MOX
FUEL FABRICATION FACILITY

MOX Update

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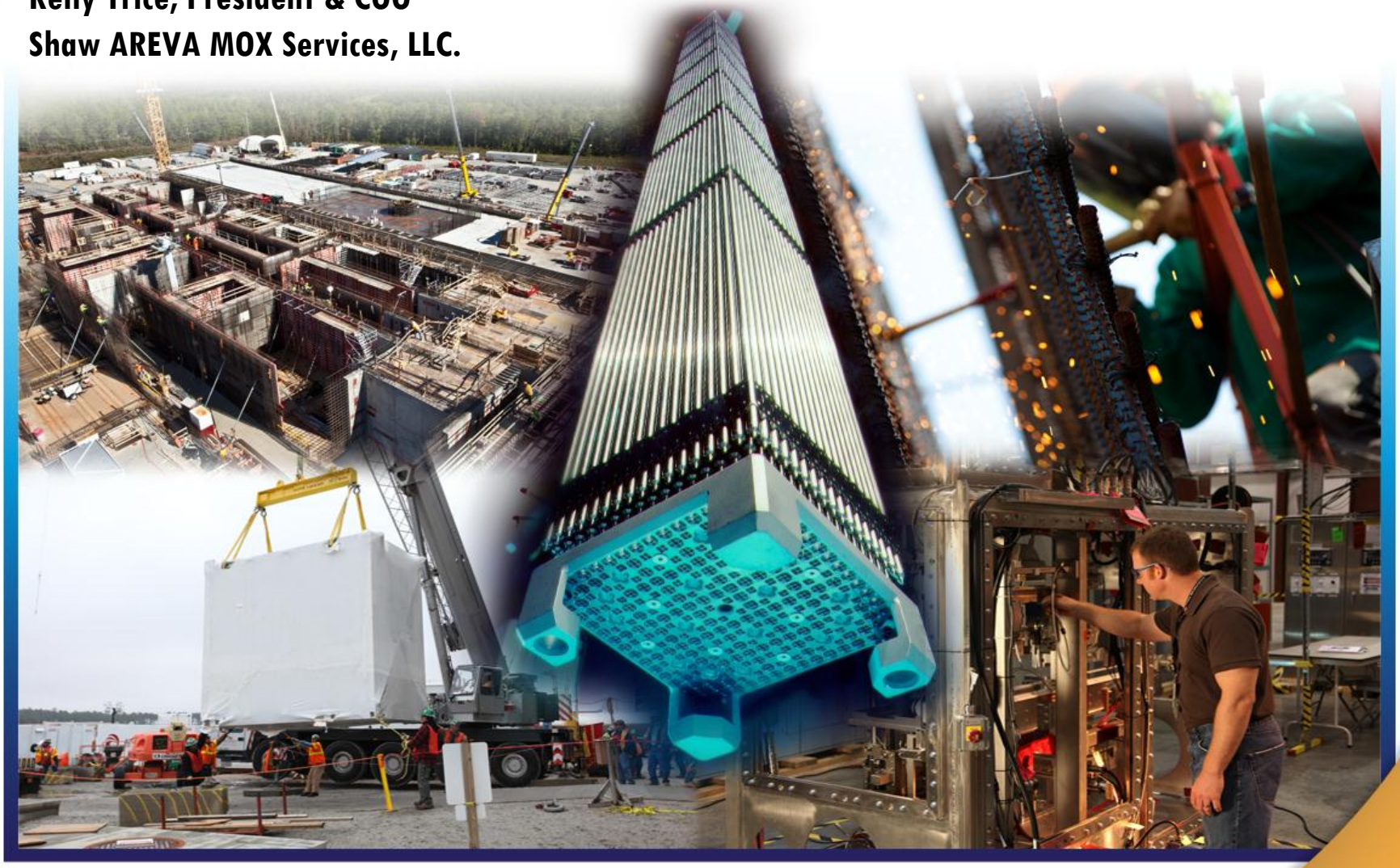


What is MOX?

