DOE/NV--1271

FY 2009 NNSA/NSO Ten-Year Site Plan

National Nuclear Security Administration

U1h Hoist

Rack

JASPER Gas Gun

Four Shooter ICE Preheat

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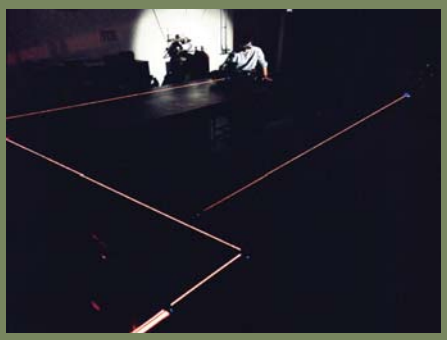
Name/Org: Gregory F. Spencer, NSTec
Date: August 20, 2008



LO Short Laser Pulse Laboratory

Desert Wildflowers in Bloom on the NTS

FY 2009 NNSA/NSO
Ten-Year Site Plan

A Bobcat on the Prowl at Fortymile Canyon

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FY 2009 NNSA/NSO
Ten-Year Site Plan

Approvals

Stephen A. Mellington
Acting Manager, Nevada Site Office
National Nuclear Security Administration

Stephen M. Younger
President
National Security Technologies, LLC

Contacts

Angela P. Colarusso
Assistant Manager for Safety & Operations, NNSA/NSO
Colaruss@nv.doe.gov

A. C. Hollins, Jr.
Director, Operations and Infrastructure
National Security Technologies, LLC
Hollinac@nv.doe.gov

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Note: **This background is a photograph of pictographs near Captain Jack Springs at the NTS**

FY 2009 NNSA/NSO
Ten-Year Site Plan

Acknowledgements

Managers
Gerry Babero
Gregory Mitchem
Dawn Starrett

Plan Project Manager
Yvonne Townsend

Layout Assistance
Christina Smith

Graphics
Brad Janota
Kari Stringfellow
Roberto Reece

Photographs
Susan Cochrane
Joe Delph
Paul Greger
Derek Hall

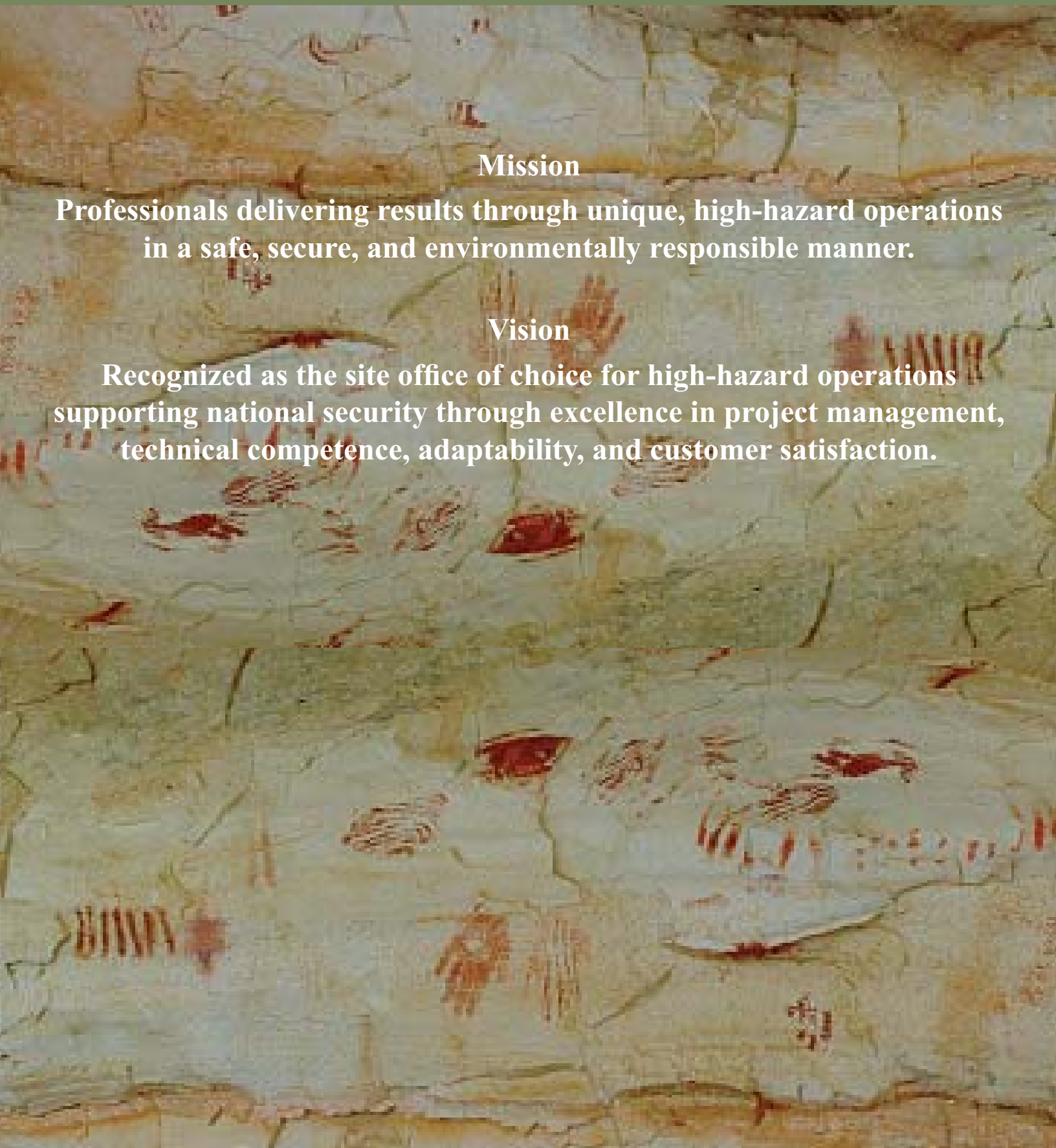
Production
Kurt Jahn
Jeff Li
Mark Shaw

Contributors
Gail Anderson
Don Bourcier
Dee Boyd
Steele Coddington
Keith Doering
James Gatling
Kathy Grizzle
Jeffrey Herhold
Hilda Hernández
Marijo Higginbotham
John-Paul Martinez
Yvette Mason
Robert McCay
James McSwain
Dave Nichols
Bill Parson
Robert Platoni
Terry Ploeger
Phyllis Radack
Roberto Reece
John Roberts
Richard Schmidt
Dan Soper
Barbara Spavin
Greg Stephenson
David Thompson

Executive Summary/Future State

Joshua Tree Overlooking Yucca Flat

FY 2009 NNSA/NSO
Ten-Year Site Plan



Mission

Professionals delivering results through unique, high-hazard operations in a safe, secure, and environmentally responsible manner.

Vision

Recognized as the site office of choice for high-hazard operations supporting national security through excellence in project management, technical competence, adaptability, and customer satisfaction.

Executive Summary/Future State

Introduction

The F*iscal Year (FY) 2009 Ten-Year Site Plan (TYSP)* is consistent with the *FY 2009-2018 Ten-Year Site Plan Guidance* issued in January 2008. It serves as the cornerstone of the initiative to restore, revitalize, and sustain the Defense Programs mission-critical facilities and infrastructure at the Nevada Test Site (NTS). Specifically, the *TYSP* (1) functions as a planning document that presents the possible paths to support the likely stockpile scenarios envisioned by the preferred alternatives reflected in the final *Complex Transformation Supplemental Programmatic Environmental Impact Statement* (SPEIS); (2) focuses management attention on current and future facility and infrastructure needs at each site in support of NNSA/NSO programmatic requirements, i.e., Readiness in Technical Base and Facilities, Directed Stockpile Work, and campaign program requirements; (3) assists in making operational and maintenance decisions and establishing future priorities to support the primary missions of the NNSA/NSO; (4) identifies site-specific funding profiles that are consistent with the Future Years National Security Program; and (5) presents a vision for facility and infrastructure requirements to meet future science and technology needs to support outyear planning activities for the Complex Transformation Plan.

The Nevada Test Site Today

A unique national resource, the NTS is an expansive, remote, outdoor laboratory, and national high-hazard experimental center that cannot be replicated. Larger than the state of Rhode Island, the NTS is approximately 1,375 square miles, making it one of the largest restricted access areas in the United States. The remote site is surrounded by thousands of additional square miles of land withdrawn from the public domain for use as a protected wildlife range and the Air Force test range, creating an unpopulated land area comprising some 5,470 square miles.

The NTS and its six auxiliary sites (Livermore Operations, Los Alamos Operations, North Las Vegas Facility, Remote Sensing Laboratory-Andrews, Remote Sensing Laboratory-Nellis, and Special Technologies Laboratory) continually strive to leverage existing assets to enhance the NTS as a Defense Programs site for weapons experimentation and nuclear test readiness. Efforts are focused on creating a sustainable future by developing a broad and varied National Security project base that complements Defense Programs capabilities.

The NTS is committed to achieving the vision of Complex Transformation to provide a smaller, safer, more secure, and less expensive Complex that leverages the scientific and technical capabilities of the workforce while meeting National Security requirements.

In December 2007, NNSA/Headquarters released the draft SPEIS. Overall goals for the complex cited within the draft SPEIS are as follow:

- In partnership with the U. S. Department of Defense, transform the nuclear stockpile.
- Transform to a modernized, cost-effective nuclear weapons complex.
- Create a fully integrated and interdependent nuclear weapons complex.
- Drive the science and technology base essential for long-term national security.

The specific SPEIS role cited for the NSO:

- Align the NTS with SPEIS alternative, e.g., high hazard testing.

Mission, Programs, and Activities

NNSA/NSO Program efforts fall under four major programs:

- Defense Programs
- Emergency Response
- Environmental Management
- Work for Others (e.g., Homeland Security and Defense Applications)

Defense Programs
The primary mission at the NNSA/NSO falls under Defense Programs. This primary mission includes conducting high-hazard experiments and operations in support of the NNSA Nuclear Weapons Complex and other national security missions, ensuring readiness to conduct underground nuclear tests within 36 months and maintaining the materials and facilities for nuclear assemblies.

The enduring nuclear weapons stockpile that helps preserve the nation's security must be maintained as safe and reliable. To meet this requirement within the constraints imposed on nuclear testing by U.S. treaties and agreements with other nations, the National Weapons Laboratories employ special nuclear materials (which may include plutonium") in a series of high-hazard experiments conducted at the NTS in remote, secure test facilities. The experiments also benefit Nuclear Test Readiness by updating the skills and technical expertise of NSTec personnel. The dynamic plutonium experiments, which measure the dynamic properties of special nuclear material in extreme temperature and pressure regimes, are unachievable elsewhere in the complex.

Emergency Response
The Remote Sensing Laboratory's mission is to support National Security with technical and operational solutions in Nuclear Emergency Response, Nuclear Nonproliferation, Remote Sensing, and Security Systems Technologies.

The Remote Sensing Laboratory provides proven, leading edge technical solutions and response capabilities to DOE/NNSA and Work for Others customers to combat terrorism, prevent and mitigate a nuclear or radiological event, and address challenges in support of national security. Capabilities include radiological emergency response; radiological and image data collection and analysis; aviation platforms and support; Geographic Information Systems; highly specialized and unique engineering research and development; technical training; and component and prototype development and testing. The Remote Sensing Laboratory has primary facilities and operations located at Nellis Air Force Base, Nevada and Andrews Air Force Base, Maryland.

The National Nuclear Security Administration's Office of Secure Transportation has moved their Operational Readiness Training and Joint Training Exercises to the NTS. This office operates the special transport system designed to ensure the safe and secure transport of special nuclear material, nuclear weapons, weapons components, and other sensitive nuclear material. Physical security arrangements include: use of unmarked armored transport-trailer rigs, highly trained armed federal agents, escort vehicles, and a variety of communication equipment. The Office of Secure Transportation conducts operations and training in varying environmental conditions. The Office of Secure Transportation has funded the activation of Area 12 Camp, which will be their base of operations.

Environmental Management
The Environmental Management Program at the NTS is separate from NNSA, but remains a part of and reports to the DOE. Activities under this program include legacy environmental cleanup under the *Federal Facility Agreement and Consent Order* with the state of Nevada, groundwater radionuclide migration studies associated with underground nuclear testing, environmental compliance, and environmental waste functions, which support the DOE complex and the U.S. Department of Defense through radioactive waste disposal, handling, and storage.

Work for Others
Work for Others customers are direct funded. This is a vital program which supports the DOE, Defense Programs, and projects that assist the nation in meeting national security challenges. This program includes additional work involving the Homeland Security and Defense Applications Program, Test and Evaluation, Counter Terrorism Operations Support, and Special Technologies Laboratory.

The Homeland Security and Defense Applications Program is a key component of NNSA's nuclear nonproliferation and counter terrorism technologies. Homeland Security and Defense Applications provides project management and execution support for activities in consequence management, crisis response, nonproliferation technology test and evaluation, information and communication technologies test and evaluation, and controlled releases of hazardous chemicals and biological stimulants for the purpose of hazardous materials research, development, testing, and training.

The Counter Terrorism Operations Support Program at the NTS serves as a leading operation in the nation responding to terrorism. This program oversees and conducts the training for emergency first responders. This training prepares the responders to take immediate action to prevent or mitigate terrorist use of radiological or nuclear weapons of mass destruction.

The Future State

The *2005 NNSA Strategic Planning Guidance for Fiscal Years 2007-2011* defines three goals:

- Ensure that our nuclear weapons continue to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. Nuclear Weapons Stockpile.
- Provide technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction; advance the technologies to detect the proliferation of weapons of mass destruction worldwide; and eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons.
- Provide the U.S. Navy with safe militarily effective nuclear propulsion plants, and ensure their continued safe and reliable operation.

The focus of the NNSA/NSO for the next ten years is to provide a secure environment and unmatched support for high-risk, high-hazard, complex experimental and operational activities that are required to support the first two goals. The NNSA/NSO has the challenge of integrating three initiatives:

- Complex Transformation
- Facilities Transition
- Integrated Resource Management Plan (NNSA/NSO Business Unit)

These initiatives support the DOE's 2006 Strategic Plan's theme of Nuclear Security: Ensuring America's Nuclear Security and Strategic Goal 2.1 – Nuclear Deterrent:

> *Transforming the Nation's nuclear weapons stockpile and supporting infrastructure to be more responsive to the threats of the 21st Century.*

Complex Transformation

As part of the DOE Complex Transformation proposal, the NTS remains the center for high-hazard testing. The NTS High Explosives Facility will be the site for large-scale, (e.g., greater than 15 kg net explosive weight) open-air explosives testing with new radiographic capability. The High Explosive Facility includes the Big Explosives Experimental Facility.

For the preferred alternative, the NTS would be designated the NNSA Center for Hydrodynamic Testing, with facilities for this capability sited at NTS in the future, as well as ongoing testing from Los Alamos National Laboratory and Lawrence Livermore National Laboratory transferred to NTS where feasible.

Activities to be transferred to NTS for its new missions would include:

- Open-air high explosives testing currently performed at Lawrence Livermore National Laboratory and Los Alamos National Laboratory.
- Addition of a 15 MeV radiographic capability.
- Conducting 5-10 hydrodynamic tests each year.
- Constructing next-generation hydrodynamic test facilities after current laboratory facilities have reached the end of their useful life.

- **Temporary staging of special nuclear materials -** The NTS is a contingency location for "staging" Los Alamos National Laboratory plutonium metals, currently located at the Savannah River Site. This will create more storage space at the Savannah River Site and enable the Savannah River Site to take the Lawrence Livermore National Laboratory inventory. Within five years of receipt, these plutonium metals will be shipped to Los Alamos National Laboratory for plutonium recovery. There is no storage of special nuclear materials, interim or otherwise. The NTS is also being considered as an interim staging location for Lawrence Livermore National Laboratory material.

- **Nuclear explosive operations** - The NTS will continue to support Pantex disassembly and some of its Life Extension Program activities by dealing with the more complex and time consuming systems (boutique Nuclear Explosive Operations) to allow Pantex to continue in Nuclear Explosive Operations production mode.

This *TYSP* will be revised in subsequent years to reflect the decisions NNSA makes regarding transformation after it issues the Record of Decision, which is scheduled for release in 2008.

Facilities Transition
The NTS Facilities Transition Project was initiated in FY 2008 so that NSTec, the NTS Management and Operating contractor, will have full responsibility and accountability for all NTS facility operations. This authority enabled NSTec to organize, prioritize, schedule, and perform maintenance, repair, and construction tasks in an efficient and effective manner. Consolidation of the NTS facility responsibilities to NSTec alleviates the need for laboratories, other agencies, and future customers to commit commensurate resources.

Integrated Resource Management Plan
The Integrated Resource Management Plan was published in January 2008. The Plan's recommendations include (1) reducing footprint, (2) aligning cost charging practices, and (3) facilitating strategic planning decisions for facilities and infrastructure.

A concerted effort is being expended to identify buildings at the NTS for consolidation and demolition. The Integrated Resource Management Plan list served as the mutual baseline outlining potential candidates for demolition. The list has been expanded. Currently, approximately 491,816 gross square feet (gsf) have been identified for potential demolition as cited in Attachment E-1(a) in Appendix A.

Excess Facilities Disposal

Complex Transformation at NNSA/NSO will be realized through a combination of activities, including footprint reduction. In FY 2008, NNSA/NSO began developing a plan to significantly reduce the footprint of the NTS and North Las Vegas Facility. The total cumulative reductions in gsf is provided in ***Table ES-1.*** From 2008 to 2018 the cumulative reduction totals 702,806 gsf. ***Figure ES-1*** demonstrates the NTS-NNSA Weapons Activities Account Footprint. Attachments E-1 and E-1(a) in Appendix A outline the potential candidates for disposition.

Proposed demolition of facilities from FY 2009 through FY 2018 is projected to reduce the footprint substantially. The relocation from the Cheyenne facility back to the North Las Vegas Building B-3 in FY 2008/2009 will reduce the footprint by 113,379 gross square feet.

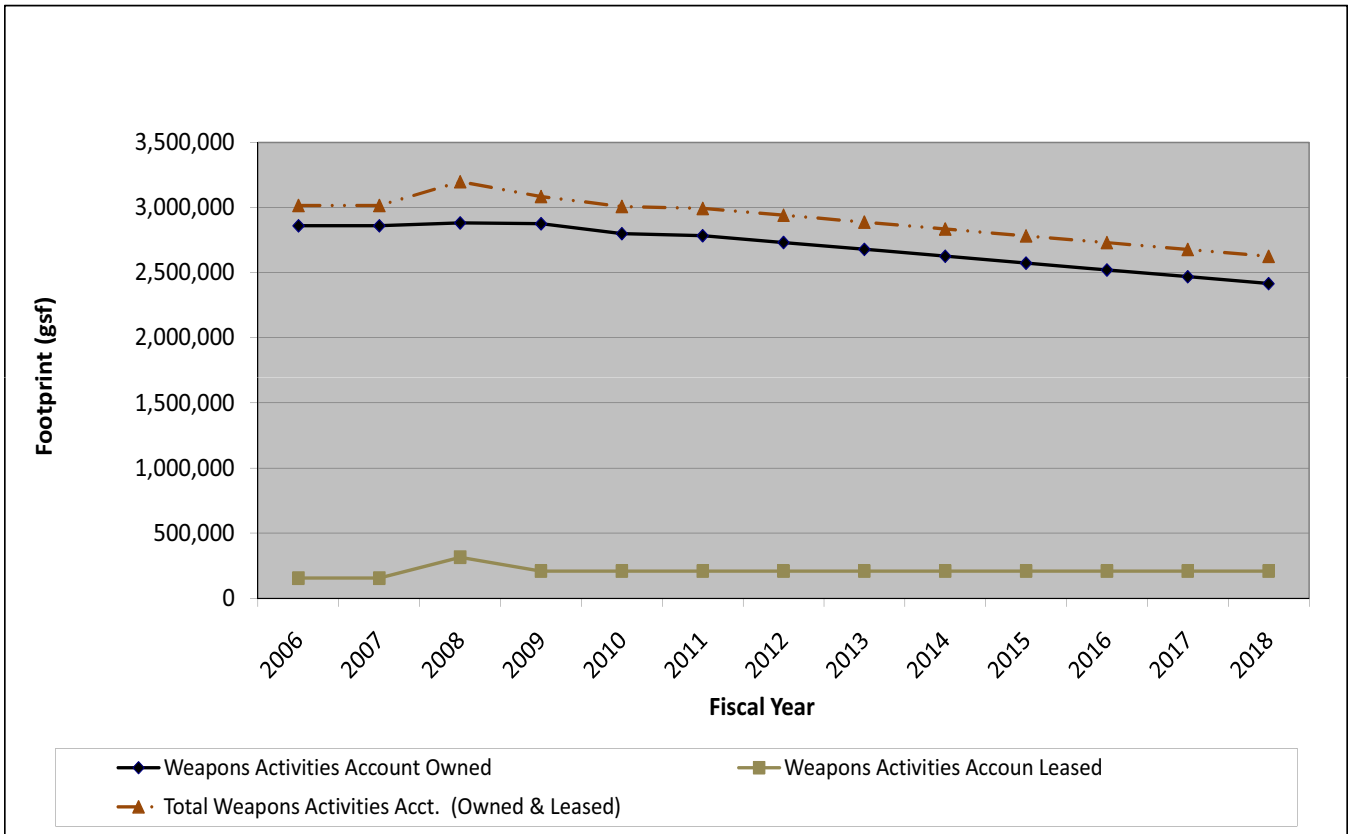
A plan is being developed to consolidate operations at the North Las Vegas Facility. Personnel and materials currently housed in five buildings totaling 18,543 square feet will be relocated to other North Las Vegas Facility buildings. It is projected that by FY 2009, relocation will be completed and the buildings deactivated.

Table ES-1 Nevada Test Site - Gross Square Footage Summary

	Site GSF Baseline (gsf) - *Based on FIMS Snap-shot taken at end of FY2005*	Net Change in GSF from FY06 through FY07 - *Based on FIMS Snap-shot at end of FY2007*	Cumulative Changes from Start FY2008 to End FY2018		Projected Footprint at end of FY2018 (gsf)	Change from Start of FY2006 to End of FY2018 (gsf)
			Cumulative Additions (Construction, New Leases, Transfers) (gsf)	Cumulative Reductions (Disposition, Sale, Transfer, Lease Termination)* (gsf)		
OWNED GROSS SQUARE FOOTAGE						
Weapons Activities Account Owned	2,859,718	21,724	53,000	-554,669	2,379,773	-479,945
Other NNSA Owned (NA-20)	9,868	0		-1,020	8,848	-1,020
Other DOE Owned	229,984	-26,291		-33,738	169,955	-60,029
Non-DOE Owned	0	0			0	0
Total	3,099,570	-4,567	53,000	-589,427	2,558,576	-540,994
LEASED GROSS SQUARE FOOTAGE						
Weapons Activities Account Leased	155,164	160,685	6,484	-113,379	208,954	53,790
Other NNSA Leased (NA-20)	0	0			0	0
Other DOE Leased	0	0			0	0
Non-DOE Leased	0	0			0	0
Total	155,164	160,685	6,484	-113,379	208,954	53,790
OWNED & LEASED GROSS SQUARE FOOTAGE						
Weapons Activities Account Owned & Leased	3,014,882	182,409	59,484	-668,048	2,588,727	-426,155
Other NNSA Owned & Leased (NA-20)	9,868	0	0	-1,020	8,848	-1,020
Other DOE Owned & Leased	229,984	-26,291	0	-33,738	169,955	-60,029
Non-DOE Owned & Leased	0	0	0	0	0	0
Total	3,254,734	156,118	59,484	-702,806	2,767,530	-487,204

*(Preliminary proposal for Transformation Disposition. FY 09 Disposition GSF is currently in NA-52 Project Data Sheets; however, reduction is dependent upon resources and funding.)

Figure ES-1 NTS - NNSA Weapons Activities Account Footprint



Specific Issues of Concern

Significant progress towards transforming the NTS has been achieved. However, key concerns have been identified that will impact the NNSA/NSO's ability to fully achieve Complex Transformation at the NTS within this 10-year cycle.

1. Sustaining facilities during transformation to ensure the tremendous gains being made by the Facilities and Infrastructure Recapitalization Program will not be overcome as the annual burden of deferred maintenance continues to grow.

2. Upgrading, modernizing, and consolidating utility infrastructure to realize optimal energy, and operational efficiencies, while ensuring the vast network of NTS utility systems remains stable.

3. Modernizing facilities to ensure that mission-critical operations are supported by efficient facilities.

4. Maintaining a skilled work force to ensure that NNSA/NSO has the professional resources to meet future program requirements.

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Tables

Table ES-1: Nevada Test Site - Gross Square Footage Summary vii

Acronyms

BEEF	Big Explosives Experimental Facility
CP	Control Point
DBT	design basis threat
DOE	U.S. Department of Energy
DPF	Dense Plasma Focus
FIMS	Facility Information Management System
FY	fiscal year
GSF	gross square footage
LANL	Los Alamos National Laboratory
LLNL	Lawrence Livermore National Laboratory
NNSA	National Nuclear Security Administration
NSO	Nevada Site Office
NSTec	National Security Technologies, LLC
NTS	Nevada Test Site
RTBF	Readiness in Technical Base and Facilities
SPEIS	Supplemental Programmatic Environmental Impact Statement
THREX	Threshold Experiment
TYSP	Ten-Year Site Plan
U.S.	United States
WSI	Wackenhut Services, Inc.

Assumptions

Stream near Captain Jack Spring in Area 12

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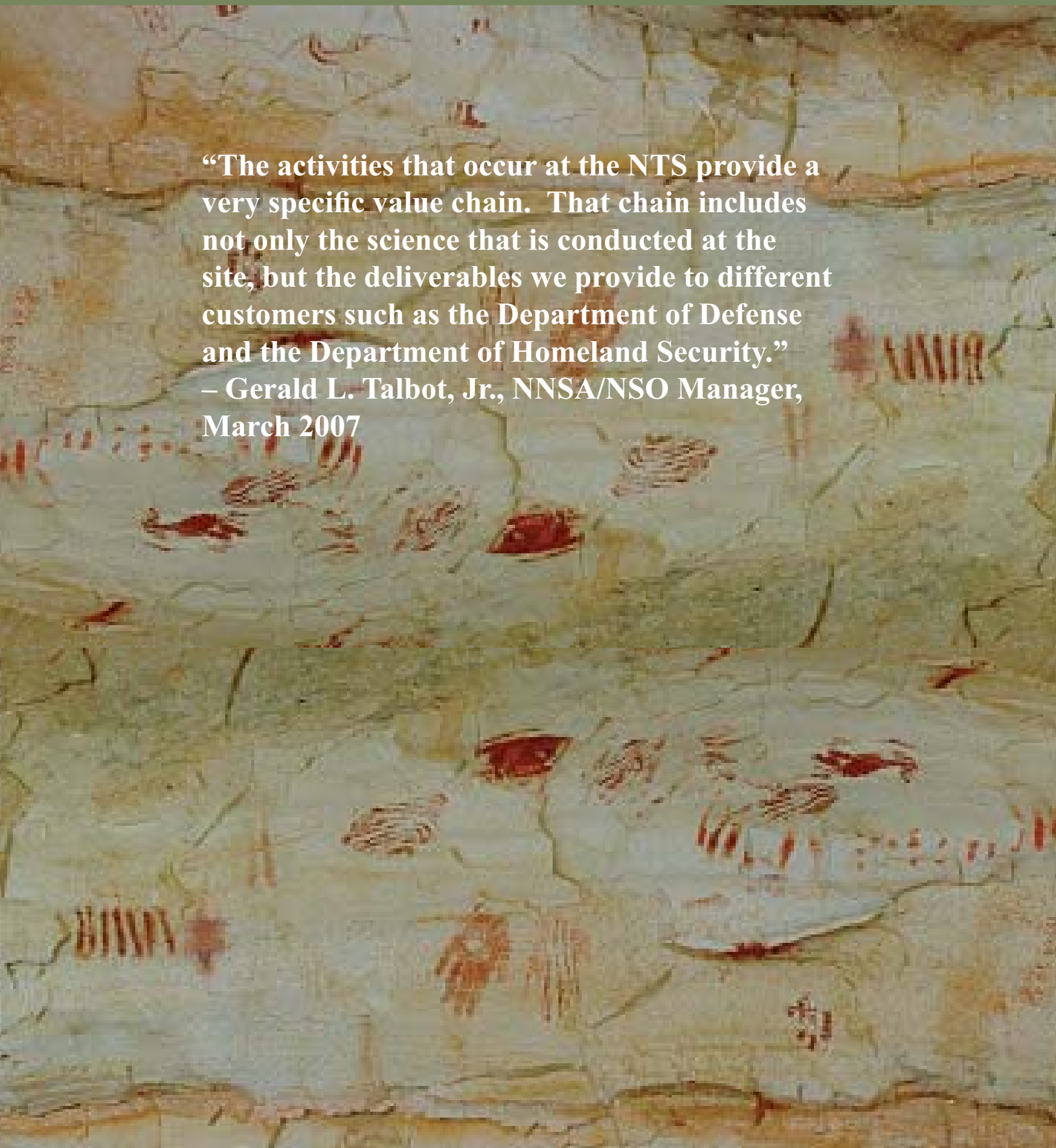

"The activities that occur at the NTS provide a very specific value chain. That chain includes not only the science that is conducted at the site, but the deliverables we provide to different customers such as the Department of Defense and the Department of Homeland Security."
– Gerald L. Talbot, Jr., NNSA/NSO Manager, March 2007

1.0 Assumptions

Decisions made by the National Nuclear Security Administration Nevada Site Office (NNSA/NSO) are based on a number of assumptions regarding site operations, test programs, customers, and facility needs. These assumptions anticipate site use, policies, regulations, and agency mandates that may affect operation over the next ten years.

