

Planning for the Future: Demonstrating Next Generation Nuclear Capabilities with Non- Power Technologies

Shaun Anderson, Acting Deputy Director

Division of Advanced Reactors and Non-Power Production
and Utilization Facilities, U.S. Nuclear Regulatory
Commission

Panelists

Dr. Kevin Clarno
*Associate Professor,
The University of Texas
at Austin*

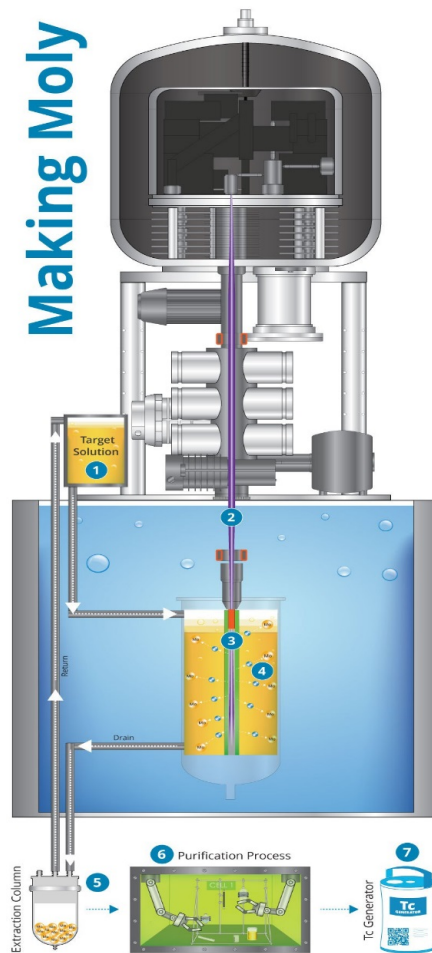
Dr. Greg Piefer
*Chief Executive Officer
and Founder, SHINE
Medical Technologies*

Darrell Gardner
*Senior Licensing
Director, Kairos Power*

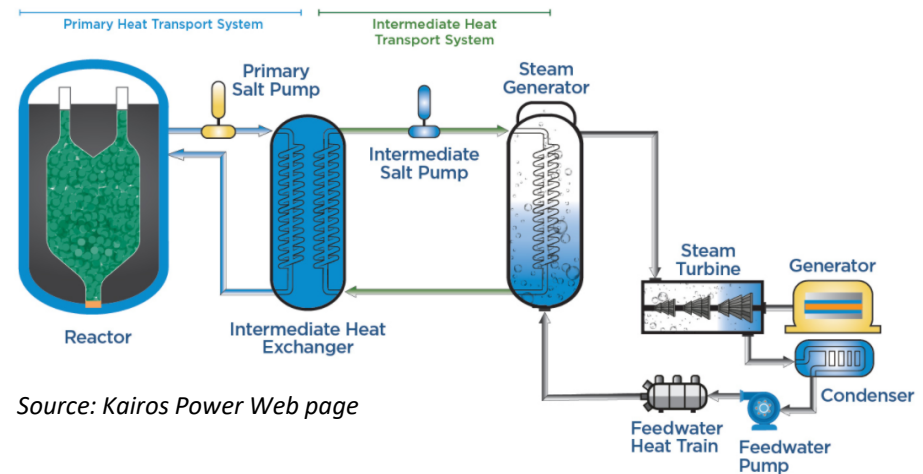
Tom Sowinski
*Director for Nuclear
Reactor Deployment,
U.S. Department of
Energy*

