



Limited Work Authorization

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Presented by:

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[Not Export Controlled]

Meeting Agenda



- Introductions
- Purpose & Outcome
- Discussion on LWA requirements
- Open Forum

Purpose & Outcome

■ Purpose:

- ✓ Discuss review process for two LWA submittal pathways
- ✓ Discuss content required for LWA applications
- ✓ Discuss limitations on LWA activities

■ Outcome:

- ✓ Gain clarity on LWA review process
- ✓ Understand NRC expectations for content of LWA applications
- ✓ Gain clarity on LWA limitations

SMR is considering an LWA

- 10 CFR 2.101(a)(9) lays out two possible pathways

- Pathways for submittal (1 of 2):
 - ✓ May be submitted in a complete application with a CPA
 - What are the relative timelines of the LWA and CPA reviews/adjudications?

SMR is considering an LWA

- Pathways for submittal (2 of 2):
 - ✓ May be submitted as “Part One” of a CPA in accordance with 10 CFR 2.101(a)(9)
 - ✓ Subsequent “Part Two” (remainder of CPA) must be submitted within 18 months of the LWA
- Seeking clarity on content and review process:
 - ✓ 10 CFR 2.101(a)(9) indicates that Part Two should not repeat content: “Part two must include the **remaining information... which was not submitted in part one.**”
 - ✓ Would review of Part Two cover previously accepted content?

Required application content

- 10 CFR 50.10 (d)(3) – Application must include:
 - ✓ Environmental report
 - ✓ Safety analysis report
 - ✓ Description of requested activities
 - ✓ Design and construction information otherwise required to be submitted for a CP, but limited to the scope of the LWA
- Equivalent to CP for content, level of detail, design maturity
 - ✓ Is that the correct understanding?

Required application content – How much design information is needed?

■ 10 CFR 50.10(d) –

- ✓ Design and construction information otherwise required for a CPA, but limited to the portions of the facility that are within the scope of the LWA

■ RG 1.206 C.2.18:

- ✓ Design information and safety analysis for structures supported by the foundation built by LWA
- ✓ Requires final design information (based on Part 52)
- ✓ For Part 50 LWA, design maturity expected for CPA seems correct

Required application content – How much design information is needed?

- Scenario – pursue an LWA to build containment foundation
- Need information on:
 - ✓ Design of containment foundation
 - ✓ Design of spent fuel pool?
 - SMR SFP is inside containment
 - ✓ Design of polar crane at top of containment?
 - ✓ Accident analyses demonstrating containment integrity?

Reminder – LWA required for “construction” of safety-related SSCs

Not construction

- Site exploration
- Clearing, gradings, drainage
- Temporary roads
- Excavation
- Support buildings



LWA **not** required

Construction

- Driving piles
- Backfill
- Concrete placement
- Installing foundations
- Etc...



LWA required

Extent of allowed LWA work

■ 10 CFR 50.10 (d)(1):

“Any person... may request a limited work authorization allowing that person to perform:

- ✓ the driving of piles,
- ✓ subsurface preparation,
- ✓ placement of backfill, concrete, or permanent retaining walls within an excavation,
- ✓ installation of the foundation, including placement of concrete...”

Extent of allowed LWA work

- RG 1.206 C.2.18 – Discussion of “onsite, in-place” construction: (lightly edited for brevity)
 - ✓ “The definition is intended to prevent persons from having to obtain an LWA to fabricate, assemble, and test components and modules in a shop building, warehouse, or laydown area.”
 - ✓ “Installation or integration of that SSC into its final plant location would require an LWA.”

Extent of allowed LWA work

- 10 CFR 50.10 (d)(1)
Extent of allowed work:
 - ✓ “installation of the foundation, including placement of concrete...”

- RG 1.206 C.2.18 –
 - ✓ “installation or integration of that SSC into its final plant location would require an LWA”

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- 1.206 suggests that LWA may extend to installation of SSCs
 - Can installation of SSCs be considered within the scope of an LWA?
 - ✓ Installation of supports embedded in foundations?
 - ✓ Installation of SSCs in sumps?

Requirements in the event of changes

- View an LWA as a “partial CP” in the event of design changes
 - ✓ Design changes between CP approval and OL application sometimes necessitate engagement with the NRC
 - ✓ Design changes during LWA construction would be considered the same as those that occur during CP construction
 - ✓ Is that the correct understanding?

Open Forum

Backup Slides

10 CFR 2.101(a)(9)

■ (9) An applicant for a construction permit for a utilization facility which is subject to § 51.20(b) of this chapter and is of the type specified in § 50.21(b)(2) or (b)(3) or § 50.22 of this chapter, an applicant for or holder of an early site permit under part 52 of this chapter, or an applicant for a combined license under part 52 of this chapter, who seeks to conduct the activities authorized under § 50.10(d) of this chapter may submit a complete application under paragraphs (a)(1) through (a)(4) of this section which includes the information required by § 50.10(d) of this chapter. **Alternatively, the applicant (other than an applicant for or holder of an early site permit) may submit its application in two parts:**

■ (i) Part one must include the information required by § 50.33(a) through (f) of this chapter, and the information required by § 50.10(d)(2) and (d)(3) of this chapter.

