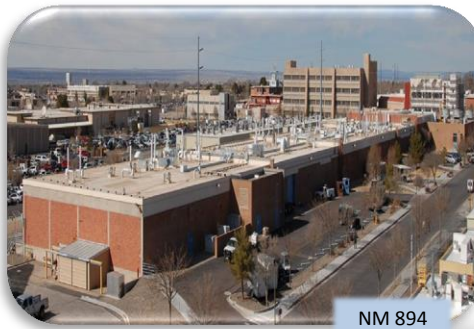


Exceptional service in the national interest



FY 2015 Ten-Year Site Plan

Limited Report



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. SAND NO. 2014-5162P



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1.0 Introduction

In accordance with guidance provided by the National Nuclear Security Administration (NNSA), Office of Infrastructure and Operations (NA-00) on March 27, 2014, this “limited report” is submitted in lieu of a “more traditional” FY 2015-2024 Ten-Year Site Plan (TYSP) and is focused only on “significant changes since the last submission.” To achieve the desired brevity, it is assumed the audience/reader has access to and is familiar with Sandia National Laboratories’ (SNL) FY 2014-2023 TYSP (published on the NNSA website) and is generally familiar with the associated terminology.

2.0 SNL Overview

SNL is a United States (U.S.) Department of Energy (DOE)/NNSA multi-program, national security laboratory and Federally Funded Research and Development Center (FFRDC) managed and operated by Sandia Corporation (Sandia), a wholly owned subsidiary of Lockheed Martin Corporation. Figure 2.1 presents Sandia’s workforce as of the end of Fiscal Year (FY) 2013 and Figure 2.2 provides a breakdown of Sandia’s research and development (R&D) staff by discipline.

Workforce at End of FY 2013

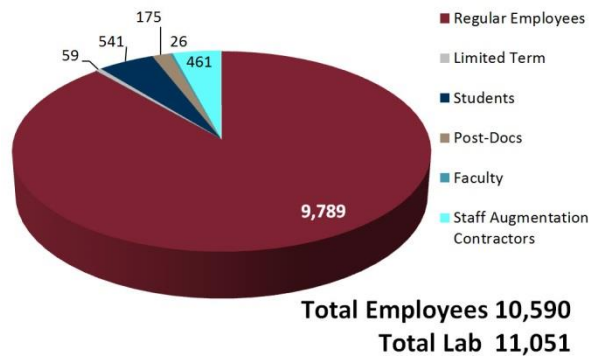


Figure 2.1

R&D Staff (4,863) by Discipline

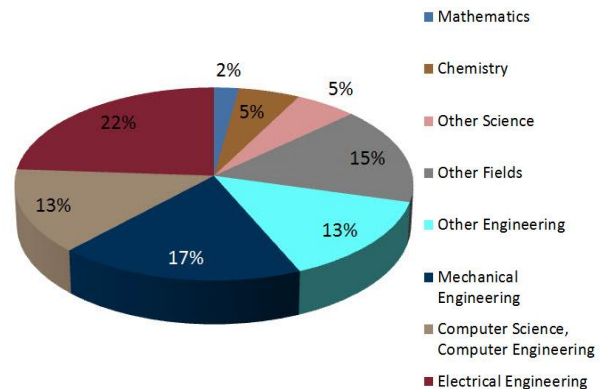


Figure 2.2

Within the U.S. Nuclear Security Enterprise, Sandia is uniquely responsible for the systems engineering and integration of the nuclear weapons in the stockpile and for the design, development, qualification, sustainment, and retirement of non-nuclear components of nuclear weapons. While nuclear weapons represent Sandia’s core mission, the science, technology, engineering, and business professional capabilities required to support this mission position the laboratories to support other aspects of national security as well. Indeed, there is natural, increasingly significant synergy between our core mission and our broader nuclear weapons (NW) security work. Figure 2.3 depicts SNL’s eight mission areas with the NW mission serving as its enabling foundation, while Figure 2.4 provides a crosswalk between these mission areas and Sandia’s four Program Management Units (PMUs), changed from Strategic Management Units (SMUs) to PMUs in FY 2014. This broader role involves R&D in nonproliferation, counterterrorism, energy security, defense, and homeland security.



Figure 2.3



Figure 2.4

The diversity of Sandia’s missions is directly related to the current and emerging national security environment consistent with government and DOE/NNSA policies that authorize special access to the laboratories’ unique capabilities. Figure 2.5 provides a breakdown of SNL’s FY 2013 funding/revenue by source while Figure 2.6 provides a breakdown by SMU.

