


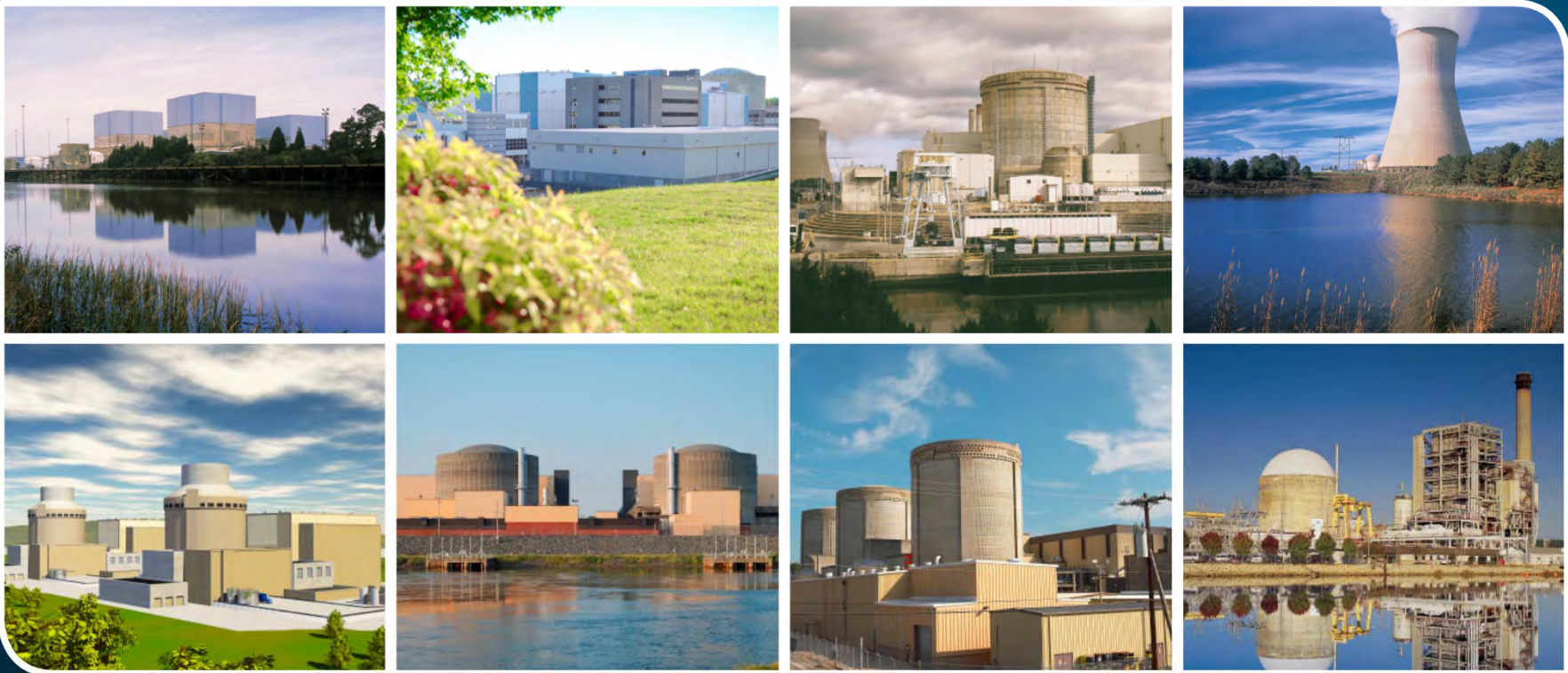
United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	DUKE ENERGY CAROLINAS, LLC (William States Lee III Nuclear Station, Units 1 and 2)
Commission Mandatory Hearing	
	Docket #: 05200018 05200019 Exhibit #: DEC-005-MA-CM01 Admitted: 10/05/2016 Rejected: Other:
	Identified: 10/05/2016 Withdrawn: Stricken:

