



# National Environmental Policy Act (NEPA) Evaluation for Demonstration of Microreactor Experiment (DOME) Testbed

April 2024

*Changing the World's Energy Future*

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**April 2024**

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**NRIC**

National Reactor  
Innovation Center

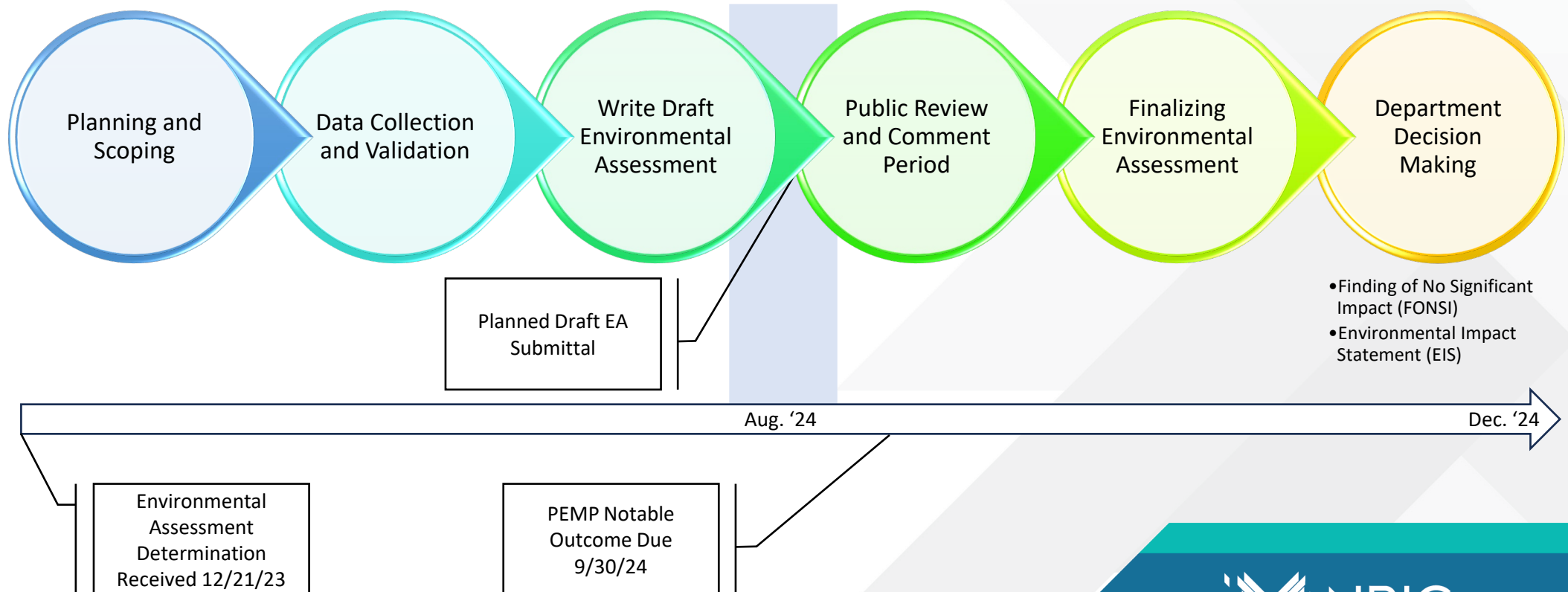
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4/23/2024

# Environmental Assessment Process






# Environmental Assessment Process Description



## Planning and Scoping

March/April '24

- Develop Schedule
- Define EA team
- Modeling, Information, Data Call and Plan
- Draft EA scoping checklist
- Define alternatives
- Internal scoping meeting




## Data Collection and Validation

March/April '24

- Review Previous Data
- Gather and Validate Historical Data
- Review Existing Environmental Documentation
- Create New Models as Needed




# Environmental Assessment Process Description



Write Draft  
Environmental  
Assessment

April – August '24

- Final EA Scoping Checklist
- Prepare and Compile Preliminary Draft EA document
- Department of Energy (DOE) Review of Draft EA
- DOE Comment Incorporation
- Release Public Notices
- **DOE Formally Receives Draft EA**




Public Review  
and Comment  
Period

September '24

- Release Draft EA
- Public Review and Comment Period
- Evaluate Public Comments and Prepare Response Document


# Environmental Assessment Process Description



Finalizing  
Environmental  
Assessment

October – November '24

- Prepare and Compile Preliminary Final EA
- Review Period
- Comment Incorporation or Resolution
- Release Public Notices
- Release Final EA



DOE  
Determination

December '24

- DOE makes determination
  - FONSI
  - EIS



# Plant Parameter Envelope (PPE)



**Specific advanced reactor demonstrations are unknown. Idaho National Laboratory (INL) is developing a Plant Parameter Envelope (PPE)**



**A set of reactor and owner-engineered parameters that set the bounding characteristics of a reactor that may be demonstrated in DOME**



**PPE values serve as a surrogate design for the Environmental Assessment**



# Environmental Review Process for Advanced Reactor Demonstrations in DOME

## Developer Proposes Demonstration

- Proposed reactor parameters are reviewed by INL NEPA team and compared to the bounding parameters of PPE and environmental impacts evaluated in the DOME EA

## If covered by the DOME EA

- Following DOE concurrence, INL issues a NEPA Determination that the demonstration is covered by the DOME EA, concluding the NEPA process

## If NOT covered by DOME EA

- Project will need to complete a Supplement Analysis or project specific EA/EIS



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