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Vogtle Units 3&4 Project Update

February 8, 2012

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Agenda

Time	Description	Presenter
1:00 pm	Introductions	Mark Rauckhorst
1:15 pm	Recent Nuclear Development Organization Changes	Mark Rauckhorst
	Vogtle Interface Relationships with Region II	David Jones
1:30 pm	Special Topics	
	• Vogtle 2012 Integrated Projects Schedule Activities	David Clem
	• 2012 License Amendment Activities	Chuck Pierce
	• ITAAC Management/Execution Experience	Clint Medlock
	• Project Oversight	Mark Rauckhorst Tom Dent Monty Glover
2:30 pm	Vogtle Site Development	David Clem
2:45 pm	Summary/Discussion and Closing Remarks	All

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Nuclear Development Recent Organization Changes

Mark Rauckhorst
Vice President, Construction

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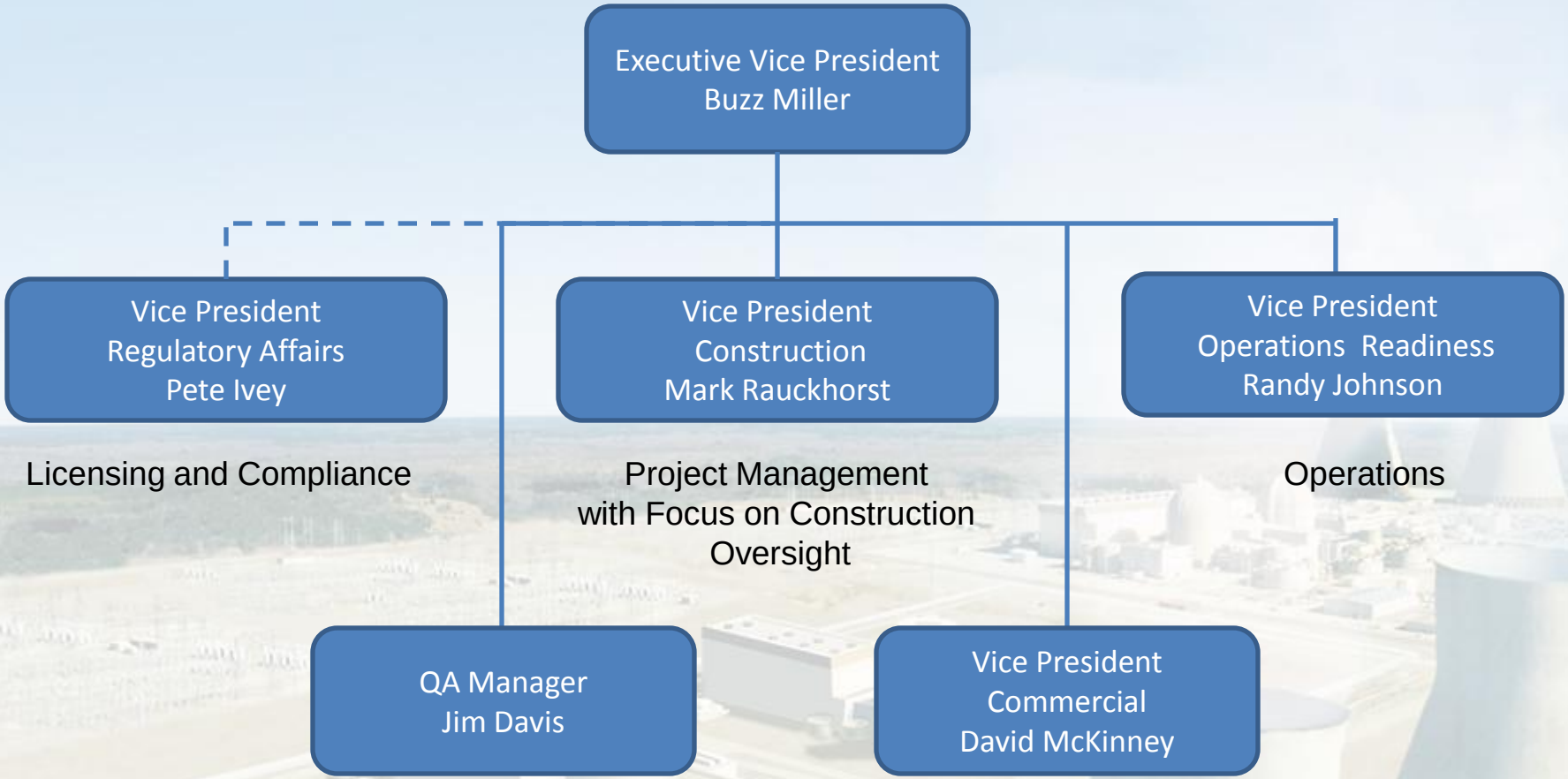
Recent Organization Changes

