

UPDATE ON RESEARCH AND TEST REACTORS REGULATORY PROGRAM

February 22, 2024





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for Reactor and Preparedness Programs
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RESEARCH AND TEST REACTORS REGULATORY PROGRAM

Robert Taylor

- Deputy Director for New Reactors, NRR

Josh Borrromeo

- Branch Chief, Division of Advanced Reactors and Non-Power Production and Utilization Facilities (DANU)

Rebecca Ober

- Project Manager, DANU

Holly Cruz

- Senior Project Manager, DANU

Amy Beasten

- RTR Chief Examiner, DANU

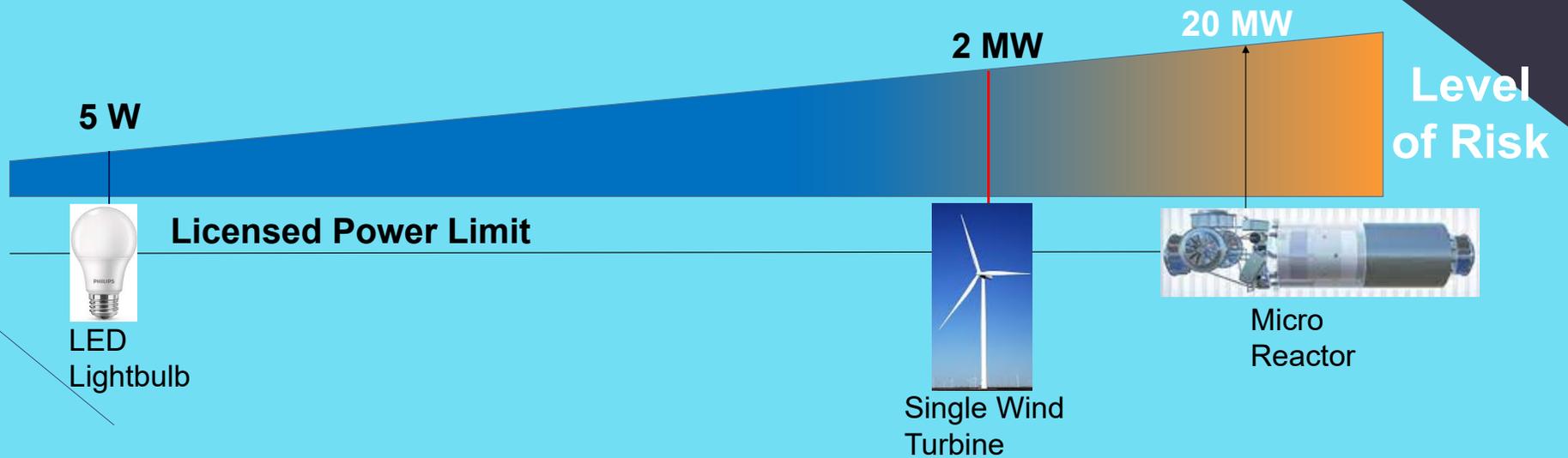


Robert Taylor

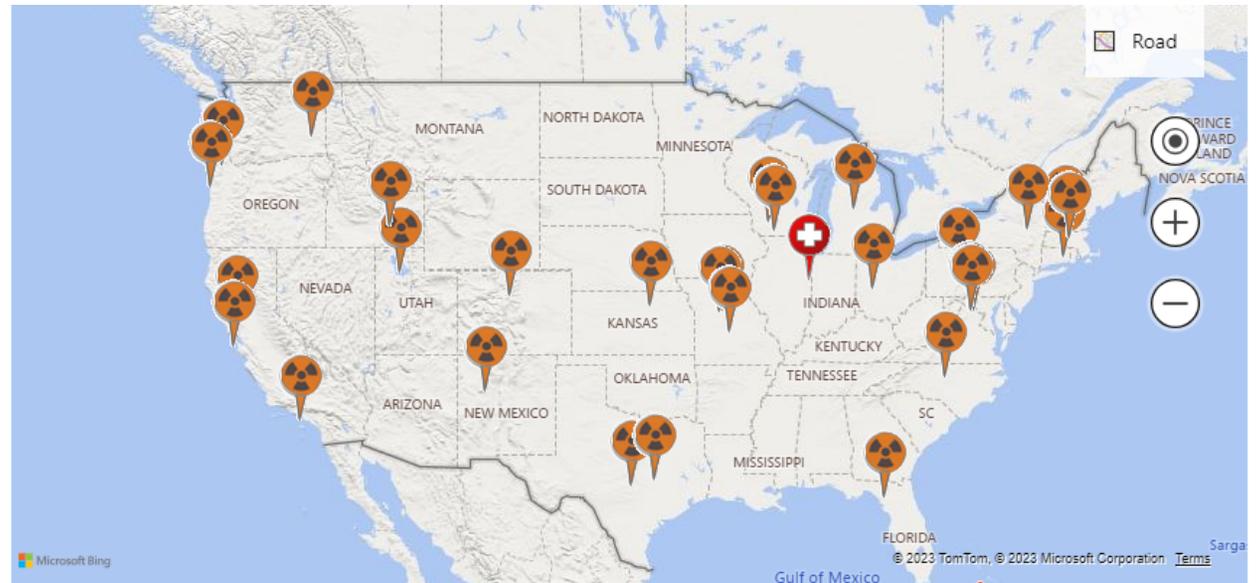
Deputy Director for New Reactors
Office of Nuclear Reactor Regulation



