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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

Communication on nuclear non-proliferation

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1. INTRODUCTION

The political context in recent years has led the international community to focus attention on the reduction of proliferation risks at the UN, G8 and in other international fora. With the renewed global interest in nuclear energy and the growing number of countries looking into possibilities to engage a civil nuclear energy programme, there is an even clearer need to strengthen international guarantees of non-proliferation.

The Non-Proliferation Treaty (NPT)[1] sets out the general framework to address the non-proliferation challenge and entrusts the International Atomic Energy Agency (IAEA) to play a key role in this area. The UN Security Council acts as authority of last resort to address the cases of major breaches to non-proliferation commitments.

The European Union, the Community and their Member States act, within their respective competences, in multiple ways in this area, comprising actions in the framework of the Common Foreign and Security Policy (CFSP) as well as those founded on the Community Treaties. In this way, the EU can provide a considerable contribution to addressing the non-proliferation challenge also at global level, based on its extensive experience in dealing with nuclear power and the range of instruments at its disposal.

In its recent Communication on "Addressing the international challenge of nuclear safety and security"[2], the Commission announced that it would address to the Council and the Parliament a specific Communication on the various EU instruments available in the field of nuclear non-proliferation, in particular under the Euratom Treaty.

The purpose of this Communication is therefore to set out the global context highlighting the need for strengthened international guarantees of non-proliferation (Section 2), to present the main available EU instruments in this field, in particular those under the Euratom Treaty, (Section 3), and the possible ways these instruments could be used to develop – in close coordination with the IAEA – stronger international guarantees of non-proliferation (Section 4).

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[1] Opened for signature in July 1968, the Treaty entered into force on 5 March 1970. A total of 189 parties have joined the Treaty, including the five nuclear-weapon States.

[2] Commission Communication on "Addressing the international challenge of nuclear safety and security", COM (2008) 312 final of 22.5.2008.

2. GLOBAL CONTEXT: THE NEED FOR STRENGTHENED INTERNATIONAL GUARANTEES OF NON-PROLIFERATION

Rising energy demand at global level, coupled with concerns on security of supply and the recognition that there is a general need to reduce CO2 emissions in order to mitigate the effects of climate change, prompts a renewed interest in nuclear energy worldwide.

From the outset it should be stated that the international Non-Proliferation Treaty acknowledges the right of all NPT Parties to develop and use nuclear energy for peaceful purposes.

The proliferation risk from the use of nuclear energy essentially may come from two specific nuclear activities, namely enrichment of uranium and the reprocessing of spent nuclear fuel. These activities require very complex and costly technologies which can only be economically justified if a market demand exists from a large number of nuclear power plants.

In the present context of growing interest for nuclear energy, the international community must do everything possible to minimize the risks of nuclear security incidents and/or diversion of either nuclear materials or technology to non-peaceful uses. Therefore, the international community should ensure that conditions continue to be met regarding nuclear non-proliferation, including the norms of the NPT and of the IAEA.

At global level, the key international actor in preventing nuclear proliferation is the IAEA with its safeguards activities deriving from the NPT and the enhanced safeguards regime based on the Comprehensive Safeguards Agreements and Additional Protocols, and the right to possess fissile nuclear materials. Recent global actions in this area include an initiative endorsed by the G8 Summit 2008, highlighting the importance of non-proliferation/safeguards, safety and security ("3S") in the development of nuclear energy[3]; the US initiative Global Nuclear Energy Partnership (GNEP), the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO) and the Global Initiative to Combat Nuclear Terrorism.

In addition to the NPT, a United Nations Convention was adopted in 2005 concerning the suppression of acts of nuclear terrorism[4]. The Nuclear Suppliers Group also plays a significant role in particular through the implementation of Guidelines for nuclear exports (see also Section 3.2).

In the EU, several instruments are available to further nuclear non-proliferation objectives (Section 3 below). In addition, the EU has the world technological leadership for uranium enrichment and reprocessing of spent fuels. In this context it is important to highlight that the European markets for enriched uranium and the reprocessing of spent fuel are competitive, reliable and transparent.

