



RIC 2012
Construction Inspection Program
Transitioning to Execution
New Reactor Construction Inspections

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Topics to be discussed:

- Construction Inspection Program
- ITAAC Inspection Experience at Vogtle 3 / 4
- Other Challenges Observed During Construction Inspections



Construction Inspection Program

- Verify Vendor's implementation of design translation, Quality Assurance, corrective actions and reporting Programs
- ITAAC observations that can be used for future ITAAC closure

Vendor Inspections
IMC 2507

- Verify construction processes and operational readiness
- Construction Program Inspections
- Operational Program Inspections

Construction and Operational Program Inspections
IMC 2504

- Verify plant is built in accordance with the license
- The inspection program samples ITAAC of interest [targeted]

ITAAC Inspections
IMC 2503

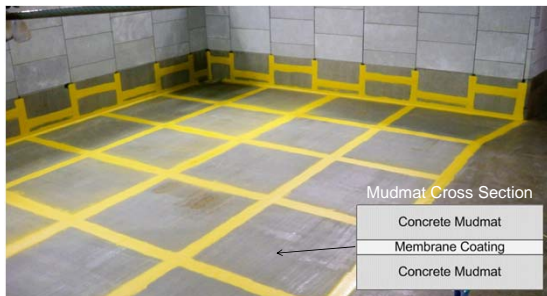
Vogtle Units 3 and 4



Aerial photograph of Vogtle 3 and 4 construction site. Unit 3 is located at left and top of photo and Unit 4 to the right and bottom. Heavy lift derrick crane foundation in center. August 11, 2011 © 2011 Southern Company, Inc. All rights reserved.

4

Vogtle Unit 3 Mudmat



Mudmat Cross Section

- Concrete Mudmat
- Membrane Coating
- Concrete Mudmat

5

Waterproof Membrane ITAAC

Table 3.8.5-1 Waterproof Membrane Inspections, Tests, Analyses, and Acceptance Criteria (SSAR Table 3.8.5.1-1)

Waterproof Membrane Inspections, Tests, Analyses, and Acceptance Criteria		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1) The friction coefficient to resist sliding is 0.7 or higher	Testing will be performed to confirm that the mudmat-waterproofing-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.

6

Other Challenges

- Licensee Oversight of Vendors
 - Implementation of complex administrative processes
 - Vendor QA Program Implementation
- Commercial Grade Dedication
 - Attention to Detail
- Design Control/Configuration Management
 - Correctly Translating Codes and Standards into Design Documents



7

Summary

- Focus on ITAAC completion/documentation to ensure a successful 52.103(g) finding.
- The lessons of NUREG 1055, *Improving Quality and the Assurance of Quality in the Design and Construction of Nuclear Power Plants* are still applicable.

8
