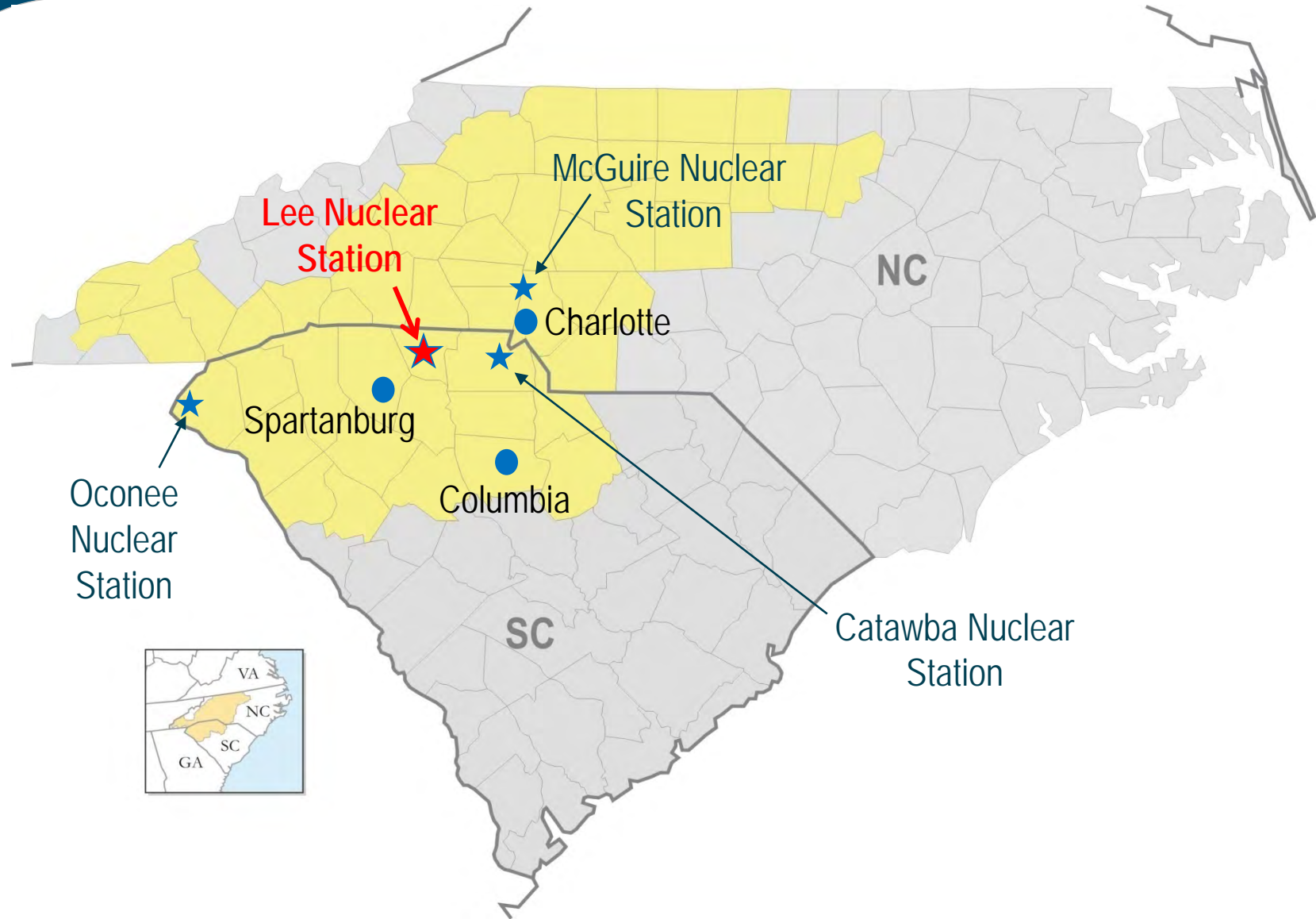


## Lee Nuclear Station – Overview

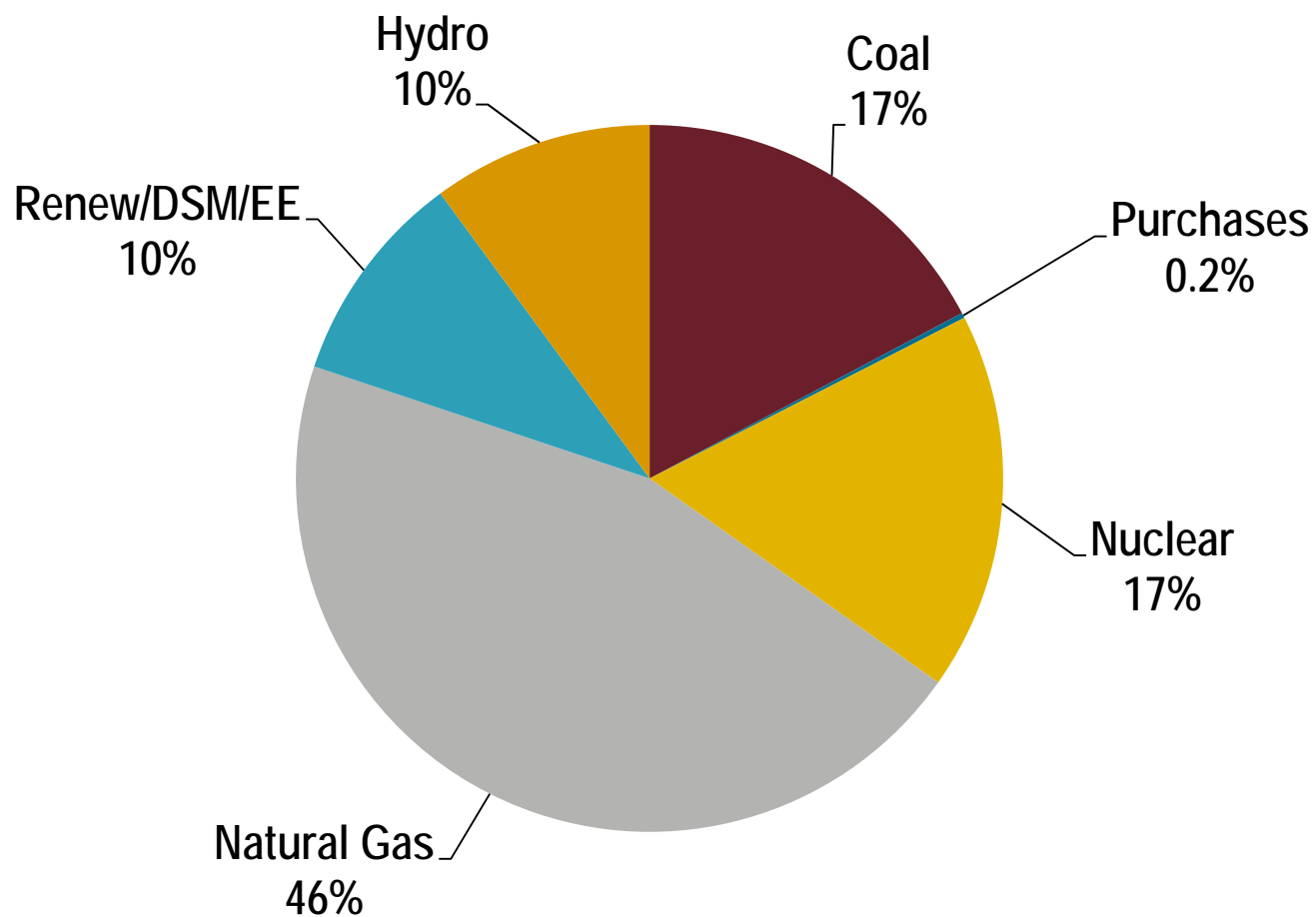
Chris Fallon – Bob Kitchen – Paul Snead



