

National Nuclear Security Administration



Defense Nuclear Nonproliferation

Cooperation with the Advanced Reactor Industry

Jeff Chamberlin Associate Assistant Deputy Administrator Material Management and Minimization May 2021



DNN Focus and Capabilities



DNN FOCUS AND CAPABILITIES

The Office of Defense Nuclear Nonproliferation strengthens U.S. security by reducing global dangers posed by nuclear weapons, material, and technology.

> **Detect Proliferation** and Verify Compliance

- ► Nuclear Explosions
- ► Materials and Warheads
- Material Production
- ▶ Weapons Development

Eliminate/Minimize **Nuclear and Radiological Materials No Longer In Use**

- ► Convert
 - ► Remove
 - ► Dispose

► Pu/U Verification teams NUCLEAR NON-STATE ARMED **ACTORS** STATES DNN tise NUCLEAR WEAPONS

NUCLEAR AND RADIOLOGICAL STATES SEEKING **Control Further**

Spread of **Nuclear Materials/ Technology/Expertise**

- ► Export Controls
- ► Counter Nuclear Smuggling
 - Treaties, Agreements, Policy

Materials and Secure Nuclear **Facilities and** Radiological

- Safeguards tools/training/expertise
- Secure sites/materials

DNN is organized to be flexible and responsive to an enduring and dynamic threat environment.









Areas of Cooperation



- Safeguards-by-Design (SbD)
- Export Controls/10 CFR Part 810
- Security-by-Design (SeBD)
- Proliferation Resistance Optimization
- High-Assay LEU



Mechanisms for Engagement



"Team USA"

 U.S. Government inter-agency group to engage with international partners and cultivate markets

"ANSWER" Initiative

Intra-DOE coordinating body

U.S. Nuclear Nexus

Web portal to connect U.S. industry with NNSA expertise



U.S. Nuclear Nexus



Tool to provide a dynamic means for U.S. industry to interact with NNSA

Expected to go live Spring 2021, to learn more contact: nexus@anl.gov

Builds on "DOE-NNSA Recommendations and Resources for Advanced Reactor Developers"

Single point of entry and liaison to collaborate with NNSA offices

Interactive web portal and human connection that:

- Helps educate U.S. companies on navigating export control policies and regulations
- Enhances U.S. competitive advantage by promoting understanding and timely implementation of safeguards by design, security by design, and proliferation resistance in nuclear systems
- Tracks and shepherds requests for support and engagement