FY 2013 Revenue by Source

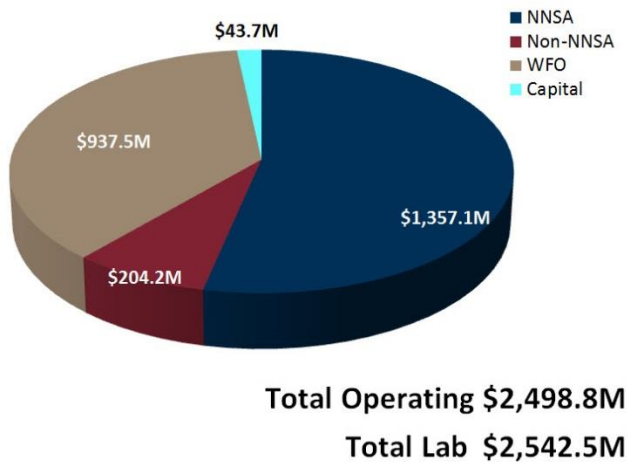


Figure 2.5

FY 2013 Revenue by SMU

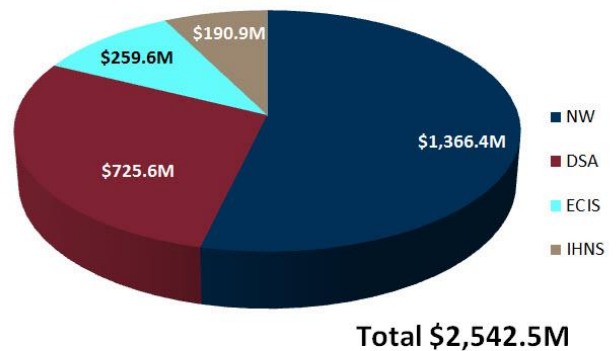


Figure 2.6

3.0 Facilities and Infrastructure Strategy

Sandia continues to pursue a “capability-based” approach to site stewardship to attain the “program of record;” it is both responsive to the mission needs of its diverse customer base and fiscally responsible for the multibillion-dollar federal investment in real property assets (RPAs). Sandia’s FY 2014–2018 strategic plan articulates and further emphasizes the basis for its real-property management strategy: provide mission-enabling infrastructure to address and support Sandia’s strategic objectives. Table 3.1 provides a comprehensive overview of SNL’s RPAs by site, as documented in the Facilities Information Management System (FIMS) FY 2013 end-of-year “snapshot.”

Table 3.1 SNL RPAs by Site

SNL Site Location	Buildings & Trailers (B&T)	Other Structures & Facilities (OSF)	Acres	Gross Square Feet	Deferred Maintenance	Replacement Plant Value
Albuquerque, NM	549	242	13,758	5,774,523	\$346,917,501	\$3,999,338,736
Livermore, CA	66	44	410	885,790	\$106,986,879	\$920,857,095
TTR, NV	60	82	179,200	120,925	\$51,967,183	\$328,296,717
KTF and Maui, HI	56	53	133	61,778	\$21,926,505	\$99,080,117
Leases	20	1	19	399,316	\$ —	\$92,819,439
Permits	3	—	—	16,237	\$ —	\$ —
SNL Total	754	422	193,520	7,258,569	\$527,798,068	\$5,440,392,104

Proactive stewardship of SNL’s facilities and infrastructure (F&I) is central to achieving these objectives; however, Sandia’s stewardship faces many technical challenges, competing interests, administrative restrictions, and severely constrained resources. The implementing F&I strategy consists of the following elements:

- Formalized planning focused on sustaining core capabilities
- “Risk-based” prioritization of initiatives intended to reduce risk associated with mission performance
- Project execution phased according to the availability of funding and NNSA guidance

Regardless of funding source, mission, or customer, the F&I supporting SNL’s technology base will require revitalization; continued renewal and replacement of aging infrastructure; replacement and modification of buildings, structures, and utility systems; refurbishment of fire protection systems; and improvement or installation of modern telecommunications systems to meet increasingly stringent security and data-transfer demands. Facilities and infrastructure investment and recapitalization are integral to mission support and require management vigilance and stewardship discipline. Table 3.2 provides a crosswalk of SNL’s RPAs by mission dependency and facility use classification with the associated aggregate facility condition index (FCI), asset condition index (ACI), and asset utilization index (AUI); all consistent with the FY 2013 FIMS snapshot.

Table 3.2 RPAs by Mission Dependency, Facility Use, and Facility Condition

		Facility Condition Index (B,T,&OSF)	Asset Condition Index (B,T,&OSF)	Asset Utilization Index (B&T)	Number of Assets (B&T)	Gross Square Feet (000s) (B&T)
Mission Dependency	Mission Critical	8.14%	91.86%	99.22%	41	1,394
	Mission Dependent	10.23%	89.77%	95.44%	220	4,391
	Not Mission Dependent	8.78%	91.22%	93.31%	490	1,457
Facility Use	Office	8.61%	91.39%	95.34%	229	2,074
	Warehouse	8.22%	91.78%	89.87%	171	336
	Laboratory	9.92%	90.08%	96.20%	349	4,822
	Housing	0.00%	100.00%	100.00%	2	10

Over the extended planning period Sandia will propose many F&I projects in response to the requirements established in NNSA's program of record and anticipated new technologies and capabilities. Table 3.3 provides a prioritized list of proposed NW direct-funded real property investments (minimum total estimated cost greater than \$1 million) between FY2014 and FY 2016.

