### Welcome to NRC Day

# TRTR 2025 Annual Conference

September 11, 2025





## Non-Power Production and Utilization Facility (NPUF)

Oversight and Licensing Branches – Overview

Tony Brown, Chief, NPUF Oversight Branch



### NRC Day Agenda



8:30	Welcome to NRC Day	
8:35 10:00	NPUF Oversight and Licensing, Q&A BREAK	Tony Brown, Chief, NPUF Oversight Branch
10:30	NPUF RuleSafety Analysis Reports, Q&A	Justin Hudson, Project Manager, Licensing
12:00	LUNCH	
1:30	NPUF Rule—FSAR SUNSI Redactions, Q&A	Justin Hudson
2:30	BREAK	
3:00	Operator Licensing, Requalification Best Practices, Exemptions, NUREG-1478, Q&A	Amy Beasten, PhD, Reactor Engineer, NPUF Examiner Michele DeSouza, Reactor Engineer, NPUF Examiner
5:00	BREAK	
6:00	BANQUET	

#### NRC Senior Leadership

New to Position

Commission





David A. Wright Chairman



Bradley R. Crowell Commissioner



Matthew J. Marzano Commissioner



Michael F. King EDO (Acting)



Sabrina Atack Deputy EDO (Acting)



Greg Bowman
Director NRR
(Acting)



Mike Franovich Deputy for Engineering



Jeremy Groom
Deputy for Reactor
Safety and Mission
Support (Acting)



Jeremy Bowen
Deputy for New
Reactors (Acting)

# **Branch Chiefs**

#### Division of Advanced Reactors and Non-Power Production and Utilization Facilities (DANU)

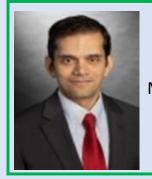


New to **Position** 

Management



**Jonathan Greives** Director (Acting)



Mehdi Reisi Fard **Deputy Director** 



Mike Wentzel **UARP** 



Josh Borromeo UAL1



Alissa Neuhausen UAL2



Jeff Rady UNPL



**Travis Tate** UTB1



Candace de Messieres UTB2



**Greg Oberson** UTB3



**Tony Brown UNPO** 

### We Make SAFE Use of Nuclear Technology POSSIBLE



People

Mission

Good

Regulation

**Values** 

Transformation

### U.S.NRC United States Nuclear Regulatory Commission Protecting People and the Environment

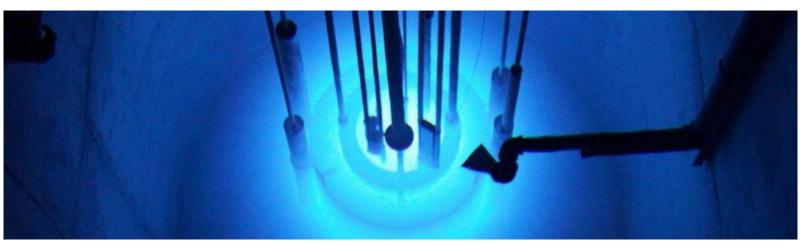
#### Operating Reactors, Project Managers, and Inspectors

#### **Existing Fleet of 29 RTRs**

- 22 Pool
  - 15 TRIGA (AFRRI, Dow Chemical, Kansas State, Oregon State, Penn State, Reed, Texas A&M, USGS, UC Davis, UC Irvine, Maryland, UT Austin, Utah, Wisconsin, Washington State)
  - 5 MTR (Ohio State, Purdue, Rhode Island, U Mass Lowell, Missouri University of Science and Technology)
  - 1 PULSTAR (NC State)
  - 1 Critical Assembly (Rensselaer PI)
- 3 Tank
  - 2 CP5 type (MIT, NIST MTR)
  - 1 Tank in Pool (MURR MTR)
- 3 AGN (Idaho, TAMU, U New Mexico)
- 1 Argonaut (Florida MTR)

#### **Project Managers, Backup PMs, Inspectors:**

https://www.nrc.gov/reactors/operating/project-managers.html#pwr



#### Oversight Personnel Overview



#### **Branch Chief**



Tony Brown (New to position)

Previous experience

NEI: Technical Advisor, Regulatory Affairs

#### TVA:

- Site Licensing Manager, Watts Bar
- Interim Fleet Licensing Manager, TVA HQ
- Senior Program Manager, TVA HQ

#### NRC:

- Acting Branch Chief, JLD and DLP

- Project Manager, JLD/NRR
- Senior Resident Inspector, Palo Verde
- Resident Inspector, Diablo Canyon
- Project Engineer, NRC Region IV

#### **US Navy:**

- Commander, US Navy Reserve (Retired)
- Officer Recruiter, Austin, TX
- Division Officer, USS Oklahoma City (SSN-723)

