# NRC Collaboration with DOE on Light Water Reactor Sustainability (LWRS) Program

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# NRC-DOE Memorandum of Understanding (MOU)

#### NRC Roles and Responsibilities

#### To provide current information on:

- Aging management research activities
- Risk analysis research activities
- Licensing and regulatory reviews of emerging technologies
- Technical information on safety and security analysis

#### The coordination includes:

- Information exchange meetings
- Support for expert panels
- Demonstrations and pilots
- Jointly sponsored projects



### Rules of Interaction Document

- Aims to provide clarification to NRC staff on guidelines for technical and knowledge exchanges with DOE and national laboratories staff
- Make clear for staff when public meeting should be considered
- Interaction document publicly available

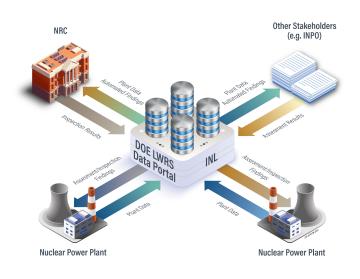


ML23135A227



#### **Plant Modernization**

#### Data Portal for Inspections



#### **Digital Twins**

- Papers associated with Characterizing Nuclear
   Cybersecurity using AI/ML haven issued (to be released):
  - Use case description
  - Identify AI/ML Technology
  - Use Case Implementation
- Technical Letter Report: Analyzing the Impact of Using Wireless Technologies for Monitoring Safety-Related Critical Digital Assets - <u>ML23264A148</u>



#### **Materials**

- Monthly call to discuss:
  - Concrete
  - Metals
  - Cables
- Published documents:
  - SMiRT Paper "Effects of Neutron Irradiation on the Bond Strength of Steel Embedded in Concrete"





#### Risk Informed System Analysis (RISA)

- Monthly Project Status Updates Meeting
  - A recurring meeting between INL and NRC R&D teams to discuss projects under the RISA pathway

#### Physical Security

 Parameters has been established for a monthly or as needed meeting to share and discuss the latest topics on Physical Security Pathway



Flexible Plant Operations and Generations (FPOG)

- Monthly Technical Deep Dives Meeting
- Technical Expert Group
- Documents to be published :
  - "Safety and Regulatory Considerations for Industrial Facilities Colocated with Nuclear Power Plant"



#### **Contact Information**

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# Thank You for Your Attention



