NRIC National Reactor Innovation Center

Supporting Initiatives

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GAIN/NRIC National Laboratory Capabilities Webinar

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Regulatory Coordination – DOE Authorization

- Development of SRP for DOE Authorization Process for microreactors
- Demonstration test bed safety analysis and regulatory approach

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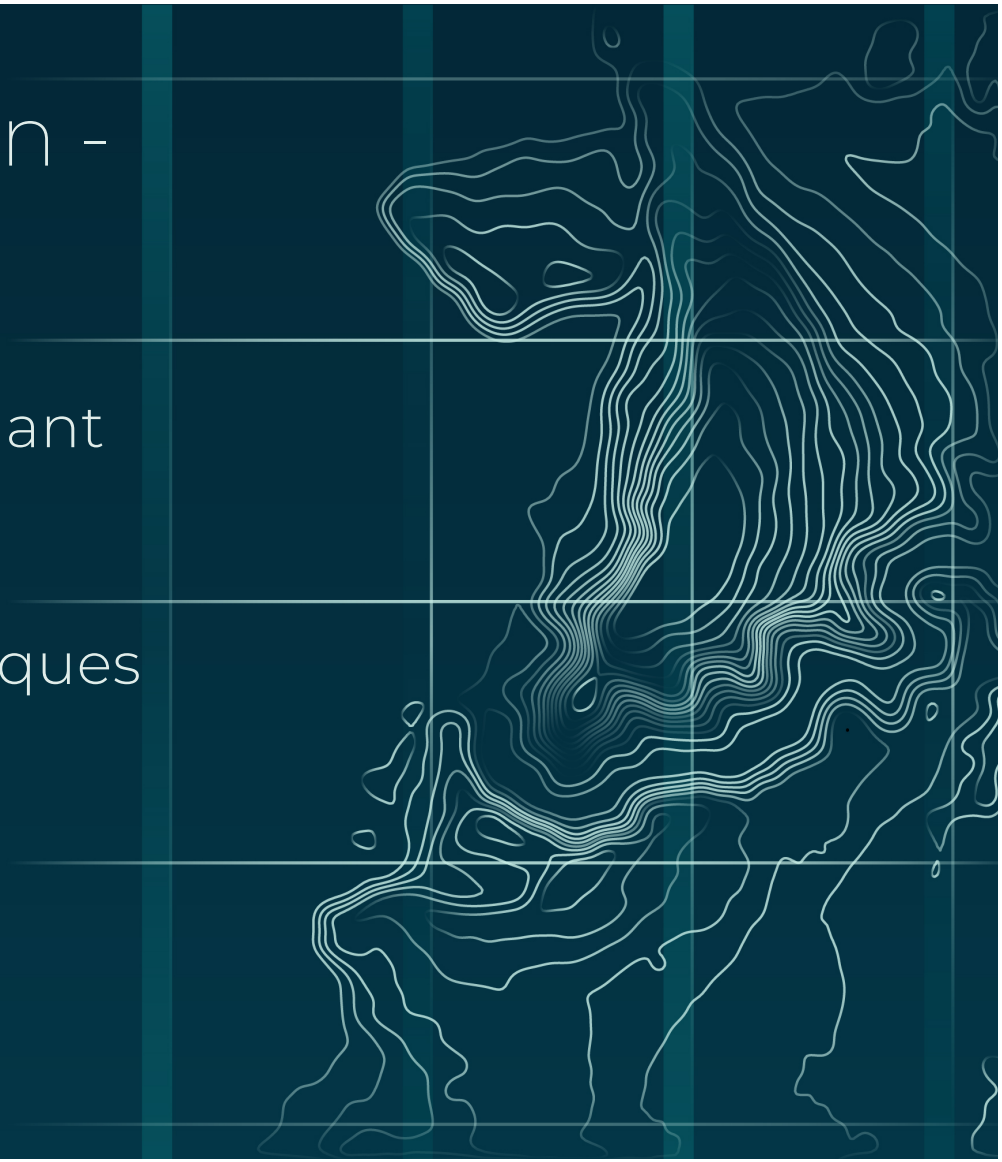
Regulatory Coordination - NRC

- Environmental coordination: Microreactor GEIS and NRIC plant parameter envelope efforts
- Early site permit
- Advanced construction techniques
- Learning



