

#### A Presentation to the Savannah River Site Citizens Advisory Board



### Site Strategic Planning



Invironmental Management

safety & performance & cleanup & closure



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- Inform the Citizens Advisory Board on the site-wide strategic planning process
- Share an outline of the Site Strategic Plan
- Provide an update of the Gold Metrics for 1<sup>st</sup> Qtr Fiscal Year 2009



### Linkage to DOE Strategic Themes





### **DOE Strategic Themes**

Energy Security	Nuclear Security	Scientific Discovery & Innovation	Environmental Responsibility	Management Excellence
Promote reliable, clean and affordable energy Increase our energy options and reduce dependence on oil Improve the quality of the environment - reduce greenhouse gas emissions - reduce impacts from energy production and use	Transform the Nation's nuclear weapons stockpile and supporting infrastructure to be more responsive to the threats of the 21st Century Prevent the acquisition of nuclear and radiological materials for use in weapons of mass destruction and in other acts of terrorism	Strengthen U.S. scientific discovery & economic competitiveness Achieve major scientific discoveries in energy, national security and environmental challenges Deliver scientific facilities, train the next generation of scientists and engineers Integrate basic and applied research	Provide a responsible resolution to the environmental legacy of nuclear weapons production Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites Manage the Department's post-closure environmental responsibilities	Create Clear roles, responsibilities and accountability Attract, motivate, and retain a highly skilled and diverse workforce Build, modernize, and maintain safe and secure facilities to achieve mission goals Integrate resource management strategy - support mission needs - process improvement



- Accelerate risk reduction for the public and the environment
- Pursue alternative approaches to finish tank waste, nuclear materials, and spent nuclear fuel during 2015-2035 timeframe.
- Help make nuclear power a viable option to meet our pressing energy needs
- Provide excellent return on investment.



 Complex transformation to a smaller, safer, more secure and less expensive nuclear weapons complex that leverages the scientific and technical capabilities of our work force and meets national security requirements

Source: NNSA website; <u>www.nnsa.energy.gov</u>

- Eliminate where possible the accumulation of stockpiles of highly enriched uranium or plutonium.
  - Source: NNSA Memorandum; Mission need for mixed oxide fuel fabrication facility 3-15-2006



### **SRS** Vision

The Savannah River Site is recognized as a long-term national asset in the areas of national security, energy independence, innovative technology, and environmental stewardship and there is sustained public confidence in its people and capabilities.



# **SRS EM Mission**

Safely and efficiently clean up the environmental legacy of our nation's Nuclear weapons program at the Savannah River site to protect public Health and the environment and transform the Site for the future

To accomplish the mission we:

- Treat and dispose of wastes;
- Remove Contaminated facilities;
- Clean up soils and groundwater;
- Disposition surplus nuclear material; and
- Support national security and our nation's energy independence

To support the mission we:

- Perform reliably and responsibly;
- Expand the capabilities of Savannah River National Laboratory;
- Make more of the Site available for new missions
- Assure costs to provide a better value for taxpayers



- Safely, securely, and efficiently store and process excess nuclear material to improve our security posture, protect public health and the environment, and to allow either beneficial reuse or disposal of these materials thereby supporting transformation of the Savannah River Site for the future and supporting other national priorities.
- Scope of Mission includes:
  - Plutonium (PU)
  - Highly Enriched Uranium (HEU)
  - Spent Nuclear Fuel (SPF)
  - Misc Nuclear Material: Depleted Uranium Oxide, Neptonium, Heavy Water



#### Liquid Waste

 Safely treat and disposition 36 million gallons of radioactive liquid waste and close 49 underground storage tanks in which the waste now resides by 2028 to reduce risk and meet regulatory commitments

#### Solid Waste

 Treat, store, transport and dispose of Transuranic (TRU). Hazardous (HW), mixed low-level (MLLW), low- Level (LLW), and sanitary wastes generate at SRS to reduce risk to human health and the environment, supporting on-going missions, and enabling footprint reduction