Table 3.3 NW Direct-Funded Real Property Investments (\$K)

Priority	Site & Bldg.	Project Description – NW Mission/Bldg. Function	Total Cost	FY14	FY15	FY16	Project Type/Status
1	NM 840	North-End Renovation – LEP Design Development	\$4,500	\$2,050			Exp. Funded Alteration/Complete
2	TTR MDH	New Main Distribution Hub – Communications Bldg.	\$2,500	\$300	\$2,200		GPP/Design
3	NM EORC	New Emergency Operations and Response Center (EORC)	\$42,700	\$400	\$4,200	\$4,200	Line Item/Pre CD-1: Conceptual Design
4	NM 1012	New Battery Test Facility – Power Sources R&D	\$4,990	\$90	\$4,550	\$300	GPP/Design
5	NM 905	Addition and Renovation – Explosives Research	\$9,500	\$150	\$6,000	\$3,350	GPP/Design
6	NM WEF	New Weapons Engineering Facility (WEF): CD-1	\$2,000			\$1,000	Line Item/Pre CD-0: Mission Need & PRD
7	TTR 03-57	Flight Control Tower Elec. & Mech. Upgrades	\$6,100		\$2,000	\$4,100	GPP/Design
8	NM 894	Facility Renovation – Power Sources	\$4,900		\$1,100	\$1,100	GPP/Waiting for Planning Study
9	NM 870	Facility Renovation – Neutron Generator Production	\$6,500		\$500	\$6,000	GPP/Planning
10	NM 862	Recapitalization – Emergency Backup Generators	\$8,500			\$500	GPP/Waiting for Design Authorization
11	NM 827	Facility Renovation – Primary Standards Laboratory	\$6,500			\$500	GPP/Waiting for Planning Study Authorization
12	CA 914	Machine Shop – Metrology Lab. HVAC Upgrade	\$1,500			\$1,500	GPP/Planning

Table 3.4 provides the associated “accounting for office and warehouse space” in order to comply with the Office of Management and Budget’s “freeze the footprint” directive.

Table 3.4 SNL’s Implementation of OMB’s Freeze the Footprint Directive

Fiscal Year	Facility Name	GSF Added (-) or Eliminated (+)	Space Bank Cumulative Total (GSF)
2014	Space Bank - Summary of Transfers, Corrections, and Waivers	18,313	18,313
2014	CA 927 Warehouse Demolition	22,001	40,314
2014	TTR Modular Office/Trailer Demolition (MO 03-100 & 03-101)	12,000	52,314
2014	TA IV Modular Office/Trailer Demolition (MO 95, 138, 246, & 247)	4,257	56,571
2014	NM 730 Occupancy	-25,000	31,571
2015	NM 6596 Material Storage Partial Demolition	8,836	40,407
2015	NM 9925K Storage Demolition	540	40,947
2015	TTR 02-51 Storage Demolition	320	41,267
2015	KTF Mt. Haleakala K1010 Storage Interagency Transfer or Demolition	144	41,411
2015	NM 705 Office/Light Lab Occupancy	-25,000	16,411
2015	NM 1050 Corporate Storage Occupancy	-15,000	1,411
2016	NM 6900S Storage Demolition	320	1,731
2016	NM 9950A Material Test Lab Demolition	1,484	3,215
2016	NM 9970B EMP Study Facility Demolition	494	3,709
2016	NM Modular Office/Trailer Demolition (T14, 15, 16, 18, 23, 39, & 57)	12,941	16,650
2016	NM 756 Integrated Systems Analysis & Studies Facility (ISAS) Occupancy	-16,250	400

4.0 Focus Areas for the Near-Term Planning Horizon

In addition to maintaining and sustaining SNL's F&I in a condition "fit for mission use," Sandia's largest investments and most significant initiatives during the Future-Years Nuclear Security Plan (FYNSP) period remain as follows:

- Plan, design, and construct the Weapons Engineering Facility (WEF) to locate NW core capabilities in modern facilities and eliminate buildings that are at the end of their designed service lives. Design start has been slipped to FY 2018.
- Continue to implement the \$150 million Sandia Silicon Fabrication Revitalization (SSiFR) initiative to replace and modernize programmatic capital equipment necessary to sustain vital R&D and production processes in the Microsystems and Engineering Sciences Applications (MESA) complex.
- Design and construct the Emergency Operations and Response Center (EORC) to provide emergency-incident management from a modern facility that serves and supports both local and national response teams. Design start has been set for FY 2015.
- Finish the construction of three light laboratory/office buildings to facilitate the deactivation and eventual demolition of NM 892, a 60 year-old facility rapidly approaching functional obsolescence with \$68 million in calculated deferred maintenance. These buildings will serve as turnaround space for future renovations when the WEF is complete and occupied.
- Implement the Livermore Valley Open Campus (LVOC) alternate financing initiative and acquire the Collaboration in Research and Engineering for Advanced Technology and Education (CREATE) building.

