

The Nonproliferation Trust Proposal: Managing Spent Fuel and Nuclear Waste in Russia

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NPT Objectives

- ◆ Raise billions of dollars to:
 - secure fissile material
 - end new commercial nuclear fuel reprocessing
 - build a geologic repository
 - clean severely contaminated site
 - provide alternative jobs for nuclear workers
 - support pensioners and orphans

Goal

- ◆ Raise \$15 billion by storing 10,000 t of foreign (non-U.S., non-Russian) spent fuel in Russia

Spent Fuel Transportation and Disposition -- The Norm

- ◆ Countries should manage their own spent fuel and nuclear waste
- ◆ Spent fuel should stay at reactor sites pending the availability of a licensed geologic repository

The Exceptions: Preferred Customer Countries

- ◆ those that lack adequate geological conditions for a repository (e.g., Netherlands, Taiwan, Armenia)
- ◆ those that represent potential proliferation risks (e.g., N. Korea, Iran)
- ◆ those that have small nuclear programs (e.g., Armenia, Mexico, Kazakhstan, Lithuania, Netherlands, Slovenia)

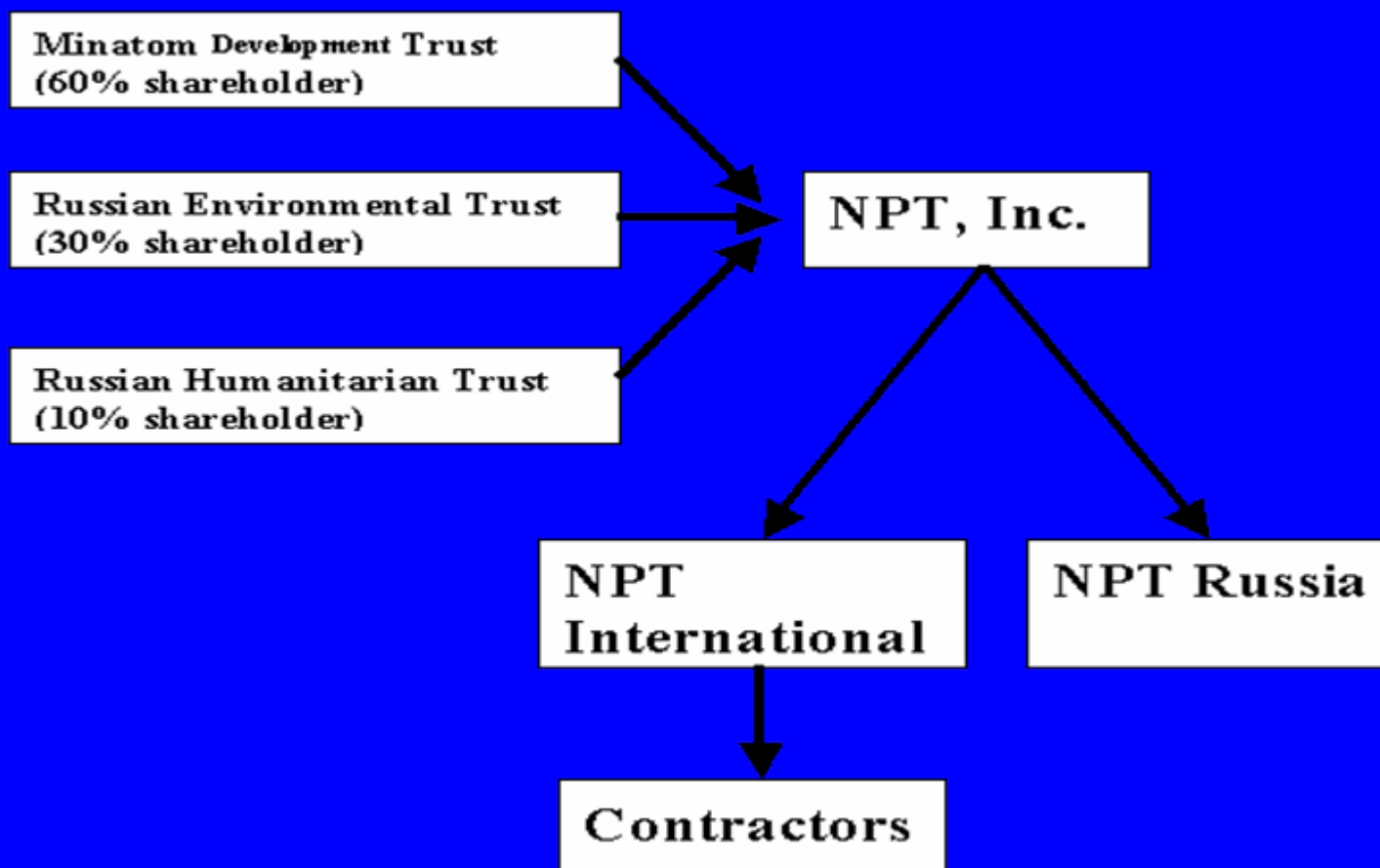
Allocation of Revenues from the NPT Project