Steven Lynch
*Senior Project
Manager, U.S. Nuclear
Regulatory Commission*

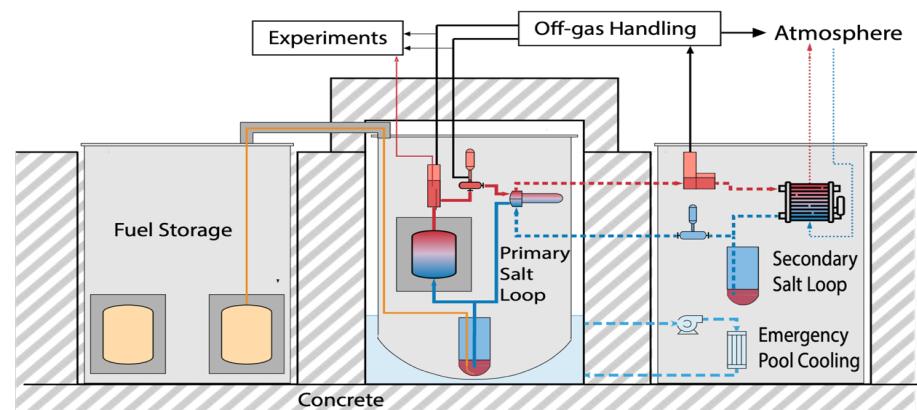
Importance of Innovation



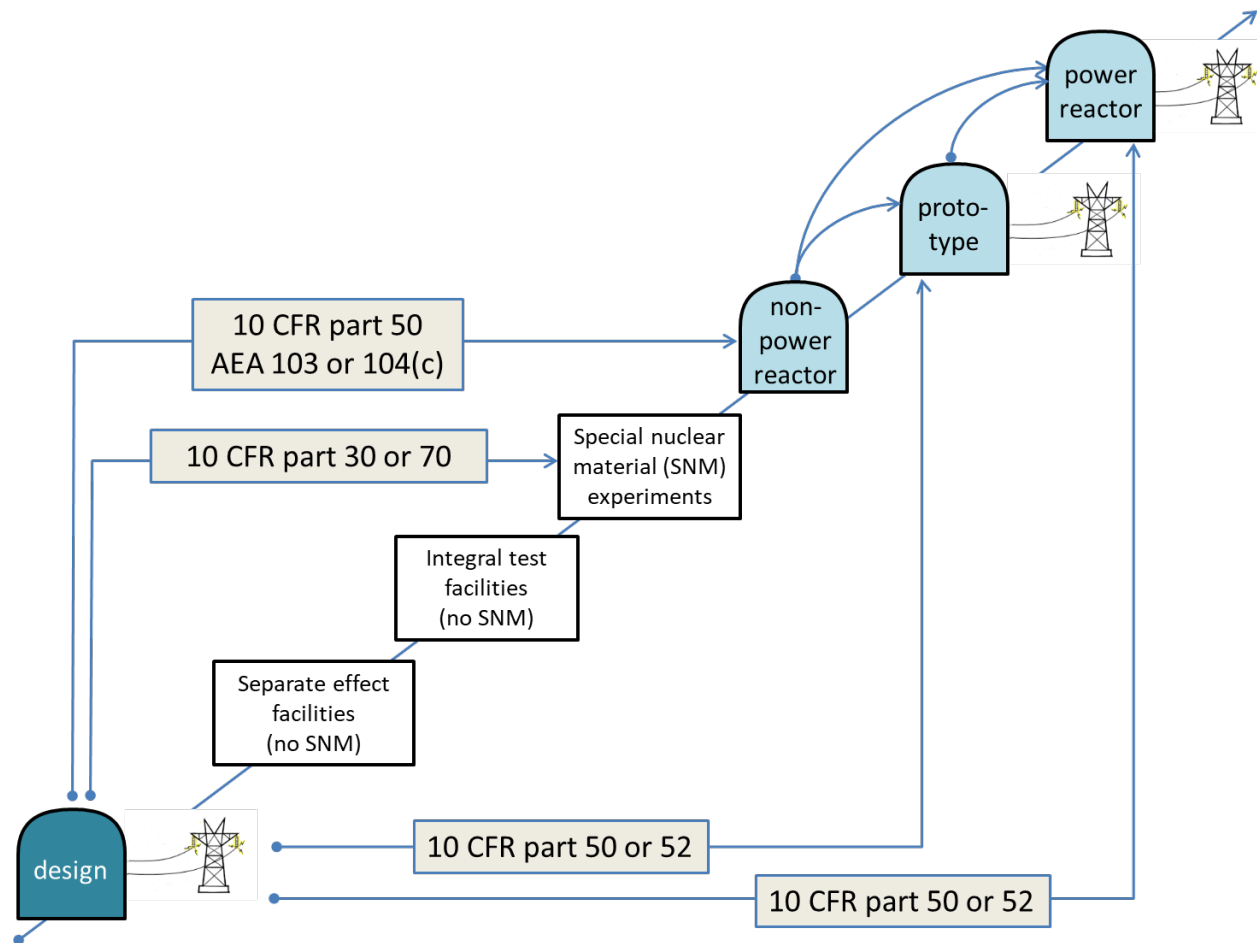
Source: SHINE Web page



Source: Kairos Power Web page



Source: ACU Regulatory Engagement Plan (ADAMS Accession No. ML20241A071)



