

Vogtle Units 3&4 ITAAC Lessons Learned Project Update

February 16, 2012



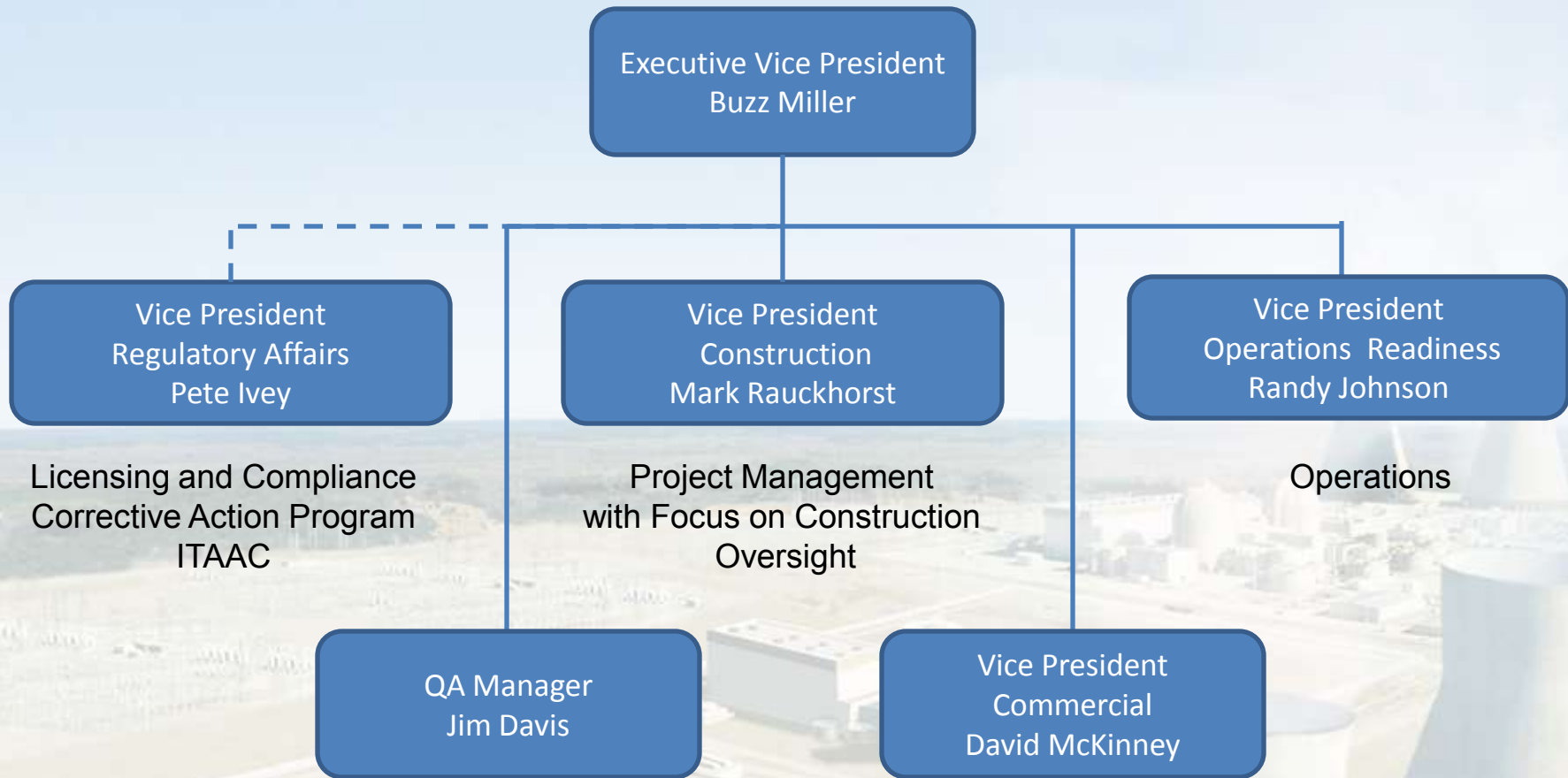
Recent Organization Changes

- SNC is continually assessing the Nuclear Development Organization
- In anticipation of COLs' receipt, on December 24, 2011, organization changes were implemented to improve:
 - Construction oversight
 - Regulatory effectiveness
 - Operations support effectiveness

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Recent Nuclear Development Changes



Regulatory Affairs Organization

- Pete Ivey has fleet and Nuclear Development Regulatory Affairs responsibilities
- Vogtle 3&4 Regulatory Affairs VP - David Jones
Reports to Pete Ivey and is responsible for the key areas of Licensing and Compliance, Corrective Action Program, and ITAAC

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2012 Construction Activities

target
ZERO 
Every day, every job, safely.