# 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

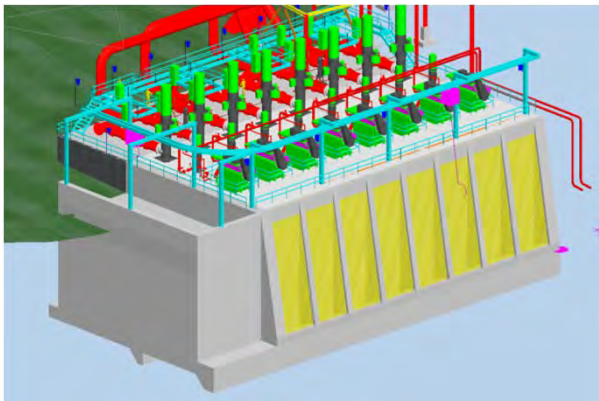




# Engineering and Construction Planning

## *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

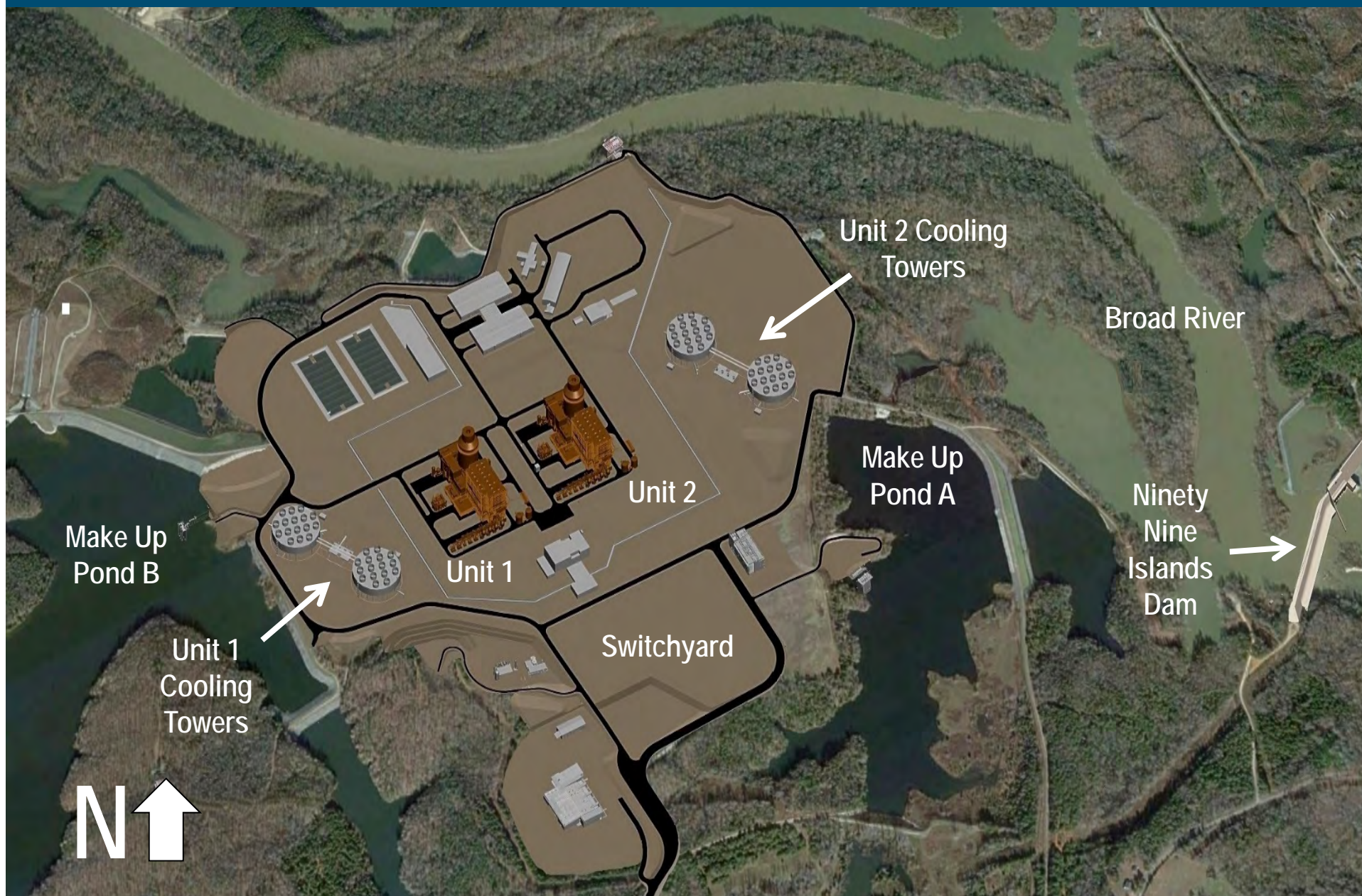


## *Site Construction Plan (70% Complete)*

