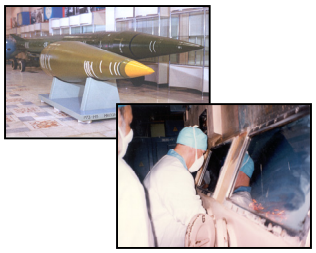
The HEU Transparency Implementation Program

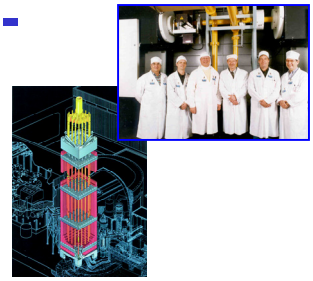
- Mission -

Provide assurance that the low enriched uranium(LEU) being purchased under the 1993 U.S. / Russian Highly Enriched Uranium (HEU) Purchase Agreement is derived from HEU extracted from dismantled nuclear weapons.



- Transparency Objectives -

- Build confidence that the Russian HEU is extracted from dismantled nuclear weapons;
- Build confidence that this same HEU is oxidized;
- Build confidence that the declared quantity of HEU is blended down to LEU; and
- Demonstrate that the LEU delivered to the U. S. is fabricated into fuel for commercial nuclear reactors.



The Program has monitored a total of 201.5 metric tons (MT) of HEU being converted to LEU and delivered to the United States from 1995 through December 2003.

- Scope -

In the United States

Five facilities are subject to monitoring by the Russian Federation:

- Paducah Gaseous Diffusion Plant in Kentucky (familiarization visits only – will replace Portsmouth)
- Global Nuclear Fuel-Americas in North Carolina
- Framatome-Lynchburg in Virginia
- Framatome-Richland in Washington
- Westinghouse Fuel Fabrication Facility in South Carolina

In Russia

Four Russian Federation facilities are subject to monitoring by the United States:

- Electrochemical Plant (ECP) in Zelenogorsk
- Mayak Production Association (MPA) in Ozersk
- Siberian Chemical Enterprise (SChE) in Seversk
- Ural Electrochemical Integrated Plant (UEIP) in Novouralsk

- Transparency Process -

- Special Monitoring Visit (SMV) teams use portable non-destructive assay (NDA) equipment to assure that the Russian HEU being processed is weapons material.
- The SMV and the Transparency Monitoring Office (TMO) monitors observe the processing of Russian HEU to assure material conversion to a fluoride for blending.
- The SMV/TMO monitors and the Blend Down Monitoring System (BDMS) assure that the processed HEU is blended to the LEU which is then shipped to the United States.
- Data retrieval and analysis further assure that observed and declared plant operations are consistent with the annual rate of LEU deliveries to the United States.
- An assessment of these elements provides a level of assurance that nonproliferation objectives are met.

The HEU Transparency Implementation Program

- Program Performance Indicators -

- Number of Blend Down Monitoring Systems in operation and the operational availability of these units during the fiscal year.
- Number of 24 allowed SMV trips completed each year to the four Russian processing facilities.
- Operational time (calendar days) the TMO is staffed to observe HEU related operations at UEIP.
- Monitor the annual conversion of 30 MT of HEU into LEU through a combination of all transparency measures.
- Acquire, archive and analyze accountability and transparency data and documents for annual processing quantities.

- FY 2003 Performance -

- The BDMS was operational at two of the three Russian blending facilities (UEIP and ECP). Operational availability of the BDMS was greater than 90% at these two sites.
- Conducted 22 of the allowed 24 monitoring visits to the Russian facilities. Installation of BDMS at ECP precluded two visits. .
- The TMO at the UEIP was staffed and operated for 35 of the 50 weeks, or 70%, of the related plant operation cycle.
- Monitored the conversion of 30 MT of HEU into LEU.
- Acquired all BDMS output reports plus 7,800 pages of transparency data.

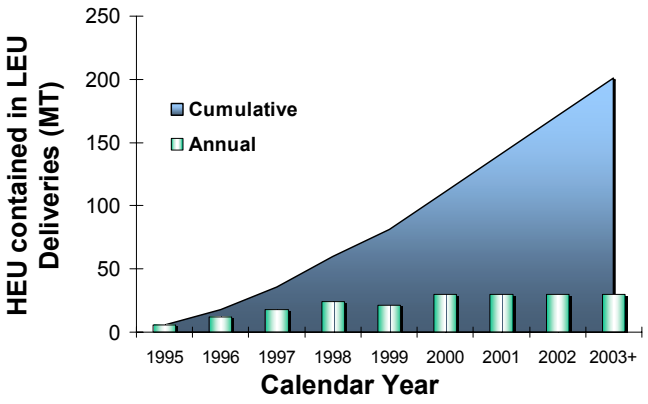
- FY 2004 Performance Goals -

- The BDMS at UEIP and ECP will monitor 75% of direct blending operations. Equipment operable up to 94% of time.
- Conduct 22 of 24 allowed monitoring visits to Russian facilities.
- TMO coverage at UEIP is scheduled at 75% of plant operational time.
- Monitor the conversion of 30 MT of HEU into LEU.
- Acquisition of accountability and transparency data and documents.

- FY 2005 Performance Goals -

- The BDMS at UEIP, ECP, and the SChE will monitor 100% of direct blending operations. Equipment operable up to 95% of time.
- Conduct 100% of 24 allowed monitoring visits to Russian facilities.
- TMO coverage at UEIP is scheduled at 76% of plant operational time.
- Monitor the conversion of 30 MT of HEU into LEU.

Quantity of HEU to LEU Monitored



30 MT HEU Annual Projection (2000-2013)

Program Monitoring Efforts at the Four Russian Facilities

Conducted 136 SMV trips since 1996

Feb 2004