- **Mission**
  - Convert at least 34 metric tons of U.S. weapons-grade plutonium to mixed oxide (MOX) fuel for use in commercial power reactors
  - Implements international agreement with Russia where they will also dispose of 34 metric tons of surplus weapons-grade plutonium

MOX Safety Performance

- **Safety performance remains excellent**
  - Over 16 million hours worked since start of construction
  - Currently have worked 7 million hours without a lost time accident
- **Over 50 active environmental permits being managed with no violations to date**

Key Milestones

• Start MFFF Construction	8/2007
• Complete Roof	6/2013
• End of Cold Startup	10/2016
• Begin Hot Startup (Pu in plant)	*10/2016
• Complete 8 MOX Fuel Assemblies	12/2018

*The construction schedule includes 16 months of contingency. Hot Startup is currently tracking to begin in summer of 2015.

Material Quantities Installed

Structural Concrete	104,086 cubic yards
Non-Structural Concrete	51,369 cubic yards
Rebar	17,619 tons (35,238,000 lbs.)
Process Pipe to be installed	~411,000 ft.
Tanks	62 of 74
Electrical Cable to be installed	~6 million ft.
Process Systems to be installed	294

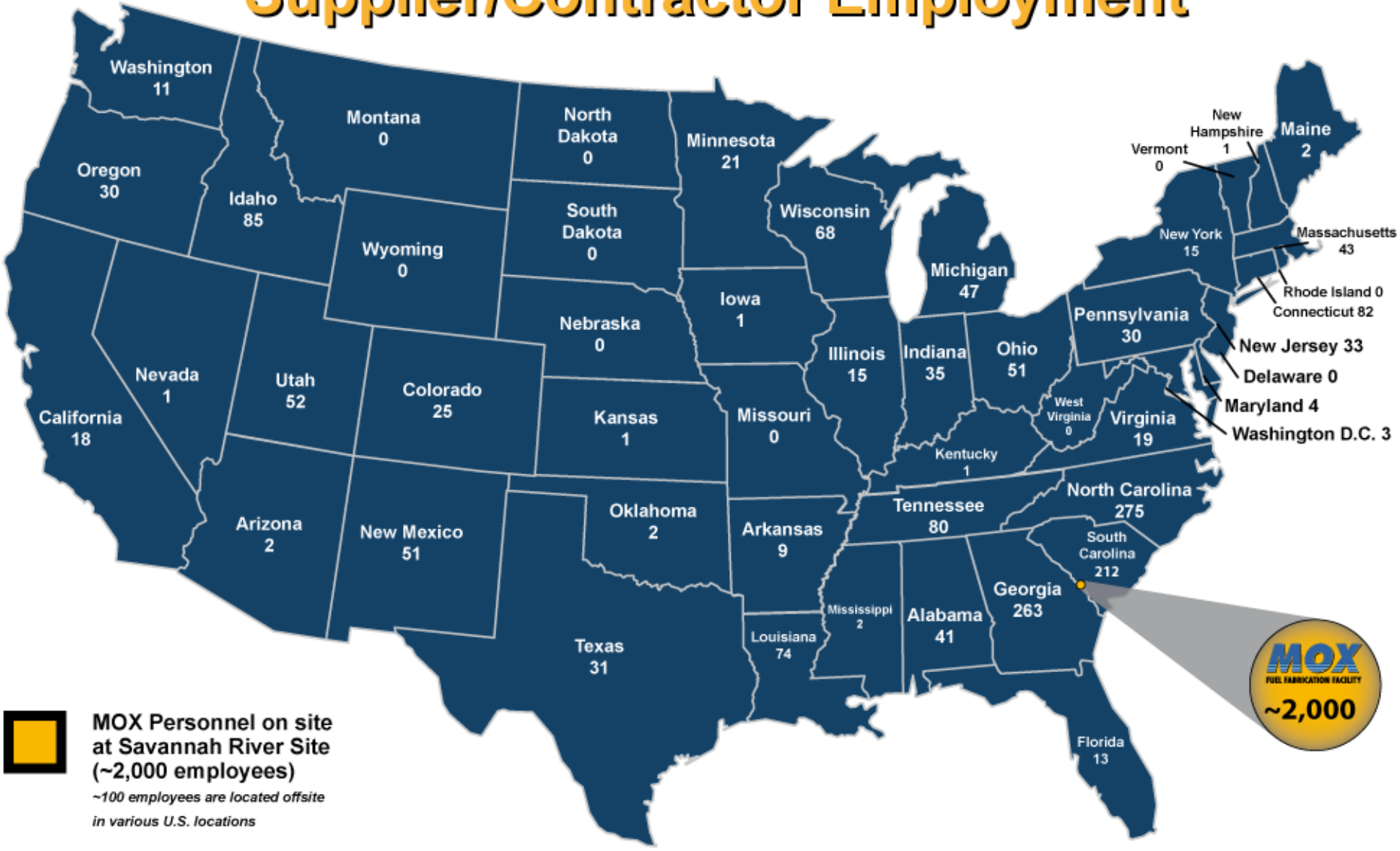
Design Capacity

- The facility will be able to produce up to 70,000 fuel pellets per day
- The facility is being redesigned to produce both Pressure Water Reactor (PWR) and Boiling Water Reactor (BWR) fuel assemblies
- Approximately 151 PWR fuel assemblies can be produced annually
  - Utilizing 70 metric tons of heavy metal
- The facility will contain 7 Control Rooms

Licensing Status

- 2001 - Construction authorization request submitted to NRC to construct MOX facility
- 2005 - NRC issued Construction Authorization
- 2006 - MOX Services submitted License Application package to NRC for operation
- 2010 - ACRS meeting on NRC's Final Safety Evaluation Report (FSER) for MOX
- 2010 - NRC issues MOX FSER
- 2012 - Atomic Safety & Licensing Board (ASLB) hearings
- 2016 - NRC issues supplemental FSER documenting verification of completion of construction of Principal Structures, Systems and Components (PSSCs) along with license
- 2016 - NRC Operational Readiness Review