EXHIBIT DEC-005

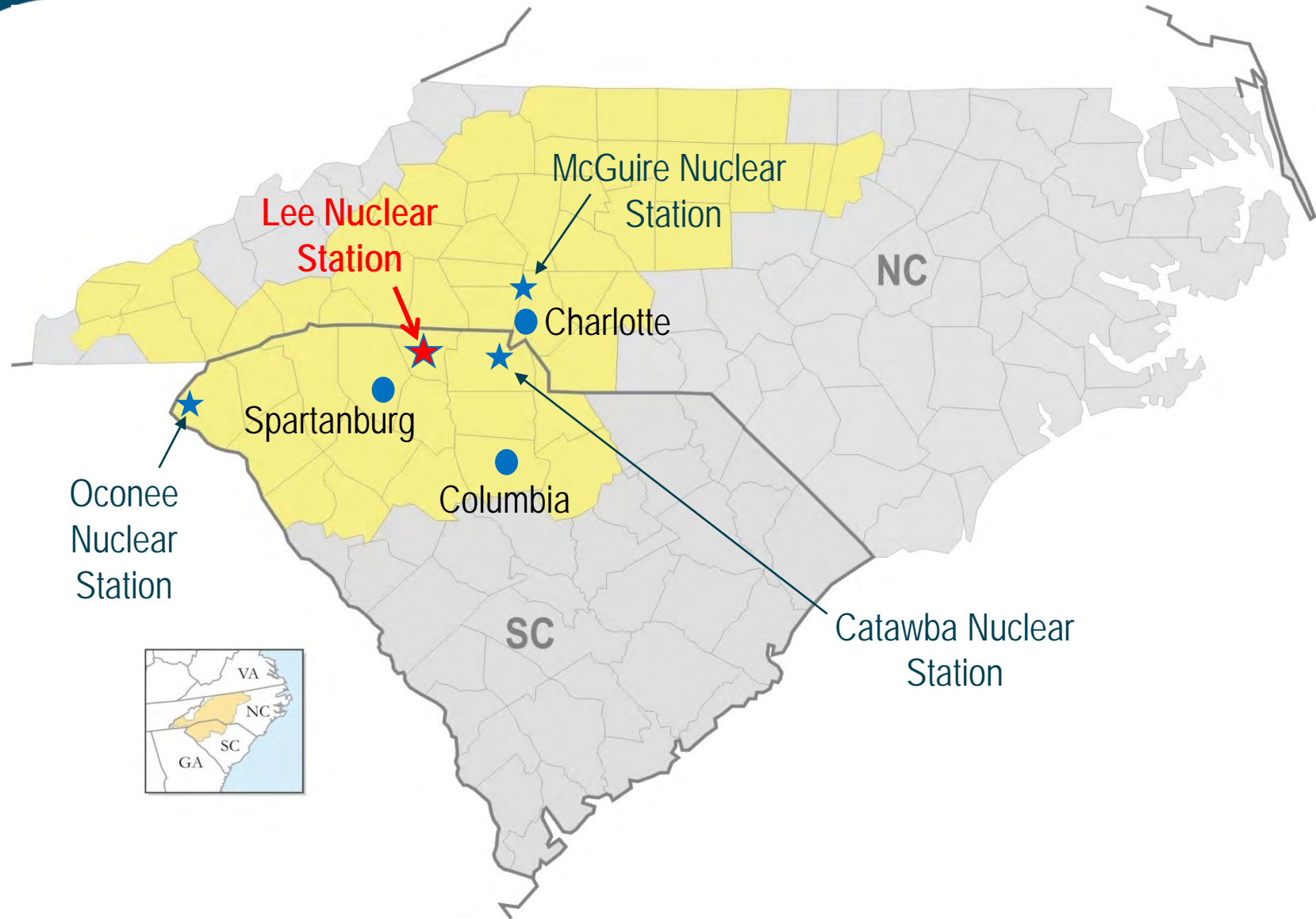


Lee Nuclear Station – Overview

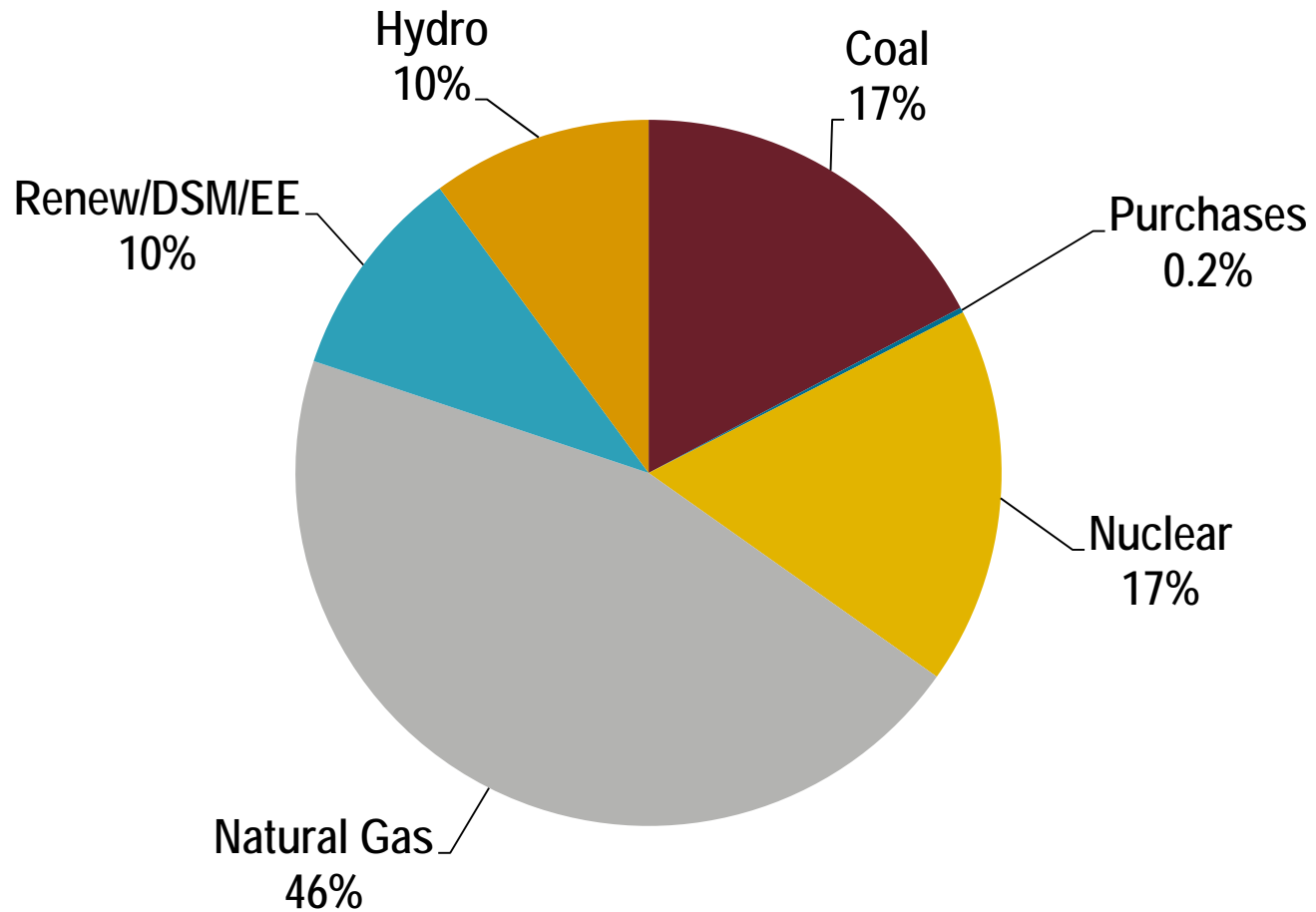
Chris Fallon – Bob Kitchen – Paul Snead



Duke Energy Carolinas Nuclear Fleet



2038 DEC Capacity by Fuel Type - Base IRP



Lee Site Background

Site partially developed for Cherokee Nuclear

Construction Activities

- Nuclear service water pond (Pond B)
- Cooling water sedimentation basin (Pond A)
- Excavation of power block
- Partial construction of Unit 1 containment