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[3] Report on International Initiative on 3S Based Nuclear Energy Infrastructure, G8 Summit, Hokkaido, Japan, 9.7.2008.

[4] Adopted by the UN General Assembly on 13 April 2005.

In its Communication on "An Energy Policy for Europe"[5], the Commission identified the promotion of non-proliferation as one of the key priorities to be pursued by an effective external EU energy policy. The importance of non-proliferation for the use and future development of nuclear energy was reaffirmed in the Communication updating the Nuclear Illustrative Programme[6] in the context of the Second Strategic Energy Review[7]. In this respect, the Commission highlighted the need for strengthening cooperation between Euratom and the IAEA in order to achieve the desired international effect. In this context, a Joint Statement was signed on 7 May 2008 between the Commission and the IAEA[8] to reinforce mutual cooperation on nuclear energy.

Recently the European Parliament reaffirmed the particular importance of the Euratom Treaty in connection with the commitment of Member States which use nuclear energy to complying with international security and non-proliferation standards[9].

3. MAIN EU INSTRUMENTS IN THE NON-PROLIFERATION AREA

To further its nuclear non-proliferation objectives, the EU has several instruments available, mainly in the CFSP framework, the EC and the Euratom Treaty.

In the context of the CFSP, non-proliferation is a key policy objective, in particular since 2003 when the EU adopted a European Security Strategy[10] followed by the EU strategy against the proliferation of weapons of mass destruction (WMD)[11]. The report on the implementation of the European Security Strategy approved in December 2008[12], together with the New Lines for Action in combating the proliferation of weapons of mass destruction endorsed by the Council (GAERC) on 8–9 December 2008[13], confirmed that WMD threats have further increased and remain a high concern on the EU political agenda. It is clear that the Commission will play an important role in implementing the New Lines for Action through different Community instruments and policies. The EU has also provided its full backing to the UN Security Council Resolution 1540[14], and Council Joint Actions are on-going in support of the International Atomic Energy Agency (IAEA) actions.

Furthermore, Community instruments, based on the EC Treaty as well as the Euratom Treaty, in particular the Instrument for Nuclear Safety Cooperation

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5 COM (2007) 1 final, 10.1.2007.
6 COM(2008) 776 final, 13.11.2008.
7 COM(2008) 781 final, 13.11.2008.
8 Press release IP/08/719, 7.5.2008.
9 European Parliament report on conventional energy sources and energy technology, A6-0348/2007 final, 26.9.2007.
10 "A Secure Europe in a Better World", adopted by the European Council on 12.12.2003.
11 Council document 15708/03, 12.12.2003.
12 Council document S407/08, 11.12.2008.
13 Council document 17172/08, 17.12.2008.
14 On the prevention of the proliferation of weapons of mass destruction, adopted by the UN Security Council on 28 April 2004, S/RES/1540 (2004).

(INSC[15]), the Instrument for Pre-Accession (IPA[16]) and the Instrument for Stability (IfS[17]) allow for non-proliferation cooperation with third countries. Coherence and synergies among all EU instruments, and particularly with the Instrument for Stability, is essential to support an effective implementation of the WMD strategy.

Through the Instrument for Stability, the Commission supports third countries to develop training and assistance in the Chemical, Biological, Radiological and Nuclear (CBRN) fields. The focus, so far, has been on the countries of the former Soviet Union. In 2009–2011, EU assistance will be consolidated there while being extended to new regions of concern, including South-East Asia, the Middle East and parts of Africa, in particular in the nuclear and biological fields. The implementation of the UNSC Resolution 1540 will be furthered by supporting the IAEA (nuclear fuel bank initiative), engaging former WMD scientists, tackling nuclear smuggling – including deceptive financial practices – and contributing to a more efficient export control system and border monitoring. Regional CBRN "centres of excellence", relying on JRC expertise, will be instrumental in this context. With around 300 million EUR for the period 2007–2013, the Instrument for Stability is a major instrument on non-proliferation seeking to develop a CBRN safety and security culture throughout the world, together with other EU instruments.