Graded Risk-Informed Approach to Licensing and Oversight



30 Facilities throughout the Nation



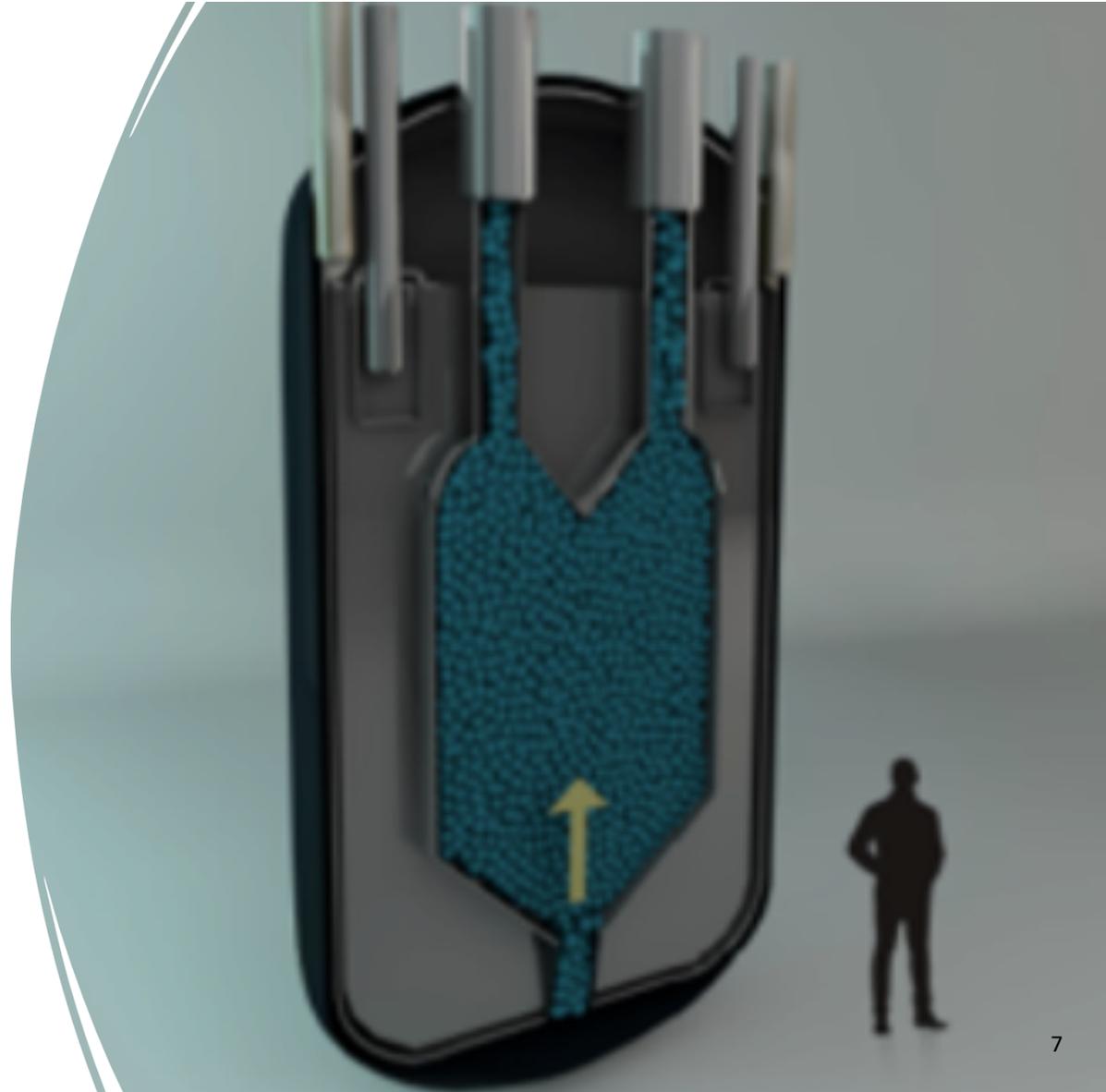
Research and Test Reactors