- 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

Recent Nuclear Development Changes



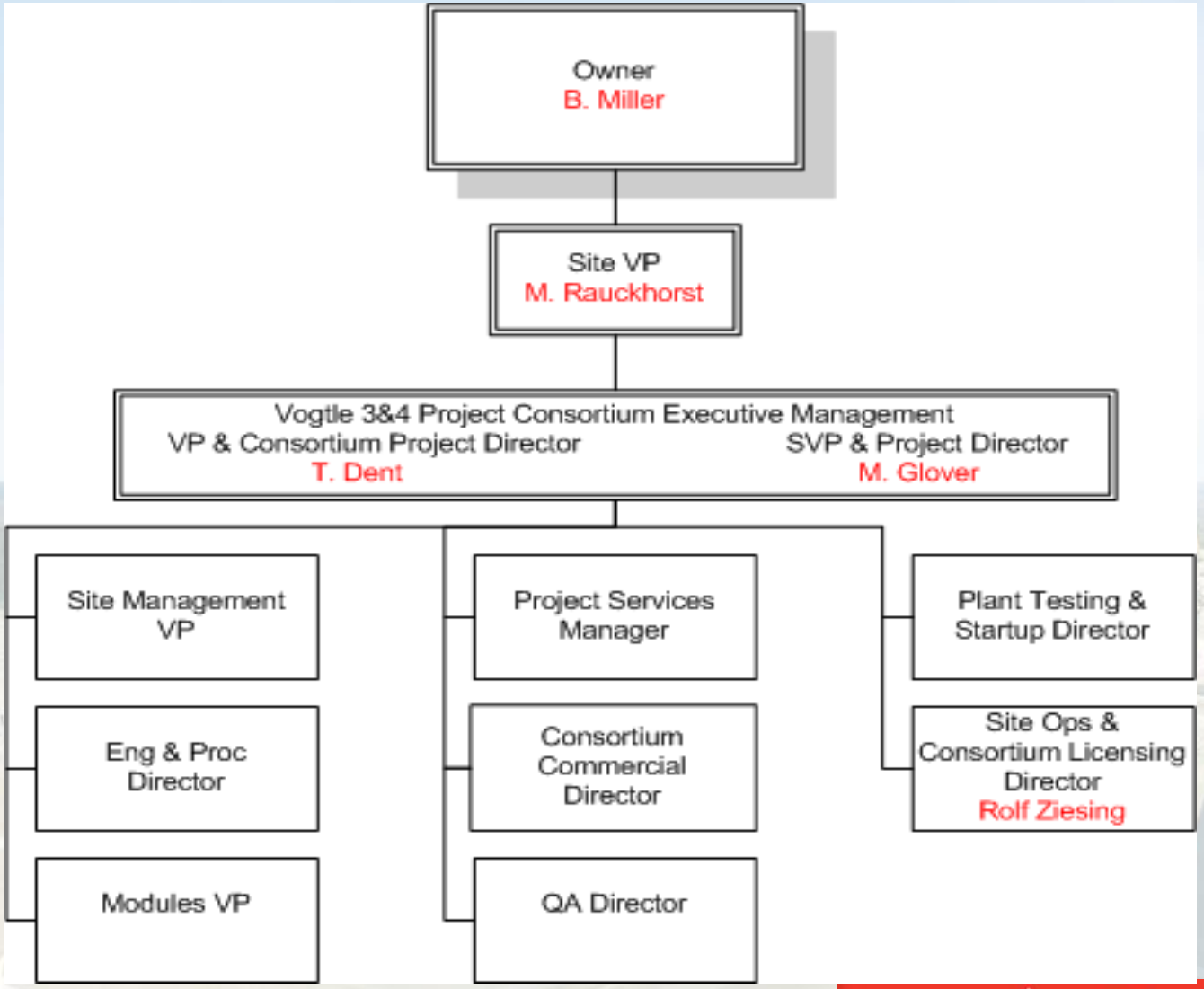
Regulatory Affairs Organization

- 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 Actions Program, and ITAAC

Contractor Organization Elements



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NRC Interface Protocols

David Jones
VP, Vogtle 3&4 Regulatory Affairs

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NRC Interface Protocols

Title/Individual	Alignment
Regional Administrator Victor McCree	Principal: David Jones Others: Buzz Miller, Pete Ivey, Mark Rauckhorst
Deputy Administrator For Construction Darrell Roberts (Acting)	Principal: David Jones Others: Pete Ivey, Mark Rauckhorst
Director/Deputy Director Projects James Moorman/Terrance Reis	Principal: Chuck Pierce Others: David Jones
Branch Chief Construction Projects Mike King (Branch 2), Mike Ernstes (Branch 4)	Principal: Howard Mahan Others: David Jones, Chuck Pierce
Director/Deputy Director Division of Construction Inspection Chuck Ogle/Jimi Yerokun	Principal: Chuck Pierce Others: David Jones
Branch Chiefs – Construction Inspection Mark Lesser (Branch 1), Scott Freeman (Branch 3)	Principal: Howard Mahan Others: David Jones, Chuck Pierce
Project Manager George Khouri	Principal: Howard Mahan Others: David Jones, Chuck Pierce
Senior Resident Inspector Justin Fuller	Principal: Howard Mahan Others: Mark Rauckhorst, David Jones, Chuck Pierce
Resident Inspectors Abbot Coleman, Chad Huffman	Principal: Dan Mickinac Others: Howard Mahan
Operations Center	Principal: Howard Mahan Others: David Jones, Chuck Pierce

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License Amendment Activities

Chuck Pierce
Regulatory Affairs Director

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License Amendment Activities

- Design changes deferred pursuant to ISG-11 provisions.
- Under ISG-25, deferred changes to be incorporated into the licensing basis before in-place construction begins.
  - Departures and 10 CFR 50.59 evaluations
  - Amendments
- When possible, license amendments to be submitted at-least one year ahead of in-place construction. Three amendments under one year:
  - Module design clarification
  - Piping fatigue software
  - Containment vessel spare electrical penetrations
- Technical Specifications upgrade amendment planned for February 2012.

