

Board of Governors

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Communication dated 31 May 2006 received from the Permanent Missions of France, Germany, the Netherlands, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland and the United States of America

The Secretariat has received a communication dated 31 May 2006 addressed to the Director General and the Chairman of the Board of Governors from the Permanent Missions of France, Germany, the Netherlands, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland and the United States of America, forwarding a “Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel”.

This communication and, as requested by the signatories, the document attached thereto, are herewith circulated.

Permanent Mission of France
Permanent Mission of the Federal Republic of Germany
Permanent Mission of the Netherlands
Permanent Mission of the Russian Federation
Permanent Mission of the United Kingdom of Great Britain and Northern Ireland
U.S. Mission to International Organizations in Vienna

Vienna, 31 May 2006

Excellencies,

At the March 2006 meeting of the Board of Governors, you spoke of the importance of assurances of nuclear fuel supply and said, "It is urgent that we develop a unified approach and begin to move forward."

To contribute to this idea, and in support of Article IV of the NPT, we, representatives of states involved in nuclear fuel supply, are pleased to present the attached Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel. We anticipate that this will permit the Secretariat, following the June meeting of the Board of Governors, to consult with interested Members and elaborate the legal, institutional and other aspects of the mechanism.

We request that you circulate this proposal to all Member States prior to the June meeting of the Board of Governors. We are prepared to work with the IAEA and Member States to assist your efforts.



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H.E. Mr. Yukiya Amano
Chairman of the Board of Governors

Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel

“By providing reliable access to reactors and fuel at competitive market prices, we remove the incentive or justification for countries to develop indigenous fuel cycle capabilities. In doing so, we could go a long way towards addressing current concerns about the dissemination of sensitive fuel cycle technologies. The key feature of such an arrangement is not simply availability, but reliability. For this assurance of supply mechanism to be credible, it must be based on apolitical, objective non-proliferation criteria. Under the IAEA Statute, the Agency is authorized to serve as the guarantor of two fuel cycle related services: the supply of fissile material for fuel, and the reprocessing of spent fuel. The IAEA could therefore act as the facilitator and guarantor of a virtual or actual fuel bank, as a supplier of last resort.”

Dr. ElBaradei, November 7, 2005, address to the Carnegie Conference

The possible misuse of sensitive fuel cycle technologies is a serious challenge to the nuclear nonproliferation regime. Assurances of reliable supply of nuclear fuel services are an important element of the solution to this problem. Specifically, a reliable supply mechanism, backed up by reserves of enriched uranium, would support expansion of nuclear energy, taking due account of the needs of developing States, while obviating need for investment in expensive and sensitive nuclear fuel cycle infrastructure and fostering international cooperation in promoting safe and reliable peaceful use of nuclear energy in accordance with NPT Article IV while minimizing proliferation risks.

This subject has been studied intensively for more than three decades. Most recently, in February 2005, the Director General’s Expert Group on Multilateral Approaches to the Nuclear Fuel Cycle provided its assessment of a wide range of potential elements of a fuel supply assurance regime. An important conclusion of the Expert Group, as well as earlier studies, is that the existing commercial market for nuclear fuel is functioning well. Operators of civil nuclear power reactors can choose among multiple suppliers in a competitive market. The objective is not to solve an existing supply problem, but to establish a mechanism to address supply problems that might arise in the future, so there would be no need to hedge with large financial investment in indigenous enrichment and reprocessing capabilities.

Such a backup (or last resort safety net) mechanism would be established in a manner that would not disrupt the existing commercial market.

The report of the Expert Group makes clear that cooperation in the peaceful uses of nuclear energy constitutes one of the founding pillars of the IAEA and is an essential element of the Treaty on the Non-Proliferation of Nuclear Weapons. The report observes that the development of international cooperation on a voluntary basis could help promote the benefits of peaceful nuclear energy while providing cost benefits and minimizing potential risks.

This paper focuses on assurances for reliable supply of enrichment services or enriched uranium. The same rationale could apply in due course to reprocessing services at the back end of the fuel cycle. Options in this field could be explored at a later stage.

Background information

Because the global nuclear fuel market is functioning well, particularly with respect to uranium enrichment, a receiving State can develop an initial assurance of supply of enrichment services or enriched uranium through long-term contracts with suppliers, bilateral cooperation agreements with supplier States, and provision of buffer stores of enriched uranium.