The following key planning and programmatic assumptions guide NNSA/NSO planning activities and were used to develop this *Ten-Year Site Plan* (*TYSP*).

Chapter Overview

- Discusses planning assumptions, including programmatic and budget assumptions.

1.1 Planning Assumptions

- Institutional control of the Nevada Test Site (NTS) will continue indefinitely. Federal control of the site is considered an obligation of the federal government and will be maintained. Offsite subsurface restrictions (institutional control) will be maintained to prevent access to radioactive contamination or contaminated groundwater.
- Federal lands surrounding the NTS will remain under federal control, including the Air Force's Nevada Test and Training Range, previously known as the Nellis Air Force Range.
- NNSA/NSO will continue to manage the air space over the NTS through a Memorandum of Agreement with the U.S. Air Force.
- The capability to conduct an underground nuclear test will be maintained at 36 months.
- Facilities, infrastructure, and equipment will be maintained to the level necessary to support the resumption of underground nuclear testing on the NTS, if directed by the United States President.
- Mission-critical facilities will be maintained in good or better condition.
- Proposed activities at the NTS will undergo an appropriate level of analysis and documentation pursuant to *National Environmental Policy Act* and will comply with all applicable laws and regulations for protection of the environment.
- Sufficient electrical power will be available.
- Sufficient potable water will be available to support operations.
- Sufficient non-potable water will be available for custodial, mining, drilling, and construction.
- The state of Nevada will regulate the public water supply and distribution systems and issue permits for the NTS public water system.
- The land in undeveloped mountainous areas will remain fallow.
- The annual infrastructure assessments will identify and validate deferred maintenance requirements and excess facility candidates.
- The condition of facilities and infrastructure will be assessed on a five-year cycle.
- Disposition of facilities will be scheduled once it has been determined that the facility will no longer be used to support the mission. Buildings typically exceed their design life prior to disposition.
- Implementation of the Integrated Resource Management Plans recommendations to:
  - Reduce the number of operational facilities.
  - Increase the number of operational standby facilities.
  - Increase the number of facilities pending disposition.

1.2 Programmatic Assumptions

- Defense Programs will continue as landlord of the NTS. No actions will be taken and no projects will be planned or executed that preclude or impede the continued use of the site by the Stockpile Stewardship Program, up to and including resuming underground nuclear weapons testing. The NNSA will maintain and enhance facilities and infrastructure to meet the needs of its programs.
- NNSA/NSO has government, laboratory, and contractor personnel located at various sites. While a small group of NNSA/NSO personnel provide NNSA oversight, the greater part of the laboratory personnel are managed and reported through each laboratory's personnel function. The majority of personnel at NNSA/NSO's sites are NSTec personnel. NSTec provides technical, scientific, project management, and labor support via associated administrative and management personnel.

  Hiring and retaining the unique blend of personnel required to support the various laboratories' technical and construction requirements and manage the facilities and infrastructure systems across an approximate 1,375 square-mile site are challenging and difficult tasks. Projects like the Criticality Experiments Facility and the Radiological/Nuclear Counter-Measures Test Evaluation Complex are expected to increase personnel growth by 1 percent per year for a total of 10 percent.

  Over the next ten years, the workforce profile at NSTec will change to meet the needs of the programs. Potentially, this will create a significant change from the current workforce profile to a reduction in staff.
- The Stockpile Stewardship Program will experience a down turn in the near term from its present level with some form of ongoing subcritical and/or other special nuclear material experimentation to support Stockpile Stewardship Project plans and maintain the technical skills of the personnel responsible for design, testing, and diagnostics.
- Infrastructure maintenance and upgrades of Defense Programs-related portions of the NTS will continue.
- Public proximity to some National Weapons Laboratories and defense facilities could result in the transfer of some high-hazard experiments and activities to the NTS.
- The NTS will maintain the capability to conduct nuclear explosive operations.
- The U.S. Department of Defense and other agencies will continue to use the NTS for national programs that require the unique geology, remoteness, technical capabilities, and security that the NTS provides.
- Site boundaries are expected to change as a result of land withdrawal by the Yucca Mountain Project. This will be delayed until the Yucca Mountain Project receives authorization to begin construction.
- The operating footprint will be decreased based on planned facility disposition.
- Security assumptions in terms of the level of protection of the site include:
  - NTS will meet the increased design basis threat guidance.
  - NTS will continue to increase/enhance the security posture during times of increased threat levels.
  - NNSA/NSO will update the Site Safeguards and Security Plan to capture the current security program requirements as needed.

1.3 Budget Assumptions

The projects presented in the *TYSP* will be performed within the budget constraints of the Future-Years Nuclear Security Program targets. Workload requirements are expected to decrease, as are corresponding workforce levels. Costs for maintaining facilities will be collected by a newly instituted work breakdown structure that will capture maintenance costs by facility.

Mission Needs/Program Descriptions

Mule Deer Herd Foraging on the NTS

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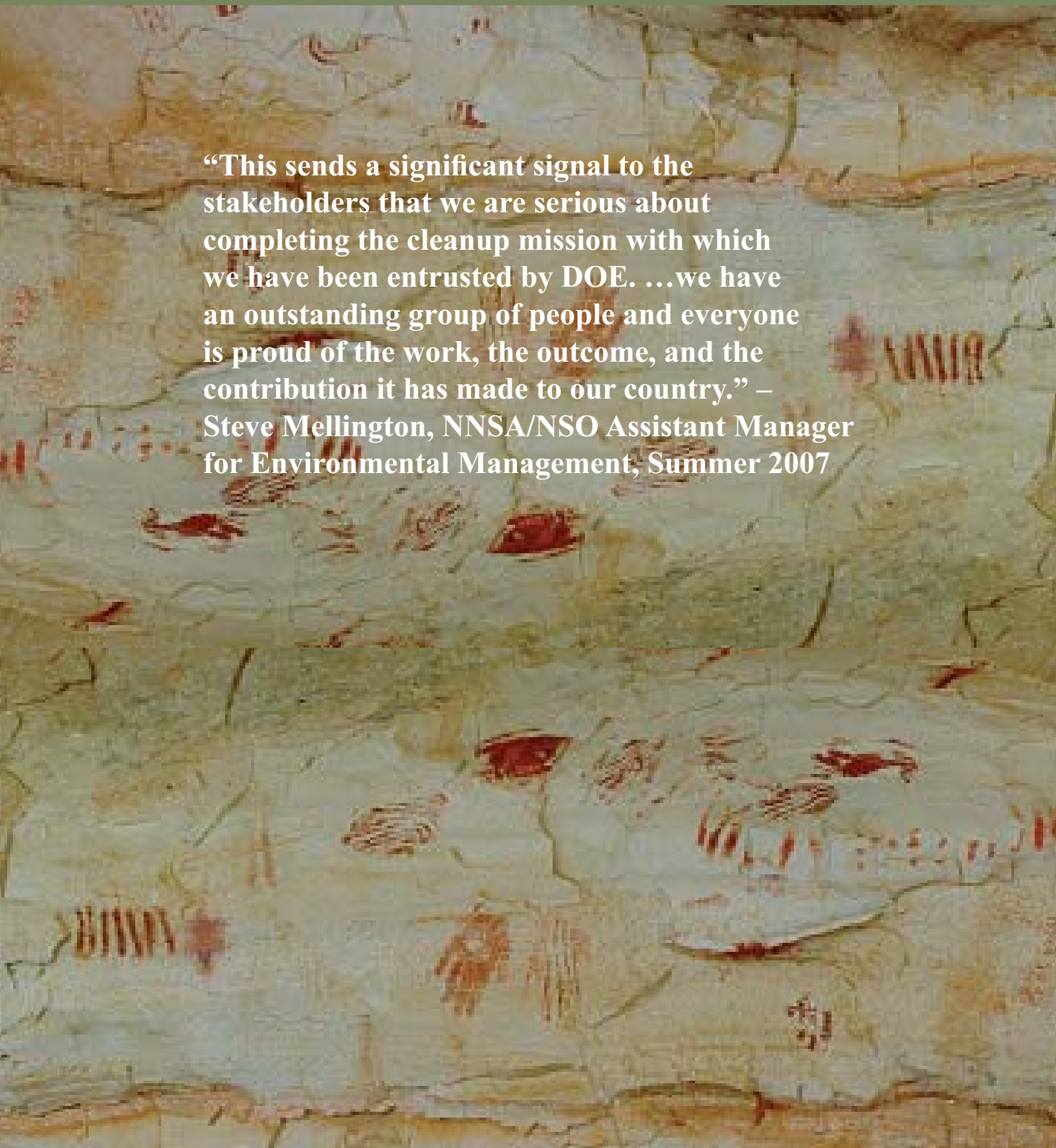

"This sends a significant signal to the stakeholders that we are serious about completing the cleanup mission with which we have been entrusted by DOE. …we have an outstanding group of people and everyone is proud of the work, the outcome, and the contribution it has made to our country." – Steve Mellington, NNSA/NSO Assistant Manager for Environmental Management, Summer 2007

2.0 Mission Needs/Program Descriptions

2.1 Current Mission, Programs, and Workload

The Nevada Test Site (NTS) and associated activities draw together a unique team comprised of the U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Site Office (NNSA/NSO), National Security Technologies, LLC (NSTec), Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratories to support Stockpile Stewardship and related multi-program activities for the NNSA while maintaining the ability to resume underground nuclear testing. The primary NNSA/NSO National Security mission is to support the Defense Programs in the execution of subcritical and other weapons physics experiments, nuclear test readiness, emergency response training and demonstration for defense systems, complex high-hazard experimentation, and assist in performing limited nuclear explosive operations. The NNSA/NSO provides the direction and oversight to execute the complex coordination to support the mission requirements among all the organizations. NSTec is responsible for providing much of the programmatic infrastructure, personnel, testbed, and diagnostics needed to execute the programmatic work. NSTec manages the resources, facilities, and infrastructure that make up the NTS and the other supporting sites in California, Nevada, New Mexico, and Maryland.

The work performed by NSTec is grouped into four major programs: Defense Programs, Emergency Response, Environmental Management, and Work for Others.

The Defense Program scope of work for the NTS is derived from the NNSA Strategic Plan, the Future Years Nuclear Security Program, the Science Campaigns, Directed Stockpile Work, and Readiness in Technical Base and Facilities plans. These plans written by the laboratories, plants, and the NTS reflect the strategic and tactical objectives of the NNSA in maintaining the nuclear stockpile. NSTec and the National Weapons Laboratories refine the scope of work and areas of responsibility between one another to execute the NTS experiments in support of the NNSA plans. NSTec's Facility and Infrastructure Planning Department's activities ensure that the NTS maintain appropriate project locations and necessary facilities, services, and infrastructure. This support enhances the NTS as a site for weapons experimentation and nuclear test readiness.

Chapter Overview

- Discusses Current Mission and Programs
- Describes Readiness in Technical Base and Facilities with facility details
- Discusses Work for Others
- Discusses Environmental Management Projects and support facilities
- Defines mission-critical facility linkages to Infrastructure mission needs
- Presents projected future programs and missions impacts

The following sections of this chapter discuss the major programs, define their strategic objectives, and highlight their major projects and/or work activities.

2.1.1 Defense Programs

Defense Programs encompasses stockpile stewardship activities including Directed Stockpile Work and activities in support of NNSA Science Campaigns, and Readiness in Technical Base and Facilities activities.

The NNSA/NSO implements Defense Programs at the NTS to obtain required nuclear experimental data in support of continued certification of stockpile

weapon systems and the ability to conduct nuclear weapon testing (if required) and experimentation through the following:

- Collecting physical data from high-hazard experiments to define the principle understanding of the stockpile weapons system and validate physics simulation and codes.
- Maintaining a fully-supported test bed infrastructure at the NTS for defense-related nuclear and national security experiments, as conducted by the National Weapons Laboratories and other experimenters.
- Maintaining capability in support of nuclear explosive operations.
- Maintaining the capabilities (technologies, staff skills, equipment, and infrastructure) to conduct nuclear weapons testing within 36 months of receiving Presidential direction to do so.

2.1.1.1 Directed Stockpile Work

The primary goal of the Directed Stockpile Work Research and Development Program is to ensure that the nuclear weapons in the U.S. Stockpile are safe, secure, and reliable. The NTS Directed Stockpile Work scope falls within the Stockpile Services Directed Stockpile Work activities which support multiple weapons systems, advanced concepts, studies, and other Research and Development to support future stockpile requirements. The NTS has an integrated scope of work, that includes Directed Stockpile Work Research and Development Program Stockpile Services, and the development and execution of dynamic plutonium experiments support for subcritical and high-explosive pulsed-power experiments, test bed construction development and design, and procurement and operation of diagnostics systems. Also included are diagnostic development activities required to support future experiments, including control systems, data acquisition, and data analysis.

Subcritical Experiments
The Subcritical Experiments Program conducted for Lawrence Livermore National Laboratory provides unique data on the material properties of plutonium when shocked by a high-explosive detonation. The majority of experiments are conducted in sealed chambers or confinement vessels specifically designed to contain the expended plutonium during and after the detonation. Diagnostics are tailored to the specific experiments.

Outyear scope is expected to include the following:

- FY 2009: Five full function experiments at the Big Explosives Experimental Facility.
- FY 2010: Five full function experiments at the Big Explosives Experimental Facility and begin underground preparations for future special nuclear material experiments.
- FY 2011: Four full function experiments at the Big Explosives Experimental Facility and complete underground preparations for future special nuclear material experiments.

Dynamic Plutonium Experiments
Dynamic plutonium experiments involve subjecting plutonium to high-pressure shock waves driven by high explosives. These types of experiments provide velocity profiles, phase information, radiometric data, imaging data, and other diagnostic data which support the Predictive Capabilities Framework, dynamic materials studies, and fundamental research in the properties of plutonium.

The Dynamic Plutonium Experiments conducted for Lawrence Livermore National Laboratory include a series of high-explosive pulsed-power experiments designed to measure the equation-of-state of plutonium over a pressure range of interest. Samples of special nuclear materials are immersed in a high magnetic field which, in turn, lead to magnetic pressure in the sample. To reach the pressures of interest, electrical currents of many mega-amperes are required. A high-explosives pulsed-power generator is used to generate the required current pulses.

Research and Development
As the nuclear stockpile continues to age, it has become more challenging to support Stockpile Stewardship initiatives. New radiographic technologies will be required to provide needed stockpile data, support the Los Alamos National Laboratory Dynamic Plutonium Experiments Program, and address stockpile issues as they become evident. Consolidation associated with Complex Transformation is also driving the need

for new radiographic technologies that are more efficient and capable than existing technologies. Short-term milestones in Research and Development include:

- Development of new pulsed-power based radiographic technologies to meet the evolving radiography source requirements of Stockpile Stewardship.
- Development of a Dense Plasma Focus neutron source of sufficient energy to measure the reactivity of special nuclear materials.

Diagnostic Development

Stockpile Stewardship will continue to require cutting-edge diagnostic technology development to successfully carry out its mission. Future diagnostic requirements include new types of measurements, higher precision, improved resolution, enhanced operability, and lower costs to the program. Investment in this development must be ongoing in order to have the right diagnostics ready in time to support the Los Alamos National Laboratory's Dynamic Plutonium Experiments Program. A variety of instrumentation, sensors, data acquisition systems, control systems, and data analysis techniques for experiments conducted at the National Weapons Laboratories and the NTS will be developed and implemented in support of Los Alamos National Laboratory.

A suite of experiments will be conducted at the NTS in the U1a facility for Los Alamos National Laboratory. These experiments fall into two categories: Large Bore Powder Gun experiments and Imaging experiments conducted in front of the CYGNUS radiographic sources. Large Bore Powder Gun experiments will provide Equation of State data and other fundamental plutonium property data. Imaging experiments will examine spallation and the formation of ejecta when plutonium is subjected to high-pressure shock waves by directly imaging plutonium surfaces.

Short-term milestones supporting Los Alamos National Laboratory Dynamic Plutonium Experiments include:

- Support the Los Alamos National Laboratory's national milestones, dynamic materials studies, and provide a "peg post" for the Predictive Capabilities Framework.
- Refurbish the CYGNUS machines in the U1a .05 drift to enhance performance and capability.
- Prepare the .05 drift diagnostic area for a series of Dynamic Plutonium experiments to be conducted in vessels behind the U1a .05 drift barrier.
- Support the Los Alamos National Laboratory's effort to develop and field large bore powder guns.

Outyear Scope is expected to include the following:

- FY 2009 – 2011: FY 2009: Conduct Barolo experiment(s) in front of CYGNUS radiography machines at U1a.
- FY 2010: Conduct the first series of large bore powder gun special nuclear material experiments at U1a. Conduct the Kino series of special nuclear material experiments at U1a and prepare for the Molli series of special nuclear material experiments in front of CYGNUS radiography machines at U1a.
- FY 2011: Conduct a second series of large bore powder gun special nuclear material experiments at U1a and conduct the Molli series of special nuclear material experiments in front of CYGNUS radiography machines at U1a.
- FY 2012 – 2015: Conduct a third series of large bore powder gun special nuclear material experiments, and conduct other experiments as defined by Los Alamos National Laboratory.

In concert with Sandia National Laboratories, the NTS support program's effort is to provide the NTS technical capability in arming and firing technology; pulsed-power component development for advanced radiation sources; and war reserve component testing in hostile environments, as part of Sandia National Laboratories' non-nuclear weapon certification, weapons effects, and stockpile surveillance missions.

Sandia National Laboratories has Stockpile Systems responsibilities for all nine weapon types in the enduring stockpiles, and Stockpile Services responsibilities for Research and Development Certification and Safety, Research and Development Support and Advanced Studies including Responsive Infrastructure, and Robust Nuclear Earth Penetrator, if funded.

Work elements include:

- Advanced subcritical experiments diagnostic development support, including Velocity Interferometer System for Any Reflector for curved surfaces and complex shapes and continuing efforts in pyrometry.
- Containment and other U1a instrumentation supporting subcritical experiments.
- Other component experiments/arming, fuzing, and firing.
- Pulsed-power component testing.
- Linear transformer design source development.
- Gas-gun diagnostics and experiments.

2.1.1.2 Science Campaigns

NSTec actively supports three NNSA Campaigns: (1) Science Campaign Subprograms, (2) Nuclear Test Readiness, and (3) Inertial Confinement Fusion and High Yield Campaign. These campaigns are technically challenging, multifunctional efforts that involve definitive milestones, specific work plans, and specific end dates. These campaigns focus on scientific and technical efforts to develop and maintain capabilities critical for continued certification of the weapons stockpile.

Science Campaign work at the NTS supporting Lawrence Livermore National Laboratory includes experiments at the Joint Actinide Shock Physics Experimental Research Facility. Joint Actinide Shock Physics Experimental Research work entails procurement and fabrication of consumable experiment parts (primary target chambers, ultra-fast closure valves, etc.) and execution/data acquisition of special nuclear materials and surrogate materials experiments utilizing a variety of diagnostics such as positive interlayered negative and Velocity Interferometer System for Any Reflector.

Sandia National Laboratories Science Campaign work at the NTS in support of Isentropic Compression Experiments involves fast Velocity Interferometer System for Any Reflector diagnostics development and fielding, developing a preheat capability for liquid metal sample equation-of-state experiments, containment studies for hazardous materials and special nuclear materials equation-of-state experiments, and advanced dynamic materials diagnostic development such as X-radiography and X-ray diffraction.

Los Alamos National Laboratory Science Campaign work at the NTS involves diagnostics development for the study of equation-of-state, constitutive properties, and phase states of shocked materials, fielding these systems, and collecting data at single and two-stage gas guns and explosive facilities at Los Alamos National Laboratory, NSTec's Special Technologies Laboratory, and the Joint Actinide Shock Physics Experimental Research Facility, ultimately migrating these diagnostics to Los Alamos National Laboratory subcritical experiments.

2.1.1.3 Readiness in Technical Base and Facilities Activities

The Readiness in Technical Base and Facilities scope of work includes establishing the physical infrastructure and operational readiness required to perform the Directed Stockpile Work and Science Campaign activities. The two major elements of the Readiness in Technical Base and Facilities program are Operation of Facilities and Program Readiness.

2.1.1.3.1 Operation of Facilities

The Operation of Facilities element includes the cost to operate and maintain "NNSA-owned" programmatic facilities in a 'warm-standby' state of readiness, where the site and each facility is operationally ready to execute programmatic tasks. A description of major facilities follow.

Device Assembly Facility
The Device Assembly Facility, managed and operated by NSTec for NNSA/NSO, is a 100,000 square-foot heavily reinforced concrete structure located within a 19-acre high-security area in Area 6 of the NTS. Operations at the Device Assembly Facility include staging and transport of special nuclear material, preparation of dynamic plutonium experiments, and other unique experiments specified by laboratory project leaders.

The facility consists of office space, laboratories, a machine shop, assembly and high bays, assembly cells, and supporting mechanical and electrical

equipment areas. The Device Assembly Facility is the only facility on the NTS approved for nuclear explosive operations and special nuclear material assemblies. The Lawrence Livermore National Laboratory actinide handling glove box in the Device Assembly Facility is used for preparing nuclear targets for the Joint Actinide Shock Physics Experimental Research gas gun.

The primary operational objectives under Readiness in Technical Base and Facilities are to operate and maintain the Device Assembly Facility for NTS programs and projects, which include:

- Maintaining nuclear test readiness capabilities.
- Providing support for performing limited nuclear explosive operations.
- Staging of category 1 and 2 special nuclear material.
- Developing a cadre of next-generation scientists, engineers, and technicians who can help achieve the underground nuclear test objectives.
- Executing the damaged nuclear weapons mission.

In mid FY 2002, NNSA determined that the Los Alamos Critical Experiments Facility, located in Technical Area 18, Security Category I/II and roll-up missions, will be relocated to the NTS. The Los Alamos Critical Experiments Facility missions support nuclear criticality research, addressing national nuclear issues, training of various national groups in the use of nuclear instrumentation for assay and safe handling of special nuclear materials, and development and calibration of nuclear radiation measurement equipment to detect and identify minute to sizable quantities of nuclear materials. The facility also supports basic research in nuclear chain-reacting systems and facilitates contributions to arms control and treaty verification, waste assay, safeguards and accountability, and environmental restoration.

In FY 2008, the Device Assembly Facility was divided into two separate areas: the Criticality Experiments Facility construction side and the Nuclear Explosive Operations side. The Criticality Experiments Facility construction area allows access to uncleared construction personnel, while the Nuclear Explosive Operations side remains a Material Access Area.

Several projects have been planned for FY 2009 that will improve security at the Device Assembly Facility in response to the 2005 Design Basis Threat.

U1a Complex

The U1a Complex, managed for NNSA/NSO by NSTec, is comprised of 27 surface support buildings and an extensive series of underground drifts and experiment alcoves mined in alluvium 965 feet beneath the NTS. The underground complex, where experiments with high explosives and special nuclear materials are conducted, is accessed by the U1a shaft and the U1h shaft. Although the principal purpose of these experiments is to provide data on the behavior and properties of materials in a dynamic environment, their execution now is an important part of ongoing nuclear test readiness by exercising portions of various nuclear test readiness functional areas.

Joint Actinide Shock Physics Experimental Research Facility

The Joint Actinide Shock Physics Experimental Research Facility is a two-stage, gas gun facility, managed for NNSA/NSO by NSTec, that performs equation-of-state experiments with special nuclear materials. The Joint Actinide Shock Physics Experimental Research Facility is capable of achieving projectile velocities up to 8 km/sec with near-zero projectile tilt at impact. The primary operational objectives under Readiness in Technical Base and Facilities are to operate and maintain the Joint Actinide Shock Physics Experimental Research Facility in support of laboratory experimental programs, projects, and activities, which includes the operation and maintenance of special nuclear material shock physics activities. The Joint Actinide Shock Physics Experimental Research Facility is located in Area 27 of the NTS and is supported by other buildings, trailers, and bunkers.

Atlas Pulsed-Power Facility

The Atlas Pulsed-Power Facility is maintained in cold standby for supporting experiments fielded on the Atlas machine. Atlas is a pulsed-power machine for conducting materials properties studies. This machine is designed to meet a broad range of needs

in providing High-Energy Density hydrodynamics data for assisting in the validation of nuclear weapons codes as part of the Stockpile Stewardship Program, and for conducting dynamic materials experiments in the scientific community at large. The last experiments were conducted in March 2006, after which the facility was maintained in a readiness state. The Atlas Pulsed Power Facility was put into cold standby in September of 2007. Readiness in Technical Base and Facilities funds the activities necessary to support the Atlas Pulsed Power Facility in a cold standby state.

High Explosives Facilities

The Big Explosives Experimental Facility, located in Area 4, is an open air high-explosives test bed for weapons physics experiments and shaped charge development. The Big Explosives Experimental Facility is uniquely certified to handle high explosive loads, up to 70,000 pounds, and is currently authorized to conduct advanced high explosive experiments with such hazardous materials as depleted uranium. The facility is comprised of three buildings, and includes a firing table, a camera bunker, a control/diagnostic bunker, and other support facilities. In FY 2005, the diagnostics for the Big Explosives Experimental Facility were upgraded to support a series of Phoenix-related experiments in support of Directed Stockpile Work.

The Baker Site, located in Area 27 of the NTS, is the explosive staging and storage area used to support high-explosives experiments at the Joint Actinide Shock Physics Experimental Research Facility, as well as the Big Explosives Experimental Facility. The Baker Site Facility provides the capability to receive shipments, safely store explosives materials, and transport them. The Baker Site and Big Explosives Experimental Facility Site also support other programmatic requirements.

Area 6 Control Point Complex

The Control Point Complex is located in the saddle of the ridge between Yucca Flat and Frenchman Flat. The Control Point Complex consists of numerous facilities that support forward area testing and experiments. The experiment and readiness assets are the command and control for execution and remote recording of nuclear experiments if the U.S. President requested a nuclear test underground. Readiness in Technical Base and Facilities funds the management, operations, and utilities (power) of the facilities. Currently, a preconceptual plan is being developed to identify Control Point facilities to retain or demolish. Additional information about the plans for Control Point closure is presented in Section 3.3.3.

North Las Vegas Facility

The North Las Vegas Facility is comprised of 29 buildings that support the ongoing stockpile stewardship and nuclear test readiness mission. In FY 2008, the remediation, restoration, and upgrade of Building B-3 was completed. Personnel temporarily relocated to the Cheyenne Facility are scheduled to returned to Building B-3 during FY 2008/FY 2009.

Three of these buildings are designated as mission-critical Readiness in Technical Base and Facilities to directly support ongoing mission and readiness initiatives. However, 11 other mission-dependent, not critical buildings facilitate the Defense Programs mission. Operations and maintenance of the mission-critical facilities are directly supported by Readiness in Technical Base and Facilities funds. The three mission-critical buildings include Buildings A-1 high bay, the A-1 expansion, and C-3. These facilities are needed for communications, test fabrication and assembly, radiography, and other diagnostics development. Facility management and support is funded by Readiness in Technical Base and Facilities. The A-1 expansion and the A-1 high bay are readiness assets that house machine shops and overhead cranes that would be needed to fabricate nuclear test racks if nuclear tests were to conducted in the future. The machine shops are currently used to fabricate Joint Actinide Shock Physics Experimental Research Facility target chamber and radiography parts. The machine shops previously fabricated the subcritical experiment vessels. Building A-1 also houses detector development laboratories, nine detector Cobalt-60 calibrations source ranges, and dense plasma focus neutron sources. Building C-3 houses a light laboratory, stockpile stewardship experimental facilities, and readiness assets. The light laboratories support development and calibration of diagnostics for subcritical experiments and other defense related experiments. The experimental facilities are designed for pulsed-power radiography and currently house radiography development hardware.

2.1.1.3.2 Program Readiness

Program Readiness includes select activities that support more than one facility, campaign, or Directed Stockpile Work activity, but are essential to achieving the objectives of the Stockpile Stewardship Program.

Logistics
This program includes a wide range of support defined by each National Weapons Laboratory. These requirements typically include providing equipment such as vehicles, telephones, radios, and other commodities. In addition, Logistics provides administrative, institutional support staff, technical, photo, computer services, and the manual craft staff necessary to support the National Weapons Laboratories' staff assigned to Nevada.

Other Federal Agencies
Other federal agencies provides support to NNSA/NSO for weather, hydrology, and geology. This includes logistical support to U.S. Geological Survey organizations.

Program Operations
This Readiness and Technical Base Facility Program office provides funding for program management, miscellaneous equipment, and operating expenses of the NTS Stockpile Stewardship Program. This support is essential for the execution of Science Campaign activities and Directed Stockpile Work. Program Operations include the following activities:

- Seismic monitoring and recording of all natural seismic events greater than 3.5 on the Richter scale, experimental explosions greater than 50 pounds, and all subcritical experiments.
- Closed-circuit television recording of subcritical experiments.
- Nuclear Testing Archives collecting and consolidating historical documents, records, and data related to the U.S. Nuclear Testing Program.

Borehole Closures
There are ongoing efforts to properly close past test and experiment boreholes in compliance with Nevada Revised Statutes (regulatory drivers include Chapter 534 of the Nevada Revised Statutes, Underground Water and Wells). Five hundred seventy-seven boreholes were closed (plugged) from 2000 through 2007, and 40 have been closed during FY 2008. This leaves approximately 316 unused wells and boreholes to be closed at the NTS. All of these wells and boreholes need to be properly plugged and abandoned to ensure compliance with NNSA/NSO's commitment to the state. If closure activities are not conducted, NNSA/NSO could not meet its commitment to the state of Nevada.

