

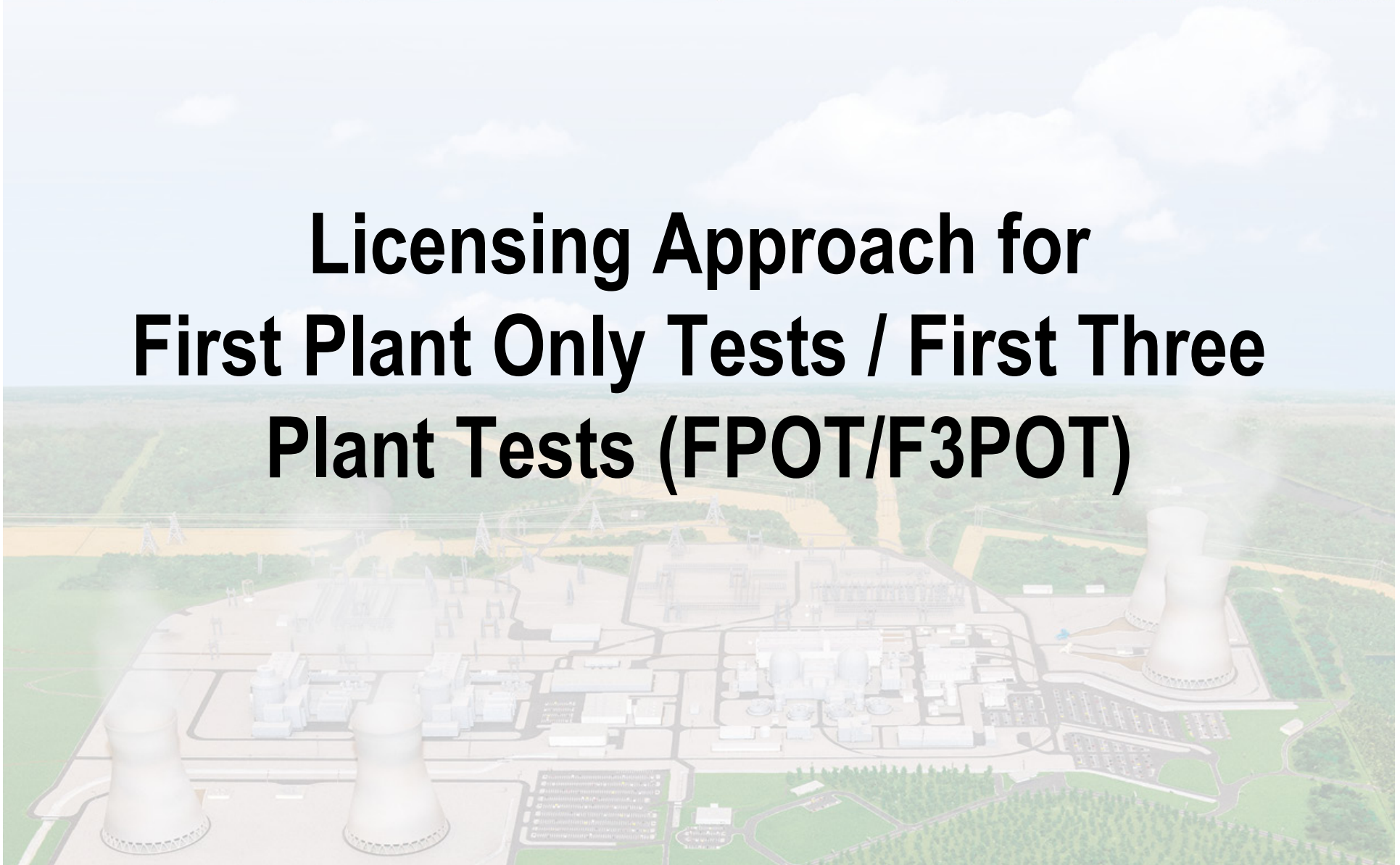
Vogtle



units 3&4 Nuclear Development



Licensing Approach for First Plant Only Tests / First Three Plant Tests (FPOT/F3POT)



Agenda

- License Conditions (LC)
- Need for LC Changes
- Options Considered
- Proposed Licensing Approach
- Advantages of Proposal

License Condition 2.D.(2)(a)

(2) Pre-operational Testing

(a) SNC shall perform the design-specific pre-operational tests identified below:

1. In-Containment Refueling Water Storage Tank (IRWST) Heatup Test (first plant test as identified in AP1000 Design Control Document (DCD), Rev. 19, Section 14.2.9.1.3 Item (h));
2. Pressurizer Surge Line Stratification Evaluation (first plant test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.7 Item (d));
3. Reactor Vessel Internals Vibration Testing (first plant test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.9);
4. Core Makeup Tank Heated Recirculation Tests (first three plants test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.3 Items (k) and (w)); and
5. Automatic Depressurization System Blowdown Test (first three plants test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.3 Item (s)).