Permits Previously Issued

- Environmental Impact Statement
- Construction Permit
- 404 Permit
- NPDES Permit

Site Cleanup



Site Cleanup



COLA Investigation



Existing Lee Unit 2
Excavation Cleanup



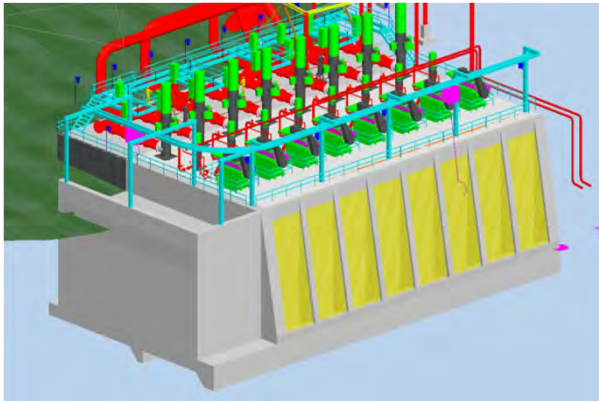
Lee Nuclear Foundation Support



Engineering and Construction Planning

Site Specific SSCs Design (70% Complete)

- Circulating Water System (CWS)
- Storm Drain System (DRS)
- Potable Water System (PWS)
- Raw Water System (RWS)
- Liquid Radwaste System (WLS)
- Waste Water System (WWS)
- Offsite Retail Power System (ZRS)



River Water Intake Structure (RWS)

Infrastructure Design (90% Complete)

