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**Sent:** Monday, November 6, 2023 1:31 PM  
**To:** NuScale-SDA-720DocsPEm Resource  
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**Hearing Identifier:** NuScale\_SDA720\_Doc\_Public  
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**Subject:** NuScale-NRC Management Quarterly Public Meeting 11-07-23  
**Sent Date:** 11/6/2023 1:30:40 PM  
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# NuScale Standard Design Approval Application for the US460

Quarterly NuScale-NRC Management  
Public Meeting  
November 7, 2023

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# Opening Remarks

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# Agenda

- ❖ Opening Remarks
- ❖ NuScale US460 Standard Design Approval Application (SDAA) Review Overview
- ❖ Phase A Safety Review
- ❖ High Impact Technical Issues (HITIs)
- ❖ Focus Items Supporting Reliable Schedule Development (FISDs)
- ❖ Licensing Topical Reports (LTRs)
- ❖ Generic Licensing Activities (Non-SDAA)
- ❖ Closing remarks

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# US460 SDAA Review Overview

- ❖ SDAA staged submittal was completed in January 2023
- ❖ The NRC staff issued the results of its acceptance review with a request for supplemental information (RSI) on March 17, 2023
- ❖ The staff began detailed safety evaluation of portions of the application not impacted by the RSI on March 20, 2023
- ❖ Following the receipt of the supplemental information on July 14 and 17, 2023, a docketing letter was issued on July 31, 2023, that included a four phase, 24-month review schedule
- ❖ The staff issued a resource estimate letter on September 22, 2023. The SDAA review will require approximately 50,000 staff hours and \$650,000 for contractor support

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# US460 SDAA Review Overview

## Four Phase Review milestones

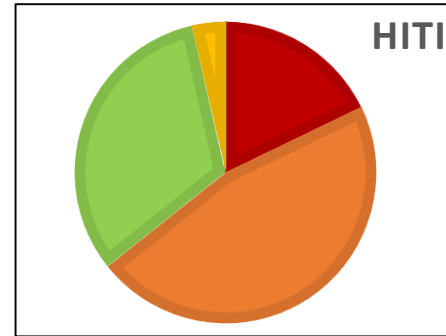
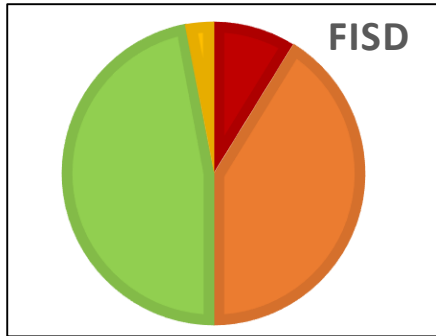
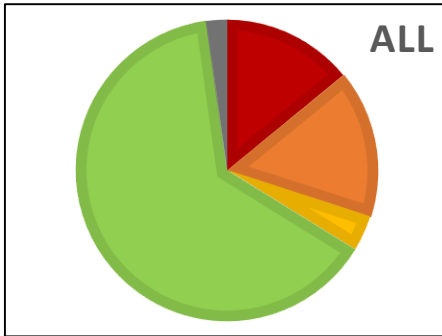
Phase	Phase Name	End date
Phase A	Advanced Safety Evaluation Report (ASER) without open items (draft completion date; internal NRC schedule)	November 2024
Phase B	ASER review (technical editing), Management concurrence	February 2025
Phase C	ACRS Review of ASER	May 2025
Phase D	Final Safety Evaluation Report (FSER) and SDA	July 2025

