



**Pantex Plant (Pantex)**



*Three Sites...*

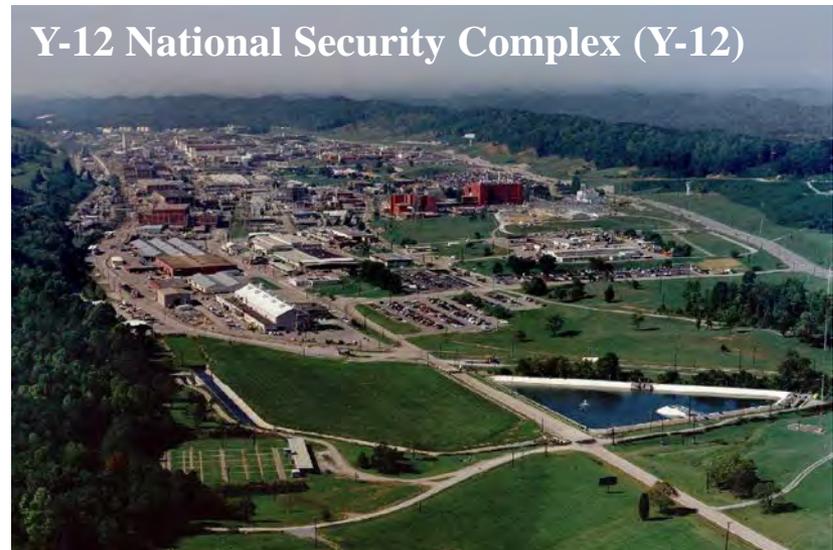
*One Contract...*

*One NNSA*

**Savannah River Tritium Ops (SRTO)**



**Y-12 National Security Complex (Y-12)**





# AGENDA



- Registration 8:00 a.m.
- Opening Remarks, Patty Wagner & Dan Saiz 8:30 a.m.
- NNSA Mission/Programs, Dr. Donald Cook 9:00 a.m.
- Break 9:30 a.m.
- Pantex Site Office Manager, Steve Erhart 9:45 a.m.
- Savannah River Site Office Manager, Doug Dearolph 10:15 a.m.
- Y-12 Site Office Manager, Ted Sherry 10:45 a.m.
- UPF Federal Project Director, Harry Peters 11:15 a.m.
- Lunch 11:45 p.m.



# AGENDA



- Mission Focus – SOW, Robert Edlund 1:15 p.m.
- Human Resources, Karen Hart 1:45 p.m.
- Contract Term/Fee/Incentive, Robert Scott 2:00 p.m.
- Cost Management, Chad Glines 2:15 p.m.
- Break 2:45 p.m.
- Security, Joseph Newell 3:00 p.m.
- Project Management, Johnnie Guelker 3:15 p.m.
- Offeror's Deliverables, Dan Saiz 3:30 p.m.
- SEB reviews written questions 3:45 p.m.
- SEB response to questions 4:30 p.m.
- End Conference 5:00 p.m.



# OPENING REMARKS

Ms. Patty Wagner

Mr. Dan Saiz



# PURPOSE OF CONFERENCE



- Meet the NNSA Source Evaluation Board (SEB) members
- Provide an overview of DOE/NNSA Strategic Goals and Site Specific Overviews:
  - Dr. Donald Cook, NNSA Deputy Administrator for Defense Programs
  - Mr. Theodore Sherry, Manager Y-12 Site Office
  - Mr. Steven Erhart, Manager, Pantex Site Office
  - Mr. Douglas Dearolph, NNSA Site Office Manager at Savannah River Site
  - Mr. Harry Peters, Uranium Processing Facility (UPF) Federal Project Director
- Provide on overview of Key Contract Features
- Ground Rules for Presolicitation Conference



# GENERAL INFORMATION



- Fire exits and restroom locations
- Questions need to be in writing. SEB members and other speakers may answer questions at the end of the day. Questions and any responses provided will be posted to the NNSA website.
- The SEB will use the NNSA website as the method to release information regarding the solicitation. The address is <http://www.doeal.gov/MOContracts>.
- Nothing said during the presolicitation conference changes the content of the RFP.
- Sensitive reference documents for this SEB will be found within a physical reading room in Washington, DC. Reading room instructions, which details accessibility information, can be found on the NNSA website along with additional references.
- One-on-one meetings with the SEB will be available to industry in Albuquerque, New Mexico during the week of August 29, 2011. Registration details for the one-on-ones will be available on the NNSA website. The SEB will contact those who register to schedule the date and time of the meeting. Industry participation is encouraged.



# SEB MEMBERS



## Voting Members

- Patty Wagner, Chairperson, NNSA Sandia Site Office
- Robert Scott, Co-Chairperson, NNSA Sandia Site Office
- Robert Edlund, NNSA Y-12 Site Office
- Johnnie Guelker, NNSA Pantex Site Office
- Joseph Newell, NNSA Savannah River Site Office
- Dan Saiz, NNSA Contracting Officer



# SEB MEMBERS



## Non Voting Members

- Karen Hart, NNSA, Human Resources Advisor
- Chad Glines, NNSA Financial Management
- Xavier Ascanio, NNSA, Director Office of Nuclear Materials Integration
- Will Maez, NNSA Legal Advisor
- Justin Crosby, NNSA Executive Secretary & Small Business Advisor

## Support Service Contractor\*

- Navigant Consulting Inc.

\*May be used as member of Technical Evaluation advisory committee



# PATH FORWARD



<b>Milestone</b>	<b>Date / Duration</b>
Issue Draft RFP (open 60 days)	July 21, 2011
Presolicitation Conference	August 9, 2011
One-on-One Meetings with Industry	Week of August 29, 2011
Draft RFP Closes	September 19, 2011
Issue Final RFP	30 to 60 Days After Draft Closes
RFP Closes / Proposals Due	60 to 90 Days After Final RFP Issued



# CLINs



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CLIN 0001	MANAGEMENT AND OPERATION (M&O) OF Y12/PX
CLIN 0001A	CONTRACT TRANSITION: COST REIMBURSEMENT, NO FEE
CLIN 0001B	BASE TERM (YEARS 1-5)
CLIN 0001C	OPTION I TERM (YEARS 6-7)
CLIN 0001D	OPTION II TERM (YEARS 8-9)
CLIN 0001E	OPTION III TERM (YEAR 10)
CLIN 0001F	TRANSITION OF SAVANNAH RIVER TRITIUM OPERATIONS (SRTO) OPTION INTO THE CONTRACT
CLIN 0001G	OPTION IV: SAVANNAH RIVER TRITIUM OPERATIONS (SRTO)
CLIN 0001H	WORK FOR OTHERS/OTHER REIMBURSABLE WORK
CLIN 0002	URANIUM PROCESSING FACILITY (UPF) PROJECT MANAGEMENT

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# EVALUATION CRITERIA



## For CLIN 0001 (M&O)

Criterion A	KEY PERSONNEL and ORALS
Criterion B	MANAGEMENT APPROACH and COST SAVINGS
Criterion C	CORPORATE EXPERIENCE
Criterion D	PAST PERFORMANCE

## For CLIN 0002 (UPF)

Criterion A	PROJECT MANAGEMENT APPROACH
Criterion B	CORPORATE EXPERIENCE
Criterion C	PAST PERFORMANCE
Criterion D	KEY PERSONNEL

- Relative importance of Evaluation Criteria
- Basis for contract award, see M-3 in the Draft RFP



# MISSION OVERVIEW

Dr. Donald Cook



# NNSA MISSION

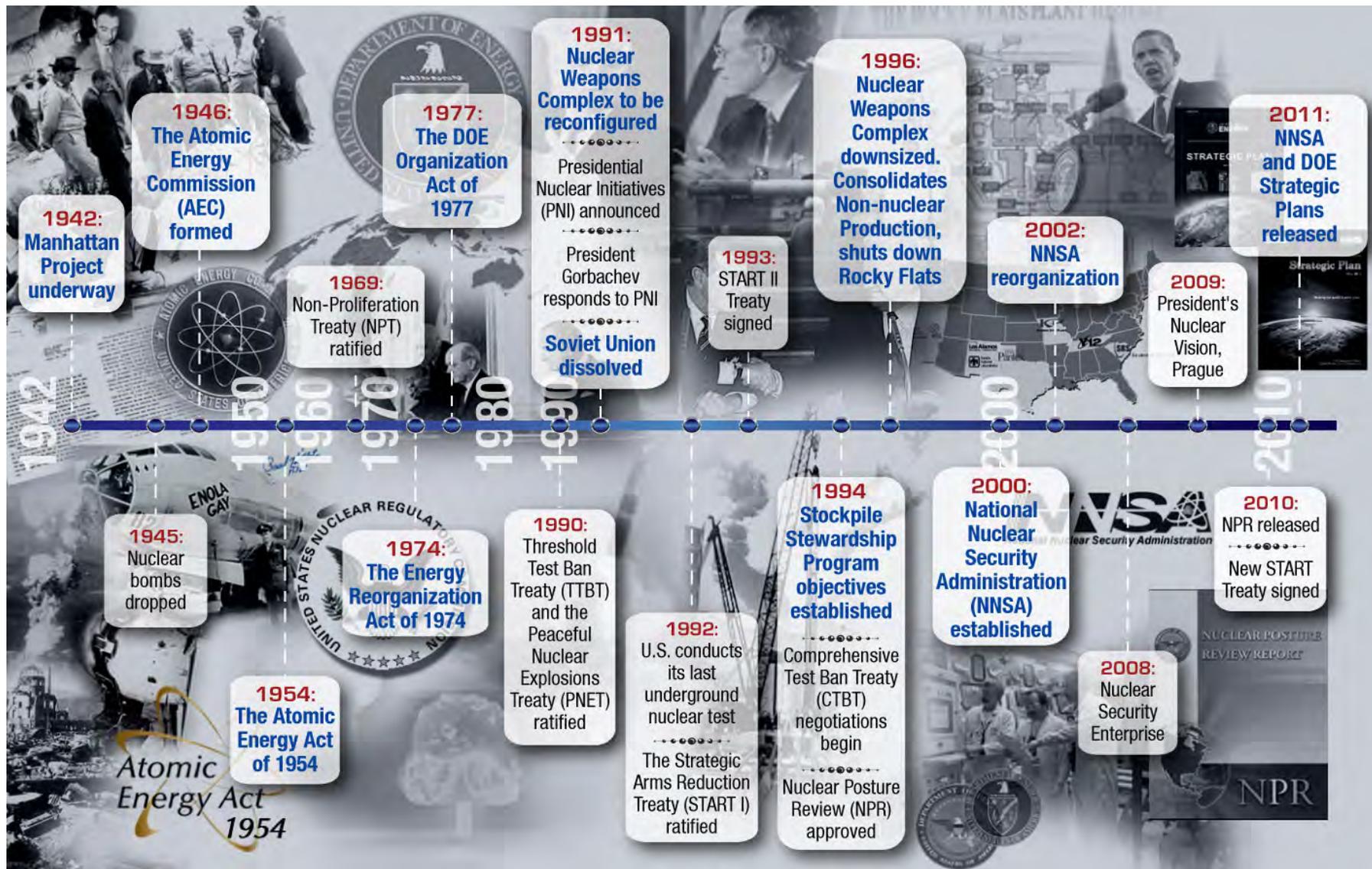


**Thomas P. D'Agostino**  
*Under Secretary for Nuclear  
Security & Administrator, National  
Nuclear Security Administration*

Enhance global security through nuclear deterrence, nonproliferation, counterterrorism, naval nuclear propulsion, and national leadership in science, technology and engineering.

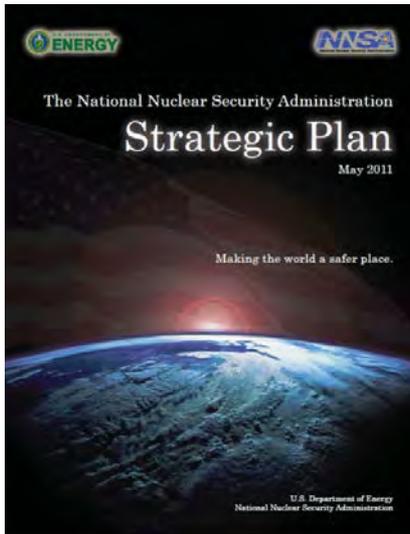


# EVOLUTION OF THE NNSA





# THE NATION'S NUCLEAR SECURITY AGENDA AND NNSA



Nuclear Posture Review, April 2010 *“In order to sustain a safe, secure, and effective U.S. nuclear stockpile as long as nuclear weapons exist, the United States must possess a modern physical infrastructure – comprised of the national security laboratories and a complex of supporting facilities – and a highly capable workforce...”*

National Security Strategy, May 2010 *“As long as any nuclear weapons exist, the United States will sustain a safe, secure, and effective nuclear arsenal, both to deter potential adversaries and to assure U.S. allies and other security partners that they can count on America’s security commitments.”*

## NNSA Strategic Plan, May 2011

NNSA’s responsibilities under the nuclear security agenda:

- Reduce nuclear dangers
- Manage the nuclear weapons stockpile
- Advance naval nuclear propulsion
- Modernize the NNSA infrastructure
- Strengthen the science, technology, and engineering base
- Drive an integrated and effective Enterprise

**Safe | Secure | Effective**



# “ONE NNSA”



Maintain a safe, secure, and effective nuclear arsenal while managing the nuclear deterrent by understanding the stockpile, extending the life of warheads, and dismantling retired weapons.

Provides the U.S. Navy research, development, design and operational support for effective nuclear propulsion plants; and enriched uranium for fabrication into fuel for propulsion reactors.



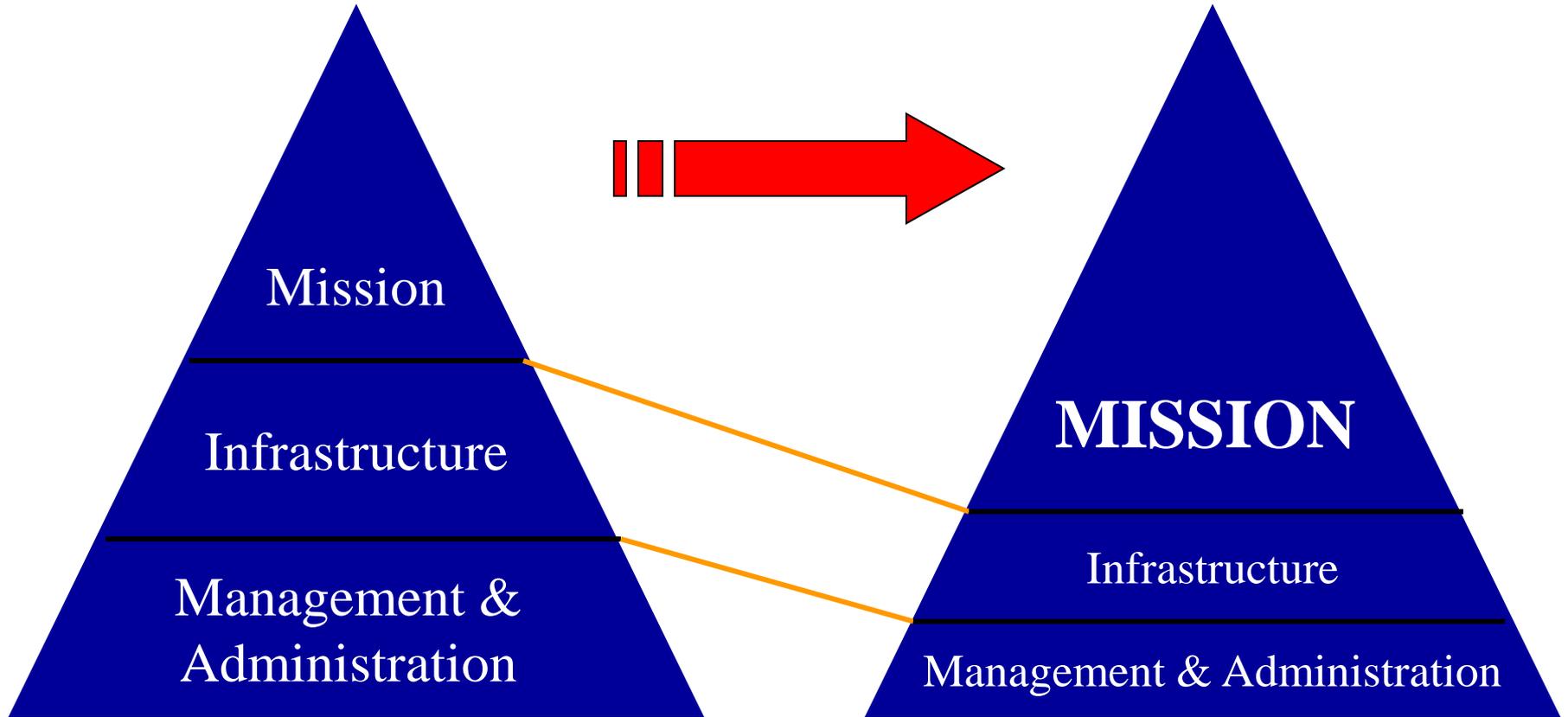
Detect and prevent illicit trafficking of weapons of mass destruction- related material, equipment and technology, support the development of framework for export controls, and install nuclear detectors at borders and ports.

Protect NNSA personnel, capabilities, facilities, nuclear weapons/materials and information from the full spectrum of security threats.

Respond to nuclear and radiological emergencies through enhanced technologies and deployment of trained technical teams. Pursue new technologies and forensic capabilities to identify the source of nuclear material used in explosive devices.



# OUR EVOLUTION





# DEFENSE PROGRAMS MISSION



**Dr. Donald L. Cook**  
*Deputy Administrator for Defense  
Programs*

To provide a safe, secure and reliable nuclear weapons stockpile without resort to underground nuclear explosive testing.



# SHARED NUCLEAR DETERRENCE RESPONSIBILITIES WITH DoD



## DoD

- Establish military requirements
- Design, develop, test, and produce delivery system
- Operate complete nuclear weapons system
- Secure and maintain nuclear weapons
- Train personnel and plan for employment



## DOE

- Maintain safety, security and reliability of the stockpile
- Research and develop nuclear weapon science, technology and engineering
- Support stockpile levels
- Validate warhead safety and assess reliability
- Produce and manage nuclear materials

**NUCLEAR WEAPONS COUNCIL**



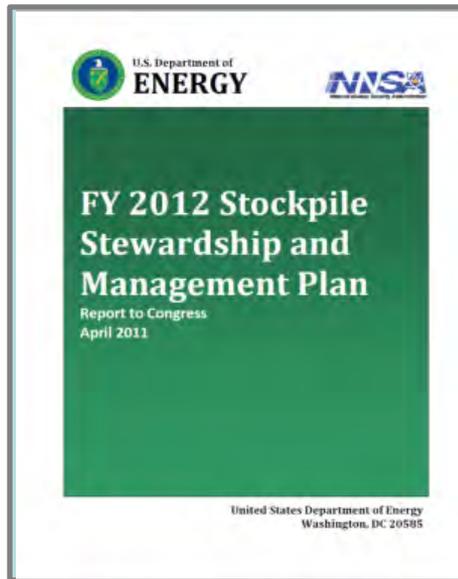
# DEFENSE PROGRAMS



- Provide a safe, secure, and reliable nuclear arsenal for the United States
  - Deliver second-to-none nuclear stockpile
  - Continue certification and production activities
    - without underground nuclear explosive testing,
    - without need for newer military capabilities,
    - without producing new fissile material
- Lead the research and development of future nuclear weapons safety, security and reliability features
  - Develop scientific, engineering, and technical capabilities needed to support a broad range of national and nuclear security challenges
- Safely transport nuclear weapons, weapons components, and special nuclear material
- Furnish the nation with a modern, sustainable physical infrastructure for the nuclear security enterprise



# DEFENSE PROGRAMS



- Stockpile Stewardship and Management Plan (SSMP) documents the plan for Implementing NNSA Weapons Activities:
  - Constructed as a “single plan”
  - The Plan encompasses:
    - Stockpile Stewardship
    - Stockpile Management
    - The science, technology, and engineering base (ST&E)
    - The laboratory and production infrastructure
    - The federal and contractor workforce
    - Budget resources
- FY 2012 SSMP remains aligned with:
  - 2010 Nuclear Posture Review
  - FY 2010 National Defense Authorization Act Section 1251 Report
- Implementation will ensure:
  - Maintenance of a safe, secure and reliable stockpile
  - Progress toward a modern, efficient physical infrastructure



# GETTING THE JOB DONE IN FY 2011!



- Complete all limited life component exchanges to keep operationally deployed stockpile weapons active.
- Meet W76-1 deliveries to the Navy.
- Implement integrated phase gates to complete the B61 phase 6.2/2a activities that enable a FY17 FPU and complete W78 phase 6.1 activities.
- Execute all surveillance activities and exceed dismantlement quantities of retired weapons and secondaries.
- Develop and populate the component maturation framework to ensure technology insertions for the stockpile.
- Demonstrate key physics necessary for certification of an advanced surety method.
- Complete the first integrated ignition experiments and key weapons physics experiments on NIF.
- Meet all critical milestones for: High Explosive Pressing Facility; the Critical Experiments Facility at the DAF; and the TRU Waste Project.
- Submit CD-2 cost and schedule baselines for site preparation and long lead procurements for the CMRR Nuclear Facility project.
- Implement the DP Governance Plan to streamline operations and oversight in the nuclear security enterprise.