As from its origins the main objective of the Euratom Treaty was the peaceful development of nuclear energy. Therefore many provisions of the Treaty cover activities and institutions which contribute to non-proliferation of nuclear materials, including at international level, where the Community may negotiate and enter into agreements with third States and international organizations (Chapter 10 Euratom). The main Euratom related activities linked to the non-proliferation objective are the following:

3.1. Safeguard activities

Euratom Safeguards were established by Chapter 7 of the Euratom Treaty already a decade before the NPT was opened for signature. The Commission has the responsibility to verify that fissile nuclear materials (plutonium, uranium and thorium) are not diverted from their intended uses as declared by the Community users, either those in the nuclear industry such as nuclear reactor operators and operators of enrichment and reprocessing plants or those outside the nuclear industry, such as research centres and medical institutes. Nuclear safeguards (inspections and related nuclear material accountancy) form the first line of defence against the diversion of nuclear materials from declared activities to non-peaceful purposes.

Since the entry into force of the NPT, the IAEA has been given the role of ensuring that nuclear non-proliferation commitments are met at the global level.

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15 Council Regulation (EURATOM) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation, OJ L 81, 22.3.2007.

16 Council Regulation (EC) No 1085/2006 of 17 July 2006 establishing an Instrument for Pre-Accession Assistance, OJ L 210, 31.7.2006.

17 Regulation (EC) No 1717/2006 of the European Parliament and the Council of 15 November 2006 establishing an Instrument for Stability, OJ L 327, 24.11.2006.

The Euratom safeguards system acts as a collective system of accounting for and control of nuclear material for all the EU Member States[18], for internal purposes and under the safeguards agreements with the IAEA. These basic safeguards agreements have been concluded between Member States of the European Union, Euratom and the IAEA.

Inspectors from the IAEA therefore also inspect nuclear facilities in the EU. Both IAEA and Euratom inspectorates work in close co-operation to apply safeguards in the EU. Inspection activities are carried out in full coordination using common equipment. Nonetheless, each inspectorate draws its independent conclusions from inspection activities.

The close co-operation with the IAEA extends to the implementation in the Community of the Additional Protocols to the safeguards agreements with the IAEA, which complement the IAEA safeguards system, enabling it to detect, beyond diversion of declared materials, undeclared nuclear activities.

An Additional Protocol to each of the respective safeguards agreements is in force in all EU Member States. The Commission closely follows the transition of the few remaining new Member States with respect to their adherence to the corresponding trilateral safeguards agreement including the Additional Protocol between Euratom, the IAEA and the non-nuclear-weapon States in the EU and the resulting suspension of their bilateral safeguards agreements with the IAEA.

The Commission also supports the transfer of methodologies for safeguards through the implementation of various Community instruments. Since the mid 1990's, the Commission's TACIS and now INSC programmes support in particular the transfer of methodology in nuclear material accounting in the CIS countries, and the Commission is preparing to do the same in other third countries.

3.2. Health and safety, physical protection, illicit trafficking and export controls

On the basis of the health and safety provisions (Chapter 3 Euratom), there is well established legislation on shipments of radioactive substances between Member States[19], on the control High-activity Sealed Radioactive Sources and Orphan Sources[20] and the Shipment Directive[21] complementing it. All these provide for licensing, authorisation and notification procedures which aim to guarantee that radioactive materials are not possessed, used or transported without appropriate regulatory control.

Moreover, Euratom has acceded to the international Convention on the Physical Protection of Nuclear Material[22], and negotiated amendments to the Convention regarding matters covered by Community competence. Physical protection extends

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18 Including the nuclear material in the civil nuclear fuel cycle of the nuclear-weapon States.

