



ULTRA SAFE NUCLEAR

***A PRIVATE PERSPECTIVE ON THE CASE FOR DEVELOPING
ADVANCED NUCLEAR IN ALASKA***

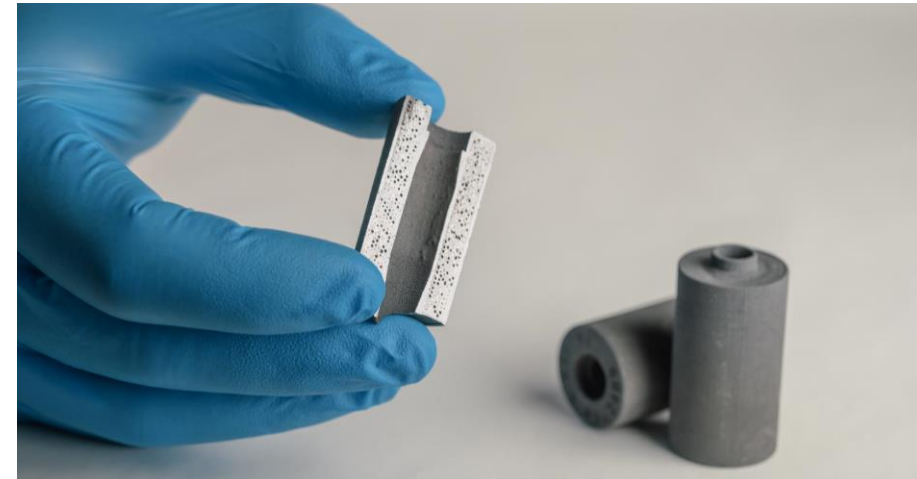
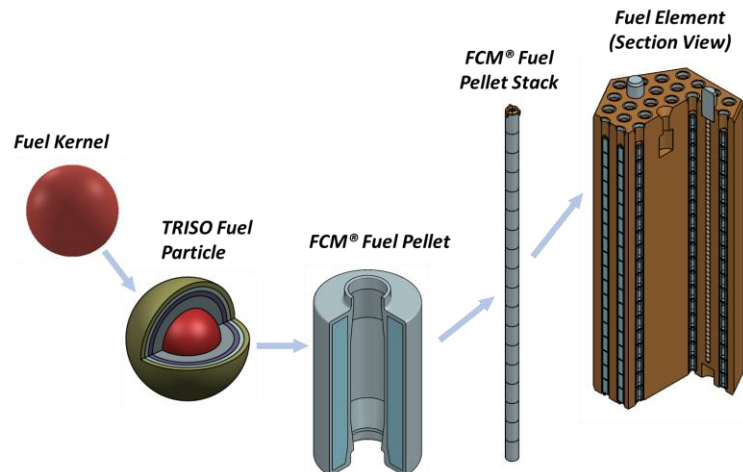
House Energy Committee