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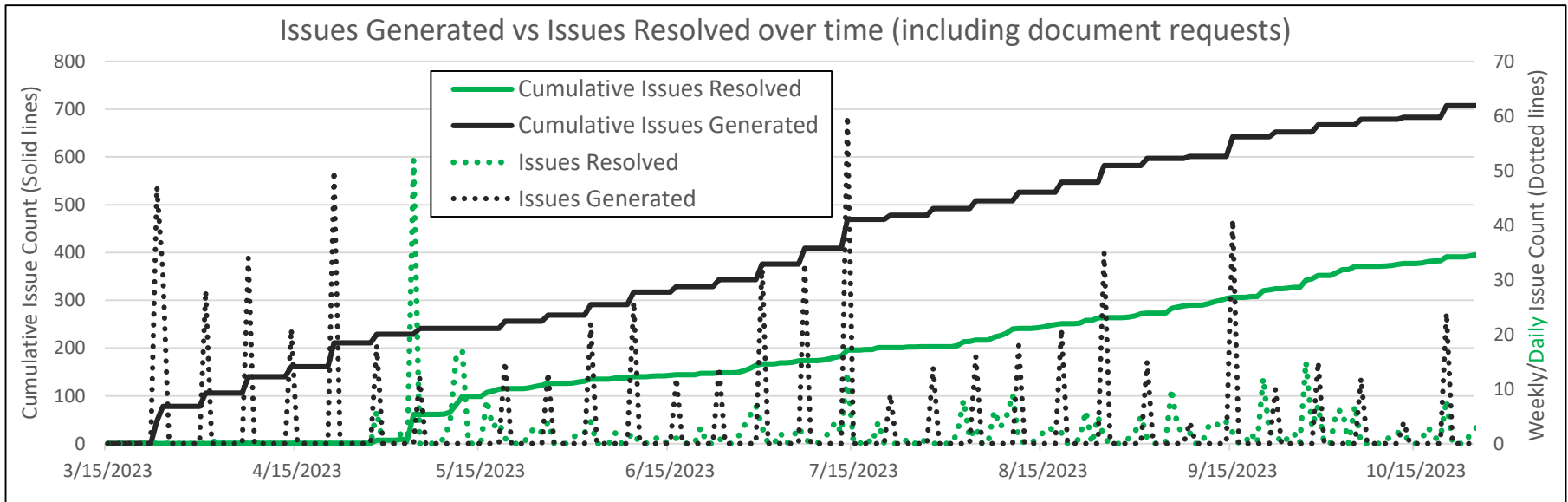
# Phase A Safety Review

- ❖ NRC issued an audit status report for Phase A safety review on September 29, 2023
- ❖ The NRC staff has presented 712 document requests and items for explanations in the audit, as of November 6, 2023.
  - ❑ 467 items have been resolved in the audit,
  - ❑ 116 items provided by NuScale are under review by the staff, and
  - ❑ 101 items are waiting for NuScale to provide in the audit.
  - ❑ 28 items resulted in request for additional information





Issues by Category	Total	Awaiting Response	NRC Reviewing	Resolved in Audit	Sent to RAI process
ALL	712	101	116	467	28
FISD	34	3	14	16	1
HITI	28	5	13	9	1



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# High Impact Technical Issues (HITIs)

1. Design and classification of EDAS
2. LOCA break spectrum
3. Incorporated by Reference (IBR)
4. CNV material change
5. Lower RPV material change
6. Secondary side controller design for DWO events
7. DWO and steam generator inlet flow restrictor design changes
8. ASME qualification of the helical coil steam generator for the onset of DWO-induced loads

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## High Impact Technical Issues (HITIs) Audit Activities

- ❖ As of November 3, 2023, the staff has presented 28 HITI document requests and items for explanations in the audit.
  - 9 have been resolved in the audit,
  - 13 items provided by NuScale are under review by the staff, and
  - 5 items are waiting for NuScale to provide in the audit.
  - 1 item is sent to RAI process
- ❖ HITI involving Lower RPV material change has been successfully closed

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## Focus Items For Schedule Development (FISDs)

- ❖ As of November 3, 2023, the staff presented 34 FISD document requests and items for explanations in the audit.
  - ❑ 16 items have been resolved in the audit,
  - ❑ 14 items provided by NuScale are under review by the staff,
  - ❑ 3 items are waiting for NuScale to provide additional information or revised responses, and
  - ❑ 1 item sent to RAI process

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# Licensing Topical Reports (LTRs)

## ❖ Pre-SDAA LTRs

- ❑ Five of eight LTRs submitted prior to the SDAA are completed.
- ❑ The staff is currently reviewing the following three LTRs submitted in the pre-SDAA phase:
  - Rod Ejection Accident Methodology – Advance SE: November 2023
  - Subchannel Analysis Methodology – Advance SE was issued on November 6, 2023
  - Quality Assurance Program Description (QAPD) – Final SE: December 2023

## ❖ LTRs submitted with SDAA are included in the SDAA Phase A audit

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# Generic Licensing Activities (non-SDAA)

## ❖ Generic LTRs:

- ❑ EPZ LTR completed in November 2022
  - ❑ Mitigation of Beyond-Design-Basis Events LTR submitted on September 11, 2023. The staff has completed the acceptance review and issued a review schedule. The staff plans to complete the Advance SE by August 31, 2024 (12-month review) .
  - ❑ Fuel Storage Rack Design LTR submitted on October 9, 2023. The staff plans to complete its acceptance review by December 9, 2023.
  - ❑ Reactor Flange Tool Support Design LTR's pre-application meeting was held on October 26, 2023. LTR submittal by the end of 2023, and
  - ❑ Application-Specific Modifications to the Base HIPS Platform LTR – Pre-application meeting November 2023. LTR submittal by the end of 2023.
- ❖ (NuScale DCA) Request for Exemption to the Reporting Requirements of 10 CFR 50.46(a)(3) [Changes to the approved LOCA methodology] is currently under review

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# Closing Remarks

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# Questions?

