

Japan's Proposal: IAEA Standby Arrangements System for the Assurance of Nuclear Fuel Supply¹

September 1, 2006

1. Introduction

Japan supports the objective put forward in the “Concept for a Multilateral Mechanism for Reliable Access to Nuclear Fuel” proposed by France, Germany, the Netherlands, the Russian Federation, the United Kingdom, and the United States in relation to international discussions on assured access to nuclear fuels. However, bearing in mind the concerns and questions expressed by the Board Members of the IAEA at the IAEA Board of Governors Meeting in June 2006, Japan feels it useful to make a proposal complementary to the above-mentioned six-nation proposal.

In this consideration, we deem it proper;

- To take care of not only uranium enrichment service but also all important activities of the front-end of nuclear fuel cycle, namely, uranium supply, uranium storage, conversion, enrichment, and fuel fabrication as market failure might occur at various junctures:
- To focus not only on remedial responses to market failure for uranium fuel supply, but also on the prevention of the occurrence of such failure by reporting to the IAEA up-to-date information about the market, that is, each State's capacity in various activities related to fuel supply to nuclear power generation, so as to improve the transparency of the market and to alert the degradation of its adequacy if it is recognized.

2. Proposal

We propose to establish a system called as the “IAEA Standby Arrangements System for the Assurance of Nuclear Fuel Supply” under the auspices of the IAEA, which incorporates both an information system to contribute to the prevention of the occurrence of market failure and the backup feature for supply assurance proposed in the six-nation proposal.

The working principles of the system are as follows;

- (1) Member States voluntarily notify the IAEA as the depository organization, of their intentions to participate in the System by registering their nuclear fuel supply capacity in

¹ To be circulated at the occasion of the 50th IAEA General Conference Special Event, “New Framework for the Utilization of Nuclear Energy: Assurance of Supply and Nonproliferation”, 19-21 September 2006.

terms of current stock and supply capacity in the following areas;

- uranium ore supply capacity
- uranium reserve supply capacity, including recovered uranium
- uranium conversion capacity
- uranium enrichment capacity
- fuel fabrication capacity.

Any member State is eligible to participate in the System, provided that the IAEA Board of Governors finds no non-compliance of the IAEA safeguards agreement by that State.

- (2) A participating State periodically (annually) notifies the level of availability of such capacity at the following three levels:

Level 1: It has already started commercial activities and is providing products/services domestically, but not providing products/services to foreign countries on a commercial basis. Therefore although it has the willingness to cooperate the emergency request to supply, the quantity may be limited and considerable time might be required to start the supply.

Level 2: It has already started exporting products/services to foreign countries on commercial basis. Therefore in case of receiving the emergency request to supply, it has the willingness to do so as soon as possible within the range of available capacities.

Level 3: It has reserves that can be exported at a short-term notice.

- (3) The IAEA is expected to play the following roles:

- a) to conclude bilateral “standby arrangements” with respective participating States by receiving Letters Of Intent and to administer the overall System;
- b) to administer, as the depository, the data-base utilizing information periodically provided by participating States on their commitment areas as well as levels of availability and information routinely gathered by the Agency such as potential demands for the System, e.g. programs of future nuclear power generation in member States and the situation of the international uranium market. To prepare an annual report on the situation (adequacy) of world nuclear fuel supply market based on the data-base will be one of the ways to contribute to the improvement of the transparency of the market.
- c) to play an intermediary function should actual disruption of fuel supply occur in a State.

A State is eligible for enjoying the function of the System if the State has satisfied an international nonproliferation norm, which the IAEA Board of Governors Meeting should

adopt after careful consideration at the start of the System.

This System is a virtual arrangement: as participating States are supposed to continue to possess and control nuclear fuel supply capacity, the IAEA does not need to actually possess or store them.

3. Discussion

- (1) The proposed system covers not only uranium enrichment service but also all important activities of the front-end of nuclear fuel cycle, namely, uranium supply, uranium storage, conversion, enrichment and fuel fabrication, taking into consideration the concern of some countries that market failure might occur at various junctures. Furthermore the system is intended to prevent the occurrence of the market failure in the first place by asking the IAEA to gather data and information about each State's supply capacity, analyze them and report the market situation from the viewpoint of the susceptibility to the market failure. Therefore it can be said that these functions are complementary to the six-nation proposal.
- (2) Whereas the six-nation proposal is based upon a dichotomy between supplier States and recipient States, a country like Japan, which is producing enriched uranium for domestic uses but not exporting it currently, though planning to export it in the future, cannot be categorized under the dichotomy. As establishing a system for supply assurance is an expression of the will of the international community to prevent the occurrence of isolation of a member state from the international nuclear fuel supply market, it is desirable to make it possible for as many States as practicable to participate in and contribute to the system on a voluntary basis based on their diverse state of the capacity and situation as proposed in this paper.
- (3) It is clear that the success of the proposed system will depend on the cooperation of the industries. Although it is known that the last thing the industries want to cooperate is something that would interfere in the market, it is hoped that the industries will find a win-win situation in the cooperation to the system we propose as the establishment of it should be useful for the sound expansion of the nuclear power production and nuclear fuel supply business, in particular.
- (4) The introduction of the proposed system will not pose any new international obligation to member States other than the international norm of nuclear nonproliferation to be used as the condition for eligibility. The norm, we expect, should be a universal one any members should observe. What we do expect by the introduction of the system is the effectiveness of such an arrangement in encouraging States to enjoy the benefit of economy in terms of fuel cost and the start-up costs as well as reliability provided by a diverse well-functioning market for uranium and fuel supply services and thus reduce the incentive to develop uncompetitive, small-scale enrichment and/or reprocessing capabilities within their national borders.