# LIFE EXTENSION PROGRAMS ONGOING OR PENDING FOR THREE CRITICAL WEAPONS



*W76: First Production Unit in September 2008*



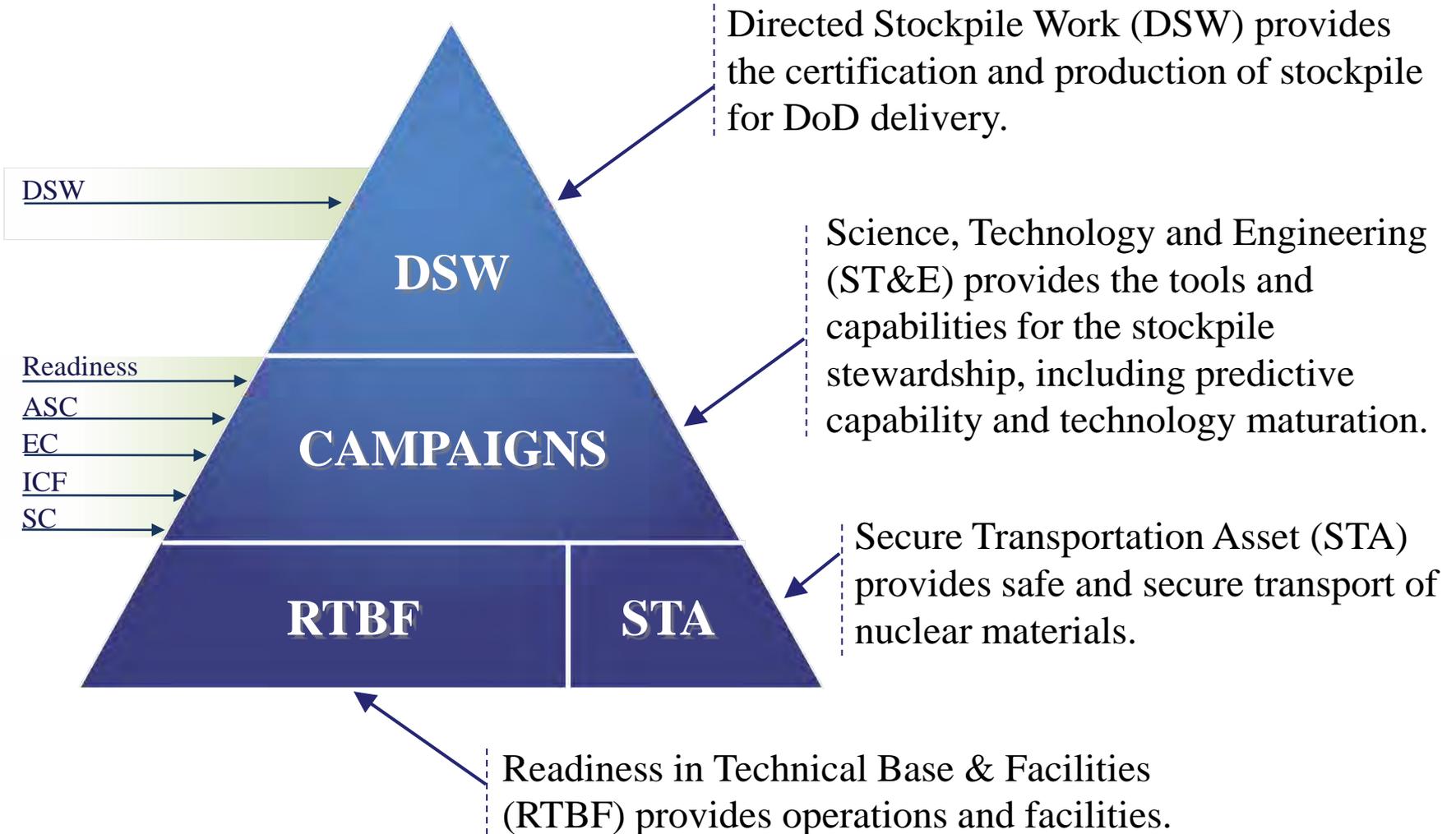
*B61: Life Extension Program Phase 6.2/6.2A Study Initiated in 2008*



*W78: Requirements Study Initiated as Prerequisite to Phase 6.1 Study*

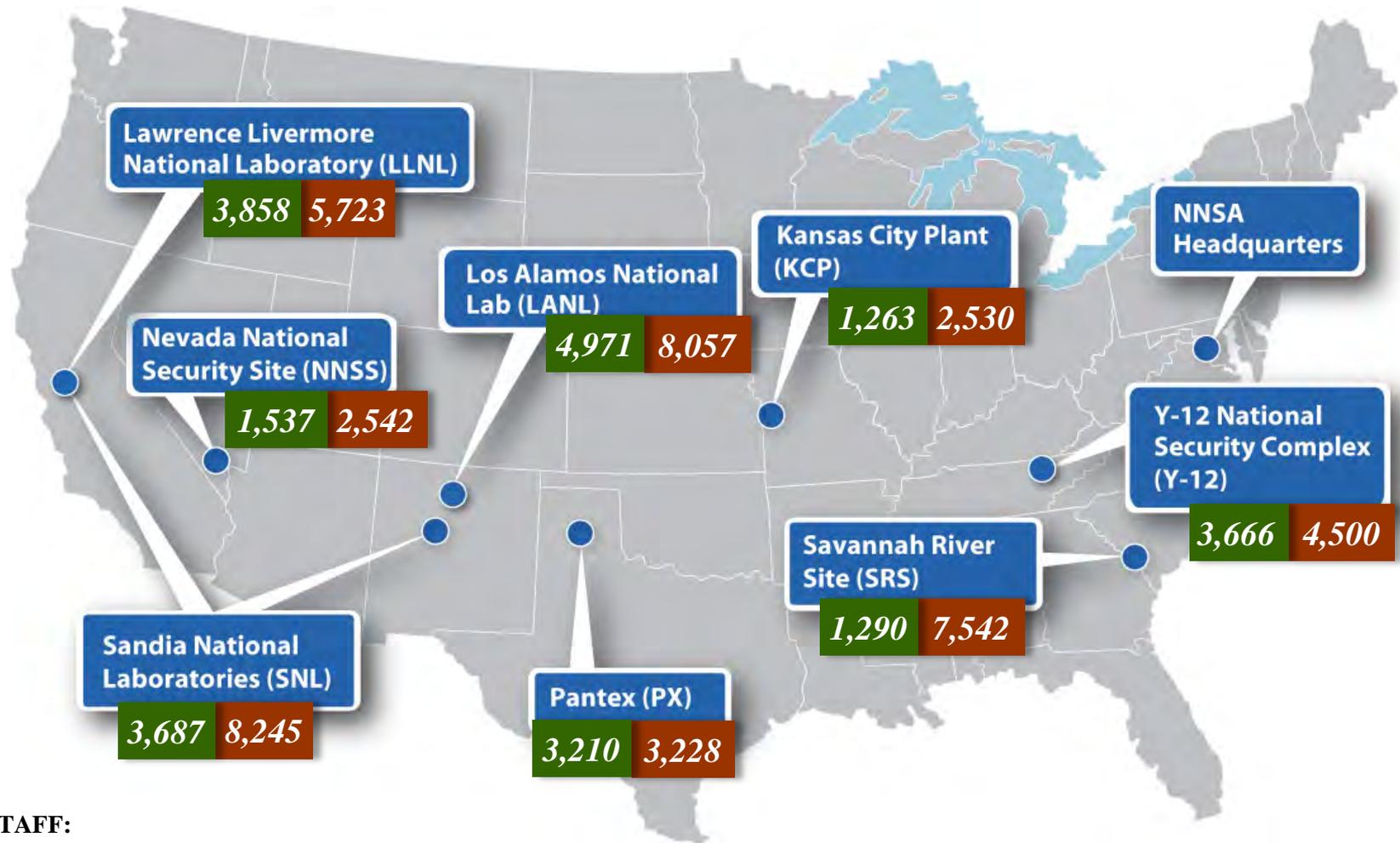


# DEFENSE PROGRAMS WORK ELEMENTS





# NUCLEAR SECURITY ENTERPRISE PRIMARY LOCATIONS



**STAFF:**

- M&O Employees – Weapons Activities
- M&O Employees – Total Facility

*Note: M&O employee numbers are based on FY 2010 actual full-time equivalents. These numbers are accurate as of June 8, 2011.*



# NUCLEAR SECURITY ENTERPRISE SITES



## National Laboratories and Test Site



**Sandia Nat'l Laboratories**  
*NM and CA Sites*  
Systems engineering, neutron generators, and non-nuclear component design



**Nevada National Security Site**  
*Nevada*  
Experimental site and "subcritical" nuclear material tests



**Los Alamos Nat'l Laboratory**  
*Los Alamos, New Mexico*  
Nuclear design lab and Pu Sustainment  
(B61, W76, W78, W88)



**Lawrence Livermore Nat'l Laboratory**  
*Livermore, California*  
Nuclear design lab  
(W80, W87, B83)

## Production Complex



**Pantex Plant**  
*Amarillo, Texas*  
Weapons assembly/disassembly



**Kansas City Plant**  
*Kansas City, Missouri*  
Nonnuclear manufacturing/  
Procurement



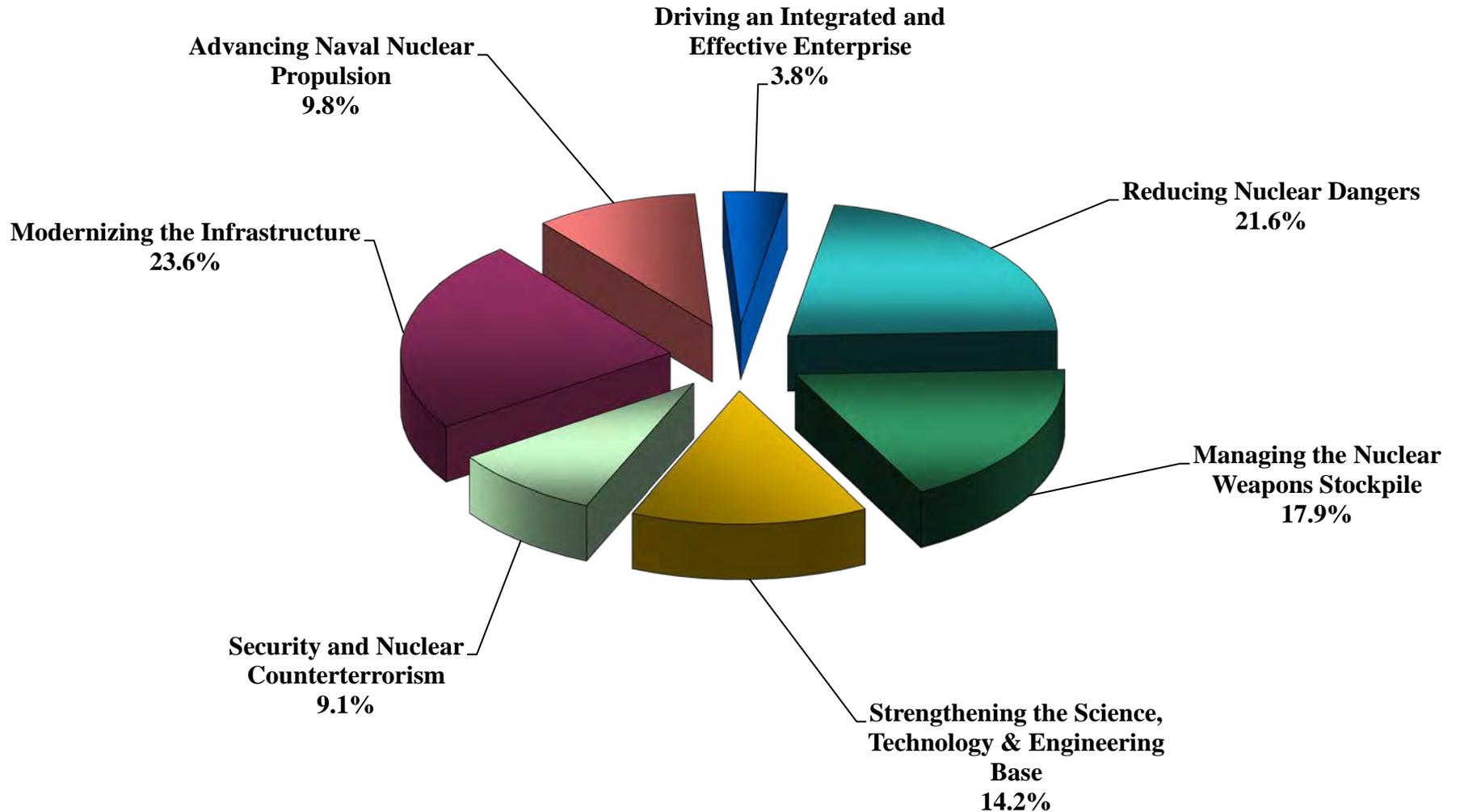
**Y-12 National Security Complex**  
*Oak Ridge, Tennessee*  
Uranium operations



**Savannah River Site**  
*Aiken, South Carolina*  
Tritium operations



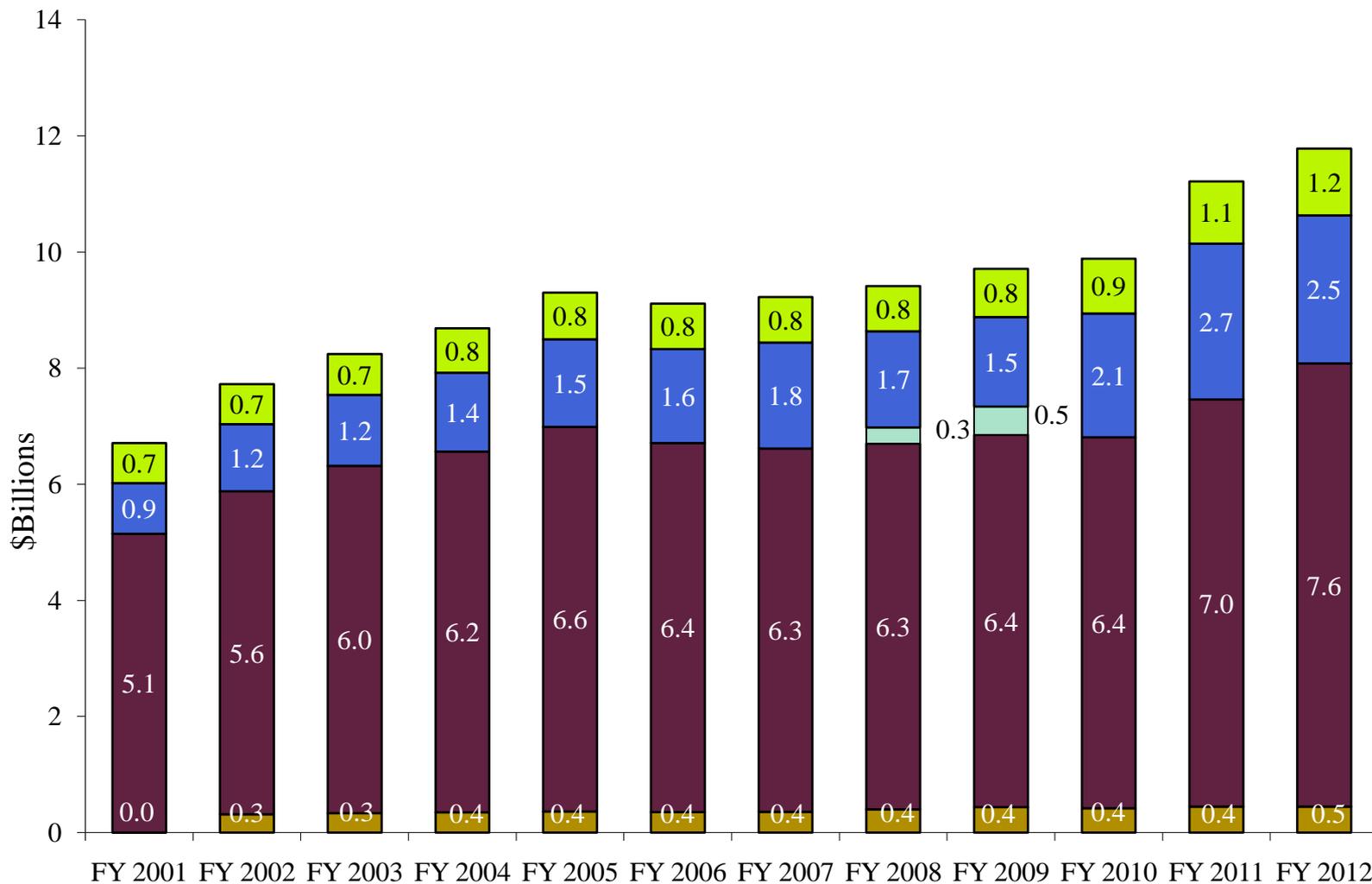
# FY 2012 BUDGET REQUEST = \$11.8 BILLION





# NNSA APPROPRIATIONS HISTORY

## FY 2001 – FY 2012

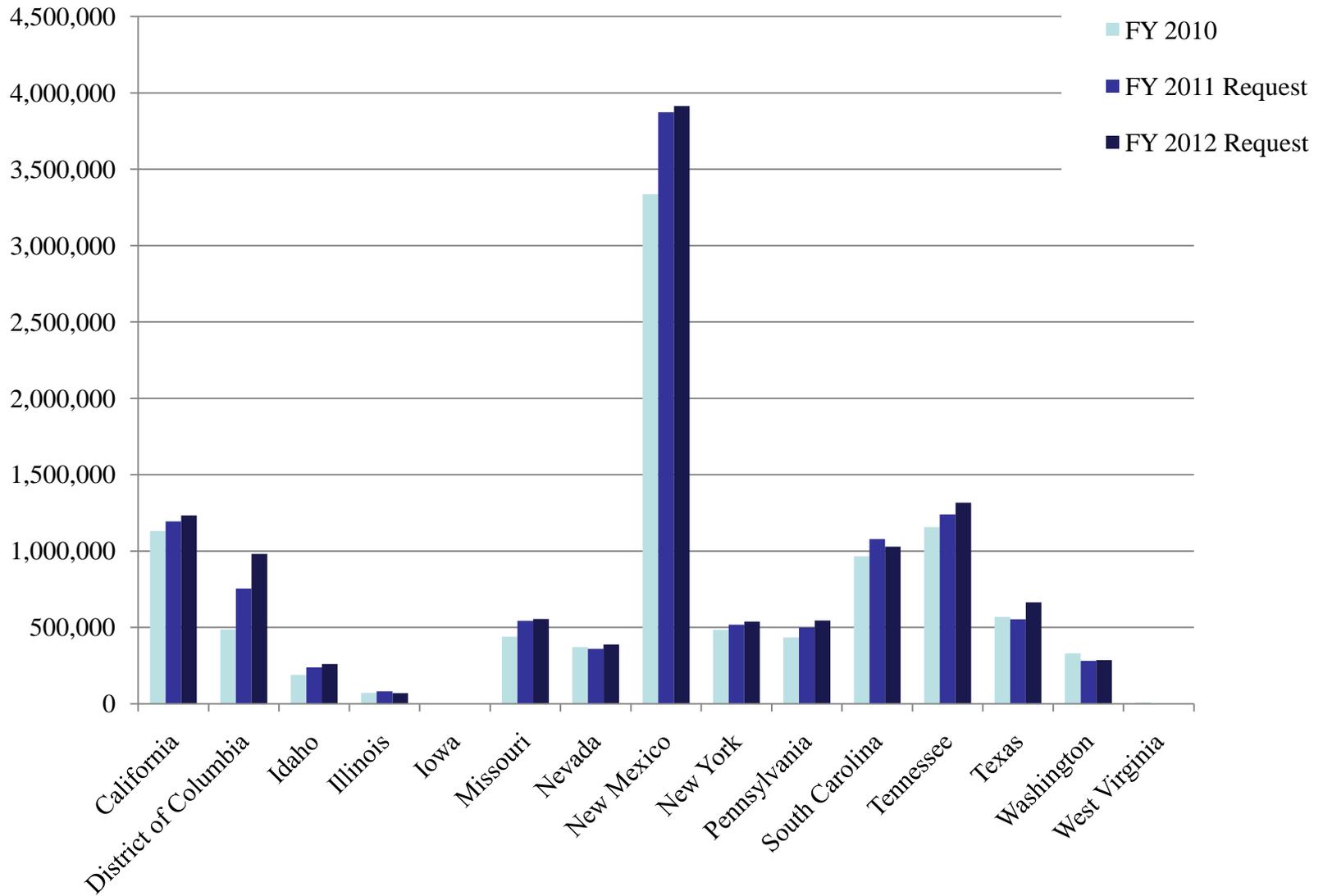


■ Office of the Administrator  
■ MOX Other Appropriations  
■ Naval Reactors

■ Weapons Activities  
■ Defense Nuclear Nonproliferation



# MAJOR NNSA APPROPRIATIONS BY STATE





# CONSOLIDATED BUDGET



Site	FY11 Budget
Pantex Plant	\$561M
Y-12 National Security Complex	\$928M
<b>Subtotal</b>	<b>\$1,489M</b>
Savannah River Tritium Operations	\$167M
<b>Grand Total</b>	<b>\$1,656M</b>



# PanTEX

Mr. Steve Erhart



# PANTEX SITE



- Pantex Overview
- Pantex Performance
- Production Outlook
- Infrastructure Outlook



# PANTEX VISION



As the NNSA's production Integrator and provider of the nuclear deterrent to the DoD; serving the Nuclear Security Enterprise through our Highly Reliable people, processes, infrastructure, and business systems.



