

Perspectives on New Nuclear Construction in the United States

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10 CFR 50/52 Compare and Contrast

- 10 CFR 50 – Licensing Regimen used by legacy plants
“License What You’ve Built”
- 10 CFR 52 – Licensing Regimen used for Generation III+ plants
“Build What You’ve Licensed”

<p>10 CFR 50</p> <ul style="list-style-type: none"> - Two permits (CP/OL) - Two hearings - No Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) 	<p>10 CFR 52</p> <ul style="list-style-type: none"> - One Permit (COL) - One hearing - ITAAC included as Tier 1 of Combined Operating License
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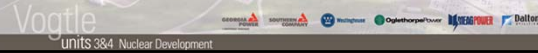
VEGP 3&4 Lessons Learned – Part 52 Licensing

- Tier 2* scope may be more extensive than required
- Levels of detail within design certification
- FOAK

VEGP 3&4 Lessons Learned – Part 52 Construction

Licensees

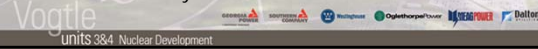
- “The transition to plant operation is started early” is an INPO principle for excellence in nuclear construction. This principle cannot be overstated.
- Prepare for a multi-year outage environment, including plant modifications, testing, turnover, and startup.



VEGP 3&4 Lessons Learned – Part 52 Construction

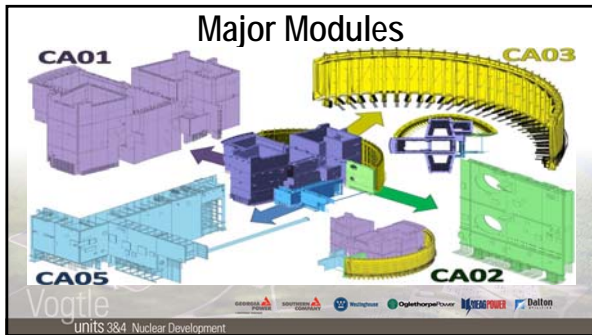
Vendors/Constructors

- Past performance is not always indicative of future performance.
- “New to nuclear” work force.
- Regulatory compliance, nuclear safety culture, and SCWE are not widely recognized concepts outside the nuclear industry.



Vogtle Construction Site









Unit 3 Nuclear Island



Vogtle
units 3&4 Nuclear Development

ENERGY
SOUTHERN
DUKE
Oglethorpe Power
MICHIGAN POWER
Duke

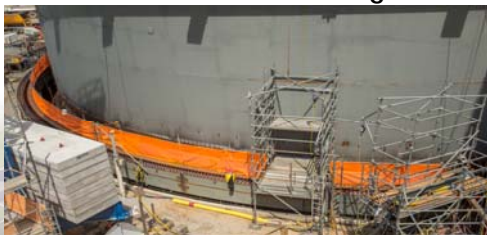
Unit 3 Nuclear Island



Vogtle
units 3&4 Nuclear Development

ENERGY
SOUTHERN
DUKE
Oglethorpe Power
MICHIGAN POWER
Duke

First Course Shield Building Panels



Vogtle
units 3&4 Nuclear Development

ENERGY
SOUTHERN
DUKE
Oglethorpe Power
MICHIGAN POWER
Duke

Unit 3 Turbine Building



Vogtle
units 3&4 Nuclear Development



Unit 3 Turbine Building



Vogtle
units 3&4 Nuclear Development



Unit 3 Turbine and Nuclear Islands



Vogtle
units 3&4 Nuclear Development









Unit 4 Containment



Vogtle
units 3&4 Nuclear Development

WESTINGHOUSE
KBR
CH2M HILL
Oglethorpe Power
MORGAN POWER
Dalton

Unit 4 Containment



Vogtle
units 3&4 Nuclear Development

WESTINGHOUSE
KBR
CH2M HILL
Oglethorpe Power
MORGAN POWER
Dalton

Unit 4 Turbine Building



Vogtle
units 3&4 Nuclear Development

WESTINGHOUSE
KBR
CH2M HILL
Oglethorpe Power
MORGAN POWER
Dalton

Units 3&4 Cooling Towers



Vogtle
Units 3&4 Nuclear Development

EDWARDS
KIMBERLY
WALCH
Oglethorpe Power
MORGAN
Dalton



Vogtle
Units 3&4 Nuclear Development

EDWARDS
KIMBERLY
WALCH
Oglethorpe Power
MORGAN
Dalton