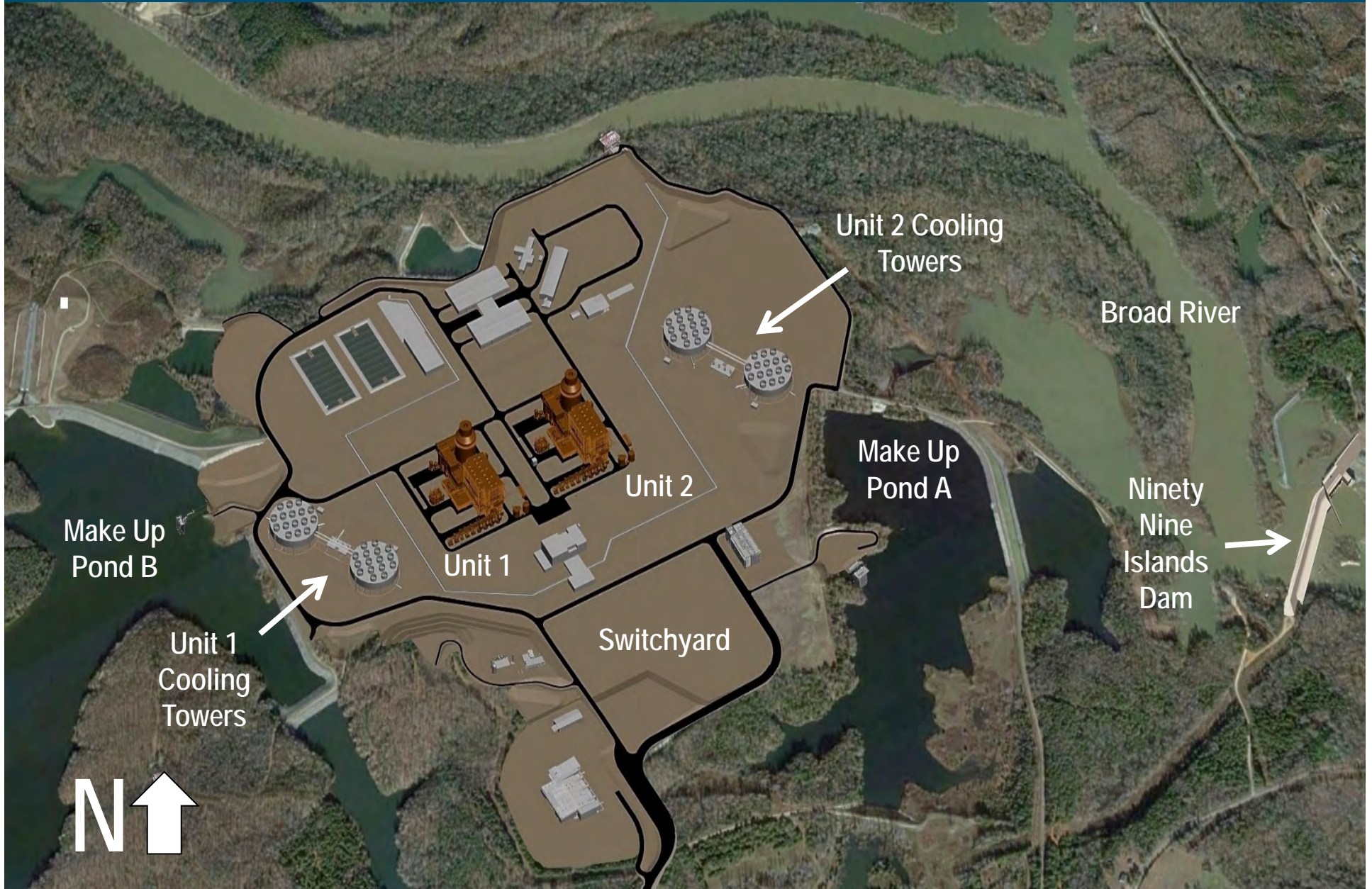
- Commercial Buildings
- Water and Sewer
- Rail and Road Improvements
- Make-Up Pond C Dam



