

**Statement on behalf of the Euratom Community**  
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**Directorate-General for Energy, European Commission**  
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Mr President, Mr Director General, Ladies and Gentlemen,

On behalf of the European Commission speaking for the Euratom Community, I welcome the comprehensive role that the International Atomic Energy Agency plays in promoting the peaceful use of nuclear energy, its efforts to advance global nuclear safety and global nuclear security.

First of all, let me congratulate you, Mr. President, on your election as President of this General Conference. The European Commission would also like to express its appreciation to the IAEA Director-General and the Secretariat for their professional and impartial work, and to assure them of our unwavering support. We also welcome the applications for membership by Antigua and Barbuda, Barbados and Turkmenistan.

The cooperation between the IAEA and the Euratom Community is long and well-established, particularly in the area of nuclear safeguards. Over the years, the cooperation has been extended to cover nuclear safety, radiation protection, and waste management as well as emergency preparedness and response.

### **European Energy Union**

Ladies and Gentlemen,

The European Union and its Member States are facing energy challenges that are increasingly complex and could have serious and unexpected consequences on the security of energy supply. They can be impacted by crises such as the one between Russia and Ukraine or by climate change implications. With a common approach, the EU

can significantly contribute to coping more efficiently with energy challenges on the continent and globally.

The Commission's Strategy for a European Energy Union, which was adopted in February 2015 builds on five mutually reinforcing dimensions:

- energy security, solidarity and trust;
- the internal energy market;
- energy efficiency as a contribution to the moderation of energy demand;
- decarbonisation of the economy and
- research, innovation and competitiveness.

The focus of the nuclear industry in the EU is changing. We are moving from a phase of mainly operation of existing power plants built 30 to 40 years ago, to a phase of replacing or prolonging aging capacity. Such changes bring forward a number of challenges:

Firstly, the market in which nuclear power plants operate has changed significantly. Since the opening of the electricity markets in the late 90's, the increased use of spot markets has led to increasingly volatile wholesale prices for electricity. The influx of wind and solar power with low marginal costs has further led to lower and more volatile electricity spot prices in some EU wholesale markets.

Secondly, the accident in Fukushima has changed public perception and the nuclear energy policy in some countries.

Thirdly, efficiency in the building of new generation reactors has to be improved as experience with new designs is accumulated and competition increases.

Last but not least, the geopolitical framework has changed. We have a European Energy Security Strategy and we want to build an Energy Union. Investors in energy, including in nuclear energy, will have to show how their projects contribute to increased security of energy supply for the EU.

As part of the Energy Union strategy, the Commission presented in August proposals to deliver a new deal for energy consumers, to launch a redesign of the European electricity market, to update

energy efficiency labelling and to revise the EU Emissions Trading System.

### **Financing of nuclear generation capacities**

European Union countries will be faced with important investment decisions regarding their national energy mix. Nuclear is part of the equation in the transition to a low carbon economy together with renewable energy sources and improvements in energy efficiency.

For the nuclear sector this will translate into long-term capital intensive investments into nuclear new builds and the continued operation of existing plants.

In the coming months, the Commission intends to publish a Nuclear Illustrative Programme, the so-called PINC, which will outline the needs for investment across the fuel cycle in Europe. It aims to contribute to a discussion on longer term investment planning for new nuclear power generation capacity, the necessary investments for the long term operation of existing nuclear plants and the necessary investments in the back-end of the fuel cycle.

### **Nuclear safety - EU/Euratom legislative framework**

The European Union has a coherent and comprehensive legal framework for a safe, secure and sustainable use of civil nuclear power by all the countries that choose this source of energy and also in those fields that are not related to electricity generation.

After the Fukushima accident, the European Union updated and strengthened its nuclear safety legal framework. A revised Nuclear Safety Directive was adopted in July 2014. By summer 2017, EU Member States will have to implement the provisions of this directive in their national laws.

The reassessment of the safety of nuclear power plants in the EU - the stress tests - that the Commission carried out together with the Member States following the Fukushima accident, has reached the stage where required safety improvements are being implemented by nuclear operators. The Commission assessed the progress in collaboration with the national nuclear safety regulators in April 2015

and will continue to follow the implementation of the measures in EU Member States.

### **Spent fuel and radioactive waste management**

After the adoption of the radioactive waste management Directive on the responsible and safe management of spent fuel and radioactive waste in 2011, national programmes and reports had to be submitted this August. The Commission is analysing them and plans to report to the Council and the European Parliament on the implementation of the Directive in 2016.