# PANTEX MISSIONS



## PANTEX MISSIONS



### NATIONAL SECURITY

- Safeguards & Security
- Non-Proliferation
- Stewardship
  - Environmental
  - Infrastructure
  - Human Capital
  - Energy

### NUCLEAR EXPLOSIVE OPERATIONS

- Life Extension
- Surveillance
- Dismantlement

### NUCLEAR MATERIAL OPERATIONS

- Storage
- Surveillance
- Reuse/Requalification

### HIGH EXPLOSIVE OPERATIONS

- Manufacturing
- Surveillance
- Testing



# PANTEX HIGHLIGHTS-FY2010



## DP “Getting the Job Done”

- Completed 116% of scheduled deliverables (766 total)
- Completed 126% of dismantlement plan (W62 – seven months early completion)
- Exceeded W76-1 DoD delivery commitments
- Authorized B53/W84

## Safety Achievements

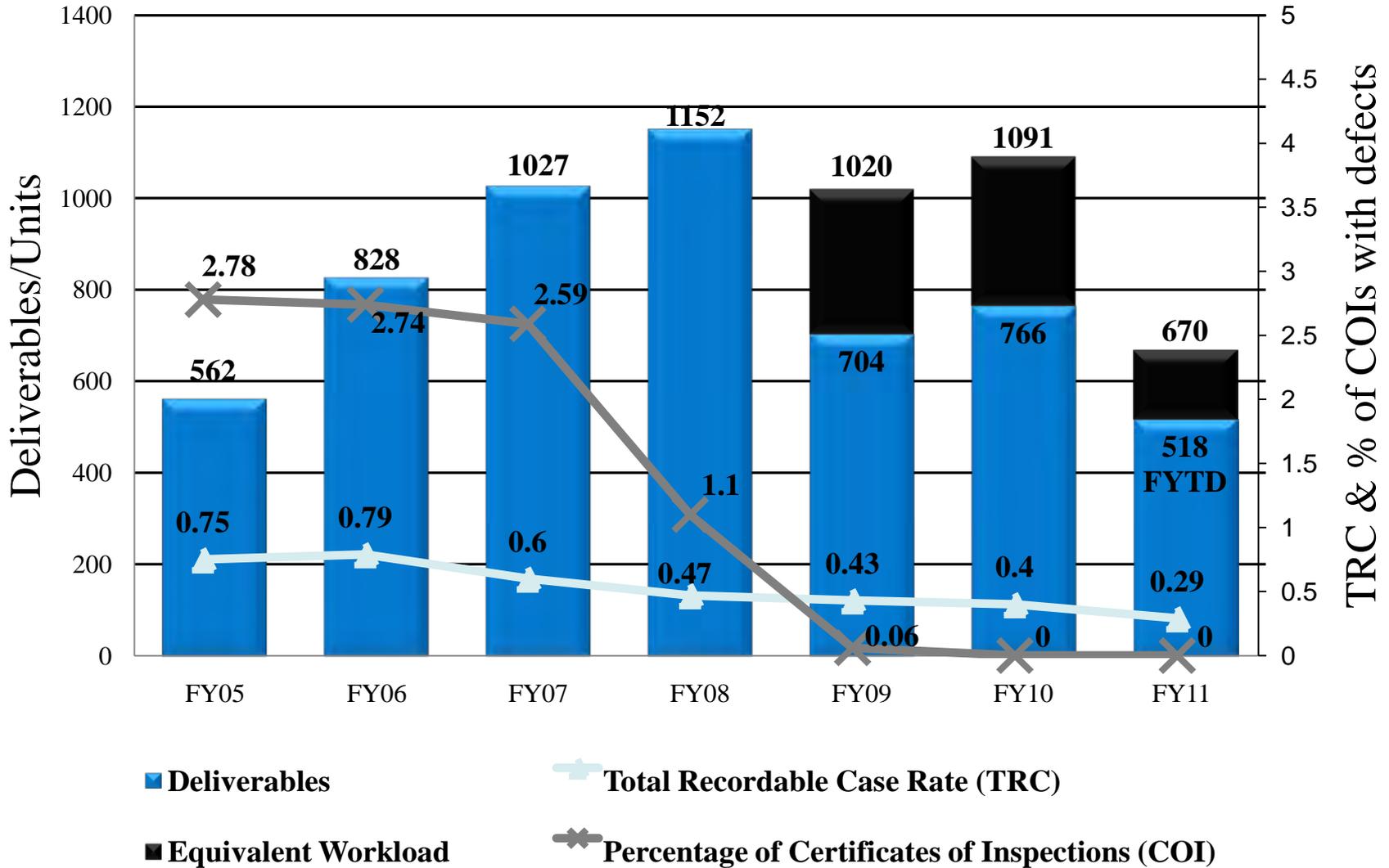
- Set new Plant safety records for TRC and LTC
- Awarded DOE VPP Star Status



**Accomplished in spite of 2000-year flood (one month impact)**

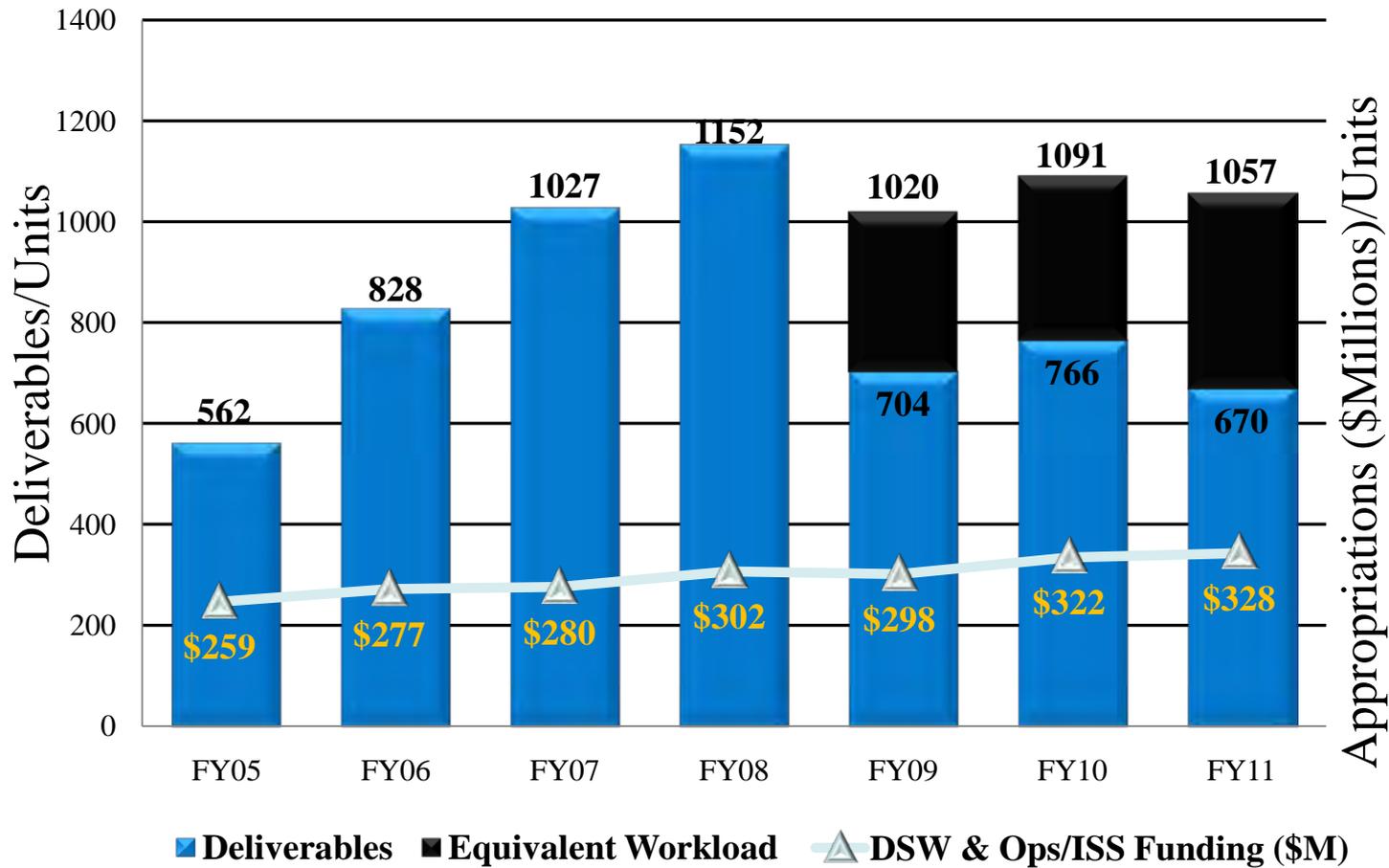


# SAFETY/QUALITY/PRODUCTION PERFORMANCE





# PRODUCTION PERFORMANCE



Note: FY11 are planned numbers

## Getting the Job Done with Flat Budgets



# PAST AND PRESENT WEAPON STATUS

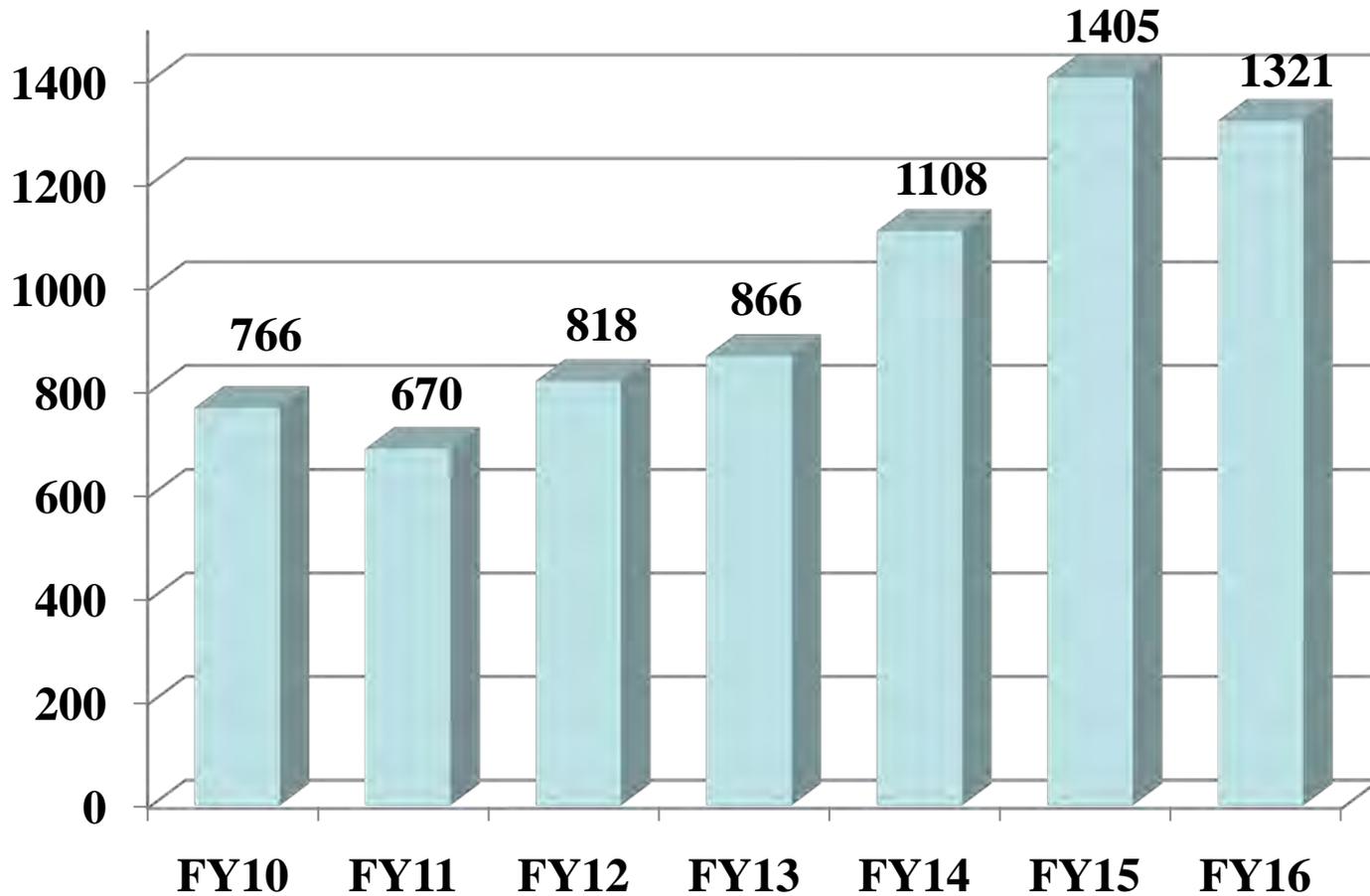


	<b>FY05 Status</b>	<b>FY10 Status</b>		<b>FY05 Status</b>	<b>FY10 Status</b>
<b>B53</b>			<b>W80</b>		
<b>B61</b>			<b>B83</b>		
<b>W62</b>			<b>W84</b>		
<b>W76-0</b>			<b>W87</b>		
<b>W76-1</b>			<b>W88</b>		
<b>W78</b>					

	<b>Red</b>	<b>Not Authorized</b>
	<b>Green</b>	<b>Authorized</b>
	<b>Blue</b>	<b>Completed</b>

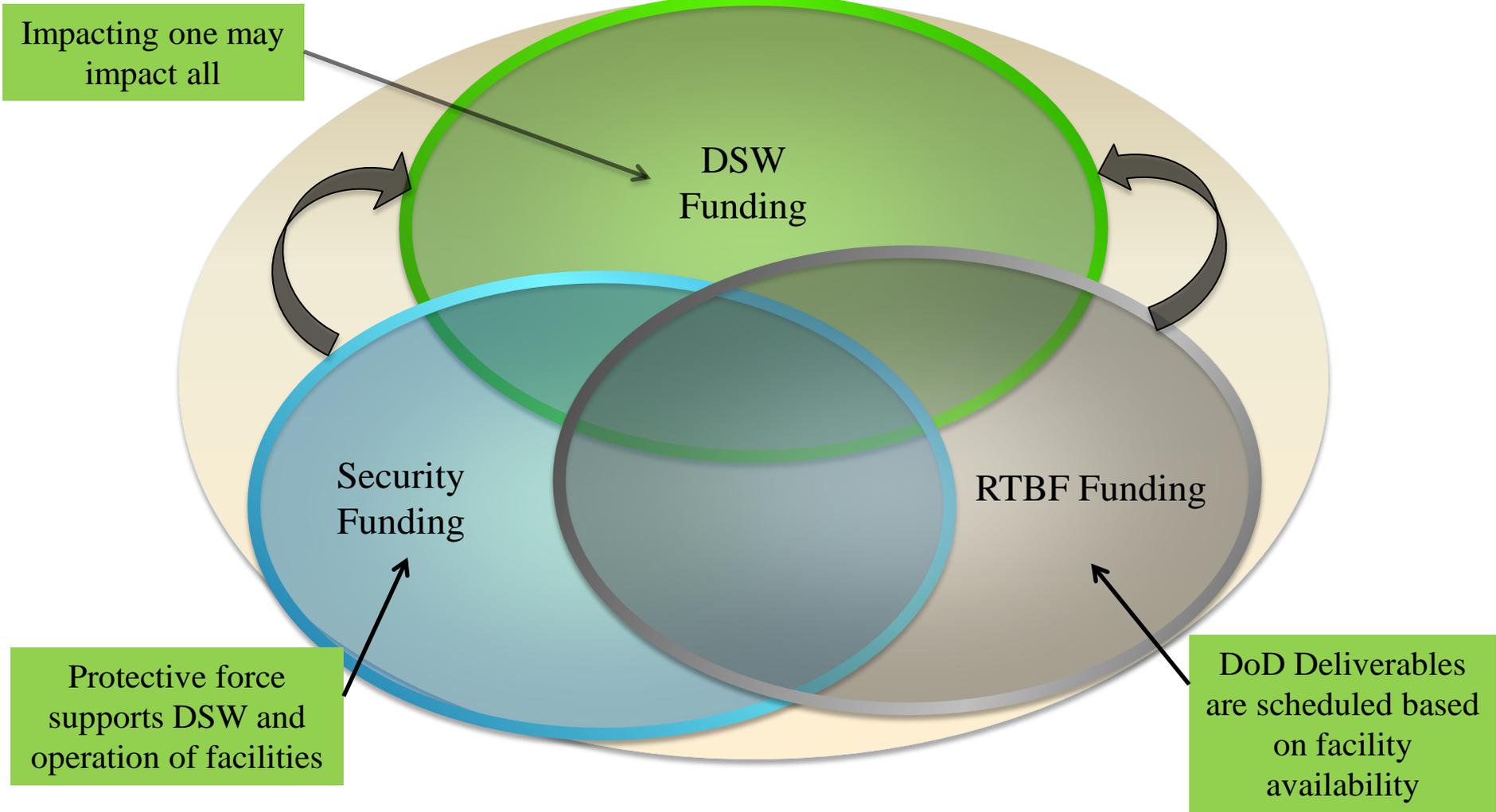


# PANTEX PRODUCTION PLANNING HORIZON





# ALL MAJOR FUNDING SOURCES AT PANTEX ARE CLOSELY INTEGRATED





# PRODUCTION OUTLOOK



- Increased Production Demands
  - Multi-shift operations
  - Multi-unit operations
  - Sufficient funding for Directed Stockpile Work, Readiness in Technical Base and Facilities, and Safeguards & Security
  - High Explosives Manufacturing



**Pantex will support NPR and New START commitments**



# PRODUCTION OUTLOOK



- Support of Special Nuclear Material (SNM) surveillance and reacceptance for
  - W76-1 Life Extension
  - B61-12 Life Extension
  - Future missions





# PRODUCTIVITY ENHANCEMENTS



- Tooling and process improvements
  - New B83 process tooling reduces total cycle time by 50%
  - Employ “lean” manufacturing techniques
    - W76 cycle time reduced by 48% average





- New High Explosives Pressing Facility
  - Invest in current HE Manufacturing to sustain production
- Facility modifications to increase pit staging
- Material Staging Facility
- Flood and Freeze damage repairs
- Safety systems upgrades
- Site improvements to prevent flooding

