

**WELCOME ADDRESS TO THE 28th INTERNATIONAL MEETING ON
REDUCED ENRICHMENT FOR RESEARCH AND TEST REACTORS**

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Good morning Ladies and Gentlemen, I am Hans Forsstrom, Director of the Division of Nuclear Fuel Cycle and Waste Technology of the International Atomic Energy Agency (IAEA). It is a pleasure for me to open, on behalf of IAEA Director General Mohamed ElBaradei, this 28th International Meeting on Reduced Enrichment for Research and Test Reactors (RERTR).

It is an honour for me to welcome you again this year. As you are probably aware, we are celebrating the 50th anniversary of the IAEA. Following directly upon the IAEA's receipt of the 2005 Nobel Peace Prize, we continue to pursue our commitment to international peace and prosperity through the safe and secure peaceful uses of nuclear technology for human development.

In this regard, I would like to recognize this year's host country, South Africa, as an excellent example of an IAEA Member State that has clearly demonstrated its commitment to peaceful uses of nuclear energy under the Nuclear Nonproliferation Treaty and IAEA safeguards. South Africa is a major contributor to the work of the IAEA and is a shining example to the international community in regard to the benefits of peaceful nuclear technology for sustainable development.

As you are well aware, the IAEA has been a vigorous supporter of the RERTR programme and the Member States which participate in it. This support continues in a strengthened form, as the IAEA carries out many projects and activities both under its Regular Budget and from the Technical Cooperation Programme, which are relevant to the objectives of the Global Threat Reduction Initiative (GTRI) and RERTR. Continued financial support and in-kind assistance to the IAEA's activities in this regard are vital, and I should express our thanks for this especially to the US and also the other governments providing the Agency with such assistance.

I would like to note that as with past RERTR conferences, in addition to the contributions of IAEA staff, the IAEA was again pleased to have contributed to the conference by providing financial support for the attendance of a number of participants from the Technical Cooperation Fund.

The past year since our last meeting in Boston witnessed much progress toward the goals of RERTR and HEU minimization. Significant accomplishments include:

- the pace of reactor conversions worldwide – including in the U.S. - has quickened;
- international work has been initiated on conversion of Chinese-designed research reactors;
- international efforts to disseminate the technology for production of Mo-99 from LEU is progressing;
- the first shipments of irradiated Russian research reactor fuel were successfully completed from Uzbekistan to Mayak;
- significant quantities of fresh HEU have been returned to Russia, and plans are advancing for returning most of the remaining stocks in the near future; and

- The Technical Workshop and International Symposium on Minimization of Highly Enriched Uranium in the Civilian Nuclear Sector, organized by the Government of Norway with cooperation from the IAEA in Oslo, Norway.

At the Oslo conference, which took place at the Nobel Peace Prize Centre from 17-20 June 2006, the participants reached a broad technical conclusion that LEU can be substituted for HEU for virtually all applications. This Conference – which will be the subject of a paper by one of its chief organizers in this morning's session – also noted that the major obstacles to further minimization and eventual elimination of HEU are political and economic.

However, technical challenges continue to exist, and much work remains to be done. For instance: completion of the development and qualification of very high density U-Mo fuels, advance the use of LEU in the commercial production of radioisotope and returning to the country of origin big remaining inventories of fresh and spent HEU fuel.

The IAEA have played an important role in implementing fresh fuel return activities, planning spent fuel return programs, and implementing several reactor conversion projects which are being carried out under the auspices of IAEA or providing technical support to other bilateral conversion projects.

Several people from the IAEA will be actively involved in this meeting, both as presenters and as session moderators. Their presentations and involvement reflect the broad scope and extensive nature of IAEA activities related to this conference. A few highlights from their presentations regarding IAEA achievements during the past year, which have been made possible partly with the IAEA budget, partly with generous contributions from US DOE and from the Nuclear Threat Initiative, include that the IAEA:

- Successfully completed a project for the conversion of the TRIGA reactor in Pitesti, Romania, signed a contract for procurement of an LEU core for the Portuguese research reactor, and is in the late stages of a procurement for an LEU core for the Maria reactor in Poland;
- Awarded a 4 million Euro contract for the provision of research reactor spent fuel transportation and storage to the Russian Research Reactor Fuel Return (RRRFR)
- Signed a \$10 million contract for the repackaging and transportation of the spent fuel from Vinča, Serbia;
- Organized the first meeting of all countries with Russian research reactor fuel, as a workshop to facilitate future shipments of spent Russian research reactor fuel;
- Organized a major technical meeting on experience gained in shipping fuel under the U.S. return program;
- Convened a meeting with participation by major GTRI partners and non-governmental organizations to share data and examine future conversion efforts;
- Held a meeting to formulate a new initiative on research reactor coalitions and centres of excellence;
- Initiated a CRP on conversion to LEU of the Chinese Miniature Neutron Source Reactors;
- Initiated an international collaborative activity on the use of LEU in accelerator-driven subcritical systems;
- Initiated a CRP on the use of LEU fission or neutron activation technologies in producing Mo-99 for medical purposes, and

- Participated as an observer in the International Fuel Development Working Group, a highly important effort that is overseeing the multinational cooperative research and development effort for very high density LEU fuel.

As usual, the RERTR meeting is important not only for what is presented in the formal technical sessions, but also for what takes place in the informal gatherings, side meetings, and personal encounters. On that note, the IAEA is organizing informal meetings related to its two CRPs on the Conversion of MNSRs and on LEU for Mo99 production.

I am deeply convinced that this will be indeed an exciting RERTR meeting. A year ago, we heard encouraging news that the international programmes to qualify high density, LEU, dispersion fuels based on U-Mo alloys had identified possible solutions for overcoming the unexpected technical difficulties that had been experienced. We expect to hear even more promising news this year from tests that have been performed over the last 12 months. These include encouraging results from different experiments indicating that promising solutions for the problem of swelling of U-Mo fuels at high power and high temperature have been identified, confirming the appropriateness of the proposed remedies. I look forward to seeing a final success in the effort to face these challenges. I have no doubt that this much expected success will be the result of the strong international cooperation between fuel developers during the past years.

Nevertheless, a successful conclusion of this effort does not mean that the time has come to rest on our laurels. Rather, it will be the time to consolidate the progress that has been made, by planning and implementing the next step in the development of U-Mo: the full qualification of these fuels. This step will entail a great deal of work and time and therefore, here again, international cooperation is key to success.

This is a perfect example of what all of us are expecting from this meeting: seeing in action the application of state of the art science and technology, strengthened by international cooperation, with the purpose of advancing international non-proliferation objectives while improving research reactor utilization, safety and security,

I would like to congratulate the South African Government and the GTRI staff at the U.S. Department of Energy and Argonne National Laboratory for arranging this meeting in this perfect location at the southern tip of Africa.

A well-organized meeting is but one prerequisite for a successful event. The most important element is of course, you, the contributors and participants. I would like to thank all the attendees for making the long trip to Cape Town, and, further, for your work and preparation for this meeting, and the dedication and many hours of work and effort during the years to a wide variety of RERTR-related projects and activities.

Before giving the floor to the next speaker, I would once again like to thank all those who have worked so hard in preparing this meeting, which I am certain, will be a great success. I look forward to a week of exciting interchange of ideas and experience.