The Commission is also collaborating with the IAEA on the implementation of the peer reviews required by the Directive and signed a contract with the IAEA to support the development of guidelines of the ARTEMIS peer review service.

The Commission represented Euratom at the 5th Joint Convention meeting in May 2015 and also participated in the General Committee and Chaired Country Group 2 of this meeting. It is monitoring the funding regimes in the Member States in view of properly applying the "polluter pays" principle and has prepared the Third report to the European Parliament and the Council on funding of decommissioning and waste management. It is also finalising the 8th Situation Report on Radioactive Waste and Spent Fuel Management in the EU, foreseen to be published at the beginning of 2016.

### **Basic safety standards**

Since December 2013, the European Union has a revised Basic Safety Standards Directive. The revised Directive modernises and consolidates the European radiation protection legislation and takes into account recent international recommendations and standards.

On this occasion, I would like to acknowledge the valuable contribution made by IAEA to the work of the Commission to support a coherent implementation of both the Euratom BSS and the International BSS.

During this General Conference, the IAEA and the European Commission have organised a side event dedicated to the

implementation of both Euratom and International basic safety standards. It was focused on medical applications of ionising radiation.

## **Nuclear safety cooperation with the IAEA**

Ladies and Gentlemen,

The cooperation between the International Atomic Energy Agency and the European Commission has a long history, but has been recently enhanced.

Since two years, annual meetings at the level of senior officials are organised. These meetings bring together officials from the Commission and European External Action Service with officials from the Agency to coordinate cooperation to achieve common goals in the areas of Nuclear Safety, Nuclear Security, Nuclear Safeguards, Nuclear Applications, Security of Supply, and Nuclear Research and Innovation.

Euratom also supported the IAEA in drawing up its report on the Fukushima-Daiichi accident. We demonstrated our commitment by providing technical experts from the JRC to analyse accident findings, review data and provide text as well as review early drafts of the report.

It is essential that Euratom and IAEA ensure that the momentum to improve global nuclear safety is maintained and further increased where necessary building on the Fukushima report and the lessons learnt from the on-going investigations on the effect of the meltdowns and radioactive releases from the accident.

Another example of closer cooperation are the synergies in areas of competence building and emergency preparedness and response. This work is taking place under the auspices of the Senior Officials Liaison Committee established by the Memorandum of Understanding for a partnership that was signed in 2013 between the Commission and the Agency.

The Commission, by its actions in the EU and outside, fully supports the IAEA Action Plan on Safety and contributes to the efforts of the Agency to strengthen its nuclear safety standards. These efforts need

to be pursued in the future, with the involvement of the Member States.

The Commission cooperates closely with the IAEA on the implementation of nuclear safety projects in third countries and provides considerable support to the Technical Cooperation programmes and to the implementation of the Agency's Action Plan. In this framework, we have also developed joint projects with the Agency.

The Commission welcomes the work performed by the IAEA in organising "Integrated Regulator Review Service" or, shortly, IRRS missions to EU Member States as foreseen by the Directive on Nuclear Safety. Comparable peer-review missions in the area of waste safety are being developed together.

### **Nuclear Safety Convention**

At the Diplomatic Conference held last February, all the attending Contracting Parties, including the 28 EU Member States and the Euratom Community, agreed upon a text for a Declaration containing a set of principles and implementation mechanisms to improve and enhance the safety of nuclear power plants.

The Commission, on behalf of the Euratom Community, calls for significant efforts among all Contracting Parties, in implementing the Declaration with a view to prevent nuclear accidents and, should an accident occur, mitigate their consequences on the population and long-term off-site contamination.

Contracting Parties National Reports to be submitted in the framework of the next CNS Review Meeting in 2017 will be the basis for ensuring the proper conduct of their peer reviews to which all the Contracting Parties should actively commit themselves.

### **Emergency preparedness and response**

The Euratom Community has been operating since years a European system for quick and automatic exchange of environmental radiation data. Today this exchange system includes not only radiation dose rate data, but also a wide range of nuclide specific environmental

radiological data presented through a sophisticated web-based user interface.

The Commission will be happy to continue collaborating in this area in order to improve the transfer of information among the IAEA Member States and to seek further areas of cooperation to strengthen emergency preparedness and response measures.

Emergency Preparedness and response is a priority for the Commission and the EU Luxembourg Presidency of the Council of Ministers. EU cross border cooperation in the case of EP&R will be strengthened. Within the framework of preparation for the implementation of the BSS Directive the Commission is organising workshops and will intensify the dialogue with the civil society.

