Preparatory Committee for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Development of the initiative of the Russian Federation to establish a reserve of low enriched uranium (LEU) for the supply of LEU to the International Atomic Energy Agency for its member States

Working paper submitted by the Russian Federation

- 1. As more and more States consider nuclear power to be an important contributor to enhanced energy security, economical and social development and the mitigation of climate change, they clearly need confidence in obtaining nuclear fuel in a predictable, uninterrupted, stable and cost-effective manner over the long-term. At the same time, steps must be taken to ensure that any increased use of nuclear material and technology takes place within the global nuclear non-proliferation framework.
- 2. Taking into account such considerations, as well as the proposals of the Director General of the International Atomic Energy Agency (IAEA) in 2004 and 2005 on nuclear fuel assurances, the Russian Federation in 2006^1 and 2007^2 advanced and developed an initiative on the secured supply of nuclear fuel cycle services.
- 3. This initiative is based on and further promotes provisions of the statute of IAEA. Under its statute, the Agency has the authority to provide fuel cycle related services, and has been regularly providing such services upon request through a variety of its programmes. The Agency can therefore act as the facilitator of assurance of supply.

International Uranium Enrichment Centre

4. The Russian Federation recognizes the need for a secure supply of nuclear fuel cycle services as a pre-requisite for large-scale nuclear power development. In this regard the Russian President announced in 2006 an initiative on the establishment of a global nuclear energy infrastructure. This initiative envisaged the creation of a

² See INFCIRC/708.





¹ See INFCIRC/667.

system of international centres providing nuclear fuel cycle services and was aimed at ensuring equal access to nuclear power by all interested States while keeping up with the nuclear non-proliferation regime.³ In 2007, as a practical development of this initiative, a pilot International Uranium Enrichment Centre was established, in partnership with Kazakhstan, at Angarsk in the Russian Federation, based at the Angarsk enrichment facility. Later Armenia and Ukraine decided to join the Centre as partners. Discussions in joining the Centre are under way with other States.

Russian guaranteed reserve of low enriched uranium (LEU) initiative

5. Taking into account the above developments, and in response to the initiatives of the Director General of IAEA on multilateral approaches to the nuclear fuel cycle and on the assurance of fuel supply mechanisms, the Government of the Russian Federation has proposed the establishment of a guaranteed physical reserve of 120 tons of LEU, in the form of UF₆, with an enrichment level ranging from 2.0 per cent to 4.95 per cent, which will be stored at the International Uranium Enrichment Centre under IAEA safeguards which will be financially covered by Russia for the use of the member States of IAEA experiencing a disruption of LEU supply.⁴ This LEU reserve would constitute a practical application of the provisions of article IX of the statute of IAEA on the supply of nuclear materials.⁵ The LEU reserve at the International Uranium Enrichment Centre would be intended to serve as a guaranteed supply to supplement the existing commercial market in nuclear fuel and as a protection for interested member States against possible disruptions of LEU supplies.⁶

Supply mechanism

- 6. LEU made available by the Government of the Russian Federation in the guaranteed reserve would be used in accordance with the provisions of the statute of IAEA and would be regulated by two agreements. The first agreement would be concluded between the Russian Federation and IAEA to make LEU available through the Agency to its member States. The second agreement would be concluded between IAEA and a member State to which LEU would be supplied by the Agency, which would be modelled on the Agency's project and supply agreements, and would, inter alia, include the obligations of the consumer State for the supply of LEU. Both agreements would be submitted to the IAEA Board of Governors for consideration and approval.
- 7. The first agreement would provide for the establishment of the guaranteed LEU reserve. It would also include an undertaking by the Russian Federation to make the requested amount of LEU available to IAEA upon a notification by the Director General of IAEA. The Russian Federation would then deliver LEU to IAEA for subsequent supply to an IAEA member State that had requested it. Furthermore,

2 09-32771

³ Statement by the Delegation of the Russian Federation at the second session of the Preparatory Committee for the 2010 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons on Article IV of the Treaty, Geneva, 6 May 2008, available at: http://www.reachingcriticalwill.org/legal/npt/prepcom08/statements/Cluster% 203/May06RussianFederationeng_am.pdf.

⁴ A supply disruption is defined in the report of the Director General of IAEA (GOV/INF/2007/11) of 13 June 2007.

⁵ See GOV/INF/2007/11, annex 1.

⁶ Ibid., pp. 6-10.

the Russian Federation would also undertake to provide all the necessary authorizations and licences for the transfer of LEU to IAEA.

8. For a consumer State, IAEA would have to provide evidence that all nuclear material had been accounted for and that there was no indication of diversion of declared nuclear material, and that there would not be any safeguards implementation issues concerning the State under consideration by the IAEA Board of Governors. The LEU would be made available for any non-nuclear-weapon State member of IAEA that has an effective agreement with IAEA requiring the application of safeguards on all its peaceful nuclear activities.

Key features of the LEU reserve

- 9. Important features of the LEU reserve envisaged by the Russian Federation include:
- (a) **Non-discriminatory and inclusive nature**: it would be available to all IAEA member States meeting the above-mentioned attributes;
- (b) **Non-restrictive**: there would be no requirement for interested IAEA member States, explicit or implicit, to forego any rights, including rights to develop a country's national fuel cycle capabilities;
- (c) **No cost to IAEA**: there would be no financial burden on IAEA or its member States since all start-up, storage, maintenance, safeguards and other costs would be covered by the Russian Federation; the cost of any LEU supplied from the reserve would be covered by the Consumer State at the time of delivery;
- (d) **Non-exclusive**: it would not conflict with or hinder the establishment or operation of any other elements of assurance of supply mechanisms;
- (e) **Non-disruptive**: the LEU reserve would not undermine the commercial nuclear fuel market; the quantity of LEU delivered would be relatively small compared to the overall market volume, and the actual market spot price would be charged to the consumer State;
- (f) **No delays**: the Government of the Russian Federation, in its agreement with IAEA, would confirm that all necessary authorizations and export licences would be issued and that LEU could be exported without undue delay for supply to a consumer State:
- (g) **Cooperative**: it would work in synergy and harmony with various initiatives on nuclear fuel supply assurances, current and future, and contribute to a menu of other fuel assurance options that may be agreed upon by IAEA member States, such as, for example, the IAEA LEU bank proposed under the nuclear threat initiative, as well as the multilateral enrichment sanctuary project (MESP) proposed by Germany;
- (h) **Prolonged**: it would be established for an indefinite period and replenishment of the supplied LEU is envisaged;
- (i) **Promotional**: it would facilitate the continuing and future use of nuclear energy for electricity production and support its beneficial expansion to help meet increasing global energy needs.

09-32771

⁷ See GOV/INF/2007/11, pp. 12-13.

10. The Russian Federation is undertaking preliminary consultations on key aspects of this initiative with the IAEA secretariat, and with member States. We look forward to presenting our specific proposal, as outlined above, to the Board of Governors for its consideration as soon as possible.

4 09-32771