 The Area completion project will safely deactivate and decommission contaminated facilities and remediate soils and groundwater to complete cleanup for large areas of SRS to protect human health and the environment and make significant areas of the site available for new missions



### **EM: SRNL Mission**

#### Savannah River National Laboratory

- Address the challenges of cleaning up the environmental legacy of the Nation's weapons program and provide key support to help meet Homeland Security and Energy Security objectives
- The scope of SRNL's mission includes:
  - Technical Leadership for DOE EM mission
  - Alternate Energy Research
  - FBI Radioactive Laboratory



# **NNSA: SRS Missions**

#### **Defense Program**

Tritium: Continually replenish the Nations Tritium supply by:

- Recycling Tritium from existing weapons
- Extracting Tritium from irradiated rods

Source: SRS Tritium 10 Year Site Plan

#### **Build and Operate**

Pit Disassembly and Conversion Facility

Source: NNSA Memorandum, Mission need for mixed oxide fuel fabrication facility 3-15-2006

#### **Nuclear Non-Proliferation Program**

#### **Build and Operate**

- Waste Solidification Facility
- Mixed Oxide Fuel Fabrication Facility

Source: NNSA Memorandum, Mission need for mixed oxide fuel fabrication facility 3-15-2006



# **Strategic Planning Process**

- Assess the Strategic Environment
  - Internal Factors
  - External Factors
- Conduct an in-depth self analysis of SRS Strengths, Weaknesses, Opportunities and Threats (SWOT analysis)
- Identify Strategic Issues
- Establish Strategic Goals and Objectives



# **Draft Strategic Plan Outline**

- Vision and Mission
- Environmental Scan
- Support of DOE Strategic Themes
  - Energy Security
  - Nuclear Security
  - Scientific Discovery & Innovation
  - Environmental Responsibility
  - Management Excellence
- Goals
- Challenges & Opportunities
- Crosscutting Initiatives
- Plan for Implementation



# **Gold Metrics**

		Units	Performance								
Project	Performance Measures			Past		Fiscal Year			Lifecycle		
				End of FY 2008		Actual thru 1st Qtr - FY09	FY 2009 Target		Actual thru 1st Qtr - FY09	Lifecycle Target	
PBS 11	DU & U Packaged for Disposition	MT		9,974		1,562	2,136		11,536	23,182	
	eU Packaged for Disposition	containers		3,004		0	0		3,004	2,809	
	PU/U Residues Packaged for Disposition	kg bulk		490		0	0		490	490	
	Pu Packaged for Long-term Disposition	containers		919		0	0		919	919	
	Category I Areas Eliminated	areas		2		0	0		2	3	
PBS 12	SNF Packaged for Disposition	MTHM		3		0	1.5		3	40	
PBS 13	LL/LLMW Disposed from Legacy/ Newly Generated	m3		100,620		1,595	4,444		102,215	137,579	
	LL/LLMW Disposed from ER & DD	m3		9,881		487	718		10,368	764,499	
	TRU Disposed (Shipped to WIPP)	m3		5,691		65	160		5,756	15,658	
PBS 14	HLW Packaged for Disposition	containers		2,599		45	186		2,644	5,862	
	Liquid Waste Eliminated	k-gallons		1,174		0	700		1,174	33,100	
	Liquid Waste Tanks Closed	tanks		2		0	0		2	51	
PBS 30	Remediation Complete	sites		360		0	0		360	515	
PBS 40	S 40 Facility Completions			245		0	0		245	990	



# **Conclusions, Next Steps**

- Comments from the CAB have been received and will provide input to the site Strategic Plan
- A draft of the Strategic Plan is scheduled to be completed by 1/31/09
- The finalized site Strategic Plan will be presented to the Citizens Advisory Board at the March meeting



#### **Acronym List**

EM **Environmental Management** NNSA **National Nuclear Security Administration** SRNL Savannah River National Laboratory HEU **Highly Enriched Uranium** LLW Low Level Waste Low Level Mixed Waste LLMW **Mixed Low Level Waste** MLLW PU Plutonium **Spent Nuclear Fuel** SNF TRU Transuranic MOX **Mixed Oxide** 

