

FANCO-LT-NRC-FFF-REP-2026-001 R0

7 August 2026

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

Subject: 1st American Nuclear Co. Category II Fuel Facility Regulatory Engagement Plan

References:

1. Letter, 1st American Nuclear Co. to U.S. NRC Document Control Desk, "1st American Nuclear Co. Regulatory Engagement Plan, Revision 0," February 10, 2026 (ML26048A512).
2. FANCO-LT-NRC-FFF-LOI-2026-001, Letter of Intent – License Application for 1st American Nuclear Company, Category II HALEU Fuel Fabrication Facility, August 6, 2026.

This letter transmits the planned licensing submittals that First American Nuclear Co. (FANCO) intends to provide to the U.S. Nuclear Regulatory Commission (NRC) in support of pre-application engagement and a future 10 CFR Part 70 license application for the Category II HALEU fuel fabrication facility as described in the Letter of Intent (Reference 2). This fuel facility will support the EAGL-1 lead-bismuth eutectic (LBE)-cooled fast reactor and other advanced reactor customers. The submittal schedule is in support of the FANCO Regulatory Engagement Plan (Reference 1).

The FANCO fuel process steps, planned submittals, and their associated target submittal dates are provided in Enclosure 1 which is categorized as proprietary and are denoted by []. Enclosure 2 is the redacted non-proprietary version. Please note that this plan is subject to change; updates will be communicated through appropriate channels or by revising this document.

Enclosure 1 contains proprietary information of the type that FANCO maintains in confidence and withholds from public disclosure. FANCO requests that the information in Enclosure 1, which is proprietary in its entirety, be withheld from public disclosure in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," and 10 CFR 9.17, "Agency records exempt from public disclosure." An affidavit supporting this request for withholding is provided in Enclosure 3.

Enclosure 1 does not contain export control information. Information in this submittal may be disclosed to Foreign Nationals only in accordance with the requirements of 15 CFR 730 and 10 CFR 810, as applicable.

If you have any questions or need any additional information, please contact me at mcatts@fanuclear.com or (910) 616-0992.

Sincerely,

Michelle P. Catts 08/07/2026

Michelle Catts

Executive Vice President, Regulatory Affairs and Licensing

Enclosures:

1. ~~Category II Fuel Facility Regulatory Engagement Plan (Proprietary)~~
2. Category II Fuel Facility Regulatory Engagement Plan (Non-Proprietary)
3. ~~1st American Nuclear Co. Affidavit and Request for Withholding from Public Disclosure (10 CFR 2.390) (Non-Proprietary)~~

cc (w/enclosure):

Diana Woodyatt, Project Manager, Nuclear Materials Safety and Safeguards (NMSS), USNRC
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Mike McCoppin, Technical Review Board, Nuclear Materials Safety and Safeguards, USNRC
Mike Reinboth, 1st American Nuclear Co.
William J. Stokes, 1st American Nuclear Co.
Philip Jensen, 1st American Nuclear Co.
Michelle Catts, 1st American Nuclear Co.
Dallas M. Gardner, 1st American Nuclear Co.

ENCLOSURE 2

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Category II Fuel Facility Regulatory Engagement Plan

Non-Proprietary Information - Public

IMPORTANT NOTICE

This is a non-proprietary, public version of Enclosure 1, from which the proprietary information and export-controlled information have been removed. Portions of the enclosure that have been removed are indicated by an open and closed bracket as shown here: [[]].



Category II Fuel Facility Regulatory Engagement Plan 1st American Nuclear Co.

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Date Effective: August 7, 2026**

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This document is the property of 1st American Nuclear Co. (FANCO) and is prepared in support of the development of the EAGL-1 Lead-Bismuth Eutectic Cooled reactor design and associated components, systems and fuel facility. Other than by the NRC and its contractors as part of regulatory reviews of the EAGL-1 design, the content herein may not be reproduced, disclosed, or used, without prior written approval of FANCO.

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1. Introduction

1st American Nuclear Co. (FANCO) is developing a Generation IV, 600 MWth / 240 MWe heavy liquid metal (lead bismuth eutectic), fast spectrum reactor named EAGL-1. FANCO is also developing a Category II Special Nuclear Material (SNM) fuel fabrication facility to manufacture High Assay Low Enriched Uranium (HALEU) Uranium Oxide (UO₂) fuel elements for U.S. advanced nuclear reactor programs under a license issued pursuant to 10 CFR Part 70.

The purpose of this REP is to:

- Establish clear points of contact and communication protocols between FANCO and NRC staff.
- Provide the NRC with sufficient information about the Fuel Facility design and licensing strategy to plan staff resources for the pre-application phase.
- Document planned pre-application submittals and interactions, enabling early resolution of technical and policy issues before the Part 70 License Application submittal; and
- Request a NRC project number for tracking interactions and fee billing.