U3 2012 Significant Activities

2012

2013

Arrival of Turbine Building Condenser
(1-30-2012 Actual)

Install Rebar

Turbine Building Foundation

1st Nuclear Concrete

Set CR10

Set CV Bottom Head

Arrival of reactor vessel

Set CA20

Set CA04

Set CA05

Set CA01

Set CV Ring 1

Set CA03

Set CA02

Receipt of COL
(Mid February 2012)

Module Legend

CR10	Rebar supporting CV BH
CA01	SG / Refueling Canal
CA02	IRWST / Pressurizer Wall
CA03	IRWST Southwest Walls
CA04	RV Cavity / RCDT
CA05	CVS / Access Tunnel / PXS-B Walls
CA20	Auxiliary Building

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ITAAC (ESP) 3.8.05.1.1 States:

Waterproof Membrane ITAAC

NRC concluded that there was not a material qualification testing report that duplicates the as-built waterproof system, primarily due to a minor portion of as-built area that was not explicitly tested in the lab (i.e., the construction joint configuration)

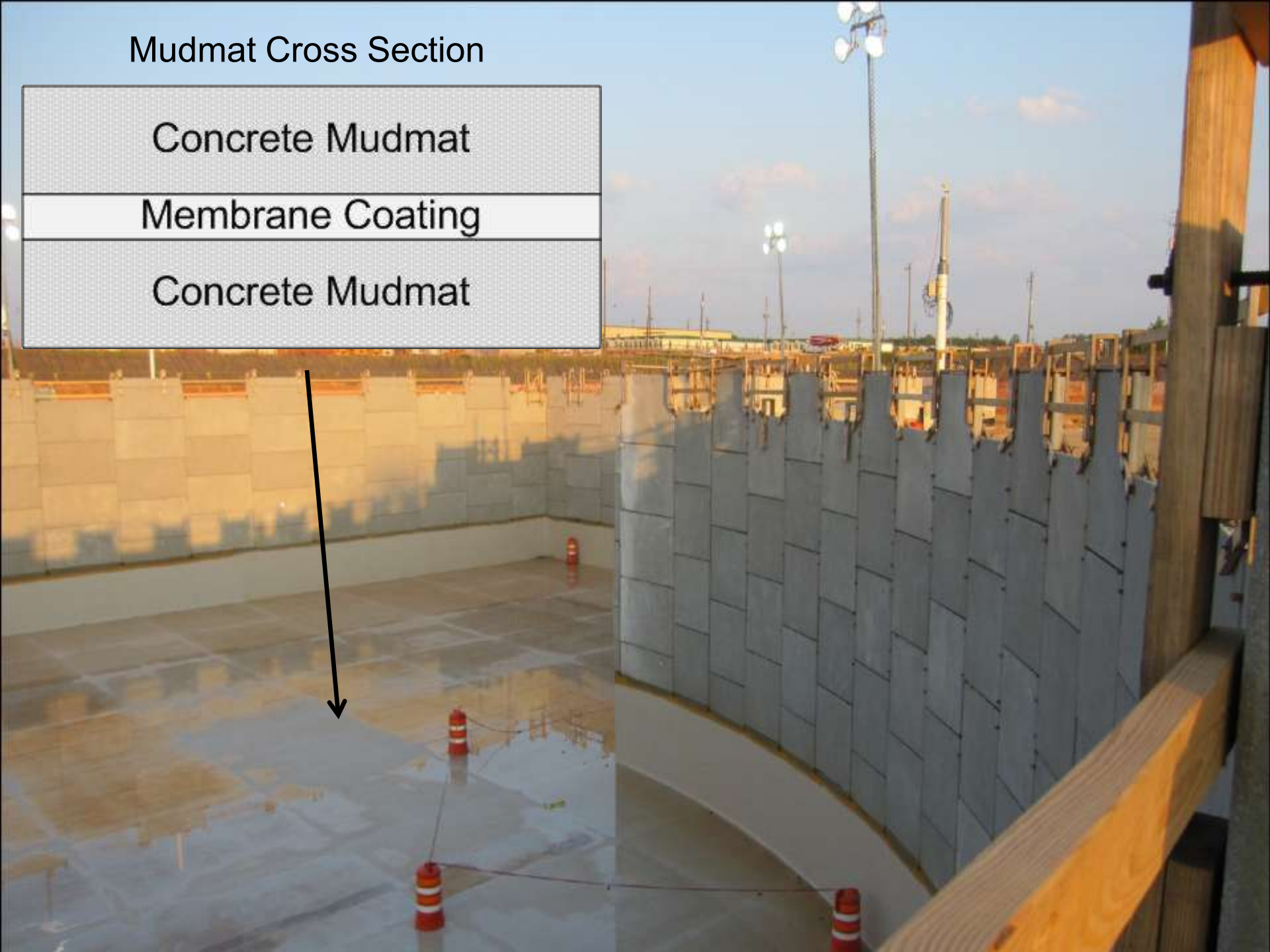
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
The friction coefficient to resist sliding is 0.7 or higher	Testing will be performed to confirm that the mudmat-waterproof-mudmat interface beneath the Nuclear Island basemat has a minimum coefficient of friction to resist sliding of 0.7	A report exists and documents that the as-built waterproof system (mudmat-waterproofing-mudmat interface) has a minimum coefficient of friction of 0.7 as demonstrated through material qualification testing .