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

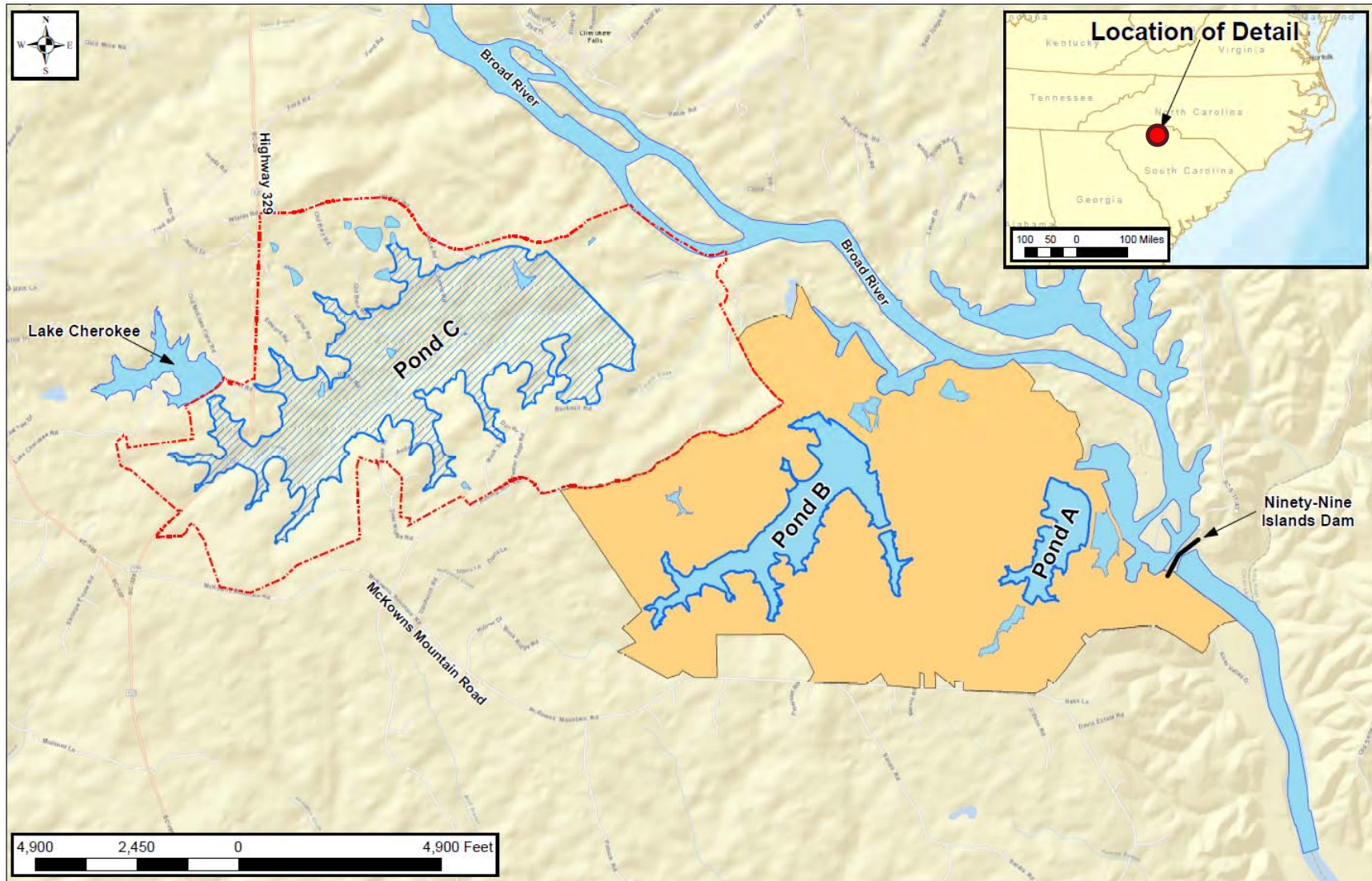


# Lee Site Layout





# 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