Total Impact of MOX Project & Supplier/Contractor Employment



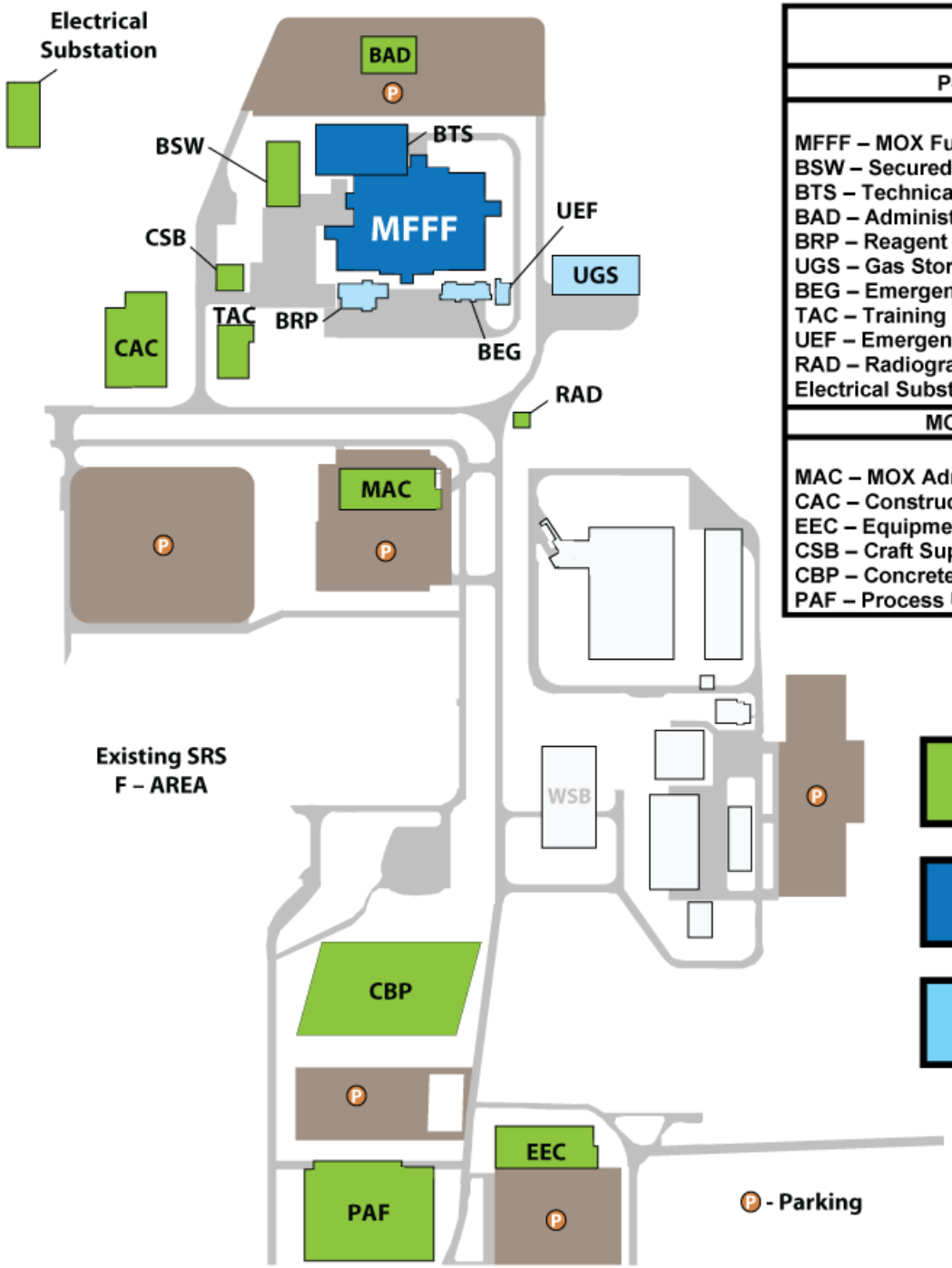
MOX Personnel on site at Savannah River Site (~2,000 employees)

~100 employees are located offsite in various U.S. locations

Personnel employed by MOX Suppliers (~1750 employees)

Updated 10/2011

~3,850 total jobs impacting America



Facility	Construction		Status
	Start	Complete	
Permanent Buildings			
MFFF – MOX Fuel Fabrication Facility	Sep 2007	2014	Construction
BSW – Secured Warehouse Building	Jan 2009	Dec 2009	Complete
BTS – Technical Support Building	2010	2012	Construction
BAD – Administration	Jun 2008	Jun 2009	Complete
BRP – Reagent Processing Building	2010	2013	Planning
UGS – Gas Storage Area	2011	2014	Planning
BEG – Emergency Diesel Generator Building	Aug 2012	2013	Planning
TAC – Training Administration Complex	Jun 2007	Jan 2008	Complete
UEF – Emergency Diesel Storage	Aug 2012	2013	Planning
RAD – Radiography Building	July 2008	July 2008	Complete
Electrical Substation	Feb 2009	2010	Complete
MOX Site Infrastructure			
MAC – MOX Administration Complex	Dec 2006	Mar 2007	Complete
CAC – Construction Administration Complex	May 2007	Aug 2007	Complete
EEC – Equipment Engineering Complex	Sep 2007	Nov 2007	Complete
CSB – Craft Support Building	Mar 2008	May 2008	Complete
CBP – Concrete Batch Plant	Apr 2007	July 2007	Complete
PAF – Process Unit Assembly Building	Apr 2008	Sep 2008	Complete