Mudmat Cross Section

Concrete Mudmat

Membrane Coating

Concrete Mudmat



WPM Notice of Violation

SNC received a Severity level IV Notice of Violation (NOV) from the NRC on September 16, 2011 citing the following deficiencies:

- As-built conditions did not match lab test (i.e., joint cracks)
- Lack of control of special processes related to membrane material
- Failure to consider environmental effects that were not tested in the lab
- Failure to consider the aging of material prior to placement of second layer of mudmat
- Cited SNC for non-conservative decision making

WPM ITAAC Re-Test Plan

Three tiers of Supplemental WPM Qualification Testing

Tier 1A – test 16 samples on Unit 4 mudmat after minimal exposure

- Joint configuration (scrim, stripe coats, sealant)
- Construction weathering (1 - 3 days)

Tier 1B – test 8 samples on Unit 4 mudmat after 34 days of exposure

- Joint configuration (scrim, stripe coats, sealant)
- Construction weathering (34 days)

Tier 2 – tests on separate onsite concrete pad

- Mix variations (N&Ds on Perkadox (hardener))
- Excess scrim and stripe coat layers

Tier 3 – laboratory tests

- Aging - bound Unit 3 UV, temperature and humidity conditions

Corrective Actions Based on Lessons Learned

- Recognition of critical specifications and procedures
 - Mixing of materials (Perkadox and Primer/Metaset/Integritank)
 - Storage of Materials, Temperature and Humidity during application
 - Pull-off test (Control of M&TE and ASTM adherence)
- Housekeeping during and following application
- Bound application and conditions and ensure
 - Equivalency to how Unit 3 waterproofing was installed
 - Rigor to application for Unit 4 installation

