

ENCLOSURE 1

M230133

Open Session Presentation Slides for New Powder Container Meeting

Non-Proprietary Information

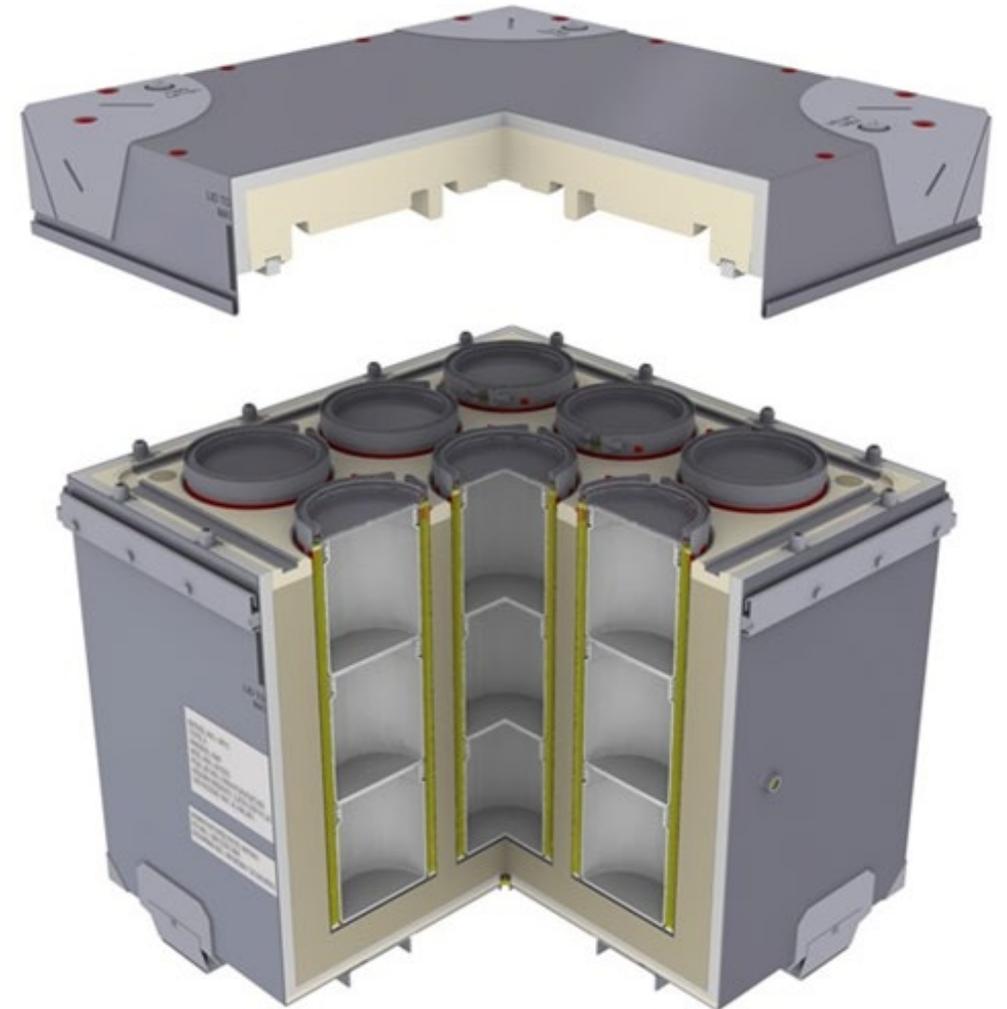
# Discussion with the NRC: NPC Package Revised Technical Basis to Support 8 wt.% U-235

October 24, 2023

# Agenda



- Overview of the New Powder Container (NPC) package
- Overview of NPC package analysis assumptions
- Review the results of the certification testing
- Overview of proposed changes to the NPC package criticality analysis assumptions
- Review of initial scoping results