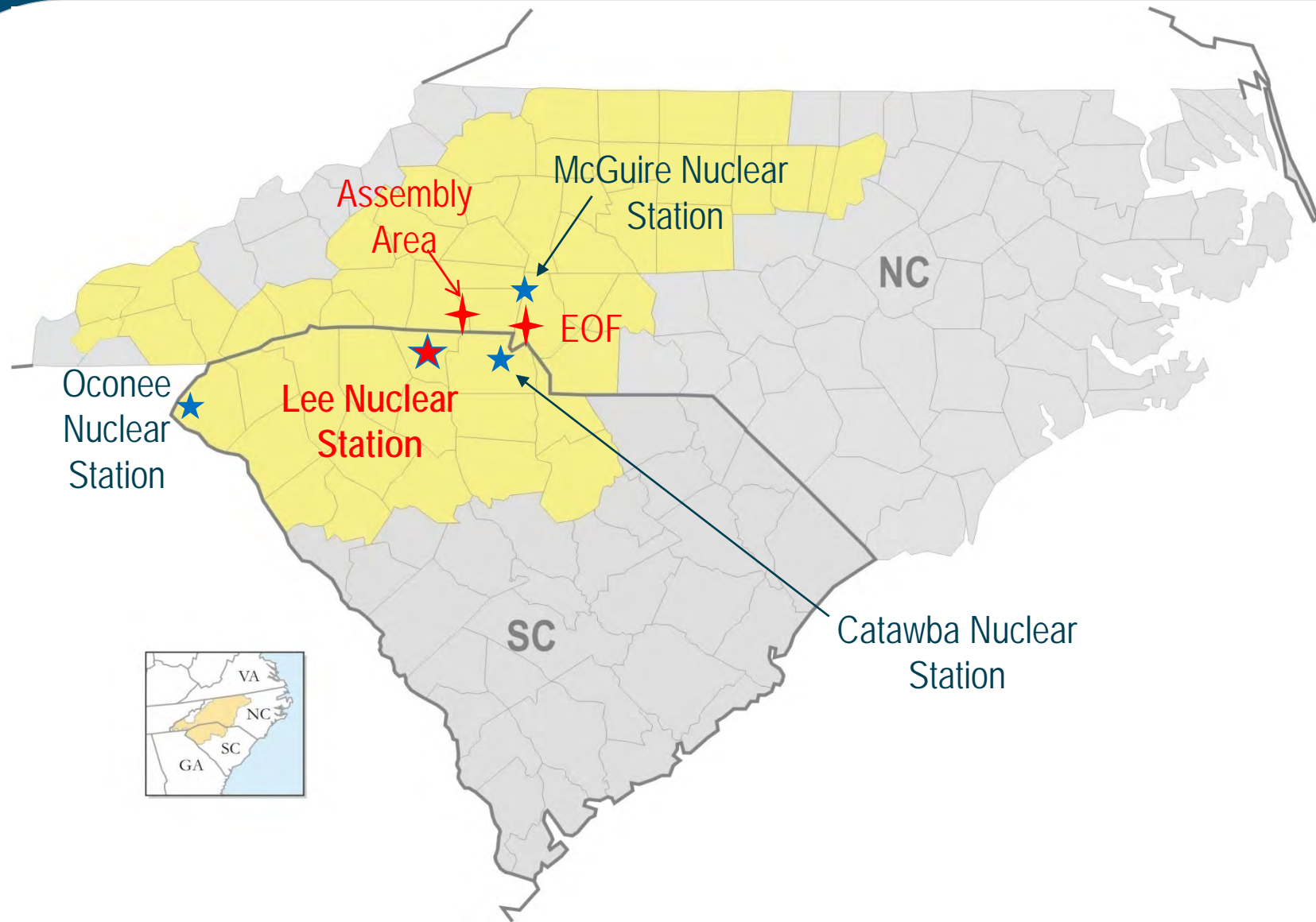
# Site Specific Seismic Evaluation

Evaluation per  
**AP1000 DCD**

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