Dan Ludwig – Business Development Manager

Juneau, AK – 29 Feb 2024

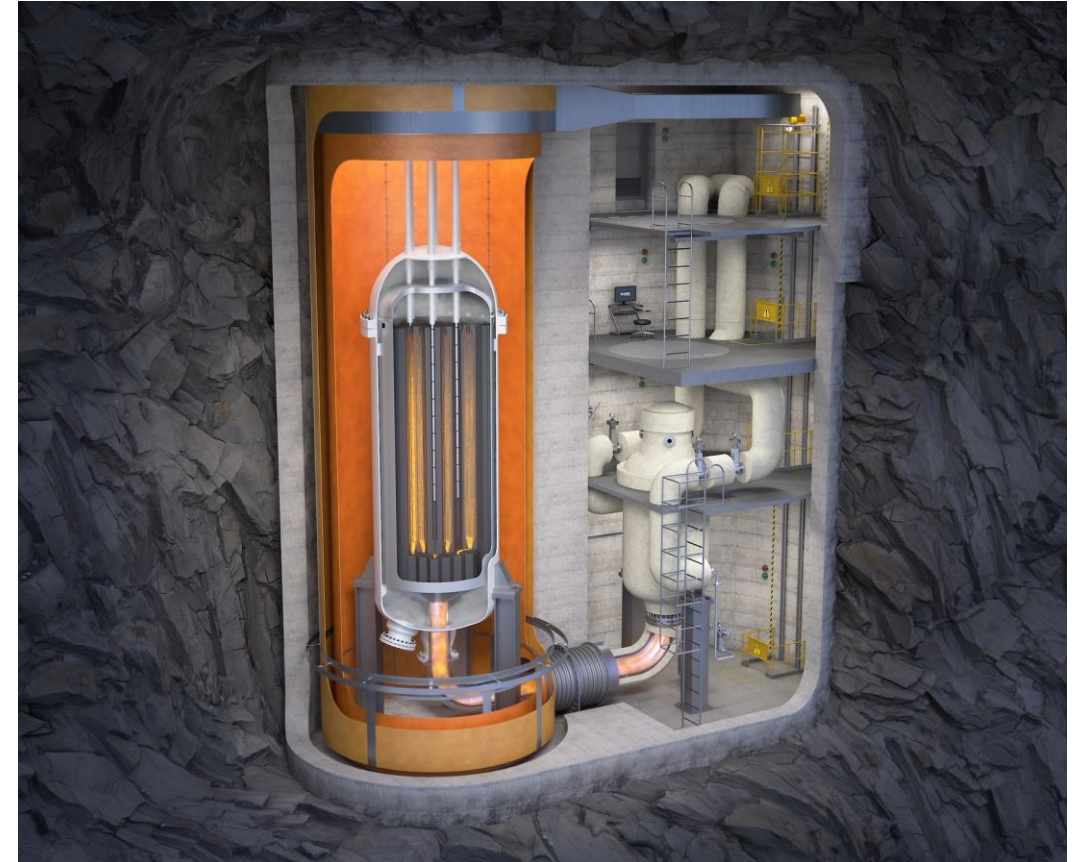
Advanced Nuclear Fuel is the Foundation for Reliable Energy Anywhere

- TRi-structural ISOtropic particle fuel (TRISO) is “the most robust fuel form on earth” (U.S. DOE)
- Ultra Safe Nuclear’s Fully Ceramic Microencapsulated (FCM) is even safer with external silicon carbide layer
- Works on 10% enriched (available now) or 20% enriched (called HALEU, available in the future)



Micro-Modular™ Reactor (MMR®) – The Nuclear Battery

- Provides clean, always-on power and heat
- 3.5-15 MWe per module
- Zero emissions
- Flexible operation designed to integrate with renewables
- Simple, inherently safe operation



Initial Deployments with the Pipeline Filling for Next Projects

- Active deployment at Chalk River Lab (Canada)  Canadian Nuclear Laboratories
- Active deployment at University of Illinois Urbana – Champaign (US) 
- Prefeasibility studies underway across the world
 - McMaster University (Canada) 
 - Lappeenranta University of Technology (Finland) 
 - Meralco (Philippines) 
- Commercial discussions ongoing across many industries

Chalk River Lab (Ontario, Canada)



University of Illinois Urbana - Champaign



Future of Advanced Nuclear Lies in the Fuel Supply – USNC is Leading the Way

- Pilot Fuel Manufacturing facility opened in Oak Ridge, TN in August 2022
 - Proving out the process to make TRISO and FCM fuel
 - Delivered first TRISO to NASA in June 2023
- Agreement with Urenco to supply enriched uranium for first projects
- Joint venture with Framatome for full scale fuel factory

framatome



AUGUST 19, 2022

Ultra Safe Nuclear Corporation Announces the Opening of Pilot Fuel Manufacturing Facility in Oak Ridge, Tenn.



JUNE 13, 2023

USNC Delivers TRISO Particle Fuel for NASA Programs



MARCH 1, 2023

Urenco USA Will Supply Ultra Safe Nuclear Enriched Uranium Product for Advanced Reactor Deployment



NOVEMBER 28, 2023

Framatome Inc. and Ultra Safe Nuclear Corporation execute an agreement to establish a joint venture to manufacture fourth-generation reactor fuel

Engagements in Alaska – Driven by Core Priority on Stakeholder Engagement

- Ultra Safe Nuclear views Alaska as a compelling opportunity
 - Supportive policy environment
 - High cost, challenging energy case
- Engaged in Alaska for three years, learning the stakeholders and evaluating the energy environment
- First Alaskan markets in focus are larger utility deployments
- Copper Valley Electric Association Prefeasibility Study
- Supported Governor Dunleavy's SB177 "Microreactor Bill" in 2022





Providing clean and reliable energy through nuclear technology solutions where they are needed, anywhere in the world.



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RELIABLE ZERO CARBON ENERGY ANYWHERE

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