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Moving Forward with the USEPR

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1

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Discussion Topics


- UniStar
- Current Status of the EPR
- USEPR Owners Group
- EPR Fleet Experience Feedback
- ITAAC (Inspections, Tests, Analyses Acceptance Criteria)

2

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UniStar:

- > Like-minded owners
- > Shared resources
- > Shared generic development costs
- > Standardized fleet
- > AREVA's U.S. EPR™ technology



Cost Optimization:

- ✓ Generic DDE
- ✓ Licensing (DCD, COLAs)
- ✓ Equipment procurement
- ✓ Construction best practices
- ✓ Operating procedures
- ✓ Simulator and training development
- ✓ Communications programs

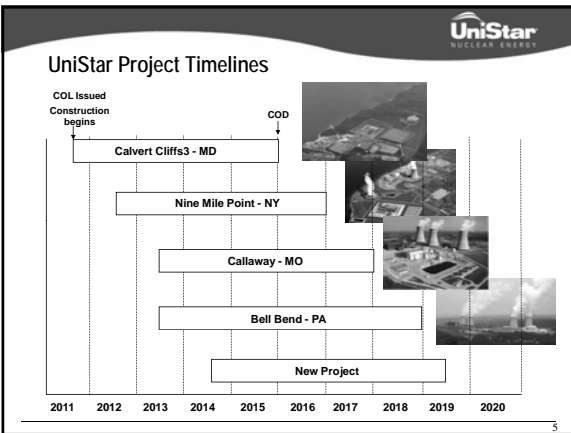
3

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UniStar Business Model Principles

- **Standardization**
 - Use FL-3 design criteria for control room, MMI and TG/BOP design
 - Use EDF planning, construction, startup and operating experience and procedures
 - Maximize the use of real time OL-3 and FL-3 lessons learned
 - Create processes to maintain fleet standardization in all project phases
- **Risk Mitigation**
 - Levelize the most controllable portions of overnight capital costs (paper and procurement)
 - Risk management improves as fleet size grows
- **Flexibility**
 - Provide the tools and procedures needed by owners in licensing, EPC and operations of the Fleet
 - Operate U.S. EPRs as a standardized fleet, through the entire plant lifecycle

4



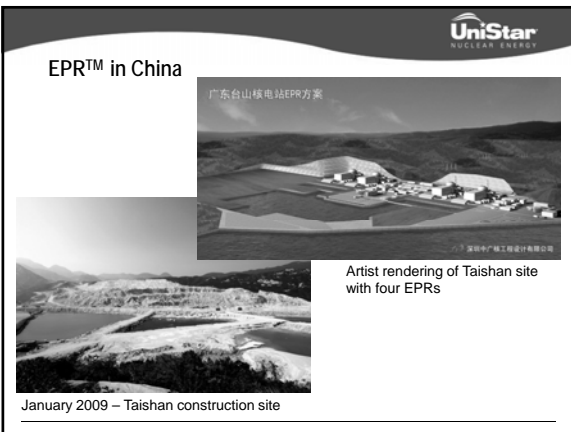
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Current Status of the EPR

6







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New EPRs

- Penly 3 Status
 - Electricite de France and GDF Suez welcomed the announcement of a second French EPR, to be built in partnership at the Penly nuclear power plant site on the Channel.
- Potential additional EPR in France (3 total by 2020)

10

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EPR Owners Group

Common Interests:

Each EPR project belongs to a worldwide community

What affects one of us will impact all of us

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We need an organization and a means to communicate

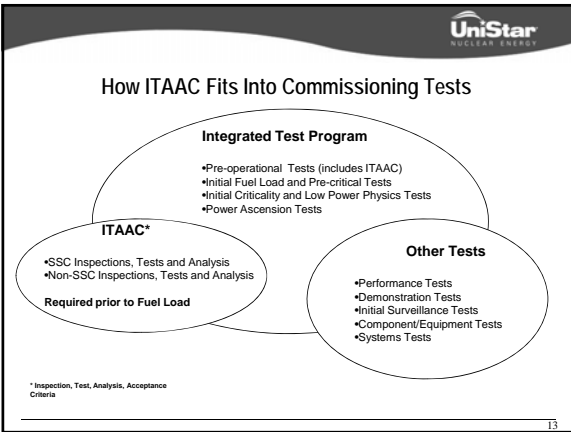
11

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EDF to UniStar FA3/OL3 Lessons Learned Transfer Process

FA3, OL3, EDF Current EPR Projects and Previous Nuclear Plants Feedback for US EPR - Flowchart

12



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Current ITAAC Challenges

- There are currently 1000+ ITAAC which will require detailed plans for execution, scheduling, documentation, and NRC notification = collaborative effort
- NRC review and approval of ITAAC in the DCD is not yet complete and will likely result in comments.
- Configuration Management of completed/inspected ITAAC is yet to be developed.
- ITAAC delays during construction and/or testing could impact the fuel load schedule, and Commercial Operation Date.

14

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Objectives of an ITAAC Program:

- The ITAAC process should take advantage of current processes/programs (i.e., QA Program, Pre-Op Test Program)
- “Book of ITAAC”
 - Detailed description and definitions for each ITAAC
 - Execution Plan including methodology & closure criteria
 - Sequence and Schedule
 - Ensure the Schedule is shared with the NRC so independent verification and validation is ensured

15

Objectives of an ITAAC Program:

- ITAAC results should not result in unexpected NRC findings.
- ITAAC inspections hopefully will not impact the construction schedule.
- ITAAC information and Project Schedule should be provided to the NRC in a proactive manner to avoid impacts on schedule.
- Owners should have a close working relationship with the NRC in order to establish and implement the ITAAC process.
- Experience from the industry will be shared – NRUG concept