#### <u>Staff</u>

#### Licensing Assistant:

- Nicole Parker

### Operator Licensing Assistant:

- Nia Jones

#### Examiners:

- Amy Beasten, PhD
- Michele DeSouza
- Maggie Goodwin

#### Inspectors:

- Craig Bassett
- Jonathan Braisted
- Brian Lin
- Jared Nadel
- Necota Staples
- Andrew Waugh

\*Hiring additional staff\*

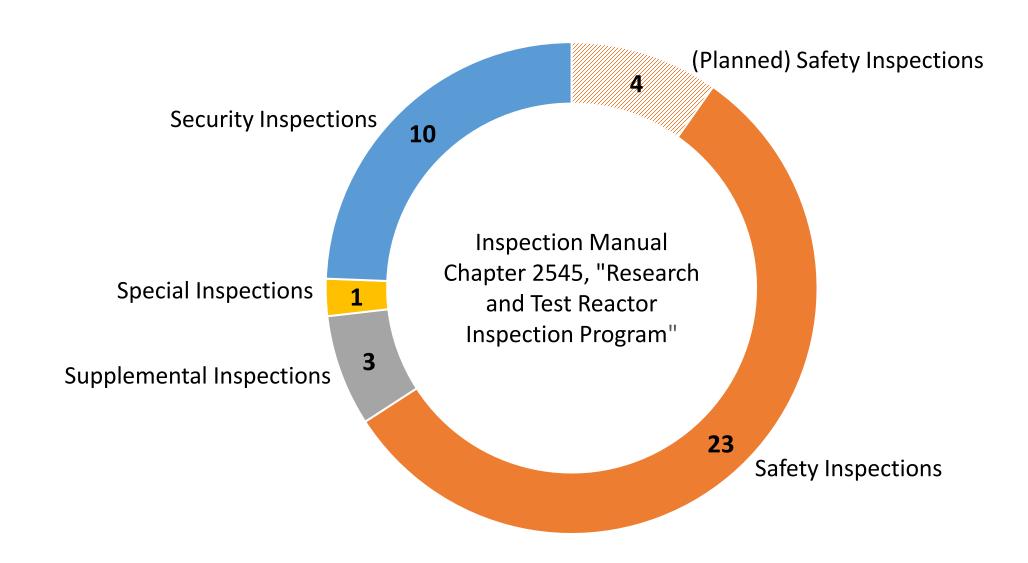








#### Oversight Inspection Program FY25 Results





#### Oversight Branch Current Items of Interests

- NUREG-1478, Revision 3 Draft for Comment
  - Comments due September 26th, submit via <u>www.FederalRegister.gov</u>
- Security Interim Staff Guidance (ISG) in development to collect applicable NPUF security requirements into one reference document
- Oversight program assessment in progress to review inspection program and procedures
- Review and wholesale revision of regulations and guidance documents in accordance with EO 14300
- New and Advanced reactors evaluation and coordination
- Current NPUF reactor items aging equipment, shutdown reactors, exemptions

#### **Licensing Personnel Overview**



#### **Branch Chief**



Jeff Rady (New to position)

Previous experience at NRC

Chief, Fire and External Hazards Analysis Branch, Division of Risk Analysis, Office of Nuclear Regulatory Research Reactor Systems Engineer Senior Reactor Inspector Senior Emergency Preparedness Inspector

Peach Bottom NPP, I&C Specialist Merck & Co., Automation Engineer Maida Engineering, Project Engineer

#### <u>Staff</u>

#### **Project Managers (PMs)**

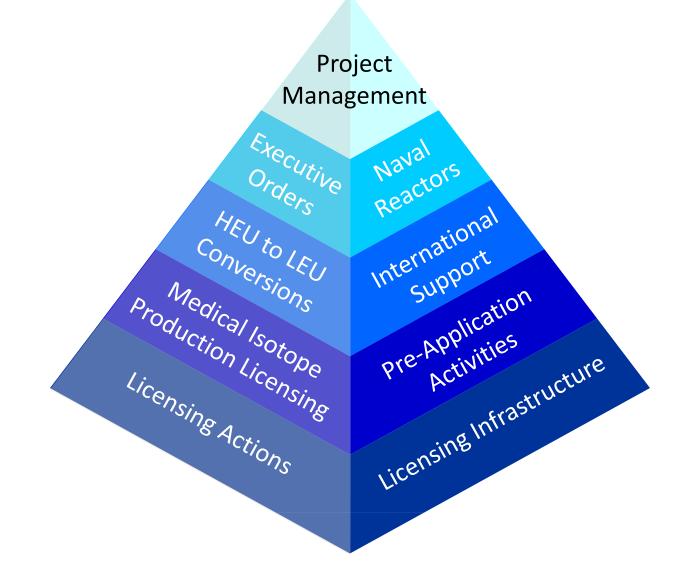
Mike Balazik
Patrick Boyle
Zeinab Farahmandfar (New)
Brooke Gallagher
Ed Helvenston
Justin Hudson