Medical Radioisotope Irradiation and Processing Facilities

Leading the Path for the Future

- Program Enhancements
- Domestic Outreach
- International Engagement



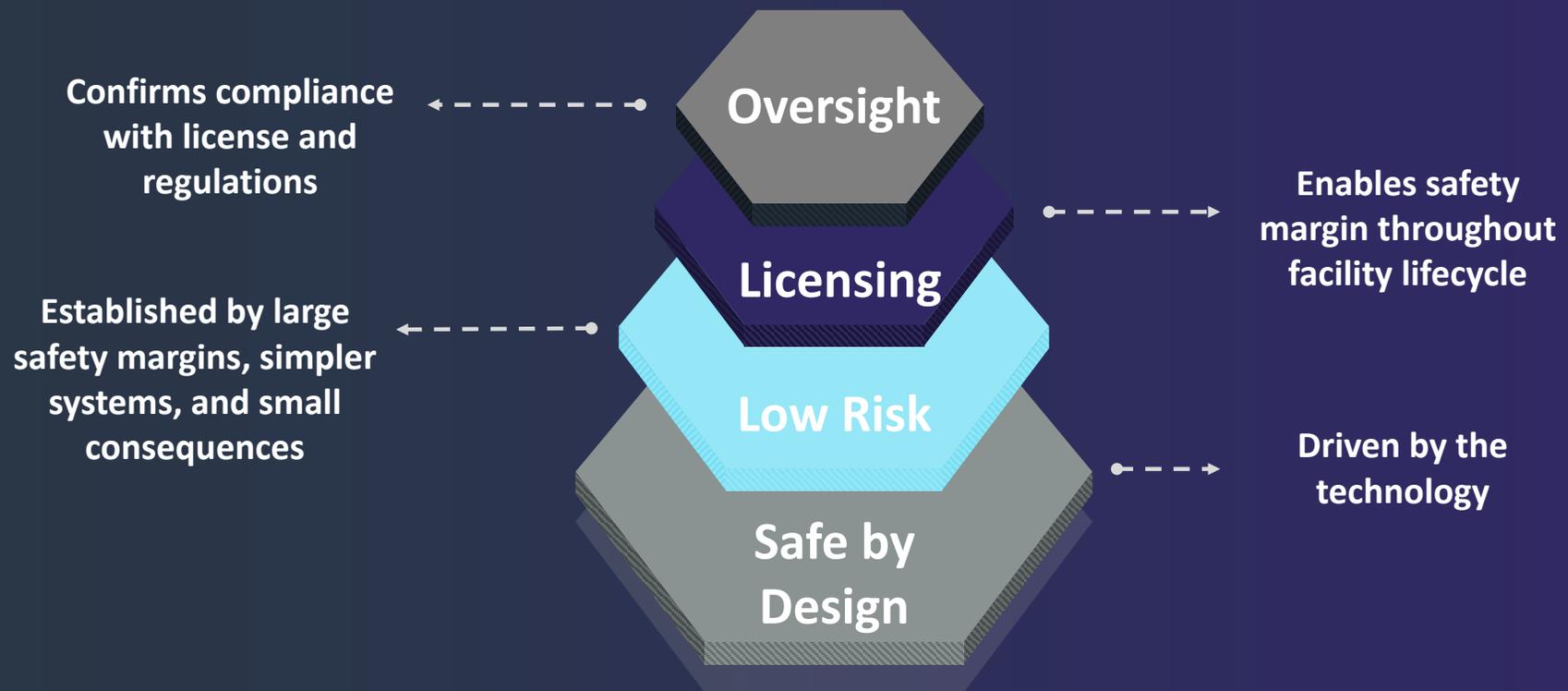


Josh Borrromeo

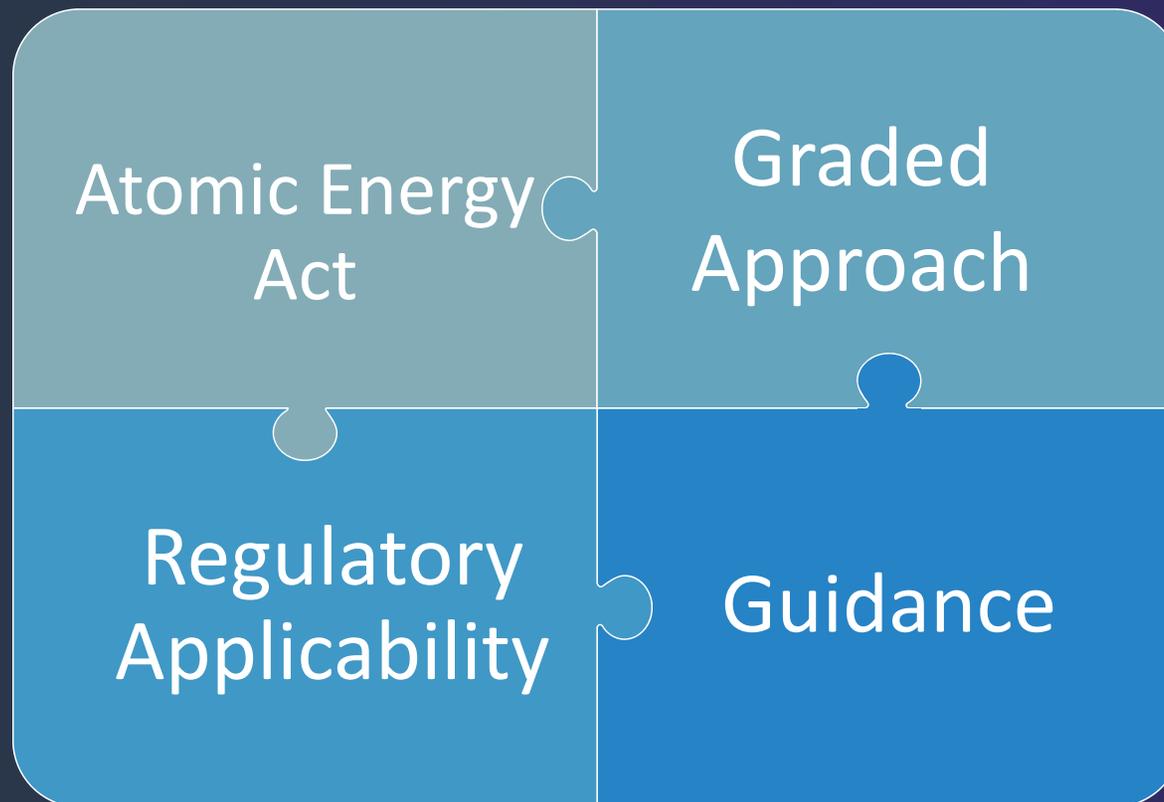
Chief, Non-Power Production and Utilization Facility
Licensing Branch, DANU, NRR