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2012 Construction Activities

David Clem
Construction Oversight and Quality Manager

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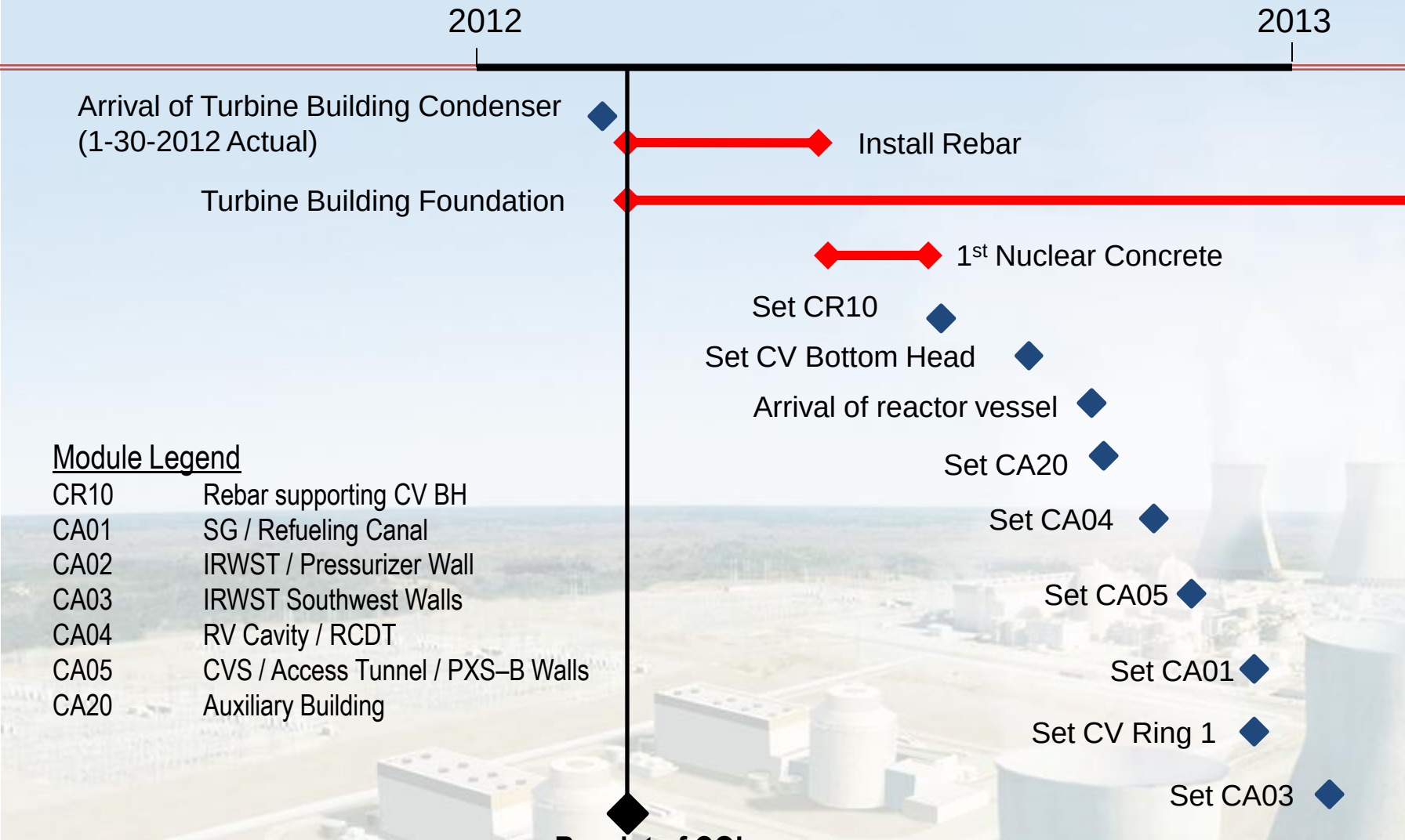
U3 2012 Significant Activities

