

Vogtle Electric Generating Plant

Units 3 & 4

2011 Annual Assessment

March 29, 2012

Purpose of Meeting

- Provide an Overview of the NRC Region II Center for Construction Inspection Organizational Structure.
- Provide an Overview of the Construction Inspection Program for Vogtle Electric Generating Plant (VEGP 3&4).
- Discuss the NRC's 2011 Annual Assessment of the VEGP Units 3 & 4 construction project.
- Discuss the Purpose of the Construction Reactor Oversight Process (cROP) Pilot.
- Respond to Questions from the Public.



INTRODUCTIONS



NRC Mission Statement

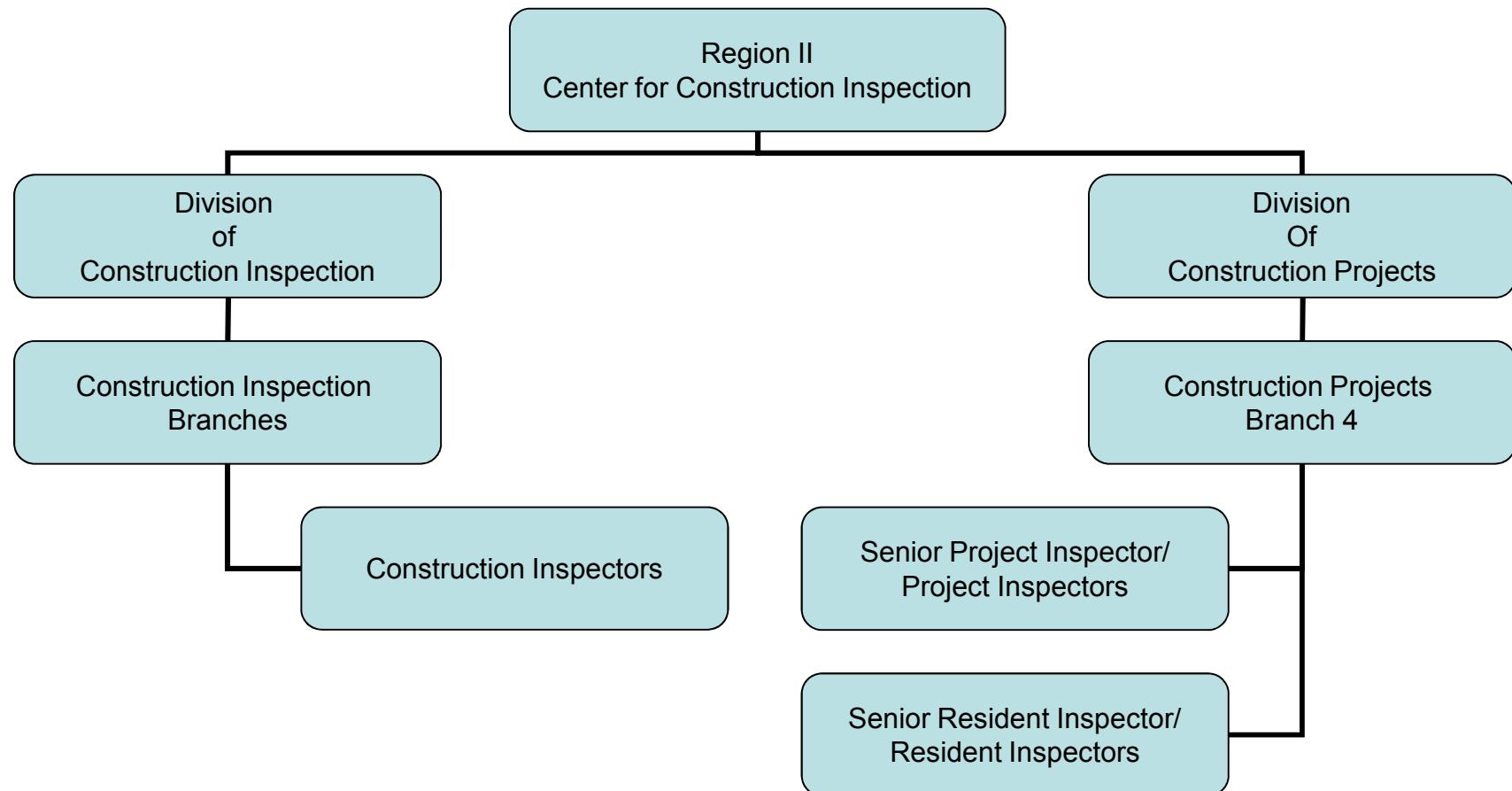
To license and regulate the nation's civilian use of byproduct, source, and special nuclear materials in order to ensure the adequate protection of public health and safety, promote the common defense and security, and to protect the environment.