Foundation of Safety



Regulatory Framework



Continuous Improvement



Improving
Guidance to Enhance
Efficiency and add Clarity



Implementing
Changes to
Support New
Technology

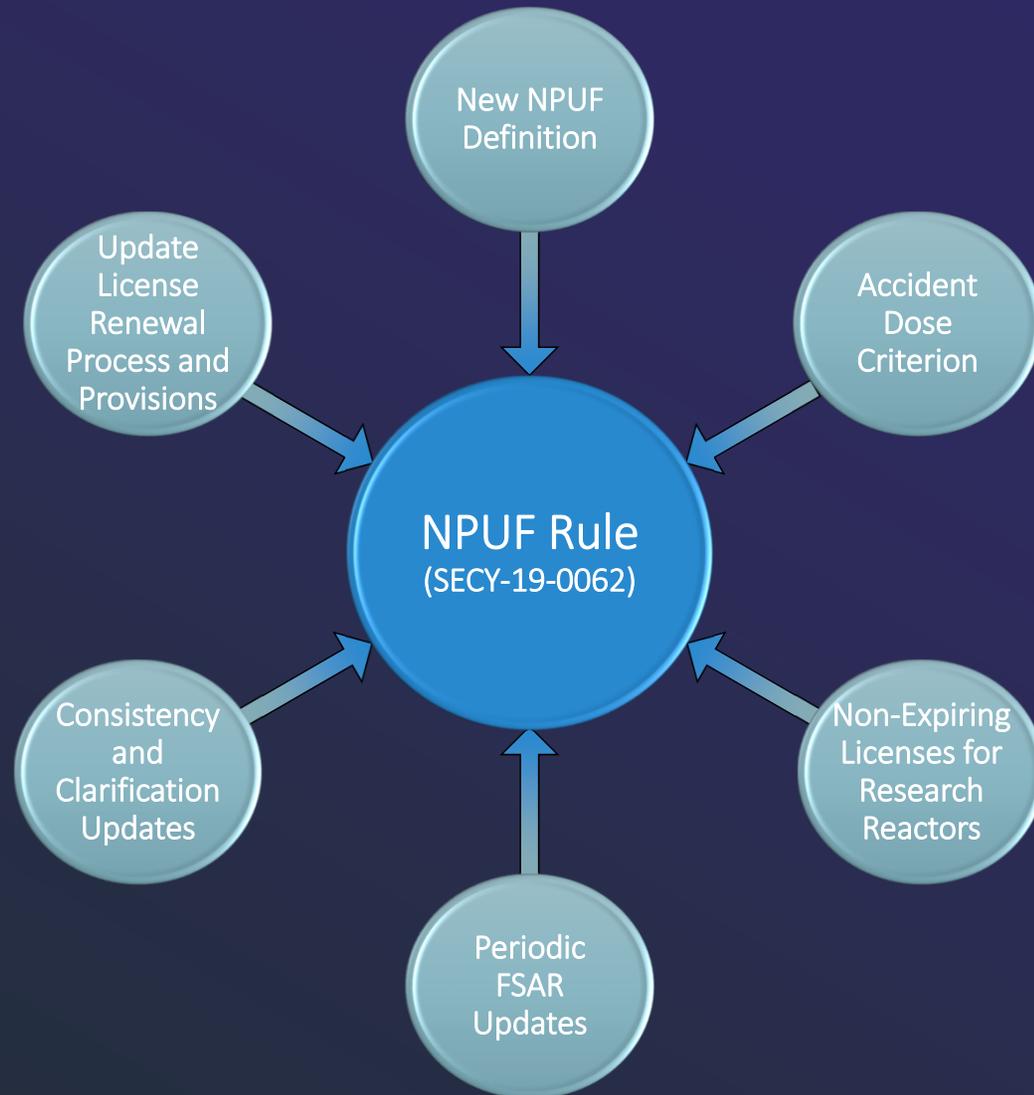


Developing Risk-
Informed
Regulations



Incorporating
Operating
Experience

Enhancing Efficiency through Rulemaking



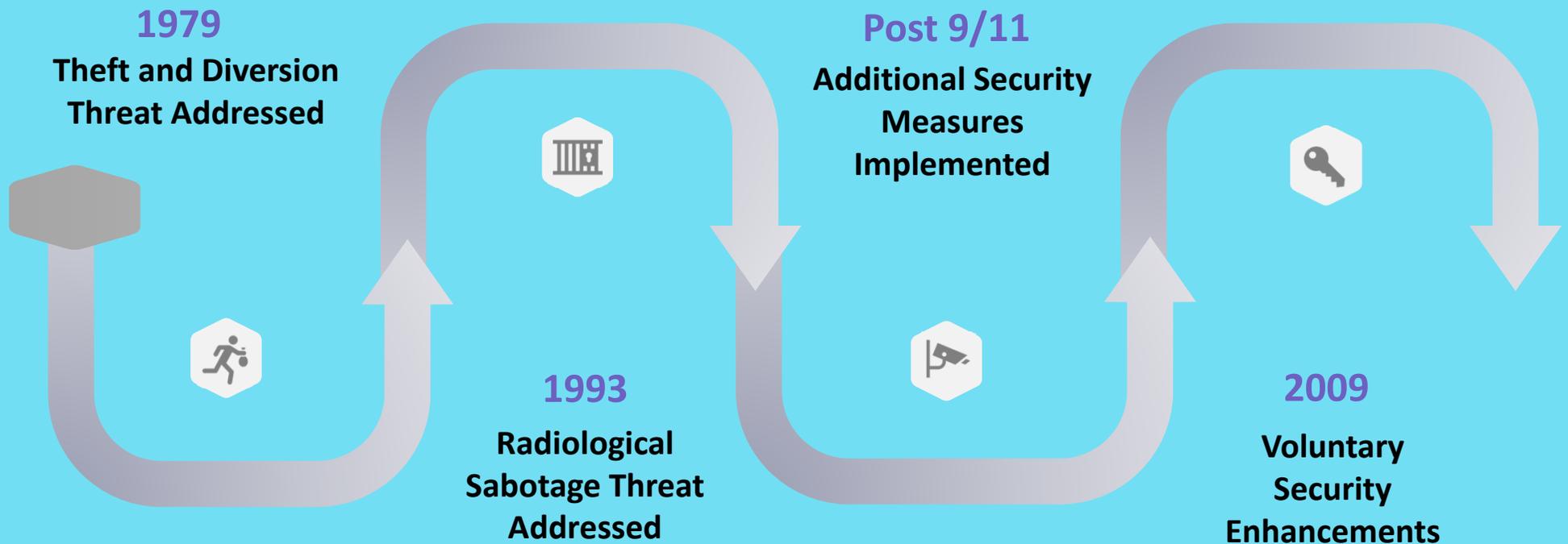


Rebecca Ober

Project Manager, DANU, NRR



History of RTR Security





RTR Security for the Future



Holly Cruz

Senior Project Manager, DANU, NRR



Enabling Flexibility in Regulatory Infrastructure



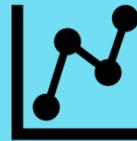
Advancing New Technology Development



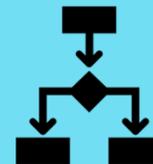
Design



**Non-Power
Reactor**



Data

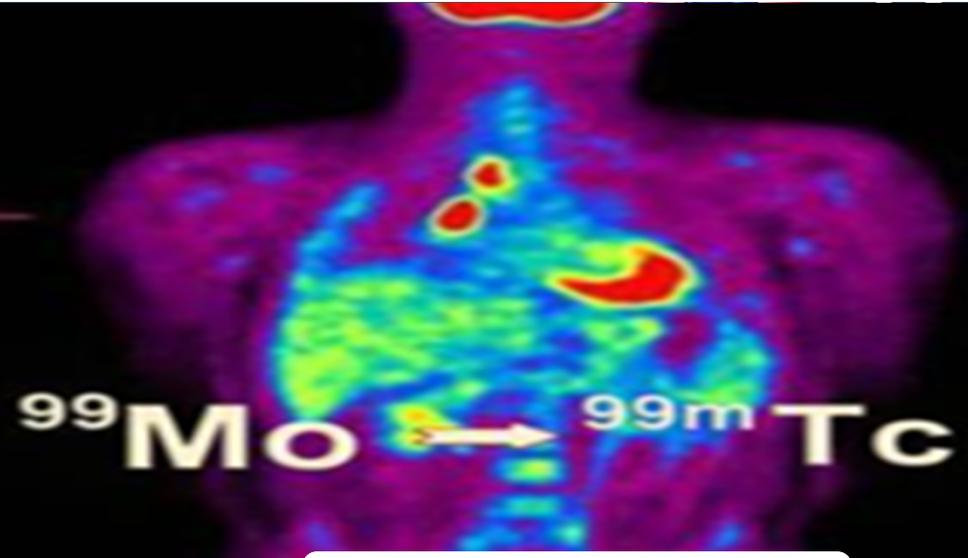


**Design
Refinement**



**Power
Reactor**

LIFE-SAVING MEDICAL ISOTOPES



CURRENT RTRS

Medical isotope facilities
