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)
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount ($ millions)</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent Fuel Casks and Land Transport</td>
<td>2,000</td>
<td>13.3</td>
</tr>
<tr>
<td>Storage Facility Construction</td>
<td>300</td>
<td>2.0</td>
</tr>
<tr>
<td>NPT and Storage Facility Management</td>
<td>600</td>
<td>4.0</td>
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<tr>
<td>Ships and Sea Transport</td>
<td>300</td>
<td>2.0</td>
</tr>
<tr>
<td>Contingencies</td>
<td>250</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Subtotal (Cost of Spent Fuel Management)</strong></td>
<td>3,450</td>
<td><strong>23.0</strong></td>
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</tbody>
</table>
## Allocation of Revenues from the NPT Project (Cont’d)

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount ($ millions)</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Cleanup</td>
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<tr>
<td>Fissile Material Security</td>
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<tr>
<td>Geologic Repository Qualification</td>
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<tr>
<td>Geologic Repository Construction</td>
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<td>10.0</td>
</tr>
<tr>
<td>Spent Fuel Decommissioning Escrow</td>
<td>500</td>
<td>3.3</td>
</tr>
<tr>
<td>Jobs in Closed Cities</td>
<td>2,000</td>
<td>13.3</td>
</tr>
<tr>
<td>Regional Economic Support</td>
<td>500</td>
<td>3.3</td>
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<tr>
<td>Pensioners</td>
<td>2,000</td>
<td>13.3</td>
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<tr>
<td>Orphans</td>
<td>250</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Subtotal (Russian Benefits)</strong></td>
<td><strong>11,550</strong></td>
<td><strong>77.0</strong></td>
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</tbody>
</table>
NPT Organization

- Minatom Development Trust (60% shareholder)
- Russian Environmental Trust (30% shareholder)
- Russian Humanitarian Trust (10% shareholder)

NPT, Inc.

- NPT International
- NPT Russia

Contractors
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.