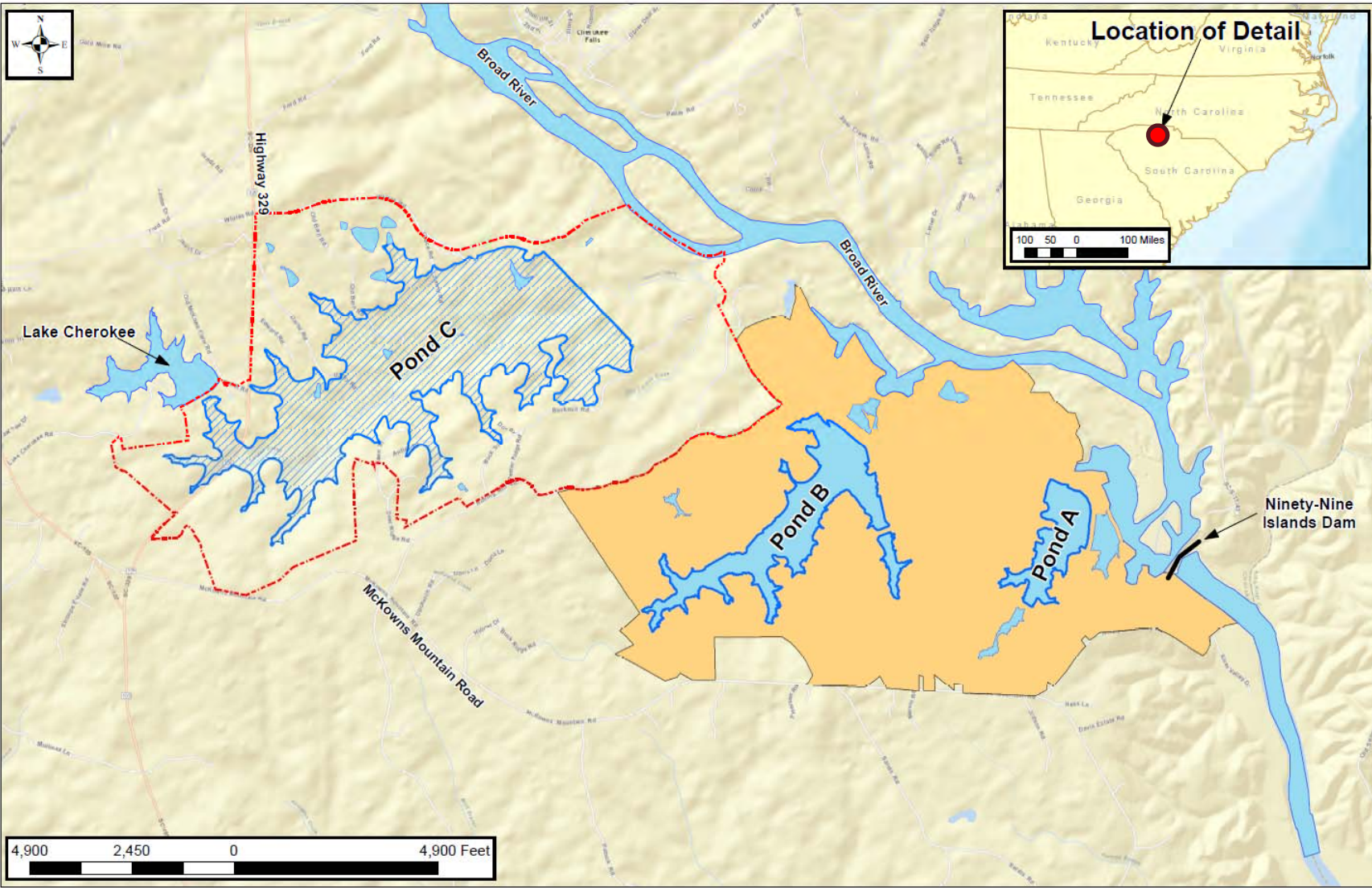
Site Construction Plan (70% Complete)

- Site Construction Schedule
- Construction Staffing & Training
- Temporary Buildings
- Assembly Pads, Areas & Modules
- Laydown & Staging Areas
- Excavation/Backfill
- Heavy Lift Crane
- Batch Plant Concrete Qualification

Lee Site Layout



Lee Nuclear and Make-Up Pond C Sites



Lee COLA Safety Content – Exemptions

- Standard (Reference COL)
 - DCD Numbering and Organization
 - Special Nuclear Material Control and Accountability (MC&A) Program Description (Consistent with Part 50 requirements)
- Lee COLA
 - Condensate Return Design Change
 - Main Control Room Dose
 - Main Control Room Heatup
 - Combustible Gas Control in Containment
 - Source Range Neutron Flux Doubling Block Permissive