are essential to ensuring a
domestic supply of critical
isotopes

SHINE TECHNOLOGIES,
LLC

PROSPECTIVE
APPLICANTS

International Engagements





Amy Beasten

RTR Chief Examiner, DANU, NRR



Program IMPROVEMENTS

Inspection
Guidance

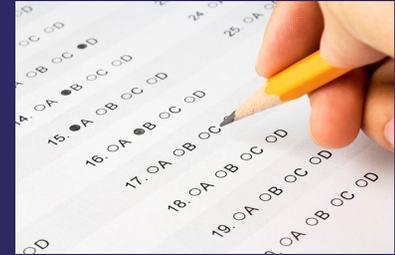
Collaborative Learning
Environment

Oversight

Operator Licensing

Risk-Significant
Inspection

Reactor Program
System





A photograph of a modern office meeting room. A group of about seven people are seated around a long wooden table, engaged in a discussion. A man in a light-colored shirt and dark trousers stands at the head of the table, holding a tablet and looking towards the group. The room has large windows in the background, showing greenery outside. The title 'Knowledge MANAGEMENT & TRANSFER' is overlaid on the image in a large, bold, white font.

Knowledge MANAGEMENT & TRANSFER

Hiring

Applicability to
Advanced Reactors

Strengthening
Diversity

Open Training
Sessions

Rotations and Cross-
Training

Internal Stakeholders



Regional Awareness



Cross-Communication

External Stakeholders



Inspection Report Website



IAEA Operating Experience Database

Continued Focus on Communication



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Acronyms

CFR – Code of Federal Regulations

CSNC/CCSN – Canadian Nuclear Safety Commission/Commission

Canadienne de Sûreté Nucléaire

DOE – Department of Energy

FSAR – Final Safety Analysis Report

IAEA – International Atomic Energy Agency

ISG – Interim Staff Guidance.

NNSA – National Nuclear Security Administration

NPUF – Non-power Production or Utilization Facility

NPUF Rule – Non-power Production or Utilization Facility License Renewal Rule

PHE – Public Health Emergency

RTR – Research and Test Reactor

SNM – Special Nuclear Material