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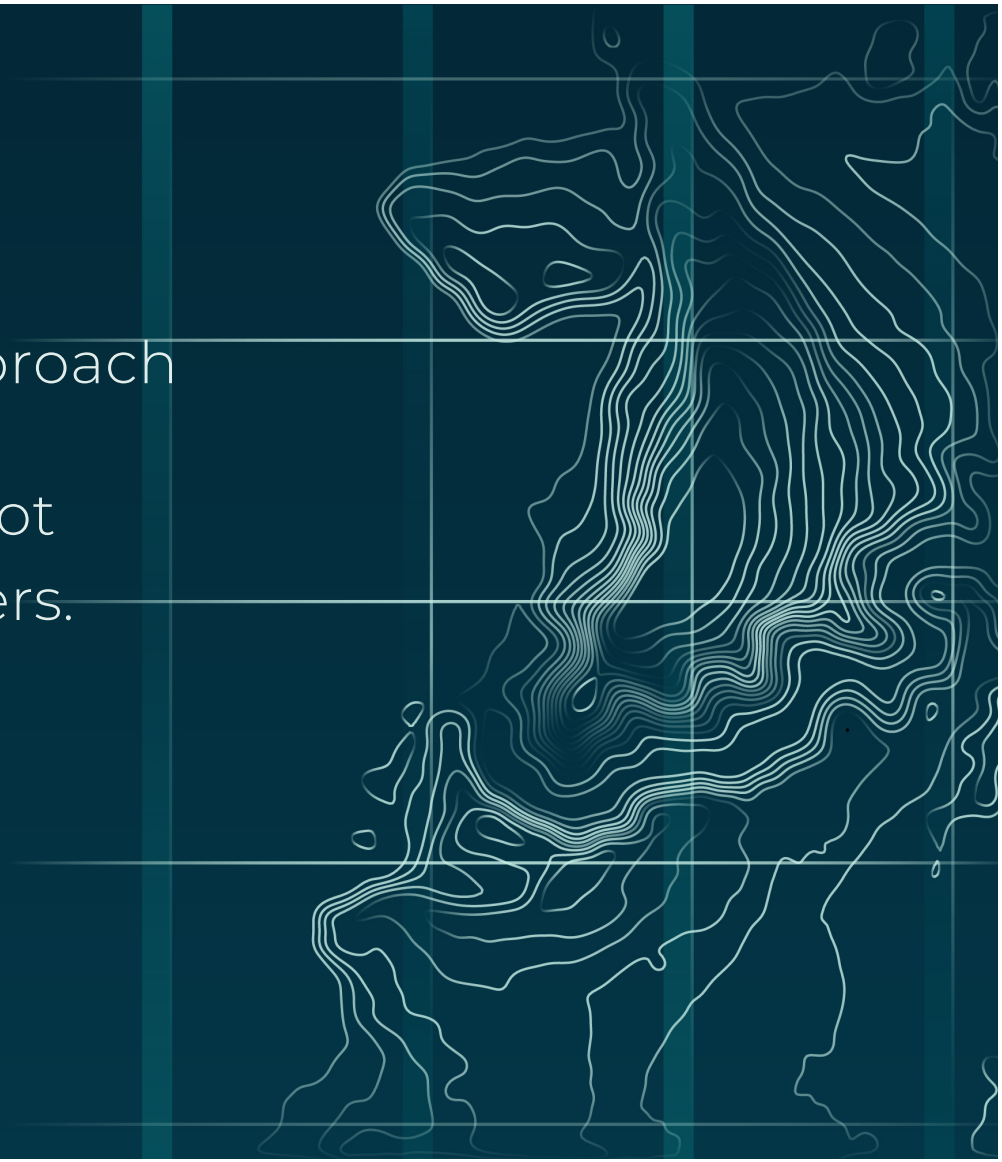
NEPA

- Plant parameter envelope approach (PNNL)
- Environmental assessment pilot
- Learning from VTR, PELE, others.