NTS Legacy Compliance
This program addresses environmental issues that resulted from more than 40 years of nuclear testing activities at the NTS. These issues include items that are required by regulatory agencies as well as those that represent "good faith efforts" to avoid potential compliance orders. Failure to complete regulatory required activities (as scheduled) may invoke stipulated penalties or other regulatory action. NTS legacy compliance activities include the following:

- Remediation and containment of legacy issues from past Defense Programs nuclear experiments (regulatory drivers include a *Federal Facility Agreement and Consent Order* with the state of Nevada).

2.1.2 Emergency Response

2.1.2.1 Remote Sensing Laboratory - Nellis

The Remote Sensing Laboratory-Nellis complex is comprised of 35 secured acres on the Nellis Air Force Base. The land and buildings, which belongs to the Air Force, is under lease to the NNSA. Being adjacent to the Nellis Air Force Base runway is particularly advantageous for accommodating NNSA/NSO's nuclear emergency response activities. The complex has six permanent buildings and one structure (satellite communications).

Laboratory operations include high-power lasers; physics; electronics; microelectronics; sensor testing; aerial and still photography services; an anechoic chamber, and environmental simulation, as well as, centers for rapid prototyping and intrusion sensors. In order to perform the diversified projects that are

requested, these laboratories have a highly trained and experienced staff of scientists, engineers, technicians, and support personnel.

Radiological Emergency Response
Since 1974, the Remote Sensing Laboratory has responded to national and international nuclear emergencies and readiness exercises. Personnel provide search and render safe operations support for domestic or foreign nuclear material, weapons, or devices. They provide on-scene scientific and technical advisory services, support the resolution of domestic and international nuclear and radiological incidents, and perform advanced surveys to look for radiological anomalies in survey areas. Consequence Management personnel provide expertise and technical resources to the DOE/NNSA in response to radiological emergencies involving dispersal of radioactive materials. Consequence management teams provide on-scene scientific and technological advisory services to assess and resolve or mitigate a nuclear-radiological incident, emergency, or terrorist attack.

Aerial Measuring System
The Aerial Measuring System is based and operated out of the Remote Sensing Laboratory at Nellis with additional capability at Andrews. The Aerial Measuring System aircraft carry automatic navigations systems, which are used in synchronization with radiological data acquisition systems that provide real-time measurements of extremely low levels of ground and airborne contamination. Multispectral scanner systems are used in acquiring a wide range of environmental data. The Remote Sensing Laboratory uses image analysis of spectral imagery and applies the technology to monitoring environmental conditions, assessing vegetation stress, and detecting hard/deeply buried objects, etc.

Radiological Sensor Development and Testing
The Remote Sensing Laboratory provides integrated scientific and technical products, highly-specialized and unique engineering research and development for radiation detection, component and prototype development, and tests state-of-the-art instruments and standard-setting technologies.

Secure Systems Technologies
A key problem for responders to a terrorist situation is gaining access to a physical location. Secure Systems Technologies develop and deploy novel systems for access. The Remote Sensing Laboratory also provides realistic training to many government agencies on security sensor systems, specialized tools, and access techniques.

Nuclear Nonproliferation
The Remote Sensing Laboratory works to help prevent the proliferation of radiological Weapons of Mass Destruction through the recovery of radiological materials in Russian Federation.

Information and Communication Technologies
Remote Sensing Laboratory personnel support the design, operation, and maintenance of local, wide area, and satellite communication networks that provide voice, data, and video (live and digitally recorded). These networks are capable of supporting both classified and unclassified voice, data, and video services in response to emergency operations or exercises. The Remote Sensing Laboratory has also developed a state-of-the-art mobile communication package to provide data, video, and voice communications to emergency response teams anywhere in the world.

2.1.2.2 Remote Sensing Laboratory - Andrews

The operations at Andrews Air Force Base focus on emergency response in the National Capitol Region for both crisis response and consequence management. Andrews provides specialized support including facility operations, scientific services, engineering and technical services, project operations support, and aviation operations support.

2.1.2.3 G Tunnel - NTS

G Tunnel is maintained in an operational standby mode to support the NNSA Office of Emergency Response missions related to attribution for terrorist devices, including improvised nuclear devices and radiological dispersal devices. This mission includes maintenance of life safety systems, drills and exercises, and tours that may be conducted as part of the facility's mission.

2.1.3 Work for Others

The NTS pursues Work for Others to complement NNSA missions. This includes additional work involving Homeland Security, and Defense Applications, Test and Evaluation, Counter Terrorism Operations Support, and Special Technologies Laboratory. This additional work supports the DOE, Defense Programs, and projects that assist the nation to meet national security challenges through the application of scientific and technical capabilities and infrastructure.

2.1.3.1 Homeland Security and Defense Applications

Homeland Security and Defense Applications programs encompass nonproliferation technologies, non-stockpile related test and evaluation, and counter terrorism activities with the following objectives:

- Provide emergency communications systems, capabilities, and databases to additional national and international agencies.
- Provide and expand services and support for nonproliferation technology.
- Provide facilities and capabilities to test and evaluate technology in support of national security technology-related development.
- Provide facilities and capabilities for training and exercises to support national security issues and first responders.
- Provide an active program to maintain and expand NTS infrastructure to support counterterrorism activities.
- Design, fabricate, and field rapid/rugged prototype capabilities to support emergency response in counter terrorism.

2.1.3.1.1 Key Support Facilities

Existing facilities at the NTS support a variety of Homeland Security and Defense Applications programs. These facilities make possible a rapid increase in the capability to provide the comprehensive testing, training, and exercise platforms required by the national security community needs. Key NTS facilities are briefly discussed in the following sections.

Operations Coordination Center
The Operations Coordination Center provides critical information exchange during exercises or real-world events and incidents. The Operations Coordination Center was relocated to Building 600 in Mercury at the NTS.

Mercury Base Camp
Mercury Base Camp, the “town” at the entrance to the NTS, provides two classrooms that will each seat 100 students for weapons of mass destruction responder training, a weapons of mass destruction equipment facility, and housing and feeding facilities for 350 personnel.

Nonproliferation Test and Evaluation Complex
The Nonproliferation Test and Evaluation Complex was established in 1982 when the *Clean Air Act* directed the U.S. Environmental Protection Agency and the U.S. Department of Transportation to team with the DOE to create “an experimental and analytical research effort, with the field research to be carried out at the Liquefied Gaseous Fuels Spill Test Facility.” The center continues to support the objectives of the *Clean Air Act* through experimentation using open-air releases of hazardous materials and simulants to create realistic environments for testing and training. The Nonproliferation Test and Evaluation Complex has a unique permit for the release of hazardous and toxic materials for testing under controlled conditions. Uses of the Nonproliferation Test and Evaluation Complex include evaluating counter-proliferation sensor technologies, performing experiments with hazardous chemicals, and conducting weapons of mass destruction training and exercises.

Sensor Test Beds
Sensor Test Beds are used to test sensors for both local and standoff applications. Using the sensor test beds, technologies are developed and tested to detect, correctly identify, and respond to a variety of threats. Sensors can be incorporated into training and exercise events to validate their performance and provide essential data for exercise evaluation.

Smart Building Complex
The Smart Building Complex uses sophisticated sensor arrays, along with data collection and analysis systems, to detect and automatically respond to chemical, biological, nuclear, radiological, and explosive threats. An existing complex focusing on bio-materials at the NTS will be expanded for and modified as a test bed to develop smart building technologies and to train security personnel in response tactics.

Tunnel Complexes
NSTec, in concert with the Defense Threat Reduction Agency, uses the many miles of tunnels at the NTS to conduct experiments and training in support of hard/deeply buried target location and defeat, conventional munitions demilitarization, and other experiments and testing. Six types of geologic regimes simulate environmental conditions in a variety of threat countries. The National Center for Combating Terrorism can use these many venues for intelligence applications, ground and air attack, and development of detection, characterization, defeat, and damage assessment technologies and tactics.

Area 12 Camp
Operations on urban terrain use the existing Area 12 Camp as an urban terrain site with commercial, residential, and industrial buildings. The Area 12 Camp can support tactical exercises in urban environments for Special Weapons Assault Teams and Special Operations Force personnel. Current renovations and upgrades to Area 12 Camp will provide an operationally secure base camp for military units and other government agencies to use the northern NTS training areas for Combating Terrorism exercises.

The National Nuclear Security Administration's Office of Secure Transportation has moved their Operational Readiness Training and Joint Training Exercises to the NTS. These bi-annual, 10-week long training and exercise campaigns are designed to prepare and assess NNSA federal agents who transport high-value materials across the United States. In addition to the 20 weeks of Operational Readiness Training and Joint Training Exercises on the NTS, the Office of Secure Transportation is moving their heavy weapons training, small unit training, and tactical response force training to the NTS, with the potential of another 20 weeks of training.

The Office of Secure Transportation has funded the activation of Area 12 Camp, which will be their base of operations. Facility support in Area 12 Camp includes 200 dormitory rooms, full-service cafeteria, weapons and ammunition storage, and numerous operations and support buildings. Training and exercises occur throughout the NTS roadway system with force-on-force activities using laser engagement systems. Explosives and firearms training will be accomplished in Areas 19 and 20.

Los Alamos Test Facility
The Los Alamos Test Facility in Area 11 consists of three earth-covered magazines, an administrative building, and a highbay facility used for Dense Plasma Focus Research and Development.

X-Tunnel Experimental Test Chamber
The X-Tunnel was established to collect emissions data under controlled conditions from full-scale open burns and open detonations. The facility is used for environmental testing and dispersion modeling of effluents from destruction of artillery rounds, missiles, and other explosives.

Desert Rock Airfield
The Desert Rock Airfield supports operations of C-130-size aircraft.

NTS Land Area and Exercise Areas
Military training organizations use the large NTS land area to provide a setting for land navigation, mobility exercises, and mission preparation. Exercise areas and scenarios, including a desert/mountain mobility site and various NTS facilities, provide settings for military units to practice land navigation, maneuvering through obstacles, mission rehearsal, and related tactics. All areas are remote enough to allow classified exercises to be conducted. Unit readiness projects use the NTS as a large restricted access location for classified special U.S. Department of Defense units to exercise mission readiness. The NTS provides exercise planning, logistics support, and independent observers (as appropriate). Unit readiness teams at the NTS are often integrated into activities of U.S. Department of Defense's larger national readiness exercises, along with U.S. Department of Defense test range activities. Current upgrades at Area 19 and 20 training areas will facilitate unequaled support of special operations and other government agency customer requirements for live

firing training on real targets and simulated moving targets with small arms to 0.50 caliber, mortars, heavy rockets, grenades, and shape charges for breaching and explosive destruction. These training areas provide new and refresher training before engaging tactics in other NTS areas such as Cat Canyon.

NTS Mock Facilities
Existing facilities at the NTS resembling real-world chemical, water, and nuclear plant facilities are used for training scenarios and sensor test beds that are deployed for use in both offensive (counter-proliferation) exercises and defensive security force training.

Radiological/Nuclear Countermeasures Test and Evaluation Complex
The U.S. Department of Homeland Security has funded this project and it is located in Area 6 south and east of the Device Assembly Facility. The complex is comprised of eight testing venues. The complex serves as a user facility to support post-bench top testing. Activities range from prototype and sensor systems testing to Conduct of Operations development and training. Users include developers from the National Weapons Laboratories and private industry as well as the U.S. Customs and Border Protection.

2.1.3.2 Test and Evaluation

The Test and Evaluation Division provides technology development and operational test and evaluation support principally in the areas of chemical, biological, nuclear/radiological, and high explosives countermeasures with the following objectives:

- Provide training and technology to support U.S. Government activities related to nonproliferation technologies.
- Develop technology to support the U.S. Government in counter terrorism activities.
- Provide capabilities, infrastructure, facility, equipment, and diagnostics to support high-hazard, high-security testing and evaluation for DOE and other government agencies.

The Test and Evaluation Division consists of five focus areas for achievement of the specific Homeland Security and Defense Applications objectives: Hard Buried Targets Program, Test and Evaluation – Radiological/Nuclear Program, Special Activities Support, Information Systems Test and Evaluation Program, and the Nonproliferation Test and Evaluation Program that are discussed below.

Hard Buried Targets Program
This focus area provides project planning, engineering, construction, and diagnostic services to determine better means of detecting, defeating, and/or neutralizing hard/buried/critical target facilities.

Test and Evaluation – Radiological/Nuclear Program
Technical and operational test and evaluation of radiological and nuclear sensor systems for several government agencies, such as the U.S. Department of Homeland Security, the Defense Threat Reduction Agency, and the DOE is performed through this program. This test and evaluation support is conducted on the NTS and at operational test beds throughout the country. Support includes:

- Evaluating system performance against technical standards.
- Evaluating system performance from an operational perspective.
- Developing test plans, procedures, and protocols.
- Analyzing data and developing reports.

NTS test and evaluation activities can include using materials up to DOE Safeguards and Security Category I and II at indoor and outdoor testing venues, including special nuclear materials and threat-based devices. Test and evaluation of sensor system performance can be conducted according to requestor specifications or against national standards utilizing National Institute of Standards and Technology traceable radiological sources.

Special Activities Support
Special Activities Support provides training venues to the U.S. Department of Defense, Intelligence, and other federal agencies. These training venues take advantage of the unique features of the NTS such as the geology, geography, and tunnel complexes, which replicates real-world interests. These efforts are focused on combating terrorism, counter

proliferation, weapons of mass destruction, and critical infrastructure protection. This focus area also supports the development, demonstration, and evaluation of conventional explosives and weapons testing.

Information Systems Test and Evaluation
The Information Systems Test and Evaluation program provides realistic, kinetic effects based Information Operations centric target sets in support of current and future Information Operations requirements within the U.S. Department of Defense, Department of Homeland Security, and other federal agencies. Target set development and integration is accomplished with support from NSTec laboratories and parent companies along with key partnerships within other DOE laboratories. Remote Sensing Laboratory and (future) NTS Joint Information Operations Range connectivity provide our customers with full-spectrum Information Operations targeting testbed environment that leverage our unique capabilities from geographically diverse locations. Information System Test and Evaluation's Information Operations support includes:

- Large, secure site for realistic military and civilian exercise capability and training (no encroachment issues).
- Integration of Information Operations with Counter Terrorism Operations by utilizing existing, flexible NTS infrastructure and support apparatus both above and below ground.
- Scientific, diverse, highly professional, and technical workforce associated with applied technology laboratories at Remote Sensing Laboratory and Special Technologies Laboratory.

Nonproliferation Test and Evaluation Program
The Nonproliferation Test and Evaluation Program provides independent test and evaluation of sensor systems to determine operational characteristics of these systems prior to their transition from the developmental phase to the operational stage. The project operates through the Nonproliferation Test and Evaluation Complex at the NTS and uses staff and resources from NSTec's two applied technology laboratories, the Remote Sensing Laboratory and the Special Technologies Laboratory, providing precision diagnostics and characterization of conditions for experiments. The Nonproliferation Test and Evaluation Program supports NA-22's technology programs at several National Weapons Laboratories which develop remote sensing technology that has potential utility among multiple government agencies. These resources are also made available to the larger Intelligence Community through NA-22 support of base capabilities.

2.1.3.3 Counter Terrorism Operations Support

Counter Terrorism Operations Support is a key sponsor of training activities at the NTS. Counter Terrorism Operations Support oversees the training and prepares emergency first response agencies to respond to possible terrorist use of weapons of mass destruction. The NTS provides a remote and restricted access area for weapons of mass destruction radiological/nuclear prevention and response training in a realistic environment. The NTS hosts training and exercises for federal, state, and local responder personnel, as well as, the National Guard, military, and other agencies, as requested to assist responders during weapons of mass destruction radiological/nuclear incidents and in the prevention of such incidents. State and local responders include such groups as fire, police, hazardous materials teams, and medical teams. The mission of Counter Terrorism Operations Support is to deliver the most realistic, hands-on, scenario-based classroom, and field training, using the unique assets of the NTS.

2.1.3.4 Special Technologies Laboratory

Special Technologies Laboratory is located in Santa Barbara, California, and its focus is to meet emerging national security needs in the areas of Stockpile Stewardship and Homeland Security and Defense Applications.

Special Technologies Laboratory supports the Stockpile Stewardship and Readiness Programs with development and fielding of optical and radiation diagnostics systems to measure properties of

shocked materials, plasmas, and nuclear radiation. The technical staff possesses a wide range of capabilities in areas such as classical optical design, fiber optics, high-power lasers, imaging systems, high-bandwidth measurements, nuclear and plasma diagnostics, and accelerator systems and experiments. Work is well-balanced among all three National Weapons Laboratories, and Special Technologies Laboratory staff routinely field their diagnostics systems and acquire data from the large-scale physics facilities at the National Weapons Laboratories.

There is a strong technology overlap and sharing of resources between the Stockpile Stewardship and Homeland Security and Defense Applications at Special Technologies Laboratory, particularly in such areas as optical imaging, optical remote sensing, and radiation detection technology. Most Stockpile Stewardship Program personnel are also active in Homeland Security and Defense Applications projects, and the Stockpile Stewardship and Readiness Program projects benefit greatly from the electronics, software, and systems expertise of the Special Technologies Laboratory National Security Response personnel.

In the Homeland Security and Defense Applications areas, the Special Technologies Laboratory provides services for the design, rapid prototyping, and deployment of advanced sensor and detection systems and instrumentation in support of efforts to combat terrorism. Special Technologies Laboratory also supports activities in electromagnetic spectrum management and provides advanced optical and multi-spectral technologies in support of augmented vision and detection technologies.

2.1.4 Environmental Management

The DOE's Office of Environmental Management performs waste management and environmental restoration at the NTS, the Nevada Test and Training Range, and other sites where historical NNSA/NSO activities occurred. The overall goal of Environmental Management is to ensure that previous releases of radionuclides and hazardous materials to the environment are cleaned up in accordance with established or agreed-upon standards. This goal reflects DOE Headquarters' program initiatives to clean up sites across the DOE complex, and to dispose of low-level and mixed low-level radioactive waste at a regional disposal facility (such as the NTS). The objectives for the program are:

- Manage and safely dispose of national radioactive low-level waste and mixed radioactive low-level waste generated by the DOE and U.S. Department of Defense complex, consistent with records of decision.
- Safely manage and characterize hazardous and transuranic wastes for offsite disposal.
- Characterize and remediate the legacy environmental contamination resulting from the testing of nuclear weapons and other weapons at the NTS and offsite locations.
- Identify, develop, and deploy innovative technologies that enhance the cleanup program.

NSTec conducts activities in the areas of Waste Management and Environmental restoration in compliance with federal, state, and local regulations. These activities are conducted at several key support facilities on the NTS.

2.1.4.1 Waste Management

Waste Management activities consist of safely managing and disposing of wastes generated by DOE and U.S. Department of Defense operations. Waste Management activities at the NTS include:

- Disposal of low-level waste and mixed radioactive low-level waste from approved generators.

Waste Management activities completed during FY 2008 include the following:

- 700,230 ft^3 of low-level waste in 811 shipments.
- 35,470 ft^3 of mixed low-level waste in 78 shipments.
- Disposition of 19 high radiation shipments of fuel rods from Idaho.
- Storage and shipment of hazardous waste for offsite disposal.
- Storage and characterization of transuranic waste for offsite disposal.

The DOE Operational Readiness Review is scheduled to begin August 7, 2008, and Operations are scheduled to begin August 27, 2008.

2.1.4.2 Environmental Restoration

Environmental Restoration activities include characterization and remediation of legacy waste sites, as follows:

- Underground test area activities, including hydrogeologic investigation and characterization of the groundwater, development of groundwater models, and well installation for sampling and monitoring.
- Industrial sites activities, including characterization and remediation of different types of waste sites, i.e., disposal wells, inactive tanks, septic tanks and lagoons, inactive ponds and tunnel muck-piles, drains and sumps, ordnance sites, bunkers, spill sites, and deactivation and decommissioning facilities.
- Soil sites activities, including disposition of large-area, contaminated soil from testing operations.

Environmental Restoration Activities completed during FY 2008 include the following:

- Worked over 1 million hours without a lost workday accident.
- Completed 10 Federal Facility Agreement and Consent Order milestones on, or ahead, of schedule.
- Plugged 40 boreholes.
- Completed a soils fencing exemption savings of approximately $179 K.

2.1.4.3 Key Support Facilities

Key support facilities for Environmental Management activities include the following:

Area 5 Radioactive Waste Management Site
This site is within the Area 5 Radioactive Waste Management Complex. It includes 200 acres of existing and proposed disposal cells for burial of low-level and mixed low-level waste, and approximately 500 acres of land available for future radioactive waste disposal cells. This site is used for disposal of waste in drums or boxes. Existing cells are expected to be filled and closed by 2011, and new cells extending to the north and west are expected to close by 2027. Waste disposal services are expected to continue at Area 5 as long as the DOE complex requires disposal of wastes from the weapons program.

Area 3 Radioactive Waste Management Site
This site consists of five disposal cells, each located in a subsidence crater created by weapons testing. This site is used for disposal of bulk waste, such as soils or debris, and waste in transportation containers. Existing crater U3ax/bl is filled and has been closed in accordance with an approved closure plan. Waste disposal services are expected to continue at Area 3 as long as required by the DOE.

Transuranic Pad and the Transuranic Pad Cover Building
The Transuranic Pad and Transuranic Pad Cover Building are used to store and characterize transuranic and mixed transuranic waste before being shipped to the Waste Isolation Pilot Plant. The Transuranic Pad and the Transuranic Pad Cover Building are located within the Area 5 Radioactive Waste Management Complex. The Transuranic Pad is an asphalt pad and is also operated as a storage facility for mixed waste. The Transuranic Pad Cover Building is a large tent structure for storing drums and boxes before shipment to the Waste Isolation Pilot Plant in New Mexico. Joint Actinide Shock Physics Experimental Research waste is being stored at the Transuranic Pad.

Waste Examination Facility
This facility is located just south of the Area 5 Radioactive Waste Management Site, and consists of the Visual Examination and Repacking Building and an area of gravel pads for mobile vendors. Waste characterization and repackaging are conducted at the Waste Examination Facility in preparation for shipment of waste for disposal at the Waste Isolation Pilot Plant.

2.2 Mission-Critical Facilities and Infrastructure/Linkages Between Facilities and Infrastructure and Mission Needs

The NNSA has defined mission-critical as follows:

> *Without constructed asset or parcel of land, mission is compromised. Land or constructed assets deemed necessary to perform the primary missions. This includes any facility or infrastructure predominantly used to perform scientific, production, environmental restoration or stockpile stewardship and without which, operations would be disrupted or placed at risk.*

Based on a guidance document from the Federal Real Property Council, changes were implemented in the Facilities Information Management System to change reporting of mission-essential infrastructure to three new categories: mission critical; mission dependent, not critical; and not mission dependent. Examples of mission-critical facilities include Device Assembly Facility and Joint Actinide Shock Physics Experimental Research.

2.3 Future NNSA Mission, Programs, Workload, and Impacts

The primary role of NSTec will continue to be to ensure the accomplishment of assigned activities in a safe, secure, efficient, and environmentally responsible manner. The missions of NSTec will be grouped in five areas:

- *National Security*. Support the Stockpile Stewardship Program through subcritical and other weapons physics experiments, nuclear test readiness, emergency management, training and demonstration for defense systems, advanced high-hazard operations, and other national security experimental programs.
- *Technology and Economic Diversification*. Support traditional and nontraditional departmental programs and commercial activities that are compatible with the Stockpile Stewardship Program.
- *Environmental Management*. Support environmental restoration, groundwater characterization, and low-level and mixed low-level radioactive waste management.
- *Stewardship of the NTS*. Manage the land and facilities at the NTS as a unique and valuable national resource.
- *Emergency Response*. The Remote Sensing Laboratory's mission is to support National Security with technical and operational solutions in Nuclear Emergency Response, Nuclear Nonproliferation, Remote Sensing, and Security Systems Technologies.

NNSA/NSO's overall objectives for the NTS, as described in the *NNSA Strategic Planning Guidance for Fiscal Years 2007-2011*, are:

- Ensure that our nuclear weapons continue to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. Nuclear Weapons Stockpile.
- Provide technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction.
- Advance the technologies to detect the proliferation of weapons of mass destruction worldwide.
- Eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons.

Sustaining viable facilities and infrastructure at the NTS not only facilitates achieving these objectives, but also provides the foundation for accomplishing current and future primary NTS missions. In response to the improvement requirements, Stockpile Stewardship Readiness in Technical Base and Facilities has 10-year investment plans for the U1a

Complex, Device Assembly Facility, and the Joint Actinide Shock Physics Experimental Research Facilities.

The NNSA/NSO will continue to pursue a plan to establish the capability to conduct Nuclear Explosive Operations at the Device Assembly Facility in response to a letter from Martin J. Schoenbauer dated June 11, 2007, which states:

> *"You should continue to mature this plan and perform the activities identified in Section 5 of your plan to establish the Device Assembly Facility Nuclear Explosive Operations capability. The objective should be to have the approved safety authorization basis in place to perform specific W84 weapons program work. The target date for operational readiness remains September 2009. The capability to perform Nuclear Explosive Operations at the Device Assembly Facility on NTS will provide critical options to Defense Programs for nuclear weapons operations."*

The NTS is the preferred alternative for establishing a National Center for Hydrodynamic Testing. Consistent with NNSA's decision to cease open air high explosive testing at Los Alamos National Laboratory and Lawrence Livermore National Laboratory, the NTS would be the single NNSA site for high hazard testing.

A high explosive hydrodynamic testing program of about 5 to 10 tests per year would be conducted based on a single shift operation. This would include high explosive tests with surrogates, beryllium, and special nuclear material of various shapes and size.

As part of the NTS's expanded role as the National Center for Hydrodynamic Testing, no new facilities are expected to be added at NTS in the near term. The existing capabilities at the Big Explosives Experimental Facility in Area 4 would be upgraded to conduct open air high explosive (>15 kg) hydrodynamic tests using surrogate materials. These tests are not expected to exceed the current National Emission Standards for Hazardous Air Pollutants high explosive permit limits at Big Explosives Experimental Facility. This upgrade would include the design, development, and use of a ~15 MeV Linear Transformer Driver radiographic capability. Additionally, new instrumentation would be developed and installed. Since open air testing of special nuclear material at Big Explosives Experimental Facility is restricted, large high explosive hydrodynamic special nuclear material testing may be conducted in large containment vessels at Big Explosives Experimental Facility, or would be conducted underground at U1a. If U1a were used for this activity, it would be modified by additional mining to house the increased radiographic requirements. U1a currently uses a 6MeV radiographic capability for some subcritical experiments.

Technical risks associated with the expanded high explosive open air hydrodynamic testing at Big Explosives Experimental Facility are rated overall as medium.

There are no outstanding issues or uncertainties associated with the expanded high explosive, open air hydrodynamic testing at Big Explosives Experimental Facility, the continuation of previous NNSA assignments, or the addition of new hydrodynamic facilities in the future.

2.4 Future Non-NNSA Mission, Programs, Workload, and Impacts

All Work for Others projects are (1) consistent with the primary mission, (2) do not adversely impact the Stockpile Stewardship Program, and (3) direct funds for facility and infrastructure and improvements.

Nonproliferation and Test Evaluation provides a formalized process to ensure that products developed in support of national security interests are evaluated using high-hazard tasks and high-security venues to expedite transition to the user community. Counter Terrorism Technologies provide rapid design, proof-of-concept demonstrations, rugged prototypes, and low-rate initial production of state-of-the art instruments. Hard Buried Targets integrate test bed design, engineering, development, construction, execution, and scientific assessment. Combating Terrorism Infrastructure focuses on facility upgrades to accommodate user demands for realistic

environments to support research and development, equipment test and evaluation, individual and team training, comprehensive exercises, and intelligence support activities.

Significant changes are expected overall in the Homeland Security and Defense Applications Program. The U.S. Department of Homeland Security Science and Technology Director has identified $10 million a year for the operation and maintenance of the Radiological/Nuclear Counter Measures Test and Evaluation Complex through FY 2009. This type of funding is expected to remain constant throughout the lifetime of the facility.

