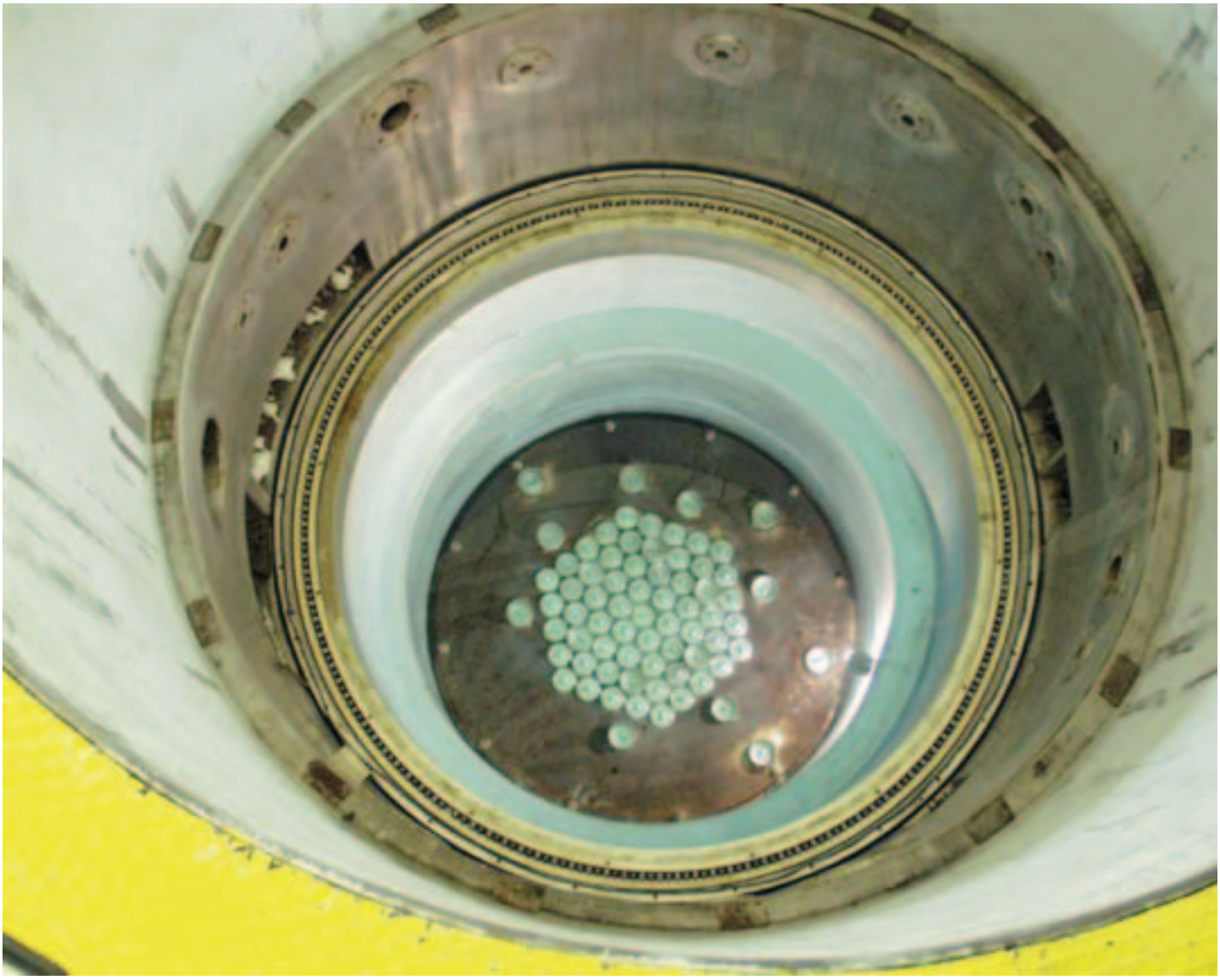
17–20 June 2006 • Nobel Peace Center • Oslo

Minimisation of Highly Enriched Uranium (HEU) in the Civilian Nuclear Sector



The conversion of different types of reactors from using HEU to LEU is of paramount importance in the global effort to minimise HEU in the civilian sector. Considerations of core configuration and design, as may be seen in the Norwegian research reactor JEEP II shown above, must then be made. Norwegian research reactors operate only on LEU fuel.

Photo: NRPA

International Symposium on Minimisation of Highly Enriched Uranium in the Civilian Nuclear Sector

The Government of Norway, in cooperation with the International Atomic Energy Agency, welcome you to an international symposium concerning the replacement of HEU with LEU for various sivil uses. The main objective of the symposium is to discuss and seek common understanding on the way forward for a more concerted international effort in the framework of international agreements, organisations and assistance programmes.