# Purpose

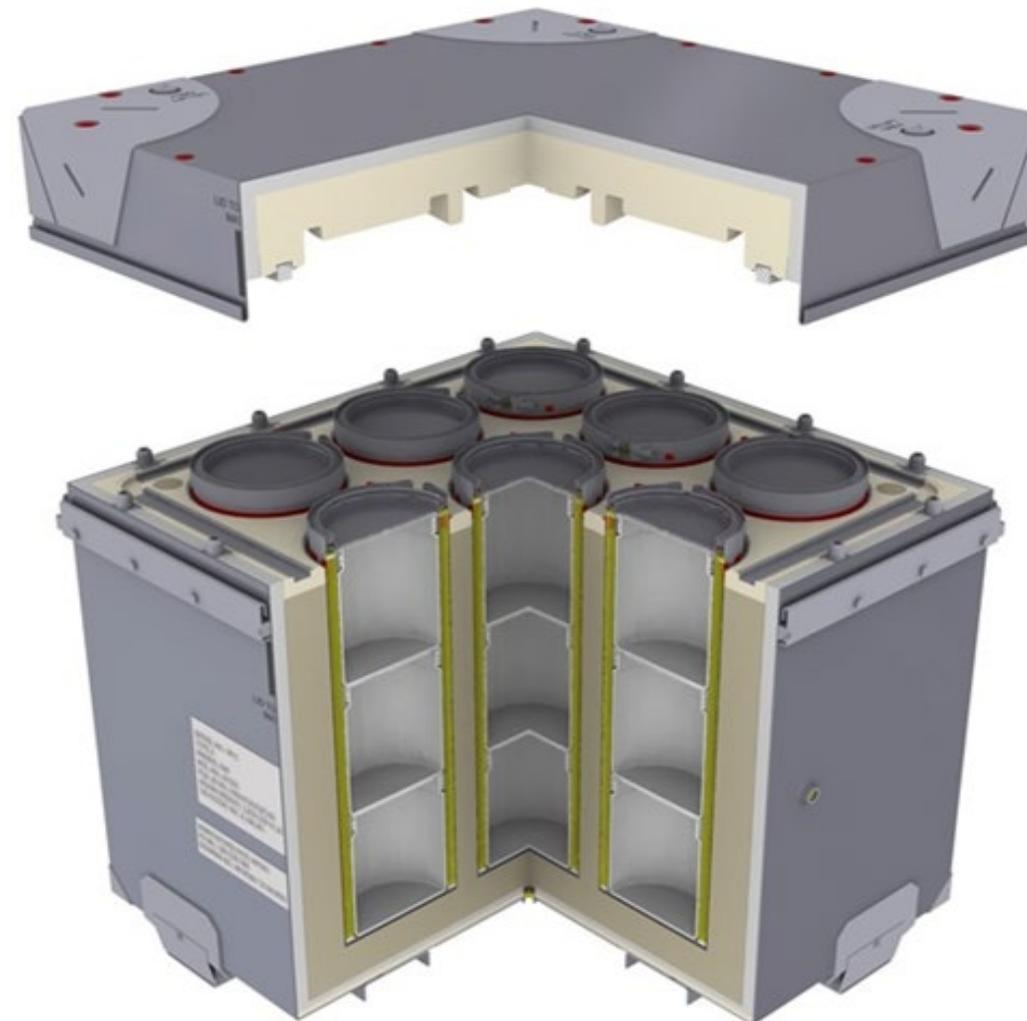


- A. Provide technical basis for the proposed changes to the criticality analysis of the NPC package:
  - 1. Increase fissile material enrichment limitation to 8 wt.% U-235
  - 2. Adjust USL and benchmarking
  - 3. Credit certification test results for limited moderator intrusion
  
- B. Items not changing from approved USA/9294/AF-96 (CoC)
  - 1. Maintain content limitation of 540 kg net per NPC package and Criticality Safety Index (CSI) of 0.7
  - 2. No package or hardware modifications
  - 3. Uranium compositions unchanged

# Overview of NPC Package

## General Information - NEDO-33881 Revision 7

- NRC approved for Type A fissile material up to 5 wt.% U-235
- Stainless Steel (SS) Outer Container Assembly (OCA) body and lid
- Ceramic fiber and polyurethane insulation
- Nine SS Inner Containment Canister Assemblies (ICCAs)
- ICCAs sealed with rubber gasketed SS lid
- Each ICCA wrapped with 20-mil cadmium sheet and 15-mil high density polyethylene



**END OF OPEN SESSION**