**Cooperation in Nuclear Safeguards and implementation of the Joint Comprehensive Plan of Action (JCPOA) as an instrument to address a non-proliferation crisis and to develop regional co-operation**

The European Commission welcomes the Iran nuclear agreement, which marks a turning point in relations between Iran and the rest of the world. The European Union, as the co-ordinator of the E3+3 countries, has played a leading role in facilitating this agreement. We remain fully committed to contribute to the implementation of the agreement.

The Joint Comprehensive Plan of Action (JCPOA) encompasses agreed limitations on Iran's nuclear programme, with the objective that in the end this will give the assurances that Iran's nuclear program is exclusively peaceful; it also foresees the progressive and reversible lifting of all international and national sanctions related to Iran's nuclear programme, and steps on access in areas of trade, technology, finance and energy.

The Euratom Community will work, including in close co-operation with the IAEA, in order to ensure the effective implementation of the agreement.

Support in a variety of nuclear areas of interest to Iran can be envisaged, covering a broad spectrum of activities, from nuclear

safety assistance to safeguards support to the IAEA in the medium to longer term.

All 26 Non-Nuclear Weapon States in the European Union have Comprehensive Safeguards Agreements in place together with the Additional Protocols. Integrated Safeguards are fully implemented in the EU since January 2010. The newest EU Member State, Croatia, is expected to accede to the Euratom Community's Safeguards Agreement in the very near future.

The Euratom Community continues to provide important technical support to the IAEA through the European Commission Cooperative Support Programme in the field of Safeguards, which is one of the biggest support programmes in this field. In 2014, the European Commission actively supported the IAEA in the preparation of the Safeguards Symposium.

Euratom also recognized the need to strengthen the Agency's capability to provide credible and timely analysis of safeguards samples. Since 2010, the Community has committed more than €10 million from the Instrument for Stability to the international ECAS project enhancing the IAEA's Safeguards Analytical Services in Seibersdorf and the Trans-Uranium Institute in Karlsruhe supports the IAEA with analytical services.

### **Cooperation in Nuclear Security**

Euratom has continued its support and collaboration with the IAEA in nuclear security. The Practical Arrangement signed in 2013 is under implementation, closely followed by both parts. The EU CBRN Centres of Excellence, funded by the Instrument Contributing for Stability and Peace, have taken a stronger role in the regions. The synergies between these and the IAEA Network of Nuclear Security and Support Centres are being explored by bringing together the national contact points of both initiatives to ensure the maximum benefit for the Partner Country with the most efficient use of the resources invested. The two parts establish continuous dialogue through information exchange meetings and international working groups, vital to achieve harmonisation of, for example, best practices and training in border monitoring for RN material.



The EU has also made a contribution of €25 million to the IAEA low-enriched uranium (LEU) Fuel Bank. We are pleased that the IAEA-Kazakhstan Agreement on the establishment of the bank was signed on 27 August and that its legal framework is now established.

Safeguards, security and safety are still seen as separate areas in nuclear governance. While this is justified for well-established technical and legal reasons, given today's overarching challenges, further effort should be put in identifying synergies and proposing implementation measures.

### **Regional nuclear safety cooperation**

Ladies and Gentlemen,

Regional co-operation to promote nuclear safety is a priority for the Euratom Community as it is for the IAEA. We strongly believe in the importance of promoting nuclear safety not only in the EU, but also beyond our borders. The Commission associated to its stress tests all neighbouring countries which operate or own nuclear installations or which have plans for the development of nuclear power.

In the EU Multiannual Financial Framework for 2014-2020 and its External Financing Instruments, €225 million are earmarked for the Instrument for Nuclear Safety Cooperation. This enables the EU to continue to support nuclear safety and safeguards in non-EU countries worldwide.

The new INSC programme will continue past activities and put emphasis on the EU neighbouring countries, Ukraine in particular (where the completion of the Chernobyl projects will require a significant additional effort). It will expand in new areas like regulatory support to mining activities in Africa, regional emergency preparedness and response and environmental remediation of the uranium mining legacy in Central Asia for which the IAEA has a key coordinating role through the Coordination Group for Uranium Legacy Sites (CGULS).

Particular emphasis is being given by the Euratom Community to supporting the Regulatory authorities in third countries. The joint

effort being carried out with the IAEA through the Regulatory Cooperation Forum is worth noting.

