

Information Interaction with IAEA on Nuclear Import and Export As an Integral Part of State System of Accounting for and Control of Nuclear Material in the Russian Federation

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The foundation of Russian nuclear legislation is Russian Federation Law on Atomic Energy from 21st November 1995 №170. It reflects nuclear legislative standards and concepts including nonproliferation, export controls, nuclear safety. In particular according to Article 22 nuclear material irrespective of ownership is to be accounted for and controlled of in the State System of Accounting for and Control of Nuclear Material (SSAC).

According to RF government regulation from 06th May 2008 №352 SSAC is a component of state system of nuclear energy management and among other things should provide application of IAEA safeguards and implementation of bilateral nuclear material control agreements.

It follows from this that reporting to IAEA is an integral part of SSAC, though the system of reporting to the Agency has been developing independently from its origination for quite a long time.

Historically in the USSR the establishment and development of reporting to IAEA got much earlier than of SSAC.

It's essential to emphasize that it is a matter of the State System of Accounting for and Control of Nuclear Material, because nuclear material in the USSR had been accounted for from the origination of Minatom, but accounting concepts of those times were somewhat different from the actual ones and the status of those system didn't allow to call it State.

In 1969 the USSR ratified Nuclear Non-Proliferation Treaty. According to Article III of NPT only non-nuclear-weapon States were obliged to accept the safeguards but nevertheless in 1974 the USSR in the interest of assisting the IAEA in its safeguards activities decided to provide the Agency with information on exports and imports of nuclear material

. According to INFCIRC/207 the USSR like other nuclear-weapon States entered into voluntary obligations to provide the Agency with information on nuclear import and export

From this point onwards information interaction activity started, first practical works on reporting to IAEA began to realize.

In 1985 the Agreement between the USSR and the Agency for the application of safeguards (INFCIRC/327) entered into force. It contained a list of requirements to content, forms and structure of reporting information

. Based on these requirements a software using for collecting, keeping of nuclear import and export notifications and for preparation of summary reports to IAEA was designed. The software had been working for 25 years with a few insignificant modifications.

As regards SSAC in Russia it was building up in the following way. The first regulations on the actual State System of Accounting for and Control of Nuclear Material released in 1996 following Russian Federation Law on Atomic Energy. Practical construction of the System started in 1998. To the beginning of 2000-s basic rules and regulations had been elaborated, the

main components of SSAC had been developed

. In particular, Federal Automated Information System of Accounting for and Control of Nuclear Material (FIS) was put into operation. FIS reporting is based on the unified system of nuclear material classification and coding. FIS is an integral part of SSAC and its fundamental information component. From 1st January 2002 all Russian organizations handling nuclear material provide inventory listings and inventory change reports to Situation and Crisis Center of Rosatom which is FIS operating organization.

In 2007-2009 FIS was considerably modified. First of all it was connected with changes in Russian nuclear legislation at 2007-2008 including changes in Russian Federation Law on Atomic Energy, and also with some shortcomings exposed by years of exploitation. As a result of these modifications, in particular, reporting subject changed (organizations began to provide reports by reporting zones of the organization instead of organization in whole); reporting procedure and form of ICR changed; information about ownership of nuclear material was included in reports; and a number of less important changes was added

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At the same time State Corporation “Rosatom” took a decision to entrust reporting to IAEA to FIS operating organization, which led to the generation of the common center for treatment of nuclear material data in Situation and Crisis Center of Rosatom. The generation of the common center gave extra potential for analysis of information about nuclear material provided by different sources

and brought out the necessity of FIS and reporting to IAEA integration

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This work has been carried on from 2010 till nowadays. Authenticity and consistency of reporting information is particularly controlled of. One of measures, for example, is interaction between Rosatom and Federal Customs Service of Russia, as a consequence of which in 2011 information interaction agreement was signed. Under this agreement Federal Customs Service of Russia provides Rosatom with information on imports and exports of nuclear material contained in customs declarations. This information is compared with ICRs provided by reporting zones of organizations to FIS and with notifications for IAEA.

It's worth reviewing briefly the two more tasks carried out by Situation and Crisis Center of Rosatom. Although they haven't a direct bearing to import and export of nuclear material, they acts as extra interlinks between reporting to FIS and to IAEA. These tasks are carried out with regard to the existence of the reporting systems and with maximum integration into them.

1) Reporting from the facilities under IAEA safeguards.

The Russian Federation had provided IAEA with an extensive List of the facilities, which may be put under safeguards. The Agency selected the facility of International Uranium Enrichment Center to apply safeguards. Situation and Crisis Center of Rosatom provides IAEA with state reports on IUEC nuclear material and controls the procedure of this reporting.

2) Undertaking of international agreements with Australia, Canada, Japan and the USA necessitated accounting for nuclear material under international obligations.

The system of information interaction with IAEA has also undergone some changes. In particular, analysis module for comparison of IAEA reporting information and FIS reporting information was developed.

At present information interaction with IAEA in accordance with the terms of INFCIRC/207, INFCIRC/327 and INFCIRC/327/Add.1 consists of the following:

1) Situation and Crisis Center of Rosatom provides IAEA with:

- Summarized report on RF exports and imports of nuclear material (including information regarding source material which has not reached the composition and purity suitable for fuel fabrication or for being isotopically enriched) to a non-nuclear-weapon States within 30 days of termination of the month in which nuclear material has been exported or imported;
- Confirmation of exports and imports of nuclear material to nuclear-weapon States within 30 days of receiving from IAEA a statement of consistency in exports and imports of nuclear material relative to RF;

2) IAEA informs Situation and Crisis Center of Rosatom:

- Quarterly:
 - Statements of consistency in imports of nuclear material relative to RF;
- Semi-annually:
 - Statements of consistency in exports of nuclear material relative to RF;
 - International List of facilities with IAEA codes;
 - List of relevant authorities chargeable with exports and imports of nuclear material in States.

IAEA requests consistency of exports and imports of nuclear material if necessary.

Messaging with IAEA is realized by email using enciphering program.

At present the automated system of accounting for imports and exports of nuclear material is under modification to improve reliability and safety of computer appliance.