The project schedule targets for the 10 CFR 70 License Application filing are provided in Table 6.1-2.

2. Contact Information

All regulatory correspondence should be directed to the Primary NRC POC listed below. Changes to this table will be communicated promptly to the NRC Project Manager.

Table 2.0-3 FANCO Primary Contacts

Role	Name	Email	Phone
President	William J. Stokes	wjstokes@fanuclear.com	509-366-3700
Chief Executive Officer	Mike Reinboth	mike@fanuclear.com	858-204-6085
Executive Vice President (EVP), Regulatory Affairs and Licensing	Michelle Catts	mcatts@fanuclear.com	910-616-0992
EVP Fuels	Philip Jensen	pjensen@fanuclear.com	626-552-5324
Fuel Facility Licensing Manager	Dallas M. Gardner	dgardner@fanuclear.com	706-513-5178
Corporate Address	323 Wellsian Way, Richland, WA 99352		

3. Company Structure

1st American Nuclear Co. (FANCO) is a U.S. based nuclear reactor designer and development company organized under the laws of the State of Delaware. The company is committed to the rapid and safe deployment of advanced nuclear technology, utilizing a team with deep institutional knowledge of Liquid Metal Fast Reactor (LMFR) technology. The company is committed to energy independence and U.S. energy dominance, streamlined deployment, and the delivery of safe advanced nuclear systems that are cost competitive with natural gas and renewables.

FANCO has acquired the technology portfolio originally developed by Columbia Basin Consulting Group, a nuclear engineering firm established in 1998. This foundation is supported by a leadership and senior engineering team with direct operational and engineering experience from major U.S. fast reactor programs, including the Fast Flux Test Facility (FFTF), Experimental Breeder Reactor-II (EBR-II), Versatile Test Reactor, Advanced Burner Reactor, and the Global Nuclear Energy Partnership (GNEP). FANCO's depth of expertise in both advanced reactor programs and the commercial nuclear power industry provide deep institutional knowledge and practical engineering capability, essential for successfully delivering a Liquid-Metal, Fast Reactor (LMFR) technology design to the commercial marketplace.

This technology portfolio based on technology developed within the US advanced liquid-metal fast reactor programs and data available through the International Atomic Energy Agency (IAEA) and various U.S. sources. The design was advanced with support from the Pacific Northwest National Laboratory through Gateway for Accelerated Innovation in Nuclear (GAIN) awards and with a grant award under the Department of Energy Advanced Reactor Demonstration Program.

FANCO is currently finalizing contracts with primary Engineering/Design contractors. Detailed information regarding the qualifications and roles of these primary contractors will be provided to the NRC project manager as these partnerships are formalized.

4. Facility and Technology Overview

4.1 Facility Description

Principal structures include: the Main Process Building (SNM receipt, conversion, fabrication, inspection, and shipping); a Category II SNM secure storage vault; a radioactive waste management area; an analytical laboratory; and an administrative building with security monitoring center. The Facility will not include a nuclear reactor or critical assembly. All operations will be maintained subcritical at all times.

4.2 SNM and Fuel Form

The Facility will process HALEU UO₂ pellets using uranium enriched to <20 weight % U-235.

This places the Facility within the special nuclear material of moderate strategic significance (Category II) classification under 10 CFR 70.4. Maximum licensed possession quantities will be established in the License Application based on throughput modeling and criticality safety limits.

4.3 Principal Process Steps

The principal fuel fabrication process sequence is as follows:

- 1. [[]]
- 2. [[]]
- 3. [[]]
- 4. [[]]
- 5. [[]]
- 6. [[]]
- 7. [[]]
- 8. [[]]
- 9. [[]]

The facility design also provides the capability to convert UO_2 into other uranium product forms, such as U_3O_8 and/or UF_4 , if authorized under the license and required to support future operational or customer needs. A complete process flow diagram and identification of items relied on for safety (IROFS) will be provided in the Integrated Safety Analysis (ISA) Summary submitted with the license application.

Figure 4.3-2 Principal Process Steps



4.4 Key Regulatory Considerations

The use of HALEU introduces the following regulatory considerations that FANCO will address during pre-application engagement:

- Integrated Safety Analysis (ISA) Summary Methodology including Nuclear Criticality Safety (NCS).
- Material Control and Accounting (MC&A) Category II: 10 CFR Part 74 requirements, including Loss Detection System design and Inventory Difference (ID) limit methodology.
- Physical Security Category II: 10 CFR 73.67 Protected Area and Material Access Area requirements apply throughout operations.
- HALEU Regulatory Guidance Evolution: NRC guidance on MC&A measurement methods and physical protection for commercial HALEU facilities continues to develop; FANCO will actively engage in NRC stakeholder processes.