The EU projects aim to assist the beneficiary country in the most efficient way and will complement national and other international projects and initiatives, such as the IAEA Technical Cooperation Programme. The Research and Training Programme of Euratom for the period 2014-2018 ("Euratom Programme"), which complements the Horizon 2020 Framework Programme for Research and Innovation, is open to non-EU countries, with Switzerland being associated country to that Euratom Programme. Also in the Seventh Euratom Framework Programme more than fifty entities from fourteen non-EU countries participated in 37% of the fission research projects and beneficial cooperation was accounted in fusion R&D as well, especially with the ITER partners. That international research cooperation policy is indeed underpinned also by the bilateral Cooperation Agreements, respectively on nuclear research and on fusion R&D, between Euratom and several non-EU countries.

### **Fusion**

I would also like to mention the leading role that Europe plays in the ITER project, one of the world's biggest scientific collaborations on the route to fusion as a sustainable energy source. .. Europe has demonstrated consistent leadership in fusion research over the years through JET. France is now hosting the ITER site where the first Tokamak reactor of such a size will be build.

The ITER international organisation involves seven countries representing over half the world's population and is bringing the international community together behind the important and ambitious mission to bring clean and limitless energy into everyday use.

### **Supply of medical radioisotopes**

The fragility of the supply of medical radioisotopes was well demonstrated in the serious shortages in 2009 and 2010. The EU Observatory on the Security of Supply of Medical Radioisotopes and its four working groups, in partnership with the industry, have

strived to mitigate the risk of such events. One major achievement is the successful coordination of planned reactor outages.

The Observatory created the Joint Communication Team (ESA, OECD/NEA and AIPES), which is activated at the potential onset of a shortage and works providing prompt communication to governments in case of supply interruptions, and has been instrumental in recovering the confidence of the medical and patient community in the security of supply. The Observatory is also monitoring and supporting the conversion of HEU to LEU-based medical radioisotope production in Europe.

The mitigation of the risks surrounding the supply of isotopes is also tackled through research on the successful conversion to low enriched fuel for high-performance research reactors. This is pursued, in particular, as part of the HERACLES-CP project launched in 2015 amongst the first Horizon 2020-Euratom grants: "Towards the Conversion of High Performance Research Reactors in Europe".

## **Research and training**

The emphasis of the Euratom Research and Training Programme for 2014-2018 is on continuous improvement of nuclear safety (including waste management and emergency preparedness), security (including safeguards) and radiation protection. The relevant Euratom budget consists of €315 million for indirect actions for nuclear fission, safety and radiation protection, and €559 million for direct actions.

Furthermore, nuclear safety and security have been given increased emphasis in the Euratom research programs. Moreover research and innovation Agendas have been established by the SNE-TP ("Sustainable Nuclear Energy - Technology Platform") and the IGD-TP ("Implementing Geological Disposal of Radioactive Waste") - Technological Platform) via a large consultation using IAEA expertise and been implemented through significant number of scientific projects and involvement of Euratom experts. The current launch from SNE-TP of the Euratom supported NUGENIA Association to promote Nuclear Safety research, offers an even

greater opportunity for technical cooperation in this area. EC RTD and IAEA services are active in determining concrete terms for this cooperation.

Education and training as well as knowledge management in nuclear fission and radiation protection are crucial issues of common interest for both Euratom and the IAEA. European projects, whether for academic education or for vocational training, are defined in synergy with the stakeholders in terms of learning outcomes referring not only to knowledge but also to skills and competences (or attitudes) that are requested for job qualification. This is aligned with the IAEA approach in this domain. New "Euratom Fission Training Schemes" have been launched in collaboration with IAEA, with emphasis on safety design and/or safety culture, such as: the NUSHARE project ("Project for sharing and growing nuclear safety culture competence"). More generally the EU Research and Innovation programme (Horizon 2020) will continue to focus research towards safety and security in all domains.

The Joint Research Centre's direct research and training activity focuses on nuclear safety, safeguards and security but also on increasing excellence in the nuclear science base for standardisation and in fostering knowledge management, in line with the policies of the European Union. A mapping exercise between the IAEA and EC activity is ongoing to optimize resources and avoid overlapping activity.

## **Conclusion**

Mr President, Mr Director General, Ladies and Gentlemen,

Nuclear safety, security, and safeguards concern us all: countries which use civil nuclear power as well as those which do not use it. We all need common understanding of relevant issues and close co-operation in resolving them. In nuclear countries this applies both to new build projects and to existing capacities, especially if they are to operate longer than their original lifetime.

We must take full advantage of international organisations and common institutions to continue to develop nuclear power in a safe and sustainable manner.

I believe that this conference will further contribute to achieving this objective.

Thank you for your attention.