



Opening remarks of Mr Y.A. Sokolov, DDG-NE

**International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle:
Exploration, Mining, Production, Supply and Demand, Economics and
Environmental Issues (URAM-2009)**

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Dear ladies and gentlemen, dear colleagues, good morning.

The objective of the IAEA's programme on nuclear power and related nuclear fuel cycle activities is to promote the development of nuclear power and fuel cycle technologies that are economically viable, safe, environmentally friendly, proliferation-resistant and sustainable. Natural uranium is one of the basic raw materials for nuclear fuel.

And so with this in mind we have come together here to participate in the 2009 International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle, URAM-2009. This is the latest in a series of symposia devoted to issues relating to the Uranium Production Cycle and many of you will have been at the two previous meetings in 2000 and 2005. Looking back on those meetings we should remember how the intensity and scale of activity in the uranium production cycle has changed since 2000. At that symposium we were looking at how to keep the industry going whilst cleaning up the legacies of the past, ensuring minimal environmental problems for operating mines then and into the future and working out how the long term future of the industry would look. In addition we also considered the issues of maintaining our skills base and ensuring that exploration would continue so we might be prepared for the future.

By the time we had organised the 2005 symposium the global situation had changed dramatically. Uranium prices were increasing steadily towards what would eventually become a record high in 2007. Worldwide there was growing concern about the effects of industrial activity causing climate change and the need to supply more electricity to both industrial and developing nations at a time when fossil fuels were seen to be either significant factors in climate change or of limited life span or both. Nuclear power was increasingly seen as a part of the solution. Expectations about the expansion of existing programmes, the growing interest of many new countries in starting nuclear power programmes and the upward projections for nuclear power capacity for the next 20-30 years led to an increasing demand for nuclear fuel and for uranium. There are no strong signals that this trend is changing under the pressure of economic crisis. In April 2009 the Agency organized an *International Ministerial Conference on Nuclear Energy in the 21st Century* in Beijing. This was the first high level nuclear power conference since the start of the global financial crisis. It was significant that no country reported any scaling back of its nuclear power expansion plans. We are aware that some companies and countries can postpone near-term construction plans for nuclear power, but the important message for the Agency from the

Beijing Conference is that we should expect continued high demand for our assistance from Member States exploring the nuclear power option.

In his summation of the 2005 event the Symposium Chairman, Mr M Tauchid of Canada indicated two issues.

The first issue was balancing supply and demand with no new mines for many previous years and the prospect of diminishing sources of secondary supply. This is especially important as 10-15 years is the lead time for new production facilities to come on line. Also he mentioned future shortages of skilled personnel in all areas of the UPC, problems of the public perception, and the issues of legacy sites with their adverse impacts on people and the environment.

The second issue was the IAEA's role in addressing the full spectrum of problems of uranium demand and supply. He mentioned a lead in education in the broad sense. This would include helping with the education of the general public and specific communities. Such education would need to be at all levels in all areas of society, including the mining industry and the regulatory community. Another major objective should be to increase efforts to promote the application of good practices in all phases of the UPC to help to prevent the creation of "new legacies". Finally, and perhaps most importantly, Mr Tauchid said that the IAEA should be helping to meet the increasing demand for skilled labour through the ongoing interregional and regional training courses and fellowship programmes within the Technical Cooperation programme.

And since 2005, what has happened? New uranium mining companies have been founded all over the world looking to become involved in uranium exploration and mining, perhaps more than 500 of them. One new open pit mine was established in Namibia and the ISL mining in Central Asia in Kazakhstan and Uzbekistan has expanded. Former uranium mines, previously closed in times of low uranium prices were re-examined to see if they would now be profitable. Since the 2005 symposium, we have seen a few new uranium mines brought into production, one in 2007 - the Langer Heinrich mine in Namibia - and three this year alone - and a number of new players, both countries and companies, have emerged to take a significant part in the global expansion of uranium production cycle activities. In addition, a number of IAEA Member States have approached the Agency seeking information about starting up nuclear fuel cycle activities and/or constructing new nuclear power plants, as well as developing their own domestic uranium production cycles with new mines and updated exploration programmes.

Thus, we are in a time of buoyant activity for the uranium production cycle. As a consequence the Agency is busier than ever with increasing numbers of projects being implemented under the Technical Cooperation programme, as well as increased activity in regular budget activities. It must be said that whilst the world is in a period of economic recession, the levels of activity in the uranium mining business seem to be continuing unabated – at least for the larger producer companies and countries. Just some examples: At Olympic Dam in Australia expansion plans are going ahead to create the world's largest open pit uranium mine. Kazakhstan starting two new mines this year and has challenging plans to be the world's leading uranium producer. There is a new mine in Malawi, a new producer country. And in several other countries in Africa, America, Asia and Australasia we will see new uranium mines opening in the next few years, as well as expansion plans at existing facilities.

However, all this activity only exacerbates a growing shortage of people as current training programmes cannot really keep pace with demand. New training facilities are required and new trainers. There are some trends for improvement. In Australia, mining engineering courses at universities are being brought back to life after many years of being dormant; and in the USA, training for the radiation protection to be used in all industries, including uranium mining, has been made a priority development. In France, the Government sponsors training programmes for overseas students at the various mining schools with increasing levels of participation in the past few years.

The IAEA is providing another form of assistance through promotion of the development and application of leading practices in the uranium mining industry. The project has involved both regulators and operators from the major production countries and has so far seen the publication of the WNA's principles for sustainable development in uranium mining last year, as an output from the joint project. A Technical Meeting held in Vienna last October also followed on this theme and plans are being prepared for the next stage of the project. Further efforts are planned and the support of the larger players from both sides of the industry is being channelled to assist and mentor the up and coming players, be they operators or regulators or new producer countries.

In another support effort, the IAEA has revived the Uranium Production Site Appraisal Team (UPSAT) programme to meet the needs of some Member States. This peer review process has already been requested by one Member State for a review of existing uranium mining activity and proposed expansion plans; this review is scheduled for October this year. Further UPSAT review requests are being contemplated by other Member States for implementation next year.

It is in this dynamic environment, therefore, that we are proudly hosting the URAM 2009 Symposium together with our three cooperating agencies: the Nuclear Energy Agency of the Organisation for Economic Cooperation and Development, the Nuclear Energy Institute and the World Nuclear Association. All of these organisations have been associated with our previous symposia in 2000 and 2005. I thank them on your behalf for their ongoing interest and association with this event.

And of course I must also acknowledge the significant assistance of our sponsors AREVA SA and Cameco Limited who have contributed so generously towards the side events at this meeting.

I hope that this will prove to be a week when old networks can be revived and reinforced as well as new contacts made. We hope the programme, which will be described by those who follow me, will meet your expectations. It remains only for me to welcome you again to Vienna and the IAEA and to wish you every success in your discussions this week in what I am sure will be a fruitful and rewarding symposium.