■ (ii) **Part two must include the remaining information required by the Commission's regulations in this chapter which was not submitted in part one**, *provided, however*, that this information may be submitted in accordance with the applicable provisions of paragraph (a)(5) of this section, or, for a construction permit applicant, paragraph (a)(1) of this section. Part two of the application must be submitted no later than 18 months after submission of part one.

10 CFR 50.10(d)(1)-(2)

- (d) *Request for limited work authorization.*
- (1) Any person to whom the Commission may otherwise issue either a license or permit under Sections 103, 104.b, or 185 of the Act for a facility of the type specified in §§ 50.21(b)(2), (b)(3), or 50.22 of this chapter, or a testing facility, may request a limited work authorization allowing that person to perform the driving of piles, subsurface preparation, placement of backfill, concrete, or permanent retaining walls within an excavation, installation of the foundation, including placement of concrete, any of which are for an SSC of the facility for which either a construction permit or combined license is otherwise required under paragraph (c) of this section.
- (2) An application for a limited work authorization may be submitted as part of a complete application for a construction permit or combined license in accordance with 10 CFR 2.101(a)(1) through (a)(5), or as a partial application in accordance with 10 CFR 2.101(a)(9). An application for a limited work authorization must be submitted by an applicant for or holder of an early site permit as a complete application in accordance with 10 CFR 2.101(a)(1) through (a)(4).

RG 1.206 – Supplement to C.2.18

What activities may be accomplished under an LWA?

■ Construction also includes the “onsite, in-place” fabrication, erection, integration, or testing activities for any in-scope SSC. The terms “onsite, in place, fabrication, erection, integration, or testing” are intended to describe the historical process of constructing a nuclear power plant in its final, onsite plant location, where components or modules are integrated into the final, in-plant location. The definition is intended to prevent persons from having to obtain a COL, LWA, or ESP authorizing LWA activities to fabricate, assemble, and test components and modules in a shop building, warehouse, or laydown area, even if located onsite. However, the installation or integration of that SSC into its final RG 1.206, Rev. 1, Page 114 plant location would require a COL, LWA, or ESP authorizing LWA activities.

10 CFR 50.10(d)(3) – What content is required?

- (3) The application must include:
 - (i) A **safety analysis report** required by 10 CFR 50.34, 10 CFR 52.17 or 10 CFR 52.79 of this chapter, as applicable, a description of the activities requested to be performed, and the design and construction information otherwise required by the Commission's rules and regulations to be submitted for a construction permit or combined license, but **limited to those portions of the facility that are within the scope of the limited work authorization**. The safety analysis report must demonstrate that activities conducted under the limited work authorization will be conducted in compliance with the technically-relevant Commission requirements in 10 CFR Chapter I applicable to the design of those portions of the facility within the scope of the limited work authorization;
 - (ii) An **environmental report** in accordance with § 51.49 of this chapter; and
 - (iii) A **plan for redress** of activities performed under the limited work authorization, should limited work activities be terminated by the holder or the limited work authorization be revoked by the NRC, or upon effectiveness of the Commission's final decision denying the associated construction permit or combined license application, as applicable.

RG 1.206 C.2.18 – What content is required?

Safety Analysis Report:

- The SSAR or FSAR should demonstrate that the LWA activities will be conducted in accordance with applicable Commission requirements as follows:
 - ✓ a. If the LWA application is submitted as part of a complete COLA, the application should clearly identify which portions of the COL FSAR are applicable to the LWA request.
 - ✓ b. If the LWA application is submitted as part of a phased COLA or as part of an ESP or ESP amendment application, the SSAR or FSAR should include:
 - (1) the final design for any foundation or other work being requested under the LWA,
 - (2) the final design for any structures that would be supported by the foundation or other work being requested under the LWA,
 - (3) a safety analysis for any foundation or other work being requested under the LWA, and
 - (4) a safety analysis for structures that would be supported by the foundation or other work being requested under the LWA (e.g., stability (static and dynamic) analyses).

10 CFR 51.49(a) – if submitting as part of CPA



■ (a) *Limited work authorization submitted as part of complete construction permit or combined license application.* Each applicant for a construction permit or combined license applying for a limited work authorization under § 50.10(d) of this chapter in a complete application under 10 CFR 2.101(a)(1) through (a)(4), shall submit with its application a separate document, entitled, "Applicant's Environmental Report—Limited Work Authorization Stage," which is in addition to the environmental report required by § 51.50 of this part. Each environmental report must also contain the following information:

- (1) A description of the activities proposed to be conducted under the limited work authorization;
- (2) A statement of the need for the activities; and
- (3) A description of the environmental impacts that may reasonably be expected to result from the activities, the mitigation measures that the applicant proposes to implement to achieve the level of environmental impacts described, and a discussion of the reasons for rejecting mitigation measures that could be employed by the applicant to further reduce environmental impacts.

10 CFR 51.49(b) – if submitting in two parts

- (b) *Phased application for limited work authorization and construction permit or combined license.* If the construction permit or combined license application is filed in accordance with § 2.101(a)(9) of this chapter, then the environmental report for part one of the application may be limited to a discussion of the activities proposed to be conducted under the limited work authorization. If the scope of the environmental report for part one is so limited, then part two of the application must include the information required by § 51.50, as applicable.