Jessica Lovett
Andrew Miller
Cindy Montgomery
Bradley Stamler
Paulette Torres
Linh Tran

\*Hiring additional PMs\*







### U.S.NRC United States Nuclear Regulatory Commission Protecting People and the Environment

#### Significant Licensing Branch Accomplishments

- Day-to-day project management support of safe operation of 29 facilities
- Non-Power Production or Utilization Facility License Renewal Rule (NPUF Rule)
- NPUF Rule conforming amendments and establishment of FSAR update due dates
- License amendments (NIST, Univ. of New Mexico, and Penn State)
- 10 CFR Part 55 exemptions (Kansas State, Univ. of Utah, and NIST)
- Public meetings on NEI 23-03 for 50.59 digital modifications at NPUFs
- International activities (IAEA International Conference on Research Reactors, Technical Meeting on Incident Reporting System for Research Reactors, Bilateral Technical Meeting with Atomic Energy Regulatory Board of India)
- Pre-application readiness assessment report (Eden Radioisotopes LLC)
- Final safety evaluation for topical report (UIUC Fuel Qualification)

#### **Ongoing Licensing Projects**



- NIST LAR to reclassify as a research reactor
- NIST requalification program revision
- RPI LAR to add extended shutdown condition
- University of Texas-Austin and North Carolina State license renewals/power uprate
- Periodic Review of Regulatory Guide 2.2, "Development of Technical Specifications for Experiments in Research Reactors"
- Pre-application activities Abilene Christian University, University of Illinois Urbana-Champaign, Eden Radioisotopes, and Atomic Alchemy, Inc.
- Other LARs expected in the near term but not yet submitted to NRC
- HEU to LEU conversions of NIST, MURR, and MIT

#### Useful NRC Links



- <u>Advanced Reactor Pre-Application Activities</u>: Includes links and basic information for all facilities engaged in pre-application activities with NRC
- <u>Advanced Reactor Application Projects</u>: Includes links and information for all facilities with an application under review with NRC
- Advanced Reactor Infrastructure Activities: The site enables users to search for documents by keywords or by regulatory applicability. Users can also identify documents associated with projects of interest.
- NPUF FSAR Status: Final Safety Analysis Report Update Tracking for Non-Power Production and Utilization Facility Order
- NRC Electronic Submittal Application: NRC public website to assist with electronic submittals to NRC
- NRC Public Documents: Link to Public Agencywide Documents Access and Management System (ADAMS)
- NRC Prospective Applicant Guide: Provides information, guidance, and support for applicants who are currently in the development process of a nuclear reactor design or reactor-related project that have not yet contacted the NRC. Discusses the steps necessary for an applicant to take before reaching out to the NRC and will also provide the appropriate way to contact the NRC for a project.

# Advanced Reactor (non-LWR and LWR) applicants, vendors, and research/test reactors —Pre-application Activities



High Temperature Gas Reactors	Light Water Reactors	Molten Salt Reactors / Molten Chloride Fast Reactors	Sodium Cooled Reactors	Other Designs
Energy Northwest	Deep Fission	Abilene Christian University	* Aalo Atomics	Appalachian Power Company
General Atomics	GE-Hitachi BWRX-300	Kairos Power, LLC	* ARC Clean Technology	Blue Energy, Inc.
General Atomics Electromagnetic Systems	Hadron Energy, Inc.	Natura Resources	Oklo Inc.	<u>Duke Energy - Belews Creek, NC</u>
* Radiant Industries, INC.	* Last Energy	TerraPower, LLC	TerraPower & GE - Hitachi Natrium	Japan Atomic Energy Agency
* Terra Innovatum (SOLO)	REPLOY Power, Inc.	Terrestrial Energy USA, INC.		* <u>Shepherd Power, LLC</u>
* University of Illinois at Urbana- Champaign - NANO Nuclear Energy Inc.	Rolls-Royce SMR Limited			Texas A&M University - RELLIS Campus
X-Energy, LLC (XE-100)	SMR, LLC (Holtec)	Link to this website		* Westinghouse eVinci
X-Energy, LLC (XENITH)	Westinghouse AP300			

# Commitment to TRTR Community: Dedication to Meet the New Challenges



- New NRC mission statement, "The NRC protects public health and safety and advances the nation's common defense and security by enabling the safe and secure use and deployment of civilian nuclear energy technologies and radioactive materials through efficient and reliable licensing, oversight, and regulation for the benefit of society and the environment."
- Rapid change Executive Order 14300, "Ordering the Reform of the Nuclear Regulatory Commission" and ADVANCE Act of 2024
- Continued support for existing research and test reactor fleet while also focusing efforts to enable new facilities