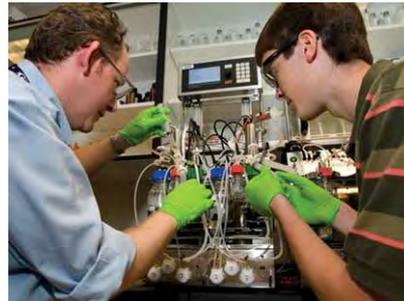


*Proposed New High Explosives Pressing Facility*



# SAVANNAH RIVER TRITIUM OPERATIONS

Mr. Doug Dearolph

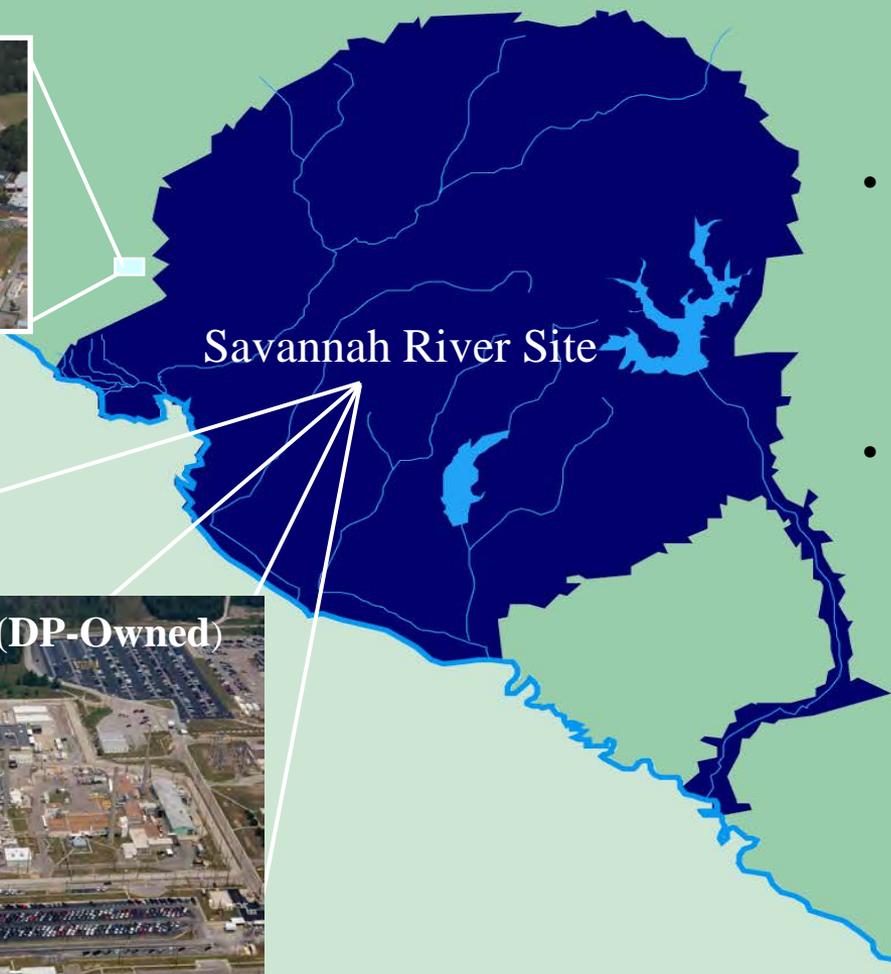




# DEFENSE PROGRAMS (DP) AT THE SAVANNAH RIVER SITE

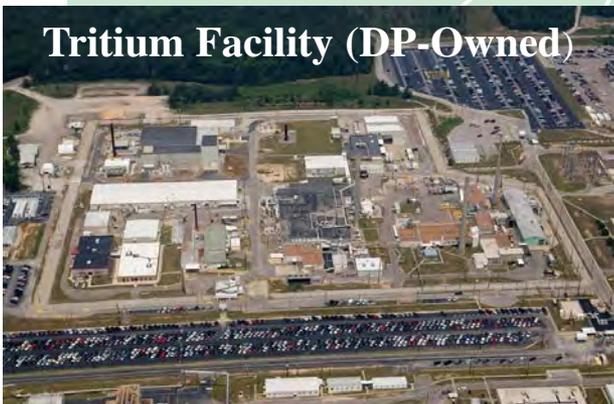


Georgia



South Carolina

- DP missions primarily involve the Tritium Facility and SRNL
- FY11 Budget = \$167M; ~6% of Site





# SAVANNAH RIVER TRITIUM OPERATIONS



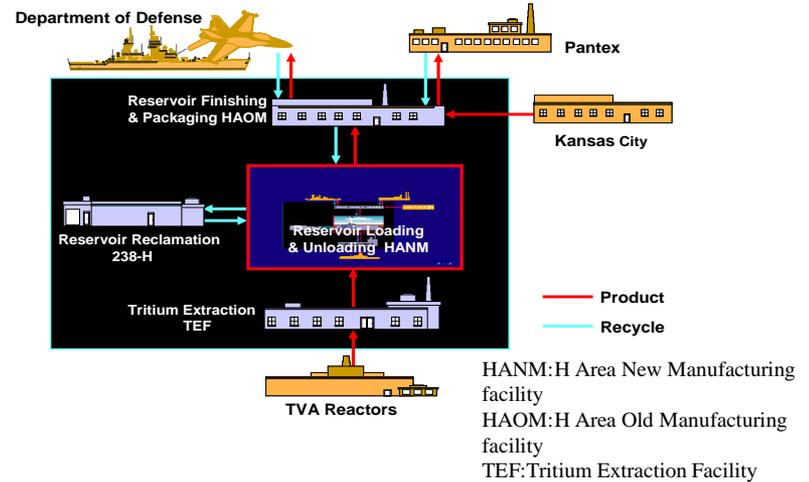


# OVERVIEW OF TRITIUM PROGRAMS' STOCKPILE MISSIONS

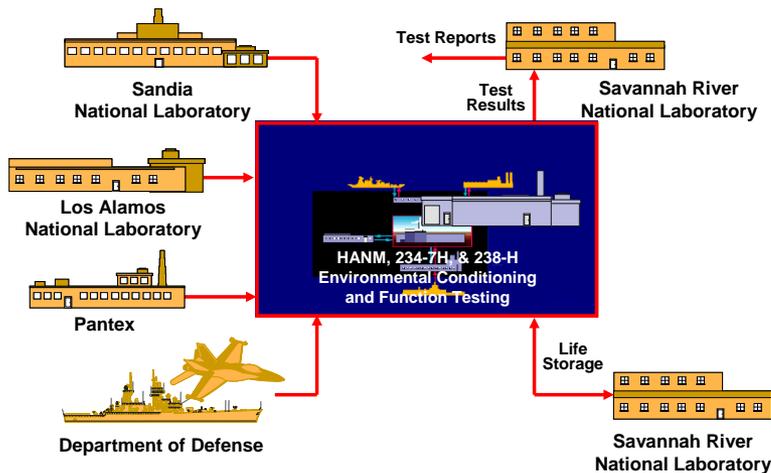


- **Nuclear Stockpile Maintenance Mission**
  - Reservoir reclamation
  - Reservoir loading / finishing
  - Packaging / shipping
- **Nuclear Stockpile Evaluation Mission**
  - Environmental conditioning
  - Function testing
  - Post-function test evaluation
- **Tritium Supply Mission**
  - Tritium extraction
  - Reservoir unloading / recycle

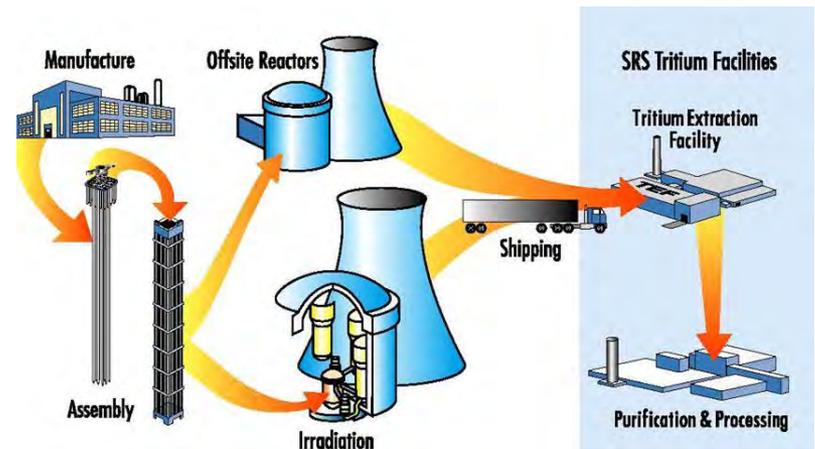
## Nuclear Stockpile Maintenance Mission



## Nuclear Stockpile Evaluation Mission



## Tritium Supply Mission





# TRIM (TRITIUM RESPONSIVE INFRASTRUCTURE MODIFICATIONS)



## Tritium's plan to drive efficiency and revitalize facilities for ongoing and new missions

### Plan

### Benefits

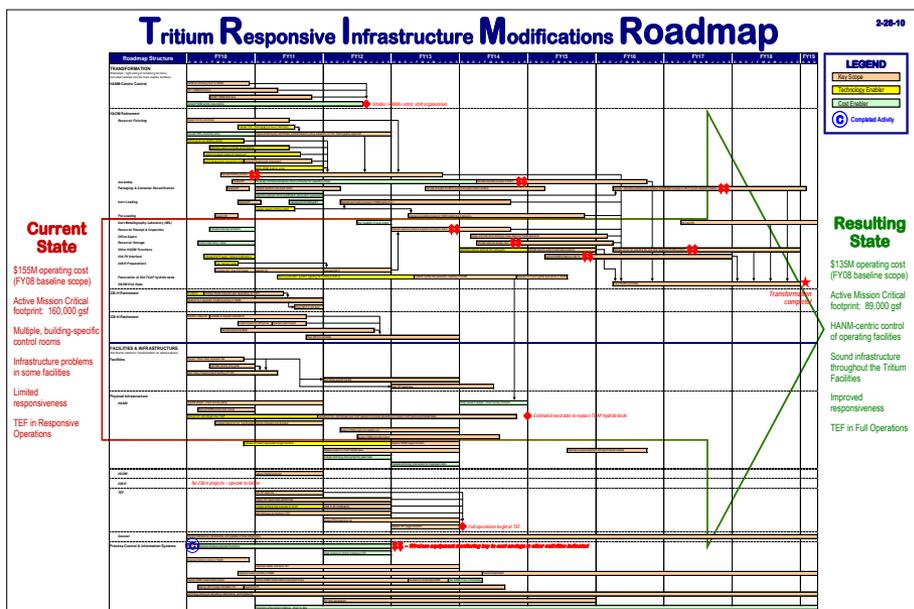
- Relocate and right-size functions from HAOM and 236-H into the more modern facilities
- Eliminate reservoir reclamation (238-H)
- Transfer deactivated 232-H facility to EM
- Centralize control of operations in HANM

- Reduces infrastructure vulnerabilities
  - Reduces Mission Critical footprint by 44%
  - Reduces number of Hazard Category 2/3 facilities from 8 to 5
- Reduces annual operating costs 10%



- Improve Business Processes \$6M
  - Deactivate 238-H \$3M
  - Deactivate HAOM / 236-H \$11M
- Annual Savings \$20M**

- Reduces annual energy usage by 86 billion BTUs (43%)
- Achieves modernization
  - Reduces average age of Mission Critical facilities from 26 to 18 years
  - Eliminates >50% of deferred maintenance
- Aligns with SSMP and CPIBP





# THE SRS MISSIONS TODAY



## CLOSURE

- Environmental Restoration (D&D, Soil & Groundwater)
- Waste Management (includes TRU, LLW, and DWPF ops)
- Natural Resources/Ecosystem Management

## OPERATIONS

- Tritium Recycle & Extraction
    - Reservoir Load & Unload
    - Reservoir Surveillance
    - Extraction from TVA Reactor targets
  - Plutonium
    - Stabilization and storage
    - Pit disassembly and conversion (Project)
    - Mixed oxide (MOX) fuel fabrication (Project)
  - Highly Enriched Uranium
    - Blend down for commercial use
    - U.S. origin foreign reactor fuels receipt & disposition
  - Savannah River National Lab
- Defense Programs Missions



# SRS TODAY



## Corridor Area/Buffer Zone

### A Area

- SRNL
- SREL
- Some D&D Underway
- A Area Powerhouse Operational

### M Area

D&D Completed

### TNX

D&D and Area Closure Completed

### D Area

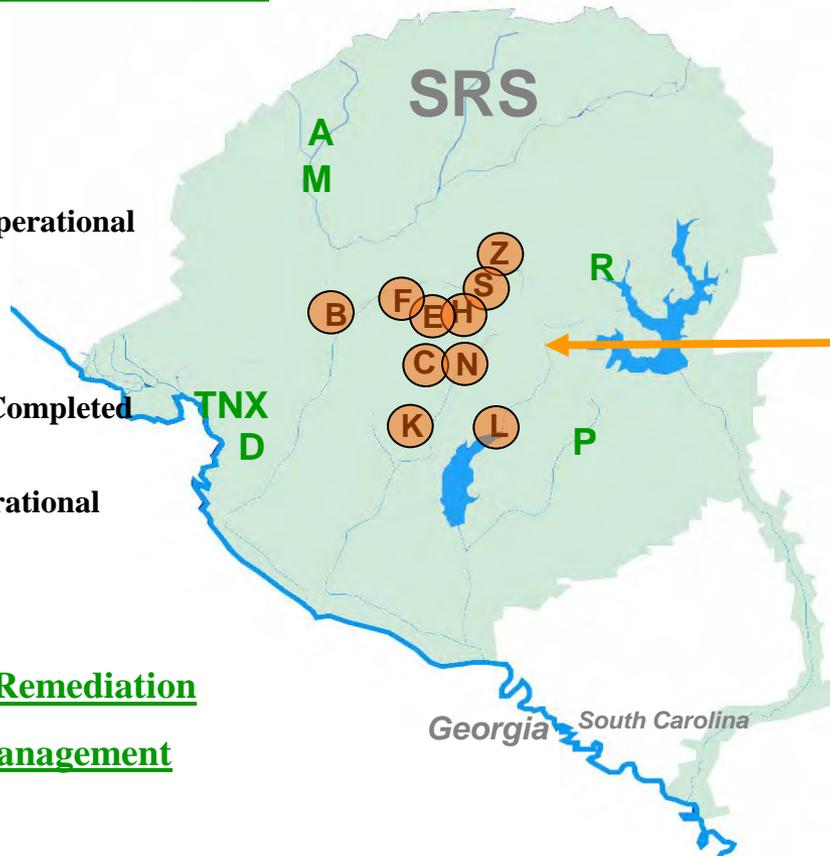
D Area Powerhouse Operational  
D&D Completed

### P & R Areas

Some D&D Underway

### Soil & Groundwater Remediation

### Natural Resources Management



## Central Core Area

### B Area

- Central Administration/Security

### C Area

- Material storage

### E Area

- Waste storage/processing/disposal

### F Area

- F Canyon/FB Line deactivated in 2006
- Excess F Area facilities D&D'd
- F Tank Farm and 1 evaporator operational, 2 tanks operationally closed
- MFFF site preparation underway

### H Area

- Nuclear materials processing facilities operational
- H Tank Farm and 2 evaporators operational
- Tritium Facilities operational

### K Area

- Nuclear material storage

### L Area

- Spent Nuclear Fuel storage

### N Area

- Industrial support/warehousing

### S Area

- Radioactive liquid waste disposition (DWPF, GWSBs)

### Z Area

- Saltstone



# SRS BASIC FACTS



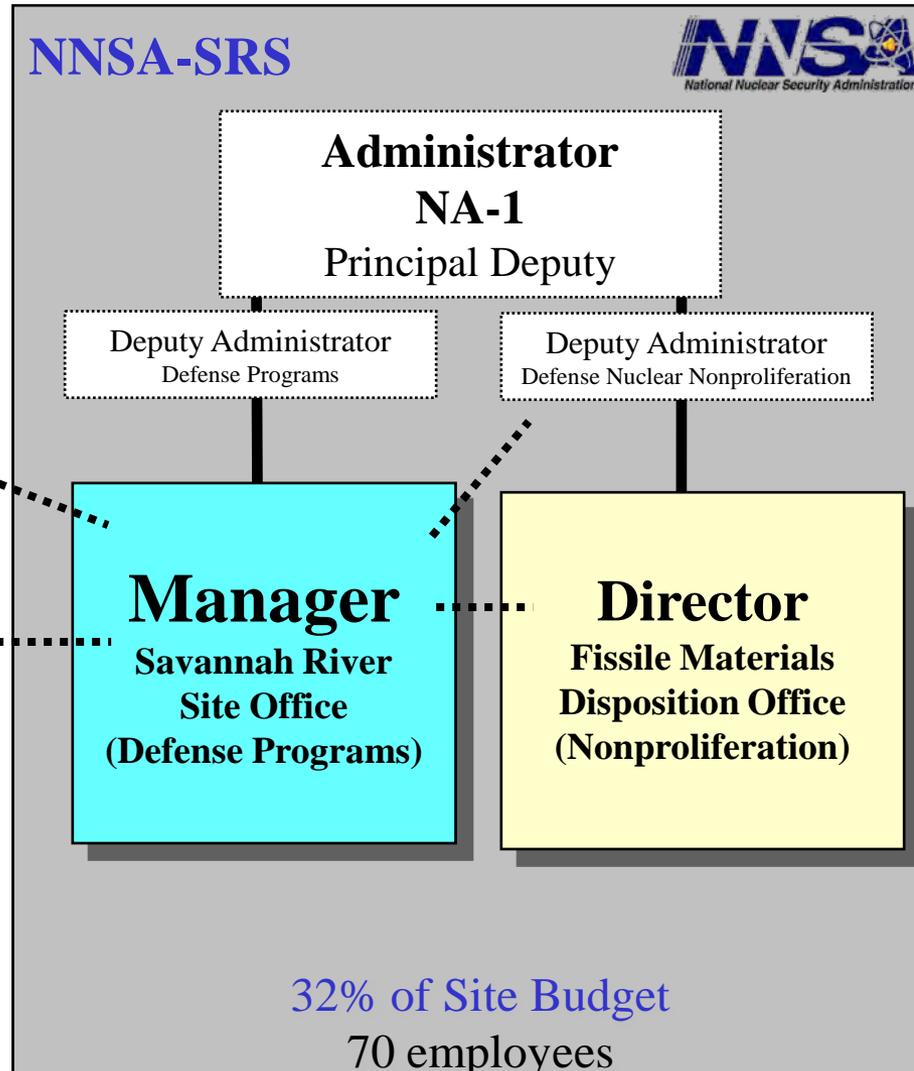
- **Contractors/Tenants**

- Savannah River Nuclear Solutions
- Savannah River Remediation
- Wackenhut Services Incorporated
- Shaw Areva MOX Services
- Parsons
- University of Georgia
- U.S. Forest Service
- **Tritium Operations**