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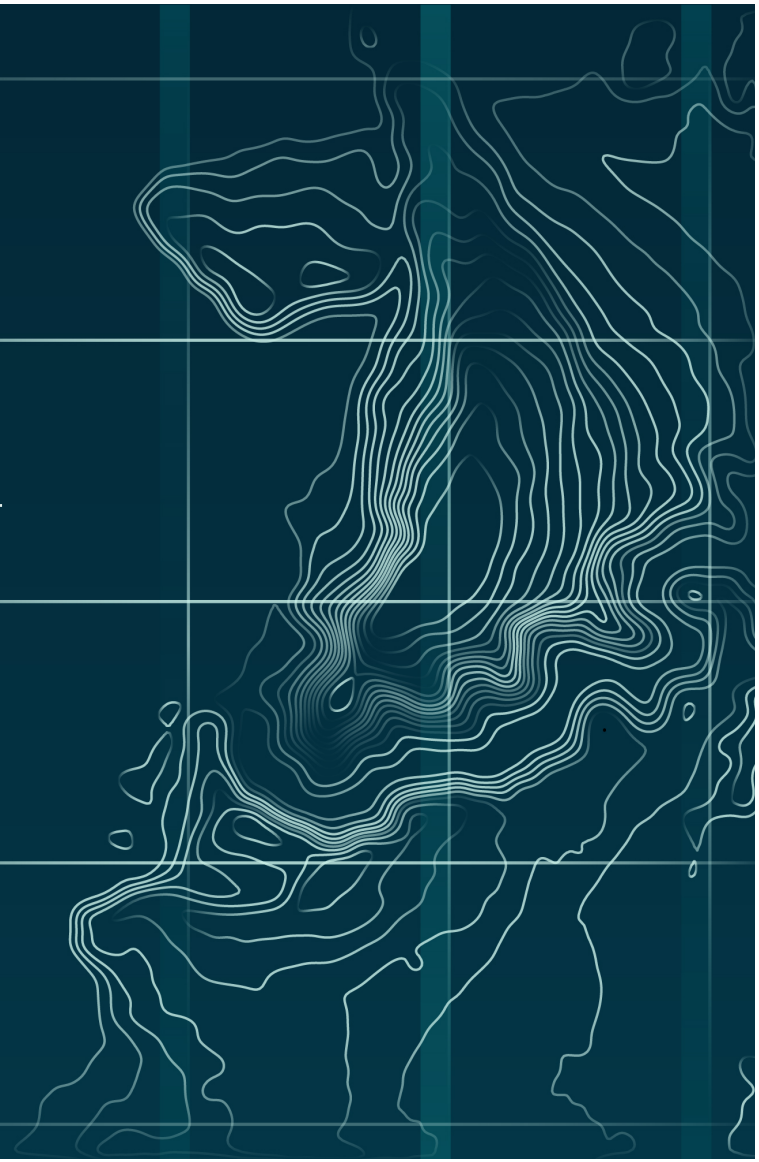
Fuel Supply Evaluations

- Compiling information about HALEU needs and sources for NRIC planning
- Evaluating needs and possible sites for fuel fabrication user facility/ies



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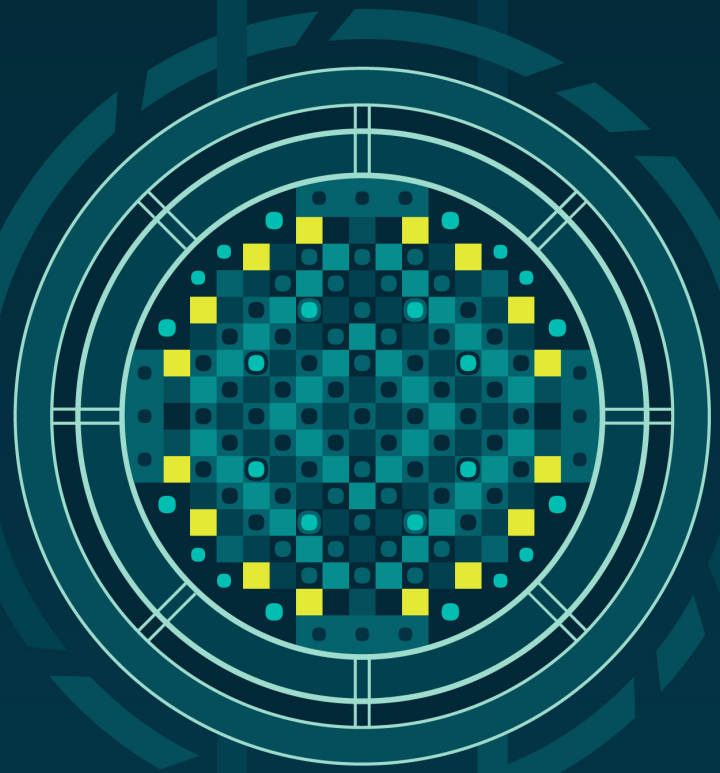
Fuel Disposition Evaluations