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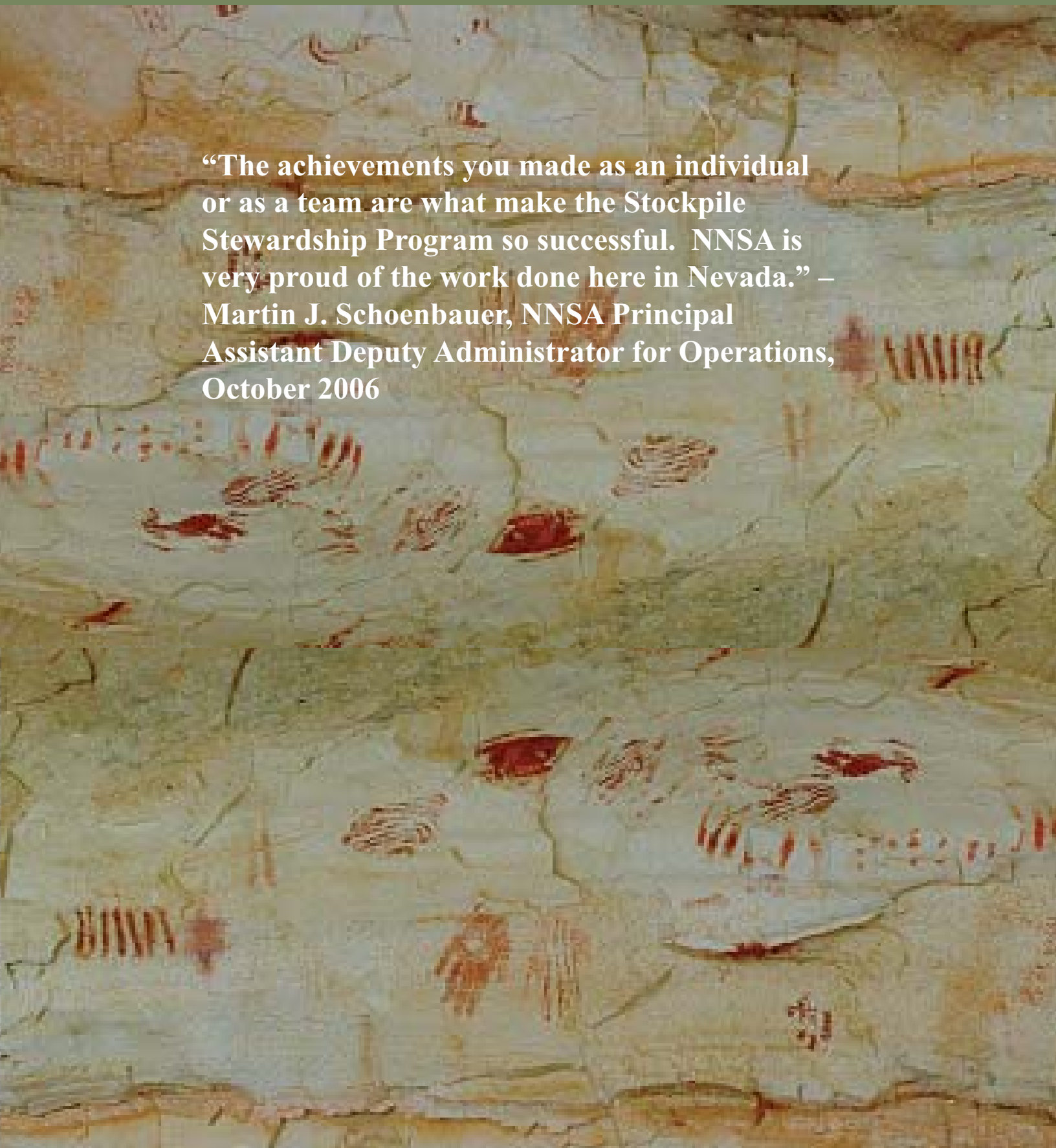
Real Property Asset Management

Spring on the Southern Edge of Pahute Mesa

FY 2009 NNSA/NSO
Ten-Year Site Plan



"The achievements you made as an individual or as a team are what make the Stockpile Stewardship Program so successful. NNSA is very proud of the work done here in Nevada." – Martin J. Schoenbauer, NNSA Principal Assistant Deputy Administrator for Operations, October 2006

3.0 Real Property Asset Management

3.1 Condition

A key component of maintaining Nevada Test Site (NTS) facilities and infrastructure is the Facility and Infrastructure Assessment process. This process identifies facility and infrastructure projects necessary to support program activities. Permanent federal government facilities and infrastructure are generally designed for a life expectancy of 50 years if they are properly maintained. Keeping any building economically functional requires regular recapitalization planning and investment. This is especially true if the facilities and infrastructure are kept in operation beyond their design life.

Because of the National Nuclear Security Administration Nevada Site Office's (NNSA/NSO's) requirements to support leading edge technology and to provide economically functioning buildings, the target life cycle for buildings requires updated technology systems every ten years, and refurbishment of buildings at least once during their life cycle.

The key element in NNSA/NSO's ability to meet current and future program needs is ensuring a flexible and reliable facility and infrastructure mix. The NTS facilities and infrastructure must be able to support a return to underground nuclear testing, accept new Campaigns and/or missions, and be cost effective. Target conditions for facilities and infrastructure over the next ten years are based on Readiness and Technical Base Facilities requirements, Maintenance Summits, and the resulting U.S. Department of Energy (DOE) NNSA corporate goals to reduce deferred maintenance on all facilities and infrastructure to industry standards and to reduce deferred maintenance on all mission-critical facilities and infrastructure to less than 5 percent of replacement plant value.

Data were extracted from the Facility Information Management System (FIMS) as of fiscal year (FY) 2007 end of FY accounting. The FIMS is updated annually in September. Inspection of all facilities and infrastructure identified $330 million in deferred maintenance backlog.

Chapter Overview

- Describes facility and infrastructure condition
- Discusses utilization
- Discusses future space needs
- Describes site footprint management
- Discusses deferred maintenance reduction
- Discusses site-specific sustainment models
- Describes maintenance
- Discusses security

Having a full understanding of the current condition of its facilities and infrastructure enables NSO/National Security Technologies, LLC (NSTec) management to direct reinvestment decisions to accomplish the deferred maintenance goals. The traditional building assessment process consisted of the Condition Assessment Survey, which provided for inspection of the building's physical condition and determination of deficiencies and repair costs through the Conditional Assessment Information System. However, a building's true assessment involves more than just the physical condition. Enhanced methodology for facility and infrastructure assessments, based on Lawrence Livermore National Laboratory's Facility Assessment and Ranking System was developed. NSTec expanded the assessment process to include all infrastructure elements, which provided a unique methodology to identify the basic infrastructure elements, and to evaluate their condition.

The current Facility and Infrastructure Assessment Process provides a more complete assessment of facility and infrastructure elements by addressing facility and infrastructure suitability issues in relation to their programmatic needs through the use of the Lawrence Livermore National Laboratory model and by combining the asset's physical

condition reported in the Condition Assessment Information System. This combined process results in a complete assessment which recommends improvements agreed to by program managers, facility managers, and facility owners. This process has developed into a methodology to more accurately provide assessments that:

- Provide management with a comprehensive facility and infrastructure evaluation, based on physical, programmatic, owner, and operator needs.
- Provide NNSA/NSO and the National Weapons Laboratories with functional, effective, efficient, and up-to-date facility and infrastructure condition information.
- Provide a facility and infrastructure ranking methodology, which allows annual review of priorities with assessments updated over a three-year cycle.
- Identify, develop, and support proposals for facility and infrastructure projects (i.e., General Plant, Line Item, Expense Funded, and Maintenance Reinvestment projects).

The Federal Real Property Council developed definitions for facility categories. Under the new definitions, the active facilities and the key elements of the infrastructure were categorized.

With the implementation of the Facility and Infrastructure Assessment Process, NSTec and NNSA/NSO management have acquired a powerful tool to use in making reinvestment decisions for the site. Through the continued use of this Facility and Infrastructure Assessment program, projects and maintenance actions will be identified to aim management toward an improved priority-based investment strategy for the mission-critical facilities and infrastructure most in need of repairs, upgrades, or replacements. The result will provide a site that has reached a target condition which can be maintained at optimum levels and will then function at optimum levels.

3.2 Utilization

The NNSA/NSO space utilization process is initiated in accordance with NNSA/NSO Manual 412.XA, *Project Screening and Location Approval Process*. The objectives of this process are to ensure that projects conducted at the NTS, North Las Vegas Facility, or other facilities under the control of NNSA/NSO are an appropriate use of the site and its resources and to ensure that new missions are compatible with existing missions.

The occupancy and/or conduct of operations involving NNSA/NSO operated and leased real estate is authorized by a Real Estate/Operations Permit, which is issued in accordance with NNSA/NSO Manual 412.X1C, *Real Estate/Operations Permit*.

The Real Estate/Operations Permit process is administered by NNSA/NSO. An NNSA/NSO project manager ensures that all new work, including proposed changes to work, is consistent with the approved Real Estate/Operations Permit. Newly identified risks are evaluated prior to authorizing use of buildings, facilities, or land areas. NSTec performs the space management function to achieve effective and cost efficient use of NNSA/NSO facilities.

All operating and operational standby facilities and buildings must have an approved and current Real Estate/Operations Permit assigning the facility or building to the using organization. The existence of other agreements or authorization processes does not preclude the requirement for a current NNSA/NSO Real Estate/Operations Permit. NSTec performs the space management function to achieve an effective and cost efficient use of NNSA/NSO facilities. NSTec's space management process reacts to changing work operations and activities to integrate space use and organizations performing the work.

3.3 Future Space Needs

3.3.1 Complex Transformation

The NTS is positioned to accept the alternatives proposed in the Supplemental Programmatic Environmental Impact Statement (SPEIS). This *FY 2009 Ten Year Site Plan* (*TYSP*) presents possible paths to support transformation of the complex.

In the SPEIS, based on considerations of environmental, economic, technical and other factors, NNSA identified its preferred alternative for the NTS as high explosives research and development. The complex goal is to reduce footprint of NNSA weapons activity high explosives production and research and development and reduce the number of firing sites. The use of energetic materials for environmental testing (e.g., acceleration or sled tracks, shock loading, or in explosive tubes) is not included in high explosives research and development. Weapons high explosives research and development and testing will be consolidated at the NTS. The NTS would remain the research and development testing center for large quantities of high explosives (greater than15 kg).

Under the major high explosives research and development consolidation alternatives, the NTS is being considered for the following consolidation efforts:

- Consolidation of Los Alamos National Laboratory high explosives research and development experimentation and fabrication to NTS.
- Consolidation of Lawrence Livermore National Laboratory high explosives research and development experimentation and fabrication to NTS.
- Consolidation of Los Alamos National Laboratory and Lawrence Livermore National Laboratory high explosives research and development experimentation and fabrication to NTS.
- Consolidation of all high explosives research and development experimentation and fabrication at NTS.

3.3.2 Integrated Resource Management Plan

A "requirement driven" review was conducted during FY 2008 to assess whether facility and infrastructure capabilities satisfactorily meet current and future mission requirements.

The Integrated Resource Management Plan, dated January 31, 2008, identified the recommendations. These recommendations will provide a "road map" for future investments and operational efficiencies. Ultimately, implementation of these recommendation will: (1) reduce footprint, (2) maintain a soundly managed infrastructure, (3) reduce costs, and (4) distribute costs in a causal and beneficial manner. Currently, the recommendations are being implemented.

After a rigorous review of data, conducted by federal, laboratory, and contractor personnel, recommendations were developed. Data were solicited for current and future mission capability needs of the National Weapons Laboratories, NTS user community, NSTec, Wackenhut Services, Inc. (WSI) and NNSA/NSO through FY 2014. User facility mission requirements were also considered. Programmatic funding level estimates were solicited for major NTS complexes/facilities and for supporting operations in NTS facilities. Initially, operations and maintenance costs were captured at area, complex, and facility level for North Las Vegas and Area 23 only. The scope was expanded to consider operations and maintenance costs for all facilities. Power, roads, grounds, NTS communications, construction services, and facility use charges were also reviewed.

3.3.3 The NTS Facilities Transition Project

The NTS Facilities Transition Project was initiated and is being executed in accordance with an agreed upon Project Execution Plan. The vision for the NTS Facilities Transition Project is for NSTec, the NNSA/NSO Management and Operations contractor to have full responsibility and accountability for the NTS facility operations, including organizing, prioritizing, scheduling, and performing maintenance, repair, and construction tasks in an efficient and effective manner. NSTec has been directed to assume full responsibility for managing all nuclear, radiological, and operational facilities at the NTS. This will alleviate the need for current laboratories, other agencies, and future customers to commit commensurate resources. It will also facilitate requirements being applied consistently across the site with a single organization to administer the implementation of authorization basis.

The rationale for this change was articulated by the Principal Deputy Administrator for NNSA. He cites the need to clarify roles and responsibilities, line oversight, and contractor assurance to ensure that requirements are upheld and efficiencies are gained. In support, the Chairman of the Defense Nuclear Facilities Safety Board explained transition of the facilities to NSTec as the Management and Operations contractor would enable:

- Integration and uniform application of nuclear standards and practices.
- Consistency in the formality of operations.
- Uniform line oversight (a contractor assurance system).
- Better defined roles and responsibilities within the contractor site organization.
- Reduced efforts by NNSA to manage contractors that affect health and safety.
- Improved, more focused oversight of nuclear operations by the NNSA and Defense Programs.

Every effort has to be made to ensure there are no roadblocks to the continued operation and support to programs during the transition.

3.4 Site Footprint Management

After more than 40 years of testing, the NTS has had various groupings of buildings and other structures onsite. Since the cessation of nuclear testing in 1992, and the subsequent creation of the Stockpile Stewardship Program, NNSA/NSO and NSTec have consolidated working environments and disposed of many excess facilities.

Planning and preparation for the disposition of excess facilities has been a high priority at the NTS since 2001 when an aggressive and effective program, sponsored by the Facilities and Infrastructure Recapitalization program was initiated to dispose of buildings that were no longer needed. Currently, there is a process in place to identify buildings that no longer support NNSA/NSO's missions, programs, or requirements. Disposing of such buildings results in significant cost and/or risk reductions. The data reported in the *TYSP* reflect the current and projected NNSA excess buildings elimination and new construction at the site. Identification of sources to fund disposition of excess buildings is ongoing.

Transformation disposition will be executed in three stages:

- Stage 1 - Preliminary Planning/ Conceptualization
- Stage 2 - Detailed Planning
- Stage 3 - Execution

Stage 1 will be comprised of three phases:

- Phase 1 - Planning and document preparation phase:
  - -Prepare infrastructure projects for relocation of mission critical services
  - -Identify facilities for deactivation
  - -Request/receive NNSA authorization for deactivation
- Phase 2 - Development of closure projects
  - -Relocate tenant personnel, furnishings, equipment, and personal property
- Phase 3 - Deactivation and demolition

A recent assessment of the NTS infrastructure to support Test Readiness found that, as a result of many changes in the ongoing programmatic activities that formerly relied on sustaining underground test infrastructure, it is necessary to trend toward an infrastructure resource reconstitution program versus a readiness program. Capabilities, located in the 14 facilities identified as Test Readiness, can be moved to Mercury if like facilities are built.

The experiment and readiness assets are primarily the command and control area for execution and remote recording of subcritical experiments. In general, capabilities can potentially be recreated in Mercury without impact to efficiency of work. Program input is required to determine specific impacts.

The total gross square feet (gsf) of the 46 facilities at Control Point (CP) Complex is 201,517 gsf. The consolidation efforts will involve approximately 31,484 gsf in the CP area and an additional 45,520

gsf in Areas 1, 6, and 23. The demolition efforts potentially will involve demolishing approximately 170,000 gsf of space in the CP Complex. Consolidation of these facilities will allow for the relocation of approximately 105 personnel as well as the relocation of communication functions. The facilities which have mission need to remain in the area are not being considered for demolition or relocation to Mercury.

Before demolishing some of the facilities in CP, segments of infrastructure will have to be extended/protected or isolated. These segments currently run through CP facilities and supply water/electricity or communication legs to areas outside of CP, which are still necessary. Funding received in FY 2009 could potentially be used to prepare these facilities for disposition beginning in FY 2010.

In order to further define impacts, detailed programmatic input is required. As long as the readiness requirement is a strategic program at the site, then the need for the facilities is necessary. In the past, excess building demolition was supported by the Facilities and Infrastructure Recapitalization Program funding and was executed by the prioritized list provided in this *TYSP* (Appendix A, Attachment E-1). Excess facilities disposition in the future will be funded by the Transformation Disposition Program.

3.5 Deferred Maintenance Reduction

The *FY 2008 Annual Maintenance Plan* was developed to coordinate NNSA/NSO deferred maintenance activities. The condition assessment process accounts for the correct identification and subsequent large increase in deferred maintenance shown in the *TYSP*. This effort supported the NNSA/NSO goal to establish a deferred maintenance baseline in FY 2003. Deferred maintenance and the overall maintenance planning and status was developed and published in the *FY 2008 Annual Maintenance Plan*, December 2007. The following represents a high-level summary extracted from that document. Additional details may be found in the *FY 2008 Annual Maintenance Plan*.

Determination of the deferred maintenance baseline used the following criteria in defining deferred maintenance:

- Maintenance required during the year that was beyond the site's current year funding capability.
- Maintenance identified as of a substantial nature that cannot be budgeted within current funding profiles.
- The Facility and Infrastructure Assessment and Condition Assessment Survey processes, as well as the Infrastructure Management Plans, have identified facility and infrastructure components that are being used well beyond their useful life cycle. These components are subject to imminent failure and require replacement.
- Major elements in the infrastructure that require replacement (such as roads, water, communication equipment, and power system components) as identified in the Infrastructure Management Plans. Cost estimates for these projects and the associated deferred maintenance are based on rough-order-of-magnitude-type estimates.

Attachment F-1 (Appendix A) presents the deferred maintenance baseline that was established in FY 2003. Attachment F-2 (Appendix A) presents the total deferred maintenance and projected deferred maintenance reduction data for both mission-critical and mission-critical not dependent facilities and infrastructure. The values in the Condition Assessment Information System were used to calculate the deferred maintenance. These values are included in the *FY 2008 Annual Maintenance Plan*.

Deferred maintenance buy down for non-Readiness and Technical Base and Facilities projects with general plant projects and expense funded projects is being accomplished chiefly through Facilities and Infrastructure Recapitalization Program funding, with funding for deferred maintenance projects aggressively averaging over 75 percent of funding through the Facilities and Infrastructure Recapitalization Program. The remaining 25 percent of Facilities and Infrastructure Recapitalization Program funding is applied primarily to recapitalization projects. This helps the shortfall of recapitalization of all the NSTec facilities and

infrastructure, a problem that is being corrected as the Facilities and Infrastructure Recapitalization Program terminates in FY 2013.

Building disposition activities removed over $8 million in deferred maintenance. Other funding sources that are buying down deferred maintenance include Line Item funding, Readiness in Technical Base and Facilities, and site maintenance. NNSA/NSO's current approved Line Items, as shown in Attachment A-1 in Appendix A, includes one project (Mercury Highway) with deferred maintenance, which buys down approximately $17 million during the planning period. Site maintenance activities will be used to buy down additional deferred maintenance during the planning period.

Deferred maintenance reduction will be a significant effort in the next few years. In order for deferred maintenance to remain at the same level or for the backlog to decrease, NSTec must maintain maintenance funding (required maintenance) at approximately 2 percent of replacement plant value. In addition, Facilities and Infrastructure Recapitalization Program and/or Readiness in Technical Base and Facilities funding will be required to offset the growth in deferred maintenance due to items identified during inspection activities and escalation.

The backlog of maintenance and repair projects is over four years, and growing rapidly as the facilities and systems age. Yearly maintenance and repair requirements continued to grow. The backlog of maintenance and repair stabilized in FY 2005 as the Condition Assessment Surveys were completed in FY 2003-2005. How fast the backlog is reduced will depend on the funding levels for all projects. Maintenance and repair projects are funded from the facility space charges. The maintenance and repair program is limited to approximately $3 million per year, but substantially less funding is received. The maintenance and repair program contributes to the reduction in deferred maintenance.

There has been no Readiness in Technical Base and Facilities funding of non-programmatic General Plant Projects for the last five years. Growth in deferred maintenance resulted due to a lack of funding, escalation, and identification of additional deferred maintenance through Condition Assessment Survey inspections.

3.6 Site Specific Sustainment Models

NSTec developed a strategic approach to achieve the NNSA corporate goals for deferred maintenance reduction at the NTS and North Las Vegas. In coordination with the *TYSP* and the Readiness in Technical Base and Facilities *FY 2008 Site Execution Plan* and *FY 2008 Annual Maintenance Plan*, the NSTec *FY 2008 Annual Maintenance Plan* defines the strategy to reduce deferred maintenance to meet NNSA goals. In addition, efficiency measures that will reduce costs, improve quality, cut cycle time, and improve worker safety and environmental stewardship will continue to be the focus of NSTec improvement initiatives. The strategy has three primary elements: planning, execution, and funding.

Planning involves establishing a formal maintenance planning program that clearly lays out maintenance requirements for both sustaining (through preventative and corrective maintenance) and recapitalizing (by facility component replacement to arrest the growth of deferred maintenance). The *FY 2008 NNSA/NSO Annual Maintenance Plan* details this effort and presents funding and execution requirements necessary to accomplish strategic goals. It ties together the direct and indirect maintenance plans (repainting, reroofing, recoating, repaving, etc.) to strategic goal priorities. A Facility and Infrastructure Sustainment Cost model was created using parametric modeling to determine how maintenance dollars would be used by each facility. The Facility and Infrastructure Sustainment Cost model will be used to provide estimates for each building until Cost Works models are constructed and actual maintenance dollars captured for each building following end of fiscal year accounting. As each fiscal year actuals are added to the five-year estimate, a year of parametric modeling data will be replaced. The creation of a work breakdown structure that captures cost at the facility level will provide actual cost data for each facility from FY 2008 forward. Facility Managers will play an increasing role in determining which maintenance projects will be performed in facilities they oversee.

Linkage of facility and infrastructure data in the Condition Assessment Information System, Facility Information Management System, and the Computerized Maintenance Management System will also facilitate accurate planning.

Execution involves conducting annual facilities assessments, training inspectors, and establishing management tools and metrics to track and trend maintenance accomplishments and completion of the projects that reduce deferred maintenance.

Project execution has been accomplished more quickly and efficiently to ensure deferred maintenance yearly objectives are met. Increasing the use of subcontractors to meet certain Facilities and Infrastructure Recapitalization Program goals has been successful as an effective alternative for completion of Line Item critical decision milestones and General Facilities and Infrastructure Recapitalization Program Projects.

The final element of the strategy to reduce deferred maintenance is identification of funding streams to support deferred maintenance reduction goals and increase investment in sustaining maintenance to prevent growth in deferred maintenance. NNSA/NSO oversees approximately $3 billion of replacement plant value for facilities and infrastructure.

At NNSA/NSO's facilities, the maintenance investment is established using an indirect space charge fee to cover the majority of our facilities and infrastructure, combined with direct-funded maintenance provided by the Programs to support key mission-critical programmatic facilities. The maintenance investment is reported quarterly to NNSA in a standard report called the Integrated Facilities and Infrastructure Crosscut, which places burdens on indirect maintenance funding so that it may be nominally compared to the direct funded maintenance. The sum of those investments then may be compared to the replacement plant value of the site, which by definition is the burdened replacement cost.

It is critical to note here that the NNSA/NSO's maintenance program has been tracking over two percent maintenance investment until FY 2005. However, in FY 2005, two things occurred to impact this calculation. First, the evaluation of replacement plant value was modified and a new method was integrated into the Facility Information Management System. This was coupled with a close evaluation of NTS facilities and infrastructure to ensure correct values were being used. The result of this re-evaluation was an approximately $400 million increase in replacement plant value. The immediate consequence of the increase in replacement plant value was a corresponding decrease in percentage of replacement plant value invested in maintenance.

The total NNSA/NSO replacement plant value for all facilities and infrastructure is approximately $3 billion. Therefore, to meet industry standards, a sustaining maintenance investment of between $60 million and $120 million is required annually.

In FY 2008, facility-level Annual Maintenance Plans and an Annual Work Plan System were developed and implemented to improve maintenance management and life cycle planning of the NTS Readiness in Technical Base and Facilities. The Readiness in Technical Base and Facilities Annual Maintenance Plans includes an annual review, analysis, and update of maintenance management processes and strategies, building inventories and life cycle planning master equipment list reviews and updates. In addition, the Readiness in Technical Base and Facilities Annual Maintenance Plans include preventive maintenance analysis and recommendations for frequency changes in response to reliability analysis, corrective maintenance planning, deferred maintenance buy-down strategy development and management, Facility Condition Index analysis, out-year requirements-based budgeting, and issue identification and management. Currently, all direct budgeting and cost collection data are developed at the Readiness in Technical Base and Facilities Program and project-levels (e.g., Device Assembly Facility, U1a).

Due to facility cost model changes in the Facility Information Management System and escalation, the replacement plant value has varied during FY 2008 and currently shows an increase of $25.7 million ($558.2 million to $583.9 million, or 4.6 percent). The FY 2007 facility sustainment level was 3 percent; the initial FY 2008 maintenance budget represents a sustainment level of 2.13 percent;

however, the current sustainment level based on final budget allocations is only 1.5 percent, which is well below the minimum sustainment NNSA goal of 2-4 percent of replacement plant value.

Deferred maintenance had grown by $5.3 million at the beginning of FY 2008 due to completion of facility condition assessment surveys and escalation. Over 97 percent of preventive maintenance and corrective maintenance budgets are being used to maintain mission critical and mission dependent not critical facilities that are older than 30 years. The Facility Condition Index average for Readiness in Technical Base and Facilities (all mission categories) has increased from 3 percent to 4 percent since FY 2007. The $17 thousand of Readiness in Technical Base and Facilities budget allocated for buy-down against the Readiness in Technical Base and Facilities total of $25 million is overtaken by escalation alone. The trend for growth in deferred maintenance is expected to continue.

Today, the principle burden for deferred maintenance reduction, especially for facilities and infrastructure recapitalization/replacement-in-kind, is shouldered by the Facilities and Infrastructure Recapitalization Program and Line Items, with limited investment from the Maintenance and Recapitalization Program, Readiness in Technical Base and Facilities expense-funded projects, and the Site Maintenance Program.

Readiness in Technical Base and Facilities Site Execution Plan estimates $14 million direct funding to sustain the Readiness in Technical Base and Facilities subset of mission-critical facilities only. Of the $48.8 million indirect funding that is utilized to sustain the entire $3 billion replacement plant value, approximately $1.3 million is used for sustaining mission-critical facilities and infrastructure. Thus, the “sustaining maintenance” investment in mission-critical facilities and infrastructure is being made on an annual basis. What is not currently addressed is the mission-critical “recapitalization” investment.

Extensive deferred maintenance buydown is expected with consolidation efforts and during Transformation Disposition activities.

3.7 Maintenance

NSTec has established the key components for a comprehensive approach to effectively using resources to provide maintenance support for facility managers. Management provides a guide for prioritized maintenance activities over a five-year period and empowers the maintenance program to progress in a proactive rather than a reactive mode.

The results of facility and infrastructure assessments, prior-year maintenance performance, and future programmatic requirements are combined with projections by maintenance managers and facility managers to form a site-wide vision for maintenance. Forging this common vision for facilities and infrastructure yields dividends in a coordinated and cost-effective application of maintenance for the NTS. This shared vision is leading to a more balanced planning approach for both facilities and infrastructure, departing from the trend to focus maintenance planning primarily on buildings. This redirection will allow NSTec to support NNSA’s corporate goals for deferred maintenance.

3.8 Security

As a result of the events of September 11, 2001, several programmatic initiatives were implemented to strengthen the safety and security at all facilities in the DOE/NNSA complex. They include: permanent implementation of an increased security posture that corresponds to the third of the five levels of national security conditions; several cumulative increases in defined adversary capabilities as reflected in the revisions to the Design Basis Threat policy; and mandated implementation of a Security Police Officer-III/Special Response Team program at NNSA/NSO.

The NNSA/NSO has demonstrated a strong commitment in support of Operations Security. Changing missions, reduced funding and staffing, as well as global economic, technological, and terrorist threats call for new ways of doing business to remain effective in the Operations Security arena. NNSA/NSO continues to meet the challenge of protecting national security programs and its personnel. The NSO Operations Security program remains at the forefront of innovation and service and has become

a cornerstone of the NNSA and DOE Operations Security programs, and an ardent supporter of the national Operations Security community. The NSO Operations Security program recently won two national Operations Security awards. These awards are the nineteenth and twentieth national Operations Security awards that have been garnered by the NSO Operations Security Program Office since 1994.

Professional Analysis, Inc Protection Strategy and Facilitation Section has provided the first ever in-house vulnerability assessment capability at the NNSA/NSO. The Protection Strategy and Facilitation Section was challenged to implement the 2005 Design Basis Threat and at the same time, test and validate the new Vulnerability Assessment Model developed by NA-72 and HS-81. The team was tasked to prepare the 2005 Design Basis Threat implementation for a Category 1A Mission. The Protection Strategy and Facilitation Section presented their vulnerability assessment results and recommended upgrades to the NNSA vulnerability assessment Peer Review Team and stakeholders, including experts from the NNSA and DOE vulnerability assessment communities. The vulnerability assessment analysis results demonstrated solid understanding of the mission needs and necessary upgrades. The NNSA Vulnerability Assessment Peer Review Team concurred with the NSO team's conclusions.

A formal vulnerability assessment is in progress to evaluate the impact of the 2005 Design Basis Threat on the security of NTS facilities, primarily on the Device Assembly Facility which is a Category I Special Nuclear Material facility. This assessment is reflected in the ongoing update to the Site Safeguards and Security Plan and preparation of the 2005 Design Basis Threat Implementation Plan. NNSA/NSO is required to establish compliance with the 2005 Design Basis Threat by the end of FY 2009. Beginning in 2008, NNSA/NSO began replacing the Design Basis Threat policy with the Graded Security Protection policy, but a preliminary review indicates that NNSA/NSO's plan will not materially change. This plan, the required security enhancements, and corresponding increases in funding are being coordinated with site Federal Security Staff and approved by the Federal Site Manager. One requirement under the enhanced security posture is a screening guard station located on the access road to the Device Assembly Facility, just off Mercury Highway, where all vehicles approaching the Device Assembly Facility are examined prior to their approach to the Device Assembly Facility. A temporary facility is currently serving this function until it is relocated closer to the Device Assembly Facility in FY 2009, when it will be part of the vehicle barrier to be constructed outside the existing Perimeter Intrusion Detection and Assessment System. Additional upgrades include the installation of hardened bullet resistant fighting positions within the Perimeter Intrusion Detection and Assessment System and a personnel detection/delay barrier. The additional requirements of the 2005 Design Basis Threat will be satisfied primarily through the use of technologies such as barriers and enhanced weaponry, rather than additional Security Police Officers, minimizing the pressure for additional facilities.

