

# **U.S. Threat Reduction Accomplishments Associated with the Contact Experts Group**

IAEA Contact Expert Group

22<sup>nd</sup> Plenary Meeting

24 – 26 September, 2008

Paris, France



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# U.S. CEG Activities

## RTG Decommissioning

Conducted under the Global Threat Reduction Initiative (GTRI) by the U.S. Department of Energy, National Nuclear Security Administration (NNSA)

## Nuclear Powered Submarine (NPS) Dismantlement

Conducted under the Cooperative Threat Reduction Program (CTR) by the U.S. Department of Defense, Defense Threat Reduction Agency (DTRA)

# NNSA's Global Threat Reduction Initiative

- Mission: To identify, secure, remove and/or facilitate the disposition of high-risk vulnerable nuclear and radiological materials around the world.
- Record: Since 2004, GTRI has removed more than 30 nuclear bombs worth of highly enriched uranium and secured more than 575 radiological sites around the world containing over 8 million curies, enough for ~8000 dirty bombs.

# RTG Decommissioning Program

- Through 2007, the GTRI program has recovered 146 RTGs from across Russia. 10 RTGs were recovered using Canadian contributions.
- 2008 to date, 25 of 37 Pacific Russian Fleet RTGs have been recovered and replaced with alternative power supplies under this year's contract. The U.S. anticipates complete recovery and storage of the 37 Pacific Russian Fleet RTGs by the end of the year.
- 10 RTGS from Peleduy have been recovered and placed in secure storage.
- By the end of 2008, 24 RTGs will be recovered from a land-based site to Moscow for disassembly and disposal next year. The U.S. project team is prioritizing funding in 2009 to dispose of these RTGs.
- The U.S. recently received an additional Canadian contribution for the recovery of 10 more RTGs in the Northern Sea Route. This work is currently under contract and scheduled for completion this year.

# RTG Proposed Activities for 2009

- Using funding assistance from Canada, the U.S. will contract to recover the remaining 40 Navy RTGs in the Far East.
- The U.S. will provide funding for the maintenance and storage of RTGs secured at the DalRAO facility.
- The U.S. will recover up to 20 RTGs from the Northern Sea Route and transfer for disassembly at VNIITFA and disposition at Mayak.
- Using funding assistance from the United Kingdom, the U.S. will work to repatriate 4 Tajikistan RTGs back to the Russian Federation.

## **Additional efforts:**

- GTRI has recovered and disposed of ~3,000 abandoned or disused radiological sources throughout Russia.
- GTRI is also working to protect in-use radiological material of concern by installing physical protection systems at user facilities.

# Typical RTG Installation (Sakhalin)



## Less than ideal conditions (Sakhalin)



# Manpower (Sakhalin)



# Remote beacon (Sakhalin)



RTG  
Replacement  
(Sakhalin)



# DTRA's Cooperative Threat Reduction Program

- Mission: To partner with willing countries to reduce the threat from WMD and related materials, technologies and expertise, including providing for the safe destruction of Soviet era WMD, associated delivery systems and related infrastructure

# NPS Dismantlement

- The U.S. recently completed a contract with the Sevmash shipyard on the dismantlement of a Typhoon-class strategic nuclear submarine.
- The U.S. is currently funding ongoing work on another Typhoon located at Zvyodochka. The work includes elimination of the ballistic missile launcher section and its six-compartment reactor unit. Canada and Rosatom also participate on this project.
- To date the U.S. has spent \$328m in Cooperative Threat Reduction assistance to Russia for the dismantlement of 31 NPS, including ballistic missile launchers.
- This assistance includes the procurement and maintenance of dismantlement equipment at the Russian shipyards, and the design and construction of facilities, railcars, and spent nuclear fuel casks.

# Typhoon 724 (DSC 0123)



# Typhoon 713 (713)



Thank you.