



## Department of Public Service

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December 8, 2022

VIA EMAIL

Hon. Michelle L. Phillips  
Secretary to the Commission  
3 Empire State Plaza  
Albany, NY 12223-1350

Re: Matter No. 21-01188 – In the Matter of the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board.

Dear Secretary Phillips:

Please accept for filing in the above-captioned matter, the U.S. Nuclear Regulatory Commission's December 7, 2022 Presentation to the Indian Point Closure Task Force and Indian Point Decommissioning Oversight Board. Should you have any questions regarding this filing, please contact me. Thank you.

Respectfully submitted,

Tom Kaczmarek  
Executive Director  
Indian Point Closure Task Force  
Indian Point Decommissioning Oversight Board

# INDIAN POINT ENERGY CENTER DECOMMISSIONING OVERSIGHT BOARD

December 7, 2022

**ANTHONY DIMITRIADIS, CHIEF  
DECOMMISSIONING, ISFSI AND  
REACTOR HEALTH PHYSICS  
BRANCH, REGION I**

**BRIANA DEBOER, SENIOR  
HEALTH PHYSICIST  
DIRHP BRANCH, REGION I**



# Dry Spent Fuel Storage Cask Basics





# Cask Design and Evaluation

Cutaway of spent fuel storage cask shows spent fuel assemblies surrounded by steel and thick concrete shielding



# Casks come in different sizes



Image of ISFSI Pad at Indian Point

# Plants use Special Transporters





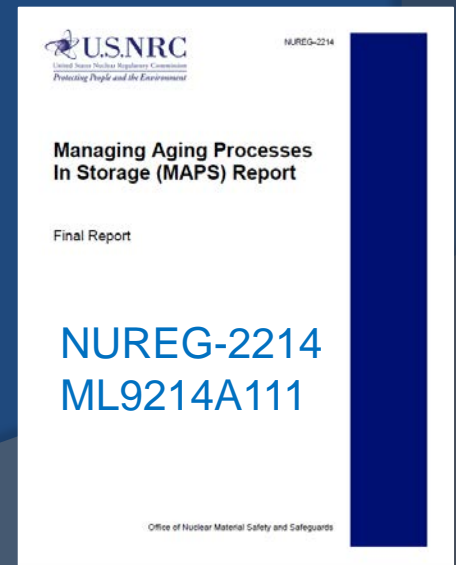
# ISFSI PAD





# Aging Management

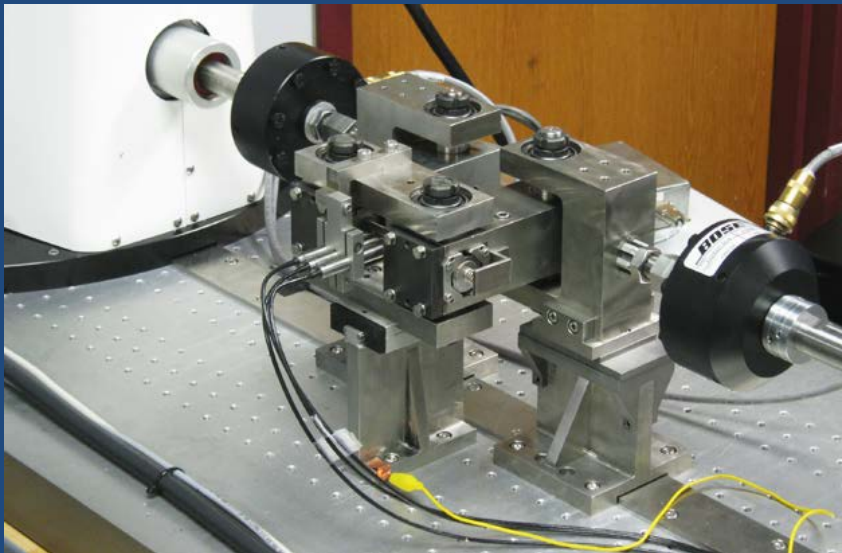
- ◉ What materials aging mechanisms can affect the safety functions of storage casks?
  - Materials + Environments => aging mechanisms and effects
- ◉ Time-Limited Aging Analysis (TLAA): Time-based calculations
- ◉ Aging Management Program (AMP): Activities to detect or prevent aging effects and perform corrective actions