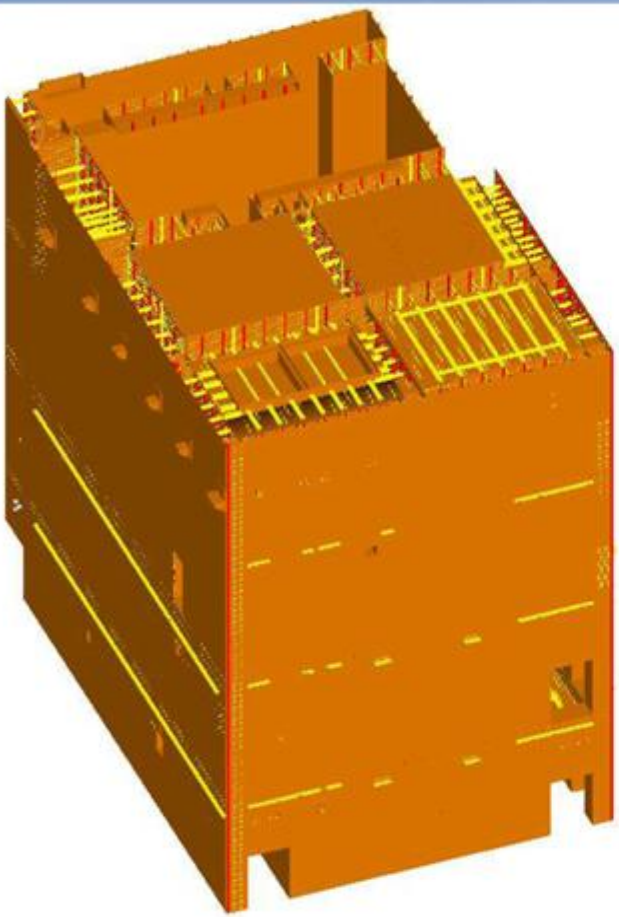


Module Legend

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

Examples of Modular Construction for Westinghouse AP1000™

CA20 – Auxiliary Bldg Area 5 and 6

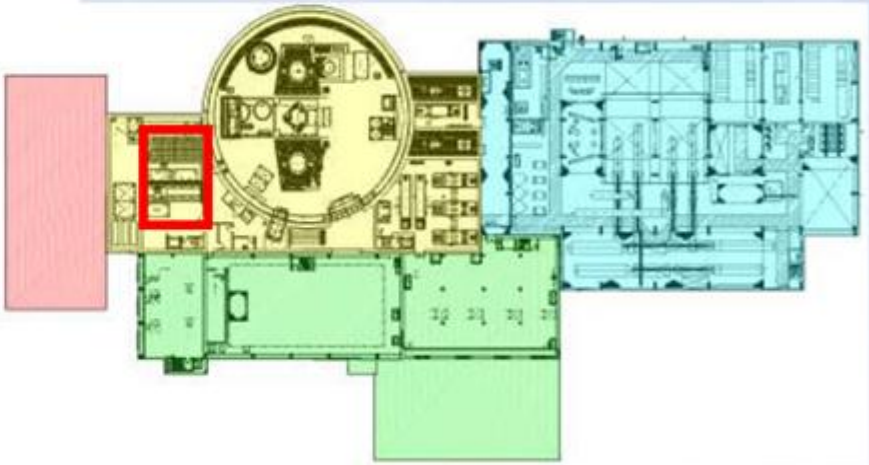


CA20 comprised of 72 Sub-Modules:

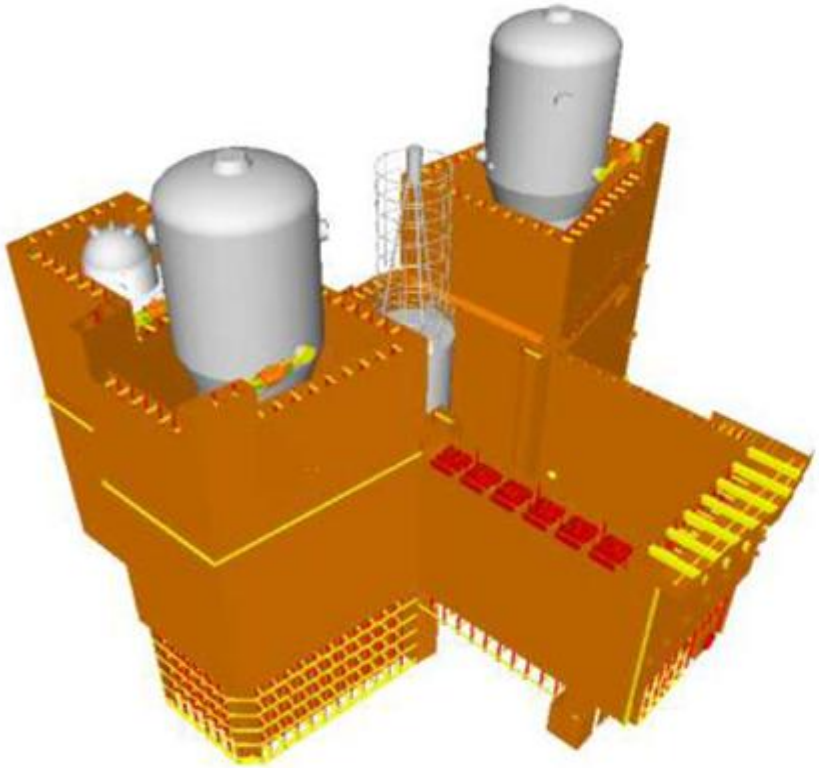
Size (N x E x Height):
44'-0" x 68'-9" x68'-0"

[13mx21mx20.7m]

Dry Weight:
1,712,000 lbs. [777 Mg]



CA01 – Steam Generator and Refueling Canal Module

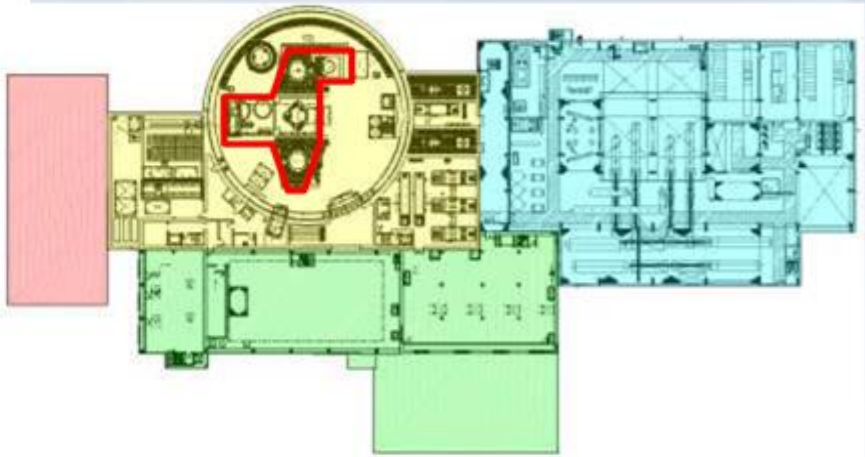


CA01 comprised of 47 Sub-Modules:

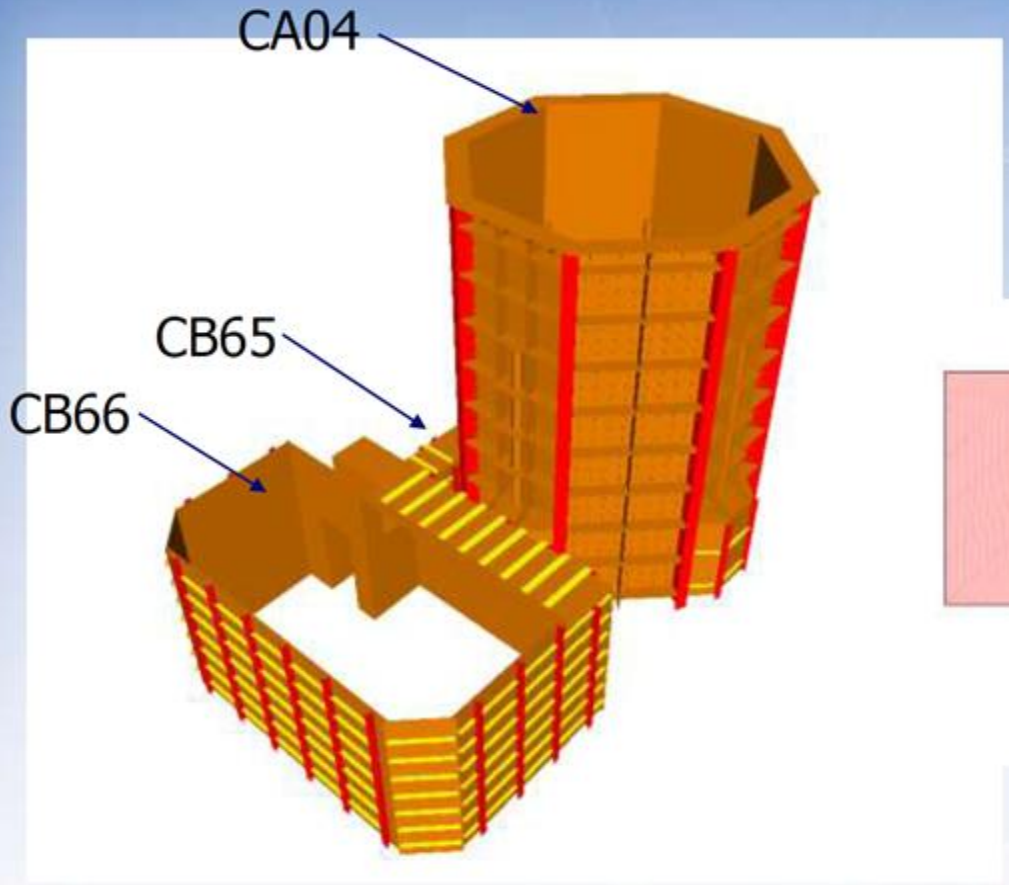
Size (N x E x Height):
92'-0" x 96'-0" x76'-0"

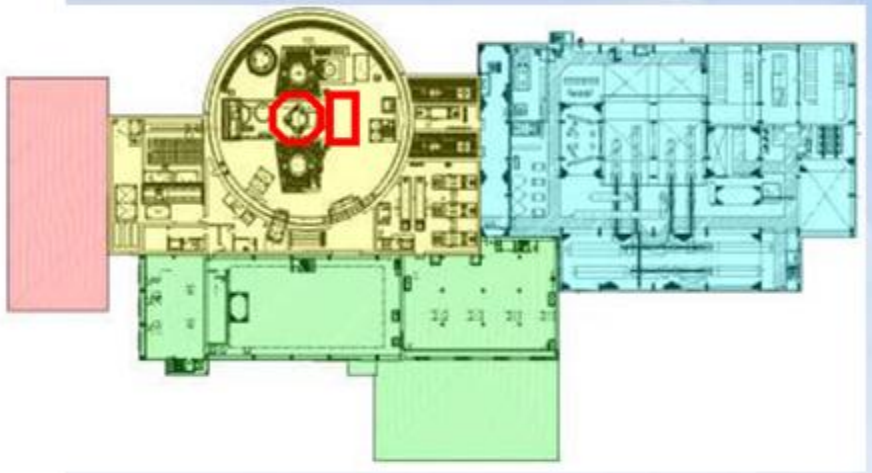
[28mx29mx23m]

Dry Weight:
1,600,000 lbs. [725 Mg]