Design basis threat-related security initiatives implemented at the NTS over the past several years include a more than doubling of the size of the protective force and enhancing their armament. The impact of these enhancements is seen in dramatic increases in basic daily requirements such as expanded locker space for protective force personnel, along with increased space for equipment storage and weapons armory capacity. Ongoing training needs for the additional required protective force personnel has been addressed through the installation of trailers at the WSI Training facility. Implementation of the Security Police Officer-III/Special Response Team program and its extensive training regimen could not be effectively accomplished with previously existing facilities. The training regimen is now supported by an elevated shooting tower which was completed in FY 2008, as well as the Carlos Saenz Live Fire Shoot House that was dedicated in FY 2007 in memory of a WSI employee who was killed in Iraq.

3.8.1 Security Infrastructure

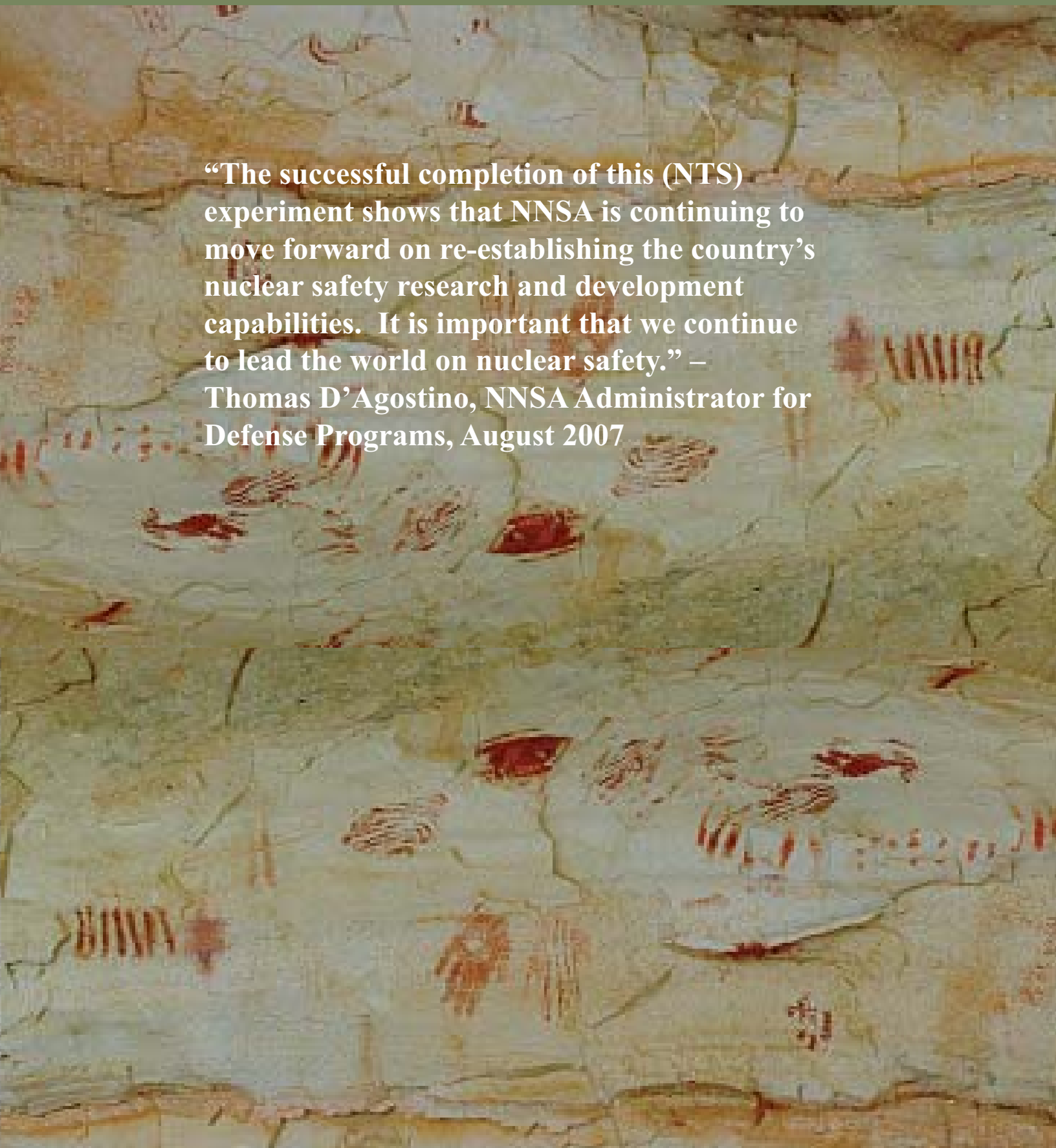
Wackenhut has expanded operational facilities at the NTS in order to accommodate additional personnel and support increased operational requirements. At the NTS, three buildings (1000, 1001, and 1002) make up a small complex adjacent to the NTS's main entrance. In Area 6, Buildings 625, CP-41, and CP-43 support security activities in the forward areas. Building 1000 serves as the Headquarters

for NTS protective force activities and includes a "muster" room, male and female locker rooms, a fitness facility, and logistics support operations. Due to the increased size of the protective force, especially, the male population, additional male locker room space was imperative, as was expanding the size of the fitness facility to accommodate more users. The NTS badge office was moved from Building 1000 to 1002. This move provided the space for expansion in Building 1000 of the fitness facility and male security police force locker room and allowed the renovation of badging office area rest room facilities into the female security police officer locker room. Building 1001 housed the Assessment/Oversight and Operations Divisions. Both divisions received additional personnel. The Assessment/Oversight Division exceeded its current available space, therefore, the Division moved from Building 1001 to 1002. Subsequently, the move of the Assessment/Oversight Division allowed the Operations Division to expand within Building 1001 to include plans to convert the facility into a limited access area, which better supports its security activities. Building 1002 now houses the NTS Badging and Assessment/Oversight Division functions. Building 1103 is the primary administrative office, training operations coordination center, and general instruction facility for the NNSA/NSO Protective Force Training Academy complex. Building 1103 required expansion of the administrative office area to support the expanded training cadre and new curriculum developers. The installation of a new shoot house for Special Response Team training was completed in December 2006; a new Elevated Shoot Tower was completed in FY 2008; a Special Response Team obstacle course and installation of a facility to store and conduct Electronic Simulation Systems equipment and training is also required. As an interim measure, a modular classroom and two double-wide trailers for use as administrative offices have been installed adjacent to Building 1103. Building 625, in Area 6, is the Wackenhut Fitness Facility. Selected operations were moved from Building 1000 into Building 625, in order to provide better management of increasing security activities in the forward area. Preliminary interior renovation needed prior to occupying the facility was completed in late 2007; however, funding shortfalls in FY 2008 and 2009 are expected to result in this facility remaining in operational standby condition.

Facilities and Infrastructure Projects/Activities and Cost Profile

Pronghorn Antelope Grazing in Area 5 Frenchman Flat

FY 2009 NNSA/NSO
Ten-Year Site Plan



"The successful completion of this (NTS) experiment shows that NNSA is continuing to move forward on re-establishing the country's nuclear safety research and development capabilities. It is important that we continue to lead the world on nuclear safety." – Thomas D'Agostino, NNSA Administrator for Defense Programs, August 2007

4.0 Facilities and Infrastructure Projects/Activities and Cost Profile

4.1 Overview of Site Project Prioritization and Cost Profile

National Security Technologies (NSTec) has established a multilevel prioritization process to rank projects within each year in the overall project list. Projects are grouped into the following order of priority based on the current emphasis to reduce deferred maintenance and improve mission-critical facilities and infrastructure to good or excellent condition:

- Maintenance for mission-critical and mission dependent, not critical facilities and infrastructure are ahead of non-mission-dependent facilities and infrastructure.
- Deferred maintenance projects for mission-critical facilities have the highest priority, followed by deferred maintenance projects on mission dependent, not critical facilities and infrastructure, then deferred maintenance projects on not mission dependent facilities and infrastructure, then non-deferred maintenance projects on mission-critical facilities, non-deferred maintenance projects on mission dependent, not critical and infrastructure and lastly, non-deferred maintenance projects on buildings and infrastructure that are not mission dependent.
- The Lawrence Livermore National Laboratory priority matrix is used as an added indicator of a project's importance.
- Finally, the Facilities and Infrastructure Recapitalization Rating methodology is the final step in prioritizing a project's ranking in the overall project list.

Chapter Overview

- Provides a discussion of the project prioritization process
- Lists significant project deletions and additions
- Introduces spreadsheets

Projects are assigned to each year during the planning period within the Future Years National Security Program budget constraints and are approved by NSTec and the U.S. Department of Energy, National Nuclear Security Administration, Nevada Site Office management. This management oversight allows some intervention to the prioritization process to ensure that critical projects, where compliance issues and safety issues may become the dominant priority, are funded and completed in the necessary time frame.

All projects in this plan have been prioritized by the described methodology and are shown in Appendix A, Attachment A-4, Facilities and Infrastructure Recapitalization Program Nevada Site Office.

4.2 Significant Project Deletions and Additions

Projects to upgrade CP-45 and CP-9 have been removed. Twenty-nine additional facilities have been identified for potential demolition in FY 2009 and 80 additional facilities have been identified for potential demolition by the Integrated Resource Management Plan. See Appendix A, Attachments E-1 and E-1(a).

Project additions for FY 2008 include $150K of Facilities and Infrastructure Recapitalization Projects and $950K of projects each year for FY 2009 and FY 2010 related to Transformation Disposition.

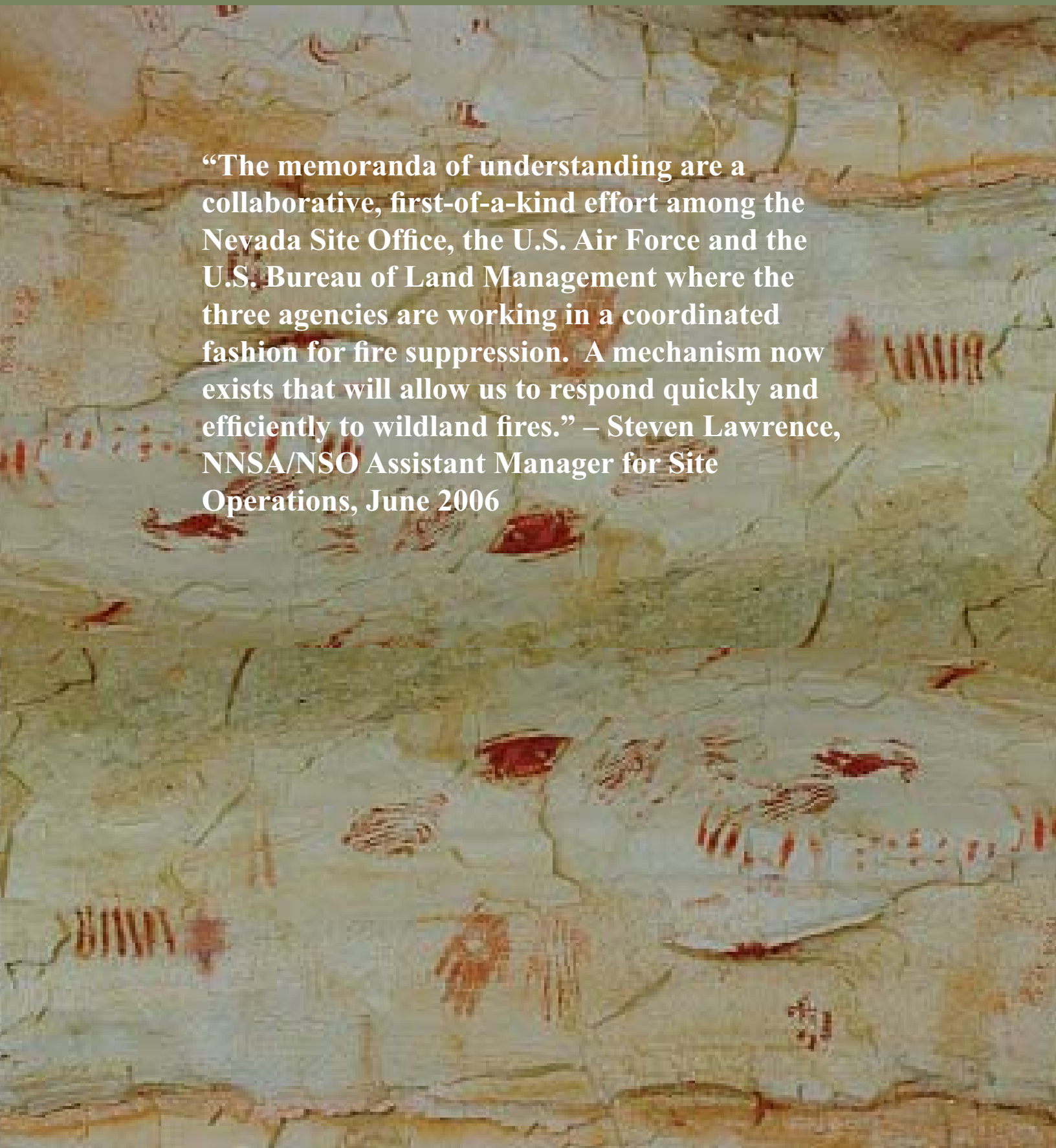
4.3 Facilities and Infrastructure Cost Projection Spreadsheets

Cost projection spreadsheets provide an understanding and overview of the forecasts for NNSA/NSO facilities and infrastructure projects and other activities for FY 2009 - 2017. A general overview and the cost projection spreadsheets (Attachments A-1 through A-6[b]) are included in Appendix A. Totals align with Future-Years Nuclear Security Program totals as presented in Appendix B.

Changes from Prior Year Ten-Year Site Plan

Snow scene on the NTS Area 6

FY 2009 NNSA/NSO
Ten-Year Site Plan



"The memoranda of understanding are a collaborative, first-of-a-kind effort among the Nevada Site Office, the U.S. Air Force and the U.S. Bureau of Land Management where the three agencies are working in a coordinated fashion for fire suppression. A mechanism now exists that will allow us to respond quickly and efficiently to wildland fires." – Steven Lawrence, NNSA/NSO Assistant Manager for Site Operations, June 2006

5.0 Changes from Prior Year Ten-Year Site Plan

Changes from last year's *TYSP* include minor modifications to the document's format and content, as specified in National Nuclear Security Administration (NNSA) TYSP Guidance (January 2008). Project changes have occurred since last year due to redirection from NNSA through the Integrated Construction Program Plan.

Chapter Overview

- Discusses TYSP changes as recommended by February 2008 guidance from NNSA
- Discusses major additions and deletions to each Chapter and Appendix

- General
  - Comments received about the F*Y 2008 TYSP* were reviewed and portions of the F*Y 2009 TYSP* changed to more closely mirror NNSA TYSP Guidance requirements.
  - Clarifications in the NNSA TYSP Guidance regarding prioritizing Facilities and Infrastructure Recapitalization Program projects to meet deferred maintenance goals and support missions-critical facilities and infrastructure requirements has caused a significant change in prioritization of Facilities and Infrastructure Recapitalization Program projects. This will be reevaluated each year to ensure that NNSA's goals are met.
- Executive Summary
  - Updated Future State text and current data.
  - Deleted discussions regarding facilities and infrastructure, project prioritization, condition assessments, and excess facilities disposal program.
- Chapter 1
  - Deleted Overview and Current Situation Sections.
  - Section 1.4 moved to Chapter 5.
  - Updated text, tables, and figures.
- Chapter 2
  - Site Description was deleted along with the the maps.
- Chapter 3 (now Chapter 2)
  - Figure 3.1 (now 2.1) was changed to reflect significant organizational changes.
  - Readiness in Technical Base and Facilities story boards were deleted.
- Chapter 4 (now Chapter 3)
  - Deleted Planning Process, Facilities and Infrastructure Overview, Leased Space, Land Use Planning, New Construction Footprint Added, Grandfathered Footprint Added, Site Footprint Reduction Analysism Waiver and Transfer, Identification of Replacement-In-Kind Requirements, Utilities, and Energy Management sections
  - Updated text, tables, and figures
  - Added sections on Complex Transformation, Integrated Resource Management Plan, Transformation Disposition, and the NTS Facilities Transition Project.
  - Deleted maintenance projects accomplished.
  - Deleted references to Campaigns 5 and 12.
- Chapter 5 (now Chapter 4)
  - This chapter was rewritten
- Chapter 5
  - This chapter gives an overview of what major changes have occurred throughout the report.
- Appendix A
  - Deleted Attachment A-2: Cost Projection Spreadsheets.

- Deleted Attachment A-2a-2c: NNSA Integrated Construction Program Proposed Mission Gap Information Sheet.
- Deleted Attachment B: Asset Utilization
- Added new Attachment B: Potential Facilities and Infrastructure Impacts of Future Nuclear Weapons Complex Planning.
- Added Attachment C: DOE Renovation Projects.
- Added Attachment D: Establishment of Security Baseline Spreadsheet Instructions.
- Added Attachment E-1a: Facilities Disposition.
- Deleted Attachment E-3.
- Deleted Attachment E-5: Waiver/Transfer.
- Deleted Attachment F-3: Deferred Maintenance Chart.
- Deleted Attachment F-4: FCI for NNSA Chart.
- Deleted Attachment F-5: Replacement-in-kind Projects.
- Deleted Attachment G: Mission Critical Facilities.

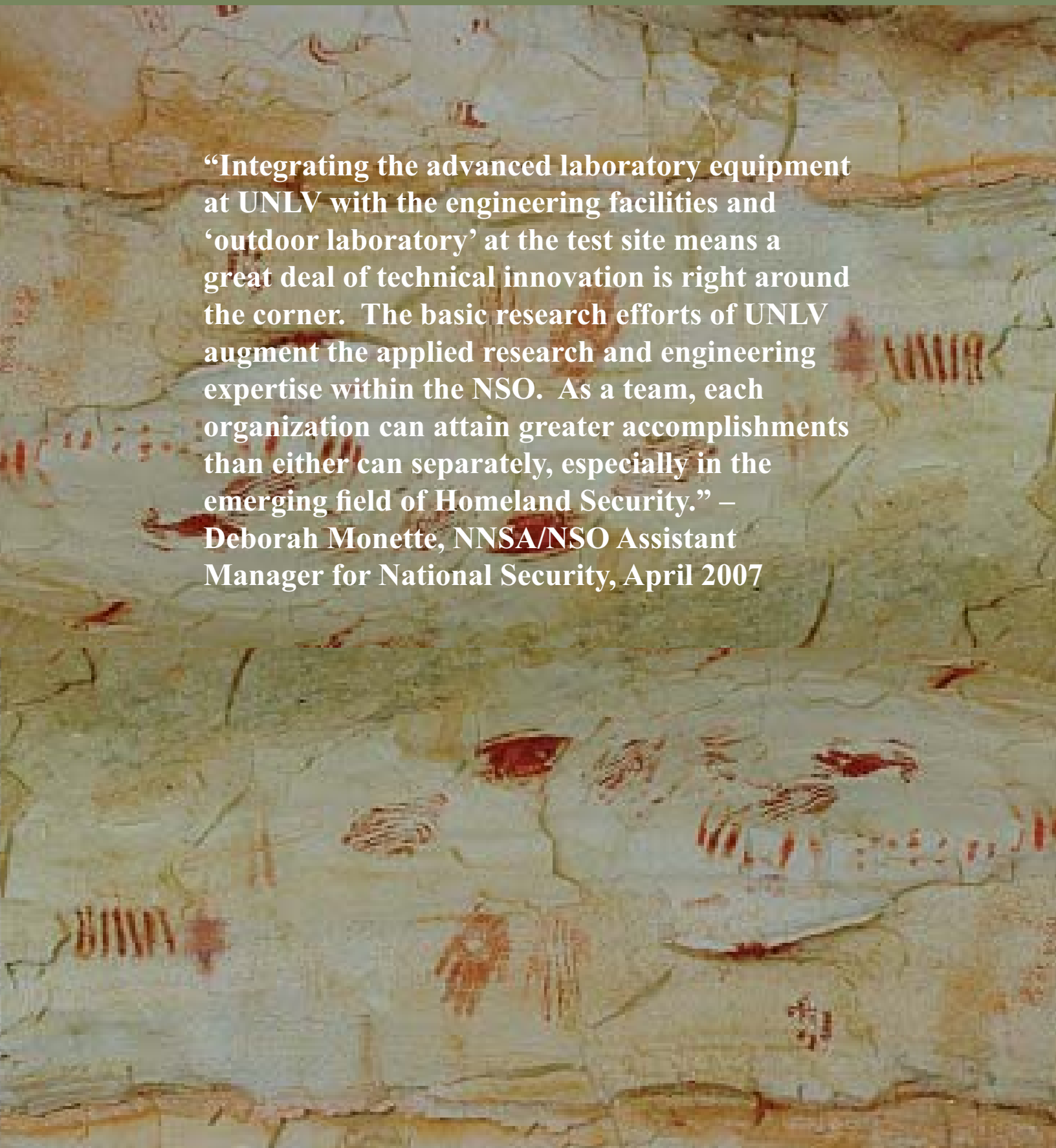
• Appendix C

- Deleted Appendix C: Preferred Alternatives for the NTS.

Appendix A

Mare and Foal Grazing near Captain Jack Spring on the NTS

FY 2009 NNSA/NSO
Ten-Year Site Plan



"Integrating the advanced laboratory equipment at UNLV with the engineering facilities and 'outdoor laboratory' at the test site means a great deal of technical innovation is right around the corner. The basic research efforts of UNLV augment the applied research and engineering expertise within the NSO. As a team, each organization can attain greater accomplishments than either can separately, especially in the emerging field of Homeland Security." – Deborah Monette, NNSA/NSO Assistant Manager for National Security, April 2007

Appendix A: Attachments A-F

Attachments A

The following cost projection spreadsheets provide an understanding and overview of the forecasts for all the U.S. Department of Energy (DOE) National Nuclear Security Administration Nevada Site Office (NNSA/NSO) facilities and infrastructure projects and other activities for fiscal year (FY) 2009-2018. A general overview of each spreadsheet attachment follows.

Attachment A-1: Facilities and Infrastructure Cost Projection Spreadsheet Line Item Projects for Nevada Test Site. Line Item projects listed represent approved Line Items in coordination with the Integrated Construction Program Plan adopted by NA-10. All Line Items shown on this attachment are mission dependent, not critical (MDNC). In addition, all non-NNSA Line Items projects are listed, but are segregated from NNSA Line Items.

Attachment A-3: NNSA Facilities and Infrastructure Cost Projection Spreadsheet RTBF/Operations of Facilities for Nevada Test Site. This spreadsheet includes all Expense projects and General Plant Projects not funded through the Facilities and Infrastructure Recapitalization Program. This spreadsheet also shows the Operations of Facilities operations and maintenance budgets and breakout by Readiness in Technical Base and Facilities.

Attachment A-4(a): NNSA Facilities and Infrastructure Cost Projection Spreadsheet Facilities and Infrastructure Recapitalization Program (FIRP) for Nevada Test Site. This spreadsheet identifies projects addressing the Legacy Deferred Maintenance Baseline identified in FY 2003.

Attachment A-5: Other Facilities and Infrastructure Cost Projection Spreadsheet for Nevada Test Site. This spreadsheet shows facilities and infrastructure projects associated with non-NNSA tenant programs and activities. This spreadsheet was completed consistent with fiscal planning guidance provided by applicable tenant programs or activities.

Attachments A-6(a): FY 2008-2010 NNSA Facilities and Infrastructure Cost Projection Spreadsheet Currently Funded Security Infrastructure Projects for Nevada Test Site. Attachment A-6(a) spreadsheet crosswalks security infrastructure projects currently accepted for execution for FY 2008 and planning for FY 2009 and FY 2010.

Attachments A-6(b): FY 2009-2010 Unfunded NNSA Facilities and Infrastructure Cost Projection Spreadsheet Security Infrastructure Projects for Nevada Test Site. Attachment A-6(b) lists the planned unfunded projects for FY 2009 and FY 2010 only, using the Security Infrastructure Rating Matrix.

Attachment B

Attachment B: NNSA Potential Facilities and Infrastructure Impacts of Future Nuclear Weapons Complex Planning for Nevada Test Site: The purpose of this attachment is to identify the potential facilities and infrastructure impacts of ongoing transformation, and future transformation of the complex.

Attachment C

Attachment C: U.S. Department of Energy New Building and Major Renovation Projects Seeking or Registered for Leadership in Energy and Environmental Design Certification: This spreadsheet covers the scope of the NTS's NNSA new buildings and major renovation projects that are seeking Leadership in Energy and Environmental Design certification or are already registered and/or certified.

Attachment D

Attachment D: Establishment of Security Baseline for Nevada Test Site: The purpose of the attachment is to establish the site's security baseline.

Attachments E

Attachment E-1: Facilities Disposition Plan (Within FYNSP/Outyear Planning Targets.) These spreadsheets include prioritized projects that are planned for disposition within the constraints of the approved FYNSP (FY 2009-2013).

Attachment E-1(a): Facilities Disposition Plan (Above FYNSP/Funding is "TBD".) These spreadsheets include those projects that are outside of FYNSP constraints and/or outyear funding targets.

Attachment E-2: New Construction Footprint Added. This spreadsheet reflects the gross square feet (gsf) of all Future-Years Nuclear Security Program approved and completed construction at the site, along with the year of beneficial occupancy, for Line Item, General Plant Project, Institutional General Plant Project, and other approved projects from 2006-2018. The spreadsheet also indicates the type of funding to be used for the new construction.

Attachment E-3: FY 2008 Leased Space Nevada Test Site. This spreadsheet outlines the NNSA portfolio of FY 2008 leased space.

Attachment E-4(a): Footprint Tracking Summary Spreadsheet and Graph Nevada Test Site Footprint Tracking Summary-NNSA. This spreadsheet and graph displays fiscal year starting in FY 2002 - FY 2018. FY 2002 - FY 2007 reflects actuals consistent with FIMS archives.

Attachment E-4(b): Footprint Summary Spreadsheet and Graph Nevada Test Site Footprint Tracking Summary-Site Wide (Multi-Program). This spreadsheet and graph displays fiscal year starting in FY 2002 - FY 2018. FY 2002 - FY 2007 reflects actuals consistent with FIMS archives.

Attachments F

Attachment F-1: FIRP FY 2003 Legacy Deferred Maintenance Baseline and Projected Deferred Maintenance Reduction from Baseline. This spreadsheet reflects the annual reductions to and current total of the legacy deferred maintenance baseline identified in FY 2003 and reported in the Sites' Final 2003 TYCSP.

Attachment F-2: Total Deferred Maintenance and Projected Deferred Maintenance Reduction. This spreadsheet reflects the annual total deferred maintenance. This spreadsheet presents maintenance values in terms of mission-critical facilities and infrastructure as well as the total replacement plant value for all facilities and infrastructure.

Attachment A-1
Facilities and Infrastructure Cost Projection Spreadsheet
Line Item Projects for Nevada Test Site
($000s)

Priority (1)	Project Name (2)	Project Number (3)	Deferred Maintenance Identifier(s) (3a)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years Funding (9)	FY 2007 (10)	FY 2008 FYNSP (11)	FY 2009 FYNSP (12)	FY 2010 FYNSP (13)	FY 2011 FYNSP (14)	FY 2012 FYNSP (15)	FY 2013 FYNSP (16)	FY 2014 (17)	FY 2015 (18)	FY 2016 (19)	FY 2017 (20)	FY 2018 (21)
A. Readiness in Technical Base and Facilities (RTBF) Line Items																						
1	NTS Replace Fire Station No. 1 and No. 2, Area 6 and Area 23[1]	04-D-103.1		MDNC		4,142	36,700	OPC	705	705												
		06-D-402						PE&D	2,343	2,343												
		NTS-00-020						LI	26,339	8,201	11,419	6,719										
								Total (TPC)	29,387	11,249	11,419	6,719	-	-	-	-	-	-	-	-	-	-
2	Bldg. B-3 Remediation Restoration & Upgrade NLV			MDNC		2,500		OPC	3,348	500		2,848										
		06-D-404						PE&D	-													
								LI	15,840	15,840												
								Total (TPC)	19,188	16,340	-	2,848	-	-	-	-	-	-	-	-	-	-
B. Facilities & Infrastructure Recapitalization Program (FIRP) Line Items																						
1	Mercury Highway[2]	08-D-601		MDNC		16,651		OPC	450	300	150											
		NTS-00-003						PE&D	-	-												
								LI	15,800			7,800	8,000									
								Total (TPC)	16,250	300	150	7,800	8,000	-	-	-	-	-	-	-	-	-
								Readiness in Technical Base and Facilities (RTBF) Line Items - Total	**64,825**	**27,889**	**11,569**	**17,367**	**8,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
C. Department of Homeland Security																						
1	Radiological/Nuclear Countermeasure Test and Evaluation Complex (Rad/NucCTEC)			MDNC			11,000	OPC														
		XXX-XX-XXX						PE&D														
								LI	33,000	30,448	2,552											
								Total (TPC)	33,000	30,448	2,552	-	-	-	-	-	-	-	-	-	-	-
								Department of Homeland Security - Total	**33,000**	**30,448**	**2,552**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
D. Department of Defense Work for Others Line Items																						
1	Yucca Lake Runway			MDNC				OPC														
		XXX-XX-XXX						PE&D														
								LI	11,140	11,140												
								Total (TPC)	11,140	11,140	-	-	-	-	-	-	-	-	-	-	-	-
2	Yucca Lake Hanger Complex			MDNC			29,130	OPC	-													
		XXX-XX-XXX						PE&D	-													
								LI	22,600	22,600												
								Total (TPC)	22,600	22,600	-	-	-	-	-	-	-	-	-	-	-	-
								Department of Defense Work for Others - Total	**33,740**	**33,740**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
								Total Site Costs	**131,565**	**92,077**	**14,121**	**17,367**	**8,000**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Notes:
1. The ICPP funding profile is still pending with additional funding for FY 2009 and FY 2010, this is unresolved until a Baseline Change Proposal is approved by NNSA/HQ (which includes an additional $2,500K for PE&D in FY 2007 and $1,473K in FY 2010 for a total of 37,000 gsf)).
2. The new funding profile will reflect OPC in FY 2007 as $100K; LI in FY 2008 as $7,651K and FY 2009 as $11,700K.

