6,800	+85
Total, Safeguards and Security	**112,700**	**121,000**	**170,000**	**+49,000**

Safeguards and Security
Explanation of Major Changes

(dollars in thousands)

FY 2021 Enacted	FY 2022 Request	Explanation of Changes FY 2022 Request vs FY 2021 Enacted
Safeguards and Security $121,000	**$170,000**	**+$49,000**
Protective Forces $44,200	$46,710	+$2,510
Funding maintains support for security officers and their required equipment and training necessary to maintain proper protection levels at all SC laboratories.	The Request will maintain support for security officers and their required equipment and training necessary to maintain proper protection levels at all SC laboratories.	Funding increases will support sustained levels of operations at increased overhead, inflationary, and contractually obligated rates for the Protective Forces activity.
Security Systems $20,180	$22,490	+$2,310
Funding maintains support for the security systems in place as well as continued implementation of security modifications that address both the revised DBT and S&T Policy.	The Request will maintain support for the security systems in place as well as continued implementation of security modifications that address both the revised DBT and S&T Policy.	Funding increases will continue implementation of DBT and S&T Policy mandated physical security modifications at SC laboratories. To address both new initiatives, automated access controls are the program's priority to protect the workforce and intellectual property and mitigate active shooter and workplace violence threats.
Information Security $4,420	$4,490	+$70
Funding continues support for the personnel, equipment, and systems necessary to ensure sensitive and classified information is safeguarded at SC laboratories.	The Request will continue support for the personnel, equipment, and systems necessary to ensure sensitive and classified information is safeguarded at SC laboratories.	Funding increases will support sustained levels for Information Security activities at increased overhead and inflationary rates.

(dollars in thousands)

FY 2021 Enacted	FY 2022 Request	Explanation of Changes FY 2022 Request vs FY 2021 Enacted
Cyber Security $37,520	$81,260	+$43,740
Funding continues support for the protection of laboratory computers, networks, and data from unauthorized access.	The Request will support investments in cyber infrastructure and cyber capability including new cyber tools, incident response enhancements, cyber workforce development, data protections, and protections for unique SC facilities and capabilities that cannot be protected with commercial tools. Additionally, the Request will implement requirements at both federal and M&O sites to build out Controlled Unclassified Information (CUI) protections, participate in the DHS Continuous Diagnostics and Monitoring (CDM) program, build out Industrial Control Systems (ICS) protections, and protect Government Furnished Equipment (GFE) on foreign travel.	Funding increases will support increased investments in cyber infrastructure and capabilities at all SC sites. The increase will also begin implementation of heightened requirements to further protect SC computers, networks, and data from unauthorized access.
Personnel Security $5,500	$5,750	+$250
Funding continues support for Personnel Security efforts at SC laboratories as well as SC Headquarters security investigations.	The Request will continue support for Personnel Security efforts at SC laboratories as well as SC Headquarters security investigations.	Funding will provide sustained support for Personnel Security activities in support of the Protection of Science and Technology and to address increased overhead and inflationary rates.
Material Control and Accountability $2,465	$2,500	+$35
Funding maintains support for functions ensuring Departmental materials are properly controlled and accounted for at all times.	The Request will maintain support for functions ensuring Departmental materials are properly controlled and accounted for at all times.	Funding will provide sustained support for MC&A activities at increased overhead and inflationary rates.
Program Management $6,715	$6,800	+$85
Funding maintains support for oversight, administration, and planning for security programs at SC laboratories and will support security procedures and policy support for SC Research missions.	The Request will maintain support for oversight, administration, and planning for security programs at SC laboratories and will support security procedures and policy support for SC Research missions.	Funding will provide sustained support for Program Management activities at increased overhead and inflationary rates.

Safeguards and Security
Funding Summary

(dollars in thousands)

	FY 2020 Enacted	FY 2021 Enacted	FY 2022 Request	FY 2022 Request vs FY 2021 Enacted
Other	112,700	121,000	170,000	+49,000
Total, Safeguards and Security	**112,700**	**121,000**	**170,000**	**+49,000**