Complete

Construction Ongoing

Planning

August 2007

Start of Construction

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December 2011

NNSA
National Nuclear Security Administration

Technical Support Building

MFFF Overheads

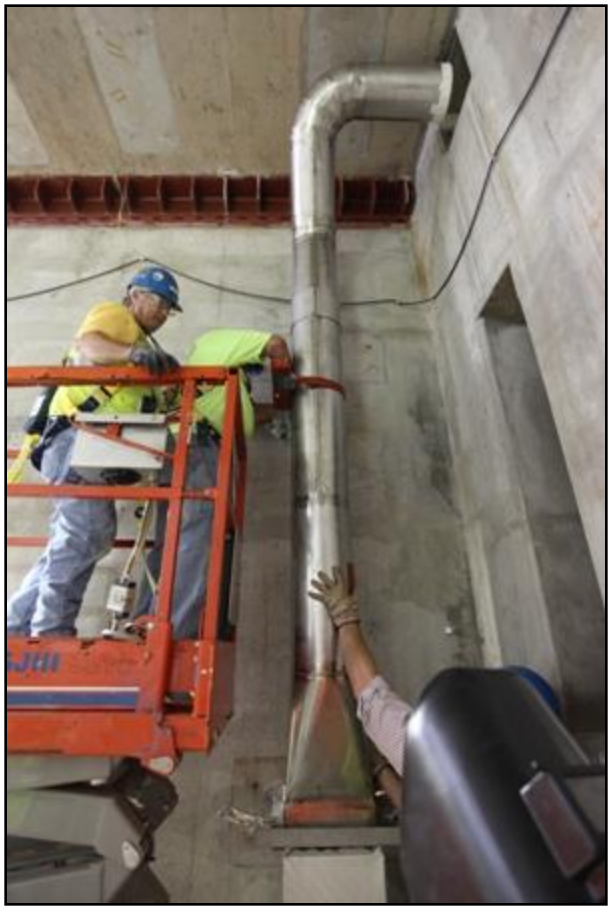
Rebar Installation

Glove Box Assembly and Testing

Process Piping Welding

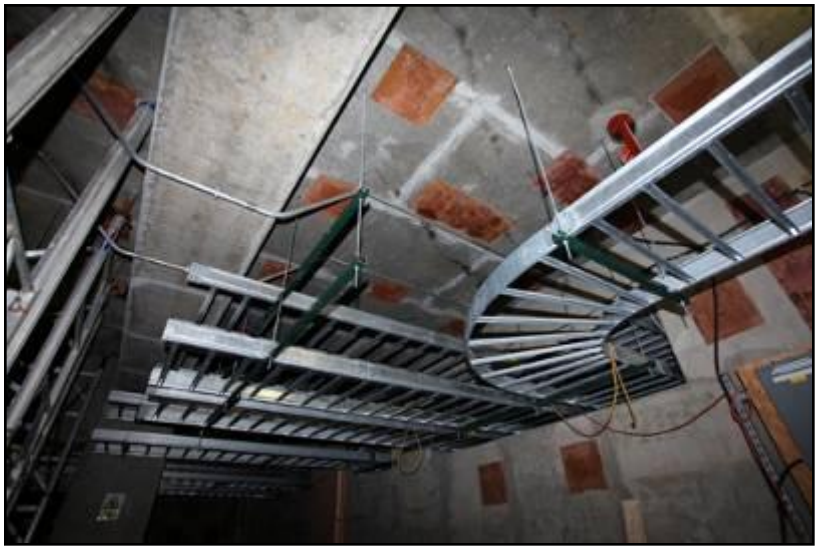
First Process Piping Installation

First HVAC Components Installation



Tanks in the MFFF

Electrical Installation



Equipment Installation