19 Council Regulation (Euratom) No 1493/93, of 8 June 1993, on shipments of radioactive substances between Member States. OJ L 148, 19.6.1993.

20 Council Directive 2003/122/Euratom, of 22 December 2003, on the control of high-activity sealed radioactive sources and orphan sources. OJ L 346, 31.12.2003.

21 Council Directive 2006/117/Euratom, of 20 November 2006, on the supervision and control of shipments of radioactive waste and spent fuel. OJ L 337, 5.12.2006.

22 INFCIRC/274/Rev.1

to the fields of transport of dangerous goods and maritime security, which are relevant for the transport of nuclear or radioactive materials.

In recent years, the European Commission through the Instrument for Stability supports projects aiming at fighting against illicit trafficking. In this context, the Border Management Working Group permits the coordination with the USA and the IAEA.

The Council Regulation 1334/2000[23], which is directly applicable in Member States, is the Community instrument that enables Member States to implement their commitments to the Nuclear Suppliers Group. The Commission also participates in the Nuclear Suppliers Group as an observer and chairs the committee set up by the regulation, which addresses all implementation issues. The Commission regularly makes proposals to update and/or to better align this regulation with our international commitments. In 2006, the Commission proposed a reform of the Community regime of export controls of dual use items in order to strengthen its efficiency, to criminalize the most serious violations and to align it on the provisions of UNSCR 1540 regarding transit and brokering.

Within the broader CBRN context, the Commission is in the process of developing a policy on CBRN security fully taking into account the Council Conclusions of December 2007 on addressing chemical, biological, radiological and nuclear risks. This policy is expected to be put forward in mid-2009. From February 2008 to January 2009, a CBRN Task Force has been working at EU level in order to identify concrete actions which need to be taken in order to strengthen CBRN security in Europe. This Task Force was composed of experts from the Member State authorities, the private sector, Europol, Eurojust and the European institutions.

3.3. Euratom Supply Agency

The current contribution of the Euratom Supply Agency[24] to non-proliferation consists mainly of the following:

– Authorising the conclusion of supply contracts, when nuclear materials are physically imported into the Community or exported from the Community;

– Checking that supply contracts are concluded only for peaceful end-uses and that all supply contracts include a safeguards clause;

– Export authorisation procedures for nuclear materials produced in the Community[25].

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23 Council Regulation (EC) No 1334/2000 of 22 June 2000 setting up a Community regime for the control of exports of dual-use items and technology.

24 Chapter 6 of the Treaty establishes the Supply Agency and provides for its right of option on materials, conclusion of supply contracts by the Agency and for security of supply.

25 In granting its authorisation the Commission takes into account in particular the following criteria: utilisation for non explosive purposes; application of IAEA guarantees; application of physical protection measures; application of specific conditions for a retransfer to another non-nuclear-weapon third State, as well as for subsequent retransfers of this type.

Another important point is the possibility to create commercial or security stocks of nuclear materials, in accordance with Article 72 of the Euratom Treaty.

The Community exercises the right of ownership with respect to "all special fissile materials which are produced or imported by a Member State, a person or an undertaking and are subject to the safeguards" (Chapter 8 of the Treaty). With ownership comes also responsibility for safeguards in a broad sense which includes physical protection measures.

3.4. Research and the Joint Research Centre (JRC)

The specific provisions on research (Chapter 1 of Euratom) are the basis for all nuclear Community research programmes, among which proliferation resistance can be addressed in the development of innovative reactor concepts. Beyond specific safeguards-related activities, the other areas of the Euratom Research and Training Programme are also open for international cooperation, which can be supportive to the non-proliferation objectives of this Communication.

Established by the article 8 of the Euratom Treaty, the Joint Research Centre (JRC) has always been a major actor in support to both the Commission and the IAEA. The JRC has been entrusted with the development of methodologies and technologies for the implementation of safeguards, the training of both Commission and IAEA inspectors and the implementation of the European support programme to the IAEA.