License Conditions 2.D.(2)(b) & 2.D.(2)(c)

- (b) SNC shall **review and evaluate** the results of the tests identified in Section 2.D.(2)(a) of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with AP1000 DCD Rev. 19, Section 14.2.9,
- (c) SNC **shall notify** the Director of NRO, or the Director's designee, in writing, upon successful completion of the design-specific pre-operational tests identified in Section 2.D.(2)(a) of this license; and

- Similar LCs for Startup Tests
- Notification of “successful completion” is the only requirement to proceed to the next plateau

Need for LC Changes

- FPOT/F3POT tests were only intended to apply to the first plants/first three plants

- Consistency with UFSAR 14.2.5:

Because of the standardization of the AP1000 design, these special tests (designated as first plant only tests) are not required on follow plants.

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*For subsequent plants, the COL holder shall either perform the subject test, or justification shall be provided that the results of the first-plant-only tests or first-three-plant tests are applicable to the subsequent plant.]**

- Timing between units will be critical:
 - Perform all FPOTs for first unit
 - Perform all F3POTs for first three units
 - LC changes for subsequent units

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Options Considered

1. Submit LARs for each FPOT *following* test completion

Process: Following FPOT completion for the first unit, a LAR could be submitted to remove the appropriate LCs from the subsequent unit's COL. This could result in 1- 6 LARs per site, depending on timing of test completion.

Options Considered – cont.

2. Submit LARs for each FPOT *before* test completion

Process: Before FPOT completion for the first unit, a LAR could be submitted to remove the appropriate LC(s) from the subsequent unit, with the understanding that amendment would not be granted until the first plant test is completed. This could result in 1- 6 LARs, depending on timing of test completion.

Options Considered – cont.

3. Submit single LAR to add options to COLs

Process: LAR would request that an alternative be added to COLs that would give licensees the option to complete the FPOT or to review and evaluate the results of previously completed test(s) and confirm that the results are applicable.

Proposed Licensing Approach

- Add options to the FPOT/F3POT LCs
- New options would be consistent with UFSAR 14.2.5, which requires:
 - Test completion OR
 - Review/evaluation of previously completed test and justification that the results are applicable
- Options would also be reflected in the LCs requiring notification to NRO that:
 - Tests have been completed satisfactorily AND/OR
 - Justification that results of previously completed tests are applicable

Proposed Licensing Approach – cont.

(2) Pre-operational Testing

- (a) SNC shall perform the design-specific pre-operational tests identified below:
1. In-Containment Refueling Water Storage Tank (IRWST) Heatup Test (first plant test as identified in AP1000 Design Control Document (DCD), Rev. 19, Section 14.2.9.1.3 Item (h));
 2. Pressurizer Surge Line Stratification Evaluation (first plant test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.7 Item (d));
 3. Reactor Vessel Internals Vibration Testing (first plant test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.9);
 4. Core Makeup Tank Heated Recirculation Tests (first three plants test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.3 Items (k) and (w)); and
 5. Automatic Depressurization System Blowdown Test (first three plants test as identified in AP1000 DCD, Rev. 19, Section 14.2.9.1.3 Item (s)).

Alternatively, SNC shall review and evaluate the results of previously completed test(s) of another unit and confirm that the results are applicable.

Draft mark-up

Proposed Licensing Approach – cont.

- (b) SNC shall review and evaluate the results of the applicable tests identified in Section 2.D.(2)(a) of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with AP1000 DCD Rev. 19, Section 14.2.9,
- (c) SNC shall notify the Director of NRO, or the Director's designee, in writing, upon successful completion of the applicable design-specific pre-operational tests identified in Section 2.D.(2)(a) of this license. If SNC pursues the alternative in Section 2.D.(2)(a) of this license, then the notification shall include justification that the results of the completed test(s) are applicable to VEGP Unit 4;
and

Draft mark-up

Advantages of Proposal

- Aligns COL with the UFSAR and the intent of FPOT/F3POT
- Single LAR
- Alleviates schedule “guess work”
- Provides sufficient time for LAR review
- LAR preparation and review will not be close to fuel load