contact@deepfission.com
deepfission.com
PO Box 5985
2705 Webster Street
Berkeley, CA 94705

August 19, 2024

2024-DF-NRC-003

Project No. 99902126

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Submittal of Deep Fission, Inc., Slides for Licensing Topical Report, "Quality Assurance Program Description

The purpose of this letter is to submit the slides for the public meeting scheduled August 21, 2024, regarding the subject Licensing Topical Report to the U.S. Nuclear Regulatory Commission (NRC) on behalf of Deep Fission, Inc. ("Deep Fission").

This letter contains no commitments. If you have any questions or require additional information, please contact Ingrid Nordby at ingrid.nordby@deepfission.com.

Sincerely,

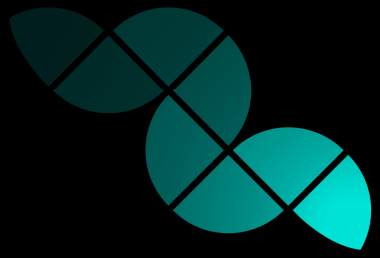
DocuSigned by:
Malcolm Thompson
F50ED0C5CD884FE...

Malcolm Thompson
Chief of Staff
Deep Fission, Inc.

cc:

Deep Fission
Liz Muller
Malcolm Thompson

Nuclear Regulatory Commission
Stacy Joseph
Ricky Vivanco
Mahmoud Jardaneh



DEEP FISSION

Quality Assurance Program Description (QAPD)

August 21, 2024

Agenda

- Introductions
- Overview of Deep Fission
- QAPD Basis
- QAPD Sections
- QAPD Submittal Timeline

Overview of Deep Fission

- Incorporated in 2023 by founders experienced in the nuclear industry
- Simplifying construction and licensing
- Pressurized Water Reactor using existing supply chain and low-enriched uranium fuel
- Using natural geology for containment and pressure at ~1-mile depth
- Modular and scalable to meet customer's needs
- Each reactor delivers from 1 to 15 MWe
- Additional reactors can be added to a site to deliver 150 MWe - 1 GWe
- Vision of low-cost nuclear power to address climate change, energy security, and access

QAPD Basis

- NEI 06-14,
  - “Quality Assurance Program Description (QAPD)”
- Regulatory Guide 1.28,
  - "Quality Assurance Program Criteria (Design and Construction)
- ASME NQA-1-2015,
  - "Quality Assurance Requirements for Nuclear Facility Applications"

Part I – Introduction and Purpose

- Deep Fission's Quality Assurance Program Description (QAPD) is the top-level policy document that establishes the quality assurance policy and assigns major functional responsibilities for activities conducted by or for Deep Fission.
- Scope and Applicability
  - The QAPD applies to the licensing activities affecting the quality and performance of safety-related structures, systems, and components, including but not limited to:
    - Designing, Operating, Maintaining, Repairing, Modifying, Refueling, Training...
- Definitions will be provided in the document.

Part II – QAPD Details

- Organization
- Quality Assurance Program
- Design Control
- Procurement Document Control
- Instructions, Procedures, and Drawings
- Document Control
- Control of Purchased Material, Equipment, and Services
- Identification and Control of Materials, Parts, and Components
- Control of Special Processes

Part II – QAPD Details

- Inspection
- Test Control
- Control of Measuring and Test Equipment
- Handling, Storage, and Shipping
- Inspection, Test, and Operating Status
- Nonconforming Materials, Parts, or Components
- Corrective Action
- Quality Assurance Records
- Audits

Part III – Non-safety Structures, Systems, and Components (SSC) Quality Control

- Non-safety-Related SSCs – Significant Contributors to Plant Safety
- Non-safety-Related SSCs Credited for Regulatory Events

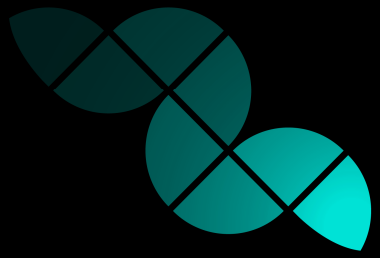
Submittal and Review Timeline

- Planning on submittal within 2 weeks.
- Request a 9-month review timeline.
- Understand an audit will be part of the review.
  - An Electronic Reading Room will be established prior to an audit.

QAPD Status

- Completing development of Deep Fission procedures
  - Conduct of Engineering
  - Conduct of Quality Assurance
  - Conduct of Regulatory Affairs
  - Document Control
  - Training and Qualification
  - Part 21 Reporting

Questions?



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