Attachment A-3
NNSA Facilities and Infrastructure Cost Projection Spreadsheet
RTBF/Operations of Facilities for Nevada Test Site
($000s)

Priority (1)	Project Name (2)	Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years' Funding (9)	FY 2007 (10)	FY 2008 (11)	FY 2009 FYNSP (12)	FY 2010 FYNSP (13)	FY 2011 FYNSP (14)	FY 2012 FYNSP (15)	FY 2013 FYNSP (16)	FY 2014 (17)	FY 2015 (18)	FY 2016 (19)	FY 2017 (20)	FY 2018 (21)
CTI Projects Total																					
1	NCCT - M&O	N/A	N				GPP	3,365													
2	NCCT - NSO	N/A	N				GPP	4,035													
3	NCCT - M&O	N/A	N				GPP	3,126													
CTI Projects Total								10,526	-	-	-	-	-	-	-	-	-	-	-	-	-
RTBF - Infrastructure & Other (included in the Current FYNSP)																					
1	Water Total - M&O [1]		Y				E	-													
2	Roads - M&O [1]		Y				E	2,000		2,000											
3	Fiber Link - M&O [1]		Y				E	-													
4	EOC - M&O [1]		Y				E	-													
5	AMSI - M&O [1]		N				E	-													
6	GIS - M&O [1]		N				E	-													
7	STL - M&O [1]		N				E	-													
8	TA-18 - M&O		Y				E	380		380											
9	CEF OPC - M&O		Y				E	3,949		587		3,362									
10	External University Earmarks		Y				E	3,375		3,375											
11	Radiological/Nuclear Countermeasure Test and Evaluation Complex (Rad/NucCTEC)		Y				E	700		700											
RTBF Projects Funded Total								10,404		7,042	-	3,362	-	-	-	-	-	-	-	-	-
RTBF Facilities Expense Funded Projects (included in FYNSP)																					
DAF																					
1	DAF Tritium Monitors			RTBF				40		40											
2	DAF Replacement Contaminated Waste Isolation Valves			RTBF				428		18				410							
3	DAF Metasys Study			RTBF				3		3			-		-						
4	DAF Metasys Replacement			RTBF				3,053		53		1,000		1,000		1,000					
5	DAF LINAC Replacement			RTBF				1,200										1,200			
6	DAF Replace 3 UPS			RTBF				3,201					1,067	1,067	1,067						
7	DAF Instrument Air Compressor/Dryers			RTBF				750							-	375	375				
8	DAF CREM Project (LAN)			RTBF				1,460							1,460						
9	DAF Emergency Generators			RTBF	37			800										400	400		
10	DAF Automatic Transfer Switches			RTBF				3,200					1,100	1,100	1,000						
11	DAF Cooling Towers			RTBF				2,450				2,450									
12	DAF Boilers, Burners, and Controls			RTBF				2,000							300	1,000	700				
13	DAF Plant Air Compressors/Dyers			RTBF				625					625								
14	DAF Complex Controls Replacement and Control Center Update			RTBF				1,200										600	600		
15	DAF Visitor Control			RTBF				700										350	350		
16	DAF Safety Roof Rails			RTBF				23		2		21									
17	DAF DTS Closure Team			RTBF				60		60											
18	DAF 2006 EFP Closure			RTBF				537		537											
19	DAF Replacement of Field Mills			RTBF				600					600								
20	DAF Crack Monitoring			RTBF				17		17											
21	DAF Wall/Floor Penetration Repairs			RTBF				2,428		628		600	600	600							
22	DAF Safety Basis Update			RTBF				32		32											
23	DAF UPS Replacement Study			RTBF				60		60											
24	DAF Gravel Gerty Drain Repair			RTBF				50		50											
25	DAF Repair Diesel Generator Cooling Inlet			RTBF				195		15					180						
26	DAF Roof Repair w/o GEO Membrane			RTBF	978			991		584	407										
27	DAF Replace Main Breakers on 4 Distribution Switchboards			RTBF				125							125						
28	DAF Install Valve Supervisory Devices on Water Tank			RTBF				250				250									
29	DAF Install Valve Position Supervisory Devices on Valves			RTBF				350				350									
30	DAF Misc Small Projects			RTBF				855				62	318		292	19	164				
31	DAF Modify Fire Suppression 2nd Floor			RTBF				350					350								
32	DAF Update Fire Alarm System			RTBF				3,750					1,875	1,875							
33	DAF Bldg 305 Fire Cycle Suppression System			RTBF				200				200									
34	DAF Modify Pintle Pin Cover on Special Door Hinges			RTBF				225				225									
35	DAF Replace Overhead Hoist and Crane Control			RTBF				750								750					
36	DAF Replace Variable Frequency Drives			RTBF				275									275				
37	DAF Install New Tower Speakers			RTBF				225				225									
38	DAF Install Current Transmitters			RTBF				300					300								
39	DAF Internal Door Interlock Mods			RTBF				750					750								
40	DAF Install Vacuum Systems			RTBF				650				350			300						
41	DAF Install Emergency Lighting in Ops Area			RTBF				800							800						
42	DAFReplace Motor Control Centers			RTBF				2,000									352	813	835		
43	DAFInstall Generator Sets Control Systems			RTBF				400				400									
DAF Totals					1,015			38,358	-	2,099	407	6,133	7,585	6,052	5,524	3,144	1,866	3,363	2,185	-	-
JASPER																					
44	JASPER Electrical Power Upgrades/Control Room			RTBF				250				250									
45	JASPER Building 5100 Control Room Air Conditionning			RTBF	63			460		184			276								
46	JASPER Building 5150 HVAC			RTBF				200						200							
47	JASPER Building 5100 Temperature Control/Roof HVAC			RTBF				200							200						
48	JASPER Uninterrupted Power Supply (UPS) Installation			RTBF				500								500					
49	JASPER Building 5110 Insulation			RTBF				140							140						
50	JASPER Fire System Pump and Housing			RTBF	57			1,500								500	1,000				
51	JASPER Expand LASER Room			RTBF				860							430	430					
52	JASPER Repair and Seal Access Roads			RTBF				440						440							
53	JASPER Building 5200 Upgrades (Roof/HVAC)			RTBF	70			250							250						
54	JASPER Concrete Cart Path			RTBF				200						200							
55	JASPER Water Tank Upgrades			RTBF	600			600		154		446									
JASPER Totals					790			5,600	-	338	-	696	276	840	1,020	1,430	1,000	-	-	-	-
U1a																					
56	U1a Communications System Upgrade			RTBF				500				500									
57	U1a Legacy Cable Project			RTBF				935				500	435								
58	U1a Install Lightning Arrestor at U1g			RTBF				100						100							
59	U1a Shaft Rehab			RTBF	3,000			5,150				150	1,350	1,350	2,300						

Attachment A-3
NNSA Facilities and Infrastructure Cost Projection Spreadsheet
RTBF/Operations of Facilities for Nevada Test Site
($000s)

Priority (1)	Project Name (2)	Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years' Funding (9)	FY 2007 (10)	FY 2008 (11)	FY 2009 FYNSP (12)	FY 2010 FYNSP (13)	FY 2011 FYNSP (14)	FY 2012 FYNSP (15)	FY 2013 FYNSP (16)	FY 2014 (17)	FY 2015 (18)	FY 2016 (19)	FY 2017 (20)	FY 2018 (21)
60	U1a Power Reduction Study and Implementation			RTBF				100				100									
61	U1a Small Minor Combined Projects			RTBF				2,180				241	300	255	262	269	277	284	292		
62	U1a Transformers to Replace Mine Power Centers			RTBF	420			770				770									
63	U1a Upgrade U1a Power Supply			RTBF				965				350	350		265						
64	U1a Power Skid Upgrade			RTBF				407					407								
65	U1a Diagnostic Complex			RTBF				6,400				700	1,300	1,700	1,000	1,700					
66	U1a Compressed Air Piping Rehabilitation			RTBF				500				500									
67	U1a .100 Drift Extension for Storage			RTBF				2,000					2,000								
68	U1a Underground Power Expansion			RTBF				600				150		150		150		150			
69	U1a Surface Storage Building			RTBF				630					300	330							
70	U1a Station Deck			RTBF				220						220							
71	U1a U1h Cable Plant			RTBF				5,100				1,100	1,500	1,500		1,000					
72	U1a Surface Facility Upgrade and Configuration			RTBF				1,600					1,600								
73	U1a Underground Expansion/Complex Mining			RTBF				12,688				418	3,000	3,000	3,000	3,270					
74	U1a Security Enhancement			RTBF				1,010							1,010						
75	U1a Surface Accountability System			RTBF				500					500								
76	U1a Fencing and Lighting Upgrades			RTBF				1,010								1,010					
77	U1a Pavement of Complex Areas			RTBF				1,500									1,500				
U1a Totals					3,420			44,865	-	-	-	5,479	13,042	8,605	7,837	7,399	1,777	434	292	-	-
	HE Facilities																				
78	HE Insulate Buildings 27-5310 and 27-5315		Y	RTBF			E	540		200		340									
79	HE Insulate Blast Enclosures 1, 2, 3		Y	RTBF			E	46		46											
80	HE Communications Fiber Installation		Y	RTBF			E	345		345											
81	HE Area 4 Trailer Park Power Upgrade		Y	RTBF			E	559		259		300									
82	HE Area 4 Common Control System		Y	RTBF			E	500			500										
83	HE Area 27 PA/Radio/Communication Upgrade		Y	RTBF			E	400					200				200				
84	HE Area 4 Fire Protection System Installation-shot bunker		Y	RTBF			E	100			100										
85	HE Area 27 Resilient Flooring in 5321/5320		Y	RTBF			E	400			200			200							
86	HE Area 4 Power Upgrade for 4-35		Y	RTBF			E	200		200											
87	HE Area 27 Redo Erosion Control		Y	RTBF			E	300						300							
88	HE Area 27 Redo MC-70 on Bunkers		Y	RTBF			E	1,200				400					800				
89	HE Area 27 Return 5320 to Magazine Status		Y	RTBF			E	1,350					450			900					
90	HE Area 4 Shot Table Cooling System Upgrades		Y	RTBF			E	1,600										1,600			
91	HE Area 4 Shot Table Power Supply Upgrades		Y	RTBF			E	800							800						
92	HE Area 4 Water Chiller for Bunker & Table		Y	RTBF			E	3,000				500			500				2,000		
93	HE Area 27 Redo Roads and Building Access		Y	RTBF			E	850					450			400					
HE Totals					-			12,190	-	1,050	800	1,540	1,100	500	1,300	1,300	1,000	1,600	2,000	-	-
	APPF / CP / NLV						E														
94	None		Y				E	-													
RTBF Facilities Expense Funded Projects Total										3,487	1,207	13,848	22,003	15,997	15,681	13,273	5,643	5,397	4,477	-	-
	TARGET									5,407	3,000	5,449	5,987	6,440	4,767	6,080	TBD	TBD	TBD	TBD	TBD
RTBF Facilities Maintenance (included in FYNSP)																					
	DAF - M&O & JNPO Maintenance		Y	RTBF			E	131,124		9,200	8,025	11,488	11,799	12,129	12,468	12,484	12,834	13,193	13,562	13,942	
	U1a - M&O & JNPO Maintenance		Y	RTBF			E	40,444		4,498	3,115	3,216	3,320	3,428	3,539	3,655	3,757	3,863	3,971	4,082	
	JASPER - M&O & JNPO Maintenance		Y	RTBF			E	4,828		647	368	377	389	399	411	423	435	447	460	472	
	HE Facilities - M&O & JNPO Maintenance		Y	RTBF			E	5,332		917	390	400	411	422	434	446	458	471	485	498	
	APPF - M&O & JNPO Maintenance		Y	RTBF			E	841		841	-	-	-	-	-	-	-	-	-	-	-
RTBF Facilities Maintenance Funded Total										16,103	11,898	15,481	15,919	16,378	16,852	17,008	17,484	17,974	18,479	18,994	-
RTBF Operations of Facilities (included in FYNSP)																					
	DAF - M&O & JNPO		Y	RTBF			E	292,801		21,300	27,195	24,060	24,744	25,438	26,150	27,216	27,977	28,761	29,566	30,394	31,245
	U1a - M&O & JNPO		Y	RTBF			E	126,868		11,539	11,385	14,614	(1,820)	11,992	12,313	12,641	12,995	13,359	13,733	14,117	14,513
	JASPER M&O & JNPO		Y	RTBF			E	74,297		5,651	6,889	6,150	6,321	6,499	6,680	6,866	7,058	7,256	7,459	7,668	7,883
	HE Facilities - M&O & JNPO		Y	RTBF			E	23,266		1,853	2,050	1,921	1,975	2,031	2,087	2,146	2,207	2,268	2,332	2,397	2,464
	NLV - M&O		Y	RTBF			E	21,500		1,652	1,768	1,794	1,844	1,896	1,949	2,004	2,060	2,118	2,177	2,238	2,301
	CP - M&O		Y	RTBF			E	28,132		2,234	2,280	2,344	2,409	2,477	2,546	2,618	2,691	2,766	2,844	2,923	3,005
	APPF - M&O & JNPO		Y	RTBF			E	6,912		1,375	500	500	514	528	543	558	574	590	607	624	641
	LO - M&O		Y	RTBF			E	34,077			3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,847	3,955
	LAO - M&O		Y	RTBF			E	34,077			3,000	3,084	3,170	3,259	3,350	3,444	3,541	3,640	3,742	3,847	3,955
	FIS - JNPO		Y	RTBF			E	1,465		673	792	-	-	-	-	-	-	-	-	-	-
RTBF Facilities Operations Funded Total										46,277	58,659	57,551	42,327	57,379	58,968	60,937	62,644	64,397	66,202	68,055	69,961
Total RTBF/Operations of Facilities																					
RTBF Approved Funding For CTI per AFP																					
Total RTBF Funding Allocation										**72,909**	**71,764**	**90,242**	**80,249**	**89,754**	**91,501**	**91,218**	**85,771**	**87,768**	**89,157**	**87,049**	**69,961**
FYNSP Budget Constraints										**69,460**	**67,725**	**92,203**	**97,238**	**105,926**	**112,873**	**115,748**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**

Notes:
1. These projects are identified as Congressional Earmarks.

Attachment A-4(a)
NNSA Facilities and Infrastructure Cost Project Spreadsheet
Facilities and Infrastructure Recapitalization Program (FIRP) for Nevada Test Site

FIRRS Priority (1)	Project Name (2)	FIRRS Score (2a)	Project Number (3)	Deferred Maintenance Identifier (3e)	Mission Dependency (4)	Mission Dependency Program (4a)	FY03 Baseline Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years Funding (9)	FY 2007 (10)	FY 2008 (11)	FY 2009 FYNSP (12)	FY 2010 FYNSP (13)	FY 2011 FYNSP (14)	FY 2012 FYNSP (15)	FY 2013 FYNSP (16)
1	NLV NSF Deferred Maintenance Activities FY2005	50	NV-R-05-02	NV-DM-484	MDNC	OTHER	1,000	-	E	20	20							
2	NTS New 500KGal Water Tank(s), Area 5	45	NV-R-05-06	NV-DNM-478	MDNC	RTBF	2,928	-	GPP	3,931	3,931							
3	NTS Replace Oil-Based PIDs, Area 6	65	NV-R-05-08	NV-DM-500	MDNC	RTBF	4,700	-	GPP	2,334	2,334							
4	NTS SLC Gate 700 Substation	65	F&I-06-501	NV-DNM-501	MDNC	RTBF	1,408	-	GPP	944	944							
5	NTS Replace Water System OCBs	60	F&I-06-516	NTS-02-061	MDNC	RTBF	130	-	GPP	543	543							
6	NTS Replace/Install New Microwave System: CP-18 to Area 1 Subdock	55	F&I-06-504	NV-DM-504	MDNC	RTBF	408	-	GPP	793	793							
7	NTS SLC Shoshone Transmitter	55	NV-R-06-01	NTS-02-047	MDNC	RTBF	992	-	GPP	408	408							
8	NTS Replace Cable Mercury to Spotted Range	55	NV-R-06-02	NTS-02-113	MDNC	RTBF	500	-	GPP	290	290							
9	NTS Replace Oil-Fired Boiler, Building 23-156	55	F&I-06-502	NV-DNM-502	NMD	OTHER	526	-	GPP	700	700							
10	NTS Replace Oil-Fired Boiler, Building 23-111	50	NV-R-05-11	NV-DM-507	MDNC	RTBF	850	-	GPP	623	623							
11	NTS Roof Repairs Phase 2	45	NV-R-06-07a	NV-DM-510	MDNC	RTBF	1,000	-	E	480	373	107						
12	NTS SLC BEEF Power Line	65	NV-R-06-08	NV-DM-527	MDNC	RTBF	1,810	-	E	2,823	2,033	790						
13	NTS Replace Castle Rock Substation	60	NV-R-06-09	NTS-02-119	MDNC	RTBF	4,500	-	GPP	4,900	2,057	2,843						
14	NTS Replace Oil-Based PIDs-A12 West	55	NV-R-06-12	NV-DM-545	NMD	OTHER	4,650	-	GPP	4,900	300	3,100	1,500					
15	NTS Replace Oil-Fired Boiler, Building 23-128	50	NV-R-06-13	NTS-01-010	NMD	OTHER	484	-	GPP	689	175	514	-					
16	NTS Replace Oil-Fired Boiler, Mercury Café (Bldg. 23-754)	50	NV-R-07-93	NTS-01-008	MDNC	RTBF	2,800	-	GPP	2,605	57	638	1,810	100				
17	NTS Replace Oil-Based PIDs - A12 North, A18, A19	50	NV-R-07-92	NTS-02-123	NMD	OTHER	4,500	-	GPP	4,819	461	1,659	728	1,971				
18	NTS Replace/Install New Microwave System: Shoshone to Checkpoint Pass	50	NV-R-07-02	NTS-03-042	MDNC	RTBF	442		GPP	463	21	442						
19	NTS Replace/Install New Microwave System: CP-18 to Echo Peak	45	NV-R-07-03	NTS-03-043	MDNC	RTBF	508		GPP	532	8	524						
20	NTS Replace SCADA System	45	NV-R-05-05	NV-DM-482	MDNC	RTBF	4,500	-	GPP	4,232	4,069	163	-					
21	NTS Roof Repairs Phase 3	45	NV-R-07-01	NTS-03-039	NMD	OTHER	500	-	GPP	1,970		948	1,022					
22	NLV LAN Switch Replacements	40	NV-R-06-11	NLV-03-005	MDNC	RTBF	4,304	-	GPP	4,372	2,987	1,385						
23	NTS SLC Substation 5-12	65	F&I-08-551	NTS-02-041	MDNC	RTBF	1,208	-	GPP	2,142					2,142			
24	NTS Replace A-27 Water Tank, Controls and Distribution System	55	F&I-09-614	NTS-01-005	MDNC	RTBF	2,510	-	GPP	3,203					3,203			
25	NTS Reconstruct Mercury Hwy Sec.11 (Gate 100 to End S Bypass Int)	50	F&I-08-509	NV-DM-509	MDNC	RTBF	296	-	GPP	1,415					1,415			
26	NTS Reconstruct Mercury Hwy Sec. 12 (End S Int Bypass to Begin N Bypass Int)	50	F&I-08-509	NV-DM-508	MDNC	RTBF	896	-	GPP	1,500					1,500			
27	NTS Reconstruct Mercury Hwy Sec. 13 (Begin N Bypass Int to Gate 200)	50	F&I-08-509	NTS-03-032	MDNC	RTBF	1,056	-	GPP	1,500					1,500			
28	NTS Upgrade Area 23, 4.16kV System to 12.47kV System Lines 1-4	45	F&I-08-533	NTS-03-047	MDNC	RTBF	3,000	-	GPP	4,500					4,500			
29	NTS Replace A-27 Pump House	40	F&I-09-615	NTS-02-097	MDNC	RTBF	380	-	GPP	747					747			
30	NTS Replace Oil-Based PIDs, A12 East & SW X-Fmr	60	F&I-08-553	NTS-02-118	NMD	OTHER	4,500	-	GPP	3,927						3,927		
31	NTS Replace Well 5c / Army Well #1 (Combined)	55	F&I-07-529	NTS-02-059	MDNC	RTBF	3,600	-	GPP	4,856						4,856		
32	NTS Upgrade Area 23, 4.16kV System to 12.47kV System Lines 5-8	45	NTS-03-048	NTS-03-048	MDNC	RTBF	3,000	-	GPP	4,909						4,909		
33	NTS CP-40 Electrical/Mechanical Replacements	35	NV-DM-NTS4	NV-DM-NTS4	MDNC	RTBF	1,278	-	E	2,182						2,182		
34	NTS Replace Oil Based PIDs Area 6 & 25	65	F&I-09-616	NTS-02-124	MDNC	RTBF	4,000	-	GPP	4,460							4,460	
35	NTS SLC "P" Tunnel	60	NTS-02-044	NTS-02-044	MDNC	RTBF	188	-	GPP	346							346	
36	NTS Restore Mercury Bypass	50	NTS-04-020	NTS-04-020	MDNC	RTBF	4,300	-	GPP	4,794							4,794	
37	NTS Reconstruct Road 4-04 (Mercury Hwy to BEEF) (07)	50	NTS-00-008	NTS-00-008	MDNC	RTBF	1,560	-	GPP	1,739							1,739	
38	NTS SLC ARL Primary	45	NTS-02-043	NTS-02-043	NMD	OTHER	1,900		GPP	2,118							2,118	
39	NTS Repair Tippipah Hwy (Mercury Hwy to Pahute Mesa Rd)	45	NTS-03-049	NTS-03-049	MDNC	RTBF	870	-	E	970							970	
40	NTS Replace LAN Connection to 23-160	40	NV-DM-522	NTS-03-004	MDNC	RTBF	900	-	GPP	1,003							1,003	
41	NTS Maintain Tweezer Rd (Mercury Hwy to 6-16 Road)	40	NTS-03-055	NTS-03-055	MDNC	RTBF	34	-	E	76							76	
42	NTS Repair Pahute Mesa Rd (Stockade Wash Rd to 20-04 Rd./End of Pave.)	45	NTS-03-058	NTS-03-058	NMD	OTHER	1,200	-	GPP	2,735								2,735
43	NTS SLC Skull Mountain	45	F&I-06-521	NTS-02-048	MDNC	RTBF	241	-	GPP	1,208								1,208
44	NTS Repair Pahute Mesa Rd (Mercury Hwy to Tippipah Hwy)	45	NTS-03-059	NTS-03-059	NMD	OTHER	500	-	GPP	1,140								1,140
45	NLV ME Facility Miscellaneous Interior Repairs	45	NV-DM-NLV3	NV-DM-NLV3	MDNC	RTBF	970	-	GPP	2,211								2,211
46	NLV ME A-01 Mechanical & Electrical Replacements	40	NV-DM-NLV2	NV-DM-NLV2	MDNC	RTBF	1,375	-	GPP	3,464								3,464
47	NTS Area 23 Miscellaneous External Repairs	35	NV-DNM-NTS4	NV-DNM-NTS4	MDNC	RTBF	3,039		E	4,900								4,900
									Total FIRP MC		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
									Total FIRP MDNC		**21,491**	**6,892**	**1,810**	**100**	**15,007**	**11,947**	**13,388**	**11,783**
									Total FIRP NMD		**1,636**	**6,221**	**3,250**	**1,971**	**-**	**3,927**	**2,118**	**3,874**
									Total TEC		**23,127**	**13,113**	**5,060**	**2,071**	**15,007**	**15,874**	**15,506**	**15,657**
									Construction Funding Required			**12,179**	**5,060**	**2,071**	**14,000**	**14,155**	**13,706**	**15,461**
									Planning Funding Required			**1,049**	**350**	**-**	**1,978**	**2,124**	**2,460**	**600**
									D&D Funding Required*				**150**	**950**	**950**	**-**	**-**	**-**
									Line Item FIRP				**7,651**	**11,700**				
									TOTAL	**-**	**23,127**	**13,228**	**13,211**	**14,721**	**16,928**	**16,279**	**16,166**	**16,061**
									FYNSP			**13,228**	**13,211**	**13,929**	**15,978**	**16,279**	**16,166**	**16,139**

* Transformation Disposition funds in FY 2009 and FY 2010 are $950K each year.