Category	Amount (\$ millions)	Percent of Total
Spent Fuel Casks and Land Transport	2,000	13.3
Storage Facility Construction	300	2.0
NPT and Storage Facility Management	600	4.0
Ships and Sea Transport	300	2.0
Contingencies	<u>250</u>	<u>1.7</u>
Subtotal (Cost of Spent Fuel Management)	3,450	23.0

Allocation of Revenues from the NPT Project (Cont'd)

Category	Amount (\$ millions)	Percent of Total
Environmental Cleanup	3,000	20.0
Fissile Material Security	1,500	10.0
Geologic Repository Qualification	300	2.0
Geologic Repository Construction	1,500	10.0
Spent Fuel Decommissioning Escrow	500	3.3
Jobs in Closed Cities	2,000	13.3
Regional Economic Support	500	3.3
Pensioners	2,000	13.3
Orphans	<u>250</u>	<u>1.7</u>
Subtotal (Russian Benefits)	11,550	77.0

NPT Organization



Contractors (Letters of Intent)

- ◆ Duke Engineering & Services (division of Duke Energy)
- ◆ Gesellschaft für Nuklear-Behälter mbH (GNB), a subsidiary of Gesellschaft für Nuklear-Services mbH (GNS)
- ◆ Alaska Interstate Construction Co.
- ◆ Halter Marine Inc.
- ◆ Sandia National Laboratories

Other Associated Firms

- ◆ Alliance Group (Moscow)
- ◆ Burson-Marsteller (including Black, Kelly, Scruggs & Healey)
- ◆ LeBoeuf, Lamb, Greene & MacRae
- ◆ KV Partners

Stages in NPT Project Development

- ◆ *Russian State Duma approval of new law on spent fuel imports*
- ◆ NPT capitalization
- ◆ NPT contracts with Spent Fuel Management Contractors
- ◆ NPT-Russian Government Agent Contract
- ◆ Develop Structure and Program for Arms Control, Environmental and Humanitarian Initiatives
- ◆ US-Russian Peaceful Nuclear Cooperation Agreement
- ◆ Contracts with Spent Fuel Customers
- ◆ Site, License and Build Spent Fuel Facility in Russia
- ◆ Secure MB-10 Approval from State Dept. for Spent Fuel Transfer

Views Within U.S. State Department

- ◆ Must have a Peaceful Nuclear Cooperation Agreement
- ◆ Assurance that transfer are for eventual disposal; U.S. will use its consent rights to enforce transfer to a repository
- ◆ Specific plans for, and specific commitment of sufficient resources to, development of a geologic repository
- ◆ Assurance that the material would be handled safely in transit and that the storage and disposition facilities were suitable and environmentally sound
- ◆ Assurance that mechanisms will be in place to properly manage and account for large sums of money
- ◆ Assurance that funds will be available to manage spent fuel for the life of the disposition program.

Other Criteria for Continued Support of the NPT Project

- ◆ Compliance with Foreign Corrupt Practices Act.
- ◆ Moratorium on new commercial nuclear fuel reprocessing contracts.
- ◆ There will be a robust geologic repository program for Russian spent fuel and high-level radioactive waste.
- ◆ Confidence that the environmental benefits from NPT cleanup activities greatly exceed the risks associated with interim spent fuel storage.
- ◆ Confidence that NPT project revenues will be spent for their intended purpose.