**Site Budget ~\$2.8 Billion (includes ARRA)**

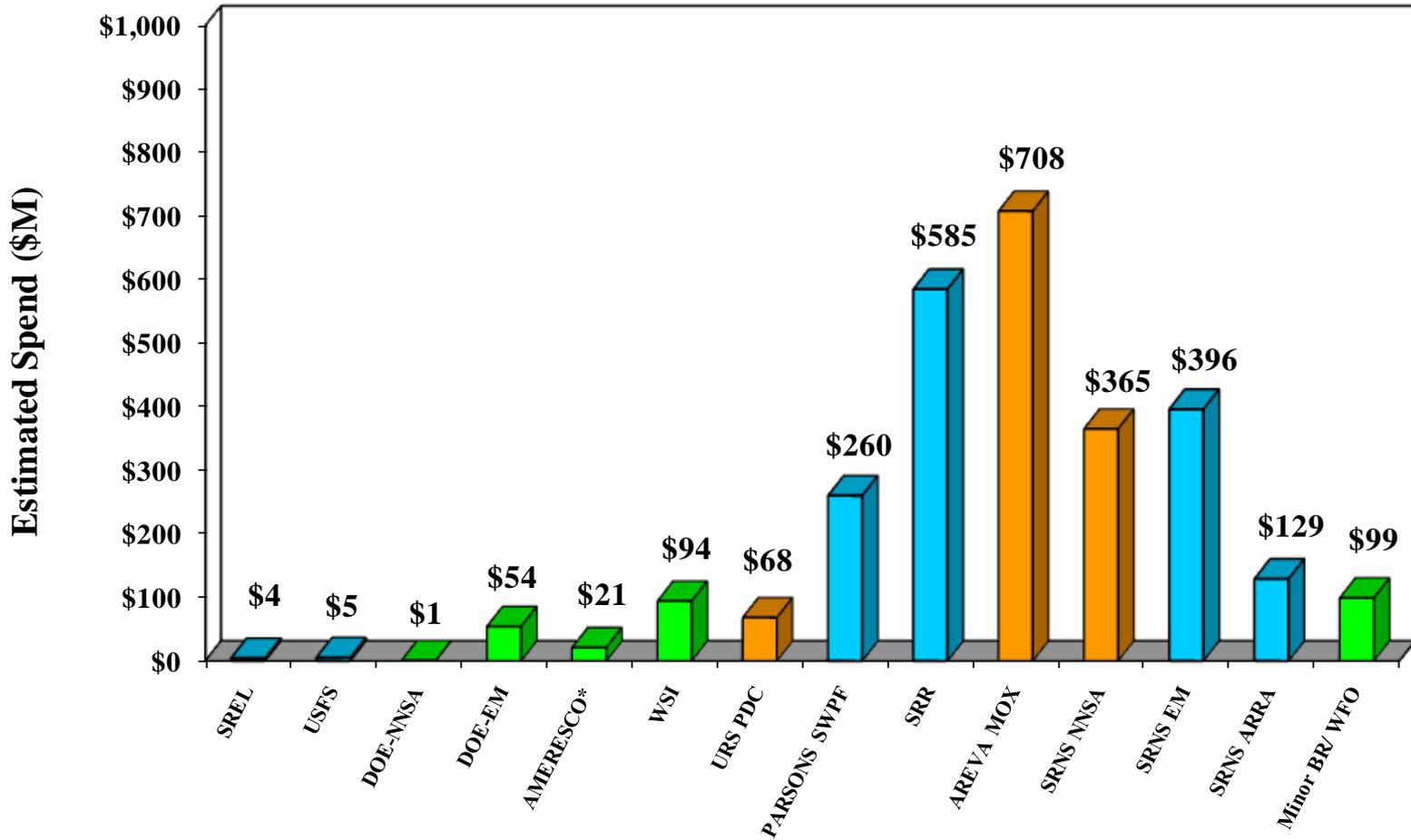


# THE SAVANNAH RIVER SITE FEDERAL ORGANIZATION





# FY11 SRS CONTRACTOR FUNDING

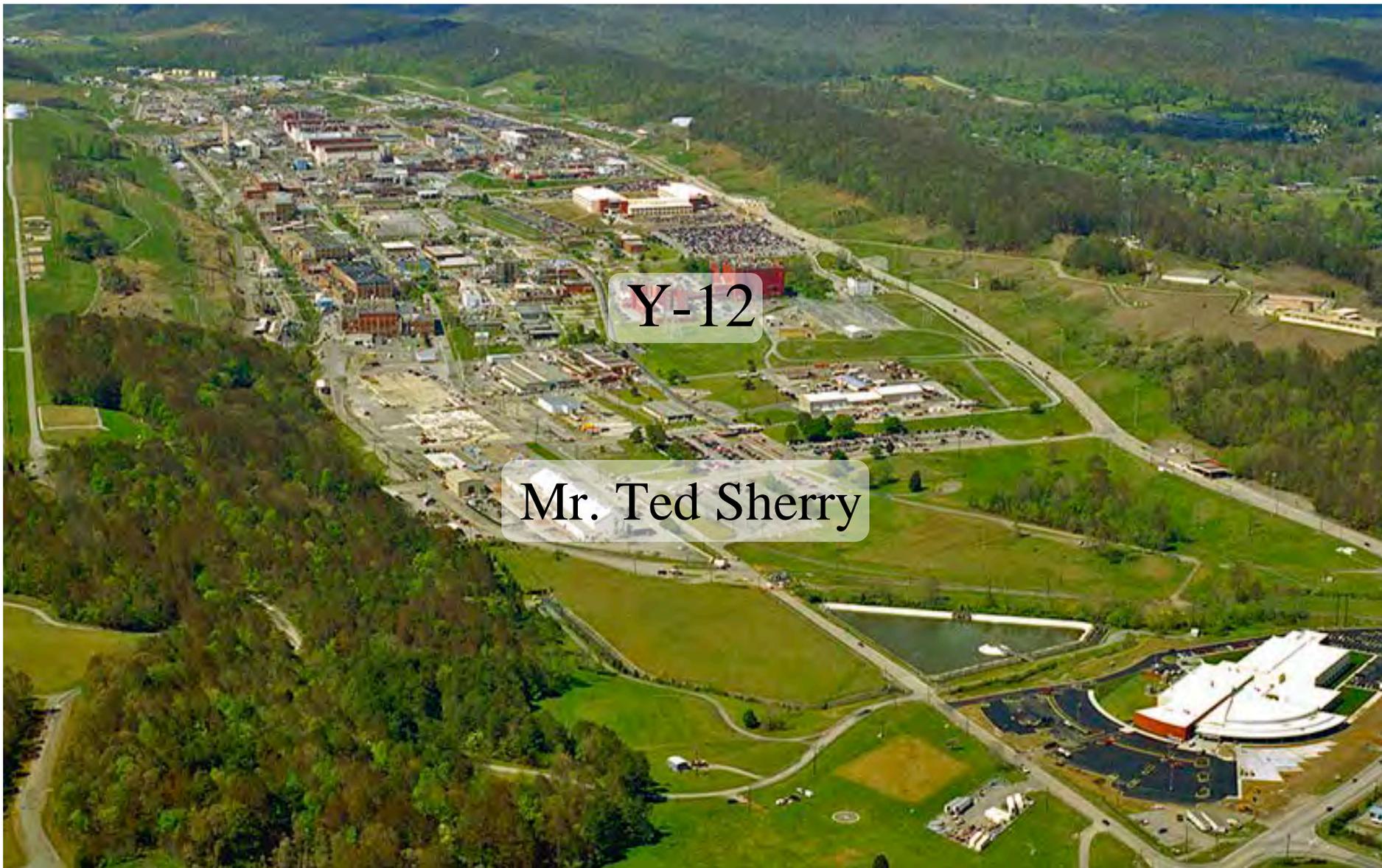




# CHALLENGE: MAINTAINING THE HISTORY OF PERFORMANCE EXCELLENCE...



- *Mission critical functions performed by the landlord*
  - World class SRNL Tritium R&D and operational support
  - Nuclear Waste Management Services & Disposal
  - Environmental & Health Services
  - Operational Management & Infrastructure (Security incl.)
  - General Infrastructure & Utility Services
  - Financial Management Services
- *Anticipated changes at the site over next 5-10 years...*
  - Workforce demographics – Aging workforce with SRS mission evolution
  - Limited & constrained mission resources – *Lack of infrastructure reinvestment*
  - M & O contract option recompetete consideration– 2013
  - Maturing Contractor Assurance System & “One NNSA” Enterprise
  - Emerging NNSA Nuclear Nonproliferation operations – 2013 & 2016
  - Tritium production requirements
  - Modernization of Tritium systems, processes and facilities



Y-12

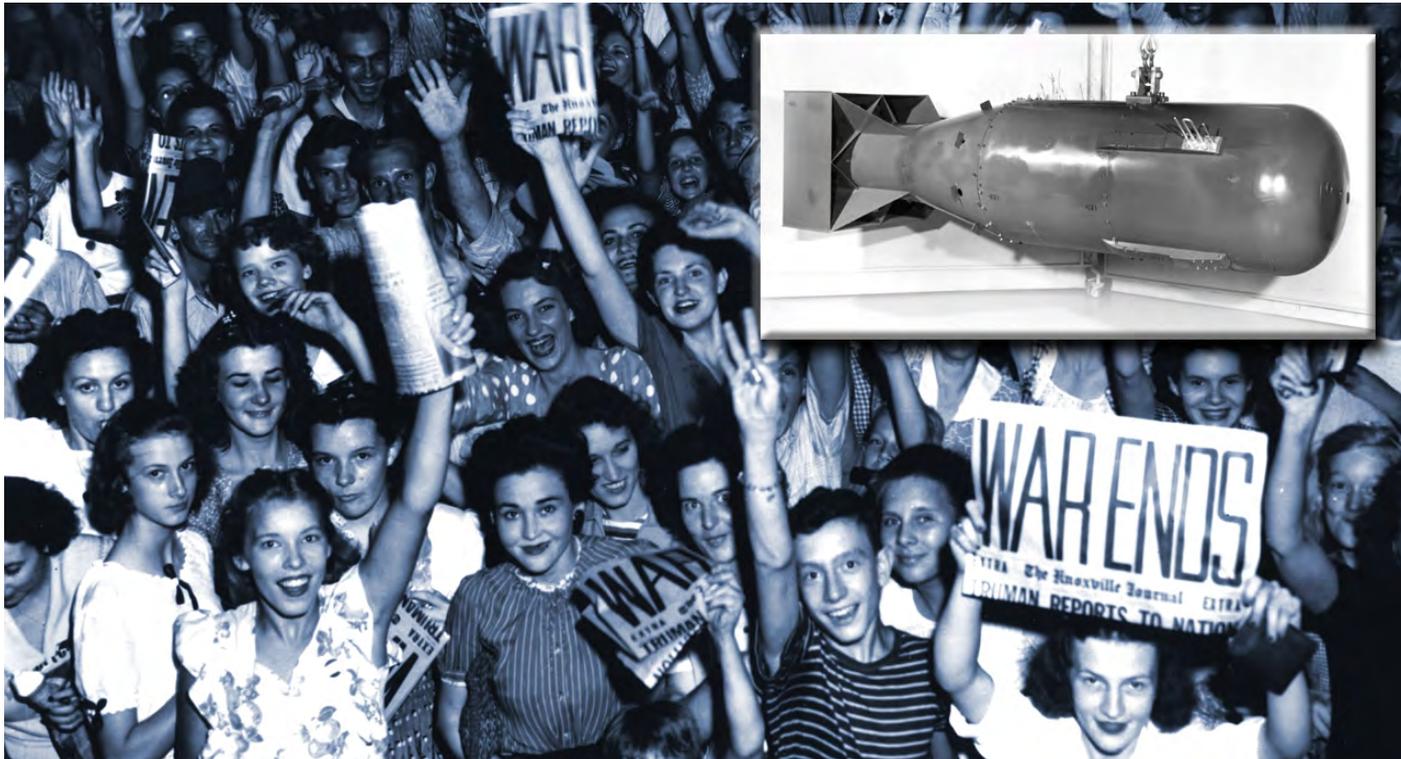
Mr. Ted Sherry



# HISTORY OF URANIUM EXPERTISE



- Created in 1943 as part of the Manhattan Project
- Provided the enriched uranium for “Little Boy,” the atomic bomb used to end WWII

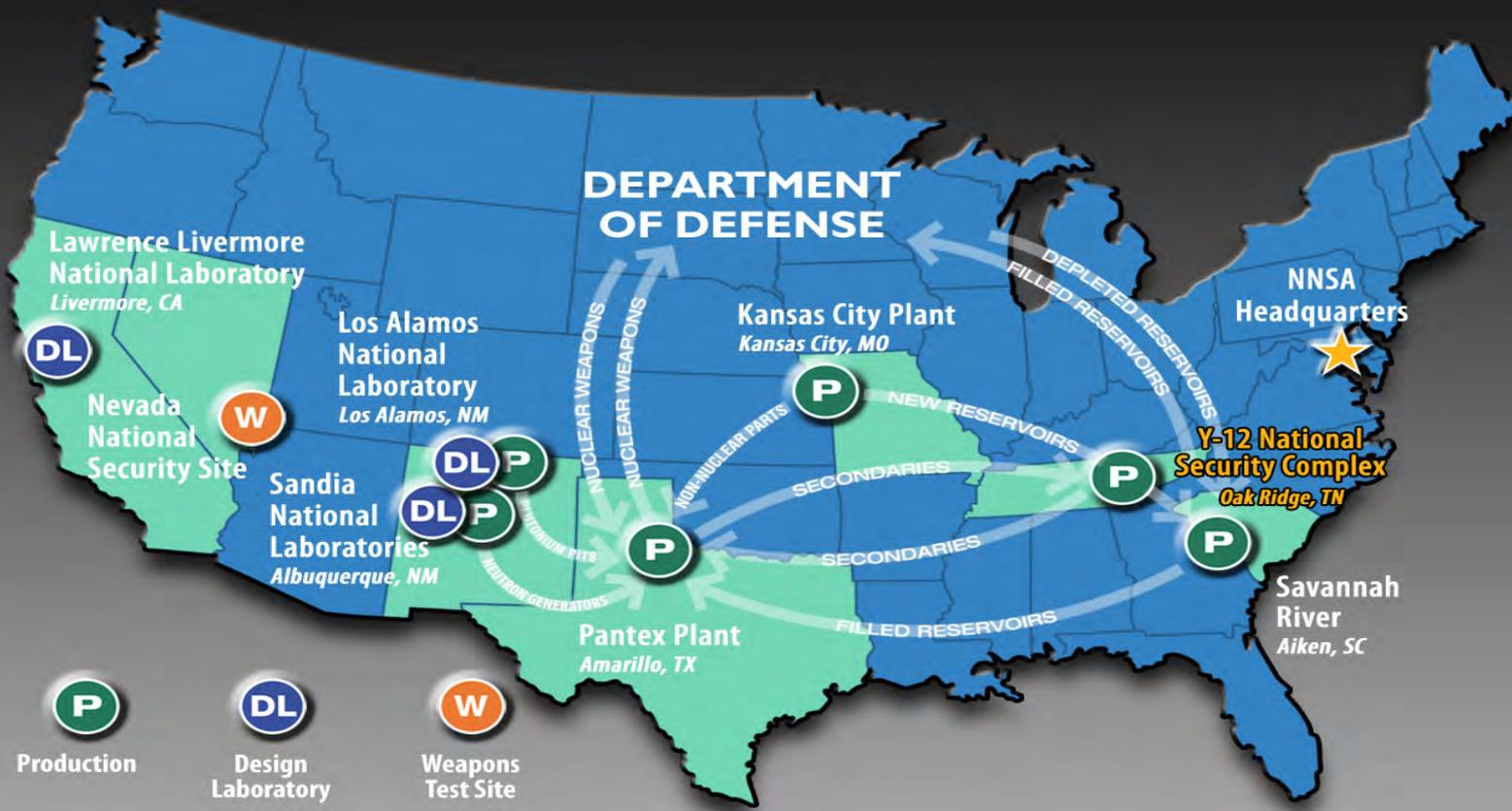




# NUCLEAR SECURITY ENTERPRISE



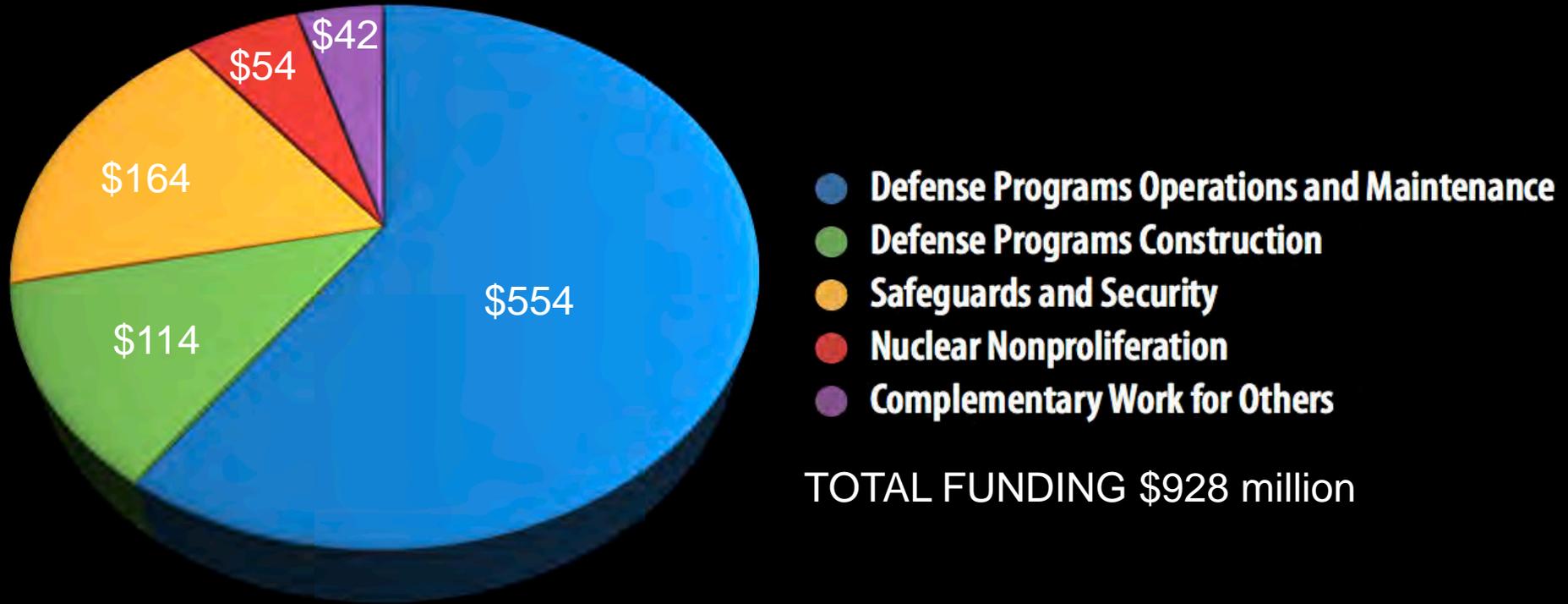
## Six production facilities and three design labs



08-06340



# ANTICIPATED Y-12 FY 2011 FUNDING (\$M)





# Y-12's MISSIONS



- Sustain a safe, secure and effective nuclear arsenal
- Supply the U.S. nuclear Navy
- Prevent nuclear proliferation and nuclear terrorism
- Solve global security challenges





# SUSTAIN A SAFE, SECURE AND EFFECTIVE NUCLEAR ARSENAL



## Responsibilities

- Certify reliability
- Maintain and refurbish to extend weapon's life
- Dismantle and dispose of retired weapons



## Challenges

- No nuclear testing
- No new nuclear weapons
- Lower stockpile numbers
- Aging weapons





# SUPPLY THE U.S. NUCLEAR NAVY



- **Y-12 is the only supplier of highly enriched uranium**
  - Navy's current annual requirement is more than 3.7 MTU
  - MOA between Defense Programs and Naval Reactors requires HEU through 2050





# SUPPLY MATERIAL FOR RESEARCH REACTORS





# PREVENT NUCLEAR PROLIFERATION AND NUCLEAR TERRORISM



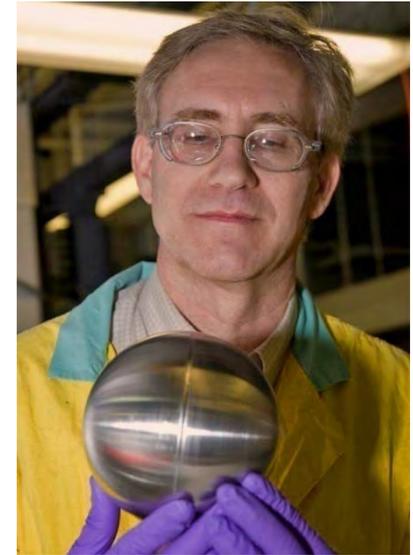
- Convert and supply uranium for peaceful uses
- Secure and recover nuclear materials globally
- Detect uranium and the proliferation of weapons of mass destruction



Rolling Mill



Training Exercise



Radiological Signature  
Training Device



## Trainees

- Police, sheriff and fire depts.
- Medical centers/hospitals
- University reactor facilities
- Dept. of Homeland Security
- FBI
- Nuclear Regulatory Commission
- International Atomic Energy Agency
- INTERPOL





# SOLVE GLOBAL SECURITY CHALLENGES



- Nuclear technology and materials
- Manufacturing and technical services
- Physical and radiological protection