As leading body in the fight against illicit trafficking, the JRC was asked to assist in the transfer of the "acquis communautaire" to new Member States by training their authorities and experts during the enlargement process.

The establishment of the two on-site laboratories at both European reprocessing facilities in France and the UK and its major contribution to the one in Japan, in collaboration with the IAEA, has conferred to the JRC a recognised competence in the safeguarding of the nuclear fuel cycle facilities. Furthermore, the JRC has been entrusted with the technical implementation of the TACIS Programme on nuclear security. Starting in 1994, through the TACIS programme, the Commission has also provided a significant support to the Science and Technology Centres in Moscow[26] and Kiev[27] which have the objective to limit the proliferation of sensitive knowledge obtained by scientists in the framework of WMD programmes. Peaceful research activities, to which 70 000 scientists have taken part, have been successfully supported. Continued support to programmes for the redirection of weapons scientists in CIS countries and other regions is being provided by the Instrument for Stability.

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[26] The International Science and Technology Centre (ISTC) in Moscow deals with the employment and redirection of former weapons scientists from Russia, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan and Tajikistan. It is operated jointly with the beneficiary states and the EU, US, Canada, Japan, Korea and Norway.

[27] The Science and Technology Centre of Ukraine (STCU) in Kiev deals with the employment and redirection of former weapons scientists from Ukraine, Azerbaijan, Georgia, Moldova and Uzbekistan. It is operated jointly with the beneficiary states and the EU, US and Canada.

4. THE POSSIBLE WAY FORWARD

The European Union could, within the respective competences, develop the following key actions in the field of non-proliferation:

– Strengthening support for the Non-Proliferation Treaty, its safeguards and the Additional Protocol;

– Extending cooperation with key nuclear countries through bilateral Euratom agreements, in coordination with measures taken on the basis of the May 2008 Communication[28];

– Contributing to the development of an international system of guaranteed supply of nuclear fuel for countries willing to develop nuclear energy without having their own nuclear fuel cycle facilities.

4.1. Strengthening the support for the Non-Proliferation Treaty and nuclear safeguards

A key priority for non-proliferation is to maintain and intensify the support for the NPT and nuclear safeguards.

The European Union, the Community and their Member States, acting within their respective competences, should, in close cooperation with the IAEA, pursue their efforts to strengthen and promote the credibility of the NPT regime by developing a shared approach towards the risks of proliferation, in particular towards those countries that are either not party to the NPT or are party to it but do not provide sufficient guarantees for its implementation.

In this context concrete measures should also cover in particular the following areas, making full use of all available instruments in a complementary way:

– Reinforcing an international framework for sensitive activities related to the nuclear fuel cycle;

– Contributing to the implementation of the "New lines for action by the European Union in combating the proliferation of WMD and their delivery systems", which include provisions with the view to strengthening export controls and reinforcing the capacity to fight illicit trafficking;

– Examining the most appropriate sanctions in case of violation of non proliferation commitments either by third countries or by EU exporters.

The European Union, the Community and their Member States, acting within their respective competences, could facilitate this process and strengthen their support for the NPT in all areas of their competence. Key measures could include:

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[28] Commission Communication on "Addressing the international challenge of nuclear safety and security", COM (2008) 312 final, 22.5.2008.

– Reinforced cooperation with the IAEA in the field of international safeguards, where the Commission can build on a large number of highly trained Euratom nuclear inspectors with experience of working jointly with the IAEA, and on its experience in applying safeguards on civil nuclear material in nuclear-weapon States.

– Full compliance with the enhanced NPT regime should be an objective when closer cooperation is sought between the Community and third countries, in particular for concluding bilateral Euratom cooperation agreements in the field of peaceful uses of nuclear energy (Section 4.2). Instruments such as the Instrument for Nuclear Safety Cooperation (INSC) and the Instrument for Stability (IfS) could be mobilised for assisting these countries within their respective domains;

– Full compliance with the enhanced NPT regime should be an important consideration when establishing multilateral fuel supply guarantees (Section 4.3).