Attachment A-5
Other Facilities and Infrastructure Cost Projection Spreadsheet
For Nevada Test Site
($000s)

Priority (1)	Project Name (2)	Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Deferred Maintenance Reduction (5)	GSF Added or Eliminated (6)	Funding Type (7)	Total (8)	Prior Years' Funding (9)	FY 2006 (10)	FY 2007 (11)	FY 2008 FYNSP (12)	FY 2009 FYNSP (13)	FY 2010 FYNSP (14)	FY 2011 FYNSP (15)	FY 2012 FYNSP (16)	FY 2013 (17)	FY 2014 (18)	FY 2015 (19)	FY 2016 (20)	FY 2017 (21)	FY 2018 (22)
NNSA Facilities and Infrastructure Unfunded Projects																						
1	NTS Mercury Site Operations Building	NTS-08-003	MDNC	RTBF		5,000	GPP	4,500					4,500									
2	NTS Construct Two Water Storage Tanks, Area 6	NTS-02-080	MDNC	RTBF			GPP	4,000			4,000											
3	NTS Radiographic Equipment Warehouse 6-CP-100	NTS-03-068	MDNC	RTBF			TBD	1,214					1,214									
4	NTS Upgrade SCADA System - Substations 13-16	NTS-03-067	MDNC	RTBF			TBD	4,675					4,675									
5	NTS Construct 3 Water Storage Tanks - Areas 5 and 6	NTS-02-098	MDNC	RTBF			TBD	4,500					4,500									
6	NTS Network Operations Center Consolidation (NOC)	NTS-03-073	NMD	OTHER			TBD	4,872					4,872									
7	NTS Construct Fire Training Facility	NTS-02-101	NMD	OTHER			TBD	4,000					4,000									
8	NTS LAN Cabling Upgrades at Area 25	NTS-03-052	MDNC	RTBF			TBD	4,936					4,936									
9	NTS Upgrade SCADA System - Substations 9-12	NTS-02-128	NMD	OTHER			TBD	3,600						3,600								
10	NTS Repair Pahute Mesa Rd (Mercury Hwy to Tippipah Hwy)	NTS-03-059	NMD	OTHER	500		TBD	500						500								
11	NTS Restore Jackass Flats Rd (Mercury By-Pass to 27-01)	NTS-00-088	NMD	OTHER	3,500		TBD	3,500						3,500								
12	NTS Maintain Buckboard Mesa Rd (Road 18-03 to Pahute Mesa Rd N)	NTS-03-064	NMD	OTHER	280		TBD	280						280								
13	NTS Repair Stockade Wash Rd (Rainier Mesa Rd. - Holmes Rd.)	NTS-03-065	NMD	OTHER	386		TBD	386						386								
14	NTS Reconstruct Stockade Wash Rd (Holmes Rd. - Pahute Mesa Rd.)	NTS-03-066	NMD	OTHER	7,900		TBD	4,900						4,900								
15	NTS MAN Services at Area 6	NTS-02-016	MDNC	RTBF			GPP	4,500					4,500									
16	NTS LAN Switch Upgrades at Mercury	NTS-03-053	MDNC	RTBF			GPP	4,675					4,675									
17	NTS Refurbish DAF Water Storage Tank	NTS-03-001	MDNC	RTBF			GPP	195					195									
18	NTS Upgrade SCADA System - Substations 1 through 4	NTS-02-125	MDNC	RTBF			GPP	3,500						3,500								
19	NTS LAN Cabling Upgrades at Area 6	NTS-03-051	MDNC	RTBF			GPP	1,200						1,200								
20	NTS Replace SCADA System - Substations 5-8	NTS-02-127	MDNC	RTBF			GPP	3,500							3,500							
21	NTS LAN Cabling Upgrades at Mercury	NLV-03-050	MDNC	RTBF			GPP	4,446								4,446						
22	NTS Resurface DAF Access Rd (Mercury Hwy)	NTS-03-036	MDNC	RTBF			GPP	880								880						
23	NTS Construct Water Storage Tanks in Mercury	NTS-02-070	MDNC	RTBF			GPP	2,986									2,986					
24	NTS Building 650 Modifications	NTS-99-086	MDNC	RTBF			GPP	160									160					
25	NTS Upgrade CP Tanks Road	NTS-02-035	MDNC	RTBF			GPP	4,745									4,745					
26	NTS Area 6 Potable Water Fill Stand	NTS-00-108	MDNC	RTBF			GPP	2,900										2,900				
27	NTS Seismic Upgrade Mercury Cafeteria	NTS-02-024	MDNC	RTBF			GPP	1,214										1,214				
28	NLV MAN System	NLV-03-004	MDNC	RTBF			GPP	4,701										4,701				
29	DAF Correct Water Deficiencies, Area 6	NTS-01-123	MDNC	RTBF			GPP	741												741		
30	DAF Replace AEMS	NTS-02-007	MDNC	RTBF			GPP	950												950		
31	DAF Electrical Switchgear Retrofit	NTS-02-008	MDNC	RTBF			GPP	370												370		
32	DAF Add Control Room, Bldg. 400	NTS-03-006	MDNC	RTBF			GPP	1,820												1,820		
33	NTS Warehouse 1 Culvert	NTS-99-080	MDNC	RTBF			GPP	160												160		
34	NTS ME Area 6 Facility Repairs	NV-DM-NTS2	MDNC	RTBF	675		E	1,350												1,350		
35	NTS Areas 23/27 Facility Repairs	NV-DM-NTS7	MDNC	RTBF	692		E	1,384												1,384		
36	NLV A-01 Mechanical & Electrical Replacements	NV-DM-NLV2	MDNC	RTBF	1,375		E	4,899								1,633		1,633		1,633		
37	Area 5 Missions-Critical Projects	N/A	MDNC	RTBF			TBD	2,800									2,800					
38	RSL Replace UPS & Converter, Bldg. 35-2211	RSL-04-001	MDNC	NWIR			GPP	650				650										
39	RSL Install Waterline	RSL-00-005	MDNC	NWIR			GPP	1,800				1,800										
40	RSL Repair Four Water Tanks	RSL-08-001	MDNC	NWIR			GPP	250				250										
41	RSL Fire Alarm System Renovation 7 Buildings	RSL-04-004	MDNC	NWIR			GPP	1,000				1,000										
42	RSL Eastside Improvements	RSL-00-003	MDNC	NWIR			GPP	850					850									
43	RSL Foam Suppression Tank Relocation (Hanger Fire System Tanks)	RSL-05-001	MDNC	NWIR			GPP	750					750									
44	RSL Replace Fuel Pumps	RSL-04-003	MDNC	NWIR			GPP	100					100									
45	RSL Resurface Hangar Floor	RSL-04-002	MDNC	NWIR			E	175					175									
46	RSL Operations Support Facility	RSL-02-001	MDNC	NWIR			GPP	2,500						2,500								
47	RSL Upgrade Onsite Landscaping	RSL-99-008	NMD	NWIR			E	600						600								
48	RSL Slurry Seal Roads and Parking Lot Repairs	RSL-99-006	NMD	NWIR			GPP	150							150							
49	RSL Covered Parking Structure (Andrews)	RSL-02-006	NMD	NWIR			TBD	400								400						
50	RSL ME Interior Repairs	NV-DM-NLV1	MDNC	NWIR	1,045		E	2,090									2,090					
51	RSL Technical Support Building Expansion	RSL-00-006	NMD	NWIR			GPP	3,900									3,900					
52	RSL Main Building Second Story Addition	RSL-02-002	NMD	NWIR			GPP	4,000										4,000				
53	RSL Upgrade Electrical Distribution System	RSL-02-004	MDNC	NWIR			GPP	500										500				
54	RSL Construct Operations Support Annex	RSL-03-002	MDNC	NWIR			GPP	2,500										2,500				
55	RSL Clean/Inspect Four Water Tanks	RSL-03-003	MDNC	NWIR	314		GPP	310										310				
56	RSL Freon Monitor	RSL-05-002	MDNC	NWIR			GPP	500														500
							Total	113,964	-	-	-	3,700	35,442	20,966	3,650	7,359	16,681	17,758	-	8,408	-	-
NNSA Facilities and Infrastructure Work for Others																						
1	Chip Seal Access Road	XXX-XX-XXX	N/A	DoD			GPP	548			548											
2	Modify Runway Drainage	XXX-XX-XXX	N/A	DoD			GPP	1,248			1,388											
3	Install Fiber Optic Cable to CP-40	XXX-XX-XXX	N/A	DoD			GPP	188			188											
							Total	1,984	-	-	2,124	-	-	-	-	-	-	-	-	-	-	-

Attachment A-6(a) - FY 2008 -- FY 2010
NNSA Facilities and Infrastructure Cost Projection Spreadsheet
Currently Funded Security Infrastructure Projects for Nevada Test Site ($000s)

Priority (1)	Project Name (2)	Site Specific Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Estimated Total Project Cost (8)	Planned Funding Source				
						Line Item A-1	RTBF A-3	FIRP A-4a	Other A-5	DBT Related? Y or N
List FY 09 Projects										
1	DAF Vehicle Barrier	NTS-05-039	NMD	S&S	4,450				X	Y
2	DAF Bullet Resistant Stations	XXX-XX-XXX	NMD	S&S	4,500				X	Y
3	DAF Personnel Barrier	XXX-XX-XXX	NMD	S&S	4,000				X	Y
TOTAL					**12,950**					

Attachment A-6(b) - FY 2009 and FY 2010 Unfunded
NNSA Facilities and Infrastructure Cost Projection Spreadsheet
Security Infrastructure Projects for Nevada Test Site ($000s)

Priority (1)	Prioritization Score (2a)	Project Name (2)	Site Specific Project Number (3)	Mission Dependency (4)	Mission Dependency Program (4a)	Total (8)	Proposed for Either FY08 or FY09 Funding	DBT Related? Y or N
1	60	WSI HQ/Armory Expansion	XXX-XX-XXX	MC		450	FY 2009	N
2	60	WSI Replace DAF PIDAS Sensor System	NTS-07-002	MC		1,500	FY 2009	N
3	60	WSI Renovate Building 1000 Muster and Arms Rooms	XXX-XX-XXX	MDNC		500	FY 2010	N
TOTAL						2,450		

Attachment B
NNSA Potential Facilities and Infrastructure Impacts of Future Nuclear Weapons Complex Planning for Nevada Test Site

Mission Area (1)	Mission Dependency Program (2)	Site Impact (3)	Potential Facility Impact (4)	Project or Facility Number (5)	Project or Facility Name (6)	GSF Eliminated (7)	GSF Added (8)	Within FYNSP? (9)	Start/ Needed Date (10)	Estimated Completion Date (11)	Total Estimated Funding (12)	Notes (13)
Assembly/ Disassembly/ HE Production and Manufactruring	Weapons Engineering	Receiver	Transfer	06-DAF	Nuclear Explosive Operations[D]	0	0	Yes	FY 2008	TBD	[E]8,000,000	On-going program
Major Hydrodynamic Test facilities	Weapons Certification	Receiver	Renovation	4-300 BEEF	Open Air Hydro Testing	0	0	No	FY 2009	FY 2015	9,500,000	Closes site 300 and replaces Contained Firing Facility at LLNL. Establishes new radiographic capability at BEEF
Consolidation of CAT I/II SNM	Complex Transformation	Receiver	Renovation	06-DAF	De-inventory Superblock	0	0	No	FY 2009	FY 2012	200,000 to 1,800,000	Entails a combination of LLNL non-programmatic material, and LANL metal at SRS
Other	Weapons Incident Response	Change of Operations	Renovation	06-DAF	Emergency Response Exercises	0	0	No	FY 2009	TBD	300,000	Adjunct to Emergency Response Exercises currently in DAF. On going program
Assembly/ Disassembly/ HE Production and Manufactruring	Weapons Engineering	Receiver	Renovation[F]	06-DAF	Boost Box	0	0	No	FY 2010	TBD	6,000,000	Subject to multi-site business case evaluation
Other	Non-Proliferation	Receiver	Transfer	Radiological Nuclear Counter Measures Test and Evaluation Complex	IAEA Inspector Training	0	0	No	FY 2010	TBD	3,000,000	Include with DHS facility under construction. On going program
Other	Non-Proliferation	Receiver	Transfer	Radiological Nuclear Counter Measures Test and Evaluation Complex	Detector Development	0	0	No	FY 2010	TBD	10,000,000	Include with DHS facility under construction. On going program
Plutonium Manufacturing and R&D	Dynamic Plutonium Experiments	Receiver	New Construction	27-5100	Gas Gun Consolidation[A]	10500[B]	[C]15000	No	FY 2012	TBD	TBD	Subject to multi-site business case evaluation
Assembly/ Disassembly/ HE Production and Manufactruring	Weapons Engineering	Receiver	New Construction	U1a[G]	Radioisotope Thermal Generator Dismantlement	0	1900	No	FY 2013		20,000,000 to 30,000,000	Assumes New nuclear facility at U1a previously established. Subject to multi-site business case evaluation
Major Hydrodynamic Test facilities	Weapons Certification	Receiver	New Construction	U1a	National Hydro Testing Facility	0	TBD	No	TBD	FY 2025	200,000,000	Allows closure of DHART
Other	Weapons Engineering	Receiver	Renovation	06-DAF	INRAD	0	0	No	TBD	TBD	TBD	Subject to SPEIS (Complex Transformation) ROD

Notes:

A. JASPER, 40mm at LANL, Large Bore Powder Gun, and Kolsky Bar testing in Cat III facility at NTS.

B. D&D all buildings at JASPER site.

C. Assumes D&D existing guns and build new facilities and guns. JASPER (4,000 sq. ft.), 40mm (1,000 sq. ft.), Powder Gun (2,000 sq. ft.), Kolsky (1,500 sq. ft.), Offices (3,000 sq. ft., Laboratory (2,000 sq. ft.) and Bunker (1,500 sq.ft.).

D."Boutique" disassembly in support of Pantex main disassembly activities.

E. FY 2009 and outyear funding at $8,000,000.

F. Renovate existing glovebox room in DAF to install new glove box for Boost Box activities.

G. Construct new alcove in U1a and outfit with clean room and glove box. Construct storage alcove for staging heat dissipating containers waste disposal.

Attachment C

DOE New Building and Major Renovation Projects Seeking or Registered for Leadership in Energy and Envrionmental Design (LEED) Certification

Program (1)	Site (2)	Project Title (3)	USGBC or Equivalent Project ID (4)	FIMS Property ID Critical Decision 4 and Higher (5)	FIMS Property Description Critical Decision 4 and Higher (6)	LEED or Equivalent Rating System (7)	Critical Decision Level (8)	Gross SqFt (9)	Building Construction Cost* (10)	USGBC or Equivalent Registration Date (11)	Estimated Occupancy Date (12)	Planned LEED or Equivalent Certification Level (13)	LEED or Equivalent Certification Level Met and Date (14)	Notes (15)
DOE/NNSA	NV-NLV	B-3 Remediation & Upgrade	10069779	2164391	B-3	LEED NC	CD-4	78,120	$13,393,038	30-Apr-07	21-Feb-08	Certified	PENDING	Application for certification has been submitted. Silver level likely.

Attachment D
Establishment of Security Baseline for Nevada Test Site

Facility/System Type (1)	Number of Security Areas (2)	Gross Square Feet of Security Areas (3)	Acres (4)	Linear Feet (5)
(1) PIDAS Protected Area	1	N/A	19	4280 OD
(2) Other Protected Areas (excluding PIDAS Protected Area)	0	-	N/A	N/A
(3) Limited Areas	38	225,000	N/A	N/A
(4) Exclusion Areas	21	10,000	N/A	N/A
(5) Material Access Areas	DAF 15 buildings	156,000	N/A	N/A
(6) Vital Areas	None		N/A	N/A
(7) Functionally Specialized Security Areas (i.e., SCIF, classified computer facilities, secure communication facilities)	SCIF-4 Communications Centers-2	7,500	N/A	N/A
(8) Vault Type Rooms	27	12,500	N/A	N/A
(9) Vaults	7	4,000	N/A	N/A

Attachment E-1
Facilities Disposition Plan
(Within FYNSP/Outyear Planning Targets)

Funding Source (1)	Facility Identification Number (FIMS) (2)	Facility Name (3)	Mission Dependency Program (4)	Priority Score (5)	Priority Rank (6)	Gross Square Footage (gsf) (7)	Excess Year (8)	Estimated Disposition Year (9)	TEC to Disposition ($000s) (10)	Yearly S&M Costs ($000s) (11)	Contaminated (Yes or No) (13)	Notes (14)
FY 2006 Facilities												
FIRP	06-352	SUPPLY WAREHOUSE		N/A	N/A	1,108	2006	2006	50	-	No	
FIRP	23-517A	GARBAGE ROOM		N/A	N/A	64	2006	2006	50	-	No	
FIRP	23-W1	WAREHOUSE		N/A	N/A	3,881	2006	2006	95	-	No	
FIRP	23-W2	WAREHOUSE		N/A	N/A	4,218	2006	2006	103	-	No	
FIRP	23-W3	WAREHOUSE		N/A	N/A	3,889	2006	2006	95	-	No	
FIRP	23-W3A	WAREHOUSE		N/A	N/A	4,975	2006	2006	122	-	No	
FIRP	23-W4	WAREHOUSE		N/A	N/A	3,939	2006	2006	97	-	No	
FIRP	23-W4A	WAREHOUSE		N/A	N/A	4,975	2006	2006	122	-	No	
FIRP	23-W5	WAREHOUSE		N/A	N/A	3,881	2006	2006	95	-	No	
FIRP	23-W5A	WAREHOUSE		N/A	N/A	4,975	2006	2006	122	-	No	
FIRP	23-W6	WAREHOUSE		N/A	N/A	3,880	2006	2006	95	-	No	
FIRP	26-2101	PG FREE CLINIC		N/A	N/A	6,080	2006	2006	150	-	No	
FIRP	27-5430	SUPER KUKLA CONT.		N/A	N/A	2,080	2006	2006	60	-	No	
FIRP	27-5410	SUPER KUKLA MECHICAL BUILDING		50	N/A	970	2006	2006	1	-	No	
FY 2006 Facility Disposition Sub-total						47,945			1,256	-		
FY 2008 Facilities												
INDIRECT	26-992041	HOT & CRITICAL	OTHER	60	1	3,700	2008	2008	296	-	No	HAZ-10 Beryllium Legacy Site
INDIRECT	03-3C-02	POST SHOT SHOP	OTHER	60	2	1,600	2008	2008	128	-	No	
FY 2008 Facility Disposition Sub-total						5,300			424	-		
FY 2009 Facilities												
TD	25-4314	YMP CONTRUCTION MANAGEMENT	OTHER	36	3	1,728	2009	2009	138	-	No	
TD	01-101	SUBDOCK OFFICE BUILDING	RTBF	36	4	7,215	2009	2009	577	-	No	
TD	01-102	DRILLING OPERATIONS	RTBF	36	5	7,200	2009	2009	576	-	No	
TD	12-B100933	ELECTRICAL SHOP	RTBF	36	6	420	2009	2009	34	-	No	
TD	12-B100944	BLUE BUNKER/CONFERENCE ROOM	RTBF	36	7	896	2009	2009	72	-	No	
TD	25-3108	GUARD HOUSE	RTBF	36	8	63	2009	2009	5	-	No	
TD	25-3111	R-MAD WAREHOUSE	RTBF	36	9	11,760	2009	2009	941	-	No	
TD	25-3124	EXPERIMENTAL TEST LAB	RTBF	36	10	4,092	2009	2009	327	-	No	HAZ-10 Beryllium Legacy Site
TD	25-3153	AREA 25 FIRE STATION	RTBF	36	11	5,233	2009	2009	419	-	No	
TD	25-3220	EQUIPMENT	RTBF	36	12	7,788	2009	2009	623	-	No	
TD	25-3230	MOTOR DRIVE BUILDING	RTBF	36	13	3,819	2009	2009	306	-	No	
TD	25-3231	PUMP SHOP	RTBF	36	14	816	2009	2009	65	-	No	
TD	25-3232	CRYOGENIC LAB	RTBF	36	15	1,452	2009	2009	116	-	No	
TD	25-4838	SERVICE STATION	RTBF	36	16	2,372	2009	2009	190	-	No	
TD	06-636	SHOP/OFFICE	RTBF	34	17	2,218	2009	2009	177	-	No	
TD	06-636A	OFFICE	RTBF	34	18	80	2009	2009	6	-	No	
TD	22-2210	SPOTTED RANGE COMM. BUILDING	RTBF	34	19	144	2009	2009	12	-	No	
TD	23-517	SOCIAL CENTER	RTBF	34	20	8,338	2009	2009	667	-	No	
TD	23-675	DORMITORY	RTBF	34	21	3,029	2009	2009	242	$4	No	
TD	23-676	DORMITORY	RTBF	34	22	3,029	2009	2009	242	$2	No	
TD	23-677	DORMITORY	RTBF	34	23	981	2009	2009	79	$2	No	
TD	23-678	DORMITORY	RTBF	34	24	3,029	2009	2009	242	$1	No	
TD	23-679	DORMITORY	RTBF	34	25	3,029	2009	2009	242	-	No	
TD	23-680	DORMITORY	RTBF	34	26	3,029	2009	2009	242	-	No	
TD	23-681	DORMITORY	RTBF	34	27	3,029	2009	2009	242	-	No	
TD	23-682	DORMITORY	RTBF	34	28	981	2009	2009	79	-	No	

Attachment E-1
Facilities Disposition Plan
(Within FYNSP/Outyear Planning Targets)

Funding Source (1)	Facility Identification Number (FIMS) (2)	Facility Name (3)	Mission Dependency Program (4)	Priority Score (5)	Priority Rank (6)	Gross Square Footage (gsf) (7)	Excess Year (8)	Estimated Disposition Year (9)	TEC to Disposition ($000s) (10)	Yearly S&M Costs ($000s) (11)	Contaminated (Yes or No) (13)	Notes (14)
TD	23-683	DORMITORY	RTBF	34	29	3,029	2009	2009	242	-	No	
TD	23-684	DORMITORY	RTBF	34	30	3,029	2009	2009	242	-	No	
TD	23-W7A	RAP STORAGE BUILDING	RTBF	34	31	215	2009	2009	17	-	No	
FY 2009 Facility Disposition Sub-total						92,043			7,362	8		
					Total	145,288			9,042			

Note:
All projects with TBD are currently being re-evaluated in the D&D process.
Rating score has been re-evaluated based on Transformation Disposition Rating Matrix Score.

Attachment E-1a
Facilities Disposition Plan
(Above FYNSP/Funding is "TBD")

HQ Program Office (1)	Facility Identification Number (FIMS) (2)	Facility Name (3)	Mission Dependency Program (4)	Gross Square Footage (gsf) (7)	Excess Year (8)	Estimated Disposition Year (9)	TEC to Disposition ($000s) (10)	Yearly S&M Costs ($000s) (11)	Candidate for Transfer (12)	Contaminated (Yes or No) (13)	Notes (14)
NV-NTS	01-066282	LANL Office Trailer (U1A)	NMD	520	TBD	TBD	42	TBD	TBD	No	
NV-NTS	01-179491	Laborers/Teamsters (U1A)	NMD	128	TBD	TBD	10	TBD	TBD	No	
NV-NTS	01-181769	Winemen Trailer (U1A)	NMD	160	TBD	TBD	13	TBD	TBD	No	
NV-NTS	01-197003	Microwave Trailer (U1A)	NMD	48	TBD	TBD	4	TBD	TBD	No	
NV-NTS	01-202137	LLNL Field Office (U1A)	MDNC	480	TBD	TBD	38	TBD	TBD	No	
NV-NTS	01-202138	LLNL Field Office (U1A)	MDNC	480	TBD	TBD	38	TBD	TBD	No	
NV-NTS	01-202333	Carpenters/Ironwork (U1A)	NMD	480	TBD	TBD	38	TBD	TBD	No	
NV-NTS	01-202609	Complex Manager Trailer (U1A)	NMD	320	TBD	TBD	26	TBD	TBD	No	
NV-NTS	01-202655	NSTec Field Office Trlr (U1A)	NMD	320	TBD	TBD	26	TBD	TBD	No	
NV-NTS	02-300	Bunker	NMD	1,920	TBD	TBD	154	TBD	TBD	No	
NV-NTS	03-300	Bunker Service	NMD	1,160	TBD	TBD	93	TBD	TBD	No	
NV-NTS	05-025175	Field Office Trailer	NMD	300	TBD	TBD	24	TBD	TBD	No	
NV-NTS	05-652A	Nevada Desert Face Facility	NMD	720	TBD	TBD	58	TBD	TBD	No	
NV-NTS	05-F800	Munitions Storage	MDNC	816	TBD	TBD	65	TBD	TBD	No	
NV-NTS	06-VAN 21	Microwave Shelter	NMD	128	TBD	TBD	10	TBD	TBD	Yes	HAZ-10 (Rad Materials)
NV-NTS	06-CP-1	Control Point 1	MDNC	31,366	TBD	TBD	2,509	TBD	TBD	No	Server farm, control, and monitoring room must be relocated, communications hub must be re-established.
NV-NTS	06-CP-3	Power Facility Building	MDNC	349	TBD	TBD	28	TBD	TBD	No	
NV-NTS	06-CP-10	Control Point 10	NMD	2,665	TBD	TBD	213	TBD	TBD	No	
NV-NTS	06-CP-10A	Assembly Area	NMD	400	TBD	TBD	32	TBD	TBD	No	
NV-NTS	06-CP-18	CP-18 Microwave Site	MDNC	600	TBD	TBD	48	TBD	TBD	No	
NV-NTS	06-CP-18A	Batt and Generator Room	NMD	330	TBD	TBD	26	TBD	TBD	No	
NV-NTS	06-CP-20	Monitoring/Playback	NMD	1,199	TBD	TBD	96	TBD	TBD	No	
NV-NTS	06-CP-40	Comm. and Electronics	MDNC	7,644	TBD	TBD	612	TBD	TBD	No	
NV-NTS	06-CP-45	Los Alamos Light Lab	MDNC	19,166	TBD	TBD	1,533	TBD	TBD	No	
NV-NTS	06-CP-60	Auxiliary Systems	NMD	2,337	TBD	TBD	187	TBD	TBD	No	
NV-NTS	06-CP-70	Fire Station 2	MDNC	5,022	TBD	TBD	402	TBD	TBD	No	
NV-NTS	06-CP-95	Control Point 95	MDNC	7,925	TBD	TBD	634	TBD	TBD	No	
NV-NTS	06-CP-105	Warehouse	NMD	468	TBD	TBD	37	TBD	TBD	No	
NV-NTS	06-CP-150	Warehouse 150	NMD	3,871	TBD	TBD	310	TBD	TBD	No	
NV-NTS	06-CP-161	Sheet Metal Shop	NMD	2,064	TBD	TBD	165	TBD	TBD	No	
NV-NTS	06-CP-162	CP-162 Craft Shop	NMD	5,334	TBD	TBD	427	TBD	TBD	No	
NV-NTS	06-CP-170	WSNSD Weather Observatory	NMD	1,937	TBD	TBD	155	TBD	TBD	No	
NV-NTS	06-GS-270	Guard Station	MC	70	TBD	TBD	6	TBD	TBD	No	
NV-NTS	06-VAN 19	Microwave Shelter	NMD	128	TBD	TBD	10	TBD	TBD	No	
NV-NTS	06-VAN 20	Microwave Shelter	NMD	128	TBD	TBD	10	TBD	TBD	No	
NV-NTS	07-300	Bunker	NMD	1,250	TBD	TBD	100	TBD	TBD	No	
NV-NTS	07-800	Bunker	NMD	1	TBD	TBD	1	TBD	TBD	YES	HAZ-10 Beryllium Legacy Site
NV-NTS	09-300	Underground Detection	NMD	990	TBD	TBD	79	TBD	TBD	No	
NV-NTS	12-025014	Teamsters Office (C)	NMD	300	TBD	TBD	24	TBD	TBD	No	
NV-NTS	12-025496	WETOK Benchmark	NMD	152	TBD	TBD	12	TBD	TBD	No	
NV-NTS	12-201894	Microwave Shelter	NMD	128	TBD	TBD	10	TBD	TBD	No	
NV-NTS	12-202604	Office (T-Tunnel)	NMD	320	TBD	TBD	16	TBD	TBD	No	
NV-NTS	12-24	Area 12 Cross Connect	NMD	810	TBD	TBD	65	TBD	TBD	No	
NV-NTS	12-358	Storage (G)	NMD	168	TBD	TBD	13	TBD	TBD	No	
NV-NTS	12-915	RCMC Building (P)	NMD	200	TBD	TBD	16	TBD	TBD	No	
NV-NTS	12-916	P-Portal Recording (P)	NMD	200	TBD	TBD	16	TBD	TBD	No	
NV-NTS	12-VAN 22	Microwave Shelter	NMD	128	TBD	TBD	10	TBD	TBD	No	

Attachment E-1a
Facilities Disposition Plan
(Above FYNSPI Funding is "TBD")

HQ Program Office (1)	Facility Identification Number (FIMS) (2)	Facility Name (3)	Mission Dependency Program (4)	Gross Square Footage (gsf) (7)	Excess Year (8)	Estimated Disposition Year (9)	TEC to Disposition ($000s) (10)	Yearly S&M Costs ($000s) (11)	Candidate for Transfer (12)	Contaminated (Yes or No) (13)	Notes (14)
NV-NTS	15-202510	Winch and Control Room	NMD	432	TBD	TBD	35	TBD	TBD	No	
NV-NTS	15-202538	Hoist House	NMD	2,440	TBD	TBD	195	TBD	TBD	No	
NV-NTS	15-910841	Walker Shack	NMD	96	TBD	TBD	8	TBD	TBD	No	
NV-NTS	19-201855	Microwave Station	NMD	341	TBD	TBD	27	TBD	TBD	No	
NV-NTS	19-202169	Echo Peak RLM	NMD	384	TBD	TBD	31	TBD	TBD	No	
NV-NTS	23-119	Radiological Ops Storage Ctr	NMD	512	TBD	TBD	41	TBD	TBD	No	
NV-NTS	23-702	Foil Handling/Source	NMD	555	TBD	TBD	44	TBD	TBD	No	
NV-NTS	23-096293	Fabrication Lab Storage	NMD	192	TBD	TBD	15	TBD	TBD	No	
NV-NTS	23-106458	Offsite Storage 2	NMD	68	TBD	TBD	5	TBD	TBD	No	
NV-NTS	23-106459	Offsite Storage 3	NMD	77	TBD	TBD	6	TBD	TBD	No	
NV-NTS	23-106560	Offsite Storage 4	NMD	68	TBD	TBD	5	TBD	TBD	No	
NV-NTS	23-106561	Offsite Storage 1	NMD	68	TBD	TBD	5	TBD	TBD	No	
NV-NTS	23-202335	Material Office	NMD	320	TBD	TBD	26	TBD	TBD	No	
NV-NTS	23-B	Office of Environ Restoration	NMD	3,429	TBD	TBD	274	TBD	TBD	No	
NV-NTS	23-C	Office of Environ Restoration	NMD	3,429	TBD	TBD	274	TBD	TBD	No	
NV-NTS	23-D	Dormitory/QA	NMD	3,331	TBD	TBD	266	TBD	TBD	No	
NV-NTS	23-X5	Wash Rack	NMD	2,000	TBD	TBD	160	TBD	TBD	No	
NV-NTS	24-A-01	Expansion	MC	11,402	TBD	TBD	912	TBD	TBD	No	
NV-NLV	24-A-08	Pump House/Restroom	MDNC	1,161	TBD	TBD	93	TBD	TBD	No	
NV-NLV	24-A-09	Maintenance Building	NMD	644	TBD	TBD	52	TBD	TBD	No	
NV-NLV	24-A-12	Lab Support	NMD	8,844	TBD	TBD	708	TBD	TBD	No	
NV-NLV	24-A-16	Protective Coating Facility	NMD	3,830	TBD	TBD	306	TBD	TBD	No	
NV-NLV	24-A-17	Twin Towers	MDNC	28,358	TBD	TBD	2,269	TBD	TBD	No	
NV-NLV	24-B-04	YMP Test Programs	NMD	3,844	TBD	TBD	308	TBD	TBD	No	
NV-NLV	24-B-05	Mail Room	NMD	1,457	TBD	TBD	117	TBD	TBD	No	
NV-NTS	25-202673	Tower	NMD	400	TBD	TBD	32	TBD	TBD	No	
NV-NTS	25-3110	R-MAD Facility	NMD	25,345	TBD	TBD	2,028	TBD	TBD	Yes	HAZ-10 Rad Material/Beryllium Legacy Site
NV-NTS	25-3113A	Test Cell 'A' Bunker	NMD	980	TBD	TBD	78	TBD	TBD	Yes	HAZ-10 Rad Material/Beryllium Legacy Site
NV-NTS	25-3210	Test Cell C	NMD	11,525	TBD	TBD	922	TBD	TBD	Yes	HAZ-10 Rad Material/Beryllium Legacy Site
NV-NTS	25-3900	E-MAD Building	NMD	164,818	TBD	TBD	13,185	TBD	TBD	Yes	HAZ-10 Rad Material/Beryllium Legacy Site
NV-NTS	25-3901	Locomotive Storage Shed	NMD	5,424	TBD	TBD	434	TBD	TBD	Yes	HAZ-10 Beryllium Legacy Site
NV-NTS	25-4015	Immune Building	NMD	56,237	TBD	TBD	4,499	TBD	TBD	No	
NV-NTS	25-4101	Building	NMD	1,760	TBD	TBD	141	TBD	TBD	No	
NV-NTS	25-4117	Immune Building Control Room	NMD	3,224	TBD	TBD	258	TBD	TBD	No	
NV-NTS	25-4221	Sample Management Facility	NMD	13,840	TBD	TBD	1,107	TBD	TBD	No	
NV-NTS	25-4320	Sample Management Facility	NMD	13,682	TBD	TBD	1,095	TBD	TBD	Yes	HAZ-10 Beryllium Legacy Site
NV-NTS	25-999617	SPEN Tower	NMD	3,000	TBD	TBD	240	TBD	TBD	No	
NV-NTS	26-2102	Port Gaston Nuclear Corp.	NMD	3,024	TBD	TBD	242	TBD	TBD	No	
NV-NTS	26-2106	Warehouse Area 26	NMD	4,100	TBD	TBD	328	TBD	TBD	Yes	HAZ-10 Rad Material
NV-NTS	27-GS-250	Guard House-Armored	MC	81	TBD	TBD	6	TBD	TBD	No	
NV-NTS	29-2902	Shoshone Transmitter Station	NMD	840	TBD	TBD	67	TBD	TBD	No	
Total				**491,186**			**39,285**	**-**			

Note:
All projects with TBD are currently going through the evaluation process for deactivation/disposition. Once projects are through the process, the excess year and disposition year will be established.