CCI Mission Statement

To provide assurance in the safety of future operations at new nuclear facilities by ensuring that licensees and applicants construct the facilities according to approved design criteria, using appropriate practices and quality materials.

Construction Inspection Organization



Background

- March 2008; SNC Submits Application for VEGP 3&4
- August 2009; LWA Issued
- March 2010; Safety-Related Construction Activities Begin
- July 2010; Assessment Process of VEGP 3&4 Commences (per IMC 2505)
- August 2010; Resident Onsite Office Established
- February 2012; Combined License (COL) Issued

Inspection Program Structure

- Pre-COL Inspections (IMC 2502)
 - Verifies pre-construction activities performed by the applicant and contracted suppliers meets 10 CFR Part 50 App B requirements
- Inspections, Tests, Analysis and Acceptance Criteria Inspections (ITAAC) (IMC 2503)
 - Verifies that sampled design commitments associated with the license are met prior to fuel load
- Construction Program Inspections (IMC 2504)
 - Verifies that programs associated with construction and operation are effective and meet the regulations



Pre-COL Inspections (examples)

- Containment Vessel Onsite Fabrication
- AP1000 Targeted ITAAC Type Test Inspections



ITAAC Inspections (examples)

- LWA ITAAC Activities
 - Placement/Testing of Safety-Related Backfill
 - Application of Waterproof Membrane
 - Coefficient of Friction Test Report
 - Shear Wave Velocity Testing



Construction Program Inspections (examples)

- Quality Assurance
- Reporting Defects and Non-Compliance
- Fitness for Duty

Scope of Inspections for this Assessment Period

- Security Inspections
- Baseline Inspections
- Quality Assurance Program Inspections
- Type Test/Vendor Inspections

Assessment Overview

- Overall assessment results:
 - SNC's program and procedures were adequate to support ongoing construction activities
 - SNC was constructing the facility at an acceptable level of quality
- Two severity level IV violations identified by NRC inspections. No escalated enforcement or civil penalties associated.

Construction Action Matrix

| | Baseline Program | Regulatory Response | Degraded Performance | Unacceptable Performance |
|----------------------|---|---|--|---|
| RESULTS | Only SL IV violations License requirements fully met | One or two SL III violations License requirements met with some challenges to licensee | Any combination of three SL III violations or one SL II violation Highlighted column indicates Vogtle Performance warrants Baseline Oversight. | One SL I violation, multiple SL II violations, or a combination of the two and a total of four violations, or a total of seven violations |
| RESPONSE | Regulatory Performance Meeting | None Branch Chief or Div. Director meets with Licensee | DRAC or designee meets with senior licensee management | EDO or designee meet with senior licensee management |
| | Licensee Action | Licensee Corrective Action Licensee root cause evaluation and corrective action with NRC Oversight | Licensee cumulative root cause evaluation with NRC oversight | Licensee Performance Improvement Plan and Independent inspection with NRC Oversight |
| | NRC Inspection | Baseline Inspection Program Limited increase in NRC oversight of area(s) of concern. Construction supplemental inspection in accordance with IP 90001. | Expanded NRC oversight in area(s) of concern. ITAAC sample increased as appropriate. Construction supplemental inspection in accordance with IP 90002. | Reactive team inspection in area(s) of concern. Construction supplemental inspection in accordance with IP 90003. |
| | Regulatory Actions | None (Additional actions considered for plants exiting Degraded Performance column or Unacceptable Performance column) | Additional inspection only. (Additional actions considered for plants exiting Degraded Performance column or Unacceptable Performance column) | Additional inspection only. Evaluate continued use of NCVs. (Additional actions considered for plants exiting Unacceptable Performance column). At minimum, issue CAL. Evaluate need for Demand for Information and/or Order. Discontinue use of NCVs |
| COMMUNICATION | Assessment Letters | Branch Chief or Div. Director reviews/signs assessment report (w/ inspection plan) | Div. Director reviews/signs assessment report (w/ inspection plan) | RA or EDO reviews/signs assessment report (w/ inspection plan) |
| | Annual Public Meeting | Senior Resident Inspector or Branch Chief meets with Licensee | Branch Chief or Div. Director meets with Licensee | EDO or designee discusses performance with Licensee |
| | Commission Involvement | None | None | Commission Meeting with Senior Licensee Management |
| | INCREASING SAFETY/REGULATORY SIGNIFICANCE → | | | |