Licensing Pathways Supporting Advanced Reactor Development

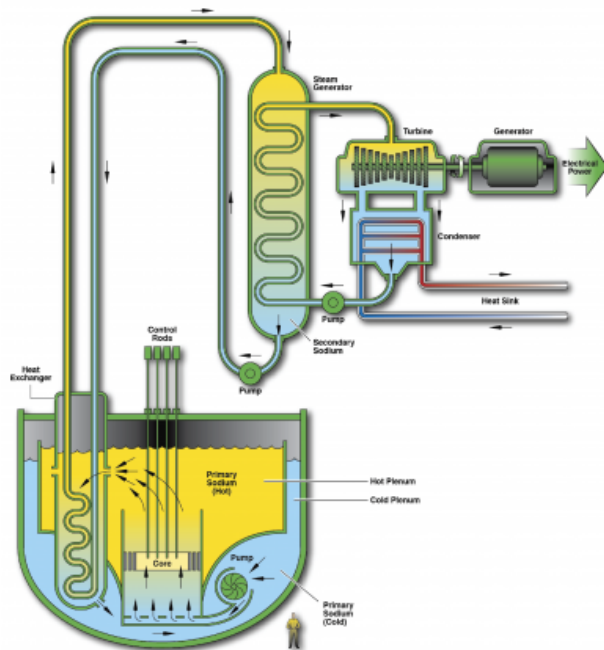
Stages of Development



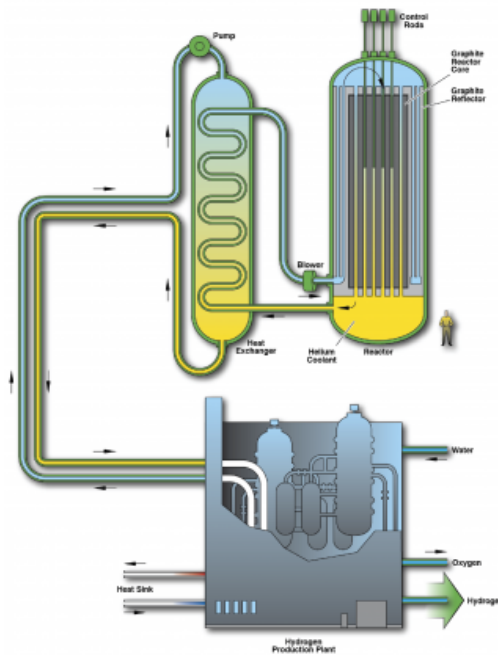
Challenges to Establishing New Technologies

Future of Technology

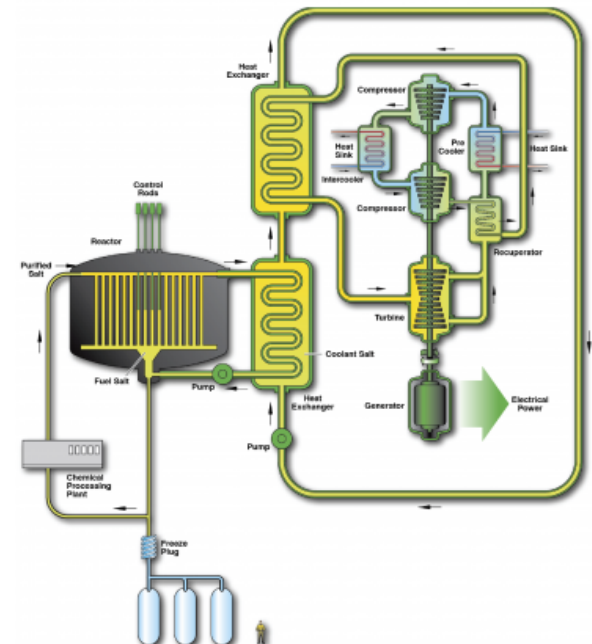
Sodium-Cooled Fast Reactor



Very High Temperature Reactor



Molten Salt Reactor



Source: Department of Energy, Office of Nuclear Energy, "3 Advanced Reactor Systems to Watch by 2030"

Questions?

Contact Information

Shaun Anderson

Acting Deputy Division Director, U.S. Nuclear Regulatory Commission

Shaun.Anderson@nrc.gov

Dr. Kevin Clarno

Associate Professor, The University of Texas at Austin

Kevin.Clarno@austin.utexas.edu

Darrell Gardner

Senior Licensing Director, Kairos Power

Gardner@kairospower.com

Steven Lynch

Senior Project Manager, U.S. Nuclear Regulatory Commission

Steven.Lynch@nrc.gov

Dr. Greg Piefer

Chief Executive Officer and Founder, SHINE Medical Technologies, LLC

Greg.Piefer@shinemed.com

Tom Sowinski

Director for Nuclear Reactor Deployment, U.S. Department of Energy

Thomas.Sowinski@nuclear.energy.gov