JUNE 17- 18

TECHNICAL WORKSHOP ON HEU MINIMISATION

JUNE 17

Session 1 – Seminar Opening – Status of HEU in Civil Uses	**16.00 – 17.50**
1. Welcome/Introduction – Nuclear Risks of HEU	Ole Harbitz, NRPA, Norway
2. Basic Facts on HEU Worldwide	Pablo Adelfang, IAEA
3. HEU in Critical Assemblies, Pulsed Reactors and Propulsion Systems	Frank von Hippel, Princeton University, USA
Coffee Break	17.50 – 18.20
Session 2 – Where Can LEU Successfully Replace HEU Today?	**18.20 – 20.00**
4. Safari Conversion to LEU	Charles Piani, NECSA, South Africa
5. 1st Full Conversion of Russian-designed HEU Fuel – Sparrow Flies Lower	Radek Skoda, CTU, Czech Republic
6. Using LEU in OPAL – State of the Art, Multipurpose RR	Ron Cameron, ANSTO, Australia
7. Full Conversion of Pitesti 14-MW RR Core from HEU to LEU Fuel	Marin Ciocanescu, ICN Pitesti, Romania
8. Development of LEU Fuel to Convert Research Reactors: NRU, MAPLE and SLOWPOKE	David Sears, AECL, Canada
Reception at Restaurant Pascal	20.00 – 21.30

JUNE 18

Session 2 – (cont.)	**09.00 – 10.45**
9. CCHEN Activities for Minimisation of the Use of HEU in Chile	Juan Klein, CCHEN, Chile
10. Mo-99 from LEU – Facts and Myths	George Vandegrift, ANL, USA
11. Producing Mo-99 from LEU Targets	Alberto Manzini, CNEA, Argentina

Workshop Chair:

Professor José Goldemberg, Co-chair, International Panel on Fissile Materials

12. Indonesia's Program for Conversion of Mo-99 Production to LEU Fission	Budi Briyatmoko, BATAN, Indonesia
Coffee Break	10.45 - 11.15
Session 3 - Implementation - The Way Ahead	**11.15 - 13.00**
13. A Global Overview of the High Density UMo Fuel Development Efforts	Mitch Meyer, Idaho National Laboratory/ RERTR, USA
14. Jules Horowitz Reactor and LEU	Daniel Iracane, CEA/Cadarache, France
15. Converting Miniature Neutron Source Reactors to LEU	Samuel Anim-Sampong, AEC, Ghana
16. Reduced Enrichment Program for FRM-II	Anton Röhrmoser, ZWE-FRM II, Germany
Lunch	13.00 - 14.30
Session 3 - (cont.)	**14.30 - 16.30**
17. Can All Research Reactors be Fueled only with LEU in the Future?	Nikolay Arkhangelsky, Rosatom, Russia
18. USA Domestic Efforts and Commitments to Convert Remaining Civil HEU Research Reactors	Jordi Roglans-Ribas, ANL, USA
19. Advanced Reactor Development Requirements - Is There Any Need for HEU?	Massimo Salvatores, CEA/Cadarache, France
20. LEU for ADS-Sub-Critical Facilities	Anna Kiyavitskaya, JINPR-SOSNY, Belarus
21. Converted HFR; Reliable Supply of Medical Radioisotopes	Fred Wijstma, Petten, Netherlands
Coffee Break	16:30 - 17.00
Session 4 - Roundtable discussion and chairman's summary	**17.00 - 18.30**
END TECHNICAL WORKSHOP	

JUNE 19 – 20

INTERNATIONAL SYMPOSIUM ON MINIMISATION OF HEU IN THE CIVILIAN NUCLEAR SECTOR

JUNE 19

Session 1 – Introduction	10.00 – 13.00
1. Welcome	
2. Opening Address	Minister of Foreign Affairs, Jonas Gahr Støre
3. HEU Minimisation – An IAEA Perspective	Director General Mohamed ElBaradei (video), IAEA
4. Presentation of Workshop Report	Professor José Goldemberg, International Panel on Fissile Materials
Coffee Break	11.15 – 11.30
5. Panel: Technical Opportunities and Challenges	Chair: Professor José Goldemberg Dr. Charles Piani, Fred Wijtsma, Nikolai Arkhangelsky, Professor Frank von Hippel, Alberto Manzini
Lunch	13.00 – 14.30
Session 2 – Policies and Practices	14.30 – 18.00
6. The U.S. Perspective	Assistant Deputy Administrator Andrew Bieniawski, National Nuclear Security Administration, USA
7. The South African Perspective	Abdul Samad Minty, Governor of South Africa to the IAEA Board of Governors
8. The Russian Perspective	TBD
Coffee Break	16.00 – 16.30
9. Panel: HEU Minimisation – Policy Options	Chair: Dr. Bruce Jones, NYU, USA Ambassador Yukiya Amano, Japan Ambassador Hu Xiaodi, China Olivier Caron, Governor of France to the IAEA Board of Governors Minister Counsellor Kjetil Paulsen, Norway
Dinner Cruise on the Oslo Fjord	19.00 – 23.00
END OF DAY 1	

Symposium Chairs:

Director General Kåre Aas, Norwegian Ministry of Foreign Affairs

Director General Ole Harbitz, NRPA, Norway

JUNE 20

Session 3 – Implementation – The Way Ahead	09.00 – 10.30
10. Partnerships for HEU Minimisation	Vice President Laura Holgate, Nuclear Threat Initiative
12. Panel: The Way Ahead	Chair: Laura Holgate, Vice President, NTI Ambassador Milenko Skoknic, Chile Deputy Head Lars Van Dassen, SKI–ICP, Sweden Pablo Adelfang, IAEA Director William Potter, Center for Nonproliferation Studies, Monterey Institute, USA
Coffee Break	10.30 – 11.00
12. Chairman's Summary	Director General Kåre Aas, Norwegian Ministry of Foreign Affairs
END OF SYMPOSIUM	12.00

Guided Tour at the Nobel Peace Center

- The Nobel Peace Center with the temporary installation World Portal in front. Photo: Erlend Aas
- In the Peace Center´s garden, all of the Peace Prize winners are presented on 96 screens surrounded by 1000 beams of light. Photo: Timothy Soar / Adjaye Associates

In co-operation with –

www.nrpa.no/symposium/