- "Initial Evaluation of Microreactor Disposition Options" INL/EXT-20-57291
  - Disposition options for DOE-owned HALEU at INL
  - Processes to support "road-ready" storage of fuel
  - Fuel types:
    - TRISO
    - Na/K-bonded uranium dioxide fuel



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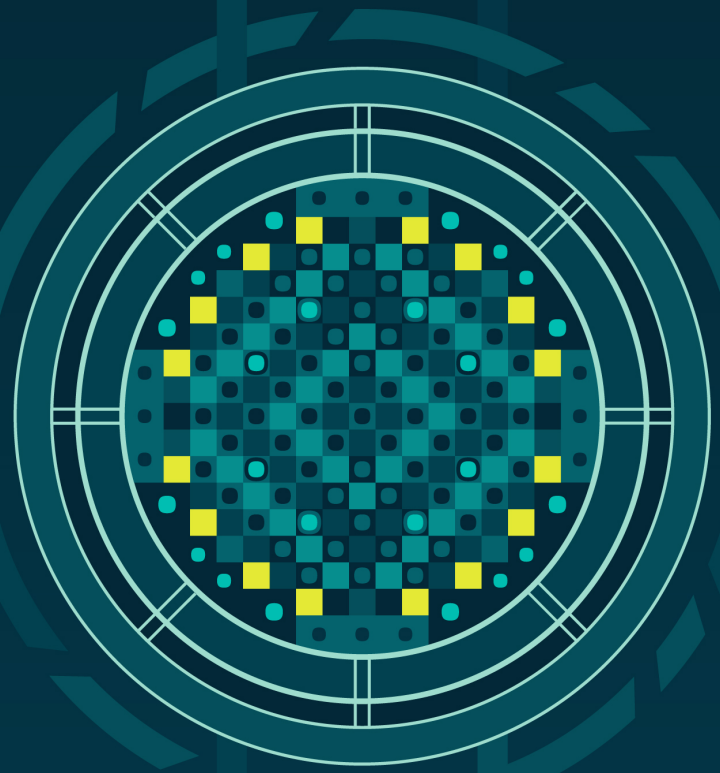
Fuel Disposition Evaluations

- "A White Paper: Potential Disposition Options for a Liquid-Fueled Molten Salt Reactor at INL" INL/EXT-20-57831
- "Documentation of Applicable Regulations and Regulatory Authority for Microreactor Transportation" PNNL-29718



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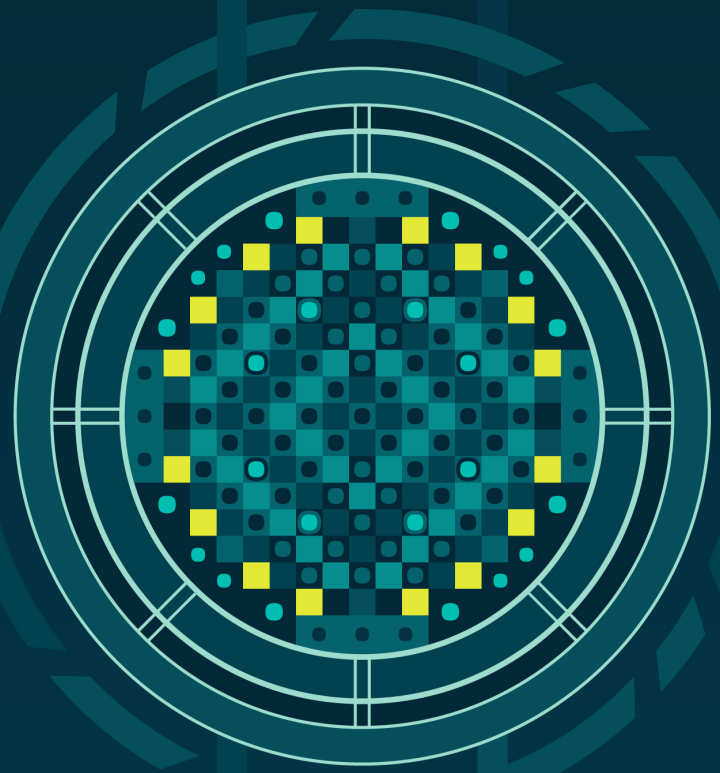
Fuel Disposition Evaluation Next Steps

- Transportation options for microreactor
- Treatment and/or storage of spent microreactors
- Environmental regulations, regulators, and approaches



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