# ENVIRONMENTAL STEWARDSHIP

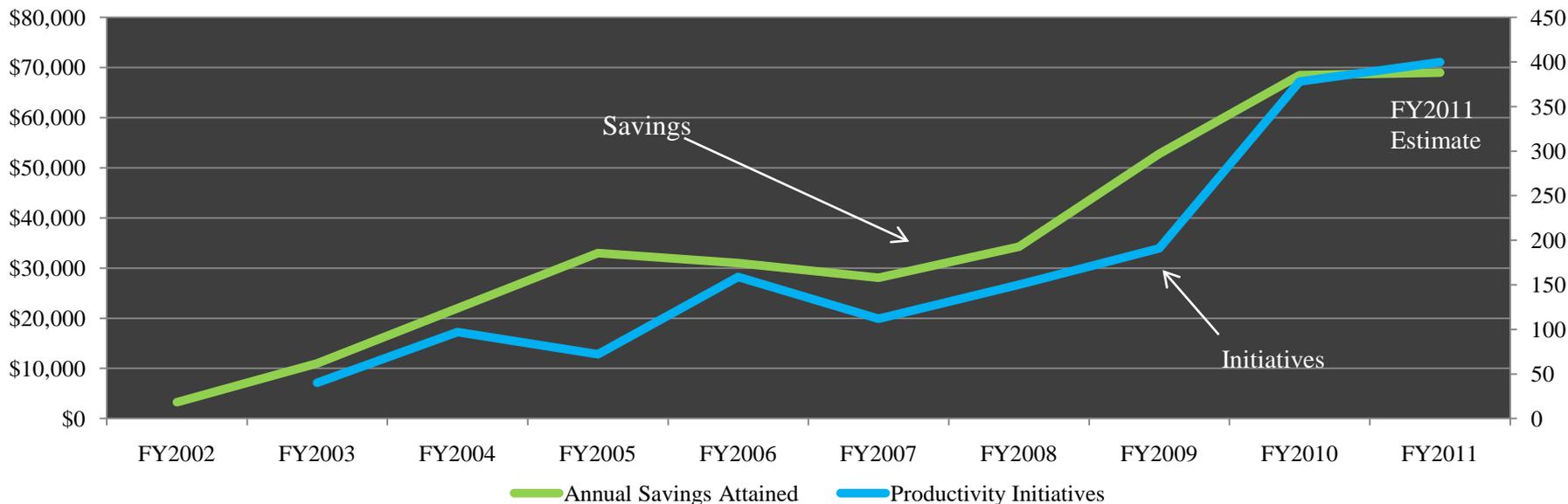


- Pollution prevention
- Energy conservation
- Site cleanup

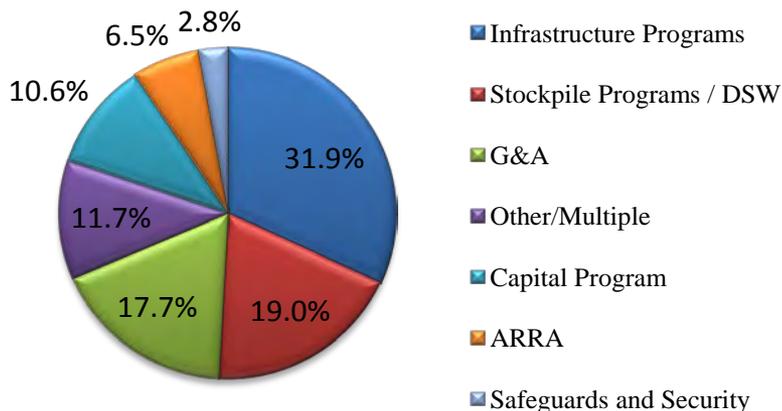




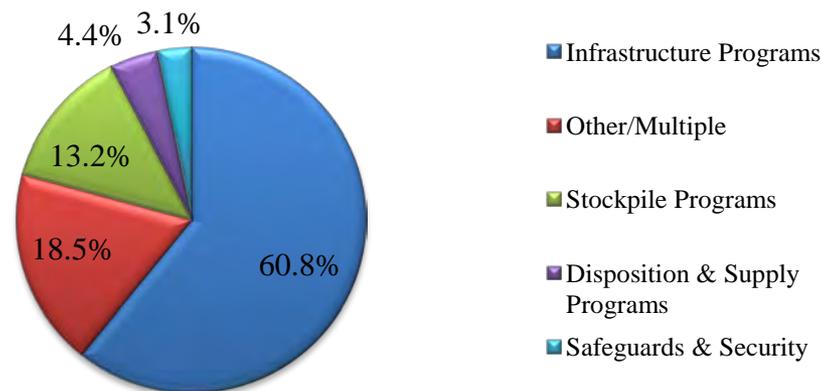
# Y-12 PRODUCTIVITY PROGRAM OVER \$185M IN 3 FY



## FY10 & FY11 Program Savings



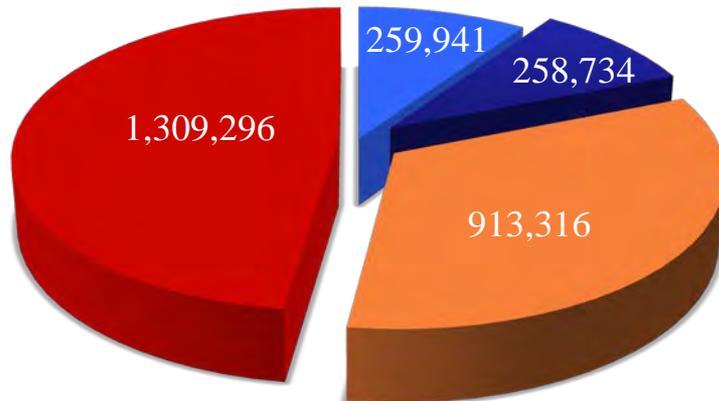
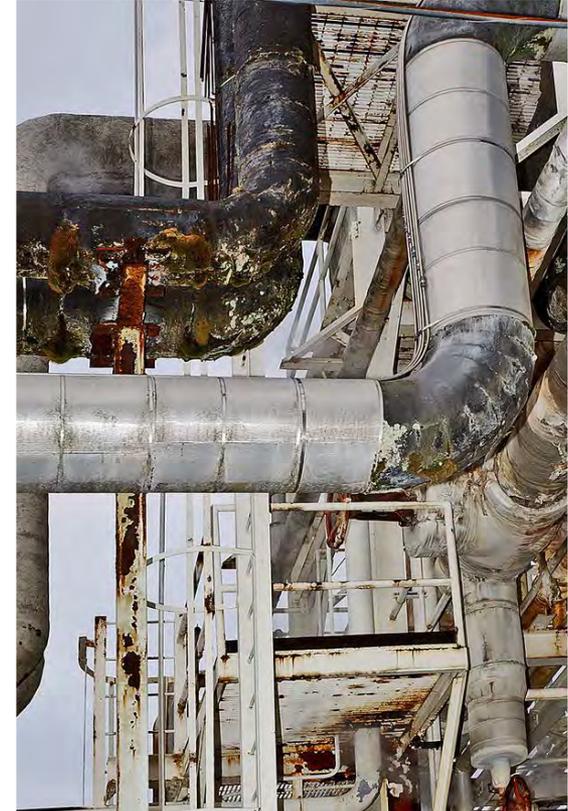
## FY10 & FY11 Program Reinvestment



**Responsible Stewardship = Additional Scope Accomplishment**



# TRANSFORMATION – WHY IT'S IMPORTANT



■ 0-39 YEARS  
■ 40-49 YEARS  
■ 50-59 YEARS  
■ 60-65 YEARS  
VALUES IN FT<sup>2</sup>



# TRANSFORM THE SITE: COMPLETED FACILITIES



*Highly Enriched Uranium  
Materials Facility*



*New Hope Center*



*Jack Case Center*



# HEUMF & UPF

## THE TRANSFORMATION BACKBONE



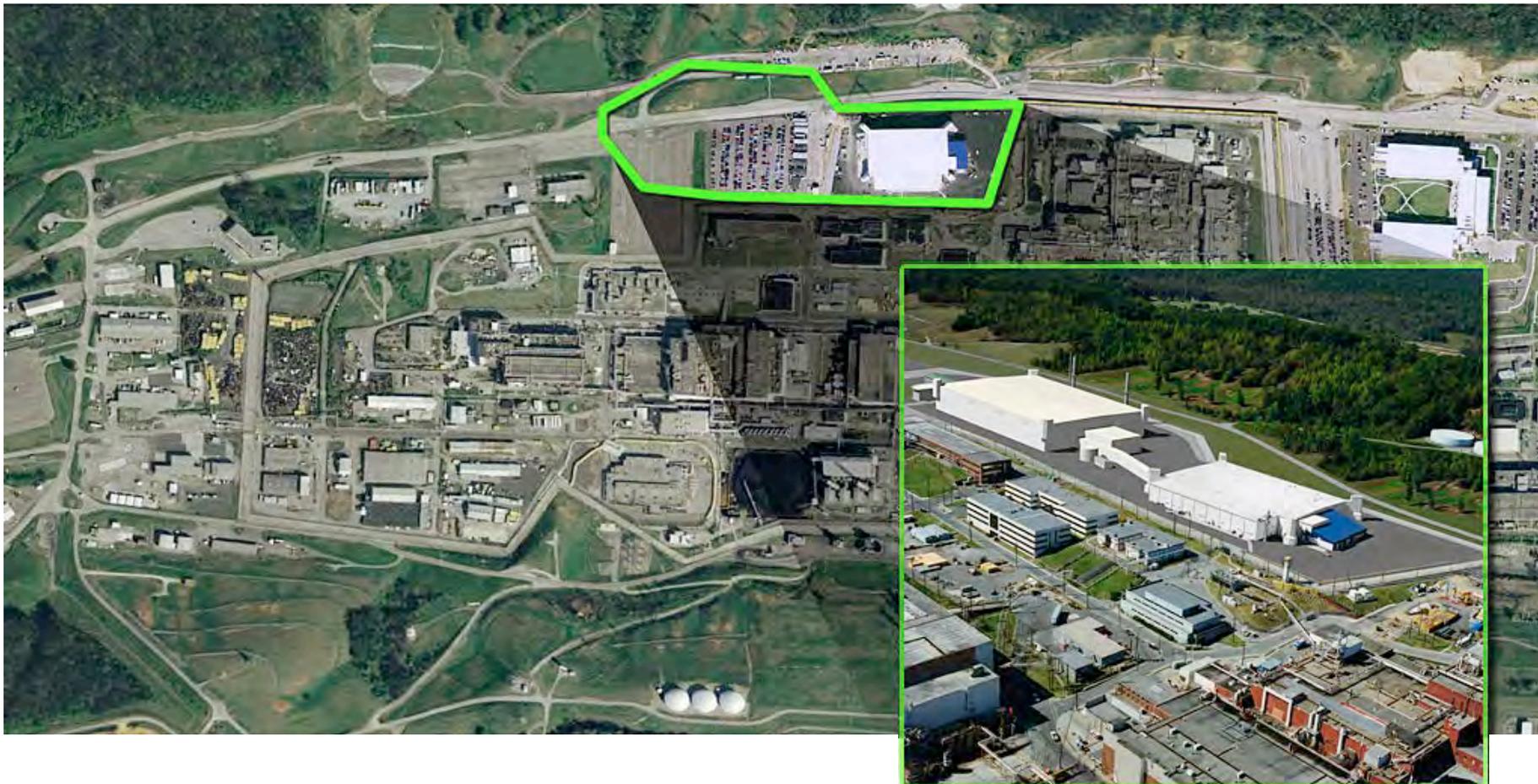


# CURRENT PROTECTED AREA



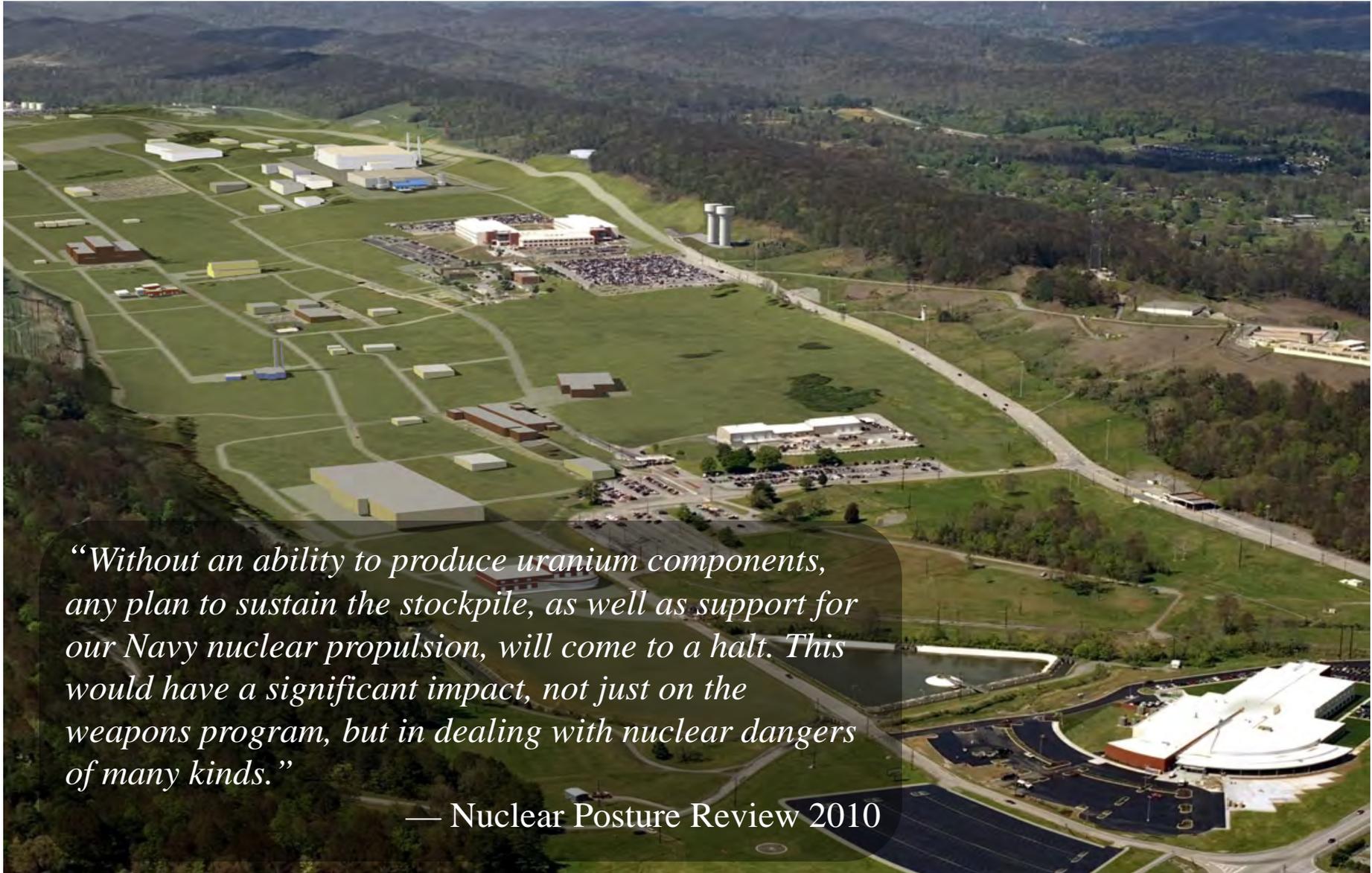


# FUTURE PROTECTED AREA





# Y-12 TRANSFORMATION – VITAL TO FUTURE



*“Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our Navy nuclear propulsion, will come to a halt. This would have a significant impact, not just on the weapons program, but in dealing with nuclear dangers of many kinds.”*

— Nuclear Posture Review 2010



# ADDITIONAL YSO MANAGER POINTS



## 1. Programs

- Life Extension Programs
- Surveillance
- Dismantlements
- Non-Proliferation
- Naval Reactors

## 2. Operations

- Strong focus on Disciplined Nuclear Operations
- Keep Enriched Uranium Operations reliably running (e.g., 9212)
- Focus on Aging Management programs for equipment/facilities
- QA improvements/performance (NQA-1, QC-1)
- Environmental/Nuclear Footprint reduction



## 3. Security

- Challenging physical security environment (effectively urban setting, ridges, building designs), therefore
  - Continue consolidation initiatives
  - Continue/pursue simple solutions to complex issues
- Nuclear Material Control and Accountability – very important – process tons of U, account for grams
- Cyber – continuously changing and growing threat

## 4. Business

- Very Active and important small business community...take advantage
- Active community...extremely important to maintain positive relations
- Public and intergovernmental affairs – significant interest and workload that must be managed well
- Productivity – continue momentum
- Innovative IT solutions – continue wireless leadership

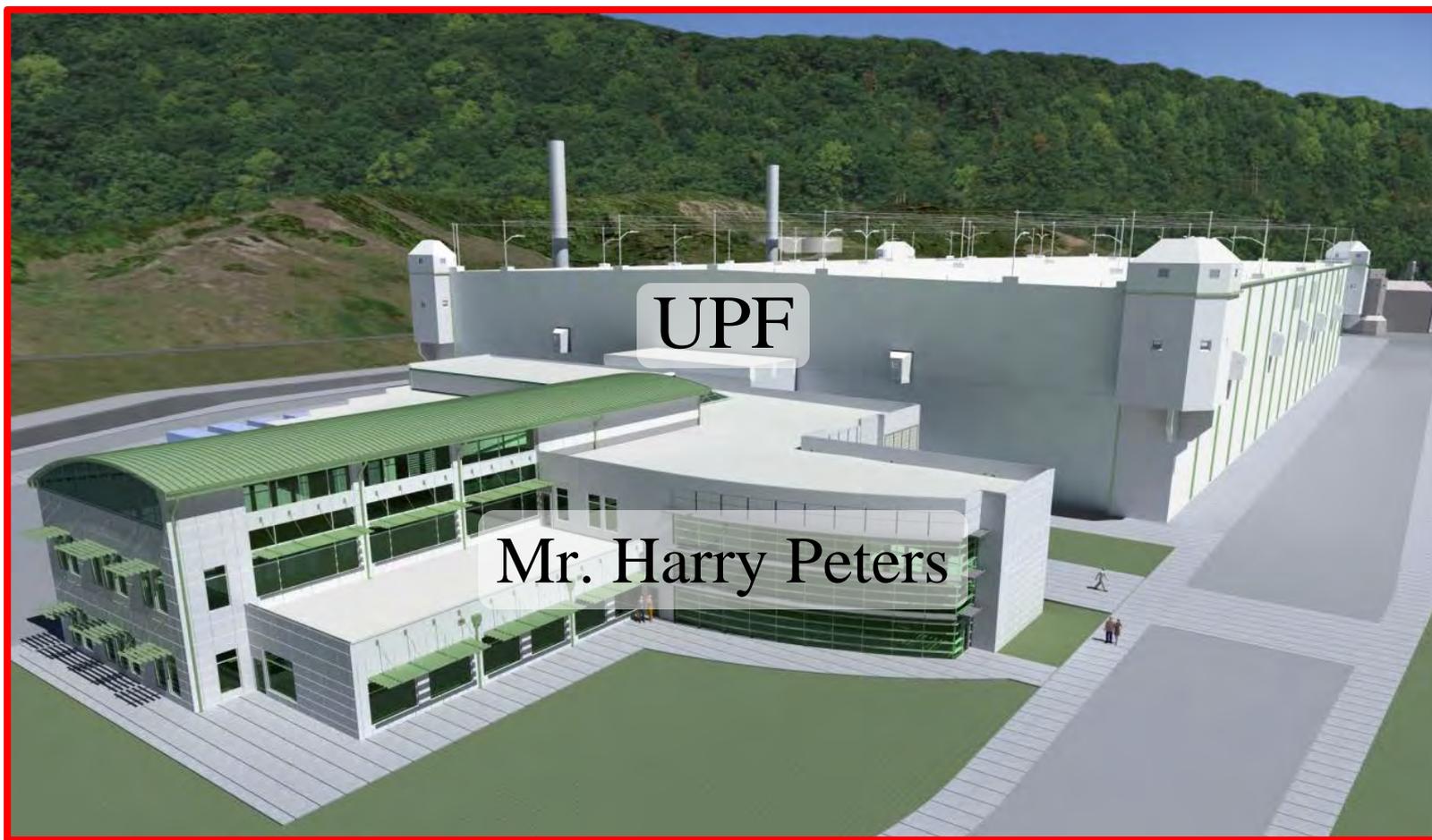


## 5. Governance

- Strong existing Contractor Assurance System – build on and strengthen
- Use Metric/indicators for plant health monitoring
- Challenge status quo – streamline requirements and implementation processes
- Strong, internal self-assessment process is key

## 6. Projects and Transformation

- Strong/integrated Strategic Planning and Transformational vision – all actions must align (not just building, process and business practices as well)
- Infrastructure Line Items/projects
  - Nuclear Facilities Risk Reduction
  - Security Improvement Project
  - Uranium Processing Facility
  - Production Microwave
  - 50+ General Plant Project/Equipment – inserting into existing operational facilities...
- Effective project management systems a must