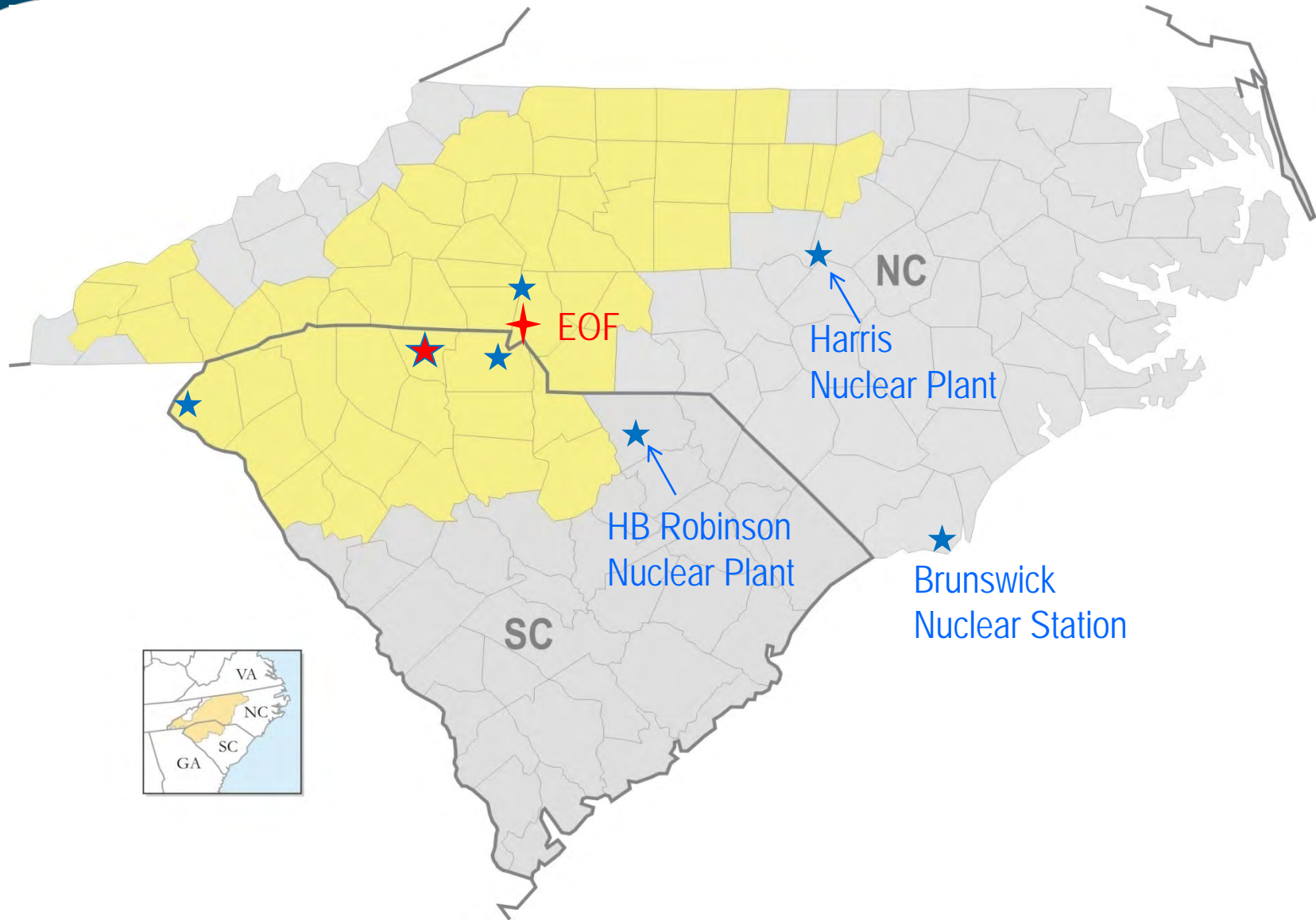


# Duke Energy Carolinas Common EOF





# 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

