Orano Enrichment USA

Enrichment Facility

Pre-application Meeting – Nuclear Criticality Safety Program

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February 12, 2026
NRC Headquarters – Rockville, MD

OPI 0 UNRESTRICTED

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00 Introduction

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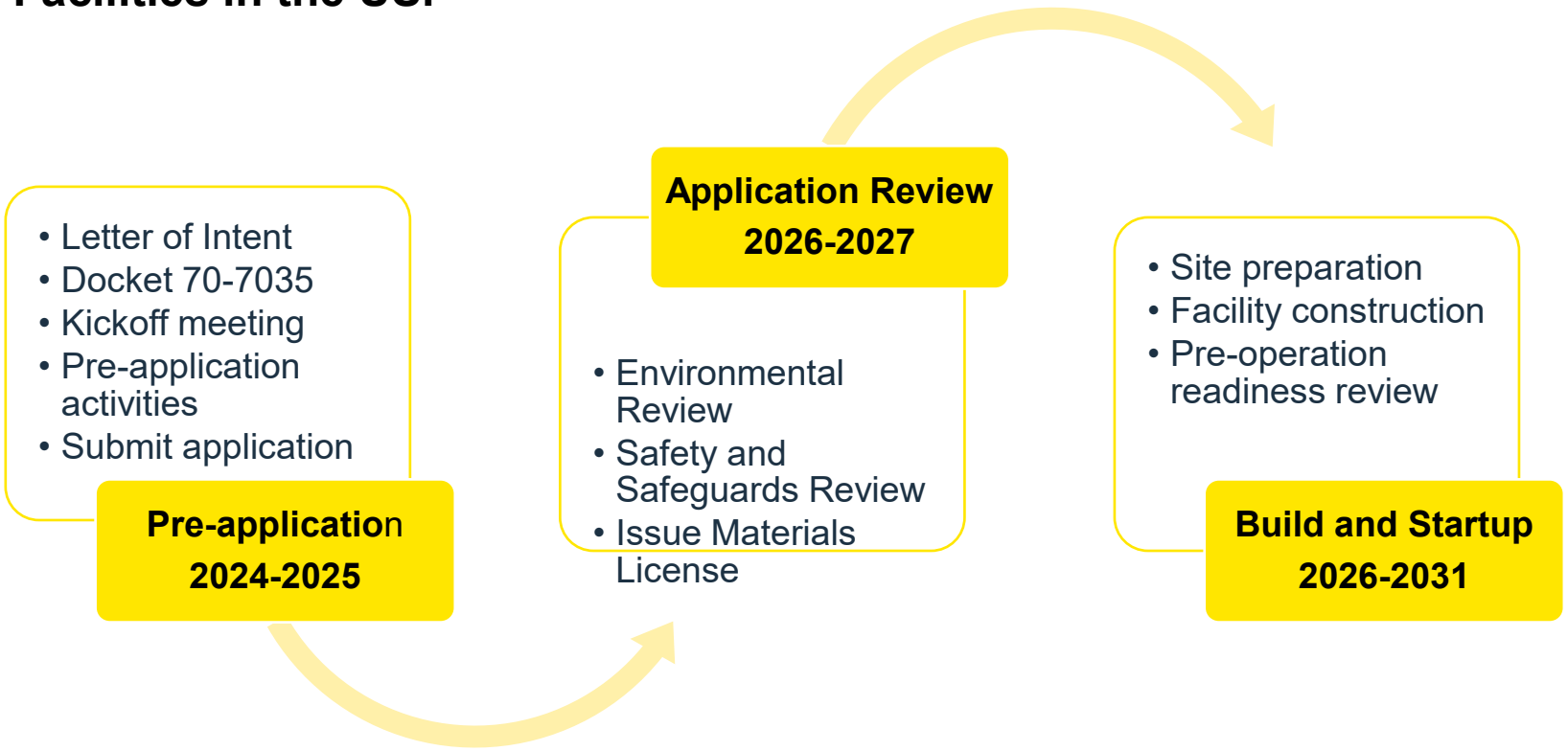
00 Orano Enrichment USA

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.