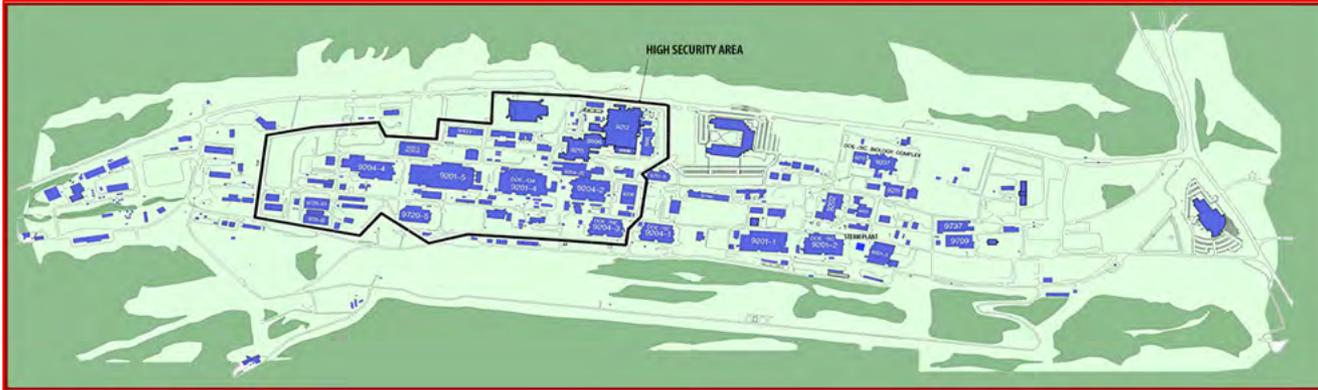




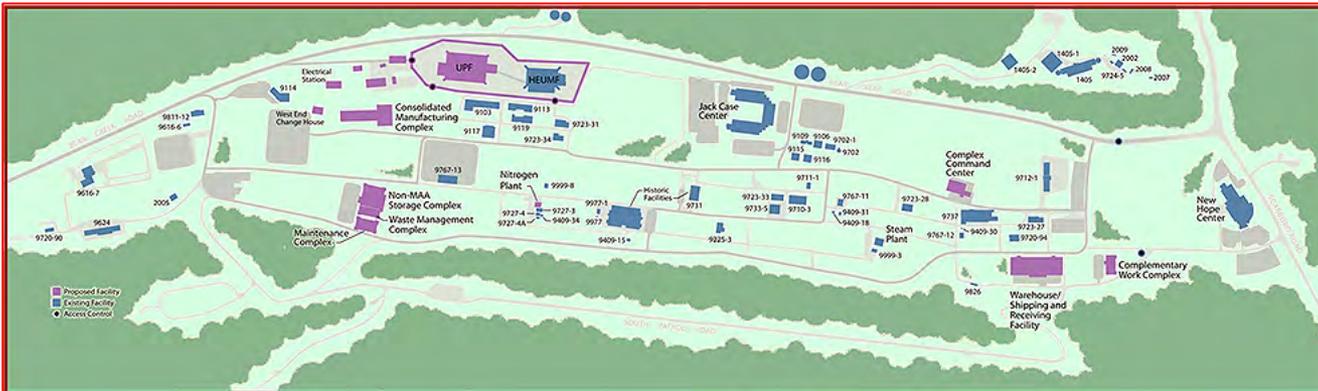
# UPF – KEY TO Y-12 TRANSFORMATION



## Today



## Future





# THE NATION'S EU PROCESSING FACILITY

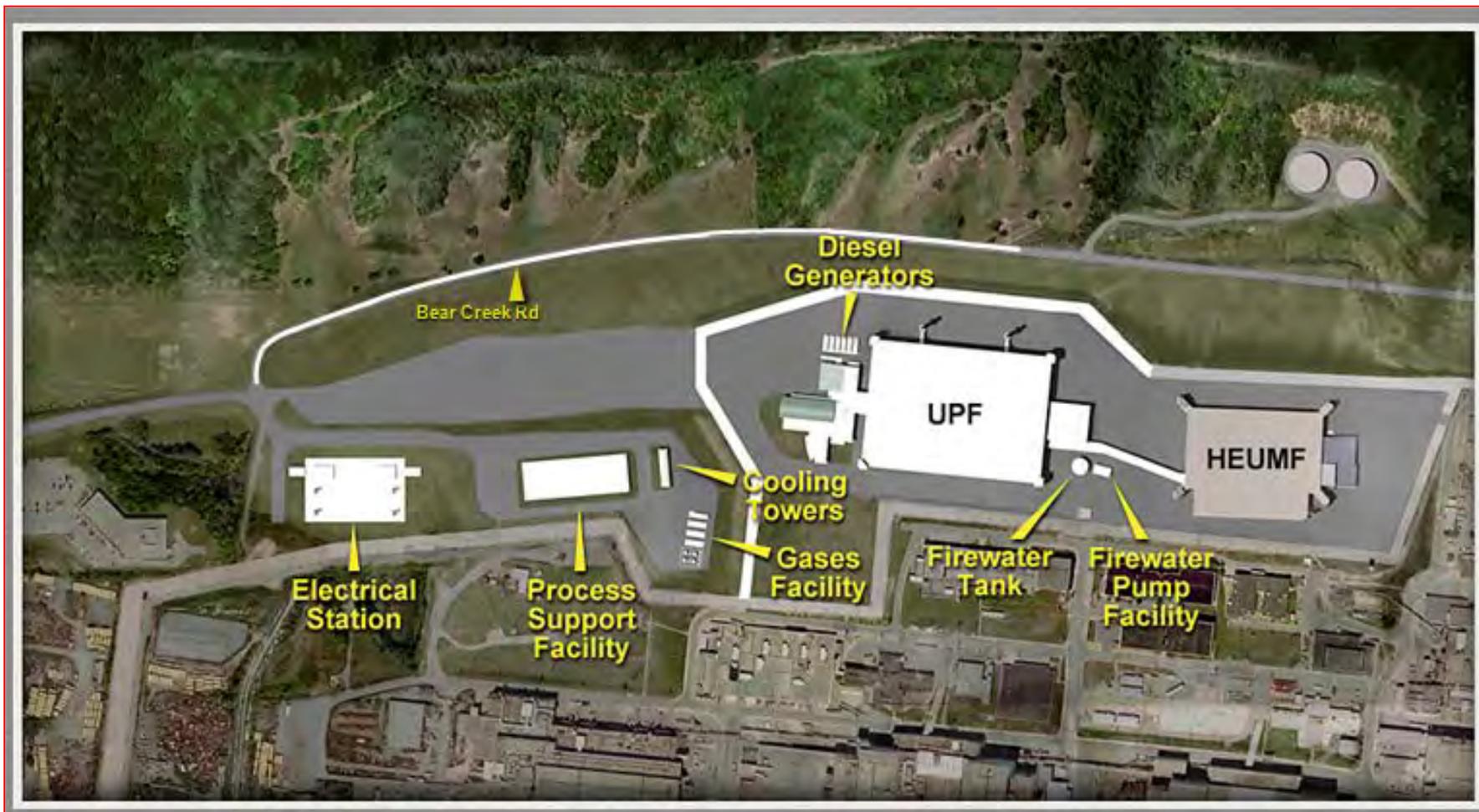


## Mission:

Ensuring the Nation's enriched uranium processing is secure, safe, and efficient.



# CURRENT PROJECT LAYOUT





# UPF WILL CONSOLIDATE OPERATIONS CURRENTLY PERFORMED IN FOUR FACILITIES





# UPF QUICK FACTS



**Size: ~350,000 ft<sup>2</sup>**

Almost as big as 4 home improvement stores

**Excavation: ~400,000 cubic yards**

Enough dirt to fill 23,500 dump trucks stretching 125 miles from Knoxville to Asheville, NC

**Concrete: ~150,000 cubic yards**

Enough to fill a football field, including the end zones, 70 feet deep

**Conduit: ~400,000 linear feet**

Enough conduit to wrap around the University of Tennessee's Neyland Stadium 133 times

**Wiring & Cable: ~2,000,000 linear feet**

Enough wiring to stretch from Knoxville to Charleston, SC

**Gloveboxes: ~2,000 feet**

Enough to stretch from New Hope Center to the entrance to Commerce Park on Scarboro Road





# COST RANGE AND KEY PERFORMANCE DATES



- NNSA Cost Range Estimate (October 2010)
  - \$4.2B - \$6.5B
- Key UPF Project Dates
  - Site Readiness Scope Complete 2014
  - Site Preparation Scope Complete 2014
  - Building Construction Begins 2014
  - UPF Construction Complete 2020
  - Initial Functionality 2021
  - Full Capability 2024



## Integrated Project Team

### NNSA

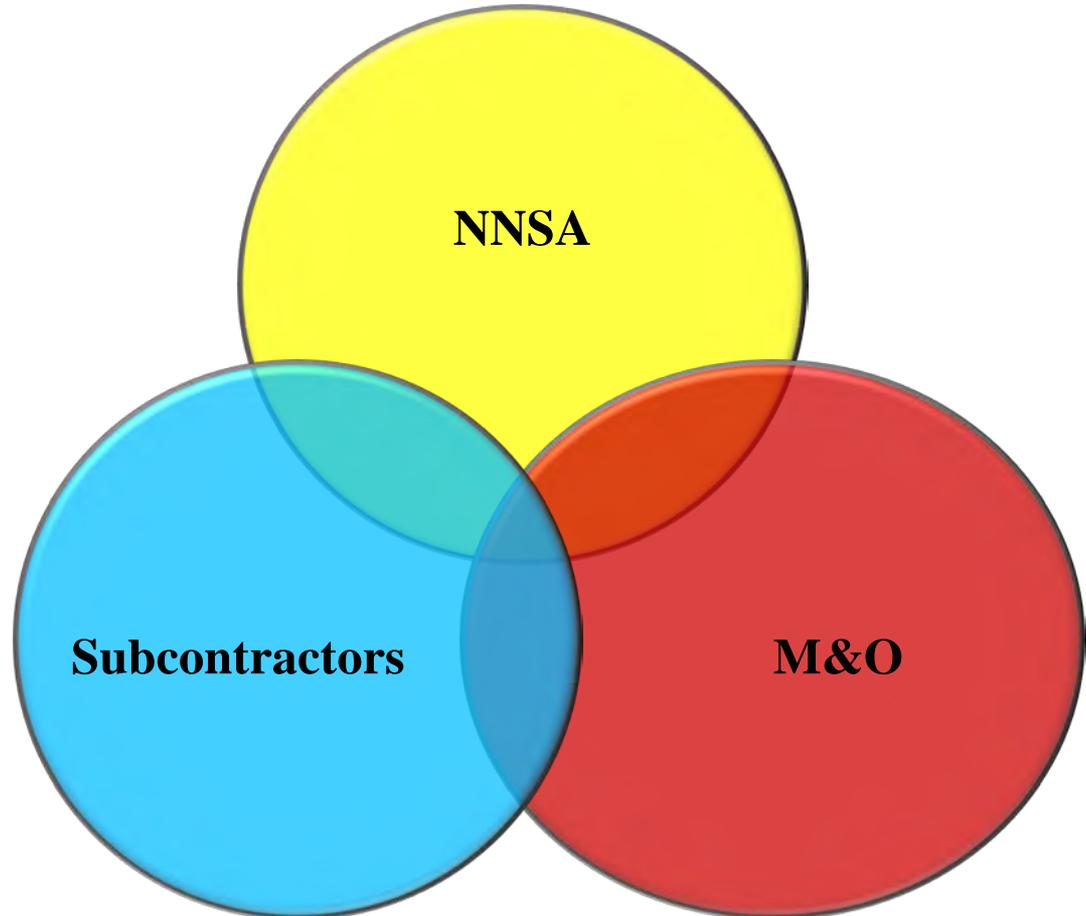
- Mission Needs & Direction
- Oversight
- Funding

### M&O

- Project Execution
- Baseline Management
- Overall EPC Functions through Readiness

### Subcontracts

- Engineering Support
- Construction Subcontracts





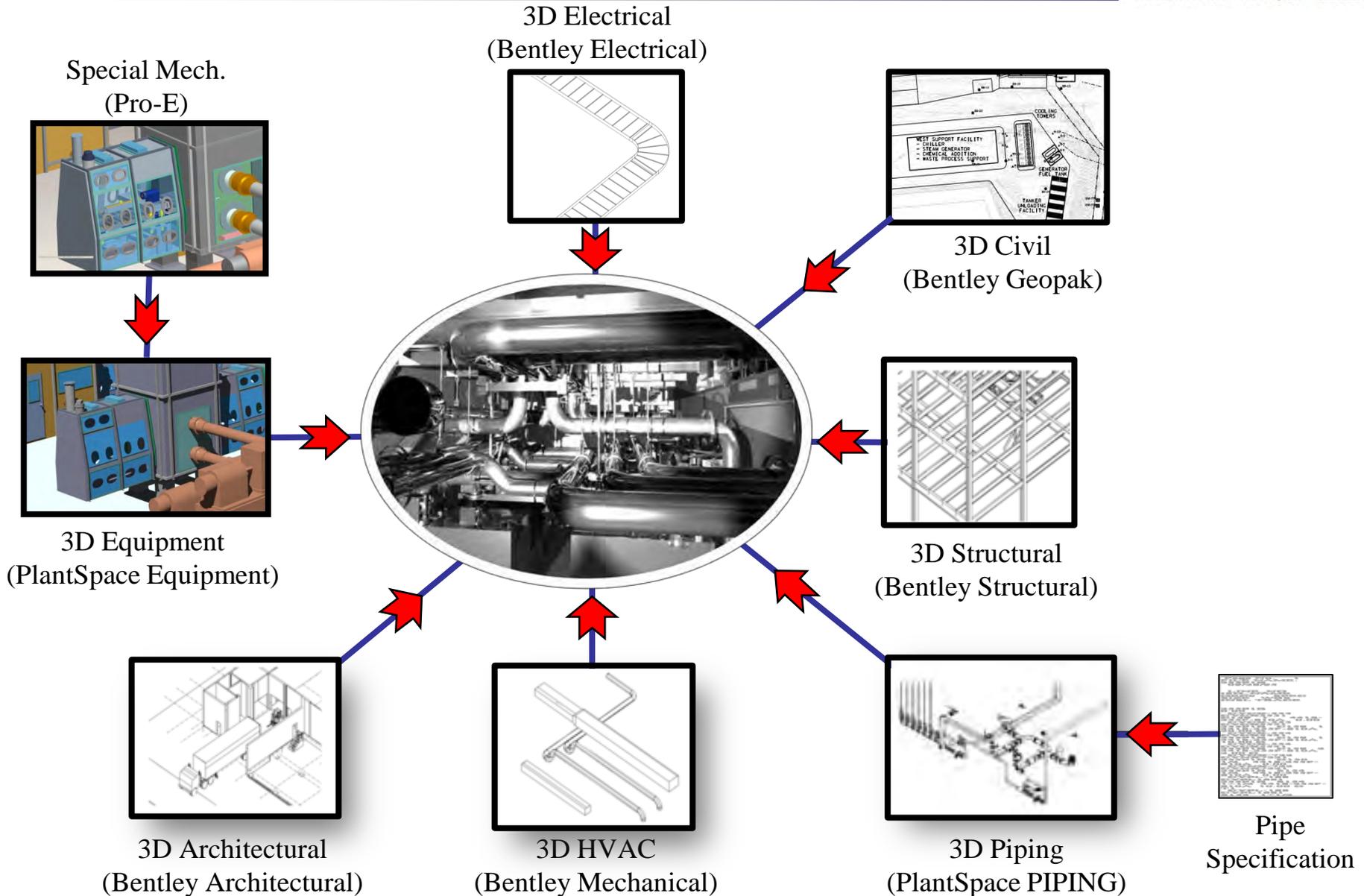
# DESIGN BY THE NUMBERS



Drawings	6,000
Calculations	3,200
Piping and instrumentation diagrams	1,300
Datasheets	1,100
Specifications	750
Lists	600
Miscellaneous documents	250
Process flow diagrams	140
Single Lines	80
System design descriptions	70
Interface control tabulations	60



# AUTOMATION – COLLABORATING ON DESIGN





# 3D MODEL REVIEWS

- **Design**
- **Safety**
- **Constructability**
- **Operability**
- **Maintainability**



# TYPICAL ROOM – PROGRESSION OF COMMODITIES



Empty Room



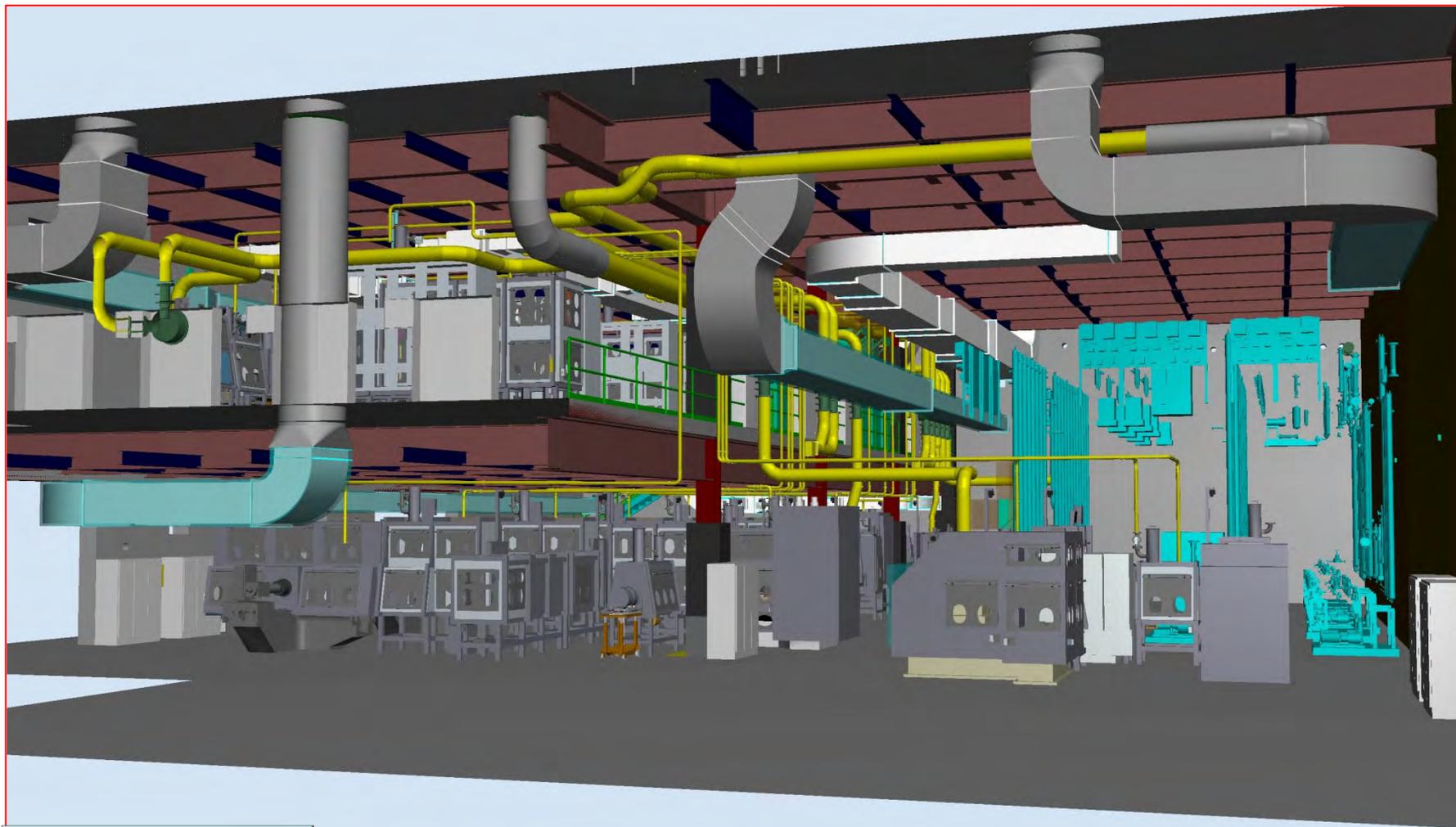
# TYPICAL ROOM – PROGRESSION OF COMMODITIES



Mechanical Equipment Added



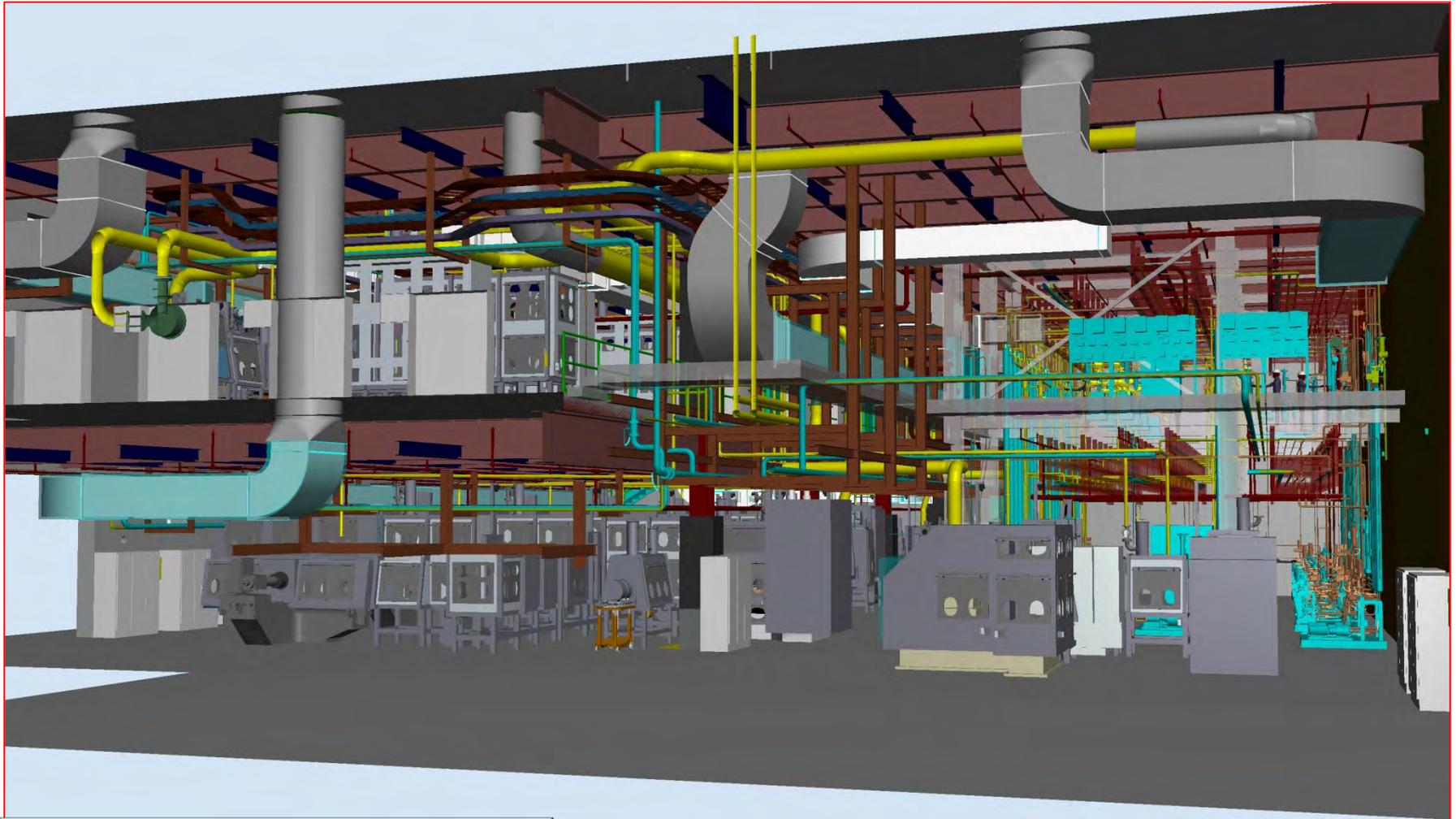
# TYPICAL ROOM – PROGRESSION OF COMMODITIES



