



# "Post-Nuclear Security Summit Efforts to Internationally Strengthen Nuclear Security"

The International Forum on Peaceful Use of Nuclear Energy, Nuclear Non-Proliferation and Nuclear Security - Post-Nuclear Security Summit Efforts to Maintain International Momentum on Nuclear Security and Technical Contributions to Nuclear Disarmament

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# **Mandatory Disclaimer**



 Views are my own, and do not necessarily reflect the National Nuclear Security Administration or the Department of Energy



# A Trip Back in Time



- Old-Fashioned views: security focused at the site and national level, in isolation.
  - Backseat to safety by operators and regulators
  - Little attention of sr. mgmt., policy makers or Boards
  - Seen as different from plant/critical infrastructure/industrial security
  - Domain of the "wave techs" at site
  - Border was focused on customs
  - Resource burden placed by regulators, if even that
  - Undermining of productivity, operational/functional efficiency and profits



# Not so long ago...



- Conventional wisdom about nuclear terrorism
  - Mass casualties are counter to political goals of terrorist groups
  - A terrorist group could never build a nuclear weapon
  - Material is self protecting
- What changed?



# **Nuclear Security Summits**



"So today I am announcing a new international effort to secure all vulnerable nuclear material around the world within four years...And we should start by having a Global Summit on Nuclear Security that the United States will host within the next year."





## 2010 Washington Nuclear Security Summit





- 50 world leaders, 3 international organizations
- "House gifts" and other national commitments over 90% completed by 2012 Summit
- Outcomes -- material removed or eliminated, treaties ratified and implemented (CPPNM/A), reactors converted, regulations strengthened, "Centers of Excellence" launched



# **2012 Seoul Nuclear Security Summit**





- 53 Countries and 3 IOs
- More than 100 national commitments
- 13 "gift baskets" pushing beyond the consensus boundaries of the Communique



## **2014 Hague Nuclear Security Summit**





- 53 countries, 4 lOs
- Tangible Outcomes:
  - Announced removals of HEU and Pu
  - Security at sites and on borders is increasing
  - The global nuclear security architecture continues to be strengthened
  - Radioactive source security enhanced
  - 35 countries pledged to implement stronger nuclear security practices
  - Baby steps on military materials and non-accumulation of sep Pu



# **2016 Nuclear Security Summit**



- Focused was on sustainability of nuclear security actions and commitments, and on strengthening the global nuclear security architecture, including through action plans for the IAEA, INTERPOL, United Nations, the Global Partnership and the Global Initiative to Combat Nuclear Terrorism.
- Created the Nuclear Security Contact Group for interested governments to continue regular interaction after the end of the Summit process.
- Identified regular IAEA nuclear security conference, with a Ministerial component, as venue for senior leaders to announce nuclear security accomplishments and make new commitments.









#### **NSS Process**



- Some outcomes of the Summit process include:
  - 31 countries + Taiwan have removed or confirmed the disposition of weapon-usable nuclear material through cooperative efforts with DOE/NNSA.
    - 17 countries + Taiwan have removed or confirmed the disposition of <u>all</u> HEU from their territory in that same period.
    - In total, 45 countries + Taiwan have cooperated with DOE/NNSA to remove weapon-usable nuclear material and 30 countries + Taiwan have been declared HEU-free.
  - 35 HEU research reactors and isotope production facilities have shut down or converted to LEU in 18 countries. a



#### **NSS Process**







- The amended CPPNM entered into force after the ratification push in the Summits.
- More than 50 "Centers of Excellence" now comprise the IAEA's International Network for Nuclear Security Training and Support Centers.
- Detection technologies deployed at more than 300 international border crossings, airports, and seaports.



#### **SBPDs and Exercises**



- Value for levels from practitioners to senior leaders
- Identify capacity gaps, misunderstandings, jurisdiction issues
- Meet interagency colleagues
- Reinforce training
- Practice crisis communications
- Beat complacency



#### **Key attributes of Summit success**



- Attention of leaders
- Driver for action
  - Nationally
  - With partners
- Progress reports
- Public awareness
- Sherpa empowerment
  - Internally
  - Externally
- Trust in the process
  - Consensus
  - Transparency

- Scenarios/exercises
- Support for international organizations
- Building confidence
- Engagement with
  - Industry
  - Civil society
- Increased resources
- New concepts
- Deter theft



# **Nuclear Security Success**



- Attention of leaders
- Driver for action
  - Nationally
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What else? Building and sustaining nuclear security culture; accountability; next generation practitioners and leadership; defining and sharing best practices; demonstrating competence; engaging processes of continuous improvement and adaptability



# NSS Features to "Infuse" into the International Architecture



- Leadership attention
- National and collective enduring action
- Accountability
- Adequate resources
- Appropriate authorities/mandates
- Prioritization
- Exercises
- Inclusion/expansion/ universalization

- Comprehensive scope
- Sherpa connectivity
- Coordination
  - among institutions
  - with civil society & industry
- National/regional/global
- Strengthened standards
- Best practices sharing
- Reductions in HEU and Pu



#### **Back Where We Started**



- No matter what the Presidents and Prime Ministers said at a the NSS, material is in the custody of facilities, in the control of individuals, and any illicit trafficking will cross the paths of many who have the chance to stop it.
- "Security Culture" is vital for implementation and sustainability of nuclear security and countering nuclear smuggling.
- We have to continue to look for opportunities for leadership while translating rhetoric into practical implementation.



# **THANK YOU**



**Comments or Questions?** 

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