In future, it is expected that due to the increasing number of countries developing or wishing to develop a nuclear power programme, the IAEA will face a considerable challenge that will mobilise all its means. Ways could be sought to enhance the Euratom technical support and assistance to the IAEA in its tasks, while respecting the competencies of both organisations.

4.2. Extending cooperation with key nuclear countries through bilateral Euratom agreements

Until now Euratom cooperation agreements in peaceful uses of nuclear energy have been concluded mainly with major suppliers (USA, Canada, Australia, Kazakhstan) or customers (Japan).

The conclusion of a bilateral Euratom cooperation agreement in peaceful uses of nuclear energy should become a priority with all key countries wishing to have significant nuclear trade with the EU Member States and/or EU industry. Taking into account the renewed interest in nuclear energy, the EU could contribute by engaging Euratom agreements with third countries to guaranteeing a high level of nuclear security and to ensure that all countries are committed to purely peaceful uses of nuclear energy.

In the Euratom agreements various conditions are inserted regarding safeguards and the Additional Protocol as well as all relevant international conventions (covering such aspects as nuclear safety, waste management, physical protection). When negotiating and signing Euratom international agreements, the Community will thus seek to obtain the adherence of its partners to all relevant international conventions.

Likewise, in all new Euratom agreements, or when amending existing agreements, the Community seeks commitments from the other Party that all transfers of materials or equipment covered by the agreement, are done according to the Nuclear Suppliers Group guidelines. In this way, conditions could be attached for the retransfer of Community origin products to third countries, thus reducing the risk of diversion of materials or technology to unwanted destinations.

4.3. Contributing to the development of an international system of guaranteed supply of nuclear fuel for countries willing to develop nuclear energy without having their own nuclear fuel cycle facilities

The reduction of the proliferation risk requires a strict control of the nuclear fuel cycle. At the same time, it is important to grant legitimate access to nuclear fuel to countries willing to develop nuclear energy under safe and secure conditions. In this context various proposals, including from Member States, have been made concerning guaranteed supply of nuclear fuel for countries that forego having their own nuclear fuel cycle facilities.

The European Union could make a significant contribution to international cooperation in this field, since Europe has the most advanced and secure technologies in the nuclear fuel cycle, especially in uranium enrichment and reprocessing activities which are the most sensitive parts in terms of proliferation risks.

In this regard, the Council in its conclusions on 8 December 2008[29] took the decision in principle to support the establishment of a nuclear fuel bank under the control of the IAEA, to which the European Union could contribute up to 25 million EUR, once the conditions and modalities for the bank have been defined and approved by the Board of Governors of the IAEA. At the same time, the Council welcomed the readiness of the Commission to contribute to this project through relevant Community instruments. In order to speed up the decision making process, a mandate could be given to the Commission to contribute to the definition of the conditions and modalities for establishing the fuel bank. One of the main advantages of a multilateral approach would be to encourage new market entrants to voluntarily abstain from making complex and costly investments which are disproportionate to their needs, while bringing additional guarantees to fuel supply security.

In actively contributing to the development of such an initiative, the European Union could make full use of available Euratom[30] and other Community instruments such as the Instrument for Stability and the Instrument for Nuclear Safety and should take into account both the provisions of international agreements, the Euratom Treaty and the good functioning of the European nuclear market.

Since the security of supply for nuclear fuels is essential for guaranteeing non-proliferation, in particular to prevent the spread of sensitive technologies, such as enrichment, the Euratom Supply Agency should become a key actor in this process.

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29 2914th General Affairs Council meeting, 8 December 2008.

30 The provisions on joint undertakings (Chapter 5 Euratom) could provide a possible model for the establishment of a multilateral nuclear cycle facility. The participation by third states or international organisations in the financing or management of Joint Undertakings is expressly foreseen, thereby permitting the participation of non-EU parties.