Attachment E-2
New Construction Footprint Added

Funding Source (1)	Project Number (2)	Facility Name (3)	Mission Dependency Program (4)	Funding Type (LI, GPP, IGPP) (5)	Project Area (GSF) (6)	Year of Beneficial Occupancy (7)	Notes (8)
FIRP	F&I-03-422	NTS Buildings for Fire Station 1	RTBF	GPP	3,520	2004	Temporary Facilities
FIRP	F&I-03-422	NTS Buildings for Fire Station 2	RTBF	GPP	2,240	2004	Temporary Facilities
OGA/DOD	None	Yucca Lake Hanger Complex	DoD	LI	29,130	2007	Department of Defense
Programmatic	NTS-02-078	Air Building Replacement U1a	RTBF	E	7,200	2004	Completed in FY 2003
Programmatic	XXX-XX-XXX	Hoist Building for U1h Shaft	RTBF	E	1,274	2004	Completed in FY 2004
Programmatic	XXX-XX-XXX	Trailer B101619 in Area 1	RTBF	E	2,940	2005	Completed in FY 2005
Programmatic	XXX-XX-XXX	Trailer B101620 in Area 6	DSW	E	1,656	2005	Completed in FY 2005
RTBF	XXX-XX-XXX	NTS-NCCT Student Training Facilities - Area 23	RTBF	GPP	10,000	2004	Completed in FY 2004
RTBF	NV-DM-482	SCADA System Building Addition	RTBF	GPP	1,440	2006	Expansion of Building 23-1010
RTBF	NTS-8-003	Mercury Site Operations Building	RTBF	GPP	5,000	2009	
RTBF	NTS-00-020	Fire Station 2 - Area 23	RTBF	LI	11,000	2010	N/A
RTBF	NTS-00-011	Fire Station 1 - Area 6	RTBF	LI	26,000	2010	Existing Facility Will Be Demolished
WFO/DHS	XXX-XX-XXX	CTOS Training Office - Area 19	DHS	GPP	1,680	2004	Department of Homeland Security
WFO/DHS	XXX-XX-XXX	Common Infrastructure Facilities	DHS	LI	16,000	2005	Department of Homeland Security
WFO/DHS	XXX-XX-XXX	High Speed Road and Environmental Test Facility	DHS	LI	13,073	2006	Department of Homeland Security
WFO/DHS	XXX-XX-XXX	Training Facility and Airport/Inspections Facility	DHS	LI	19,393	2007	Department of Homeland Security
WFO/DHS	XXX-XX-XXX	Radiological/Nuclear Countermeasure Complex	DHS	LI	11,000	2008	Test & Evaluation Complex
				Total	**162,546**		

Attachment E-3
FY 2008 Leased Space
Nevada Test Site

#	FIMS # (2)	Property Name (3)	Mission Dependency Program (4)	Mission Dependency (5)	# Occupants (6)	Gross Square Feet (7)	Rental Rate per Rentable s.f. (8)	Annual Cost (9)	Lease Type (10)	Lease Term - yrs. (11)	Exp. Month / Year (12)	Renewal Options (13)
1	33551	Cheyenne Facilities Buildings 4 and 6	NNSA	MD	520	113,379	$17	$1,933,210		5 Years	Mar-13	Y
2	33551	Cheyenne Facilities Building 3[1]	NNSA	MD	150		$7	$738,046				
3	182	East Gate Industrial LAO	NNSA	MC	84	50,931	$20	$1,002,108		5 Years	Mar-13	Y
4	30064	Livermore, CA	NNSA	MD	90	35,687	$0			12 Years	Jan-11	Y
5	EAC	400 Shadow Lane, Suite 200 Las Vegas	NNSA	MD	1	1,778	$25	$44,843		10 Years	Oct-10	N
6	00001792A	Building 490-1794 Andrews Air Force Base Hanger	NNSA	MC	6	4,939	$0		Military/DOE Permit	25 Years	Apr-05	Y
7	N007614	101 Office	NNSA	MD		1,000	$29	$28,800		3 Years	Oct-08	
8	L023072	06-L023072 NSTec Construction Trailer	NNSA	MD		1,440	$10	$13,980		2 Years	Mar-09	
9	L023061	06-L023061 CEF Project Management Trailer	NNSA	MD		2,520	$21	$53,916		2 Years	Feb-09	
10	38-4045	United East India Building	NNSA	MD		6,484	$20	$128,622		5 Years	May-08	
11	L026020	Botello Main Building 820 Frances Botello Road Santa Barbara	NNSA	MC	10	4,136	$31	$128,460		5 Years	Jul-08	Y
12	L026020	Ekwill 2 Buildings Santa Barbara	NNSA	MC	35	56,765	$21	$1,171,897		10 Years	May-17	Y

Note:
1. Square footage for Cheyenne Building 3 is included in line 1.

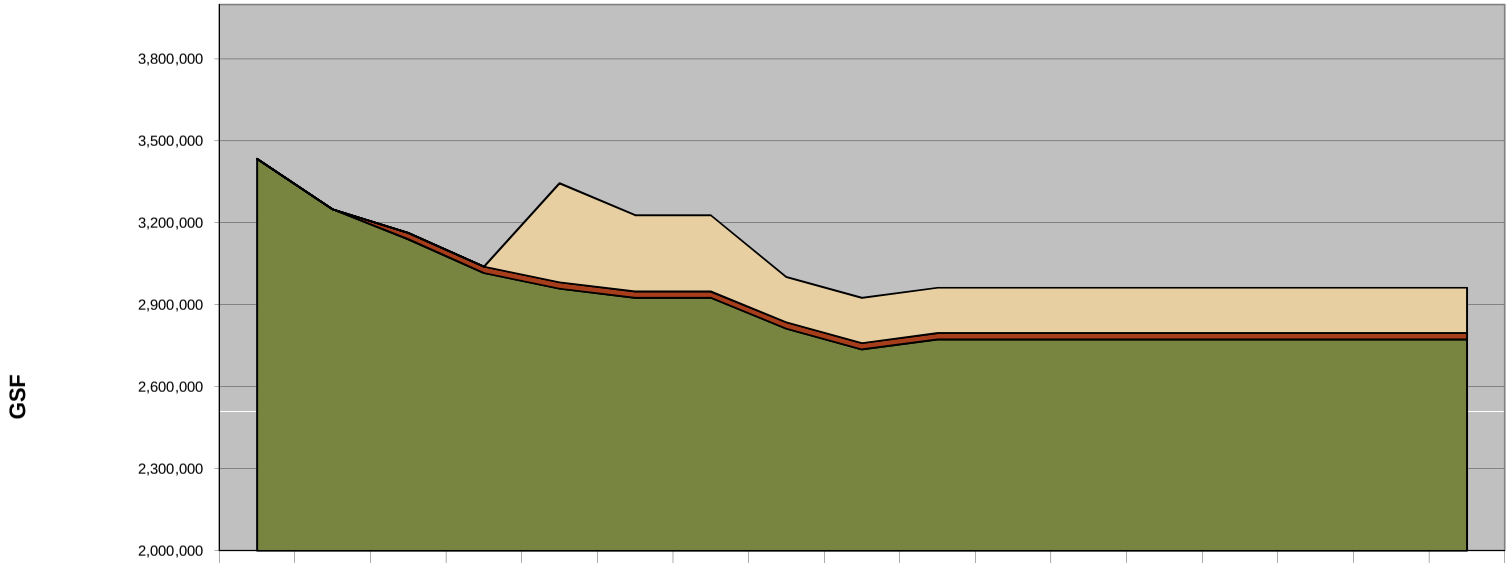
Attachment E-4(a)
FootprintT Tracking Summary Spreadsheet
Nevada Test Site Footprint Tracking Summary - NNSA

Fiscal Year (1)	Beginning Site Footprint (gsf) (2)	Excess Facilities Footprint Elimination (gsf) (3)	New Construction/ Footprint Added (gsf) (4)	Site Footprint Reduction by FY (gsf) (5)	Footprint "Banked" (gsf) (6)	Waiver/ Transfer (gsf) (7)	"Grandfathered" Footprint Added (gsf) (8)	Cumulative "Grandfathered" Footprint Added (gsf) (8a)	NNSA Site Total Footprint (gsf) (9)	NNSA Leased Space (10)	Weapons Activities Account (gsf) (11)
FY 2002 Actual	3,435,035	-185,224	0	3,249,811	-185,224		-	0	3,249,811		N/A
FY 2003 Actual	3,249,811	-109,250	0	3,140,561	-294,474		-	0	3,140,561		N/A
FY 2004 Actual	3,140,561	-147,977	25,914	3,018,498	-416,537	200,000	23,282	23,282	3,041,780		N/A
FY 2005 Actual	3,016,818	-77,748	20,596	2,959,666	-473,689		-	23,282	2,982,948		N/A
FY 2006 Actual	2,959,666	-47,945	14,513	2,926,234	-507,121		-	23,282	2,949,516	362,615	48,915
FY 2007 Actual	2,926,234	0	0	2,926,234	-507,121		-	23,282	2,949,516	279,059	0
FY 2008	2,926,234	-119,779	6,692	2,813,147	-620,208		-	23,282	2,836,429	279,059	-119,779
FY 2009	2,813,147	-92,043	16,000	2,737,104	-696,251		-	23,282	2,760,386	165,680	-92,043
FY 2010	2,737,104	0	37,000	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2011	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2012	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2013	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2014	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2015	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2016	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2017	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A
FY 2018	2,774,104	0	0	2,774,104	-659,251		-	23,282	2,797,386	165,680	N/A

*2008 Excess includes 113,379 for Cheyenne Leased Facilities

2008 Leased space includes 113,379 for Cheyenne Leased Facilities

ATTACHMENT E-4(a)
Nevada Test Site Space Tracking Summary - NNSA



	FY 2002 Actual	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2007 Actual	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
NNSA Leased Space (10)					362,615	279,059	279,059	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680
Cumulative "Grandfathered" Footprint Added (gsf) (8a)	0	0	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282
Beginning Site Footprint (gsf) (2)	3,435,035	3,249,811	3,140,561	3,016,818	2,959,666	2,926,234	2,926,234	2,813,147	2,737,104	2,774,104	2,774,104	2,774,104	2,774,104	2,774,104	2,774,104	2,774,104	2,774,104

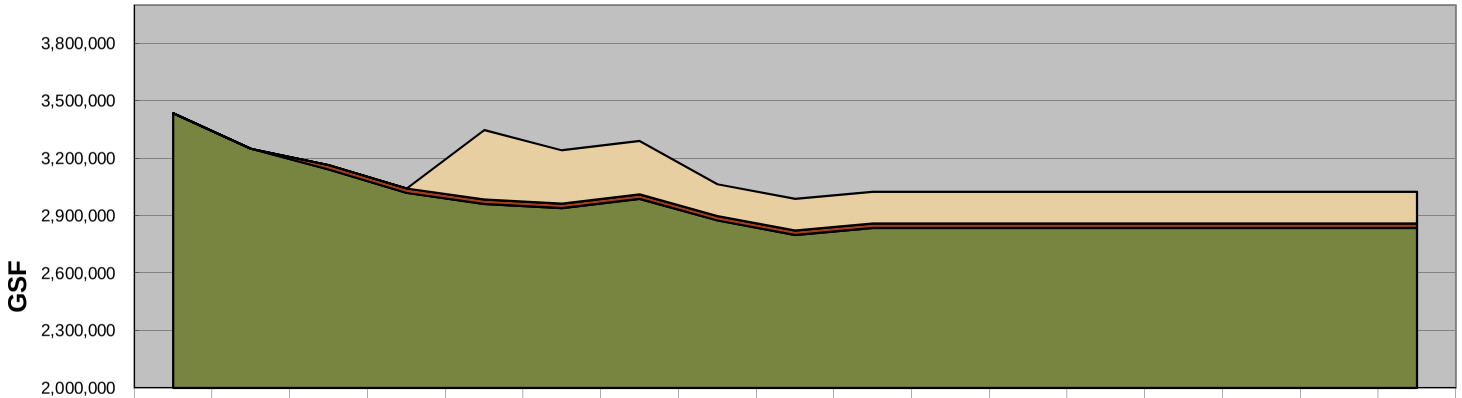
Attachment E-4 (b)
FOOTPRINT SUMMARY SPREADSHEET
Nevada Test Site Footprint Tracking Summary - SITE WIDE (Multi-Program)

Fiscal Year (1)	Beginning Site Footprint (gsf) (2)	Excess Facilities Footprint Elimination (gsf) (3)	New Construction Footprint Added (gsf) (4)	Site Footprint Reduction by FY (5)	Footprint "Banked" (gsf) (6)	Waiver/Transfer (gsf) (7)	"Grandfathered" Footprint Added (gsf) (8)	Cumulative Grandfathered Footprint Added (gsf) (8a)	Site Total Footprint (Multi-Program) (gsf) (9)	Leased Space (10)
FY 2002 Actual	3,435,035	-185,224	0	3,249,811	-185,224		0	0	3,249,811	
FY 2003 Actual	3,249,811	-109,250	0	3,140,561	-294,474		0	0	3,140,561	
FY 2004 Actual	3,140,561	-147,977	25,914	3,018,498	-416,537	200,000	23,282	23,282	3,041,780	
FY 2005 Actual	3,018,498	-77,748	20,596	2,961,346	-473,689		0	23,282	2,984,628	
FY 2006 Actual	2,961,346	-47,945	25,693	2,939,094	-495,941		0	23,282	2,962,376	362,615
FY 2007 Actual	2,939,094	0	48,523	2,987,617	-447,418		0	23,282	3,010,899	279,059
FY 2008	2,987,617	-119,779	6,692	2,874,530	-560,505		0	23,282	2,897,812	279,059
FY 2009	2,874,530	-92,043	16,000	2,798,487	-636,548		0	23,282	2,821,769	165,680
FY 2010	2,798,487	0	37,000	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2011	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2012	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2013	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY2014	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY2015	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2016	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2017	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680
FY 2018	2,835,487	0	0	2,835,487	-599,548		0	23,282	2,858,769	165,680

*2008 Excess includes 113,379 for Cheyenne Leased Facilities

2008 Leased space includes 113,379 for Cheyenne Leased Facilities

ATTACHMENT E-4(b)
Nevada Test Site Wide Footprint Tracking Summary - SITE WIDE (Multi-Program)



	FY 2002 Actual	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual	FY 2006 Actual	FY 2007 Actual	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY2014	FY2015	FY 2016	FY 2017	FY 2018
Leased Space (10)					362,615	279,059	279,059	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680	165,680
Cumulative Grandfathered Footprint Added (gsf) (8a)	0	0	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282	23,282
Beginning Site Footprint (gsf) (2)	3,435,035	3,249,811	3,140,561	3,018,498	2,961,346	2,939,094	2,987,617	2,874,530	2,798,487	2,835,487	2,835,487	2,835,487	2,835,487	2,835,487	2,835,487	2,835,487	2,835,487

Attachment F-1
FIRP FY 2003 Legacy Deferred Maintenance Baseline and Projected Deferred Maintenance Reduction from Baseline
NNSA
($000s)

Category of Maintenance	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
1. **FIRP DEFERRED MAINTENANCE (DM) BASELINE (Excludes Programmatic Real Property or Equipment)**	329,664	295,995	215,988	203,757	200,535	191,177	169,926	153,938	139,060	122,808	112,983	112,983	112,983	112,983	112,983	112,983
2. **DEFERRED MAINTENANCE BASELINE (DM) REDUCTION TOTAL**	16,571	33,669	38,585	25,706	14858*	9,358	21,251	15,988	14,878	16,252	9,825	-	-	-	-	-
A. Reduction in DM Baseline (total due to FIRP ONLY) for all F&I	6,945	18,466	19,537	15,076	9,836	6,764	18,751	9,346	12,378	13,752	7,325					
i. Reduction in DM for Mission-Critical F&I (due to FIRP ONLY)																
ii. Reduction in DM for Mission Dependent, Not Critical F&I (due to FIRP ONLY)				13,011	6,580	2,800	16,651	9,346	7,878	11,852	5,625					
iii. Reduction in DM for Not Mission Dependent F&I (due to FIRP ONLY)				2,065	3,256	3,964	2,100		4,500	1,900	1,700					
3. **REPLACEMENT PLANT VALUE (RPV) FOR NNSA FACILITIES & INFRASTRUCTURE**	2,422,125															

***Note:** Actual FY 2007 DM total includes only FY 2003 baseline

Attachment F-2
NNSA Total Deferred Maintenance and Projected Deferred Maintenance Reduction
($000s)

Category of Maintenance	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008*	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
1. ANNUAL REQUIRED MAINTENANCE for F&I	48,443	48,498	56,410	60,890	59,449	60,995	62,520	63,957	65,365	66,803	68,272	69,774	71,309	72,878	74,481	76,120
2. ANNUAL PLANNED MAINTENANCE TOTAL	**33,123**	**33,582**	**56,620**	**59,687**	**65,274**	**65,686**	**67,328**	**68,877**	**70,392**	**71,941**	**73,523**	**75,141**	**76,794**	**78,483**	**80,210**	**81,975**
a. Direct	10,035	9,620	13,428	16,960	16,448	15,170	15,549	15,907	16,257	16,614	16,980	17,354	17,735	18,126	18,524	18,932
b. Indirect	23,088	23,962	43,192	42,727	48,826	50,516	51,779	52,970	54,135	55,326	56,543	57,787	59,059	60,358	61,686	63,043
3. DEFERRED MAINTENANCE (DM) TOTAL (Excludes Programmatic Real Property or Equipment) *= Inflation Prior Year DM Total + DM New - Prior Year DM Reduction*	329,664	295,995	215,988	203,757	200,535	**199,136**	**183,842**	**173,120**	**162,842**	**150,280**	**145,435**	**150,518**	**155,786**	**161,247**	**166,905**	**172,767**
i. Backlog Inflation Rate (%)		2.3%	2.6%	3.7%	2.9%	**2.6%**	**2.5%**	**2.3%**	**2.2%**	**2.2%**	**2.2%**	**2.2%**	**2.2%**	**2.2%**	**2.2%**	**2.2%**
ii. DM Inflation		6,655	5,564	7,994	5,917	**5,214**	**4,978**	**4,228**	**3,809**	**3,583**	**3,306**	**3,200**	**3,311**	**3,427**	**3,547**	**3,672**
iii. DM NEW		-	-	5,481	4,013	4,117	4,220	4,317	4,412	4,509	4,609	4,710	4,814	4,920	5,028	5,138
A. DM, Mission-Critical F&I ONLY				11,246	10,195	9,527	8,809	8,033	7,210	6,346	5,440	4,493	3,500	2,462	1,377	242
B. DM, Mission-Dependent, Not Critical F&I ONLY				119,158	115,345	116,739	101,531	88,948	82,446	70,565	66,209	69,420	72,763	76,241	79,858	83,620
C. DM, Not Mission-Dependent F&I ONLY				73,353	74,995	73,184	73,502	76,138	73,184	73,367	73,783	76,602	79,520	82,540	85,665	88,900
4. DEFERRED MAINTENANCE (DM) REDUCTION TOTAL	16,571	33,669	38,585	**25,706**	**17,796**	**10,730**	**24,493**	**19,268**	**18,499**	**20,653**	**12,760**	**2,827**	**2,857**	**2,886**	**2,917**	**2,948**
i. Reduction Total attributed to FIRP ONLY	6,945	18,466	19,537	**15,076**	**9,836**	**7,578**	**21,492**	**11,370**	**15,391**	**17,477**	**9,513**					
A. Reduction in DM for Mission-Critical F&I				1,501	1,015	1,160	1,189	1,217	1,243	1,271	1,299	1,327	1,357	1,386	1,417	1,448
1. Reduction attributed to FIRP ONLY																
B. Reduction in DM for Mission-Dependent, Not Critical F&I				13,011	8,175	4,327	20,273	17,443	11,039	16,332	8,604	1,000	1,000	1,000	1,000	1,000
1. Reduction attributed to FIRP ONLY				13,011	6,580	3,137	19,085	11,370	9,796	15,062	7,305					
C. Reduction in DM for Not Mission-Dependent F&I				6,021	8,606	5,243	3,031	608	6,217	3,050	2,857	500	500	500	500	500
1. Reduction attributed to FIRP ONLY				2,065	3,256	4,441	2,407	-	5,595	2,415	2,208					
5. REPLACEMENT PLANT VALUE (RPV) for Facilities and Infrastructure (F&I) *= Inflation of PY RPV + Increase or Decrease due to other causes*	2,437,567	2,447,865	2,867,604	2,843,708	2,972,430	3,049,713	3,125,956	3,197,853	3,268,206	3,340,106	3,413,589	3,488,688	3,565,439	3,643,878	3,724,044	3,724,044
A. RPV for Mission-Critical F&I ONLY				473,832	505,028	518,159	531,113	543,328	555,282	567,498	579,983	592,742	605,783	619,110	632,730	646,650
B. RPV for Mission-Dependent, Not Critical F&I				1,183,855	1,218,508	1,250,189	1,281,444	1,310,917	1,339,757	1,369,232	1,399,355	1,430,141	1,461,604	1,493,759	1,526,622	1,560,208
C. RPV for Not Mission-Dependent F&I				1,186,021	1,248,894	1,281,365	1,313,399	1,343,608	1,373,167	1,403,377	1,434,251	1,465,804	1,498,052	1,531,009	1,564,691	1,599,115
D. RPV Increase from prior year attributed to inflation				107,914	128,722	77,283	76,243	71,897	70,353	71,901	73,482	75,099	76,751	78,440	80,165	
E. RPV Increase / decrease attributed to causes other than inflation (provide separate supporting narrative behind F-2 exhibit)				(131,810)												

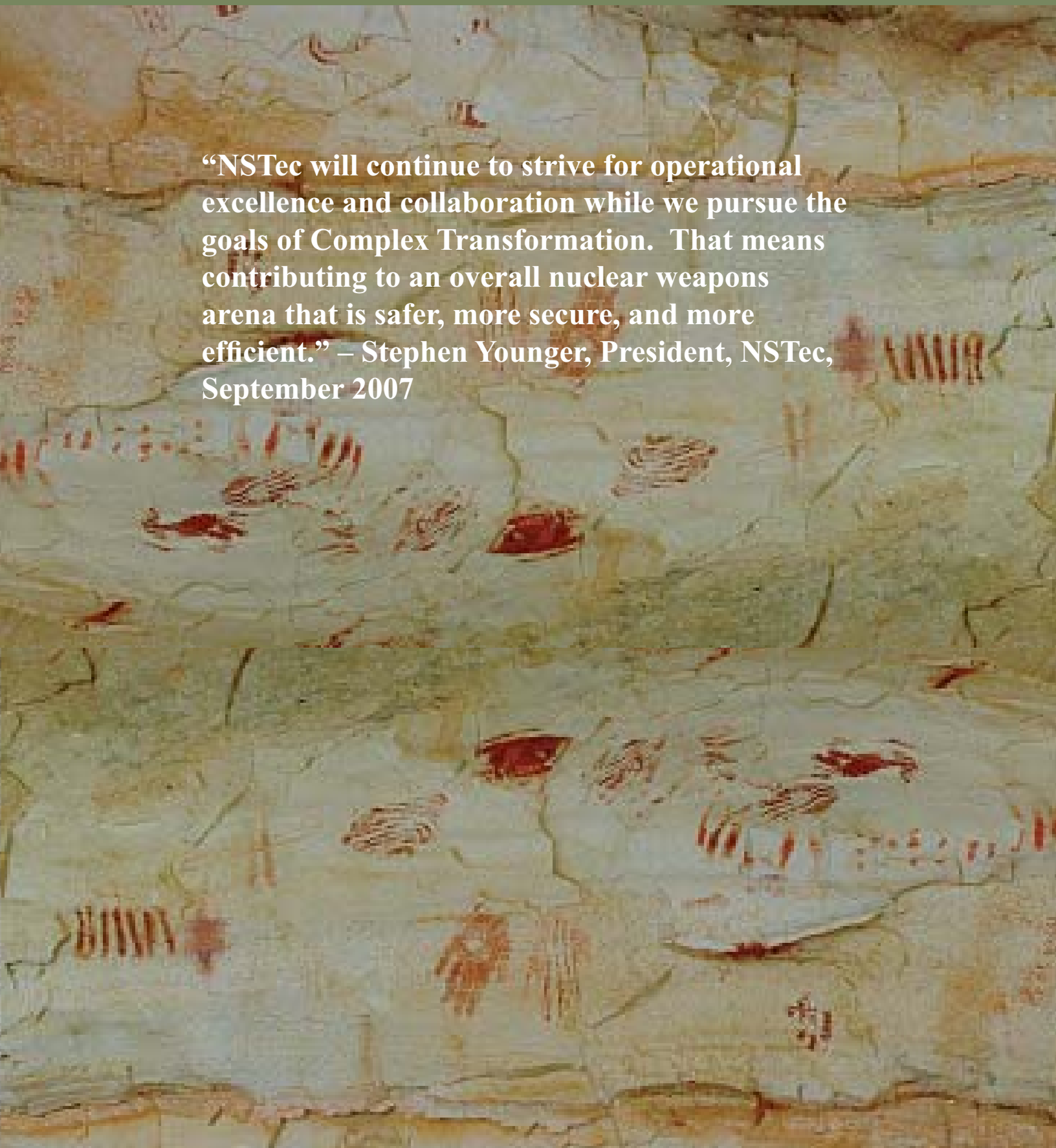
Note:
*NSO requested that the Annual Planned Maintenance Direct and Indirect for FY08 be current as of the quarter of the FY 2008 quarterly report.

Facility Condition Index (FCI)	FY 2003 (Baseline)	FY 2004 (Actual)	FY 2005 (Actual)	FY 2006 (Actual)	FY 2007 (Actual)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
FCI TOTAL	13.5%	12.1%	7.5%	7.2%	6.7%	6.5%	5.9%	5.4%	5.0%	4.5%	4.3%	4.3%	4.4%	4.4%	4.5%	4.6%
FCI Mission Critical				2.4%	2.0%	1.8%	1.7%	1.5%	1.3%	1.1%	0.9%	0.8%	0.6%	0.4%	0.2%	0.0%
FCI Mission Dependent, Not Critical				10.1%	9.5%	9.3%	7.9%	6.8%	6.2%	5.2%	4.7%	4.9%	5.0%	5.1%	5.2%	5.4%
FCI Not Mission Dependent				6.2%	6.0%	5.7%	5.6%	5.7%	5.3%	5.2%	5.1%	5.2%	5.3%	5.4%	5.5%	5.6%
Asset Condition Index (ACI)	**FY 2003 (Baseline)**	**FY 2004 (Actual)**	**FY 2005 (Actual)**	**FY 2006 (Actual)**	**FY 2007 (Actual)**	**FY 2008**	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**
ACI TOTAL	0.86	0.88	0.92	0.93	0.93	0.93	0.94	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96	0.95
ACI Mission Critical				0.98	0.98	0.98	0.98	0.99	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00
ACI Mission Dependent, Not Critical				0.90	0.91	0.91	0.92	0.93	0.94	0.95	0.95	0.95	0.95	0.95	0.95	0.95
ACI Not Mission Dependent				0.94	0.94	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94

Appendix B

Spring on the east slope of Pahute Mesa

FY 2009 NNSA/NSO
Ten-Year Site Plan



"NSTec will continue to strive for operational excellence and collaboration while we pursue the goals of Complex Transformation. That means contributing to an overall nuclear weapons arena that is safer, more secure, and more efficient." – Stephen Younger, President, NSTec, September 2007

Appendix B: Miscellaneous

The Future-Years Nuclear Security Program (FYNSP) Constrained Site Funding Profiles for Future-Years Nuclear Security Program Constrained Site Funding Profiles for Readiness in Technical Base Facilities/Operations of Facilities and Facilities and Infrastructure Recapitalization Program is presented in Table B-1 below.

Table B-1 Future-Years Nuclear Security Program

Future-Years Nuclear Security Program (FYNSP) Prelimnary Site Planning Targets for Readiness in Technical Base Facilities (RTBF) and Facilities and Infrastructure Recapitalization Program (FIRP) ($000s)						
	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total
FIRP	$13,929	$15,978	$16,279	$16,166	$16,139	$78,491
RTBF	$92,203	$73,318	$78,291	$95,912	$93,210	$432,934

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FY 2009 NNSA/NSO
Ten-Year Site Plan

A Bobcat in Mercury

FY 2009 NNSA/NSO
Ten-Year Site Plan

Autumn at Whiterock Spring on the NTS