# High Burnup Fuel

- NRC guidance on storage and transportation of high burnup fuel published in NUREG-2224 (ML20191A321)
- The Department of Energy's high burnup fuel research program will evaluate the effects of drying operations and storage



# Regional Inspection Program – Routine Inspections

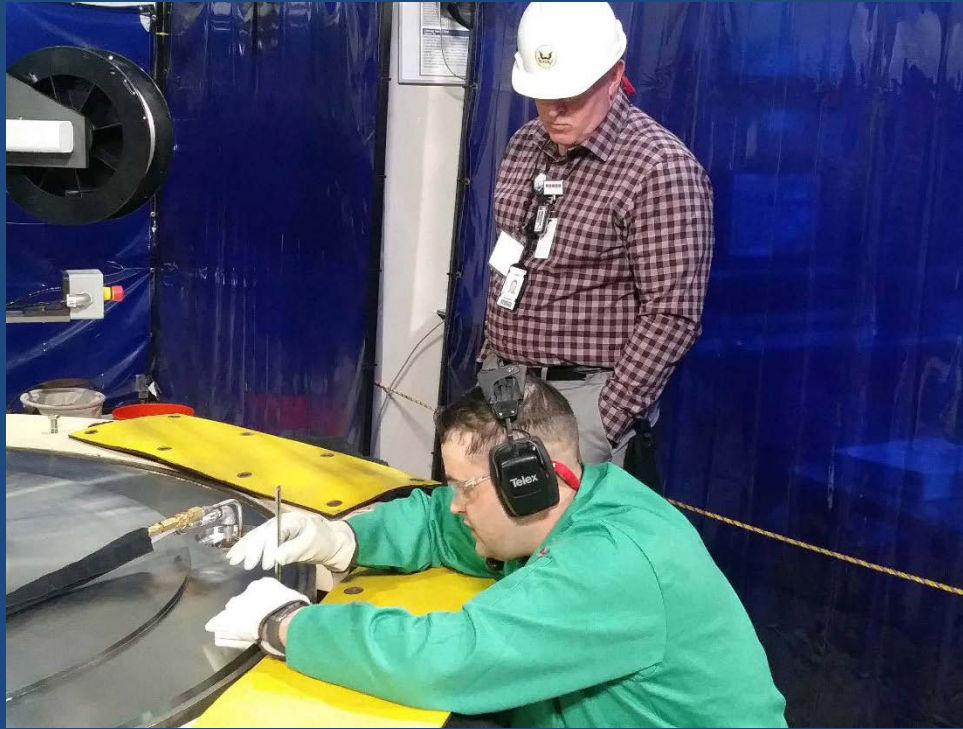
## NRC Inspections

- Ensure ISFSI meets regulations during construction and operation
- Cover pad design and construction
- Observe dry runs without spent fuel
- Monitor cask loading
- Routine monitoring





# Regional Inspection Program – Dry Runs



Dry Run training exercise must include:  
Loading, Closure/Welding, Handling,  
and movement to ISFSI pad.



# Spent Fuel Security



ISFSI security key features:

- ⦿ Armed security officers, intrusion detection, alarm assessment, and response
- ⦿ Defense against design basis attacks
- ⦿ During decommissioning, the security posture has a strong focus on ISFSI.

**As long as fuel is on site, security is maintained**



# Emergency Planning

- Emergency planning is required for ISFSIs at reactor sites and at stand-alone facilities
- The emergency plan includes emergency actions level
- Emergency plans could include both nuclear and non-nuclear emergencies



# ISFSI at Indian Point



- 69 Holtec HI-STORM 100s currently loaded
- 127 expected to be loaded by the end of 2023



# Summary

- ISFSIs continue to be inspected for safety and security
- ISFSIs remain robust and are secured around the clock 24/7
- NRC staff will continue to monitor aging management inspections

Questions?