

# Round Table Discussion 3

## Multi-lateralization of Nuclear Fuel Cycle (MNFC)

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# Historical Aspect of MNFC

Pre – 1950 Baruch Plan (Acheson-Lilienthal Report)

1950:

- 1953 – Atom for Peace & Uranium Bank
- 1957 – EURATOM
- 1957 – IAEA

1960:

- INFCIRC/66

# Historical Aspect of MNFC

1970:

- INFCIRC/153
- Zangger Committee
- Nuclear Suppliers' Group (NSG)
- Regional Nuclear Fuel Cycle Center
- International Nuclear Fuel Cycle Evaluation (INFCE)

1980:

- International Plutonium Storage
- Committee on Assurances of Supply (CAS)

# Historical Aspect of MNFC

1990:

- International Monitored Retrievable Storage System
- ASIATOM, PACATOM, etc.
- International Interim Storage Scheme
- INFCIRC/540 – AP

2000:

- El Baradei
- George W. Bush
- IAEA Expert Group on MNA

# Recent Proposals on MNFC

## 12 Proposals on Assurance of Fuel Supply (AOS):

- | U.S. Proposal on a Reserve of Nuclear Fuel (2005)
- | Nuclear Threat Initiative (NTI) Fuel Bank (2006)\*
- | Global Nuclear Energy Partnership (2006)
- | Global Nuclear Power Infrastructure (2006)
- | World Nuclear Association (WNA) Proposal (2006)
- | Six-Country Proposal (2006) – “Reliable Access to Nuclear Fuel”
- | IAEA Standby Arrangement System (2006)
- | UK Nuclear Fuel Assurance Proposal(2007)
- | International Uranium Enrichment Centre (2007)
- | Multilateral Enrichment Sanctuary Project (2007)
- | Multilateralisation of the Nuclear Fuel Cycle (2007)
- | Russian LEU Reserve Proposal (2009)

# Recent Proposal on MNFC

## 1 Fuel Leasing Arrangement for the back-end: Russia agrees to take back spent fuel from Iran

Back-end fuel cycle has become a source of uncertainty for nuclear investment due to:

- ∅ Growing inventory of spent fuel in existing programs
- ∅ Indefinite spent fuel storage
- ∅ Availability of waste repository?

# 1. Assurance of Fuel Supply (AOS)

- What is the current situation on AOS in IAEA?
- What is the current situation on AOS proposed by individual states?
- What were the results of the United Nations Institute for Disarmament Research on multilateralization of nuclear fuel cycle?
- What were the outcomes of the study by the US National Academy of Sciences/Russian Academy of Sciences?
- How relevant is AOS in case of disruption of fuel supply due to political reasons?
- Is AOS an effective incentive for states to give up on their inalienable right to develop enrichment and reprocessing capabilities?

## 2. Multilateralization of Nuclear Fuel Cycle (MNFC), including the back-end

- Is MNFC an effective incentive for states to give up on their inalienable right to develop enrichment and reprocessing capabilities?
- How can “equality” be achieved in MNFC?
- Can MNFC contribute to solutions of nuclear non-proliferation challenges? What roles can it play?
- Can MNFC reduce safeguards and inspection costs?
- How can we make MNFC a reality?
- Are international negotiated solutions required or can like-minded states leading the way be sufficient?
- Would MNFC be best to pursue on a regional basis?
- What are the challenges and opportunities for MNFC?