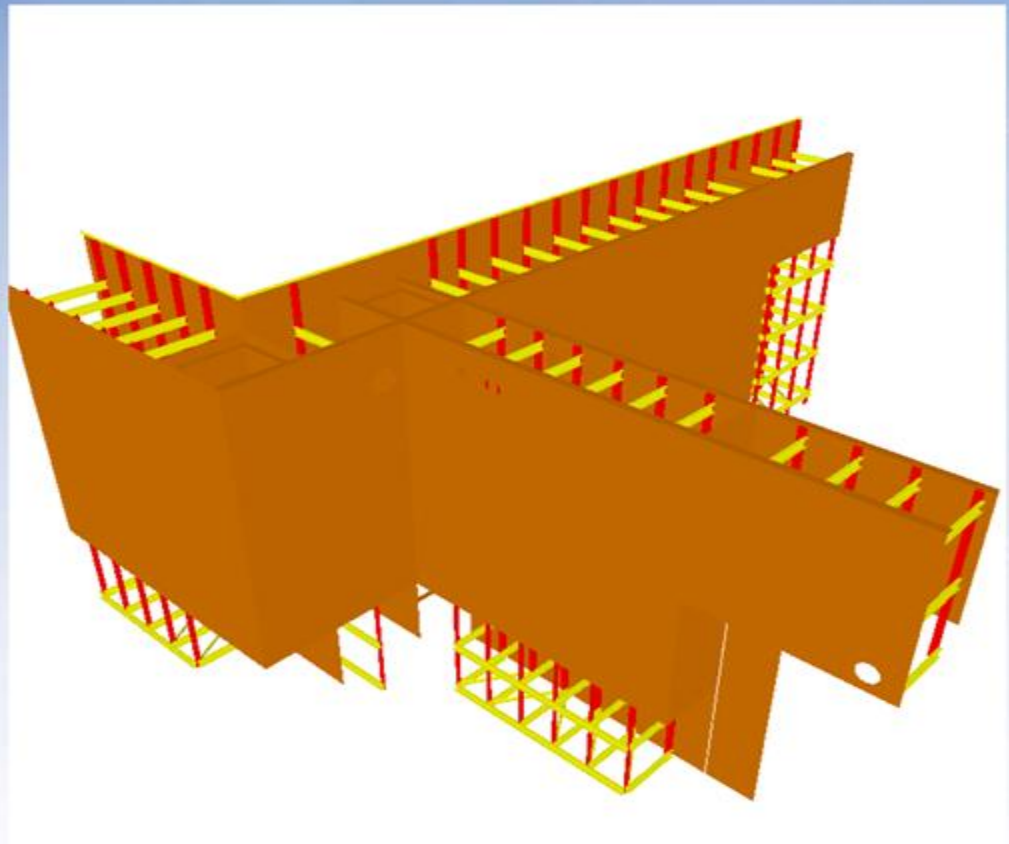


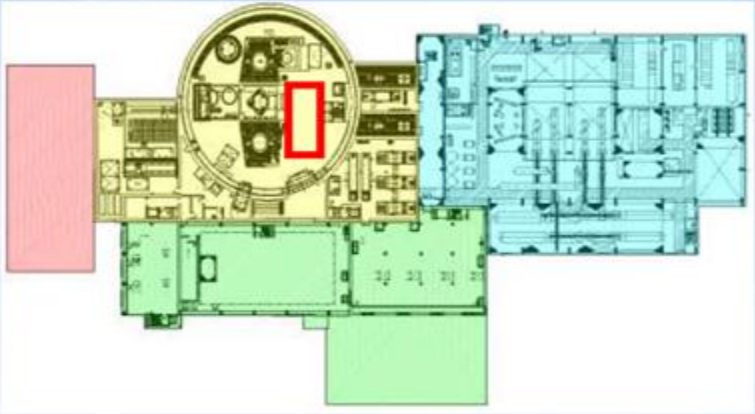
CA04 – Reactor Vessel Cavity / RCDT



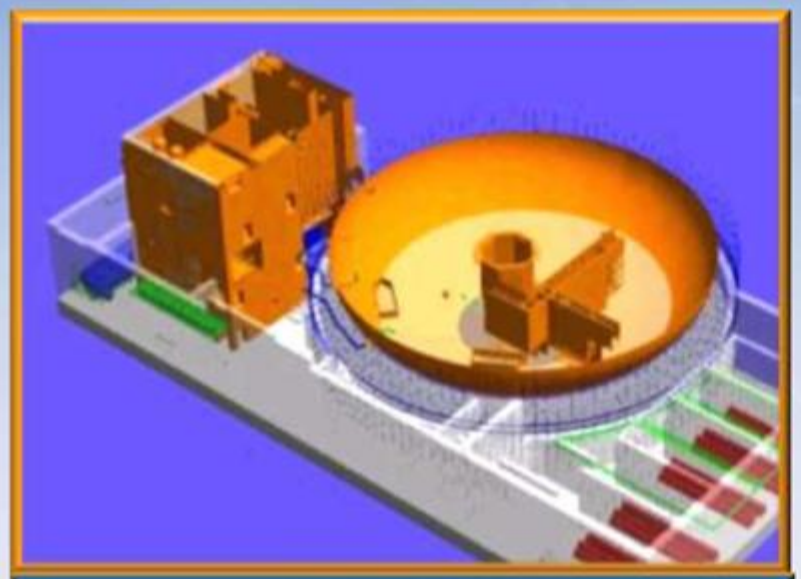


CA05 – CVS / Access Tunnel / PXS-B Walls

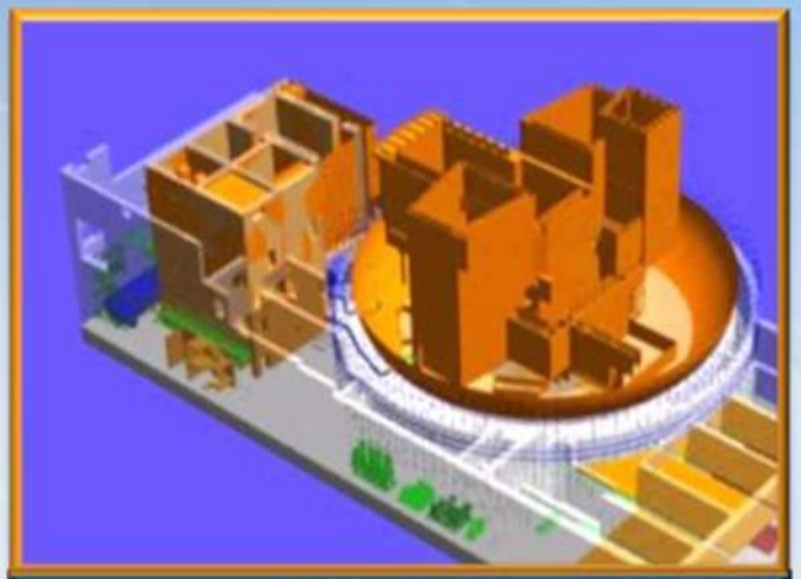




CA01-CA05 Installation Sequence



CA20-CA04,05



CA01 set on top

Sanmen Structural Module Assembly

December 2009

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Vogtle 3&4 ITAAC Management/Lessons Learned

