# **Orano Enrichment USA**

**Enrichment Facility Pre-application Meeting** 

**Structural Codes and Standards** 

August 28, 2025 NRC Headquarters – Rockville, MD

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## CONTENTS

**00 INTRODUCTION** 

03 DESIGN BASIS DESIGNATIONS

01 LICENSING PERSPECTIVE

02 DESIGN PERSPECTIVE



00 Introduction



#### **Orano Enrichment USA**

Headquartered in Bethesda, MD, Orano USA is a leading supplier of advanced reactor services, nuclear fuel materials, used fuel management, decommissioning, decontamination, and radwaste treatment solutions to U.S. commercial and federal customers.



Orano Enrichment USA, LLC, created to build, commission and operate the Chemistry and Enrichment Facilities in the US.



- Letter of Intent
- •Docket 70-7035
- Kickoff meeting
- Pre-application activities
- •Submit application



- •Environmental Review
- •Safety and Safeguards Review
- Issue Materials License



- Site preparation
- Facility construction
- Pre-operation readiness review

#### **IKE Program**

### **IKE Enrichment Facility**



Facility planned for Idaho Falls, ID 2004

**Eagle Rock Enrichment Facility** 

**License Application accepted** 2008

Materials License SNM-2015 Issued

Project terminated due to low demand due to cancelled reactor projects

2024

Orano has initiated exclusive discussions to establish a future uranium enrichment facility at a **Department of Energy-owned site in Oak** Ridge, Tennessee.

2025

**Pre-application activities started** 





2011

2014

IKE is comparable to EREF, and GB2 is the reference plant in operation in France since 2011



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#### **Meeting Objectives**

- > Propose a broad philosophical framework for design classification of buildings / structures
- Provide the bases for determining the necessary design and QA/QC related adjustments to structural codes/standards to ensure alignment with relevant risk and performance objectives



Targeted application of structural codes and standards to ensure alignment with relevant risk and performance objectives



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#### **Project Team**

Orano Enrichment USA (OE) is a large multi-discipline project team working on design and licensing of IKE Enrichment Facility. Orano has engaged the expertise of Purdue Applied Research Institute (PARI) in the discipline of civil/structural codes and standards.

- Lionel Antognelli, VP Engineering and Projects (OE)
- Peter Vescovi, Licensing Manager / QA Manager (OE)
- Sanj Malushte, Civil/Structural Engineering Consultant (PARI)
- Amit H. Varma, Civil/Structural Engineering Consultant (PARI)
- Paul Tiao, Chief Legal Officer (Orano USA)

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# Designation Of Items Relied On For Safety for Natural Phenomena Hazard-initiated Events

- ➤ NRC Executive Director of Operations issued response to Nuclear Energy Institute concern with a position recently taken by the NRC staff that newly constructed facilities housing special nuclear material be classified as "items relied on for safety" (IROFS) in the Integrated Safety Analyses (ISA) required under 10 CFR Part 70. [ML24241A119]
- Applicant must meet the baseline design criteria (BDC) in 10 CFR §70.64(a)(2) for "new facilities" and new processes at existing facilities" and must provide adequate protection against natural phenomena with consideration of the most severe documented historical events for the site.
- Moreover, if an applicant demonstrates that a to-code building/structural limits the risks of a credible high-consequence event in the integrated safety analyses (ISA) pursuant to 10 CFR § 70.62, the licensee may be able to credit adherence to the particular building/structural code as an IROFS



NRC does not require new fuel cycle facility buildings to be designated as IROFS



#### **Proprietary information withheld pursuant to 10 CFR 2.390**

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