5. Regulatory Strategy

FANCO will pursue a Special Nuclear Material license under 10 CFR Part 70 for the construction, commissioning, and operation of the Facility. The License Application will be submitted per 10 CFR 70.22 and reviewed by NRC staff using NUREG-1520, Rev. 2 as the primary staff review guidance document.

FANCO intends to prioritize pre-application engagement on topics where existing NRC guidance requires adaptation for HALEU-specific conditions, particularly ISA methodology, nuclear criticality safety, MC&A, and physical protection. The goal is to reach NRC staff concurrence on the proposed approach for each high-priority topic before the License Application is filed, minimizing requests for additional information during formal review.

6. Planned Pre-Application Submittals and Interactions

6.1 Submittal Schedule

The following table presents FANCO's planned pre-application submittals and interactions, cross-referenced to the applicable NUREG-1520 chapter. Target dates are preliminary and subject to revision. This table will be updated in future REP revisions as the project evolves.

Table 6.1-4 Submittal Schedule

Topic	Mechanism	Target
Initial Kickoff Meeting	Public Meeting	[[]]

Topic	Mechanism	Target
Overview of the Fuel Manufacturing Plan	NRC overview	[[]]
Organization & Quality Assurance (QA) Program (NUREG-1520 Ch. 2 and 11)	Part of Quality Assurance Program Description (QAPD) submittal	[[]]
ISA Methodology (NUREG-1520 Ch. 3 / NUREG-1513)	White Paper	[[]]
MC&A Plan Overview (NUREG-1520 Ch. 12 / 10 CFR 74.41–74.43)	White Paper	[[]]
Deconversion of UF ₆ process	White Paper	[[]]
Nuclear Criticality Safety Program (NUREG-1520 Ch. 5)	White Paper	[[]]
Physical Security Plan Overview (NUREG-1520 Ch. 13 / 10 CFR 73.67)	White Paper	[[]]
Emergency Management Plan (NUREG-1520 Ch. 8 / 10 CFR 70.22(i)(1)(ii))	White Paper	[[]]
Environmental Report (NUREG-1520 Ch. 9 / 10 CFR 51.45)	Environmental Report	[[]]
Transportation of HALEU material	White Paper	[[]]
Part 70 License Application — FILING (10 CFR 70.22 / NUREG-1520 All Chapters)	License Application	[[]]

6.2 Types and Frequency of Interactions

During the pre-application phase, FANCO proposes the following standing interaction cadence:

- Bi-weekly Project Management Calls: Between FANCO and NRC Project Manager to discuss schedules, administrative matters, and upcoming submittals.
- Technical Meetings: Tied to each White Paper or Technical Report submittal; focused on a single topic per meeting. Agendas provided at least ten business days in advance. Most meetings will be open to the public.

- Closed Meetings: For proprietary process data, physical security plan details, or export-controlled technical information, FANCO will request closed meetings with advance notice to the NRC PM.
- In-Office Reviews / Audits: FANCO encourages NRC staff audits to review supporting calculation packages and design data. FANCO will maintain an access-controlled Electronic Reading Room (ERR) providing NRC staff with secure, read-only access to supporting documentation throughout the pre-application phase.
- Drop-in Meetings: Periodic non-public drop-ins for scheduling and non-technical information exchange, per applicable NRC guidance.

6.3 Communication Protocols

All formal pre-application submittals will be transmitted to the NRC Document Control Desk per 10 CFR 70.5, with a courtesy copy provided to the NRC Project Manager. Meeting summaries will be prepared by FANCO for all substantive technical meetings, provided to the NRC PM within 30 days for review, and docketed where appropriate. Proprietary information will be submitted with a withholding affidavit per 10 CFR 2.390.

Where NRC staff issue Requests for Additional Information (RAIs) during the pre-application phase, FANCO will acknowledge receipt within five business days and provide a response within 30 calendar days or will request an extension with a specific proposed response date as needed. FANCO will share draft RAI responses with NRC staff before formal submittals where practicable.

High-impact technical issues (HITIs) that cannot be resolved at the working level will be promptly escalated to FANCO's EVP, Regulatory Affairs and Licensing, and the NRC Division Director, as appropriate.

7. Conclusion

This REP establishes FANCO's framework for open and continuous pre-application dialogue with NRC staff. FANCO looks forward to scheduling the kickoff meeting to formally initiate engagement. FANCO is committed to providing the NRC with the information needed to plan resources effectively, resolve key technical issues early, and support an efficient review of the Part 70 License Application.

This REP is a living document and will be revised to reflect project evolution, NRC feedback, and changes in the regulatory framework. All revisions will be formally transmitted to the NRC.