Managing Access: Warhead Dismantlement Verification

Hubert Foy
Disarmament Scholar, Visiting Fellow
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Overview

- Disarmament Motivation & Background
  - NPT Article VI
  - Warhead verification issues
- Managed access on-site inspection
  - Disarmament verification tool
  - Important elements
- Warhead dismantlement process
  - Phases
  - Techniques and technologies
  - Operations/ access level
- Summary
Disarmament Motivation

- NPT Article VI - “Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control”.

- Balancing NPT pillars
- Bridging N-S divide (2005 NPT RevCon)
Warhead Disarmament Background I

- Verification challenges
  - NPT Art I & II restrictions
  - Security and safety concerns
  - Sovereignty issues
  - Inspector Expectations
Warhead Disarmament Background II

- **Technical studies**
  - 1967 Field Test FT-34
  - 1996-1997 DOE Study
  - 1996-2002 Trilateral Initiative
  - 2006-2009 United Kingdom-Norway Initiative
Managed Access

- **Human factors**
  - Negative impacts
    - Lack of motivation for or understanding of goals and aims of the activities
  - Inspector capabilities
    - Training, experience, analysis of information
  - Positive spin-offs
    - Building relationship, trust, & mutual understanding

- **Risks**
  - Horizontal/vertical proliferation
  - Security breach
  - Safety rules conflicts
Warhead Dismantlement Phases

- Retirement and transportation
- Mechanical disassembly
- Disassembly of phys package
- Waste streams and disposition
Inspection Techniques & Technologies

- Portal perimeter control
- Tags and seals
- Closed circuit television cameras
- Documentation & electronic records
- Information barrier
- Managing inspector movement
- Communication procedures
- Dispute resolution
Operations

- Direct Visual Observation
- Make notes and sketches
- Take Geiger counter measurements
- Take Photographs
- IB measurements
“We acknowledged that to unite the international community against proliferation, the nuclear-weapons states needed to be seen to push forward on disarmament, and we reiterated the critical necessity of transparent verification to the process of eliminating nuclear weapons.”

— Lord Browne of Ladyton
UK Secretary of State for Defence (2006–2008)
Summary

- Disarmament legal foundation – NPT Article VI
  - negotiate multilateral treaty or convention
    - verification & monitoring procedures
- Verification goals
  - confirms state compliance
  - adds legitimacy to disarmament
- Addressing proliferation & security concerns
  - human factors and technological fixes
- Managed access on-site monitoring and verification
  - inspectors + techniques + technologies + facilities
- Uniqueness of the UKNI
- Joint R & D
  - promote understanding
  - encourage discussions
  - Allow NNWS contribution