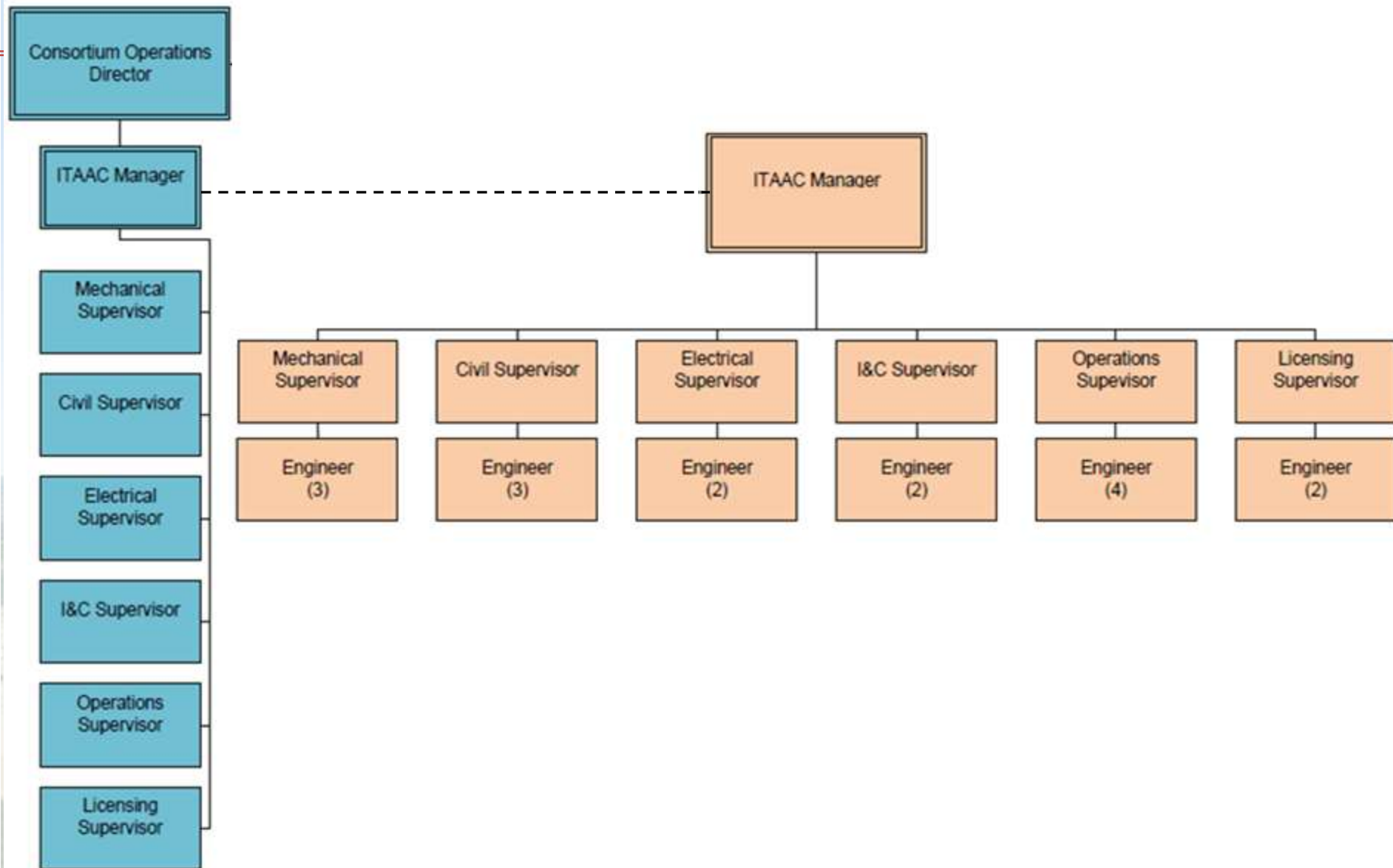
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ITAAC Lessons Learned

- Created ITAAC team of Consortium and SNC to work activities through closure and maintenance
 - Includes SNC and Consortium personnel working closely together
 - Involves all facets of organization including Construction, Licensing, Engineering, and Operational Readiness
 - Reside in same location onsite
- Developing governing procedures and processes for ITAAC Execution, Closure, and Maintenance
- Loading management and tracking tool
- Finalizing qualifications of personnel

ITAAC Management Team (Draft)



Vogtle 3&4 Site Development

target
ZERO 
Every day, every job, safely.

Overall View of Site – December 1, 2008



Overall View of Site – Early 2012





**Unit 3 Nuclear
Island**

**Cooling Tower
Foundations**

Heavy Lift Derrick

**Unit 4 Nuclear
Island**

**Unit 4 Circulating
Water Pipes**

Unit 4 Turbine Building

August 2011

Containment Vessel – January 2012



Turbine Building – January 2012



Heavy Lift Derrick – January 2012



Nuclear Island – January 2012



CA20 Submodules Onsite



CA20-06

CA20-07A

CA20-07B

CA20-02

01/28/2012 05:50

New Training Building



Vogle 3 and 4 Simulator

