Using the Minatom Development Trust to Secure Russian Plutonium

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Objectives

- Increase U.S. involvement in secure storage of Russian plutonium during period of (possibly prolonged) socio-economic instability.
- Accelerate disposition of excess plutonium from Russian weapons.
- Rely on internally developed technology and trust revenues.
- Provide an income stream to economically stressed nuclear-industrial complex to reduce pressures to engage in proliferation sensitive international transactions.
Today’s Situation

- No credible proposal for disposing of Russian plutonium exists today.
- No government is willing to fund a MOX fabrication plant in Russia.
- Even if funded, current MOX disposition plan is too slow and poses its own proliferation risks.
Available Options

- Rely solely on Russian and United States government management of the problem.

- Introduce private non-profit management.
Recommendation

- Management of Russian excess plutonium storage and disposition by the Minatom development trust under a long term (e.g., 20-30 year) lease agreement.
The Trust Would:

- Take title to foreign commercial spent fuel containing at least 50 tonnes of plutonium in return for a fee approximating the avoided cost of spent fuel storage and reprocessing (i.e., about $1.2 million/tonne).
- Contract with Minatom for long term interim storage of this spent fuel in Russia.
- On the same timetable, lease, store, and contract for disposition of the equivalent amount of excess Russian weapons plutonium.
- Continue to explore disposal options at Wake Island and Novaya Zemlya.
Fissile Plutonium Swap
Managed by the Trust

- Up to 50 t WGPu Stored at Mayak
- Up to 6,000 t Foreign Spent Fuel Stored at Krasnoyarsk-26
- Minatom for Closed Cities
- Accelerated Plutonium Disposition
- WGPu in Russian Weapons
- Foreign Utilities
- Spent Fuel

Trust

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Advantages to Russia/Minatom

- Near-term income.
- Trustee guarantee of income for support of Minatom activities.
- Potential for expanded commercial relationships with Western utilities, including expanding market for Russian-origin uranium and SWU.
Advantages to the United States

- Increases control over security of Russian excess plutonium.
- Provides for more efficient and expeditious disposition of plutonium.
- Provides a commercial flow of funds to support plutonium disposition in Russia.
- Increases Russian stake in once-through non-proliferative fuel cycle.