00 IKE Enrichment Program

2004-2014

- Facility planned for Idaho Falls, ID
- Materials License SNM-2015 Issued
- Project terminated due to low demand due to cancelled reactor project

2024

Orano initiated discussions with DOE to acquire DOE owned parcel SPP-2 near ETTP in Oak Ridge, Tennessee to construct and operate an enrichment facility

2025

Pre-application engagement with NRC

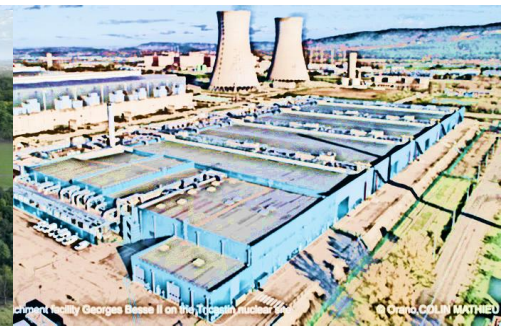
2026

- DOE awarded Orano $900M to build and operate LEU enrichment facility
- License Application submission to NRC
- NRC Review of License Application

2027/ 2031

Orano will start construction and operate a uranium enrichment facility

OE Facility



GB2

IKE uses gaseous centrifuge technology used at GB2 in operation in France since 2011

00 Meeting Objectives

- Commit to Criticality Safety Program is Consistent with Standard Review Plan, NUREG 1520 Rev.2
- Commit to Compliance with 10 CFR § 70.24 Criticality accident requirements
- Review technical practices for nuclear criticality safety (Margin of Subcriticality, Controlled parameters to ensure subcriticality, Parameter Values for Uniform Aqueous Solutions of Enriched UO2F2 , Controlled parameters to ensure subcriticality, UF6 cylinder calculation models, Safety Criteria for Buildings / Systems / Components)
- Summarize Management Measures for protection against nuclear criticality accidents

Focus on Nuclear Criticality Safety Program

00 Project Team

Orano Enrichment USA is a large multi-discipline project team working on design and licensing of IKE Enrichment Facility.

Criticality Safety Program

- Lionel Antognelli, VP Engineering and Projects
- Peter Vescovi, ESH & Licensing Manager
- Philippe Pham, Nuclear Safety Program Manager
- Matt Lang, Safety System Engineer
- Ray McDonnell, Safety Program Manager
- David Anderson, Design Engineer

01 Regulation – Industry Standards

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01 Regulation – Industry Standards

OE NCS programs developed to ensure safe handling, processing and storage of enriched uranium up to 10 wt% U-235

- US NRC Regulatory Guide 3.71 Rev.3

NCS program compliance with 10 CFR Part 70 including

- 10 CFR 70.24, “Criticality accident requirements”
- 10 CFR 70.61, “Performance requirements”
- 10 CFR 70.62, “Safety program and integrated safety analysis”

OE commitment to

- ANSI/ANS-8.1-2014
- ANSI/ANS-8.3-2022
- ANSI/ANS-8.24-2017

Consistent with Standard Review Plan, NUREG 1520 Rev.2

02 Criticality Accident Alarm System – Emergency Planning

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Criticality Accident Alarm System – Emergency Planning

A Criticality Accident Alarm System, CAAS, will be designed to cover all the facility areas handling, processing and storing enriched uranium. The CAAS is designed, installed and maintained in accordance with

- ANSI/ANS-8.3-2022

An Emergency Planning and Response is developed consistently to guidance in

- ANSI/ANS-8.23-2019

***Compliance with 10 CFR* § 70.24 Criticality accident requirements.**

03 Subcriticality – Double Contingency

Proprietary information withheld pursuing to 10 CFR 2.390

04 Technical Practices for NCS

Proprietary information withheld pursuing to 10 CFR 2.390

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05 Organization – Management Measures

Proprietary information withheld pursuing to 10 CFR 2.390

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Giving nuclear energy its full value