Assessment Period Milestones

- Unit 3 Nuclear Island ready for safety-related rebar installation
- Unit 4 Nuclear Island lower mudmat installed ready for waterproofing membrane installation
- Back Fill near completion
- Unit 3 Containment Vessel fabrication currently ongoing
- Structural modules delivery has commenced

2012 Inspections

- **IMC 2503**

Majority of ITAAC Inspection, in 2012, will focus on:

- Containment Vessel Fabrication
- Nuclear Island Work
- Structural and Mechanical Module Assembly
- Miscellaneous ITAAC and Design Acceptance Criteria Activities
- Type Tests
- ITAAC Related Activities at Vendors

- **IMC 2504**

- Reporting of Defects and Non-Compliance
- Corrective Action Program Implementation
- Commercial Grade Dedication Program Review
- Construction QA Implementation



Construction Reactor Oversight Process (cROP)



New Assessment Program

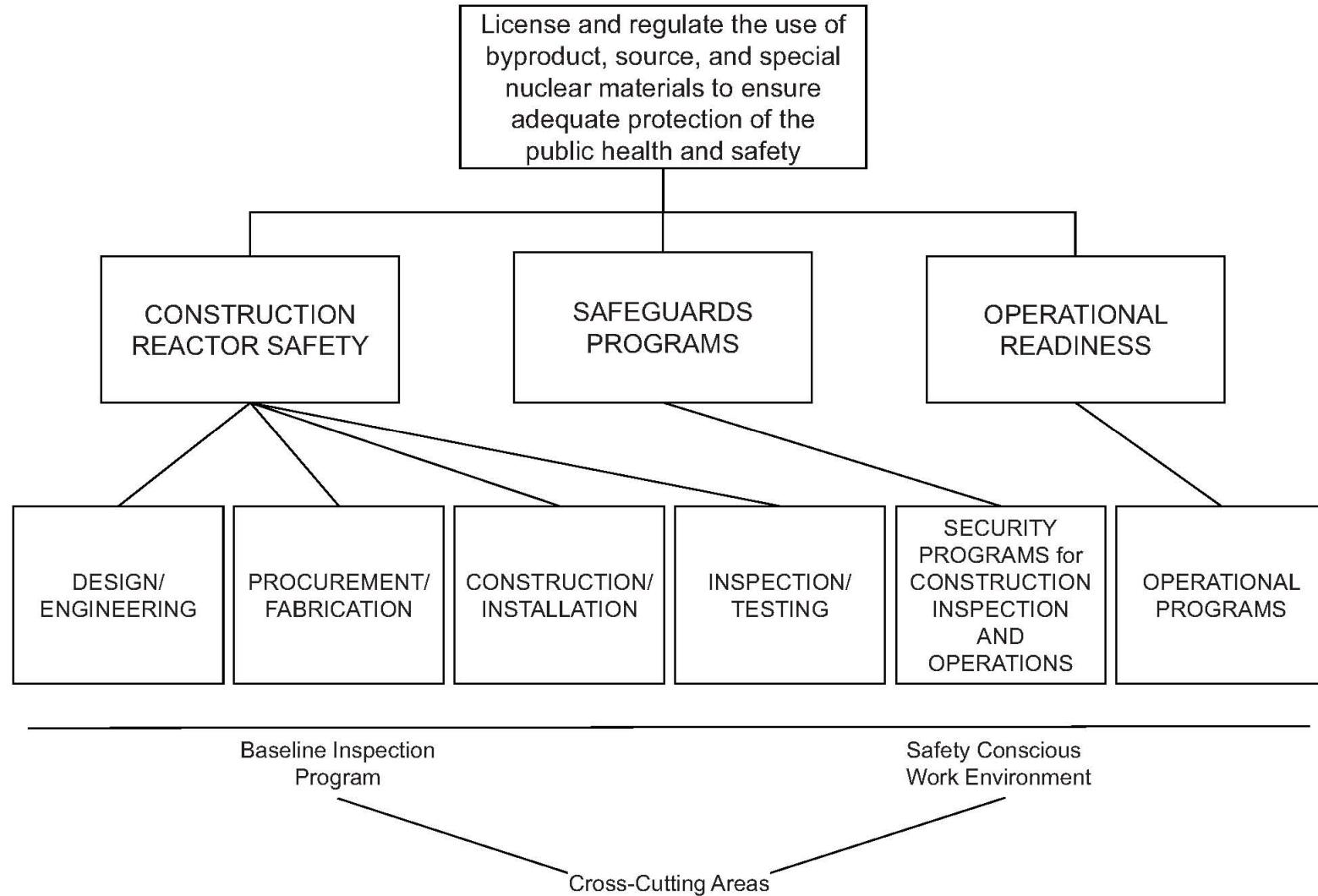
- NRC has developed a new assessment program
- We are testing the program for one year at Vogtle Units 3 and 4
- One year assessment cycle
- Mid-cycle and end-of-cycle reviews
- Annual public meeting to discuss assessment results