Clint Medlock
ITAAC Manager

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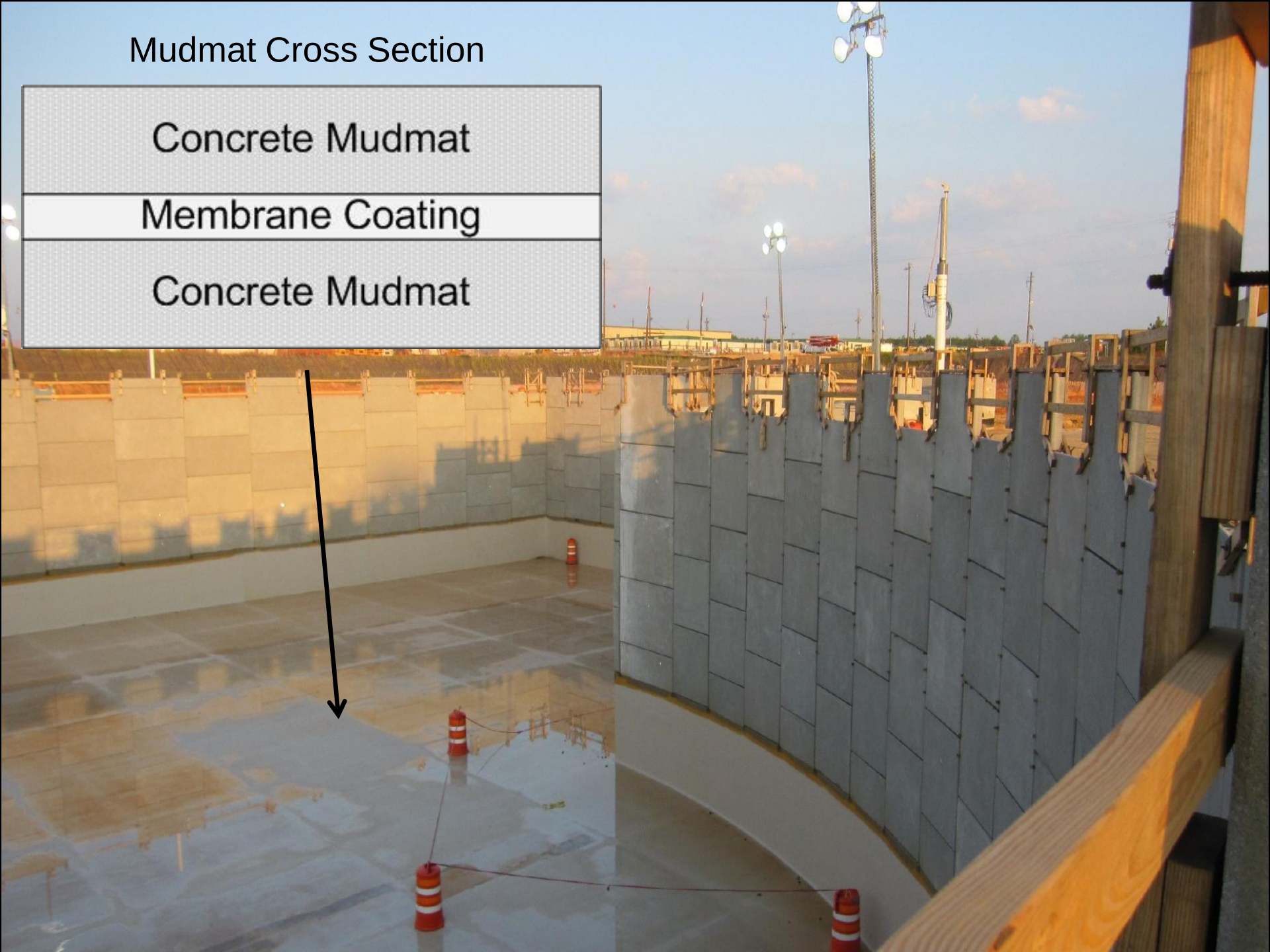
ITAAC (ESP) 3.8.05.1.1 States:

Waterproof Membrane ITAAC

NRC concluded that there was not a material qualification testing report that duplicates the as-built waterproof system, primarily due to an insignificant amount of as-built area that was not explicitly tested in the lab (i.e., the construction joints 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



WPM Notice of Violation

NOV cited WPM ITAAC 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 WPM Testing

- **Tier 1 – test 24 samples on Unit 4 mudmat**
  - Joint configuration (scrim, stripe coats, sealant)
  - Construction weathering

- **Tier 2 – tests on separate onsite concrete pad**
  - Mix variations (N&Ds on Perkoset)
  - Excess scrim and stripe coat layers

- **Tier 3 – laboratory tests**
  - Aging - bound Unit 3 UV, temperature and humidity conditions
  - Variable loading - Propose to delete – not relevant to ITAAC

