

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

Christian Araguas

Director, Division of Engineering

NRC Standards Executive

Office of Nuclear Regulatory Research

Nuclear Regulatory Commission

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

Pathways Collaborations

Recurrent Meetings:

Materials

Frequency: Monthly

Participants: NRC, DOE Nat Labs, EPRI

Focus: Exchange of research results, new projects, and status updates

RISA

Frequency: Monthly

Participants: NRC & DOE Nat Labs

Focus: Discussion of projects related to the Pathway

Physical Security

Frequency: Quarterly

Participants: NRC & DOE Nat Labs

Focus: Discussion of ongoing projects in alliance with the Advanced Reactor Safeguards and Security (ARSS) program

Pathways Collaborations

Technical Letter Reports:

FPOG

***Safety and Regulatory Considerations for On-Site Hydrogen Production Facilities
Co-located with Nuclear Power Plants***

[ML24207A174](#)

***Plant
Modernization***

***Assessment of Condition Monitoring Methods and Technologies for Inservice
Inspection and Testing on Nuclear Power Plant Components***

[ML24305A162](#)

***Physical
Security***

***Assessment of Physical Security Modeling and Simulation in the Vulnerability
Assessment Process***

[ML25090A245](#)

Pathways Collaborations

NUREGs & NUREG/CRs:

RISA

NUREG/CR -7309- Validation Studies for High Burnup and Extended Enrichment Fuels in Burnup Credit Criticality Safety Analyses

RISA

NUREG/CR- 7308- Sensitivity/Uncertainty Methods for Nuclear Criticality Safety Validation

RISA

NUREG-2266- Environmental Evaluation of Accident Tolerant Fuels with Increased Enrichment and Higher Burnup Levels

Pathways Collaborations

Upcoming Reports

Materials

NUREG - Irradiation Effects on Reinforced Concrete Structures

Perspective on ongoing projects

**Plant
Modernization**

Advanced Remote Monitoring(ARM) -Fire Watch Carts Effort

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](#)

Contact Information

Ramón L. Gascot Lozada
RES/DE LWRS Program Manager
ramon.gascot@nrc.gov
301-415-2004

Jeffery Smith
NRR/DORL LWRS Program Manager
jeffery.smith@nrc.gov
301-415-1057

Thank You for Your Attention