Problems that might arise for commercial or technical reasons would generally be resolved commercially. The backup mechanism would be a last resort, to be invoked in the event of a problem that is not due to questions about nonproliferation obligations and cannot be resolved through normal commercial processes. A credible backup mechanism would provide an incentive for States building nuclear power reactors not to invest in the development of sensitive technologies or the construction and operation of related facilities. At this point, the mechanism is focused on enrichment activities.

Assurances would be provided through a multi-tiered set of measures:

1. Establish basic assurances

1.1 Formally establish a standing multilateral mechanism at the IAEA. The mechanism would be adopted by the IAEA Board of Governors in accordance with the Agency's statute, and could be endorsed by the General Conference and

formally supported by States which are suppliers of enrichment services or enriched uranium.

If commercial supply arrangements are interrupted for reasons other than non-proliferation obligations and cannot be restored through normal commercial processes, the mechanism could be triggered by the receiving State or the supplier State, by approaching the IAEA. Neither receiving State nor supplier State could invoke the mechanism for commercial or technical reasons, to avoid distorting the normal operation of the commercial market. The IAEA would determine whether the receiving State meets the conditions for use of the backup mechanism. A receiving State would be eligible provided it:

- has brought into force a comprehensive safeguards agreement and additional protocol, and has no exceptional safeguards implementation issues outstanding with the Agency, and
- has adhered to accepted international nuclear safety standards and the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, and
- has chosen to obtain supplies on the international market and not to pursue sensitive fuel cycle activities.

Such a backup mechanism could facilitate new arrangements with one or more new alternative suppliers, with the support of the IAEA if necessary. Commercial contractual information would not be released to the IAEA or third parties.

1.2 Involve supplier and recipient States. States hosting companies supplying enrichment services and enriched uranium would participate actively in the consultations conducted under the multilateral framework to help find a solution. In the implementation of this mechanism and consistent with their national legal and regulatory requirements, supplier States should endeavor to allow export from their territories of enriched uranium and commit, in principle, to avoid opposing such exports from other States. Receiving States would continue to obtain their enriched uranium supplies from the international market and not to pursue nationally sensitive fuel cycle activities, in order to take advantage of the backup mechanism.

The supplier state interrupting a commercial supply arrangement and other supplier states should respect IAEA decisions on implementing the mechanism and

decisions made accordingly by other supplier states and their commercial suppliers.

1.3 Establish commercial backup arrangements. Supplier States would welcome and facilitate arrangements for commercial suppliers of enriched uranium to establish a mutual back-up system, with the support of the IAEA if necessary, whereby they would substitute for each other. Commercial suppliers would cooperate with the IAEA if and when the backup mechanism is triggered. In support of these assurances, commercial contracts could include a standard back-up provision referring to the mechanism.

2. Establish reserves of enriched uranium.

In addition, the mechanism could be supported by reserves of low enriched uranium. Such reserves could be drawn upon in case the above mechanism fails to find an alternative supplier in a timely manner. The United States has announced it will convert up to 17 tons of HEU excess to national security needs to LEU and hold it as a reserve to support fuel supply assurances. Others can be encouraged to create similar reserves.

Reserves could be held nationally, or rights regarding their use could formally be transferred to the IAEA, if so desired by the State providing the reserve. There would be advantages to diversity in reserves. The size, location, control, and conditions for release and transfer, as well as replenishment of the reserves are issues for further discussion and development.

3. Other considerations.

The Board of Governors could request the Secretariat to prepare costing models for future consideration.

Conditions of access to the commercial market for enriched uranium will not be affected for Recipient States that do not participate in this mechanism.

4. Possible future steps

The mechanism outlined above would provide a significant alternative to costly enrichment capabilities. Additional steps that raise more complex questions could be developed over time, including:

- Spent fuel management options: Reliable access to existing reprocessing capabilities could be an alternative to national reprocessing capabilities.
- Multilateral approaches: The Director General's Expert Group report identifies a number of possibilities for multilateral cooperation in production of fresh fuel and management of spent fuel.
- International centers: The Russian Federation has proposed to implement, under IAEA control, a joint project on its territory involving establishment of an international center for the provision of uranium enrichment services based on one of its existing enrichment plants. Such a center would supplement the mechanism outlined above in providing assurance of supply of enrichment services and enriched uranium.
- New fuel cycle technologies: Fuel supply assurances could be an integral part of future fuel cycles based on advanced technology.