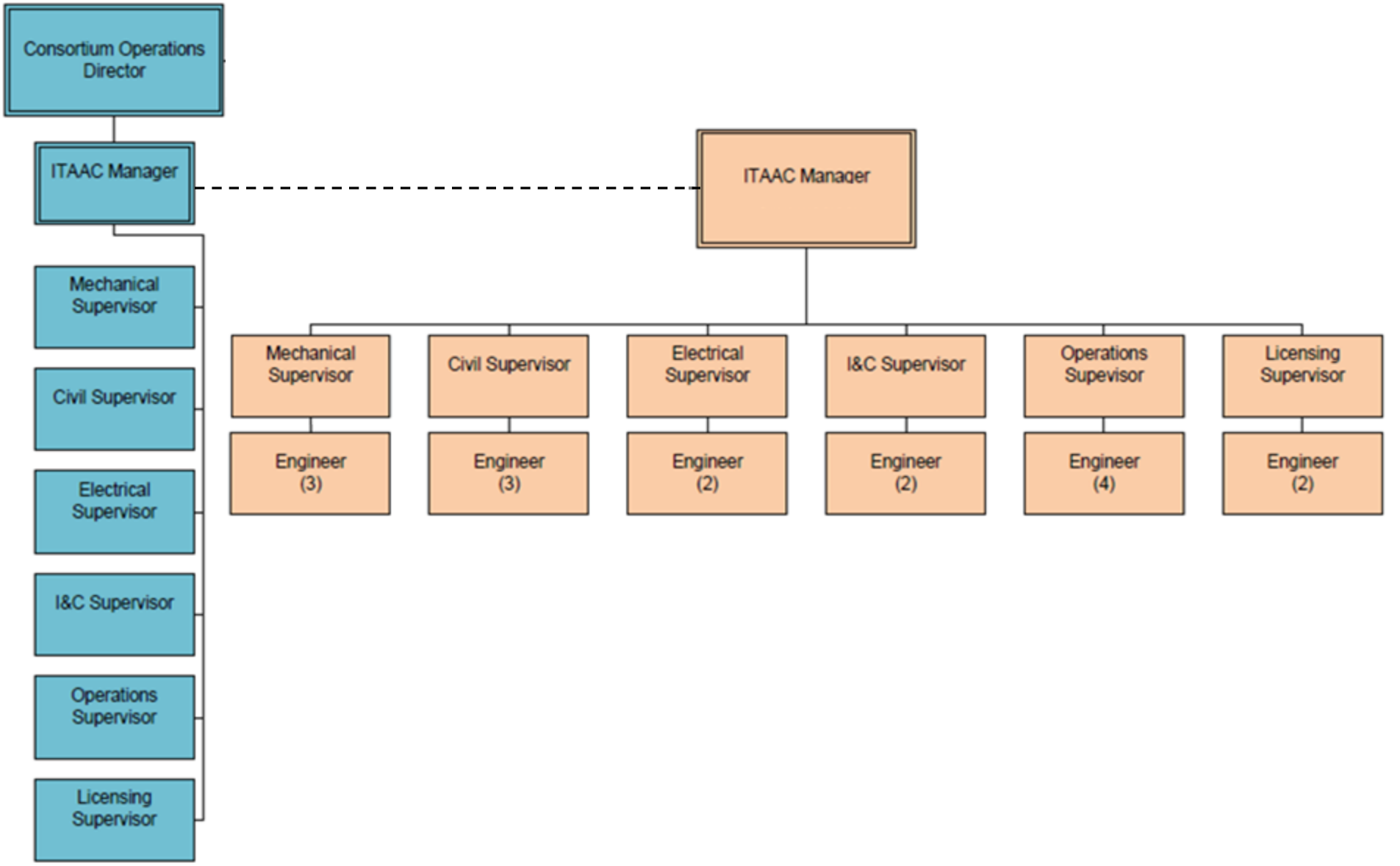
Corrective Actions Based on Lessons Learned

- Follow specifications and procedures
  - Mixing of materials (Perkadox and Primer/Metaset/Integritank
  - Storage of Materials
  - Pull-off test (M&TE of equipment and ASTM adherence)
- Housekeeping during application
- Identified deviations and report promptly
- Bound application and conditions and ensure equivalency to how Unit 3 waterproofing was installed

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
- Developing planning documents for ITAAC (DWCG activity)
- Loading management and tracking tool
- Finalizing procedures

ITAAC Management Team (Draft)



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Vogtle 3&4 Project Oversight

Mark Rauckhorst
Vice President, Construction

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Project Oversight

- SNC is the Licensee---We Understand the Responsibility Lies with Us
  - Commitment and active involvement of Southern Nuclear executive management
- Oversight is on all Phases of the Project
  - Engineering
  - Procurement
  - Fabrication
  - Construction
- SNC Oversight is in Addition to Consortium Quality Assurance & Quality Control Efforts
- Focus of all Parties
  - Quality of the Physical Work
  - Complete Documentation which Supports the Licensing Basis
  - Establish and Maintain Excellent Regulatory Performance

Supporting Activities

- Readiness Reviews for Key Project Activities
  - Utilize Construction Experience Program
  - Ongoing Interactions with SCANA
- Ongoing Review of Project Metrics
  - Safety
  - Quality & Compliance
  - Schedule
  - Corrective Action
- Use of Mock-ups to Confirm/Validate Construction Procedures, Processes, Training and Equipment
  - NI Basemat
  - Shield Building
  - Structural Modules
- Implementation of an Integrated Corrective Action Program

Current Areas of Focus

- Mechanical Modules
- Supplier and Subsupplier Performance

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Vogtle 3&4 Site Development

David Clem
Construction Oversight and Quality Manager

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Overall View of Site – December 1, 2008

Overall View of Site – February 2, 2012


Cooling Tower Foundations
Unit 3 Nuclear Island
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

New Training Building


Vogtle 3 and 4 Simulator

Summary

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