Regulatory Framework

- Cornerstones
- Cross-cutting areas

cROP Regulatory Framework



Significance Determination Process

- Inspection findings are assigned a color representing significance
 - Green
 - White
 - Yellow
 - Red
- Color of finding is used as the input to the construction action matrix



Construction Action Matrix

- Construction action matrix identifies the range of NRC and licensee actions and the appropriate level of communication for different levels of performance

Construction Action Matrix

| | | Licensee Response Column | Regulatory Response Column | Degraded Cornerstone Column | Multiple/ Repetitive Degraded Cornerstone Column | Unacceptable Performance Column |
|---------------|---|---|---|---|--|--|
| RESULTS | All Inspection Findings Green; Cornerstone Objectives Fully Met | One or Two White Findings (in different cornerstones) in a Strategic Performance Area; Cornerstone Objectives Fully Met | One Degraded Cornerstone (2 White Findings or 1 Yellow Finding) or any 3 White Findings in a Strategic Performance Area; Cornerstone Objectives Met with Moderate Degradation in Safety Performance | Repetitive Degraded Cornerstone, Multiple Degraded Cornerstones, Multiple Yellow Findings, or 1 Red Finding; Cornerstone Objectives Met with Longstanding Issues or Significant Degradation in Safety Performance | Overall Unacceptable Performance; Construction Suspended in the Area of Concern | |
| RESPONSE | Regulatory Performance Meeting | None | BC or DD Meet with Licensee | RA/DRAC (or Designee) Meet with Senior Licensee Management. | EDO/DEDO (or Designee) meet with Senior Licensee Management | EDO/DEDO (or Designee) Meet with Senior Licensee Management |
| | Licensee Action | Licensee Corrective Action | Licensee Root cause Evaluation and corrective action with NRC Oversight | Licensee cumulative root cause evaluation with NRC Oversight | Licensee Performance Improvement Plan with NRC Oversight | Licensee Performance Improvement Plan / Construction Restart Plan with NRC Oversight |
| | NRC Inspection | Risk-Informed Baseline Inspection Program | Baseline and supplemental inspection procedure 90001 | Baseline and supplemental inspection procedure 90002 | Baseline and supplemental inspection procedure 90003 | Baseline and Supplemental as Practicable, Plus Special Inspections per Construction Restart Checklist. |
| | Regulatory Actions? | None | Supplemental inspection only | Supplemental inspection only Plant Discussed at AARM if Conditions Met | -10 CFR 2.204 DFI -10 CFR 50.54(f) Letter - CAL/Order Plant Discussed at AARM | Order to Modify, Suspend, or Revoke Licensed Activities Plant Discussed at AARM |
| COMMUNICATION | Assessment Letters | BC or DD review/sign assessment report (w/ inspection plan) | DD review/sign assessment report (w/ inspection plan) | DRAC review/sign assessment report (w/ inspection plan) | RA review/sign assessment report (w/ inspection plan) | RA review/sign assessment report (w/ inspection plan) |
| | Annual Involvement of Public Stakeholders | Various public stakeholder options (see section 12) involving the SRI or BC | Various public stakeholder options (see section 12) involving the BC or DD | RA/DRAC (or Designee) Discuss Performance with Senior Licensee Management | EDO/DEDO (or Designee) Discuss Performance with Senior Licensee Management | EDO/DEDO (or Designee) Discuss Performance with Senior Licensee Management |
| | Commission Involvement | None | None | Possible Commission Meeting if Licensee Remains for one and one half years | Commission Meeting with Senior Licensee Management Within 6 mo. | Commission Meeting with Senior Licensee Management |
| | INCREASING SAFETY SIGNIFICANCE -----> | | | | | |



New Assessment Program Pilot

- NRC staff will evaluate results of pilot
- Stakeholder input will be sought via federal register notice and public meeting
- Staff will inform Commission of results prior to full implementation
- Detailed pilot information is available on the NRC Public Website



QUESTIONS?