

European Commission and IAEA celebrate 30 years' co-operation on nuclear safeguards

Vienna, 13 October 2011 - Today the European Commission and the International Atomic Energy Agency (IAEA) celebrate 30 years of cooperation in the safeguarding of nuclear materials and facilities. This anniversary is marked by an event at the IAEA Headquarters in Vienna. The Joint Research Centre (JRC) of the European Commission has provided scientific and technical support to the work of IAEA since 1981, with over 100 scientists and technicians working on more than 25 projects. The anniversary is also an opportunity for both parties to plan their future joint activities.

*"Nuclear safety and security are absolute priorities for the EU and in this context expertise on nuclear safeguards is extremely important for global security," says **Dominique Ristori, Director General of the Joint Research Centre**, "The JRC is constantly at work on state of the art technologies for nuclear safeguards and training of nuclear inspectors to stay ahead of the evolving challenges, in its long-standing cooperation in support of the Agency's mission."*

*"The Joint Research Centre has provided us with vital scientific and technical support which has helped us to implement safeguards more effectively", said **Herman Nackaerts, Deputy Director General for Safeguards at the IAEA**, "This has had a positive impact on the security of all the citizens of the European Union and beyond".*

An important chapter in the collaboration between the two organisations is training: high-quality training programmes are provided by the JRC for the next generation of IAEA and EURATOM Inspectors. Other examples of cooperation include special tools to improve environmental particle analysis, a 3D laser-based verification system of nuclear facilities, new nuclear reference materials, and secure sealing for underwater nuclear spent fuel assemblies.

Future cooperation between the JRC and IAEA will be in line with the new priorities of the IAEA to further increase the safeguards' effectiveness and efficiency, through a customized approach increasingly focused at national level. This also involves the support of the European Commission in establishing the new IAEA safeguards laboratory in Seibersdorf, Austria.

Background

Examples of joint JRC-IAEA projects

➤ **Training the next generation of IAEA Inspectors**

The JRC has a proven track record in providing the IAEA with high-quality training programmes. Ensuring that a State abides by its non-proliferation commitments is becoming increasingly dependent on an Inspector's knowledge of novel detection techniques and equipment, more accurate analyses and the ability to handle more complex information and data.

The JRC has been requested by the IAEA to continue its training programmes to help ensure that its inspectors are well-equipped to accomplish their on-site tasks and to draw appropriate safeguards conclusions. The training programme covers well-established safeguards instruments and methods as well as new generation of methodologies aimed at the detection of undeclared activities.

➤ **Special tools to improve environmental particle analysis**

To improve its ability to detect undeclared nuclear activities the IAEA recently installed a new Large Geometry Secondary Ion Mass Spectrometer (LG-SIMS) in the Environmental Sample Laboratory located in Seibersdorf. In parallel, a new dedicated LG-SIMS laboratory is being installed at the JRC in Karlsruhe, Germany, and will be inaugurated at the beginning of 2012. JRC and IAEA will enhance their cooperation to reach high level detection of undeclared activities through the use of these laboratories.

➤ **Spot the change: 3D Laser-based Verification System**

One of the tasks of nuclear inspectors is to check that nuclear facilities are built exactly as they were officially declared and that no undeclared design changes have taken place. In support of IAEA, JRC scientists have developed a laser-based system that is able to detect very small deviations. The 3D Laser-based Verification System has been extensively used in the Rokkasho reprocessing plant in Japan and is now being installed in other facilities in Europe.

➤ **Secure Sealing**

During the last 30 years, the Seal & Identification Laboratory (SILab) of the JRC developed and produced ultrasonic bolt seals requested by the IAEA in order to seal underwater nuclear spent fuel assemblies. In 2011, after a training session at JRC in Ispra, Italy, a joint team of inspectors from the IAEA and EURATOM Safeguards and the European Commission's Directorate-General for Energy successfully sealed the first nuclear fuel bundles produced by the Cernavoda II reactor in Romania.

About the JRC

The Joint Research Centre (JRC) is the European Commission's in-house science service. Its mission is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of European Union policies. The JRC serves the common interest of the Member States, while being independent of special interests, whether private or national.

About IAEA

The International Atomic Energy Agency (IAEA) serves as the world's foremost intergovernmental forum for scientific and technical co-operation in the peaceful use of nuclear technology. Established as an autonomous organization under the United Nations (UN) in 1957, the IAEA carries out programmes to maximize the useful contribution of nuclear technology to society while verifying its peaceful use.

Further information

Activities of the Joint Research Centre are available on: www.jrc.ec.europa.eu

Activities of the IAEA are available on: www.iaea.org

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