HVAC Duct Added



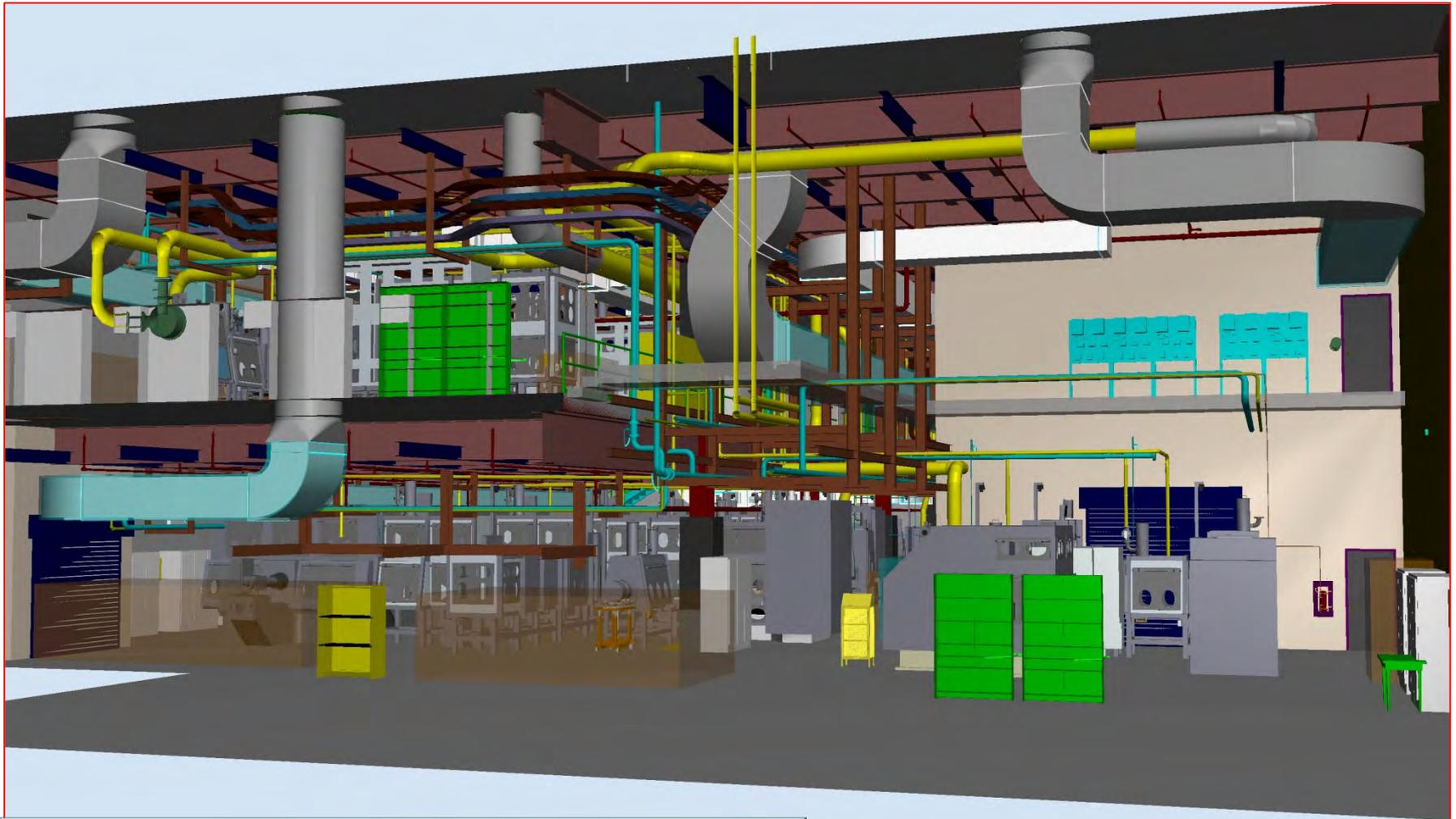
# TYPICAL ROOM – PROGRESSION OF COMMODITIES



Multi-Commodity Rack Steel Added



# TYPICAL ROOM – PROGRESSION OF COMMODITIES



Maintenance Access Enclosure/Vestibule Walls Added



# UPF DESIGN COMPLETION STATUS

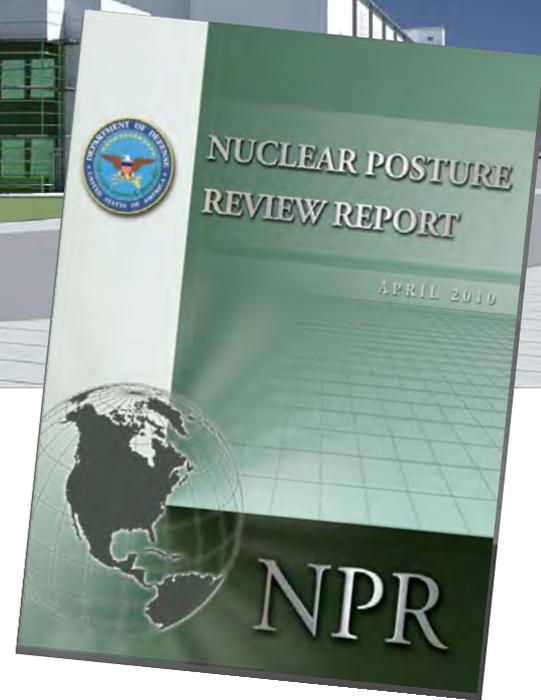


- Overall design – 58% complete
- Site preparation and long lead procurement package – 100% complete
- Facility design – 68% complete
- Process design – 51% complete





# UPF—VITAL TO FUTURE



*“Without an ability to produce uranium components, any plan to sustain the stockpile, as well as support for our Navy nuclear propulsion, will come to a halt. This would have a significant impact, not just on the weapons program, but in dealing with nuclear dangers of many kinds.”*

— Nuclear Posture Review 2010



# MISSION FOCUS – SOW

Mr. Robert Edlund



# STATEMENT OF WORK



- Chapter 1 – Objectives, Scope, and Requirements
  - Objective
  - Background
  - Scope
  - Administrative and Technical Requirements
- Chapter 2 – Work Scope Structure
  - Programs
  - Functional Support
- Chapter 3 – Human Resources (to be discussed by Karen Hart)
  - Definitions
  - Workforce Transition
  - Compensation Benefits
  - Labor Relations
  - Workforce Planning



# SCOPE



- Perform all necessary operational, coordination, and management functions at Y-12, PX, and SRTO (should this option be exercised) required to support NNSA and broader national security missions assigned to these sites
  - Includes current missions as well as those that may be assigned during the term of the Contract
  - All infrastructure management and maintenance; information technology; human resource management; environmental management; health, safety, and security systems; purchasing and other administrative systems
- Complete assigned mission responsibilities safely and securely while improving performance
  - General work structure and functional activities are defined in Chapter 2
  - **New requirement – Manage the master schedule for all production activities in support of the Stockpile Stewardship Program**
- Transition and merge operations at three geographically-dispersed centers of excellence
  - Do not impact mission
  - Maintain critical skills capabilities
  - Identify and streamline redundant technical and business operations across the three sites
  - Incorporate principals of Governance (reference NAP-21)
  - Maintain regulatory interfaces



# SCOPE



- Achieve cost savings while safely and securely completing mission requirements
  - Develop integrated performance measurement baseline within one year of the base term
  - Provide cost data transparency (reference Institutional Cost Reporting)
  - Tailored Earned Value Management System application at the appropriate level
  - Support third party validation of cost savings claimed
  - Support benchmark comparisons against industry and Government peers
- Participate with NNSA and other NNSA M&O Contractors as part of an “enterprise organization” to evaluate, plan, develop, and implement strategic initiative activities that optimize mission and business operations across the NSE
  - Strategic mission initiatives shall result in timely fulfillment of mission goals
  - Identify potential cross-NSE benefits from implementing common practices and goals across the NSE
  - **Establish performance incentives with performance measures and targets for strategic efforts that would result in overall enterprise performance improvement**



- Ensure that Integrated Safety Management, Integrated Safeguards and Security Management, Environmental Management System, and Quality Assurance Systems are integrated into operations
- **Annually** develop a detailed work scope proposal based on Work Authorizations which will consist of all activities with the NNSA Integrated Performance Measurement Baseline
- **Develop within first 180 days of the Base Term**, a draft “to-be” architectural and information technology plan that integrates production and business systems across the three sites
- Implement governance through a collaborative partnership with NNSA to form the self-governance framework by which the mission is accomplished in an effective and safe manner
  - Develop and implement an effective Contractor Assurance System as the primary tool to measure and improve performance
    - Identification of performance metrics
    - Formulation of a Performance Evaluation Plan to include performance incentives, performance measures, and targets
    - Utilize corporate parents for reach back for best practices/applications



- Signs environmental permits and applications as “operator or co-operator” at the sites
- Support NNSA in interfacing with various Government agencies such as the Defense Nuclear Facilities Safety Board, Department of Defense, and state regulatory agencies
- **Develop within 60 days after the start of transition** an Interface Management Plan for the Oak Ridge Reservation and SRS, if required, to identify and manage all site interfaces and to provide site services to DOE, NNSA, DOE/NNSA Contractors, and tenant entities engaged in onsite activities



# PROGRAMS



- Defense Programs
  - Directed Stockpile Work
  - Campaigns
  - Readiness in Technical Base and Facilities
- Other NNSA Work
  - Infrastructure and Environment
  - Nuclear Counterterrorism and Incident Response
  - Nuclear Nonproliferation
  - Naval Propulsion
  - Defense Nuclear Security
- Work for Others
  - Other assigned programs related to national security missions for DOE, other Government agencies, or privately owned organizations on a non-interference basis with NNSA work



# FUNCTIONAL SUPPORT



- General Support to include executive direction, human resources, financial support services, procurement, legal services, central administrative services, program and project controls, information outreach, information services, and other general support functions
- Mission Support
  - Support of Office of Secure Transportation Facilities
  - DOE Central Scrap Management Office
  - DOE Business Center for Precious Metals Sales and Recovery
  - DOE Tri-Laboratory Office
  - Sandia-operated Weapons Evaluation Test Laboratory operations
- Site Specific Support
  - Fee administration
  - State and local taxes
  - Plant Directed Research, Development, and Demonstration Program



# HUMAN RESOURCES

Ms. Karen Hart



# HUMAN RESOURCES



- **Workforce Transition**
  - Workforce hiring flexibilities with Right of First Refusal for incumbent employees below Key Personnel and their Management Direct Reports
  - Hiring decisions made by successor contractor during transition
- **Compensation and Benefits**
  - Plan to achieve market efficiencies due during six month transition
  - Pension and Benefit coordination during transition based on best business practices
  - No later than 75 days after Base Contract Award, Contractor will have to submit for NNSA approval all proposed Benefit Plans
  - No later than 150 calendar days after Base Contract Award, Contractor will have to submit Human Resources plan
- **Labor Relations**
  - Union Agreements assumed or renegotiated in accordance with the National Labor Relations Act
- **Workforce Planning**
  - Contractor will be required to submit a plan to ensure current and future critical skills are maintained
  - Penalty for turnover of Key Personnel within first two years



# UNIONS AT THE SITES



PX	Metal Trades Council (AFL-CIO) Pantex Guards Union
Y-12	Atomic Trades & Labor Council (AFL-CIO) International Guards Union of America United Steel Workers
SRTO	No directly affected unions



# CONTRACT TERM/FEE/INCENTIVE

Mr. Robert Scott



# CONTRACT TERM



## Three Options for Term - Burning Platforms

- Initial base term of 5 years
- Performance for years 1-3, 4-5 and 6-7 at a specified rating of Very Good serve as the gateway
- No entitlement, but agency discretion
- Two years to recompete if gateway not met
- Gateway Decision: Very Good on PEP and 80% of cost savings proposed

Gateway Decision Point	Performance Years Evaluated	Option Years Available
End of Year 3	1-3	6-7
End of Year 5	4-5	8-9
End of Year 7	6-7	10



# FEE/INCENTIVE STRUCTURE



- Fee no longer tied to annual budget (25% change threshold)
- Declining Fixed Fee over first three years
- Cost Savings Incentives (Government estimate of \$895M over 10 years based on FY08, \$1.15B based on FY09 data)
- UPF fee structure separate from M&O
- WFO fee structure (2.5% of WFO funds)



# FEE/INCENTIVE STRUCTURE



- Cost Savings Incentive Fee earned at 20% share of savings
  - Not to exceed Cost Savings Incentive Fee Cap
  - Must be equal to or less than Total Available Fee to ensure focus is on mission
  - Cost Savings Incentive Fee paid only on “sustained” savings
- Fee earnings can only be maximized by delivering both mission and cost savings
- Therefore, cap for Maximum Available Fee calculates to 6.4%, will be adjusted by contractors bids but will not exceed 6.4%
  - This structure does not account for UPF or WFO fee which has a separate fee structure



# PX, Y-12, AND SRTO FEE TABLE



(1) Year	(2) DOE/NNSA Total Available (FF + PIF)	(3) DOE/NNSA Fixed Fee (FF) as Percent of Proposed Total Available Fee	(4) DOE/NNSA Performance Incentive Fee (PIF) as Percent of Proposed Total Available Fee	(5) Proposed Total Available Fee (FF + PIF)	(6) Proposed Cost Savings Incentive Fee (CSIF) Cap	(7) Proposed Maximum Available Fee Column 5 + Column 6
1	\$17,341,000-\$46,242,000	75%	25%		This column must = or < column (5)	
2	\$18,350,000-\$51,715,000	50%	50%			
3	\$18,852,000-\$53,129,000	25%	75%			
4	\$19,517,000-\$55,033,000	0%	100%			
5	\$20,160,000-\$56,814,000	0%	100%			
6	\$20,747,000-\$58,468,000	0%	100%			
7	\$21,597,000-\$60,865,000	0%	100%			
8	\$22,483,000-\$63,361,000	0%	100%			
9	\$23,405,000-\$65,958,000	0%	100%			
10	\$24,364,000-\$68,663,000	0%	100%			

\*NOTE: Assume SRTO option exercised at end of year one



# COST MANAGEMENT

Mr. Chad Glines



# COST MANAGEMENT



- Requirement for cost transparency using NNSA Cost Reporting structures- Contractor shall
  - Identify areas where cost reductions would bring cost efficiency to operations without adversely affecting mission, security, health and safety or workers and public, or the environment. (H-8)
  - Utilize annual controlled baselines that are NNSA approved and include cost, scope of work, and schedule. (H-8)
  - Baselines will be used to effectively manage and validate actual costs and savings to ensure program efficiencies (H-8)
  - Cost savings must be hard savings, meaning that they can be validated and sustained through all future years (H-8)
  - Submit monthly general management reports to summarize schedule, labor, and cost plans and status, and provide explanations of status variances from plans. (Appendix O-Program Management and Cost Reports)
  - Be required to support preparation and maintenance of the EPAT/NWBS database through EPAT activity data sheets (Appendix F-National Work Breakdown Structure)
  - Be required to support the PPBE process including following the configuration management procedure in the EPAT/ NWBS. (Appendix F)
  - Requirement for DOE institutional cost reporting



# SECURITY

Mr. Joseph Newell



# SECURITY



- The approach to Protective Force (PF) services currently differs at Pantex and Y-12
  - PF at Pantex is contained within the M&O
  - PF at Y-12 is provided via a Federally held prime contract
- The Pantex PF model is utilized for this contract; the M&O Contractor will be responsible for all security services
  - Supports the Enterprise philosophy of contract consolidation and streamlining
  - Provides enhanced employment and retention options for PF personnel as M&O employees
- Subcontracting for PF services is not allowed
- Each site will negotiate separate PF collective bargaining agreements based on the local market
- For the Savannah River Tritium Operations option, the M&O may negotiate with the site landlord for PF services, if desired



# PROJECT MANAGEMENT

Mr. Johnnie Guelker



# PROJECT MANAGEMENT



- Draft RFP requirements
  - All Project Management under \$10M is retained with the M&O (General Infrastructure and Expense Projects - CLIN 0001)
  - Project determination will be made by the Acquisition Executive for projects from \$10M to \$750M (CLIN 0001), DOE O 413 will apply
  - Evaluate M&O and Uranium Processing Facility (UPF) for best value (CLIN 0001 and 0002)
  - Ongoing projects at the sites requiring M&O support (CLIN 0001):
    - At Pantex: High Explosive Pressing Facility
    - At Y-12: UPF, Nuclear Facility Risk Reduction Project, and Security Improvements Project



# PROJECT MANAGEMENT



## Draft RFP requirements for UPF in CLIN 0002

- Project Management to include management and oversight of design
- Construction (title III services)
- Test and checkout
- Integration with ongoing operations
- Transition to Operations
- All of the above to be performed in accordance with the UPF Project Execution Plan



# OFFEROR'S DELIVERABLES

Mr. Dan Saiz



# OFFEROR'S DELIVERABLES



- Standard Form 33
- Section K
- Section L
- Section M



# OFFEROR'S DELIVERABLES



- Standard Form 33
  - Authorized representative must have the authority to commit the Offeror to the resulting contract, fully recognizing that the Government intends to make an award without discussions
  - By signing, dating and submitting the SF 33, the Offeror commits to accept the resulting contract as written
  - Any exception or deviation by the Offeror to the terms and conditions stated in this solicitation for inclusion in the resulting contract may make the Offer unacceptable for award without discussions



# OFFEROR'S DELIVERABLES



- Section K
  - The Offeror shall submit a fully completed Section K, Representations, Certifications, and Other Statement of Offerors
  - The parent organization of each member of a teaming arrangement, if proposed, must separately complete, sign, and submit the Section K
  - Foreign Ownership, Control, or Influence (FOCI)
    - Affirmative NNSA Determination required as a condition of award
    - Facility Clearance
    - Personnel Badges
  - Organizational Conflict of Interest statement must included as an Exhibit to Section K



# OFFEROR'S DELIVERABLES



- Section L General Instructions
  - Proposal shall be structured in three separate volumes
    - Volume I – The Offer – No page limit
    - Volume II – Technical and Management Information – Shall not exceed 100 pages
      - Excluded from page count
        - » Resume Information
        - » Table of Content and List of Figures/Glossary of Acronyms
        - » Corporate Experience and Past Performance Information Forms
    - Volume III – Cost Information – No page Limit



# OFFEROR'S DELIVERABLES



- Section M
  - A proposal shall be eliminated from further consideration before the initial rating if the proposal is so grossly and obviously deficient as to be totally unacceptable on its face
    - If it does not represent a reasonable initial effort to address the essential requirements of the solicitation
    - Clearly demonstrates that the offeror does not understand the requirements of the solicitations
  - An overall unsatisfactory on one evaluation criteria may also result in elimination of the proposal from further consideration regardless of the rating of the other criteria



# QUESTIONS & ANSWERS