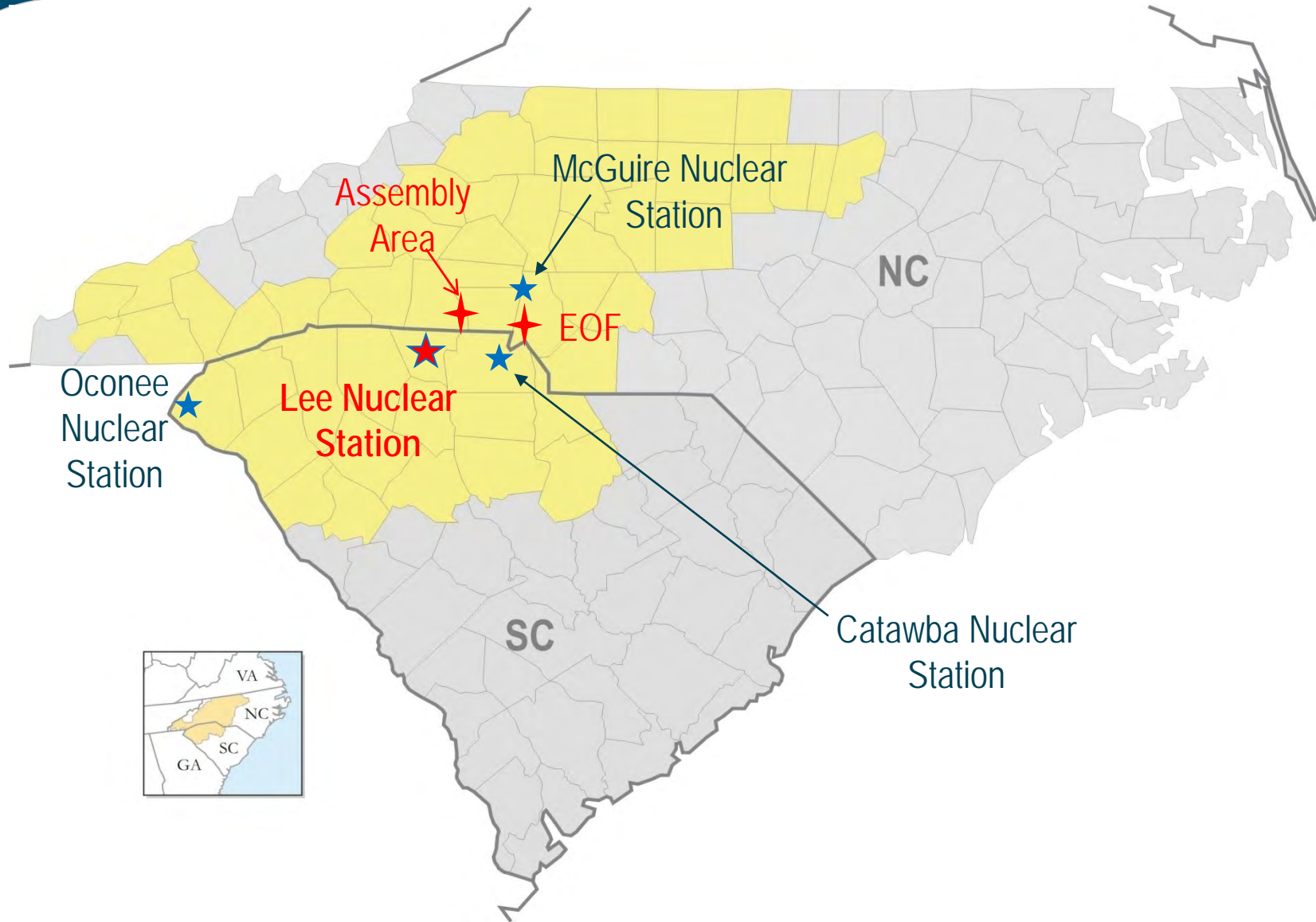
Site Specific Seismic Evaluation

Evaluation per
AP1000 DCD

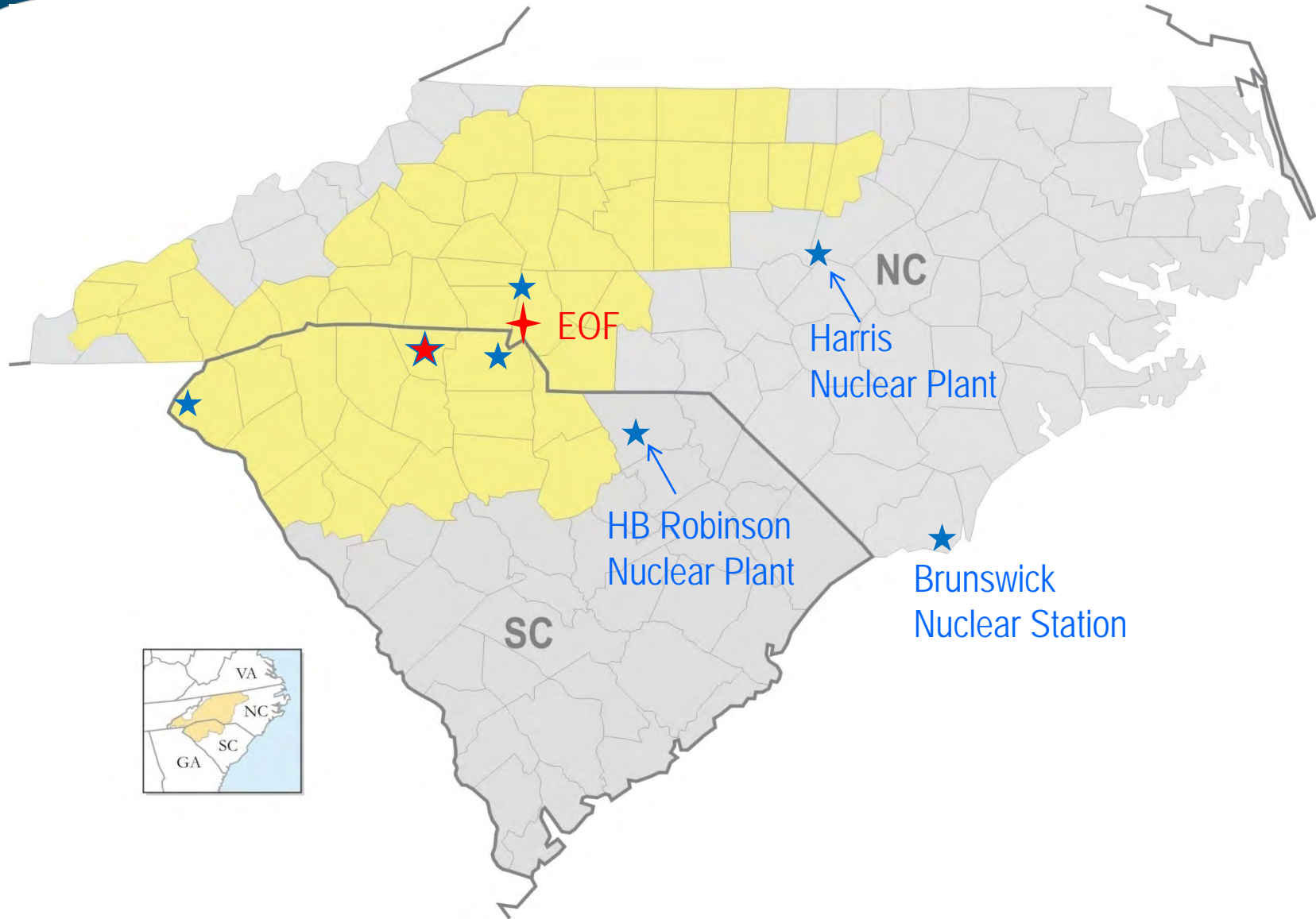
- Structures
- Major Equipment
- Piping Systems and Supports
- Equipment Qualification



Duke Energy Carolinas Common EOF



Duke Energy Fleet License Amendment Request Common EOF



Environmental

- ER and FEIS – SMALL or MODERATE impacts
- SCDHEC issued NPDES Operating Permit in July 2013
 - Water Management Plan
 - Alternate water withdrawal requirements – EPA concurred
- SCDHEC issued 401 Water Quality Certification in January 2014
- US Army Corps of Engineers 404 Permit issued September 2015

